

A Risk Management Framework for Microfinance Institutions



**Division 41
Financial Systems Development
and Banking Services**

A Risk Management Framework for Microfinance Institutions

July 2000

Published by:

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Foreword

Proactive risk management is essential to the long-term sustainability of microfinance institutions (MFIs), but many microfinance stakeholders are unaware of the various components of a comprehensive risk management regimen. This document presents a framework for internal risk management systems and processes of microfinance institutions. The discussion is tailored to board of directors and managing directors who play the most active role in the MFI's oversight, and presents guidelines for implementing the core principles of effective risk management into the MFI's culture and operations. In addition, the document guides the reader to other publications and resource materials for more details of how to manage specific risks.

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) contracted the MicroFinance Network to undertake this project because of the two organizations' shared interest in the research. Both institutions identified the need for a risk management framework while conducting two separate research pieces: GTZ while developing its *Liquidity Management*¹ toolkit and the MicroFinance Network while conducting research for its technical guide on *Internal Control*.² GTZ and the MicroFinance Network realized that a risk management framework provides a conceptual umbrella for these and other topics. This document emphasizes the inter-relatedness of risks and the need for a comprehensive approach to managing them.

Practical examples from microfinance institutions around the world illustrate the key risk management concepts and demonstrate the range of how they can be applied. The following microfinance providers contributed to the content of this document:

- Alexandria Business Association (ABA) – Egypt
- Association for Social Advancement (ASA) – Bangladesh
- BRAC and BRAC Bank – Bangladesh
- Bank Rakyat Indonesia (BRI) – Indonesia
- Cash Bank – South Africa
- Financiera Calpia – El Salvador
- FINAMERICA – Colombia
- K-Rep – Kenya

¹ Liquidity Management: A Tool Kit for Microfinance Institutions, published by GTZ, January 2000.

² Anita Campion, *Improving Internal Control*, GTZ/MicroFinance Network, 2000.

GTZ thanks these institutions for their openness and willingness to share their experiences for the good of the microfinance industry as a whole.

The MicroFinance Network sub-contracted Janney Carpenter and Lynn Pikholtz of Shorebank Advisory Services to conduct the research and develop the first draft of this publication. GTZ recognizes them for their efforts and thanks the Shorebank officials who provided ideas and offered feedback on the document. The Director of the MicroFinance Network, Anita Campion, provided some of the initial research and conducted substantive edits of the document. GTZ thanks her and her Research Assistant, Sahra Halpern, for their contributions. GTZ also recognizes Victoria White of Calmeadow for her participation in the final editing process.

Document Structure and Objectives

This document focuses on 1) understanding the importance and value of risk management to MFIs, and 2) designing a framework for systematically managing risks to the institution.

The main objective of this paper is to help senior managers and directors of MFIs design a comprehensive and systematic approach to identify, anticipate, and respond to the major risks that threaten their institutions. While excellent resources exist on risk management strategies for specific topics (such as credit, liquidity, or internal control), the goal of this document is to provide an overall framework to help MFIs organize and coordinate these specific tools into a process that anticipates and minimizes risks in a systematic fashion.

The sophistication and complexity of that system will vary with the size and complexity of the MFI. All MFIs, however, will benefit from a risk management framework that helps senior managers focus on the most important risks and learn how to manage them effectively. This publication thus deals with how and why it is important to identify, measure, monitor and manage risk, how risks interrelate, and how MFIs can design their own approach based on their risk tolerances and budget considerations. Effective risk management allows MFIs to capitalize on new opportunities and to minimize threats to their financial viability.

The paper explores some of the specific challenges and current issues for risk management in MFIs. It also suggests strategies and tools for creating a risk management culture within the MFI, presents elements of an effective “risk management feedback loop”, and describes key roles and responsibilities within the organization. This paper does not delve into the detail of specific risks, or suggest the measures or operational procedures to manage them. However, the *Suggested Resources* section at the end of the publication provides a list of documents on specific topics that address these operational aspects in more detail. Instead, the document categorizes risks broadly into three simple categories: financial risks, operational risks and strategic risks, and focuses on the organizational processes that foster effective risk management.

The structure of the publication is as follows:

Chapter 1, *Introduction to Risk Management*, provides an overview of comprehensive risk management as an approach and its key elements.

Chapter 2, *Microfinance Risks and Challenges*, presents and discusses the significant risks and challenges facing MFIs today. Risks are significant if the probability of occurrence or the severity of the potential impact is high. While the individual priorities of each MFI may vary slightly, many potentially catastrophic risks (specifically financial risks such as liquidity risk, credit risk, or interest rate risk) top their list. Using examples from members of the MicroFinance Network and other MFIs, the chapter describes additional risk challenges unique to microfinance, including dealing with rapid growth, governance risk, and new product development.

Chapter 3, *Effective Risk Management*, highlights the key principles of effective risk management and describes the risk management feedback loop. This chapter lays out the steps involved in the risk management process, including: i) identifying, assessing and prioritizing risks; ii) designing policies to measure risk; iii) developing cost-effective policies and procedures to mitigate risk; iv) assigning responsibility to the appropriate manager; v) evaluating results; and vi) making revisions as necessary. Since the process is ongoing, the evaluation step links back to the risk identification and assessment step. The evaluation of the system's effectiveness often results in the identification of new or poorly controlled risks that cause the board and management to reprioritize and reallocate resources to manage those risks.

Chapter 4, *Implementing Risk Management*, describes ten guidelines for MFIs to follow when applying the principles of effective risk management to their institution. It discusses the key roles and responsibilities of the board and management to ensure that all tasks are performed and that someone is responsible and accountable for managing each of the major risks and overseeing the overall risk management system.

Chapter 5, *Obstacles to Risk Management*, identifies some core obstacles and challenges for MFIs as they shift to a comprehensive risk management framework from the reactive, step-by-step approach, and some of the resources needed to overcome them.

Risks are significant if the probability of occurrence or the severity of the potential impact is high.

1. Introduction to Risk Management

Risk is an integral part of financial services. When financial institutions issue loans, there is a risk of borrower default. When banks collect deposits and on-lend them to other clients (i.e. conduct financial intermediation), they put clients' savings at risk. Any institution that conducts cash transactions or makes investments risks the loss of those funds. Development finance institutions should neither avoid risk (thus limiting their scope and impact) nor ignore risk (at their folly). Like all financial institutions, microfinance institutions (MFIs) face risks that they must manage efficiently and effectively to be successful. If the MFI does not manage its risks well, it will likely fail to meet its social and financial objectives. When poorly managed risks begin to result in financial losses, donors, investors, lenders, borrowers and savers tend to lose confidence in the organization and funds begin to dry up. When funds dry up, an MFI is not able to meet its social objective of providing services to the poor and quickly goes out of business.

Financial institutions should neither avoid nor ignore risks, but should learn how to manage them.

Managing risk is a complex task for any financial organization, and increasingly important in a world where economic events and financial systems are linked. Global financial institutions and banking regulators have emphasized risk management as an essential element of long-term success. Rather than focusing on current or historical financial performance, management and regulators now focus on an organization's ability to identify and manage future risks as the best predictor of long-term success. For the financial institutions, effective risk management has several benefits:

- Early warning system for potential problems: A systematic process for evaluating and measuring risk identifies problems early on, before they become larger problems or drain management time and resources. Less time fixing problems means more time for production and growth.
- More efficient resource allocation (capital and cash): A good risk management framework allows management to quantitatively measure risk and fine-tune capital allocation and liquidity needs to match the on and off balance sheet risks faced by the institution, and to evaluate the impact of potential shocks to the financial system or institution. Effective treasury management becomes more important as MFIs seek to maximize earnings from their investment portfolios while minimizing the risk of loss.
- Better information on potential consequences, both positive and negative. A proactive and forward-thinking organizational culture will help managers identify and assess new market opportunities, foster continuous improvement of existing operations, and more effectively align performance incentives with the organization's strategic goals.

The benefits of effective risk management include identifying positive opportunities as well as avoiding negative threats.

The increased emphasis on risk management reflects a fundamental shift among bank managers and regulators to better anticipate risks, rather than just react to them. This approach emphasizes the importance of "self-supervision" and a proactive approach by board members and managing directors to manage their finan-

cial institutions. Historically, banks have waited for external reviews by regulators to point out problems and risks, and then acted on those recommendations. In today's fast changing financial environment, regulators are often left analyzing the wreckage only after a bank has had a financial crisis. To foster stronger financial institutions, the revised CAMELS³ approach among US regulators emphasizes the quality of internal systems to identify and address potential problems quickly. According to the Federal Reserve Bank, comprehensive risk management are practices designed to limit risk associated with individual product lines and systematic, quantitative methods to identify, monitor, and control aggregate risks across a financial institution's activities and products.⁴

A comprehensive approach to risk management reduces the risk of loss, builds credibility in the marketplace, and creates new opportunities for growth.

For MFIs, better internal risk management yields similar benefits. As MFIs continue to grow and expand rapidly, serving more customers and attracting more mainstream investment capital and funds, they need to strengthen their internal capacity to identify and anticipate potential risks to avoid unexpected losses and surprises. Creating a risk management framework and culture within an MFI is the next step after mastering the fundamentals of individual risks, such as credit risk, treasury risk, and liquidity risk. Further, more clarity about the roles and responsibilities of managers and board members in risk management helps build stronger institutions. A comprehensive approach to risk management reduces the risk of loss, builds credibility in the marketplace, and creates new opportunities for growth. This paper summarizes some of the tools and approaches used by conventional financial institutions and suggests ways in which MFIs might further adapt and innovate to create the optimal risk management culture within their own organizations.

1.1 The Concept: A Risk Management Framework

This paper uses the following definitions for risk management:

Risk Definitions

Risk is the possibility of an adverse event occurring and its potential for negative implications to the MFI.

Risk management is the process of managing the probability or the severity of the adverse event to an acceptable range or within limits set by the MFI.

Risk management is the process of managing the probability or the severity of the adverse event to an acceptable range or within limits set by the MFI.

³ US Federal Reserve uses the CAMELS analysis, citing Capital adequacy, Asset quality, Management quality, Earnings quality, Liquidity, and Sensitivity to interest rates.

⁴ Susan Phillips, The Federal Reserve's Approach to Risk Management, 1996, pp. 30-35.

A **risk management system** is a method of systematically identifying, assessing, and managing the various risks faced by an MFI.⁵

A **risk management framework** is a guide for MFI managers to design an integrated and comprehensive risk management system that helps them focus on the most important risks in an effective and efficient manner.

Therefore, a risk management framework is a consciously designed system to protect the organization from undesirable surprises (downside risks), and enable it to take advantage of opportunities (up-side risks). A good risk management framework:

1. Integrates into MFI operations a set of systematic processes for identifying, measuring, and monitoring many different types of risk to help management keep an eye on the big picture;
2. Uses a continuous feedback loop between measurement and monitoring, internal controls and reporting, and involves active oversight by senior managers and directors, allowing more rapid response to changes in internal and external risk environments;
3. Considers scenarios where risks interact and can exacerbate one another in adverse situations;
4. Elevates responsibility for risk management and preparedness to senior management and the board;
5. Encourages cost-effective decision-making and more efficient use of resources;
6. Creates an internal culture of “self-supervision” that can identify and manage risks long before they are visible to outside stakeholders or regulators.

The risk management feedback loop is the operational side of the framework. Many MFIs have excellent risk management procedures at the branch or head office level within specific programs. The feedback loop integrates several different areas of management: policies from the board, specific guidelines and procedures for operations, management information reporting, internal controls, and overall financial management (e.g. capital adequacy, liquidity, and resource allocation).

The Risk Management Feedback Loop is the operational side of the framework.

As described further in Chapter 3, the risk management feedback loop has six key components:

1. Identifying, assessing, and prioritizing risks
2. Developing strategies and policies to measure risks

⁵ Adapted from the HPMS White Paper 6/96: Risk Management, p.1. Produced for the Board of Governors for the Federal Reserve System, Washington DC.

3. Designing policies and procedures to mitigate risks
4. Implementing and assigning responsibilities
5. Testing effectiveness and evaluating results
6. Revising policies and procedures as necessary

Since internal risks (those within the MFI's lines of business, such as credit and fraud risk) and external risks (changes in business environment, financial system collapse, and natural disaster) change over time, risk management is a process, not an event. It is a continual process of asking the right questions and reviewing key information to adjust your risk management tools to provide managers and directors with the best information and alert them to increases or decreases in risk.

1.2 Why is Risk Management Important to MFIs?

As MFIs play an increasingly important role in local financial economies and compete for customers and resources, the rewards of good performance and costs of poor performance are rising. Those MFIs that manage risk effectively – creating the systematic approach that applies across product lines and activities and considers the aggregate impact or probability of risks – are less likely to be surprised by unexpected losses (down-side risk) and more likely to build market credibility and capitalize on new opportunities (up-side risk).

The core of risk management is making educated decisions about how much risk to tolerate, how to mitigate those that cannot be tolerated, and how to manage the real risks that are part of the business. For MFIs that evaluate their performance on both financial and social objectives, those decisions can be more challenging than for an institution driven solely by profit. A risk management framework allows senior managers and directors to make conscious decisions about risk, to identify the most cost-effective approaches to manage those risks, and to cultivate an internal culture that rewards good risk management without discouraging risk-taking.

A risk management framework allows senior managers and directors to make conscious decisions about risk.

More sophisticated approaches to risk management are important to MFIs for several reasons. Many MFIs have grown rapidly, serving more customers and larger geographic areas, and offering a wider range of financial services and products. Their internal risk management systems are often a step or two behind the scale and scope of their activities. Second, to fuel their lending growth, MFIs increasingly rely on market-driven sources of funds, whether from outside investors or from local deposits and member savings. Preserving access to those funding sources will require maintaining good financial performance and avoiding unexpected losses. Third, the organizational structures and operating environments of MFIs can provide unique challenges. They may be very decentralized or too centralized (both can be a risk), tend to be labor- and transaction-intensive, have concentration risk in certain regions or sectors (e.g., agriculture) due to their mission, and often operate in volatile and less mature financial markets. Finally, MFIs are striv-

ing for financial viability through cost-effective and efficient operations, making effective risk management essential to achieving better capital and cash management without undue risk.

For example, highly successful MFIs, such as BRAC in Bangladesh, the Alexandria Business Association (ABA) in Egypt, and BancoSol in Bolivia, perform well because they have internal early warning systems and management responses that prevent small problems from exploding into large ones. But even among top performers, the focus is often on credit risk, and less on equally important risks such as funds management and liquidity. The Corposol/Finansol crisis, described in **Box 1**, is an example of poor risk management that led to nearly disastrous results. Corposol/Finansol experienced a complete breakdown of risk management and oversight, in part due to willful deception by the board and in part due to an inadequate feedback loop that kept hidden the intentional and unintended consequences of management decisions.

Highly successful MFIs perform well because they have internal early warning systems and management responses that prevent small problems from exploding into large ones.

