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Basic Financial Management and Ratio Analysis for MFIs Toolkit

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Menonite Economic Development Associates

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A learning toolkit is never “final” as new techniques, tools and resources become available and are shared with one another. Participant feedback and comments will assist to continually improve this toolkit and its resources.

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Introduction

“Isn’t the repayment rate the most important ratio I need to know?”

“My MIS generates the ratios that I need! Why do I want to know more?”



Do these comments and questions sound familiar? Microfinance ratios often include a few popular ratios like the repayment rate, the operating self-sufficiency and the portfolio at risk. In general, they speak to the ratios that are commonly looked at as benchmarks in the early days of an institution.

Other MFI managers may rely on their Management Information System that automatically produces ratios with information from financial statements and the portfolio loan tracking system. In general, they might understand what numbers and analysis is taking place, but the primary objective of producing ratios may be for reporting purposes rather than management purposes.

This toolkit provides an overview of basic accounting principles and systems in order for managers to understand the foundation of financial information used for financial management and ratio analysis. **MFI stakeholders expect MFI senior managers to ensure that strong and adequate financial systems are in place in the MFI. Therefore, it is essential that MFI managers have a solid understanding and appreciation of the accounting system.**

This toolkit also discusses the commonly accepted ratios for microfinance analysis within four broad categories: sustainability and profitability, portfolio quality, asset and liability management, and efficiency and productivity. The purpose of ratio analysis is often for external reporting and comparison with other MFIs. This toolkit will focus on **operational analysis and performance management.**

There is an internationally accepted “standard” of ratios and indicators for microfinance analysis. In recent years, donors, raters, investors and practitioners have come to consensus around common financial definitions, and basic indicators that are used for MFI reporting, performance measurement and analysis around the world. A recent publication includes the CGAP “Microfinance Consensus Guidelines: Definition of Selected Terms, ratios and Adjustments for Microfinance,” September 2003.¹ As a result of that work, a 2005 publication was released and is recommended as a companion guide to this toolkit, “Measuring Performance of Microfinance Institutions: A Framework for Reporting, Analysis and Monitoring.”² It is available online without charge at www.seepnetwork.org/frame. A free download of the FRAME, an excel-based monitoring tool is also available.



While there are many other ratios and tools used in microfinance, this toolkit will focus on International Accounting Standards, International Financial Reporting Standards and generally accepted international performance ratios for microfinance. References to the Indian sector will be made from time to time as appropriate. MFIs should also consult with the regulatory bodies to determine if additional financial or ratio reporting is required of the firm, specifically the Reserve Bank of India and the appropriate Companies Division.

¹ www.cgap.org

² www.seepnetwork.org

1. Accounting Overview

Accounting is one of the key cornerstones of good information systems in microfinance institutions. A good accounting system produces accurate, relevant and timely reports and enables meaningful analysis and monitoring of operations. It is also important that your MFI employs qualified and trained staff to carry out accounting responsibilities. Bookkeepers or data entry staff record financial transactions and activities, and must know how to do that correctly. Accountants verify, reconcile and produce financial statements supported by accompanying schedules, and must know how to do that well. Financial managers and CEOs of MFIs must be able to understand financial information, analyze performance, and make the necessary decisions to improve and strengthen the institution.

The *MicroSave* toolkit “Basic Financial and Accounting Systems for MFIs” (Dueck Mbeba 2008) provides tools and resources designed to provide MFI and Self Help Groups the core components of basic accounting systems needed to record, classify and summarize financial transactions and to produce meaningful, timely and accurate financial statements and reports. Key practical aspects of accounting for microfinance institutions are highlighted in that toolkit.

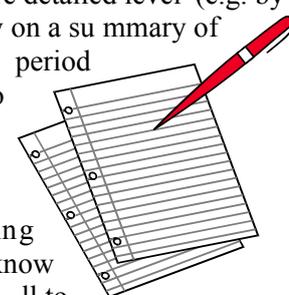
What is Accounting?

- Is the process of recording, classifying, and summarizing economic events, that
- Leads to the preparation of financial statements, and
- Provides essential information that allows the manager to choose actions that will redirect the enterprise’s activities to be more consistent with the mission and objectives of the business plan

Accounting is often referred to as “the language of business” and like any other language, it has its own unique structure and vocabulary. Since accounting terms like assets, revenue, expenses and cash flow are used regularly, it is important that managers and those making business decisions understand basic accounting concepts. These concepts form the basis of accounting and financial management.

Accounting falls into two broad categories: financial accounting and management accounting. Financial accounting is concerned with recording, organizing and summarizing the financial results of past operations. Financial accounting reports are generally prepared on a monthly basis for internal and external purposes. The annual financial statements are subject to an independent auditor’s opinion to verify the fairness and reasonableness of information presented. External audits are required by statutory regulation for MFIs, but they can also fulfil many other management and Board objectives, such as an independent and external review of systems, recommendations for improvements in the management letter, and investor requests, among others.

Management accounting information is tracked and presented at a much more detailed level (e.g. by activity, or by Branch or department). Management reports focus not simply on a summary of financial transactions, but on future projections, budgets, and previous period historical reports. Management reports are flexible, change as needed, and do not conform to any external standard, because they are for internal management analysis and decision making only.



Not everyone in your MFI needs to understand all the details of its accounting system like the bookkeeper and the accountant. However, managers need to know how to interpret the information that accounting provides. It is helpful for all to understand the conventions or guidelines that form the base of the accounting system.

A strong, effective accounting system – including a loan and saving tracking system – is an essential foundation for reporting and analysis of your MFI’s performance. Without a good accounting system, your reports are not necessarily reliable. And without reliable reports, you as an MFI manager are not able to confidently understand financial reports or make reliable judgement or decisions to improve and strengthen performance.

Accounting Conventions or Guidelines

Accounting practice is based on commonly accepted “conventions” or “guidelines” that guide policies and accounting treatment of transactions.

Accounting practice and reporting standards vary from country to country. It is recommended that MFI managers consult with local accountants, regulatory bodies and microfinance networks in order to learn about and take local issues into consideration when developing their own accounting policies and procedures. There is a growing trend in the world towards common accounting standards articulated in International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS). National Indian standards may or may not reflect some of the global shifts, and need to be reviewed from time to time to see how standards continue to evolve.³

Generally Accepted Accounting Principles (GAAP) in India are sourced in the following:

- a. Accounting standards, guidance notes and other pronouncement of the Institute of Chartered Accountants of India,
- b. Companies Act, 1956, Legal Decisions by Indian courts
- c. Any central, state, provincial act or special act by the parliament (such as Reserve Bank of India Act 1934)

Reporting obligations may also vary according to the legal act governing the type of your MFI’s registration. If your MFI is subject to central bank registration, there will be specific accounting and reporting obligations and expectations that demand compliance. However, this toolkit will assume a “standardized” reporting definitions and formats for analytical and comparative purposes within the sector. The following are commonly accepted accounting conventions or guidelines.

a. Business Entity Concept: Every business is a separate entity, distinct from its owner and from every other business. Therefore, the records and reports of a business should not include the personal transactions or assets of either its owner(s) or those of another business.



A retired banker decided to open a community microfinance organisation in the rural centre to which he retired after 35 years of banking sector experience. He invested his own severance package as start up capital, and launched operations. He would withdraw funds from the organisation for personal use when needed, recording the withdrawals against his original investment. Occasionally he also invested the surpluses of a small business that he also initiated in his retirement. Needless to say, the annual auditors were not impressed with the retired banker’s approach to the MFI’s cash resources. They felt that the retired banker did not segregate his personal transactions from the MFI’s transactions.

b. Fair Value vs. Historical Cost Principle: General past practice has been to record assets at their actual, historical cost. This is still the practice at the time of purchasing and recording the asset.

³ Accounting and auditing firms may be able to provide resources, for example, “Accounting Standards and Guidelines for Micro-Finance Institutions in India” (V. Nagarajan & Co).

However, over time, the historical cost might be much less than the cost to replace the asset today (e.g. A computer, a vehicle) OR a lot less than which the asset could be sold for (e.g. land, a building).

Note: International Accounting Standards and International Financial Reporting Standards recommend revaluing assets from their historical cost to reflect current values as necessary in International Accounting Standard 16. The Institute of Chartered Accountants in India recommends the revaluation of fixed assets for MFIs as well in Accounting Standard 10.



The same MFI purchased an office building for a deal at 1,00,000 Rs in 2000. Five years later, the area was targeted for intensive business development, and new commercial construction boomed. The value of the MFI office building increased 5 times to 5,00,000 Rs. What is the effect on the MFI's financial statements? Under the historical cost convention? None. However, under fair value accounting, the building should be re-valued in the accounting records from its historical cost to the current market price.

c. Going Concern Concept: The records and balance sheet of an organisation and a business is developed with the assumption that the business will continue to operate indefinitely, and that the assets used in conducting business and operations will not be sold, and the liabilities will be paid as recorded.

In 2006, the auditors noted that cash flow in the community MFI was increasingly very, very difficult. A large, national MFI had opened a Branch in the community in 2005 and offered more efficient service, and better interest rates. Although not regulated, the community group did offer savings services to its clients, but clients complained about the time to withdraw funds, and how at times, funds were not available. The auditors began to evaluate whether the community based group might actually be able to operate with its cash flow problems and competition for qualified staff.



d. Consistency Principle: Organisations should consistently apply the same accounting principles from period to period. This ensures that reports from various periods may be compared to produce meaningful conclusions on the financial position of the organisation and the results of the operations. Any changes to accounting principles should always be disclosed in the notes to the financial statements. Generally, auditors will restate previous year's figures and adjust them retroactively for comparison purposes.

The community based MFI operated by the retired banker was anxious to present a favourable financial position when presenting his 2005 audited financial statements to the local government office overseeing community activities of this nature. He changed his accounting policy on setting an Allowance for Loan Losses and for depreciation, resulting in a 50,000 Rs profit for the year. However, he failed to disclose the change in the financials presented. The auditor had no choice but to make adjustments and disclosures for the change in accounting policy, highlighting the reasons for changes, and results of changes.



e. Accrual: The accrual or realisation principle requires that revenue be recognised in the accounting period it is earned, and expenses be recognised when they are incurred, rather than when there is payment or collection of cash. (Recent changes to International Accounting Standards include special rules for recording certain revenues, distinguishing recognition from realisation of revenue, dependent on the substance and the circumstances of transactions).

MFIs choose either a cash basis of accounting or an accrual basis of accounting. The community microfinance group managed by the banker operated on a cash basis. In late 2003, they group received 2,00,000 Rs donation from an international donor. However, the funds were not spent until the following year, so the 2003 December year end reflected a very large surplus. The funds were spent in 2004, resulting in a very large loss for the year. Accrual accounting would have recorded the revenues when recorded and recognized when spent for the expenses intended.



f. Matching Principle: Organisations incur expenses to earn revenues. Expenses should be reported on the Income Statement during the same period as the revenues generated as a result of incurring those expenses.

Accrual accounting would imply that the grant expenses for the approved grant would be “matched” by the related grant revenue in the same period. Revenue would be recorded and recognised as spent for the objectives of the grant agreement.



The community MFI purchases insurance on its fixed assets at the beginning of each fiscal year, in effect pre-paying a year’s insurance in advance. The payment is charged to prepaid insurance, and amortised monthly in order to match the expenses to the revenue generated in the same period.

g. Conservatism and Prudence: When presented with a choice, accountants should choose procedures and methods of recording transactions that ensures that assets, revenues and gains are not OVERSTATED, and that liabilities, expenses and losses are not UNDERSTATED. This principle is intended to result in the fair presentation of information.

The local government body governing microfinance institutions in the area required that at a minimum all MFIs allocate 2% of their total portfolio as the Allowance for Loan Losses. However, the actual portfolio quality of the community based microfinance group was very poor, with delinquency as high as 20% in some months. In fact a 2 % Allowance for Loan Losses was definitely inadequate to cover the actual losses that were more realistically expected. The community MFI kept the low allowance in an effort to make the organisation look stronger than it actually was. Assets were OVERSTATED as a result, and expenses UNDERSTATED, presenting an unfair picture of the MFI’s financial health.



h. Substance over form implies that the accounting treatment and presentation of transactions should be governed by their substance and not merely by their legal form. This has further application for more advanced accounting topics and for specific issues related to amalgamations, special agency relationships or sophisticated investment vehicles.

i. Materiality implies that financial statements should disclose all items which might influence the decisions of the users of financial statements if they had knowledge of the same. Disclosure, notes to the financial statements and errors or misstatements in the financial statements all affect the issue of materiality. Materiality is in itself relative and subjective, as the size and volume of MFIs differs greatly, and therefore levels of materiality or immateriality will also vary greatly.

j. Double-Entry Accounting

- Any given transaction will affect a minimum of two accounts within assets, liabilities, or equity.



- If the accounting equation is to remain in balance, any change in the assets must be accompanied by an equal change in the liabilities or equity, or by an equal but opposite change (increase or decrease) in another asset account.

Figure 1.1: Accounting Debits and Credits

Account	Debit	Credit
Assets	Increase	Decrease
Liabilities	Decrease	Increase
Equity	Decrease	Increase
Revenue	Decrease	Increase
Expenses	Increase	Decrease

The basic accounting equation is as follows:

$$\text{Assets} = \text{Liabilities} + \text{Equity (Revenue - Expenses)}$$

As in any mathematical or algebraic equation, this above equation can also be expressed as follows:

$$\text{Liabilities} - \text{Assets} = \text{Equity}$$

OR

$$\text{Equity} = \text{Assets} - \text{Liabilities}$$

At the end of the reporting period, revenue and expense accounts are netted out to result in a final profit or loss. This profit or loss is then transferred to the Balance Sheet as equity, thereby ensuring that the Balance sheet balances. Within the equity section of the Balance Sheet, most MFIs and organisations create and operate several funds, reserves or restricted reserves for specified purposes.

Micro-Finance Accounting and Management Information Systems

The basic components of an accounting system are fairly universal and applicable to all organisations. Source documents form the basis of all transactions. A Chart of Accounts is a numbered system that is structured to classify and organise transactions by account. The journals – cash journals, general journals, or bank journals record each and every transactions or adjustment. They are summarised monthly, cross-totalled and posted to the general ledger. The general ledger holds a record for each account in the Chart of Accounts. It accumulates the totals posted from the journals to provide monthly and annual revenue and expenses for reporting periods. It accumulates all the accounts of the Balance Sheet.

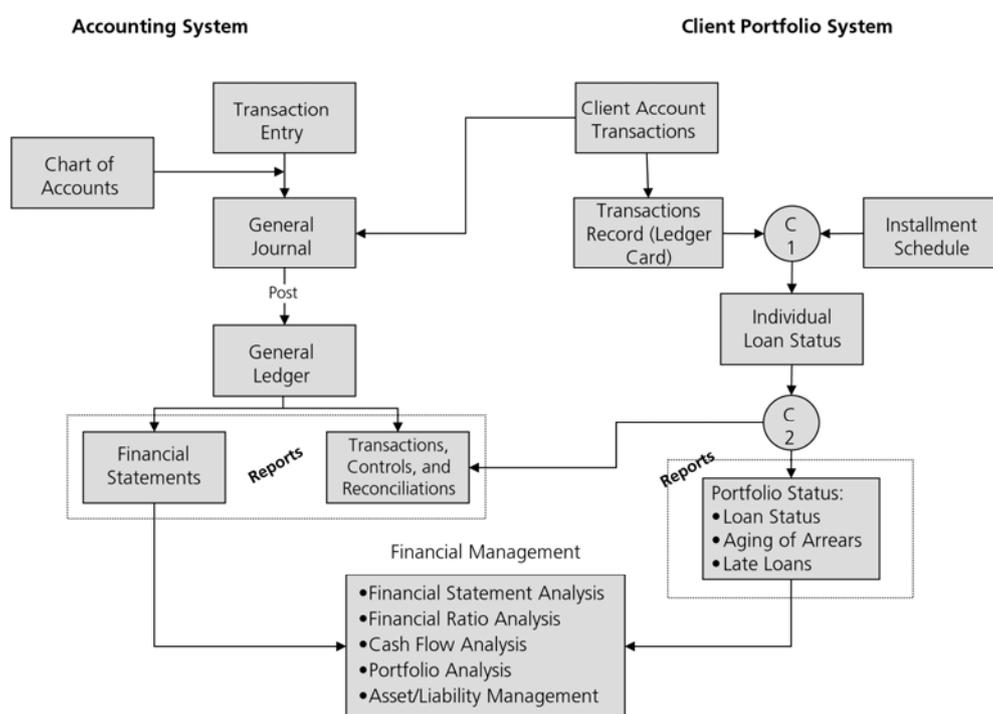
These accounting records and processes form the basis of all accounting systems. Most MFIs choose computerised accounting packages that perform many of these accounting functions automatically, for example, posting to various general ledger accounts and producing financial statements.

The following diagram illustrates a “generic” financial management information system in a microfinance institution, whether its clients are individuals, Self Help Groups, Solidarity Groups, or Joint Liability Groups, and regardless of its legal structure or registration. The accounting system follows the usual flow from transaction to the preparation of financial statements.

One of the most distinctive aspects of the accounting system for microfinance institutions is that financial and operational activity must be tracked by Branch. Loan information should also be tracked by Credit Officer, by product and by area if needed. This is critical for internal management and monitoring.

Another distinctive aspect of accounting for MFIs is that the loan tracking system for client transactions acts as a subsidiary ledger. Client transactions must be entered into both systems, but can be summarised in the accounting general ledger. Some loan tracking systems are manual, but it is a huge challenge to handle a large number of clients, produce reports and age loans with great efficiency in a manual system. Most MFIs prefer automated systems, particularly loan tracking systems that are integrated with, and linked to a general ledger. The following diagram shows the connection between the two systems.

Figure 1.2: Accounting System and Client Portfolio System (MIS) Microfinance



The MFI financial management systems illustrated does not operate in a vacuum. There are four distinct areas that guide and govern a well-managed and effective financial system.

The Chart of Accounts

The accounting system depends upon the structure of the chart of accounts. The design of the chart of accounts is a fundamental decision for every institution. It reflects the type of information desired from the system and provides a structure to do so.

It is the foundation for recording transactions into the general ledger and for presenting the accounts in the financial statements.

Using a well-designed chart of accounts structure will:

- provide a clear method to account for separate parts of the MFI
- follow cost accounting and fund accounting principles, e.g. for Branch activity
- provide a simple way of adding accounts and therefore allow for growth, and
- provide flexibility to adjust accounts to the individual needs of the institution.