As MFIs begin to expand into new business lines, including insurance and voluntary savings products, and seek to raise money from traditional financial markets, it will become a necessity for them to behave as mainstream financial players, and manage risk as such. Regulators of commercially chartered MFIs enforce certain standards. Non-regulatory bodies representing investors and donors also have a vested interest in better risk management within the industry to protect their investments. The most successful MFIs are those that focus not only on their current performance and financial condition, but also on the risk management systems that will allow them to prepare for expected and unexpected risks in the future.

Box 1: The Corposol/Finansol Crisis⁶

In 1996, Finansol, a regulated financial intermediary in Columbia, suffered from severe deterioration of its loan portfolio. While a lack of transparent and separate accounting from its parent NGO, Corposol, added to the problem, the MFI's rapid growth and poor risk management were initial culprits. In 1995, Finansol's microfinance portfolio grew from \$11 million to \$35 million. Many of the credit officers who delivered this growth were new and not well trained, and were simultaneously responsible for promoting three new untested microfinance products for Corposol. There was no mechanism to prevent clients from receiving multiple loans from the MFI; in fact, many clients had two to three loans outstanding. The new products were mostly unsuccessful and the management information system had difficulty managing the diversity of products. As a temporary measure to reduce the negative impact on the income statement resulting from provisioning, Finansol refinanced loans on a wide scale and extended loan terms. This further concealed Finansol's deteriorating asset quality. Under pressure to generate revenue for Corposol, whose operating revenues were heavily dependent on training fees from new clients, loan officers continued to expand their loan portfolios by adding new clients without much regard for credit risk. To circumvent a government policy that limited the asset growth of regulated financial institutions to 2.2 percent per month, Corposol retained a significant portion of Finansol's loan portfolio on its balance sheet, which further distorted Finansol's financial statements.

It wasn't until July 1995, when ACCION International conducted a formal evaluation of the entire microfinance operation that the problem came to light. A recapitalization plan called for an end to the relationship between Corposol and Finansol and the recruitment of new investors to raise the level of capital high enough to meet the Superintendency's requirements and to fuel future growth. With the assistance of private and non-profit sectors, the recovery plan successfully saw Finansol through its institutional metamorphosis into what is now FINAMERICA, S.A. FINAMERICA began operations in 1997, and as of year-end 1998, it had achieved financial solvency with 9,800 active clients and a loan portfolio of \$13.4 million. This crisis demonstrates the need to integrate risk management in all an MFI's activities.

In summary, MFIs need to design risk management tools and approaches that respond to their specific clients, lending methodologies, operating environments, and financial and social performance objectives. This document describes the key risks MFIs face and a comprehensive framework for managing them. The framework encourages MFIs to learn from existing risk management approaches and further adapt and innovate to create the optimal system for their own operations.

⁶ Maria Eugenia Iglesias and Carlos Castello, "Corposol/Finansol" in *Establishing a Microfinance Industry*, Craig Churchill (Ed.), pp.14-18.

2. Microfinance Risks and Challenges

Microfinance institutions face many risks that threaten their financial viability and long-term sustainability. Some of the most serious risks come from the external environment in which the MFI operates, including the risk of natural disaster, economic crisis or war. While the MFI cannot control these risks directly, there are many ways in which the MFI can prepare itself and minimize their potential for negative impact.⁷ This chapter focuses on key risks that are inherent within the MFI’s internal operations. It only peripherally addresses external risks to the extent that MFIs are able to mitigate them.

A simple way to begin the process of thinking about risk management in an MFI is first to identify, understand and assess the risks that can have a severe impact on the organization and their likelihood of occurrence. Once risks are identified, the MFI can design strategies and control mechanisms to deal with them and assign responsibility to key individuals and teams to address them. Chapter 3, *Effective Risk Management*, describes this process.

2.1 Major Risks to Microfinance Institutions

Many risks are common to all financial institutions. From banks to unregulated MFIs, these include credit risk, liquidity risk, market or pricing risk, operational risk, compliance and legal risk, and strategic risk. Most risks can be grouped into three general categories: financial risks, operational risks and strategic risks, as in **Table 1** below.

Most risks fall under one of three categories: financial risks, operational risks and strategic risks.

Table 1: Major Risk Categories

Financial Risks	Operational Risks	Strategic Risks
Credit Risk Transaction risk Portfolio risk Liquidity Risk Market Risk Interest rate risk Foreign exchange Risk Investment portfolio risk	Transaction Risk Human resources Risk Information & technology risk Fraud (Integrity) Risk Legal & Compliance Risk	Governance Risk Ineffective oversight Poor governance structure Reputation Risk External Business Risks Event risk

Financial institution managers (and regulators) review these risks in light of i) the institution’s potential exposure to loss, ii) the quality of internal risk management and information systems, and iii) the adequacy of capital and cash to absorb both identified and unidentified potential losses. In other words, management deter-

⁷ Refer to MBP publications, “Microfinance in the Wake of Natural Disasters” by Geetha Nagarajan and “Microfinance in the Wake of Conflict” by Karen Doyle for information on how to address risk in the event of natural disaster and war, respectively.

mines whether the risk can be adequately measured and managed, considers the size of the potential loss, and assesses the institution's ability to withstand such a loss.

The section discusses the most significant risks (with the most potentially damaging consequences for the MFI), how they interact, and current challenges faced by MFIs.

2.1.1 Financial Risks

Most MFIs focus on financial risks, including credit, liquidity, interest rate, currency, and investment risks.

The business of a financial institution is to manage financial risks, which include credit risks, liquidity risks, interest rate risks, foreign exchange risks and investment portfolio risks. Most microfinance institutions have put most of their resources into developing a methodology that reduces individual credit risks and maintaining quality portfolios. Microfinance institutions that use savings deposits as a source of loan funds must have sufficient cash to fund loans and withdrawals from savings. Those MFIs that rely on depositors and other borrowed sources of funds are also vulnerable to changes in interest rates. Financial risk management requires a sophisticated treasury function, usually centralized at the head office, which manages liquidity risk, interest rate risk, and investment portfolio risk. As MFIs face more choices in funding sources and more product differentiation among loan assets, it becomes increasingly important to manage these risks well.

1. Credit risk

Credit risk is the risk to earnings or capital due to borrowers' late and non-payment of loan obligations.

Credit risk, the most frequently addressed risk for MFIs, is the risk to earnings or capital due to borrowers' late and non-payment of loan obligations. Credit risk encompasses both the loss of income resulting from the MFI's inability to collect anticipated interest earnings as well as the loss of principle resulting from loan defaults. Credit risk includes both transaction risk and portfolio risk.⁸

Transaction risk

Transaction risk refers to the risk within individual loans.

Transaction risk refers to the risk within individual loans. MFIs mitigate transaction risk through borrower screening techniques, underwriting criteria, and quality procedures for loan disbursement, monitoring, and collection.

Portfolio risk

Portfolio risk refers to the risk inherent in the composition of the overall loan portfolio.

Portfolio risk refers to the risk inherent in the composition of the overall loan portfolio. Policies on diversification (avoiding concentration in a particular sector or area), maximum loan size, types of loans, and loan structures lessen portfolio risk.

⁸ Liquidity Management: A Tool Kit for Microfinance Institutions, published by GTZ, January 2000.

2. Microfinance Risks and Challenges

Management must continuously review the entire portfolio to assess the nature of the portfolio's delinquency, looking for geographic trends and concentrations by sector, product and branch. By monitoring the overall delinquency in the portfolio, management can assure that the MFI has adequate reserves to cover potential loan losses.

MFI's have developed very effective lending methodologies that reduce the credit risk associated with lending to microenterprises, including group lending, cross-guarantees, stepped lending, and peer monitoring. Other key issues that affect MFI's' credit risk include portfolio diversification, issuing larger individual loans, and limiting exposure to certain sectors (e.g. agricultural or seasonal loans). Each type of lending has a different risk profile and requires unique loan structures and underwriting guidelines.

Effective approaches to managing credit risk in MFI's include:

- Well-designed borrower screening, careful loan structuring, close monitoring, clear collection procedures, and active oversight by senior management. Delinquency is understood and addressed promptly to avoid its rapid spread and potential for significant loss.
- Good portfolio reporting that accurately reflects the status and monthly trends in delinquency, including a portfolio-at-risk aging schedule and separate reports by loan product.
- A routine process for comparing concentrations of credit risk with the adequacy of loan loss reserves and detecting patterns (e.g., by loan product, by branch, etc.).

The importance of a "credit culture" in minimizing problems and increasing operational efficiencies cannot be overstated. MFI senior managers need to set up systems that compel and offer incentives to loan officers to prevent, disclose, and respond to problem loans quickly, so as to limit potential credit-related losses. ASA, a microfinance organization in Bangladesh, has instituted impressive credit systems to minimize credit risk, as described in the **Box 2**.

Box 2: ASA's Approach to Managing Credit Risk⁹

ASA uses the following tactics to manage credit risk and safely expand operations:

- ✓ Simple products and standardized procedures
- ✓ A strong credit culture pervades the organization
- ✓ Products and processes structured to reduce credit risk
- ✓ Transparency in credit operations through regular reporting
- ✓ Strict organizational control over loan transactions
- ✓ Operating systems designed for maximum performance:
 - located close to borrower
 - limited information processing and decision making
 - reasonable work loads
 - clear expectations for 100% on time repayment
 - minimal complexity means less learning demands on staff
 - minimization of accounting and administrative procedures
 - on-going checks and balances for transactions (e.g. reconciling cash and program numbers)
 - borrowers make frequent repayments of small amounts

2. Liquidity risk

Liquidity risk is the risk that an MFI can not meet its obligations on a timely basis.

Liquidity risk is the possibility of negative effects on the interests of owners, customers and other stakeholders of the financial institution resulting from the inability to meet current cash obligations in a timely and cost-efficient manner.

Liquidity risk usually arises from management's inability to adequately anticipate and plan for changes in funding sources and cash needs. Efficient liquidity management requires maintaining sufficient cash reserves on hand (to meet client withdrawals, disburse loans and fund unexpected cash shortages) while also investing as many funds as possible to maximize earnings (putting cash to work in loans or market investments). For guidelines on how to improve liquidity management, MFIs should refer to *Liquidity Management: A Tool Kit for Microfinance Institutions*, published by GTZ in January 2000.

A lender must be able to honor all cash payment commitments as they fall due and meet customer requests for new loans and savings withdrawals. These commitments can be met by drawing on cash holdings, by using current cash flows, by borrowing cash, or by converting liquid assets into cash.

⁹ Jain, 1997.

2. Microfinance Risks and Challenges

Liquidity management is not a one-time activity in which the MFI determines the optimal level of cash it should hold. Liquidity management is an ongoing effort to strike a balance between having too much cash and too little cash. If the MFI holds too much cash, it may not be able to make sufficient returns to cover the costs of its operations, resulting in the need to increase interest rates above competitive levels. If the MFI holds too little cash, it could face a crisis of confidence and lose clients who no longer trust the institution to have funds available when needed. Effective liquidity management protects the MFI from cash shortages while also ensuring a sufficient return on investments. *Cash management* refers to the mechanics of consolidating cash at the head office and investing it at the local bank in interest bearing accounts.

Liquidity management is an ongoing effort to strike a balance between having too much cash and too little cash.

Effective liquidity risk management requires a good understanding of the impact of changing market conditions and the ability to quickly liquidate assets to meet increased demand for loans or withdrawals from savings.

Some principles of liquidity management that MFIs use include:

- Maintaining detailed estimates of projected cash inflows and outflows for the next few weeks or months so that net cash requirements can be identified.
- Using branch procedures to limit unexpected increases in cash needs. For example, some MFIs, such as ASA, have put limits on the amount of withdrawals that customers can make from savings in an effort to increase the MFI's ability to better manage its liquidity.
- Maintaining investment accounts that can be easily liquidated into cash, or lines of credit with local banks to meet unexpected needs.
- Anticipating the potential cash requirements of new product introductions or seasonal variations in deposits or withdrawals.

Liquidity management principles.

Liquidity management has a short-term focus (the section on *investment portfolio risk* below discusses longer-term cash management issues). Often, liquidity projections are extended up to a year with diminishing detail on the far end of the timeline.

RISK INTERACTION: *Liquidity risk and credit risk interact.* For example, a loan that is not repaid when due represents a credit risk and a loss of liquidity. A significant increase in delinquency (e.g. in the event of natural disaster) suddenly reduces the cash inflow from loan repayments and may increase cash outflows for new loans. This squeezes cash reserves and increases liquidity risk. Conversely, liquidity management can be especially important in MFIs where a client's propensity to repay is influenced by her future access to loans. Rumors that an MFI might not be able to extend credit immediately upon repayment because it has run out of cash could cause borrowers to default in an effort to protect against their own impending cash shortage.¹⁰

¹⁰ Campion and White, 1999, p. 11.

3. Market risk

Market risk includes interest rate risk, foreign currency risk, and investment portfolio risk.

Interest rate risk

Interest rate risk is the risk of financial loss from changes in market interest rates.

Interest rate risk arises from the possibility of a change in the value of assets and liabilities in response to changes in market interest rates. Also known as asset and liability management risk, interest rate risk is a critical treasury function, in which financial institutions match the maturity schedules and risk profiles of their funding sources (liabilities) to the terms of the loans they are funding (assets). The savings and loan crisis in the 1980s in the United States resulted largely from the mismatching of assets and liabilities. The savings and loan institutions (S&Ls) had financed themselves primarily with short-term deposits while investing in long-term, fixed interest rate mortgages. When the cost of short-term funding rose quickly, the S&Ls were not able to restructure their asset base fast enough to avoid significant losses.¹¹

The greatest interest rate risk occurs when the cost of funds goes up faster than the financial institution can or is willing to adjust its lending rates.

In MFIs, the greatest interest rate risk occurs when the cost of funds goes up faster than the institution can or is willing to adjust its lending rates. The cost of funds can sometimes exceed the interest earned on loans and investments, resulting in a loss to the MFI. Interest rate changes can also affect fee income, since most fee income is associated with loan products that are interest rate sensitive. Interest rate risk management is most important to MFIs that make longer-term loans and rely on capital markets for a large percentage of their funds. In most environments, the interest rates paid to savers tend to move more slowly. MFIs operating in inflationary economies face additional asset and liability management issues.

Managing interest rate risk.

Below are two common approaches to interest rate risk management among financial institutions.

- To reduce the mismatch between short-term variable rate liabilities (e.g. savings deposits) and long-term fixed rate loans, managers may refinance some of the short-term borrowings with long-term fixed rate borrowings. This might include offering one and two-year term deposits as a product and borrowing five to 10 year funds from other sources. Such a step reduces interest rate risk and liquidity risk, even if the MFI pays a slightly higher rate on those funding sources.
- To boost profitability, MFIs may purposely “mismatch” assets and liabilities in anticipation of changes in interest rates. If the asset liability managers think interest rates will fall in the near future, they may decide to make more long-term loans at existing fixed rates, and shorten the term of the MFI’s liabilities.