A detailed Chart of Account structure should allow activity to be tracked by branch, by donor (account fund), by function (operating expenses or non-operating expenses), and by area responsibility. Management must decide the level of detail desired in the chart of accounts. Too much detail can be time-consuming, and provide irrelevant information. Too little detail does not provide enough information to make good management decisions or financial projections.

The Chart of Account structure will depend on whether the MFI's accounting is centralised at Head Office through one general ledger with multiple departments for Branches, or through de-centralised accounting with multiple general ledgers that produce separate financial statements that can be consolidated.

The structure described here is a multi-digit number with two or more separators: ABCC- DD-EE. Additional separators may be added if needed.

Figure 1.3: Sample Chart of Account Structure

A	The first digit indicates the type of account	1000 Assets 2000 Liabilities 3000 Equity 4000 Income 5000 Expenses 6000 Non-operating income & expenses
B	The second digit indicates a group of accounts with common characteristics	1050 Cash 1100 Funds Advanced to Branches 1200 Loan Portfolio 1300 Allowance for Loan Losses 1400 Interest Receivables 1500 Other Receivables 1600 Prepaid Expenses 1800 Fixed Assets 1900 Other Assets
CC	The next two digits indicate specific accounts within the group	1005 Cash on Hand 1010 Cash in Bank
D	Number for Branches or non-microfinance activities	-00 Head Office -01 Branch One -02 Branch Two -03 Branch Three
EEE	Donor/Investor	00 Unrestricted 01 Donor #1 02 Donor #2

How would it work in practice? Here are some examples:

Example 1: If 1010 is Cash in Bank, then

1010-00-00 is the balance of cash held in the head office bank account and it is unrestricted

1010-02-00 is the balance of cash held in the Branch Two bank account and it is also unrestricted

Example 2: If 4010 is the interest income from regular loans, then

4010-01-06 is the interest income from loans from Branch 1 for donor number 6.

4010-03-00 is the interest income from loans from Branch 3 from the MFI's own funds.

Maintaining the Chart of Accounts

The chart of accounts is not a static document. It needs to be reviewed and revised on a regular basis as needs dictate. The Head Office Finance Manager, in consultation with the Executive Director, is generally responsible to maintain the chart of accounts for both the Head Office and the Branch Offices, and to ensure that all accounting staff throughout the institution knows which account numbers they should be using.

From time to time it may be necessary to add accounts to the chart. If the MFI receives additional operating grants or loan capital from a new donor, and is required to report to the donor for those specific activities, it is useful to open accounts with the appropriate donor code. If the MFI expands to a new Branch, accounts need to be opened to handle all the standard financial activities of the branch. If the MFI expands to offer another loan product, an account should be added for the new product in order to track performance of the new product in the financial and management reports.

If the MFI uses an automated general ledger, there may be some additional things to consider for the Chart of Accounts. Accounts need to be set up for Fund Accounting and the potential to post some revenues and expenses to specific capital or equity accounts. Donations and grant equity might also require special treatment. This implies that the capital or equity structure of the automated system needs careful attention on installation and planning. It also needs attention and a clear audit trail when closing year end transactions to the system. If not, most income and expense accounts will be automatically closed to the retained earnings account.



Alternately, the MFI can choose to set up spreadsheets and track the historical grants and donations from various donors outside the accounting system.

Finally, it is worth emphasizing that organisations are strongly encouraged to operate microfinance finances separate from other operational activities that they may also be engaged in. This may in fact be a challenge, since many organisations combine microfinance with other developmental activities, including staffing. This tends to complicate the transparency and clarity of understanding the performance of financial operations, particularly if the organisation struggles with setting up distinct cost centres.

The general practice and accepted guideline in accounting microfinance is to **segregate and report all microfinance activities** separately. This is accomplished most easily by operating a separate general ledger for microfinance, and if needed, consolidate it with other general ledgers of the organisation for consolidated reporting. Other organisations carry one general ledger with separate departments, segregating microfinance activities in this way. While this is a manageable approach for tracking income and expenses, it is usually more challenging to segregate departments by balance sheets. A balance sheet that reflects only microfinance assets and liabilities is very important, as much of the performance and ratio analysis is based on balance sheet information.

The following recommendations are adapted from "Accounting Standards for Micro-Finance Institutions in India" V. Nagarajan & Co. SIDBI Foundation for Micro Credit.



Separate Set of Books to be kept for Micro-Finance Activities:

Accounting standards for microfinance institutions in India have been designed to promote transparency.

- First and foremost, separate accounting books and records must be maintained for microfinance.
- Books of accounts are to be kept on accrual basis and a double entry system of accounting should be followed.
- Loan and savings tracking systems must be maintained, detailing all collections and disbursements from borrowers.
- Transactions with related agencies (Self Help Groups) who the lend to individual borrowers must be detailed
- All revenue and expenditures related to microfinance activities must be properly recorded and disclosed.
- Fixed asset transactions of the microfinance institution must be properly recorded and disclosed.
- Details of loans and advances to employees, directors, trustees or any other person managing the affairs of the MFI must be disclosed.
- Transactions related to other assets and liabilities of the microfinance institution must be properly recorded and disclosed.

Policies and Procedures

A microfinance institution needs clear and comprehensive Board approved accounting policies for its accounting and financial management system. Documented policies and procedures provide guidance and structure to staff, a basis for consistent treatment of financial data, and the foundation for internal control and accountability. Accounting policies should be developed within the context of local accounting standards, and apply best practices in microfinance to the extent possible.

Examples include depreciation policies, write-off policies, loan loss write-offs, loan loss provisions, deferred revenue or expenses, Allowance for Loan Losses policies, accrued interest policies, and at times, reporting formats.

The *MicroSave* toolkit “Basic Financial and Accounting Systems for MFIs” (Dueck Mbeba 2007) includes tools that give examples of what types of topics and items need to be covered in accounting policies. That toolkit also provides explanations and details for various accounting procedures commonly used in microfinance.

Qualified, Trained and Motivated Staff

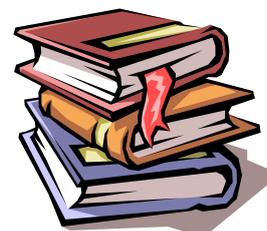
An accounting system is only as good as the accounting staff that use and manage it. It is important that your MFI employs qualified and trained staff to carry out accounting responsibilities. Bookkeepers or data entry staff should record financial transactions and activities, and must know how to do that correctly. Accountants should verify, reconcile and produce financial statements supported by accompanying schedules, and must know how to do that well. MFI Finance Managers and Executive Directors need to understand financial information, verify reports, analyse performance, and make the



necessary decisions to improve and strengthen the institution.

External and Internal Audits

External audits are generally required of most MFIs, if not by the donor, then by local regulating bodies. External audits can be useful in verifying the reasonableness of financial statements, and add credibility to the transparency of your MFI. However, it is not the role of external auditors to maintain an orderly set of financial records, or to be responsible for maintaining strong systems and preventing fraud. This is your responsibility – as the MFI.



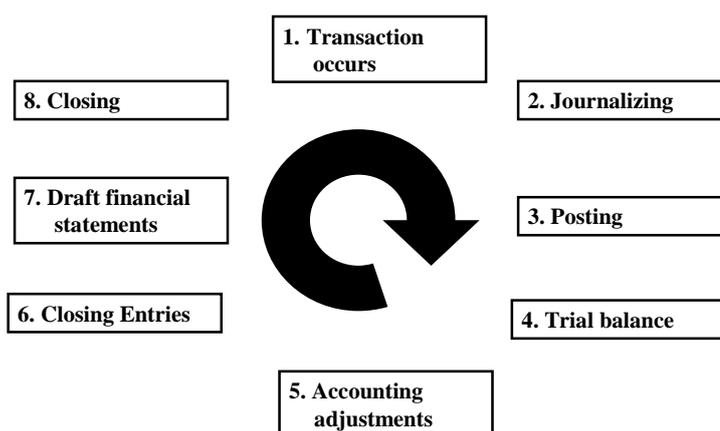
Internal audits can improve a MFIs financial and operating systems; their purpose is to determine whether stated policies and procedures are followed, report any findings to the contrary, identify risks to the institution, and make recommendations to management to minimize those risks. An internal audit function in an MFI greatly strengthens internal control systems, and also gives the external auditor confidence to rely on the financial statements.

The Accounting Cycle

The accounting cycle described here illustrates both automated and manual accounting systems. In an automated system, many of the calculations, posting and account accumulations occur within the software. However, the process is the same as if a manual system were used.

The role of senior management with respect to the accounting cycle is to understand the key processes, key controls in the cycle, hire and supervise qualified and motivated staff, ensure that policies address the areas of identified risk, ensure that policies meet local statutory requirements and that reports provide timely, necessary information needed to manage and guide the institution.

Figure 1.4: Accounting Cycle



The *MicroSave* toolkit “Basic Financial and Accounting Systems for MFI’s” (**Dueck Mbeba** 2007) provides more details and illustrations of the following steps in the accounting cycle.

Transactions

The accounting cycle begins with the source document that verifies, supports and documents the transaction, and its accounting transaction voucher. Financial transactions generally do not occur in a void without any documents. The accounting transaction voucher is the MFI's document that triggers the recording process in the MFI's accounting system. Before being entered, the voucher is drawn up, account codes assigned, calculations checked and managerial approval granted.

Classifying Transactions

The first step in the cycle is to classify the transaction. The Chart of Accounts will provide the proper code to record the transaction in the accounting system.

Journaling

All financial transactions are entered into the accounting system by means of the journals, whether the cash journal, the bank journal or the general journal. The journals act as a daily diary of transactions, listing them in chronological order from the accounting transaction vouchers.

Posting to the General Ledger

- a. Posting is the process of transferring journal entry information from the Journals to the General ledger. The general ledger is a record of every account in the Chart of Accounts. It stores cumulative Balance Sheet amounts, and annual revenue and expenses amounts in those accounts.
- b. In addition, detailed client transactions (not summarised) must be posted to each client account in the subsidiary ledgers (or client accounts, MIS). This includes disbursements, repayments, adjustments (if posting errors), and savings contributions.

Trial Balance

At the end of an accounting period, after all journal entries have been made and posted to the General Ledger, a trial balance is prepared to help in the preparation of the financial statements.



The trial balance is prepared by:

1. Taking the account balances from the General Ledger
2. Listing the accounts having debit balances in one column and those having credit balances in the other column.
3. Ensuring that the total debit and credit columns agree

Reconciliations

Before finalising the trial balance, it is important to make reconciliations of various processes and accounts to ensure good internal control and integrity of the financial data. Reconciliations usually include items like petty cash, bank reconciliations, disbursements (reconciling the general ledger to the MIS), loan repayments (reconciling the general ledger to the MIS) travel advances, accounts payable, and outstanding loan balances (the general ledger to the MIS).

Accounting Adjustments

Accounting adjustments are usually recorded in the general journal, as they often do not involve cash or bank, and if they do, they are to **record corrections**. Accounting adjustments also include **non-cash adjustments or transactions** like the following items: record depreciation, recognise or amortise pre-paid rent, record accrued expenses like interest payable, expenses payable, allowance for

loan losses, write-offs, etc. These are based on the broader accounting policies adopted by the MFI. There may be others as well, and it is the work of accountants to use their professional discretion and local resources to know how to make these entries.

Draft Financial Statements

The Balance Sheet and the Income Statement are prepared by using the information from the trial balance. The Income Statement is often prepared first. The Net Income/(Loss) can then be posted to the Balance Sheet. This acts as a check to ensure that all the numbers have been posted correctly as well. Usually, draft statements are prepared first, allowing Accountants to conduct the necessary reconciliations and make the corrections needed to ensure that information is accurate. Cash Flow statements involve both the Balance Sheet and the Income Statement, and the movements of cash and bank accounts included in the general ledger.

The financial statements are the final tangible output of the accounting system. It is the financial statements – the balance sheet and the income and expense statement -- that provide the heart of financial information needed for financial analysis. Financial statements and portfolio reports allow for the calculation and analysis of financial performance ratios. Financial statements, particularly when compared to budget, or compared to previous periods, become a barometer of measuring change and growth, and performance according to plans.

The presentation of financial statements varies from country to country. The primary issue is that they provide meaningful and easy to understand information. Indian accounting standards for microfinance promote the following qualitative characteristics of MFI financial statements. They are intended to promote industry wide best practices, high quality, and to ensure that all information needs of MFI stakeholders are met – investors, donors, managers, Boards, government agencies and financial partners of MFIs.

- **Clarity and understanding:** the information provided in financial statements should be readily understandable by users. This does not mean that information about intricate matters that is important for decision-making should be excluded merely on the ground that it might be too difficult for certain users to understand.
- **Relevance** (i.e. materiality): Information provided by the financial statements must be relevant to the users of those statements. This implies that MFI financial statements should be structured and produced to be useful and relevant to all stakeholders such as funding agencies, government agencies, etc.
- **Reliability:** To be useful, information and reports must also be reliable. Information has the quality of reliability when it is free from material errors, misstatements and bias and can be depended upon by internal as well as outside users.
- **Comparability:** The financial statement of the microfinance institutions should be drawn based upon principles and policies that are followed consistently and uniformly throughout the institution. This is necessary to make the information generated by the financials comparable over the years, within the same institution, as well across institutions. A common “Chart of Accounts” is meant to meet this purpose. Reports that show actual performance against budget also provide a means to evaluate performance.

2. The Financial Statements and Operational Reports

The purpose of financial management is to maintain financial integrity and high performance levels within the microfinance institution. Financial management helps the organisation evaluate performance, plan, and make decisions. Financial reports allow the manager to sort through all the information generated, and to organise it into a meaningful framework. Financial information is like a map that tells what is actually going on in an MFI and where it is headed.

Who uses Financial Information?

The key stakeholders of the organisation all need access to financial information. Key stakeholders include: MFI credit staff (supervisors and credit officers), Branch managers, the Executive Director, and the Board of Directors. There are also external stakeholders like banks, donors, investors, raters and perhaps also the Central Bank, if the MFI is regulated.

What Financial Information and Reports?

Generally, an MFI's financial status can be determined by three types of financial reports that have their basis in two separate, yet interdependent systems:

- Financial statements (from the accounting system) – the Balance Sheet, the Income and Expense statement
- Cash flow statements (from the accounting system) – Cash Flow Statements; Cash Flow Projections can be prepared from the statements as well in order to plan for smooth operations
- Portfolio reports (from the client portfolio system, essentially the sub-ledger of the accounting system) and operational reports

The Financial Statements

The starting point for sound financial management is the timely and accurate production of financial reports. This is absolutely critical to the health of a microfinance program. If financial records are not produced accurately and punctually, the ratio analysis becomes misleading and unreliable. An MFI should produce financial statements from its accounting system on a monthly basis. Though the particular format varies somewhat from country to country, financial statements include:

- the **Income Statement**, also called Profit and Loss Statement, or Income and Expense Statement, and
- the **Balance Sheet**

Financial Statement formats vary from country to country, and perhaps by legal registration as well. The format is not considered very important in this toolkit – however, it is very important that the financial definitions of terms and ratios remain consistent, and adhere to international sector standards! This is to enable relevant comparisons between MFIs, nationally and internationally. Of course – the basic accounting equation must apply to all balance sheet formats!

The Income and Expense Statement

The primary indicators of an organisation's capacity to generate income are found in its Income Statement. The Income and Expense Statement provides an overview of financial performance and activity over a given period of time, such as a month, quarter or year. While the balance sheet is like a photograph at a point in time, or a “stock” statement, the income statement covers a period of time. It is a “flow” statement. The income statement summarises the total revenue earned in the period and the total expenses incurred in the period. An excess of revenue over expenditure is called a profit or surplus; when expenses are greater than income, the MFI will report a loss or deficit.

Income Statement presentation generally includes two or even more columns of data. It will show the current period's activity, and also a column that shows the past period's activity. Some MFIs show budget columns, percentage of budget, current quarter activity, year to date activity and so on. Information on the Income Statement is normally divided between revenue accounts and expense accounts. It also generally segregates operating from non-operating accounts. Operating accounts relate to the core business of an MFI – its financial service activity. Non-operating accounts include any revenue and expenses from other activities.

Income

Income is what a microfinance organisation *receives* for what it does, provide financial services, including lending money. MFIs also generate income from non-operating activities – such as training, the sale of merchandise or books, and from external sources. Most MFIs generate internal income from their financial service activity. These include:

- interest income
- fees for services
- penalties for late loan payments
- registration and application fees



External income is the amount received as **grants from donors** in support of the MFI. It is generally considered as non-operating activity and reported on separately in the Income and Expense Statement. This enables analysis and performance to be measured on the basis of microfinance activities only.

Expenses

Expenses are costs the MFI must incur to carry out its activities. Expenses are broken down into different categories such as salaries, rent and transportation. Expenses are usually considered *direct* or *indirect*. Direct expenses are those which relate to a particular activity, product or service. For example, salaries for credit officers are the direct expense of the credit department. Indirect expenses, also called overhead, are those expenses which cannot be tied exclusively to a single activity. For example, the salary of the Executive Director is considered overhead when he/she is part of an MFI that has many products and services, and may also provide non-financial services to its clients. Typical expenses for the MFI include:

- financial costs (interest on loans or debt investments, interest paid on deposits or any other client savings)
- provision for loan losses (the estimate of future losses incurred)
- operating expenses (all other expenses incurred in operating the activities of the MFI)

Handout 2.1 Sample Income and Expense Statement illustrates a typical MFI Income and Expense Statement. It is taken from the SEEP document “Measuring Performance of Microfinance Institutions: A Framework for Reporting, Analysis, and Monitoring”, 2005.

The Balance Sheet

The balance sheet is a statement of financial position of the MFI at a particular point in time. It is like a stock statement, giving account for the MFI's financial structure. It reflects the state of affairs on a given date, usually at the end of a particular period, a month or a year. Most MFIs produce a balance sheet on a monthly basis at a minimum, giving the ending balance of all assets, liabilities and equity accounts – the three balance sheet components. Equity is also referred to as net worth or capital at times.

A balance sheet always balances, meaning that the debits must equal the credits. The basic accounting equation applies to the balance sheet:

$$\text{Assets} = \text{Liabilities} + \text{Equity (Revenue} - \text{Expenses)}$$

As in any mathematical or algebraic equation, this above equation can also be expressed as follows:

$$\text{Liabilities} - \text{Assets} = \text{Equity}$$

OR

$$\text{Equity} = \text{Assets} - \text{Liabilities}$$

The presentation of the balance sheet may vary from country to country, and from institution to institution. International Accounting Standards do not recommend any particular format; as long as the accounts are in balance and the above equations are in agreement, any type of format is acceptable.