¹¹ Greenbaum, Stuart I., and Anjan Thakor, *Contemporary Financial Intermediation*, Harcourt Brace College Publishers, April 1998, p.169.

2. Microfinance Risks and Challenges

By lending long and borrowing short, the MFI can take advantage of the cheaper funding in the future, while locking in the higher interest rates on the asset side. In this case, the MFI has increased the interest rate risk in the hope of improving the profitability of the bank.

Many banks maintain a financial model that reflects the investment portfolio and the loan portfolio so they can test the institution's sensitivity to an increase or decrease in interest rates. MFIs could begin using similar tests as they try to maximize profitability by taking "reasonable" risks in asset and liability management. An MFI's sensitivity to changes in interest rates (increases or decreases) affect short and long term profitability.

Most financial institutions and some regulated MFIs have a separate fund management or treasury department whose main function is to manage risks associated with interest rate changes. Asset and liability management functions are usually centralized in the head office to cost-effectively manage borrowed funds and the investment portfolio (idle funds not lent). Branch offices may have some discretion over how much is funded from deposits and how much comes from loans. A branch manager may choose to borrow from head quarters at a certain interest rate, or increase deposits if those have a lower cost of funds.

RISK INTERACTION: Interest rate risk interacts with liquidity rate risk. Liquidity and interest rate risk occur simultaneously when the maturities of assets and liabilities are mismatched. This can magnify the impact on the cash flow and profitability for the MFI. Managing financial assets and liabilities is thus an extremely important part of liquidity management, as well as interest rate risk management.

Foreign exchange risk

Foreign exchange risk is the potential for loss of earnings or capital resulting from fluctuations in currency values. Microfinance institutions most often experience foreign exchange risk when they borrow or mobilize savings in one currency and lend in another. For example, MFIs that offer dollar savings accounts and lend in the local currency risk financial loss if the value of the local currency weakens against the dollar. Alternatively, if the local currency strengthens against the dollar, the MFI experiences a financial gain.

Foreign exchange risk is the potential for loss of earnings or capital resulting from fluctuations in currency values.

Principles in practice by MFIs to reduce foreign exchange risk include:

- Due to the potential severity of the downside risk, an MFI should avoid funding the loan portfolio with foreign currency unless it can match its foreign liabilities with foreign assets of equivalent duration and maturity. In Ghana, the appreciation of the dollar actually caused many MFIs that were dependent on dollar-denominated loans to begin mobilizing local savings in 1999 to reduce the currency mismatch of assets and liabilities.

Approaches to foreign exchange risk management.

- Some MFIs have used interest rates swaps or futures contracts to “lock-in” a certain exchange rate, which protects the MFI from uncertainty.

Investment portfolio risk

Investment portfolio risk refers to longer-term investment decisions rather than short term liquidity or cash management decisions.

For some MFIs, such as Mibanco in Peru, a significant percentage of the institution’s assets are in cash and investments rather than in loans. The investment portfolio represents the source of funds for reserves, for operating expenses, for future loans or for other productive investments. Investment portfolio risk refers mainly to longer-term investment decisions rather than short term liquidity or cash management decisions.

The investment portfolio must balance credit risks (for investments), income goals and timing to meet medium to long term liquidity needs. An aggressive approach to portfolio management maximizes investment income by investing in higher risk securities. A more conservative approach emphasizes safer investments and lower returns.

Principles used by MFIs include:

Investment portfolio management techniques.

- To reduce investment portfolio risk, treasury managers stagger investment maturities to ensure that the MFI has the long-term funds needed for growth and expansion. In addition, they consider the credit, inflation, and currency risks that might threaten the value of the principal investment. Short-term investments, for example, carry less risk of losing value due to inflation.
- Most financial institutions have policies establishing parameters for acceptable investments within the investment portfolio, and they range from very conservative to more aggressive for a portion of the investment portfolio. These policies set limits on the range of permitted investments as well as on the degree of acceptable concentration for each type of investment.

2.1.2 Operational Risks

Operational risk arises from human or computer error within daily service or product delivery.

Operational risk arises from human or computer error within daily product delivery and services. It transcends all divisions and products of a financial institution. This risk includes the potential that inadequate technology and information systems, operational problems, insufficient human resources, or breaches of integrity (i.e. fraud) will result in unexpected losses.

This risk is a function of internal controls, information systems, employee integrity, and operating processes. For simplicity, this section focuses on just two types of operational risk: transaction risk and fraud risk.

2. Microfinance Risks and Challenges

1. Transaction risk

Transaction risk exists in all products and services. It is a risk that arises on a daily basis in the MFI as transactions are processed.¹² Transaction risk is particularly high for MFIs that handle a high volume of small transactions daily. When traditional banks make loans, the staff person responsible is usually a highly trained professional and there is a very high level of cross-checking. Since MFIs make many small, short-term loans, this same degree of cross-checking is not cost-effective, so there are more opportunities for error and fraud.

Operational transaction risks exist in the delivery of all product and services.

The loan portfolio usually accounts for the bulk of the MFI's assets and is thus the main source of operational risk. As more MFIs offer additional financial products, including savings and insurance, the operational risks multiply and should be carefully analyzed as MFIs expand those activities. **Table 2** below presents common operational risks in the management of a microfinance loan portfolio.

For MFIs, cash transactions associated with lending are usually the main source of operational risk.

Table 2: Operational Risks in Loan Portfolio Management¹³

Common Operational Risks in MFIs:
The MIS does not correctly reflect loan tracking, e.g. information disbursed, payments received, current status of outstanding balances
Lack of effectiveness and insecurity of the portfolio management system, e.g. external environment is not safe, software does not have internal safety features (i.e. no backups), inaccurate MIS and untimely reports.
Inconsistencies between the loan management system data and the accounting system data.
Misrepresentation of loan payoffs, e.g. through refinancing, payoffs with inadequate collateral or post dated checks.
Rescheduling disguises loan quality problems, e.g. rescheduled loans treated as on-time.
Inconsistent implementation of the loan administration.
Lack of portfolio related fraud controls, e.g. no client visits to verify loan balances
Loan tracking information is not adequate, e.g. no aging of portfolio outstanding, inadequate credit histories.

¹² Categories of risk as defined by the Office of the Comptroller of the Currency (OCC).

¹³ Adapted from External Audits of Microfinance Institutions: A Handbook, CGAP, 1999.

For MFIs, key steps to reduce transaction risk include:

Steps for reducing transaction risk.

- Simple, standardized and consistent procedures for cash transactions throughout the MFI.
- Effective ex-ante internal controls that are incorporated into daily procedures to reduce the chance of human error and fraud at the branch level (e.g. require dual signatures, separate lines of reporting for cash and program transactions).
- Strong ex-post internal controls (i.e. internal audit) to test and verify the accuracy of information and adherence to policies and procedures. These internal controls help ensure that management reporting information is providing the most accurate information, and reduces the occurrence of problems. The GTZ/MicroFinance Network's technical guide, *Improving Internal Control*, describes in detail the process for developing an internal control system linked to risk management.¹⁴
- Using computer systems and minimizing the number of times data has to be manually entered reduces the chance and frequency of human error.

2. Fraud risk

Fraud risk is the risk of loss of earnings or capital as a result of intentional deception by an employee or client.

Until recently, fraud risk has been one of the least addressed risks in microfinance to date.¹⁵ Also referred to as integrity risk, fraud risk is the risk of loss of earnings or capital as a result of intentional deception by an employee or client. The most common type of fraud in an MFI is the direct theft of funds by loan officers or other branch staff. Other forms of fraudulent activities include the creation of misleading financial statements, bribes, kickbacks, and phantom loans.

Effective internal controls play a key role in protecting against fraud at the branch level, since line staff handle large amounts of client and MFI funds. While fraud risks exist in all financial institutions, if left uncontrolled, they inevitably increase as fraudulent behaviors tend to be learned and shared by employees. Internal controls should include *ex-ante* controls that are incorporated within the methodology and design or procedures (prior to operation), as well as *ex-post* controls that verify that policies and procedures are respected (after operations).

Minimizing fraud risk.

Two principles are paramount: i) the use of preventive measures to reduce fraud, and ii) the importance of client visits to verify branch information, as described below.

¹⁴ Champion, 2000.

¹⁵ Anita Champion, *Improving Internal Control*, Occasional Paper #5, GTZ/MicroFinance Network, 2000, p. 55.

2. Microfinance Risks and Challenges

- Preventive measures to reduce fraud. Fraud prevention should be built into the design of operational policies and procedures and then tested and checked by thorough internal audits. Box 3 describes K-Rep's approach to reduce fraud risk in its lending operations in Kenya.
- The use of client visits to reduce fraud. Experience has shown that while a small number of staff are often inclined to be dishonest, most avoid unethical behavior if their internal sense of right and wrong is reinforced by suitable external controls and sanctions.¹⁶ The best way to discover fraud (and deter loan officer abuse) is for someone other than the loan officer to visit the client to verify account balances. This person should have a sound understanding of the lending process and know how fraud can occur.

Fraud prevention should be built into the design of the MFI's policies and procedures.

The best way to discover fraud is for someone other than the loan officer to visit the client to verify account balances.

Box 3: K-Rep's Controls to Reduce Fraud in Kenya¹⁷

To reduce its exposure to fraud risk, K-Rep employed the following mechanisms:

1. Introduced an education campaign to encourage clients to speak out against corrupt staff and group leaders.
2. Standardized all loan policies and procedures so that the staff cannot make any decision outside the regulations.
3. Emphasized management training to increase managers' capacity and to introduce strict supervision processes.
4. Established an inspection unit that performs random operational checks.
5. Enforces the following human resource policies:
 - fire staff involved in fraud immediately
 - maintain a profile of fraudulent staff and use it to refine recruitment
 - refrain from posting staff to home areas to reduce the opportunity and temptation to collude
 - make loan products available to staff
 - pay staff well relative to other available job opportunities in the area
 - rotate staff regularly within a branch

¹⁶ External Audits of Microfinance Institutions: A Handbook, CGAP, 1999.

¹⁷ Janet Mabwa, "The Experience of Fraud at K-Rep," *Moving Microfinance Forward*, MicroFinance Network, 1998, p. 53.

2.1.3 Strategic Risks

Strategic risks include internal risks like those from adverse business decisions or improper implementation of those decisions, poor leadership, or ineffective governance and oversight, as well as external risks, such as changes in the business or competitive environment. This section focuses on three critical strategic risks: Governance Risk, Business Environment Risk, and Regulatory and Legal Compliance Risk.

1. Governance risk

Governance risk is the risk of having an inadequate structure or body to make effective decisions.

One of the most understated and underestimated risks within any organization is the risk associated with inadequate governance or a poor governance structure. The Corposol/Finansol crisis, described in **Box 1** of Chapter 1, illustrates the dangers of poor governance that nearly resulted in the failure of that institution. Direction and accountability come from the board of directors, who increasingly include representatives of various stakeholders in the MFI (investors, borrowers, and institutional partners). The social mission of MFIs attracts many high profile bankers and business people to serve on their boards. Unfortunately, these directors are often reluctant to apply the same commercial tools that led to their success when dealing with MFIs. As MFIs face the challenges of management succession and the need to recruit managers that can balance social and commercial objectives, the role of directors becomes more important to ensure the institution's continuity and focus.

To protect against the risks associated with poor governance structure, MFIs should ensure that their boards comprise the right mix of individuals who collectively represent the technical and personal skills and backgrounds needed by the institution. Most MFIs name executive officers and some create special committees to fulfill specific roles on the board. In addition, the institutional by-laws should be clear and well written, and accessible to all board members.

Microfinance institutions are particularly vulnerable to governance risks resulting from their institutional structure and ownership. One of the strongest links to effective governance is ownership. Board members with a financial stake in the institution tend to have stronger incentives to closely oversee operations. However, many MFIs operate as non-governmental organizations whose board members have no financial stake in the institution. Even many transformed commercial MFIs are primarily owned by the former non-governmental organization (NGO) and therefore the majority of their board members are not real owners.¹⁸ In addition, many board members of commercial institutions represent public development agencies and tend to think more like donors than traditional investors. Microfinance institutions that operate as credit unions face a different type of governance issue – their boards comprise client members, most of which are net borrowers whose focus could be more on reducing lending rates than on the institution's wellbeing.

¹⁸ Campion and White, 1999.

Effective governance requires clear lines of authority for the board and management. The board should have a clear understanding of its mandate, including its duties of care, loyalty and obedience.¹⁹ MFIs can demonstrate short-term financial success without effective governance, but effective governance is needed to see the institution through difficulties that are bound to arise over the long-term. It is the board's responsibility to oversee senior management and hold them accountable for strategic decisions. If board members fail to fulfill their duties effectively, the MFI risks financial loss as a result of poor decision making or inadequate strategic planning.

To be effective, the board should have a clear understanding of its mandate, including its duties of care, loyalty and obedience.

To govern and provide good oversight of the institution, board members must have the right information and review it frequently and on a timely basis. The MFI must clearly communicate performance expectations and lines of accountability. The MFI should manage different business activities separately with independent performance indicators and management reports. **Table 3** provides a summary of key reports used by board of directors according to a survey sent out to 22 leading microfinance institutions conducted by the MicroFinance Network in 1998. At a minimum, boards of microfinance institutions should track the information contained in these reports.

2. Reputation Risk

Reputation risk refers to the risk to earnings or capital arising from negative public opinion, which may affect an MFI's ability to sell products and services or its access to capital or cash funds. Reputations are much easier to lose than to rebuild, and should be valued as an intangible asset for any organization.

Most successful MFIs cultivate their reputations carefully with specific audiences, such as with customers (their market), their funders and investors (sources of capital), and regulators or officials. A comprehensive risk management approach and good management information reporting helps an MFI speak the "language" of financial institutions and can strengthen an MFI's reputation with regulators or sources of funding.

¹⁹ Campion and Frankiewicz, *Guidelines for the Effective Governance of Microfinance Institutions*, Occasional Paper #3, MicroFinance Network, 1999, p.7.

Table 3: Key Reports Reviewed by MFI Board Members²⁰

The MicroFinance Network survey sent out to 22 leading micro-finance institutions (11 for-profit MFIs and 11 non-profit MFIs) revealed that the following reports are the most frequently monitored by board of directors:

Portfolio report. According to the survey, of all the institutional performance reports, board of directors of both non-profit and for-profit MFIs most frequently use the portfolio report, which provides information on the aging and quality of the loan portfolio. Most MFIs produce this report every month and send it to the board and senior management for review. The report should demonstrate the portfolio quality by showing the aging of arrears (in amounts and percentages of the portfolio) and by showing trends (allowing comparisons with past months).

Balance sheet and income statement. The second most common reports are balance sheets and income statements, which many MFIs produce monthly. Based on the survey, microfinance boards receive updated balance sheets and income statements five times per year on average, with some receiving them monthly and others receiving them only once per year.

Cash flow. The third report most frequently used by non-profit MFI boards is the cash flow report, which they receive four times per year on average. Of the for-profit MFIs surveyed, their boards only received cash flow reports two times per year on average. The difference in emphasis on the cash flow report between for-profit and non-profit MFIs perhaps reflects non-profit MFIs donor dependence and the relative difficulty they have in securing access to capital funds to support their lending operations.

Internal audit report. In for-profit MFIs, the third most frequently distributed report is the internal audit report, which is sent to the board three times per year on average. Of the 11 non-profit MFIs surveyed, their boards received internal audit reports only two times per year on average, with some boards receiving monthly reports and others receiving no internal audit reports. The difference between for-profits and non-profits in internal audit reporting reflects a greater level of formalized internal controls in for-profit MFIs, perhaps resulting from regulatory requirements or from increased responsibility for safeguarding client deposits as a board of a financial intermediary.

Other reports. **Some MFI boards also receive and review the following additional information on institutional performance: loan product performance reports, strategic plans, external audit reports, market share information, social impact studies, and marketing plans.**

3. External business environment risk

Business environment risk refers to the inherent risks of the MFI's business activity and the external business environment. To minimize business risk, the micro-finance institution must react to changes in the external business environment to take advantage of opportunities, to respond to competition, and to maintain a good public reputation. In Bolivia, for example, many microfinance institutions have lost

²⁰ Anita Campion, Current Governance Practices of Microfinance Institutions: A Survey Summary, October 1998.

clients and reported lower profit margins as a result of increased competition in the past couple of years. As in most businesses, it is often easier to focus on internal risks than to recognize shifts in the external marketplace that can potentially affect the MFI.

MFI's need to check the validity of their assumptions against reality on a periodic basis, and respond accordingly. A risk management framework establishes a discipline in which those questions are encouraged and asked frequently (e.g., compare actual results to budget and assess the reasons for variances). While external business risks are out of an MFI's direct control, the MFI can still anticipate them and prepare for their impact.

While external business risks are out of an MFI's direct control, the MFI can still anticipate them and prepare for their impact.

Anticipating and preparing for possible events or risks is the MFI's responsibility. In Bangladesh, microfinance institutions face the risk of floods, which can increase their credit and liquidity risk when borrowers' businesses are slowed or destroyed or their homes are damaged and in need of immediate repairs. Some MFIs maintain higher cash reserves during the flood season. As MFIs become formal financial institutions and more linked to the financial and political economy, they become more vulnerable to external risk exposures. While microfinance institutions can rarely prevent external risks from occurring, they can often take preventative actions to minimize their impact on the institution. The experience of Bank Rakyat Indonesia (BRI), described in **Box 4**, is an excellent example of the inter-relatedness of the risks and challenges facing an MFI in the wake of external market changes.

In general, the best way for an MFI to reduce external risks is to integrate an effective system of risk management into its culture and operations. An effective risk management system should encourage directors and senior managers to ask whether they are prepared for certain possible internal and external situations and whether they have built in sufficient cushion for unexpected events.

MFI's can reduce their vulnerability to external risks by systematically analyzing their preparedness for potential events.

Box 4: BRI Survives the Indonesian Economic Meltdown²¹

The recent economic crisis in Asia had a profound effect on the Indonesian economy and its financial industry. Forced write-offs left several Indonesian financial institutions severely undercapitalized and resulted in many bank closures. BRI's Unit Desa also felt the impact of the financial crisis, but unlike many institutions, the Units persevered in spite of the damage due to the following three external causes:

1. There was a severe drought in 1997/98, to which an entire rice crop was lost. This caused a rise in prices and a shortage of demand by farmers for products and services.
2. Comparatively high interest rates in Indonesia caused a flood of short-term investment in the banking sector which quickly departed when confidence dropped and triggered Bank Indonesia's decision to allow the market to set the exchange rate for the Indonesian Rupiah.
3. Large Indonesian businesses had borrowed a significant amount of dollars abroad, which ran up a short-term foreign exchange debt. The central bank, Bank Indonesia, was not able to track this debt or to anticipate short-term demands for foreign exchange reserves if the loans were not renewed.

Despite these external risks, BRI's Unit system fared fairly well through the crisis. As of June 30, 1999, over 97 percent of all microloan clients were repaying on time and the twelve-month loss ratio remained steady at 1.49 percent. BRI's microsavings increased, as savers rushed to move savings from failing private institutions to public institutions, such as BRI, where clients trusted their funds would be safe.

Four factors explain the BRI Units' success in maintaining strong repayment throughout the crisis:

First, BRI's microenterprise loans are installment loans linked to the borrower's cash flow. Over time, many of the microenterprise clients built up their equity and lowered their loan leverage, thereby reducing their vulnerability to external crisis.

Second, microenterprise clients are more likely to be engaged in the purchase and sale of domestically-produced essential goods and services, which are less sensitive to fluctuations in the exchange rate and to economic downturns.

Third, BRI's Units operate primarily in rural areas where the impact of the monetary crisis is less than in urban areas because of a greater reliance on the agricultural economy. However, the drought had a greater impact in rural areas, but has subsequently been mitigated by two good rice crops since then.

Fourth, BRI's Unit clients value their access to microfinance services and do not wish to lose their banking relationship, even if it means reduced consumption in the short-run. BRI has reinforced this relationship by ensuring that on-time repayers have rapid access to another loan.

²¹ Patten, Richard H., Jay K. Rosengard and Don E. Johnston Jr. "The East Asian Crisis and Micro Finance," July 20, 1999.

4. Regulatory and legal compliance risk

Compliance risk arises out of violations of or non-conformance with laws, rules, regulations, prescribed practices, or ethical standards, which vary from country to country. The costs of non-conformance to norms, rules, regulations or laws range from fines and lawsuits to the voiding of contracts, loss of reputation or business opportunities, or shut-down by the regulatory authorities. Many non-government organizations that provide microfinance are choosing to transform into regulated entities, which exposes them to regulatory and compliance risks. Even those microfinance NGOs that are not transforming are increasingly subjected to external regulations. For example, the Asian Development Bank is currently working with the government of Bangladesh to introduce legislation to regulate all deposit-taking institutions.

Regulatory risk is the risk of loss resulting from non-compliance with the country's regulations and laws.

MFIs use this risk management strategy to manage regulatory risk:

- Establishing a good working relationship with the regulatory authorities. Regardless of its formal regulatory status, an MFI should encourage open communication with regulators to ensure their full understanding of the MFI and provide an opportunity to defuse any potential problems. **Box 5** explains how the lack of a relationship with the supervisory authorities in Colombia added to the demise of Solidarios Financial Cooperative.

Managing regulatory risk.

Box 5: Regulators Close Solidarios Financial Cooperative²²

Solidarios Financial Cooperative in Columbia was a prominent credit union in Cali serving low-income communities. It was closed by the Colombian Superintendency of Banks in June 1998 because of insufficient liquidity. The government's deposit insurance fund has in the meantime begun to return savings to Solidarios' small depositors. Solidarios failed in part because it was not prepared for the general liquidity crunch that suddenly swept the entire credit union sector. The trouble started in 1996 and early 1997 when some credit unions incurred speculative losses with fiduciary funds from the government.

In March 1997, the government reacted with a decree that forbade investment of official funds in financial institutions that were not regulated by the Superintendency of Banks, which included credit unions at the time. This prompted an immediate loss of deposits for many credit unions, which simultaneously undermined the public's confidence in the credit union sector. Many small depositors started withdrawing their funds from Solidarios, even though it had nothing to do with the original scandal. In the end, Solidarios did not have enough liquidity to quickly pay out all depositors and was closed by the authorities. More open communication with regulators may have prevented this loss from occurring or at least could have given Solidarios options and time to survive the temporary crisis.

²² Gloria Almeyda, Colombia – Solidarios Financial Cooperative (Cali), Case Studies in Microfinance, World Bank, 1998.

2.2 Additional Challenges for MFIs

Microfinance institutions face several additional challenges that are unique and relevant to the microfinance industry's current level of development. While every MFI is unique, they share some common challenges including rapid growth and expansion, management succession, and new product development.

MFIs face additional risks resulting from rapid growth, management succession, and new product development.

2.2.1 Rapid growth and expansion

Rapid growth places several strains on an MFI's operations. For many MFIs, growth has strained their capacity to groom new managers from within the ranks, forcing rapid promotions to fill management positions (e.g. new branch managers) with less experience. The risk of having operations run poorly by inexperienced managers can be exacerbated by weak human resource planning or insufficient investment in training. When employee backgrounds do not match their responsibilities, operational risk increases in the organization.

The pursuit of growth to improve financial viability can also lead to "mission drift," resulting in a loss of focus on serving low-income clients. The pressure to expand the loan portfolio and maintain low delinquency can encourage loan officers to select wealthier clients with larger loan requests. As shown in Box 6, a period of rapid growth requires more careful monitoring and monthly trend reporting on loan volumes and portfolio quality to detect problems early on. Internal audits can be helpful in identifying fraud and portfolio quality problems before they result in significant losses.

Managing risk associated with rapid growth.

MFIs use several risk management strategies when faced with rapid growth:

- Careful attention to staff recruitment and training. The MFI can reduce operational risk by carefully growing staff and ensuring that employees' interests are aligned with those of the goals of the organization.
- Control growth to allow time to develop internal systems and prepare staff for changes resulting from the expansion.
- Carefully monitor loan growth and portfolio quality to better understand growth (e.g., number of loans per client, average loan size, growth in number of borrowers) and to not let growth mask increases in delinquency.
- Good communication from senior managers to reinforce the MFI's culture and commitment to quality service and integrity. These efforts should motivate new employees, as well as existing employees who are being asked to do more.

Box 6: K-Rep's Growing Pains²³

During 1991 to 1996, K-Rep (Kenya) experienced rapid growth, growing from 1,253 active loan clients with an outstanding loan portfolio of \$580,607 at the end of 1991 to 12,885 clients representing a loan portfolio of over \$4.5 million at the end of 1996. Despite increased profits in 1996, management feared rapid growth was hiding a deterioration of the loan portfolio, and therefore decided to contain growth until it could identify the cause of increasing arrears. By slowing lending, management found that growth had in fact concealed a diminishing portfolio quality; portfolio at risk (over 30 days past due) soared from 5.0 percent at the end of 1995 to 18.3 at the end of 1997. An analysis of the situation indicated that K-Rep's credit officers had gradually expanded their portfolios through larger loan sizes, which led to higher delinquency and client desertion as many group clients were uncomfortable co-guarantying larger loans. In addition, credit officers had found it difficult to provide adequate follow up to effectively manage their increasing loan portfolios in this period of rapid growth.

In January 1998, K-Rep implemented a program that brought employees "Back to Basics," which reemphasized the fundamental principles of microfinance and its commitment to the microentrepreneur. K-Rep lowered the maximum initial loan size from \$431 to \$238, reduced the rate of increase for subsequent loans, and shortened loan terms. In addition, K-Rep enhanced management's supervision of credit officers, and increased the amount and frequency of loan portfolio monitoring. These changes returned the focus to the original target population and discouraged the participation of higher income clients. By the end of 1998, K-Rep had delinquency under control and reduced its portfolio at risk ratio to 8.8 percent. By controlling growth, K-Rep prevented a larger crisis from occurring in the future. K-Rep demonstrated its

2.2.2 Succession planning

As a young industry, many MFIs are just beginning to experience the first management transition from founder to successor. For many, the dynamic and charismatic leadership at the top has been a key motivational and risk management tool for the employees and managers, providing a unifying vision and strong sense of commitment and mission for the organization. For others, the transformation into a regulated financial institution may create the need for new leadership, or existing leaders may choose to return to the original NGOs to continue more development-oriented activities. While leadership change is part of growth and evolution into a mature industry, few MFIs have planned for the inevitable succession of senior management. MFIs should not wait until key management staff nears retirement,

²³ From Champion and White, 1999, *Institutional Metamorphosis: Transformation of Microfinance NGOs into Regulated Financial Institutions*, pp.44-45.

as the need for a successor is not always predictable. Senior management may leave suddenly for another job opportunity or become temporarily or permanently incapable of performing their duties following an unforeseen event or tragedy.

MFIs that do not plan for management succession risk having operations run by inexperienced or under-qualified managers.

Similar to the issues involved in rapid growth, MFIs that do not plan for management succession risk having operations run by inexperienced or under-qualified managers, which increases the operational risks resulting from poor decision making and ineffective leadership. In addition, under-qualified managers can seriously affect employee morale and motivation, resulting in productivity declines and increased staff turnover, both of which result in direct costs to the MFI.

As these leaders begin to leave their MFIs, they will need to create strong management structures to help institutionalize those elements to ensure the ongoing survival and success of the institution. They will need strong management, as well as strong boards of directors to provide oversight and continuity, and well-established organizational cultures that can maintain the core competencies of the institution going forward. Board and management development will be a key challenge for many MFIs in the next few years.

2.2.3 New product development

New product risk is the potential loss that can result from a product that fails or causes unintended harm to the microfinance institution.

New product risk is the potential loss that can result from a product that fails or causes unintended harm to the MFI. Since many MFIs are experimenting with new product innovations, identifying and managing this risk is increasingly important. Key risks for new products include:

- Unintended consequences, in which a great product idea can result in unintentional harm to the MFI, e.g. new savings products that offer higher rates might attract high demand but also excessively increase the MFI's cost of funds.
- Reporting, in which the new product is combined with the total portfolio, can mask delinquency patterns.
- Not allocating all the unit costs associated with a new product, thereby distorting income projections.

For example, rural microfinance institutions that introduce agricultural lending products expose themselves to new risks. The risk of natural disaster can reduce crop production for several borrowers simultaneously, which increases credit and liquidity risks. To minimize risks, agricultural lenders avoid geographic concentrations and diversify their portfolios by lending to different types of farmers. To reduce the risk of introducing products that do more harm to the MFI than good, management should subject new lines of business to a thorough risk/reward analysis before introducing the new product or service.

For existing products, by subtracting the anticipated costs associated with managing each risk from the expected returns, the MFI can estimate the true profitability for each line of business. This enables the MFI to expand its most profitable lines of business and shrink its least profitable ones, unless the MFI has other reasons for continuing them, such as development impact. Financiera Calpia's experience in developing rural lending products, described in **Box 7**, demonstrates the use of a pilot test to identify and better understand risks involved in new market entry and product development before launching the product on a wide-scale. For more guidelines regarding new product development for MFIs, please see the Microenterprise Best Practices publication.²⁴

Management should subject new lines of business to a thorough risk/reward analysis before introducing the new product or service.

This chapter has demonstrated that MFIs face risks shared by other financial institutions as well as those unique to their particular market niche and stage of growth. The next chapter identifies lessons that MFIs can learn from the experiences of the conventional financial sector and classic risk management, as well as the innovative ways in which MFIs meet their unique needs for a risk management framework.