Assets

Assets are what a MFIs organisation *has* or is *owed*. For an MFI these typically include:

- cash
- investments – short and long term
- client loan portfolio (an Allowance for Loan Losses, also referred to as the Loan Loss Reserve, or the Impairment Loss Allowance, known as a “contra” account, reduces the balance of the loan portfolio by an amount set aside to cover future losses), and
- fixed assets -- equipment, property, vehicles (the Accumulated Depreciation account is also a “contra” account since it reduces the value of the assets based on their wear and tear, and provides a “net value” of assets that is more in line with their fair market value, as used items)

Assets also include other items like prepaid expenses, miscellaneous accounts receivable, intangible assets (e.g. software development and goodwill). From a financial perspective, assets represent an investment for the generation of future receipts of cash and revenue for the MFI. For example, a microfinance organisation lends out funds with the expectation that the funds will be repaid with interest. In order to purchase or build the asset base, an organisation either borrows money (a liability), invests its own money (accumulated surpluses), or attracts investors who contribute capital or equity.

Assets are generally classified on the balance by type and then by maturity of their liquidation to cash. Traditionally, the reporting emphasis has been on asset maturity – and to report and list assets by their cash or near-cash value. This created the emphasis on long-term and short-term assets. Assets that were readily liquidated were reported first on the Balance Sheet. The current trend in International Financial Reporting Standards is to report the assets according to their *use* or *intended use*. However, for ratio calculation purposes, specifically, the liquid ratio, MFI financial statements do encourage reports that segregate assets between those that mature in less than 12 months from those that mature in more than 12 months. The sample balance sheet in *Handout 2.2 Sample Balance Sheet* is typical of the current reporting formats.

Liabilities

Liabilities are what an MFI *owes* to others. Liabilities are debts the microfinance institution has incurred and must pay off in the future. The balance sheet records the amount payable – principal and interest as of the date of the balance sheet. For MFIs these typically include:

- client savings and deposits
- trade accounts payable
- bank overdraft accounts and lines of credit
- borrowed funds

Liabilities are an important source of funds for MFI operations. They can be an efficient and effective way to generate revenue. For example, an MFI will often borrow money (either from clients in the form of savings or from a bank, donor or other financial institution) and lend this money to their clients at a higher rate of interest than they pay for the borrowed money. Without this source of borrowed funds, the MFI will have fewer assets (specifically, less cash to lend to its client base) and therefore lower potential for generating future income.

Liabilities, like assets, are also classified on the balance by type and then by maturity an obligation to repay. The reporting distinction on liability maturity is that short-term liabilities are those that mature within 1 year and long-term liabilities mature beyond 1 year. The sample balance sheet in *Handout 2.2 Sample Balance Sheet* is typical of the current microfinance reporting formats and the types of liabilities common in MFIs.

Equity (Net Worth or Capital)

An MFI's equity or net worth represents what the organisation *owns*. Net Worth is made up of two components: contributed or paid-in capital such as grant funds, share capital, or privately invested contributed capital. It is also made up of the accumulated earnings/deficits from operations. Unlike liabilities, the equity or net worth does not have to be paid back. Payment of dividends to shareholders will reduce the value of the capital that is accumulated in the MFI.

An institution, whose assets have been financed largely by debt, will have high liabilities compared to its capital; one might wonder about its ability to pay off its debts or to meet its cash flow or liquidity requirements. On the other hand, an MFI that has high net worth compared to its liabilities may not be leveraging its resources adequately to access external funding sources, assuming they are available.

The advantage of funding assets through equity rather than liabilities is that the money does not need to be repaid. Therefore the cash earned from assets can be used to cover operating expenses, or it can be reinvested. A strong equity base is critical to building an institution that will survive and grow. **Finding the appropriate structural balance between liabilities and equity is an ongoing process; there is no simple or magic solution, as there are many variables that enter into this analysis.**



- The availability of funds and the types of funds are critical factors. Are funds available at concessional rates or market rates? Concessional rates will help to maximise cash flows in the short term.
- MFI competition will affect the decisions on the balance sheet capital structure. What interest rates are MFI borrowers willing and able to pay for credit products? What are other MFIs offering? A highly competitive MFI market will drive down borrowing costs to clients, forcing the MFI to use the lowest possible cost of funds available in order to allow for adequate margins to cover their operating costs.

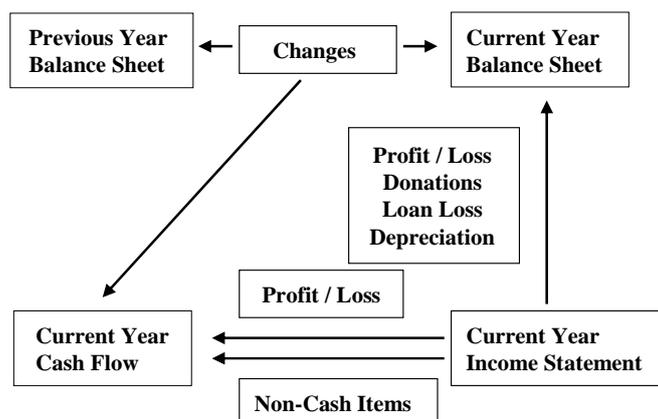
Handout 2.2 Sample Balance Sheet illustrates a typical MFI Balance Sheet. It is taken from the SEEP document “Measuring Performance of Microfinance Institutions: A Framework for Reporting, Analysis, and Monitoring”, 2005.

Cash Flow Statements

Cash Flow statements are useful tools in the analysis of liquidity (comparing actual liquidity to the policy set by the MFI), in reviewing external liquidity requirements (e.g. for the Central Bank or for other regulatory bodies) and for smooth management of operations.

The traditional Cash Flow Statement is usually included in the organisation’s audited financial statements. It shows the sources of changes in cash balances throughout the year, the sources and uses of funds, through operations, through increases and decreases in investments, receivables, and liabilities, and the resulting cash balances at the end of the fiscal year. In actual practice, the Cash Flow Statement is used the least by most MFI practitioners, particularly those in young MFIs that are focussed on the bottom line performance of the operations. MFIs that borrow funds for their loan portfolio or offer client savings tend to be very conscious of the dynamics on the Cash Flow Statements.

Figure 2.1 Understanding Relationships between Financial Statements



To fully understand the relationships between the financial statements, and especially the role of the Cash Flow Statement with other statements, the above diagram may be helpful. Changes in cash balances of the MFI are brought about through a variety of activities. These activities are captured from both the Income Statement and the Balance Sheet.

The Income Statement is comprised of cash activities and non-cash activities. The non-cash activities need to be extracted in order to understand the increases and decreases in cash arising from Income Statement activities. This would include items like depreciation, accrued expenses, and the provision of loan losses for example. The Balance Sheet is also comprised of changes due to cash and non-cash activities (brought about through the application of accrued accounting).

The Cash Flow Statement summarises the transactions or events that cause cash to increase (which become the sources of cash) and the transactions or events that cause cash to decrease (which become

the uses of cash). The following three paragraphs are adapted from the SEEP Framework.⁴

The sources of cash can include events that cause the following changes:

- A decrease in assets other than cash, such as receiving loan repayments from clients;
- An increase in liabilities, such as accepting a deposit or borrowing from a bank;
- An increase in Paid-In Capital, such as selling shares to investors or members; and
- An increase in retained earnings through generating net income.

The uses of cash can include events that cause the following changes:

- Increases in assets other than cash, such as making loans to clients;
- Decreases in liabilities, such as repaying a deposit or paying the principal on borrowed funds;
- Decreases in Paid-In Capital, such as re-purchasing shares or reimbursing member shares; and
- Decreases in retained earnings through generating a net loss (after taxes and donations) or payment of dividends to shareholders.

A Cash Flow Statement classifies these inflows and outflows of cash into the following three major categories:

- *Operating Activities*, the cash receipts and payments related to the MFI's ongoing provision of financial services, including lending and deposit services;
- *Investing Activities*, the cash receipts or outlays for acquiring or selling Fixed Assets or financial investments; and
- *Financing Activities*, the borrowing and repayment of borrowings, the sale and redemption of Paid-In Capital, and the payment of dividends. This does not include the financial activities related to regular operating activities.

There are two approaches to prepare a Cash Flow Statement. One is called the "direct method" and it is probably the more intuitive of the two approaches. The Direct Cash Flow Statement in a sense reconstructs the Income Statement and tracks all operational events that have caused an inflow or outflow of cash. It also captures all investing and financing events that have created an inflow or outflow of cash.

Handout 2.3 Sample Cash Flow Statements illustrates both Direct and Indirect Cash Flow Statements. The sample is also taken from the SEEP document "Measuring Performance of Microfinance Institutions: A Framework for Reporting, Analysis, and Monitoring", 2005.

The Indirect Cash Flow Statement takes a deductive approach to preparation and format. It begins with the Net Income reported on the Income and Expense Statement and then adds back all non-cash expenses from the Income Statement. It also then adds or subtracts all cash increases or decreases from operational events, including loan disbursements and loan repayments, increases and decreases in trade payables and other liabilities, and increases and decreases in client deposits and in other assets or Trade Investments. Then it shows all increases and decreases in cash due to investing activities and also financial activities. Again, financial activities are those related to borrowings and debt investments with the MFI, and not regular operating activities that related to providing financial services.