²⁴ *New Product Development*, by Monica Brand, ACCION International, for USAID's MBP project managed by DAI. Web site: www.dai.com

Box 7: Calpiá's Rural Lending Product Development in El Salvador²⁵

In the past, MFIs have resisted rural lending, and in particular agricultural lending, since it is considered costly and risky. Rural clients are sparsely disbursed over large territories, which increases the MFI's transportation costs and the cost of gathering information. Rural clients tend to be even poorer than urban clients are, and their livelihoods rely heavily on agriculture, which is subject to unpredictable production and market risks. In 1993, Financiera Calpiá decided to develop a pilot project to better understand the risks involved with rural lending and to determine whether it could be done profitably. The pilot project consisted of five distinct phases.

1. Guiding principles. In the first phase, Calpiá identified the primary characteristics of rural lending that would guide the product development process. First, Calpiá determined that credit could be a useful tool for rural households to manage their liquidity and investments. Next, Calpiá decided that the rural lending products should fit the borrowers' needs as well as possible to reduce the credit risks associated with clients' willingness and ability to repay. Finally, Calpiá sought to develop a lending methodology that would not only cover its costs but that would be profitable and sustainable over the long-term.

2. Initial design. The second phase consisted of the development of a lending methodology and the delivery and recovery mechanisms. Calpiá decided to offer individual loans with flexible loan amounts, terms, and repayment schedules that would meet the needs of rural borrowers. Calpiá set interest rates at the same level as its urban lending rates, and included land titles and livestock as acceptable collateral.

3. Local test. Next, Calpiá tested the viability of the product and procedures on a small scale. Calpiá communicated to loan officers and clients that the local test would be an experience from which to learn and adapt the product and procedures as necessary. In an effort to reduce risks and ensure success, Calpiá carefully selected loan officers who had strong agricultural backgrounds and previous experience in working with the rural poor, partly in granting loans. Then the MFI trained the loan officers on its market-oriented objectives and procedures, as well as on the characteristics of the agricultural production in the test area, including common yields, prices and risks. In addition, Calpiá began lending only to rural clients who had good credit histories with serious lending institutions in order to gain additional verifiable information on the economic performance and personal characteristics of the borrowers.

4. Pilot test. To make improvements in its new rural lending methodology, Calpiá used the information acquired in phase three, which it compiled from meetings with rural borrowers, loan officer committees, and analysis of the loan applications and problems that arose. The fourth phase of the project was to test the viability of the revised rural lending operations on a larger scale. Calpiá selected a pilot test area that offered i) easy transportation access, ii) reasonable production risks, and iii) diverse agricultural activities, production environments and income sources. The selected area offered the greatest potential for learning and collecting information that could be used to reduce risks in the future.

5. Expansion and consolidation. Upon successful conclusion of the pilot test, Calpiá made further adjustments to its rural lending methodology and introduced the product on an even larger scale. The MFI expanded its operational capacity to manage a rural loan portfolio and further developed its training capacity. As of July 1999, Financiera Calpiá's rural lending portfolio had grown to 7,200 loans valued at over \$5.3 million, representing 22 percent of Calpiá's overall loan portfolio. Calpiá's experiment with rural lending demonstrates the importance of understanding risks and the use of pilot tests to reduce risk in new product development.

²⁵ From Juan Buchenau's presentation at Frankfurt conference, "The Challenge of Developing Rural Lending Technologies," September 1999.

3. Effective Risk Management

Classic risk management requires an organization to take four key steps:

- (1) Identify the risks facing the institution and assess their severity (either frequency or potential negative consequences)
- (2) Measure the risks appropriately and evaluate the acceptable limits for that risk;
- (3) Monitor the risks on a routine basis, ensuring that the right people receive accurate and relevant information; and
- (4) Manage the risks through close oversight and evaluation of performance.

Managing risk is a continual process of systematically assessing, measuring, monitoring, and managing risks in the organization. Effective risk management ensures that the “big picture” is not lost to the urgent demands of day to day management. Effective risk management encompasses a “feedback loop” from the branch to senior managers, and sometimes to the board of directors, to make sure that policies and strategies are appropriate and that the risk levels are within the risk parameters set by the institution. Creating a risk management infrastructure and system to incorporate that process into the organization’s culture helps ensure that all staff are focused on identifying and anticipating potential risks, and not hiding them or denying that they exist. Since risk parameters and tolerances vary over time and among institutions, a systematic internal discipline is needed to re-examine and reassess risks on a regular basis.

Risk management is a continual process of systematically assessing, measuring, monitoring, and managing key variables in the organization.

Risk management has only recently become a hot topic among financial institutions. Regulation and supervision historically have focused on past performance and current financial condition as predictors of future financial safety and soundness. In the mid 1990s, after several “surprise” bank failures, US regulators shifted the focus of their reviews to place greater emphasis on an institution’s internal risk management capabilities in each area of operations, since those are better predictors of the bank’s ability to withstand internal or external uncertainties. Examiners specifically evaluate the financial institution’s consistent effort to identify, measure, monitor, and manage risks, and assess whether active oversight is present from the board of directors and managing director.

While an increasing number of MFIs are subject to external regulation and supervision, the strength of the MFI’s internal control and risk management is far more likely to predict its long-term viability. MFIs have successfully adapted several tools and techniques from the formal financial sector to better manage their institutions, including a CAMEL²⁶ or other analysis,²⁷ ratio and trend analysis, and peer group

²⁶ Several analytical approaches exist for evaluating the financial condition and performance for financial institutions. CAMEL is the acronym for bank regulatory reviews focusing on Capital adequacy, Asset Quality, Management quality, Earnings, and Liquidity. For the application of the CAMEL in MFIs see *The ACCION CAMEL Technical Note*, by Sonia Saltzman and Darcy Salinger, September 1998.

analysis.²⁸ The same adaptations are needed for comprehensive risk management.

This chapter examines the key principles of risk management theory and their practical applications for microfinance institutions. Several examples are used to demonstrate how MFIs have incorporated the key components into their organizational cultures and how they have applied them to specific situations.

3.1 Risk Management Feedback Loop

Comprehensive risk management is an interactive and dynamic process.

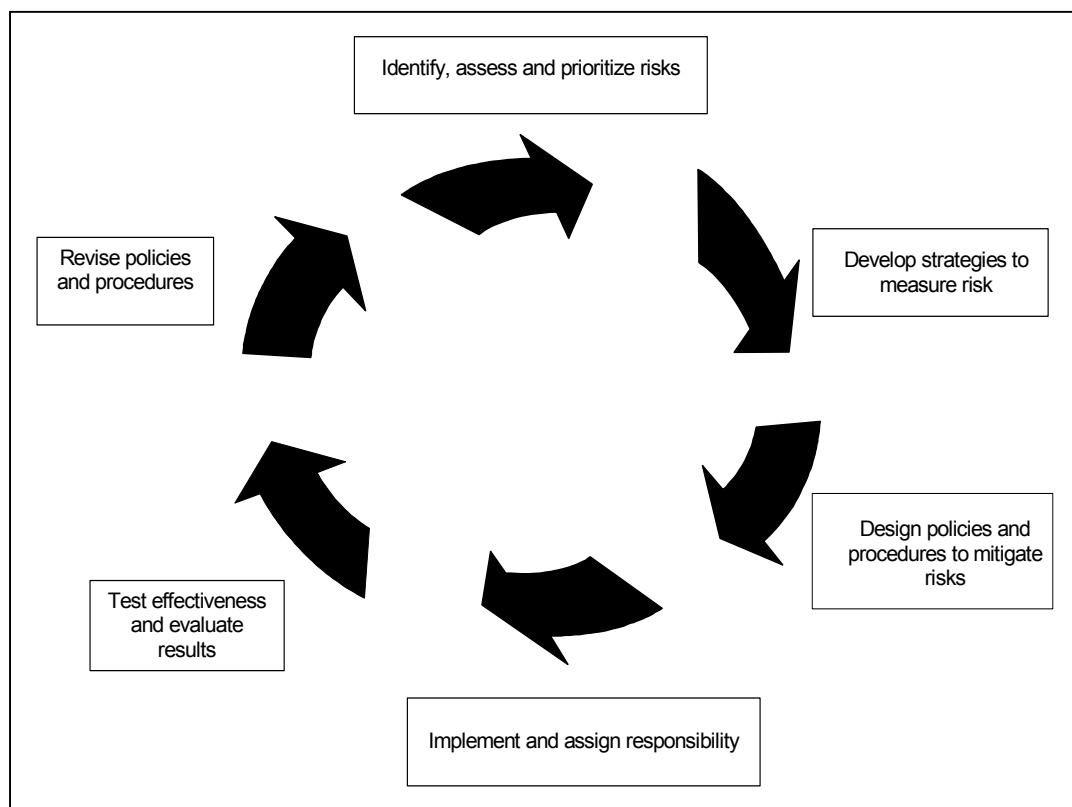
The steps in the risk management process are not static; they are part of an interactive and dynamic flow of information from the field to head office to senior management and back to the field. These steps are part of a continual risk management feedback loop that consistently asks whether the assumed risk is reasonable and appropriate, or whether it should be reassessed. **Figure 1** illustrates the cyclical nature of the risk management process.

In a nutshell, the risk management feedback loop includes the identification of risks to be controlled, the development and implementation of strategies and policies to control risk, and the evaluation of their effectiveness. If results indicate that risks are not adequately controlled, then policies and strategies are redesigned, re-implemented, re-tested, and reevaluated.

²⁷ Others include the World Council of Credit Union's PEARLS (Protection, Effective financial structure, Asset quality, Rates of return and costs, Liquidity, and Signs of growth) and PlaNet Finance's GIRAFE (Governance and decision making process, Information and management tools, Risks analysis and internal control, Activities and loan portfolio, Funding: equity and liabilities and Efficiency and profitability).

²⁸ The MicroBanking Bulletin, managed by CALMEADOW, provides a tool for making comparisons between one MFI and others within a region or peer group.

Figure 1: Risk Management Feedback Loop



The frequency with which this process occurs depends on the priority assigned to the risk. Significant risks, such as credit risk, liquidity risk, and others that threaten the financial viability of the MFI, are generally tracked via monthly reporting to senior management and the board of directors. Others may be reviewed quarterly or semi-annually (e.g. whether loan loss reserves are adequate relative to the portion of portfolio-at-risk). The board of directors and senior management may only review risk management policies once a year. Risk management is an interactive and continual process to ensure that senior management is in-tune with the actual events in the field offices, and that the MFI responds quickly to any changes in its internal or external business environment.

3.2 Key Components

As financial service providers, MFIs thrive on reasonable risk. Successful MFIs incorporate risk management into their organizational design, lending methodologies, savings services, and operational procedures. This section describes each of the steps involved in the risk management feedback loop of a microfinance institution.

3.2.1 Identify, assess, and prioritize risks

The first step in risk assessment is to identify risks. To identify risks, the MFI reviews its activities, function by function, and asks several questions. For example, the MFI examines the credit and lending operations, and reviews funding sources, loan transactions and portfolio management processes. While this can create a

Identify risk exposures.

laundry list of minor risks (many of which should be managed by branch, regional, or product managers), it should also highlight the major risks that are most significant to the MFI and require management's close attention (i.e. the major risks reviewed in Chapter 2). Since product differentiation is becoming more prevalent in MFIs, the MFI should assess each product's specific risk profile. For example, housing loans are likely to have higher delinquency and loss rates than the loans for income-generating activities. In this case, the relative size and severity of risk in that housing portfolio requires management's special attention. In addition, the MFI should evaluate risks in individual lending separately from peer group lending. Because individual loans tend to be larger and are often made without co-guarantees, individual loan portfolios can be riskier and represent a different type of risk exposure than group lending portfolios. By categorizing and evaluating activities according to their risk profiles, MFIs can better understand risks and can take action to reduce large exposures and avoid losses.

Assess probability. The second step involved in risk assessment is to determine the probability of risks occurring and their potential severity. To assess the probability and severity of risks, a risk management chart or matrix, such as the one presented in **Table 4**, can be useful.

Prioritize risks. *Risk management matrix.* A risk management matrix helps the risk managers assign ratings to different risks and prioritize those areas that need additional attention. For each risk, the matrix assigns a rating of four different factors:

- (1) The quantity or severity of the risk, based on the potential severity and probability of occurrence (e.g. Low, Moderate, or High);
- (2) The quality of existing risk management, or how well management currently measures, controls, and monitors the risk (e.g. Strong, Acceptable, Weak);
- (3) The aggregate risk profile for that risk, combining the first two measures (e.g. High, Moderate, Low); and
- (4) The trend or direction of that risk (e.g. Stable, Increasing, or Decreasing).

3. Effective Risk Management

Table 4: Sample Risk Management Matrix²⁹

Business Risk or Activity	Quantity of Risk	Quality of Risk Mgmt.	Aggregate Risk Profile	Direction/Trend	Risk Manager
GROUP LENDING:					
Credit policy and underwriting	Moderate	Acceptable	Moderate	Stable	
Disbursement/funding approvals	Moderate	Acceptable	Moderate	Stable	
Portfolio monitoring, collections	Moderate	Strong	Moderate	Stable	
Cash and program reconciliation	Moderate	Acceptable	Moderate	Stable	
Member/Borrower training	Low	Acceptable	Low	Stable	
INDIVIDUAL LENDING:					
Credit policy and underwriting	High	Acceptable	High	Decreasing	
Disbursement authorizations	Moderate	Strong	Moderate	Stable	
Portfolio monitoring, collections	Moderate	Weak	High	Stable	
Cash and program reconciliation	Low	Acceptable	Low	Stable	
Loss reserve policies, procedures	Moderate	Acceptable	Moderate		
SAVINGS					
Deposit & withdrawal policies	Moderate	Acceptable	Moderate	Stable	
Reporting and record keeping	Moderate	Weak	Moderate	Stable	
Liquidity and branch funding	High	Strong	Moderate	Stable	
Cash and program reconciliation	Low	Acceptable	Low	Stable	
TREASURY & FUNDS MGMT					
Investment portfolio/ int. rate sensitivity	High	Acceptable	Moderate	Increasing	
Liquidity (cash for operations)	Moderate	Acceptable	Moderate	Stable	
Asset and liability mgmt. (matching)	High	Strong	Moderate	Stable	
Loss Reserves	Low	Acceptable	Low	Stable	

²⁹ Adapted from the risk management matrix used by South Shore Bank and the HPMS White Paper, June, 1996.

The matrix also identifies the risk manager who is responsible for monitoring and implementing improvements for that risk. The sample matrix is only a partial list. Other risks may include computer systems risk, strategic and reputation risk, legal/compliance risk, and others depending on the issues facing the individual MFI.

This tool allows management to assess the most important risks to control, the areas with the weakest controls at present, and those areas where risk may be increasing. For example, an MFI with the risk management matrix in **Table 4** may have recently introduced a direct loan product that uses a different credit methodology and more complex underwriting criteria than the group loan product. It therefore requires more frequent reporting and a special internal audit to reduce the higher risk of a new and less understood product.

Once the matrix is developed, the risk management committee or risk management officer (see Chapter 4) periodically updates the matrix and uses it to set priorities during the year. For example, the committee might set priorities based on the most significant weaknesses, or may define the scope of work for internal (or external) audits to include certain areas. The greatest time commitment is to create the matrix and assign the initial assessments in the matrix. Once established, it becomes a useful management tool that can be updated quarterly or semi-annually, unless events prompt more frequent changes.