As MFIs grow and diversify – and include the mobilisation of deposits as a financial service and a means to generate capital, and access debt financing, the Cash Flow Statement takes on increasing importance. It is an important tool for monitoring and managing the changes in cash position of the MFI, and may signal issues to address in the debt and equity balance and capital structure of the MFI.

⁴ "Measuring Performance of Microfinance Institutions: A Framework for Reporting, Analysis, and Monitoring", SEEP Network, 2005, pg. 23.

Handout 2.4 Sample Audited MFI Statements – India illustrates reporting formats common in India.

Cash Flow Projections

Cash Flow projections are also critical tools in liquidity analysis – particularly for expanding operations, managing seasonal demand for loans and for the smooth management of operations. It is critical to pay staff salaries on time and to continue to meet the demand for loans. Projections become even more important when the MFI begins to attract client savings and deposits, or acquire external debt funding from other banks or investors. In order to build and maintain the trust of the community and the investors, MFIs must be able to pay deposits on demand, and meet their debt obligations according to schedule. This necessitates very careful cash monitoring and forecasting.

When making Cash Flow Projections, it is often more useful to show projected collections of loans (interest and principal), projected disbursement of loans, and other projected cash inflows and outflows along side actual movements of cash in the various categories. The Sample Cash Flow Projection presented in *Handout 2.5 Sample Cash Flow Projections* can be adapted on a spreadsheet by the MFI to include the items significant to their operations. Many MFIs also use the MICROFIN planning and projection tool for both business planning and ongoing cash management and projections.

MFIs that have many more variables, or need more advanced tools should refer to the Women’s World Banking “Financial Risk Management Toolkit.” It provides more sophisticated resources and spreadsheets for monitoring interest rate margins, managing foreign exchange risks, and maximizing liquidity levels in microfinance institutions (www.swwb.org).

The Portfolio and Operational Reports

The information on the portfolio report is technically not part of the general ledger accounting system, but part of the subsidiary ledger that manages client loans and savings transactions. The summarized Portfolio Report provides the status of loan disbursements and collections during the current month and the current year. Good portfolio tracking systems also report the total amount of loans outstanding, the amount of loans late, the amount at risk, and the aging of the loans. Most systems also track the number of loans and/or clients in these categories.

Many MFIs look to the portfolio tracking systems to provide much more information on impact, and to segment portfolio by Loan Officer, by product, by Branch, and so on. The financial information on portfolio reports is considered the most important for financial management and ratio analysis purposes.

Together with the financial statements, the information on the Portfolio Report is used to calculate key financial ratios that help to measure the progress and health of the financial institution. For this reason, the focus of the Portfolio Report in this toolkit is on actual output of financial service operations, and not client impact. Some portfolio tracking systems are very extensive, and include options for generating the Allowance for Loan Losses, and Human Resource data reports. Other systems are less sophisticated and simply provide the raw data with which to collate and prepare Portfolio Reports.

The following chart lists the Portfolio reports that are usually generated by an MFI, how often they are produced, and their major purpose.

Figure 2.2 Portfolio Management Report Schedule

Report	How Often (minimum)	Information Purpose
Late Loan Report	Daily	This report lists all loans which have late payments, the outstanding loan amount, the amounts late (principal, interest and fees), and the number of days late.
Loan Status Report	Monthly	This report lists all active loans outstanding. It includes those that are paying on time, and those that are late, the original amount of the loan, the amount outstanding, and the current status (current or late).
Aging Report	Monthly	This report lists all the loans which have late payments, the total amount outstanding, the amounts late, and how many days those late amounts are (0 - 30, 31 - 60, 61 – 90, 91 – 120, and over 120).
Instalments Due (also called Demand Repayments)	Daily	This is a list of all clients who are due to make payments on a certain date. When comparing it to the Cash Collections Report, it becomes the basis preparing the Late Loan Report; usually, the instalment report does not contain amounts past due. Those amounts must be added in when preparing the Late Loan Report.
Cash Collections Report	Daily	This is a daily report of all payments received by clients. It should agree to the bank deposits recorded in the bank statement and in the financial records. It is an important part of the audit trail.
Loan Disbursements	Weekly or Monthly	This report lists all loans disbursed during a given period. It should agree to the financial records.

Other operational reports used for financial ratio analysis may be provided by the credit operations department, monitoring and evaluation staff, human resources staff or the financial services delivery department. Objective national economic data is generally available through official national or international websites such as the World Bank or the Microfinance Information Exchange (the MIX).

Handout 2.6 Sample Portfolio Reports illustrates the basic Portfolio and Operational Reports that MFIs need to generate in order to calculate the financial ratios. The sample is taken from the SEEP document “Measuring Performance of Microfinance Institutions: A Framework for Reporting, Analysis, and Monitoring,” 2005. The Framework also provides the rationale and the website links for sourcing the external macro-economic data used for adjusted ratios. *Handout 2.7 Sample Non-Financial Data* illustrates the operational activities and the key economic data used in adjusted ratios.

Understanding the Relationships - Provisions for Loan Losses, Allowance for Loan Losses and Write-offs

Before beginning to discuss the financial ratios, it may be helpful to explore the area of Loan Losses – Provisions, Allowances and Write-offs, since understanding the sources of information for this data, and their relationships will strengthen financial analysis.

In accordance with the principle of conservatism and prudence, financial statements should not overstate the assets and revenue of an entity, nor understate the liabilities or expenses. In the financial sector, this means that loans receivables in banks and MFIs should reflect some estimate of amounts

that may not be collected in the future. The reality in lending is that some loans will not be repaid and even though we do not know the exact amount of the losses, a provision must be made for the eventual losses that are expected. In order to be financially prudent, a microfinance organisation needs to measure the risk of default in monetary terms.

Accounting practice would suggest that the policies for recording these estimates be based on historical trends and write-offs. Since microfinance is a relatively new sector and unsecured lending is still considered high-risk, there are generally accepted industry standards to use in the provision for loan losses and allowances. *How is it done?*

How Old Are the Overdue Payments?

Loan aging allows the management to know how much of a delinquent loan is overdue and also for how long it has been overdue. The longer a loan payment is overdue, the higher the risk of never receiving the overdue payment, and also future payments. When loans become delinquent, they are referred to as the portfolio at risk. The total amount of delinquent loan balances is at risk, and not simply the late payments. Aging of past due amounts also allows MFI managers to determine if delinquency management strategies are effective. Are loans still slipping into later categories, or are they being contained in the 0 - 30 day category?

Formal financial institutions normally “age” the loans and provide allowances for loan losses according to the number of days that have passed since the first payment was missed. The actual number of days in an aging schedule may be regulated by legal or banking standards of the country. Most MFIs group portfolio at risk in increments of 30 days, e.g. 1 – 30 days, 31 – 60 days, 61 – 90 days, etc. Each category of portfolio at risk is multiplied by a rate that represents the perceived possibility of the loans in that category not being repaid. The categories are added together to arrive at the total Allowance for Loan Losses on the portfolio. A sample aging report follows.

International best practices in microfinance (“Measuring Performance of Microfinance Institutions: A Framework for Reporting, Analysis, and Monitoring.” SEEP Network) suggest the following categories and amounts for calculating risk:

Figure 2.3 Sample Aging Report - International Microfinance Best Practices

Portfolio Aging Schedule		(A) Number of Loans in Arrears	(B) Outstanding Loan Balance	(C) Allowance for Loan Losses (%)	
1.	0 days	3,700	350,000	0%	0
2.	1 - 30 days past due	105	3,750	10%	375
3.	31 – 90 days past due	100	5,000	30%	1,500
4.	91 – 180 days past due	75	5,000	60%	3,000
5.	Over 180 days past due	60	2,500	100%	2,500
6.	Rescheduled	20	1,750	100%	1,750
7.	Total	4,060	368,000		9,125

Indian practice is illustrated in the table below (outlined in “Accounting Standards for Micro-finance Institutions in India” V. Nagarajan & Co.), The categories of asset quality are defined by the Reserve Bank of India for NBFCs.

Portfolio Aging Schedule		(A) Number of Loans in Arrears	(B) Outstanding Loan Balance	(C) Allowance for Loan Losses (%)	
1.	0 days late “Standards assets”	3,700	350,000	0%	0
2.	Over 4 weeks and less than 26 weeks “Non-performing assets”	105	3,750	10%	375
3.	Over 26 weeks but before loan period expires “Non-performing assets”	100	5,000	50%	2,500
4.	Principal is in arrears and loan period has elapsed “Sub-standard assets”	60	2,500	100%	2,500
5.	Rescheduled	20	1,750	20%	350
6.	Loss assets*			100%	
7.	Total	3,985	363,000		5,725

* In India, loss assets are those loans that are considered uncollectible, by the management or by internal or external auditors.

A special note for MFIs in India!! Most MFIs require clients to make weekly or fortnightly repayments. Therefore a client who is 30 days late may already be 2 – 4 instalments behind in repayments. The actual risk in this case may be much more than the 10% suggested for Indian MFIs. It is important for MFIs to track their history on to determine realistic levels of risk on their delinquent loans.