3.2.2 Develop strategies to measure risk

Prepare to measure risks.

After the board and management define priorities, they can develop strategies that guide the organization's management of those risks. The board typically develops policies and sets the outer parameters for the business activities of an organization. Within those broad policies, management then develops guidelines and procedures for day-to-day operations.

The board of directors is responsible for reviewing and approving policies that minimize risk to the MFI (within its business strategy), protect the fiduciary interests of investors and depositors, and ensure that the MFI fulfills its mission. The Board usually reviews these policies on an annual basis (unless an event prompts a more frequent review) to ask whether any adjustments are needed or if management recommends any changes. These policies set the tolerable range of risk, within which management should operate. Management develops the detailed guidelines and operational policies and procedures that fit within those broad policies. Management should recommend any changes in policies to the board, along with a rationale for each proposed change. **Table 5** lists some sample policies that cover major risks to an MFI.

Table 5: Sample Policies that Address Risk in MFIs

Risk Category	Policies By The Board	Management Responsibility
Credit Policies	<ul style="list-style-type: none"> ➤ Permitted lending activities ➤ Portfolio diversification (e.g. % of capital to one product, maximum exposure to any borrower, etc.) ➤ Reserve requirements and reserve ratios 	<ul style="list-style-type: none"> ➤ Detailed underwriting guidelines or procedures ➤ Portfolio monitoring and reporting on asset quality ➤ Operational procedures designed to mitigate transaction and credit risk
Investment Policies	<ul style="list-style-type: none"> ➤ % in cash or cash-equivalents ➤ Risk parameters for portfolio (e.g. % in treasury bills, equities, bonds, credit risk of individual instruments) ➤ Maximum currency exposures ➤ Maximum asset and liability mismatch (usually as % of capital) 	<ul style="list-style-type: none"> ➤ Investment management guidelines and procedures ➤ Test the portfolio's sensitivity to interest rate changes ➤ Balance risk of loss of principal with income
Liquidity Policies	<ul style="list-style-type: none"> ➤ Minimum cash reserves equal to a certain percentage of deposits (for client cash withdrawals) ➤ Maintain cash balances or lines of credit equal to cover new loan demand and potential cash losses from delinquency ➤ Maintain operating reserves equal to 2-3 months operating expenses 	<ul style="list-style-type: none"> ➤ Choose how cash management will be centralized or decentralized among branch offices; ➤ Choose short-term investment instruments (treasury bills, staggering terms, etc)
Capital Adequacy	<ul style="list-style-type: none"> ➤ Capital allocation to support risk of different business activities ➤ Minimum capital adequacy ratio (sufficient cushion if the loss occurs) 	<ul style="list-style-type: none"> ➤ Monitor whether changes in risk merit higher or lower capital allocations.

The board is also responsible for monitoring those risks and ensuring that management is enforcing the policies they approved. That oversight function is accomplished through management reporting, which is discussed below.

The goal is to make conscious, informed decisions about which risks to take, what is an acceptable level of risk, and what cost-benefit tradeoff is reasonable. It is the board's responsibility to ensure that the MFI is making informed decisions about how much risk is tolerable and that there is sufficient capital and liquidity for the MFI to absorb any financial loss, should it occur. MFIs can make several choices on how to mitigate a risk. They can: *accept* the risk as part of doing business (e.g. a cost of credit risk is annual loan losses); *mitigate* the risk to bring it to reasonable levels through carefully-designed policies and procedures (e.g. centralized disbursement, group lending, etc); *eliminate* the risk entirely (e.g. security to prevent physical property loss or computer back-up for the management information systems); or *transfer* the risk to someone else (e.g. buy insurance against certain losses).

Assess costs and benefits.

In each case, management and the board must evaluate the cost/benefit tradeoffs. Each of these strategies entails some cost, either in staff time, expenses, or opportunity costs. For example, trying to eliminate credit risk would not be a good use of an MFI's resources. It would require changes in the target customer, and additional personnel to monitor borrowers closely and pursue delinquent loans to avoid loss. The costs to the MFI in terms of increased personnel, lower productivity, fewer loans to new customers (opportunity cost), and significant management time, would exceed the potential benefit of protected revenues. Alternatively, the MFI should set a range of acceptable loan loss and delinquency rates, and monitor its portfolio carefully, watching for trends that suggest that those ranges might be exceeded.

It is important to distinguish reasonable risk from risk avoidance or elimination. Too much emphasis on risk avoidance can translate into incentives for staff to avoid poorer borrowers and weaken the mission of the MFI. Many MFIs design a set of controls and indicators that allows them to monitor the outcomes of their policies on borrower composition and target customer base. **Box 8** illustrates the cost/benefit tradeoffs of risk reduction by highlighting the Alexandria Business Association's (ABA) experience in trying to avoid credit risk through the use of a strict policy toward late loan repayments.

Box 8: ABA's Zero Tolerance Policy toward Late Repayment³⁰

While a zero tolerance policy for loan default can be a powerful way to communicate to microfinance clients that the institution takes repayment seriously, the Alexandria Business Association (ABA) found this policy may be crippling to the institution when it is applied in an unvarying, resolute manner. A zero tolerance policy means that once the client has made one late repayment, he or she is ineligible to take out another loan from the institution. Such a policy aims to reduce risk by eliminating clients who have demonstrated even the slightest degree of propensity towards default, and by categorizing them as high risk. However, even the most successful microfinance client comes upon difficult times. Whether it is a slow month for business due to endogenous factors such as climate or economic uncertainty, or more private matters such as a death in the family or personal illness, a historically good client can at some time find it impossible to pay an installment.

After applying a zero tolerance policy for several years, ABA realized that it was losing some of its best customers because of its strict approach. ABA wanted to regain some of those customers, but it wanted to ensure that only its best customers were allowed back. The institution employed the following cautious method to win back its customers, while testing the right tolerance level for risk:

- 1. ABA determined which lost customers were the least risky and then allowed them to pay a penalty to rejoin.** From its database, ABA determined which clients paid their installment within ten days of the due date. More than 35 percent of these clients accepted the penalty of paying late charges and were given a second chance.
- 2. Once the program demonstrated success, the institution expanded it.** ABA then extended the offer to clients who had been ten to 15 days late on repayment. Many of them, too, accepted penalties and rejoined ABA. By cautiously and gradually implementing the program, ABA ensured its success.
- 3. Then, ABA implemented a program to avoid losing the best clients due to occasional economic hardships.** ABA adopted a policy that aimed to keep its best customers from leaving due to occasional economic hardships, while still maintaining the zero tolerance policy. Instead of trying to win back customers who were shut out due to late payment, ABA now allows clients to avoid ineligibility altogether by offering a loan installment shift. Clients with good repayment records can now shift all loan installments forward one month without compromising their repayment histories. If a client comes to the branch before the due date of the installment, has already received at least three successive loans from ABA, and has a clean track record, the branch manager will allow the client to shift all installment due dates. At the time of the installment shift, the client pays one month's interest so that ABA does not lose any interest income by allowing the client this concession.

ABA determined the root of the problem, tested a solution, and expanded the solution's range in order to determine the appropriate tolerance level for clients who may be only slightly risky. By implementing the installment shift program, ABA reduced risk by holding customers responsible for their late repayments, while at the same time giving them allowances based on their previous payment records. Because of the program, ABA has increased client retention and is able to continue to retain its most profitable customers while still preserving its reputation as a serious institution.

³⁰ From Nabil El Shami, *Microfinance in the New Millennium*, Sahra Halpern (Ed.), MicroFinance Network, 2000, pp. 18, 23.

Some MFIs transfer risks to clients or other institutions. For example, several MFIs, including ASA in Bangladesh, require borrowers to purchase insurance to cover the risk of loss resulting from their untimely death. Some countries require regulated financial institutions to pay for deposit insurance, which transfers some of the fiduciary risk from the financial intermediary to a reinsurance company or the government. Deposit insurance covers the risk of loss of clients' savings in the event of the financial institution's financial insolvency. Most often, the most cost-effective option is to mitigate risk through carefully designed policies and internal controls, which is the next step in the risk management process.

3.2.3 Design operational policies and procedures to mitigate risk

Develop controls to mitigate risks.

In most cases, an MFI lives with certain risks and designs a lending methodology and system of controls and monitoring tools to ensure that a) risk does not exceed acceptable levels, and b) there is sufficient capital or liquidity to absorb the loss if it occurs. These controls might include:

- Policies and procedures at the branch level to minimize the frequency and scale of the risk (e.g. dual signatures required on loans or disbursements of savings).
- Technology to reduce human error, speed data analysis and processing.
- Management information systems that provide accurate, timely and relevant data so managers can track outputs and detect minor changes easily.
- Separate lines of information flow and reconciliation of portfolio management information and cash accounting in the field to identify discrepancies quickly.

These are all examples of the internal controls MFIs use to maintain reasonable levels of risk in their activities *ex-ante*, before operations. They are built into program design, procedures and daily operations.

For example, an MFI that offers individual loans in addition to group loans, must adapt the operational guidelines and procedures to mitigate the risks of individual lending. The borrower screening and business assessment process will be different since the MFI is relying on the cash flow from the business to repay the loan rather than group co-guarantees. While loan disbursement procedures may remain the same as in traditional lending, loan monitoring may require more frequent client visits, due to the lack of co-guarantors.

Good management information systems are critical to monitoring and mitigating risk. As Charles Waterfield noted in his article on MIS systems, "As microfinance institutions scale up their operations the needs for timely and accurate information

increases – indeed the reliability of the management information systems is often the difference between the success and failure of the institution.”³¹

Managers cannot monitor or manage risk without timely and relevant information. For example, MFIs that operate through a decentralized branch or unit office network have encouraged branch-level cash reconciliation and management reporting to detect problems early and act quickly, reducing the risk that small problems grow into larger ones. Branch managers can review delinquent borrowers and reconciliation of cash and program numbers on a daily or weekly basis, allowing prompt corrective action. Many MFIs hold branches accountable for being a profit center, giving branch managers responsibility for cash and program reconciliation, choosing whether to fund loans with savings or borrow from head office, and tracking expenses relative to interest and fee income.

Decentralized branch networks have other risk management advantages. Fraud or personnel problems tend to be localized to a branch or region, limiting the scale of potential financial loss compared to that within a highly centralized MFI. However, such decentralized MFIs need a strong organizational culture and good information system to ensure that policies and procedures are standardized and consistently followed. Without a high level of discipline, operational and transaction risks increase.

3.2.4 Implement into operations and assign responsibility

The next step is for management to integrate those policies, procedures and controls into operations and assign managers to oversee them. In the implementation process, management should seek input from operational staff on the appropriateness of the selected policies, procedures and controls. Operational staff can offer insight into the potential implications of the controls in their specific areas of operation. If it is possible that the control measure will have an impact on clients, then management should speak with line staff to understand the potential repercussions. In addition, MFIs can use client surveys or interviews to understand clients' reactions to a new operational procedure or internal control measure.

Integrate into operations.

Assign clear responsibility.

Some might believe that since the MFI integrates all employees into the risk management system, it is unnecessary to assign responsibility. However, there is an old adage that says, “If something is everyone’s responsibility, it is no one’s.” To effect change, the risk management system must assign clear responsibility to someone to implement the risk controls and ensure that they are respected. Ideally, the person should be a senior manager with operations experience and authority.

Assign responsibility.

The MFI must determine who is responsible for monitoring and ensuring that the right senior managers (or board of directors) receive relevant and useful infor-

³¹ Charles Waterfield, “Selecting and Installing a Portfolio Management System,” *Small Enterprise Development*, Vol 10, No 1. March 1999.

mation, and that specific personnel will be held accountable for implementing changes. The designated person must be accountable to the board and senior management and must have the authority to implement changes as needed. By assigning this level of responsibility to the position, the MFI reinforces the importance of risk management throughout the organization. Clearly identifying a risk manager and making his or her responsibilities very clear, increases the likelihood that the steps will be implemented successfully.

3.2.5 Test effectiveness and evaluate results

Management must regularly check the operating results to ensure that risk management strategies are indeed minimizing the risks as desired. The MFI evaluates whether the operational systems are working appropriately and having the intended outcomes. The MFI assesses whether it is managing risks in the most efficient and cost-effective manner. By linking the internal audit function to risk management, the MFI can systematically address these questions. To fully verify the accuracy of the MFI's accounts and reduce uncontrolled fraud and credit risks, the MFI should incorporate client visits into the audit processes.³²

Regularly test and check results through internal audit.

Good management reporting is essential to understanding whether these controls are effective, i.e. yielding the intended results. For example, South Shore Bank in Chicago has monthly board meetings to review a series of reports with key ratios expressed as monthly trends. These include monthly loan asset quality reports (delinquency by aging category is expressed as a percentage of total loans, loan losses as a percentage of total loans and total loan disbursements) and funds management reports (liquidity measured by loans to deposits and cash available to lend, investment portfolio mix, interest rate risk, and any funding risk for grant-funded activities).

Monitor and analyze trends and ratios so that senior managers can track key indicators.

Trend and ratio reporting is the most efficient way for directors or senior managers to absorb large amounts of information quickly. Following trends allows the institution to "manage by exception." Managers can scan the trends in key ratios and focus on those areas where the trends are not positive or where there has been a change, thereby focusing their limited time on the most important issues. Ratio analysis is one of the most useful tools in managing financial institutions, since the *relationships* between different numbers are often more important than the absolute numbers. This is especially true for large scale or quickly growing MFIs.

Elements of good management reporting.

Management reporting should provide information on actual results compared to budget, showing the variance, and tracks key ratios and numbers relevant to the MFI's operations. This information reporting should occur on several levels:

- Management reporting for operating managers: Operations managers need detailed, timely reports that provide specifics on customer outreach, lending

³² For an in-depth discussion of the role of internal and external audits, see the GTZ/MicroFinance Network's *Improving Internal Control*, by Anita Campion, May 2000.

activity, savings (if relevant), and branch operations. The branch and regional managers need this information to better understand where the MFI is losing or making money, how well unit branches are performing relative to budget, and to identify credit or liquidity issues at the field or operations level.

- Summary reports for senior managers and directors: This audience needs summary reports that capture trends in key ratios and indicators so they can monitor the organization's overall performance, and detect any changes in the MFI's financial condition or potential increased or decreased risk to the MFI. Senior management and the board of directors usually focus on financial and strategic risks, rather than operational risk. The most useful summary reports emphasize ratios (or relationships between numbers) rather than absolute numbers, and the monthly or quarterly trend in those ratios so they can "manage by exception" and focus quickly where a key ratio has changed significantly and ask appropriate questions of management.
- With this information, senior management should be asking questions about whether the MFI is anticipating risk sufficiently, identifying risks adequately, or managing them aggressively enough. For example, are loan losses in line with the reserve policy, and if not, why not? Should the reserve policy be adjusted to better match operating experience, or is there a market or operational reason that explain the mismatch? If the financial performance of the investment portfolio was very good in the certain period, was it due to a higher risk profile in the portfolio or did interest rates move as anticipated? By sharing this information with directors, senior management can gain additional expertise and experience on tough issues and potentially spot previously unidentified risks.

Directors should be reviewing this information for changes or trends that raise any concern over the MFI's financial condition, projected financial performance (e.g. asset quality, both loans and investments) and whether management has adequately identified and planned for potential risks.

- Internal audit reports: The internal audit is a critical part of the risk management feedback loop. It evaluates operations "ex post" and helps assess whether the "ex-ante" (before operations) procedures and controls are effective in mitigating risk. The internal audit process tests the accuracy of the information coming from management reports and investigates specific areas of higher risk to the MFI.

3.2.6 Revise policies and procedures as necessary

Based on the summary reporting and internal audit findings, the board reviews risk policies for necessary adjustments. To be most effective, the internal audit should report directly to the MFI's board of directors. While only significant internal audit findings are reported to the board, the directors should ensure that necessary revisions are quickly made to the systems, policies and procedures, as well as the operational workflow to minimize the potential for loss. The internal audit report

Review and revise policies and procedures as necessary.

may make specific recommendations on how to strengthen risk management areas depending on the audit scope. Management is responsible for designing the specific changes, and in doing so should seek input from the internal audit team as well as branch staff to ensure that operational changes are appropriate and will not result in unforeseen, negative consequences to the MFI or its clients.

MFI's are increasingly adapting and adding new products to offer customers more choices and to differentiate their products from the competition. With new products and product changes come new credit risks, operational risks, and liquidity risks, which require new risk management strategies.

3.3 *Application of the Risk Management Feedback Loop*

The introduction of a new product provides an excellent example of the application of a risk management feedback loop. For example, if an MFI is considering offering liquid passbook savings accounts to encourage the mobilization of small savings deposits, the product manager should walk through each step of the feedback loop during the pilot test phase before expanding the product to a wider market. By following the steps involved in the risk management feedback loop during the pilot phase, the MFI can thoroughly assess the risks and implications and make necessary adjustments before a system-wide product roll-out.

Identify risks. Since passbook savings can be withdrawn at any time, introducing such a product may affect branch liquidity and create volatility in available funds. Thus, the liquidity risk is significant, given the MFI's dependence on deposits as a source of loan capital. In addition, the potential for fraud increases due to additional cash transactions in the field.

Develop strategy. The MFI may decide to accept these risks, but try to minimize them by building client trust over time and limiting withdrawals in number and size per week. In addition, the MFI might maintain larger cash reserves in pilot branches for a test period to assess cash flow patterns before offering the product at all branches.

Design controls. The MFI may require weekly reporting on cash balances in pilot branches and monitor trends in average account size, number of accounts opened, and number of transactions. The MFI might decide to require the branch manager's signature for withdrawals over a certain amount and require cashiers to balance at the end of each day.

Assign responsibility. The MFI assigns the new product manager the responsibility for gathering and analyzing data for senior management.

Test outcomes. The MFI assigns a special internal audit team to visit clients and branch staff to assess whether the program is working as intended, and to identify fraud and other risks not addressed in design.

Evaluate. After a test period of six months, management evaluates program results and decides whether the risk of loss is too high for the MFI, whether they can mitigate identified risks through program design and operational procedures, and whether

3. Effective Risk Management

the program is still cost-effective with those risk management strategies in place. Management makes recommendations to the board, who reviews and approves or rejects them.

If the evaluation process indicates that the product is too risky, then management will determine whether the product or delivery system or process can be adapted to reduce risk to an acceptable level. For example, several MFIs require all savings transactions to take place at a branch office to reduce the potential for fraud.

Revise.

This chapter has illustrated the common sense steps in the risk management feedback loop that should be a continual and interactive process within all MFIs. The most successful businesses stay responsive to their customers and to market change, adapting and reacting as the internal and external business environments shift over time. As MFIs encounter more competition from other MFIs and from conventional financial institutions, their ability to introduce new products quickly and prudently, increase their operational efficiencies, and use their capital and other resources as effectively as possible become vital to their long-term success. To ensure their ability to cope with these many challenges, MFIs need to integrate an effective risk management framework into their operations.

4. Implementing Risk Management

MFIs should not discourage risk taking within the organization, but rather encourage prudent risk taking.

As MFI's become larger and more sophisticated, risk management should become a more conscious part of their management and governance. The goal of good risk management is to reduce uncertainty and qualify potential financial losses as "reasonable," in other words to eliminate surprises. Implementing risk management, however, is both art and science. The "science" is quantifying risks and probabilities so that an MFI can make informed decisions about the costs and benefits of risk management options. The "art" is to create an organizational culture of identifying risks without discouraging prudent risk-taking. Prudent risk-taking involves understanding the risk the MFI is assuming and recognizing that the upside reward potential carries the risk of loss. Losses should never come as complete surprises to management. In other words, management should be aware of the risks the MFI assumes and should understand the extent of the exposure and its potential implications.

This chapter presents guidelines for implementing a risk management framework into an MFI's culture and operations, which are summarized in **Table 6**. To ensure that risk management is integrated at all levels of the institution, the MFI assigns specific responsibilities for overseeing and managing risks.

4.1 Guidelines for Implementing Risk Management

This section presents ten guidelines for microfinance institutions to follow when developing their risk management framework. Collectively, these guidelines help a microfinance institution systematize risk management and integrate it into all levels of operations. These guidelines are simple suggestions that should apply to most MFIs.

Table 6: Ten Guidelines for Risk Management

Guidelines for Implementing a Risk Management Framework:

1. Lead the risk management process from the top
2. Incorporate risk management into process and systems design
3. Keep it simple and easy to understand
4. Involve all levels of staff
5. Align risk management goals with the goals of individuals
6. Address the most important risks first
7. Assign responsibilities and set monitoring schedule
8. Design informative management reporting to board
9. Develop effective mechanisms to evaluate internal controls
10. Manage risk continuously using a risk management feedback loop

4. Implementing Risk Management

To be effective, the MFI must integrate risk management into the organization's culture. It is the task of the MFI's leadership (the directors, CEO and senior managers) to communicate the importance of risk management and instill a risk management culture at all levels of the institution. Without a commitment to risk management from the top and resources to support it, the MFI cannot expect its employees to perform in a manner that mitigates risk.

1. Lead the risk management process from the top.

Second, MFIs should incorporate risk management into the design of its systems, processes, and methodologies to reduce the frequency and scale of unwanted risk from the outset. Designing procedures that reduce the chance of human error can improve quality control and significantly boost productivity and efficiency. For example, the most successful MFIs worldwide have built excellent credit risk management into their lending methodologies, using screening techniques, co-guarantees, and other mechanisms to reduce the likelihood of delinquency and default. Lower delinquency rates elevate loan staff's efficiency and productivity by reducing their time spent on collection and increasing time to work with potential and existing customers. MFIs should evaluate their procedures and information flow to see whether some "re-engineering" (i.e. systemic alterations) could result in operational improvements and enhanced quality control.

2. Incorporate risk management into process and systems design.

An important principle for integrating risk management into the MFI's daily operations is through the use of internal controls, such as the segregation of duties and functions. By segregating duties, the MFI can prevent conflicts of interest and reduce risk. A lack of segregation of duties, for example between cash transactions and recording or between cash authorizations and disbursement, creates opportunities for fraud and collusion among staff. After incorporating internal controls, the MFI conducts independent checks and reviews to ensure that the system works correctly.

Another common sense principle is to minimize the frequency and scale of risk. For example, the floor plan of BRAC Bank's new branch office gives the branch manager a direct view (through a glass window) of the tellers and customers they are serving. BRAC expects this will limit the risk of absenteeism, reduce the frequency of mistakes, and minimize fraud. In addition, the floor layout will facilitate better customer service, since the manager will be monitoring customer reactions and waiting times.

A risk management framework is a tool for managers that helps to manage their risk. It should be simple and clear, comprising a short list of key ratios or figures. Tools should ease, and not complicate, the burden of already over-stretched managers. Effective tools should facilitate the manager's ability to think about risk and to respond quickly and appropriately. Complicated systems breed resistance and are less useful. Once managers commit to risk management and see the benefits of using these tools, the MFI can introduce a more detailed process for managing risks.

3. Keep it simple and easy to understand.

Employees at all levels of an MFI can play a role in risk identification and mitigation, from the data processor, to the loan officer, to the human resource trainer.

4. Involve all levels of staff.

Risk management should be a part of all line managers' jobs, not strictly a function of the internal audit department. A centralized risk control function can only succeed if the operational staff is supportive of risk management and perceives its value to the MFI. By involving staff in the risk management design process, the MFI will naturally build employee support or "buy-in" and increase their motivation to participate. Many process design improvements can come from staff suggestions and observations, so the MFI should encourage and reward ideas and input from all levels of the institution.

5. Align risk management goals with the performance incentives of individuals.

MFIs can further reinforce a risk management culture by building risk management into the employees' goals and performance incentives. For example, rather than reward loan officers simply for volume of disbursements, MFIs can reward staff based on a combination of loan disbursements, delinquency below a certain threshold and repayment rates within a certain range.

Senior managers must also have well-designed performance incentives that incorporate the MFI's risk management goals. The alignment of performance objectives and incentives among investors, board members, management and staff is critical to effective and efficient strategy and execution.

6. Address the most important risks first.

When beginning the risk assessment process, it is daunting to take on all risks at the same time. MFIs should prioritize risks according to those that have the most severe potential outcomes and those that have a high probability of occurrence. A simple risk management matrix, such as the one shown in Table 3 of Chapter 3, can be used to identify and assess the most critical risk areas based on relative probability and impact on the organization.

Using the information contained in a risk management chart or matrix, the MFI sets priorities for controlling the myriad of risks the organization faces, focusing on those that have potentially severe outcomes for the MFI. A relatively high risk of occurrence for a low-impact outcome usually does not justify a large cost to control that risk. However, certain risks that can jeopardize the financial viability of the MFI, however unlikely, require a conscious strategy. Comprehensiveness and timeliness of information provided to management and boards of financial institutions are critical for risk management. Managing risk is costly in terms of money, time and effort, so the MFI should be sure that the return on its investment is high.

Once the MFI has identified the priority risks, it should then focus on solutions. MFIs should focus on areas where interventions will have the greatest leverage, i.e. the most impact for the least cost. For example, an investment in a better management information system will usually have a major impact on managing several key risks. The quality, comprehensiveness and timeliness of information provided to management and boards of financial institutions are critical for risk management. Since managing risk is costly, the MFI should ensure that the long-term return on its investment merits the costs.

4. Implementing Risk Management

MFIs must assign operational accountability for monitoring and managing risk on a daily basis, as well as senior level accountability for oversight of specific risks. Senior management and the board share the responsibility for the MFI's overall risk management strategy. To ensure they receive useful and relevant information on a timely basis, the MFI charges specific staff members with the responsibility for collecting and reporting information.

As highlighted in the risk management feedback loop in **Figure 1** of Chapter 3, good management reporting is essential to risk management. Without good information, directors and management cannot assess whether current risk management strategies and tools are working effectively, or whether new risks have appeared that require immediate attention. Every level of the MFI requires some regular management reports to monitor operations. The information contained in those reports should be compiled and condensed into summary reports for the board and management. By including ratio and trend analysis, summary reports facilitate the board and management's ability to quickly identify issues and allows them to "manage by exception."

Directors and senior managers need to think about what information they need, how often they need it, and in what detail. While absolute numbers are helpful, the ratios indicating monthly trends in growth, clients, portfolio status, funds management, and financial performance are most important for detecting changes and potential problems.

Management and directors must focus on the key performance indicators they need on a regular basis and then direct staff to implement the systems to provide that information. In developing systems, MFIs should attempt to streamline reporting so that the board and senior management are not overwhelmed with too much information, but have access to the core information they need to monitor the institution's health and to make decisions. As described in **Box 9**, the one-page reporting system used by ASA in Bangladesh demonstrates the importance of tracking only key performance indicators to reduce the risk of information overload and poor decision making by management.

7. Assign responsibilities and set monitoring schedule.

8. Design informative management reporting to board.

Box 9: ASA's One Page Report on Performance Indicators

The Association for Social Advancement (ASA), a leading microfinance NGO in Bangladesh, is known for its efficient microfinance operations. ASA demonstrates its commitment to efficiency by integrating it into all levels of the institution, including its MIS and reporting systems. To improve efficiency in management decision making and to reduce the risk of information overload, ASA recently streamlined its management information processing and condensed reporting on performance indicators from units to headquarters into a one-page, user-friendly report. Regional managers are responsible for collecting the following information from unit offices, compiling it and reporting to headquarters on a monthly basis:

Savings activity:

1. Number of groups
2. Number of members
3. Number of savers
4. Amount of savings deposits
5. Savings withdrawals and (number and amount)
6. Interest paid on savings
7. Net savings at the end of the month.

Lending activity:

1. Number and amount of loans disbursed
2. Loan repayments due
3. Actual payments collected
4. Past due loans (number and amount)
5. Outstanding loans (number amount)

Additional operational activities:

1. Funds received and transfers
2. Other receipts and payments
3. Insurance premiums received and payments
4. Financial costs
5. Operating costs
6. Opening and closing balance sheet
7. Future cash-flow projections.

ASA's senior management uses this information to analyze the units' progress toward their six-month operational plans. This information is adequate for senior management to track changes in member enrollment and dropout, monitor savings and lending activities, and to assess the overall financial health of the MFI. If negative trends are identified, management can quickly recognize them and focus its energy on conducting additional analysis of the specific problem areas. ASA provides an excellent example of a reporting system that uses a minimum number of indicators and yet provides satisfactory results.

4. Implementing Risk Management

In addition to the *ex-ante* checks and balances in process design, *ex-post* internal controls provide a warning system for existing problems that require closer investigation. Results of the *ex-post* evaluation, also known as the *internal audit*, support future risk management planning. The GTZ/MicroFinance Network's technical guide, *Improving Internal Controls*, offers detailed guidelines on how to develop and implement effective internal controls.³³ Several of those principles are worth emphasizing.

9. *Develop effective mechanisms to evaluate internal controls.*

Every MFI should have some form of internal audit, with the level of formality and complexity appropriate to the size and complexity of the MFI. Internal audit functions take various forms, from management spot checks, in which an operational manager is assigned specific audit duties, to an entirely separate department. Larger and regulated MFIs often have a permanent *internal audit department*. In many countries, such as Bolivia, an MFI cannot get a license to accept deposits without establishing an internal audit department. **Box 10** describes Cash Bank's unique approach to internal audit in South Africa.

Box 10: Cash Bank's Version of an Internal Audit Function³⁴

The Chief Executive of Cash Bank in South Africa created an *independent business information division*, which reports directly to her. This division produces both standard and 'special' reports and analyses, and is an in-house 'check and validation' center on both external markets and internal operations. The members of the division staff analyze the database and come up with their own recommendations on risks, what is working and what is not. Senior managers are thus assured of receiving information from a source within the organization that has no vested interests (e.g. has no incentive to make market or credit analysis appear better than they really are).