Another common issue in India is to take a general 2% of the portfolio as the Allowance for Loan Losses. However, it is more prudent and useful to the reader of financial statements for the MFI to record an Allowance for Loan Losses based on the actual quality of the portfolio – based on aging of delinquent loans.

In setting the policy for providing for Loan Losses through an Allowance, the objective is to be fair, but conservative. The method and determination of Allowance for Loan Losses, provisions, write off procedures and recovery of losses must be fully disclosed in the MFI’s financial statements.

The chart below illustrates the definitions and inter-relationship between key terms in accounting for non-cash adjustments to providing for possible future losses of the loan portfolio.

Figure 2.4 Understanding the Relationships between Loan Losses and Write-Off Accounts

Allowance for Loan Losses	Provision for Loan Losses	Loan Write-Offs
<ul style="list-style-type: none"> An account that represents an estimate of the amount of outstanding principal that the MFI does not expect to recover in the future Negative asset on the balance 	<ul style="list-style-type: none"> Amount expensed on the income and expenses statement. The provision is used to increase or decrease the Allowance for Loan 	<ul style="list-style-type: none"> Occur as an accounting entry Do not mean that loan recovery should not continue to be pursued. Indian Accounting Standards require that a write-off be

Note: There is rarely a decrease in the Allowance for Loan Losses. Many MFIs make NO adjustment to the account if the Allowance decreases, ensuring that there is more than adequate provision established.

Accounting for Loan Write-Offs

A write-off represents an accounting adjustment to remove from the accounts a loan receivable that is no longer considered collectible. A write-off may also be called a Bad Debt Expense. Clients are not generally informed of write-offs, as some MFIs continue collection efforts, depending on the circumstances of the write-off. Certainly, information about write-offs should be maintained by the MFI or the Self Help Group, since the client should not be allowed to apply for a new loan in the future and since there may be subsequent collection of write-offs that need to be tracked.

The illustration below shows methods when applying Indian Accounting Standards and International Accounting Standards to write-offs.

Figure 2.6 Illustration of Accounting for Loan Write-offs

Indian Accounting Standards

Indian standards promote writing off to a separate expense account in order to clearly disclose the amount written off, and not distort or hide the information by including it with other entries made to the Allowance or Provision accounts.

1. DR Bad Debt Expense (Income and Expense Statement)
CR Loan Portfolio (Balance sheet)

Another Portfolio Aging Schedule should then prepared and the Allowance for Loan Losses adjusted to reflect the effect of the written off loan removed from the loan portfolio.

International Accounting Standards

1. When a loan loss is recognized based on the write-off policy:
DR Allowance for Loan Losses (Impairment Loss Allowance) (Balance sheet)
CR Loan Portfolio (Balance sheet)
2. After writing off a loan or collecting a written off loan, re-do the Portfolio Aging Schedule, calculate the allowance again, and adjust the Allowance for Loan Losses (Impairment Loss Allowance) again.
3. To record a collection on a loan that has been written-off:
DR Cash (Balance Sheet)
CR Value of Loans Recovered (Income Statement)

Note: This approach varies slightly from common banking practice where the recovery of a loan previously written off signals the reinstatement of the loan contract from a legal perspective. The collection of any portion of a previously written off loan triggers a re-entry of the entire loan into the books again, offset by the Allowance in its entirety.

3. Basic Financial Ratios

Management is a skill, but like most professions and vocations, the skill relies on adequate and reliable tools with which to perform its tasks.

Using Financial Indicators or Ratios

Ratios are nothing more than relationships between numbers. However, in a financial institution, financial ratios are among the most significant management tools available. There are many ratios used in banking and micro-finance; the categories and ratios discussed in this toolkit are often referred to as the “SEEP ratios.” SEEP – the Small Enterprise Education and Promotion Network, has published a Framework that advocates industry standard ratios for the monitoring of microfinance institutions in credit operations. The Framework builds on a consensus of practitioners, donors (including CGAP), evaluators and others in the microfinance industry (including The MIX).

The publication “Measuring Performance of Microfinance Institutions: A Framework for Reporting, Analysis, and Monitoring” illustrates the 18 SEEP Ratios used as standards of measuring and monitoring financial performance of microfinance institutions. (It is available at www.seepnetwork.org free of charge). It also presents a number of analytical adjustments often made to financial records in order to clearly understand true performance, the effect of subsidies, and the impact of inflation. Analytical adjustments are also applied to compare various MFIs with one another using a consistent base. *Handout 3.1 SEEP Microfinance Ratios* presents the ratios, the formulae used in calculations and a brief explanation of the ratio.

This toolkit only provides the details and the background to the basic ratios, and not the adjusted ratios. Each of the ratios is numbered consistently with the numbering system used in the SEEP Framework. The analytical adjustments are discussed and illustrated at length in the Framework, but not in this toolkit.

Ratios are generally more meaningful – particularly in microfinance – when compared with other financial profitable MFIs in the region. *Handout 3.2 Comparing Performance Using Benchmarking* and *Handout 3.3 MicroBanking Bulletin Benchmarks for Asia* provide interesting and informative data about microfinance institutions generally and in the Indian context. MFIs should visit The MIX website regularly to get updates of regional and country benchmarking activities (www.themix.org)

What are Ratios?

In simple terms, ratios are relationships between numbers. They are generally calculated by dividing the numerator by a denominator. The result is expressed as a percentage (Operating Self-Sufficiency ratio), a monetary value (Portfolio per Loan Officer), or through a comparison of whole numbers, as 3:1 (Debt / Equity ratio).

When ratios are used primarily for benchmark purposes or comparative purposes, the focus tends to be on the ratio itself and its movement and performance over time. However, if an MFI wishes to explore its trends more deeply, or understand what operational decisions need to be made to improve performance, it is more useful to understand the numerical components of the numerator and the denominator in the ratio. Managers should know where the numbers are coming from, specifically from which financial report. They should understand the trends – whether increasing or decreasing – of the numerator alone and the denominator alone because these are the factors or “drivers” that affect the overall trend of the ratio.

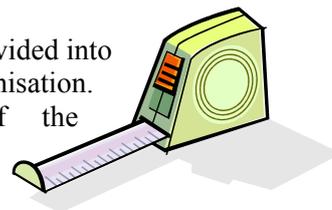
It is worth noting a few points about the data sources for the numerator and the denominator in the ratio. One needs to ask – is this number from the Income Statement, the Balance Sheet, or the

Portfolio Report? Is it a number reflecting a period of time (e.g. the Income Statement, and so many numbers from the Portfolio Report)? Is the number reflective of information from a point in time – as from the Balance Sheet?

When Income Statement numbers or any number reflecting a period of activity is used to calculate a ratio, the second component of the ratio must also reflect a period of activity. Therefore, some of the ratio components take the average of Balance Sheet numbers. Remember to note these distinctions in the ratio calculations!

What are the Key Areas to Measure?

Analytical tools or indicators for financial and portfolio analysis can be divided into four key areas. Each measure is one important aspect of the financial organisation. When combined, the key areas give a well-rounded global perspective of the financial situation. The key categories are:



Profitability/ Sustainability

It shows the financial returns to the use of the capital and assets employed. The profit level also shows the MFI's self-sufficiency in relation to covering costs and building up its equity. It answers the question: Will our MFI have the financial resources to continue serving members and clients tomorrow as well as today?

Asset/ Liability Management

These ratios illustrate the ability of the MFI to manage its financial obligations when they become due, while maximizing the utilisation of assets for profitable purposes. The overall objective is to maximise idle resources as profitably as possible, while paying its expenses, debts and obligations on time without borrowing funds.

Portfolio Quality

This group of ratios measures the "health" of the loans outstanding in terms of its risk. It answers the question: Is our MFI responsible in managing our most important asset?

Efficiency & Productivity

These ratios measure the costs of an MFI in relation to the outputs. It shows how proficient the organisation and management is in operating its financial activities, particularly its use of assets and human resources. It answers the question: Does my MFI serve as many clients as possible with its resources, for the lowest possible cost?

Profitability and Sustainability

R 1 Operating Self-Sufficiency (OSS)

Operational Self-Sufficiency measures the degree to which internally generated operational revenue covers all operating expenses from the MFI's core business of providing financial services. The ratio excludes non-operating revenues and donations. It does include Financial Expenses and the Provision for Loan Losses together with other operating expenses. This ratio measures the degree to which the institution is able to function independent of grant support. A ratio of 100% is the MFI's break-even point and indicates that the MFI's income is equal to operating expenses. Young, immature MFIs may take several years to break-even. This ratio should show a gradual increasing trend, and not fluctuate too greatly. It is simple to calculate on a manual basis and therefore it is recommended to calculate and monitor monthly.

$$\text{Operating Self-Sufficiency} = \frac{\text{Financial Revenue}}{(\text{Financial Expenses} + \text{Provision for Loan Losses} + \text{Operating Expenses})}$$

Trend: An increasing Operating Self-Sufficiency is positive.