A well-designed internal audit function is essential for verifying that policies and procedures that support risk management are being followed and are yielding the desired outcomes. The internal audit should assess the reliability and completeness of financial and management information, and monitor compliance with applicable laws and regulations as well as internal company policies and procedures. If the MFI's resources are limited, it is usually preferable to conduct a thorough evaluation of a few branches rather than a superficial audit of all the branches. However, all MFIs should incorporate *client visits* into their internal audit functions. Client visits entail an internal auditor or employee other than the loan officer going out to meet with clients to verify the balances and transactions associated with their savings and loan accounts. An internal audit is incomplete without the use of visits to reconcile clients' records with those of the MFI. It is only by conducting client visits that MFIs can uncover most types of fraud.

³³Campion, 2000.

³⁴ Interview with Christine Glover, Cash Bank, February 2000.

When integrated with risk management, internal audits can also determine whether the risks to the MFI are identified and minimized, whether resources are used efficiently and economically, and whether the organization's objectives are being met. To be most effective, internal auditors should report directly to the board of directors. Through field and client visits, internal auditors are the independent "eyes and ears" of management that assure risk management strategies are working effectively.

External audits provide an independent assessment that the financial statements fairly reflect the state of the business. Most external auditors conduct a surface review of operations and therefore do not help to identify fraud. However, if contracted correctly, they can provide valuable insight into an MFI's operations. Because many MFIs are weak in the area of internal controls and risk management, external audit firms can help fill this gap. External audits by a knowledgeable and helpful auditor can offer an excellent learning opportunity for an MFI, especially if it contracts auditors to focus on particular issues (e.g. internal controls in cash management). **Table 7** highlights common terms of reference MFIs use to contract external auditors.³⁵ CGAP's *External Audits of Microfinance Institutions: A Handbook* emphasizes the importance of contracting credible third parties to conduct these checks and balances (i.e. external audits). Too often, MFIs view external audits as mandatory obligations for outside investors or funders rather than prudent risk management tools for the board and senior management.

MFIs can contract external auditors, often for little additional cost, to identify functions and procedures that need to be strengthened in the institution. External auditors can help senior managers evaluate the work done by their administrative officers, especially in the absence of a strong internal audit department. Finally, MFIs can ask external auditors to conduct specific audits to help senior managers become more aware of risks present in the organization. These specific requests, which are outside the scope of the traditional financial audit, can include reviews of the loan portfolio and management information systems or an evaluation of the MFI's internal controls. These types of special audits can be particularly helpful to MFIs that are experiencing rapid growth or that have recently introduced new systems or products.

³⁵ Terms of reference describe the scope of work the institution contracts the auditor to perform.

Table 7: Terms of Reference for a Microfinance External Audit³⁶

Common Terms of Reference for an External Audit:
<ul style="list-style-type: none">➤ Accounting and internal control systems➤ Specific systems such as cash, investment, loan portfolio, and management information systems➤ Potential control weaknesses in areas such as segregation of duties, adherence to policies and procedures, physical security, and/or supervision (particularly at the branch level)

Risk management is a continual process, not a single event. If a homeowner purchases a smoke detector (a risk management control) but does not install it correctly or replace the batteries when needed, the control will not protect the family from loss in the case of a fire. Financial, operational, and strategic risks change constantly in response to changes in competition and the economy. New product introductions or geographic expansions also expose the MFI to new risks that need to be incorporated into the system quickly, ensuring that useful information is generated during the pilot or test period.

10. Manage risk continuously using a risk management feedback loop.

Once an organization has prioritized its risks, it can begin taking small steps to implement changes that improve risk management. Risk management is a continual and iterative process between the board and management, requiring constant improvements, adjustments, and refinements based on the information produced by internal audits and management reports.

4.2 Key Roles and Responsibilities

While it is important that risk management permeate all levels of the MFI, responsibility for the system starts at the top of the organizational hierarchy. The board and management develop the system and set the tone, but other employees also play a part in risk management. When possible, senior management assigns other managers the responsibility for overseeing and managing specific risks.

1. Board of Directors

As summarized in the MicroFinance Network's *Guidelines for the Effective Governance of Microfinance Institutions*, "The board of directors of a microfinance institution has a dual mandate to:

- (1) guide the institution in fulfilling its corporate mission, and
- (2) protect the institution's assets over time."³⁷

³⁶ External Audits of Microfinance: A Handbook, Volume 1, CGAP, 1999.

The board has several distinct responsibilities: strategic direction, management oversight, fiduciary protection of assets, and fulfillment of legal obligations. It meets these obligations through monthly and quarterly meetings and active use of board sub-committees (such as Finance and Audit, Credit Policy, or Human Resources). The board is an important resource to management – it helps to identify potential problems or opportunities, and offers management expertise that complements senior management’s talents and experience.

Management is accountable to the board of directors. In a for-profit corporation, the board is responsible to shareholders and is elected or approved by those owners. A for-profit board helps the MFI achieve its mission with strong consideration of investor objectives (which ideally are in close alignment with those of management and the board). The board of a not-for-profit MFI (an NGO or public MFI) that does not have “owners” plays an especially important role in protecting the interests of all stakeholders in the institution, including clients, donors, and employees. Because there are no owners to oversee the preservation of capital and assets, that role rests with the board of directors.

Risk management is an important element of the board’s responsibilities.

Risk management is clearly an important element in all of the board’s responsibilities. Risk management is essential for achieving strategic goals, for effective oversight, for fulfilling fiduciary responsibilities (i.e. safeguarding assets), and for meeting legal and regulatory obligations. Risk management transcends these individual areas and is not easily separable into its own category or committee function. It must be part of the culture of the board, just as it must be woven into the cultural fabric of the MFI itself. The finance and audit committees may have specific responsibility for ensuring that risk management steps are implemented.

To fully incorporate the risk management framework into their mandate and strategies for effective governance, the board must fully understand the risks faced by the MFI, the priorities, and the steps involved in the risk management process. The board may require some time for discussion of the risk framework and priorities before it can fully assume its role as the ultimate arbiter of accountability. Over time, directors will be able to refine and focus their information requests to management so that the summary reports provide them with the information they need to know in an easy to comprehend format.

Board responsibilities in risk management.

The specific risk management responsibilities of the board are to:

- ensure that significant risks have been identified;
- confirm that strategies are in place to manage risks, or that there is a plan and timeline for implementing those strategies;

³⁷ Campion and Frankiewicz, *Guidelines for the Effective Governance of Microfinance Institutions*, Occasional Paper No. 3, MicroFinance Network, Washington DC. 1999, p.3.

4. Implementing Risk Management

- review management reports and information from internal and external auditors to determine whether those strategies are working effectively or need to be refined or adjusted;
- hold management accountable for identifying appropriate risks, and for implementing the risk management framework within the institution; and
- employ the risk management feedback loop to continually reassess whether major risks are identified, monitored, and managed adequately.

2. Senior Management: The Risk Management Officer

The managing director or chief executive officer (CEO) is responsible for the MFI's overall risk management system, and therefore usually acts as the "risk management officer." This responsibility is so important and comprehensive that it is difficult to delegate below that level. Since every senior manager has risk management responsibilities within his or her scope of operations, it is difficult to place overall responsibility below the level of CEO. Delegation to a manager with management authority over only part of the MFI's operations can lead to seniority and authority problems among "equals." In a regulated MFI, such delegation would be difficult to justify in the event of a substantial loss or regulatory issue.

The risk management officer is usually the managing director or chief executive officer.

The risk management officer is responsible for developing and maintaining the risk management matrix (as described in **Table 4**), which identifies the major risks, assesses their reasonable probability and severity, and assigns responsibility to a specific individual. The risk management officer periodically reviews whether the same assumptions are still reasonable, whether new risks should be added to the framework (e.g. new product risks or business risks), and whether any significant risks have been overlooked. In addition, the risk management officer is responsible for monitoring whether those assigned risk managers are fulfilling their risk management responsibilities.

3. Specific Risk Managers

For certain risks, MFIs should assign specific managers to oversee them. Risk management should be an explicit part of their line functions (e.g., program, financial, legal, etc.). For example, branch managers are often responsible for managing the credit, operational and fraud risks associated with the branch's loan portfolio. Regulated MFIs often hire treasury managers to oversee the institution's investment portfolio and to manage the institution's overall investment funds risk.

MFIs should assign certain risks or risk components to specific risk managers that fall under their area of supervision.

The MFI should be clear in assigning responsibilities to risk managers. The MFI should not assume that managers understand their role in managing risks simply because they fall under their areas of supervision, but should clearly state the expectations and limitations of their risk management responsibilities. In most cases, risk managers report to both the senior operating manager and to the risk management officer. This reinforces that risk management is part of operations and gives authority to the risk management officer.

Each risk manager should be held accountable for his or her part of the MFI's program for monitoring and managing that specific assigned risk. The risk manager should create an action plan and timetable for designing and implementing risk management strategies, including the controls and reporting that will be used to assess their effectiveness. The risk management officer should approve the action plan and monitor the risk manager's progress toward stated objectives.

It is a challenge for boards and managing directors of MFIs to cultivate a pro-active risk management style. If both parties are comfortable with the status quo, neither will ask the tough questions that are in the best interests of the MFI. The board has the power and obligation to oversee management and to replace the managing director if he or she does not act in support of the MFI's objectives.

While many MFIs already incorporate several of the elements of risk management, few have a framework for systematically integrating risk management into the institutional culture and at all levels of operation. MFIs can apply the framework presented in this publication and implement a risk management feedback loop to ensure that major risks are consciously and proactively managed and that the board, management and line staff all play an active role in this process. Any MFI should be able to use the information provided in this publication to improve their chances of long-term survival. However, a few obstacles remain that hinder the micro-finance industry from maximizing its risk management potential. These are the subject of the final chapter.

5. Obstacles to Risk Management

There are several reasons that microfinance institutions have not thoroughly integrated risk management into their culture and operations. The primary reason has been a lack of a framework and understanding of the need to do so, which this publication works to overcome. However, several obstacles remain that impede the microfinance industry's ability to maximize its risk management potential. This chapter addresses the remaining obstacles to effective risk management on both an institutional and industry level and discusses some of the resources needed to overcome them.

Successful microfinance institutions often become over-confident of their future based on their past successes. However, few microfinance institutions have been in existence for more than ten years. This short-time frame is inadequate to assess an MFI's long-term ability to survive and respond appropriately to changing risk environments over time. The Corposol/Finansol crisis is already one example of overconfidence impeding an MFI's effective risk management.

Success breeds over-confidence.

Many MFIs have become leading financial institutions in part because they have faced little or no competition. As competition increases and time passes, some MFIs will inevitably flounder and lessons will emerge that will emphasize to MFIs the importance of proactive risk management. Lessons are already emerging from the competitive microfinance environment in Bolivia.³⁸

Despite short-term successes, MFIs need to prepare for worst case scenarios, such as a downturn in the world economy, MFIs should use sensitivity analysis to determine how the institution would fare in face of unforeseen risks, given its current structure and controls, and implement additional measures to ensure its survival.

Few MFIs employ a comprehensive approach to risk management, seldom integrating risk management strategies in all areas of operations and in the organizational culture. This publication should help to convince MFIs of the importance of institutionalized risk management, but it is up to the institution to create the links between the various levels of operations and lines of authority.

MFIs lack institutional commitment.

Since effective risk management begins at the top of the organizational chart, the board must play an active role in communicating the importance of risk management to the rest of the institution. Therefore, the real starting point for effective risk management is for the MFI to have an active and effective board of directors. The MicroFinance Network's *Guidelines for Effective Governance of Microfinance Institutions* guides MFIs in the development of more active and effective board members. Then, the board must ensure the senior management's commitment to the risk management process. In MFIs with less effective boards, senior manage-

³⁸ See *Microfinance Enters the Marketplace*, by Elizabeth Rhyne and Robert Christen, USAID, 1999.

ment might have to take the lead in developing board commitment to risk management

One of the most effective ways to integrate risk management at the operational level is to create employee and management incentive systems that tie effective risk management into job performance and employee compensation. In addition, management can solicit information from employees and clients about the effectiveness of current risk management strategies and ideas for additional controls and strategies to monitor and mitigate risk.

Donors encourage MFIs to take on new risks.

Donors are seeking to support new initiatives and are pushing MFIs to reach further down market to reach lower income and rural borrowers and to create new products to accommodate a wider client base. These initiatives represent high risks since they are new to microfinance institutions and have been unexplored by the financial service sector. By encouraging this risk taking, donors are possibly increasing the risk profile of microfinance institutions before they have had enough time to fully develop their traditional financial services and to become experts at what they do. Simultaneously, donors are shifting funding support away from traditional microfinance support, abandoning the many MFIs that have not yet had time to reach full self-sufficiency.

Instead of encouraging all MFIs to enter new niches and explore new products, donors should focus their efforts on those institutions that have demonstrated effective risk management strategies in the provision of traditional microfinance services. Donors should promote effective risk management in microfinance NGOs by supporting their development of more effective systems and procedures to manage risks, such as the implementation of an enhanced management information system or the start-up of an internal audit department. Furthermore, donors should support research and training efforts that address risk management topics and ensure that they are discussed in a comprehensive format rather than in isolation.

Regulators overlook the distinctions of microfinance.

While regulators increasingly apply a risk management approach to regulation and supervision of financial institutions, few understand how risk management of MFIs is different from that of traditional financial institutions. In some cases, regulators will need to apply more conservative policies to microfinance institutions. For example, given the shorter-term nature of microfinance loans, more aggressive provisioning policies are usually necessary.³⁹ In other cases, regulators should adjust their policies to better fit the realities of MFIs. In the risk weighting of assets, for example, regulators should factor in the effectiveness of collateral substitutes to mitigate credit risk based on the portfolio's overall performance.

Leading microfinance institutions, donors, and practitioner networks can all play a role in helping to educate and inform regulatory authorities on the appropriate

³⁹ Shari Berenbach and Craig Churchill, Regulation and Supervision of Microfinance Institution: Experience from Latin America, Africa and Asia, MicroFinance Network, 1997, p.65.

ways to measure and monitor microfinance risks. By including regulators in discussion forums, inviting them to conferences and sending them the latest research findings, microfinance practitioners can work to improve regulators' knowledge and understanding of MFIs and will simultaneously gain an understanding of their perspectives and limitations.

The importance of risk management is gaining recognition in the microfinance arena. Donors, regulators, technical assistance providers and practitioner networks can all promote the concepts of risk management, but it is up to board of directors and managers of microfinance institutions to take the necessary steps to implement effective risk management strategies. This publication offers the initial framework from which MFIs can begin to build a risk management foundation that is solid yet dynamic and responsive in an ever changing risk environment. By proactively taking on risks, MFIs can continue to advance the frontier and provide a wider range of services to a larger number of low-income clients around the world.

6. Suggested Resources

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