Financial Self-Sufficiency (FSS)

Financial Self-Sufficiency is one of the adjusted ratios that are not discussed in depth in this toolkit – but is important because of its significance to MFI sustainability. Financial self-sufficiency gauges whether the institution is able to cover not only actual operating costs, but its ability to maintain the value of its equity relative to inflation and to operate and expand without subsidies, in-kind costs, or concessional interest rates. Financial income is the total income from lending operations and investments, and do not include grants or donor funds. The adjusted costs include:



- a subsidy in the cost of funds resulting in “subsidized” cost of funds (donations or concessional loan funds)
- the effect of inflation on the equity base
- operating subsidies resulting from in-kind contributions
- write-offs or provision for loan losses that bring the MFI’s performance in line with industry standards

$$\text{Financial Self-Sufficiency} = \frac{\text{Financial Revenue}}{(\text{Adjusted Financial Expenses} + \text{Adjusted Provision for Loan Losses} + \text{Adjusted Operating Expenses})}$$

Trend: An increasing Financial Self-Sufficiency is positive.

R2 Return on Assets (ROA)

A Return on Assets is an indication of how well an MFI is managing its asset base to maximize its profits. The ratio does not evaluate the source of the asset base – whether through debt or equity, but simply the return of the portfolio and other revenue generated from investments and operations. A return on assets should be positive. There is a positive relationship between Return on Assets and the Portfolio to Assets ratio discussed in the next section. MFIs that maintain most of their assets in the loan portfolio tend to break even sooner, and generate higher returns on their assets, provided the loan portfolio performs well and other costs are also controlled.

$$\text{Return on Assets} = \frac{\text{Net Operating Income} - \text{Taxes}}{\text{Average Assets}}$$

Trend: An increasing Return on Assets is positive.

R3 Return on Equity

A Return on Equity is probably one of the most important profitability indicators for commercial banks and MFIs, particularly in comparison with other institutions. The return is measured only in relation to what the MFI has built from operating surpluses, or what it has generated through donations or



other contributed sources. The shareholders of a for-profit MFI or bank, is very interested in this ratio, as it is a measure of their investment choice, and its ability to pay dividends. Increasing equity also strengthens the MFI’s capital structure and its ability to leverage debt financing. As markets mature and competition increases, Return on Equity may level off and maintain a positive position without increasing dramatically or at all.

$$\text{Return on Equity} = \frac{\text{Net Operating Income} - \text{Taxes}}{\text{Average Equity}}$$

Trend: An increasing Return on Equity is positive.

Tips for Managing for Profitability and Sustainability:

- The primary focus in a young MFI is to achieve break-even and ensure that financial revenues exceed all operating expenses, include financial costs and the provision for loan losses. A high quality portfolio that generates high yields but operates with low financial expenses and efficient operations is the priority. Each one of the variables in Operating Self-Sufficiency should be monitored on a monthly basis. **Quality growth with efficiency!**
- **MFIs that receive high levels of donations and grants (as NGOs) need to maximize that opportunity by investing primarily in a productive portfolio that generates high levels of revenues.** As they break-even and become more profitable, their Return on Assets and Return on Equity may be as high, or higher than commercial or for-profit MFIs. However, the tendency when receiving a high level of grants or donations is to operate without the financial discipline or perspective of maximizing capital. It may be too easy to slip into a donor dependent mentality or to build cost structures that are not operationally sustainable in the long-term.

Asset and Liability Management

R 4 Yield on Portfolio

The Yield on Portfolio measures how much the MFI receives from its portfolio by the way of cash from interest, fees and commissions. This is important because cash receipts are needed in order for the MFI to survive, to pay for its operational expenses, and to continue its business operations. It is useful because it can alert management to problems with the loan portfolio. Generally, the MFI’s yield does not fluctuate very much, unless there is a change in interest rates, the method of calculating interest or in fees. If it varies significantly from the effective interest rate (often called a “yield gap”) then it may be a sign of delinquency. However, the portfolio yield cannot exceed the effective rate of interest charged by the institution. *Handout 3.4 Calculating Effective Interest on Loans* clearly presents the variables and issues that affect the actual amount of interest and fees paid by a borrower to the institution.

$$\text{Yield} = \frac{\text{Cash Received from Interest, Fees and Commissions On Loan Portfolio}}{\text{Average Gross Loan Portfolio}}$$

Trend: An increasing yield is positive although it will level off as it nears the effective interest rate.

R5 Portfolio to Assets

The Portfolio to Assets ratio is a simple ratio that looks at how much of the MFI’s asset base is invested in a high performing loan portfolio. An MFI’s primary business is to provide loans and other

financial services to micro-entrepreneurs. This is also the MFI's most profitable activity and use of assets. It is recommended that this ratio be monitored monthly. Fluctuations may be due to seasonal activity or rigid operational patterns (e.g. "batch" lending). The ratio can also signal excess liquidity or demand for additional funding. MFIs that rely on savings to fund lending activities or are regulated by local banking guidelines need to pay special attention to this ratio.

$$\text{Portfolio to Assets} = \frac{\text{Gross Loan Portfolio}}{\text{Assets}}$$

Trend: An increasing trend is positive.

R6 Cost of Funds Ratio

This ratio gives a combined interest rate on the MFI's average funding liabilities, deposits and other borrowings (note that trade payables or mortgage payables are not included). The Cost of Funds Ratio is important to understand and monitor for several reasons. First and foremost, the fact that an MFI carries funding costs is some indication of its credit-worthiness – either by investors or by savers. MFIs that mobilize savings are generally able to pay very low interest on deposits and thereby have access to cheap capital. Interest paid to investors may vary greatly, depending on the context, the country, and the type of investment. Regardless of the sources and the rates, managers are clearly able to see their true Cost of Funds when the ratio is adjusted for market rates and influences.

The significance of this ratio is in its comparison to the Yield on Portfolio ratio, which is fundamental to interest rate management. The remaining margin between the yield and the cost of funds is what the MFI has available for operational costs and the provision for loan losses. Monitoring these two ratios individually and together is important for the MFI's financial health.

$$\text{Cost of Funds} = \frac{\text{Financial Expense on Funding Liabilities}}{(\text{Average Deposits} + \text{Average Borrowings})}$$

Trend: The Cost of Funds may indicate a level of maturity of the MFI. A decreasing Cost of Funds ratio is generally positive. When Financial Expenses are adjusted to include free or subsidized funding, the ratio will show the actual financial cost of funds needed to fund or capitalise the MFI.

R7 Debt to Equity

The Debt to Equity ratio (also referred to as Debt/Equity ratio or the Leverage ratio) is a common measure of an MFI's capital strength or adequacy at a particular point in time. Equity is important because it is an indication of internal strength and the capacity to absorb some stress and losses before creditors are at risk. Equity is also important because it is the base on which to leverage and attract debt funding – and therefore it is used frequently by investors and lenders. MFIs that offer savings are usually highly leveraged. Local banking regulations in most countries will place a limit or a restriction to a bank or MFI's Debt/Equity ratio (e.g. 7:1 or 13:1) in order to protect savers' deposits. Regulated MFIs and banks monitor this ratio very regularly.



$$\text{Debt/Equity} = \frac{\text{Liabilities}}{\text{Equity}}$$

Trend: An increasing debt/equity ratio indicates the MFI's capacity to attract debt funding based on its capital strength of its own equity. Too low a ratio might indicate that the MFI is not maximizing its equity base. Too high a factor may be risky for investors, and may spell cash flow challenges during difficult times.

R8 Liquid Ratio

The Liquid Ratio is one measurement of the adequacy of cash to pay short-term liabilities to lenders, depositors and other creditors. This is important for both banks and non-regulated MFIs. These institutions need to ensure that they pay their salaries, bills and expenses on time. Failure to repay loans on time may limit access to funding in the future. The lack of funds to provide timely, repeat loans may seriously erode client confidence. The inability to repay client deposits on time will also threaten client trust and confidence, and could jeopardize the MFI significantly. Liquidity ratios vary, depending on banking requirements and risk tolerance.



Central banks may require certain liquid ratios to be maintained, particularly in their role to maintain the public trust in the banking sector. A problem in one institution can be hazardous for everyone.

$$\text{Liquid Ratio} = \frac{\text{Cash} + \text{Trade Investments}}{\text{(Demand Deposits} + \text{short-term Time Deposits} + \text{Short-term Borrowings} + \text{Interest Payable on Funding Liabilities} + \text{Accounts Payable And other Short-term Liabilities)}}$$

Trend: No single ratio or trend provides the "correct" or "adequate" means to monitor cash levels. Managers must have clear policies in place to ensure that cash is available when needed for all MFI operations and activities Banking requirements and risk tolerance will affect the ratio..

Tips for Managing for Asset/Liability Management:

- **Interest rate management:** The interest rate set by the MFI must generate enough revenue to cover the cost of funds, operational costs and the provision for loan losses. The margin between the yield on portfolio and the cost of funds is the amount available for other operational expenses. Rates that are intentionally subsidized or unintentionally too low, do not sustain services in the long term for clients.
- **Asset management:** Assets should be invested and put to their most productive means in order to produce the most revenue as possible.
- **Leverage:** Finding the right balance between debt and equity funding is not always straightforward. Borrowing funds for growth and expansion may be recommended, provided that more revenue is generated than the cost and use of borrowing.
- **Liquidity Management:** The MFI needs to manage its liquidity to ensure that it has sufficient funds on hand to meet any short-term obligations, including operational expenses, interest and principal payable.
- **Foreign Currency Management:** Some MFI's borrow in funds in foreign currency because local currency borrowings are unavailable. If the MFI also has assets in foreign currency, some of the risk of exchange rate fluctuations, particularly losses can be minimized. However, the risk can be significant in places where the local currency fluctuates highly.

Portfolio Quality

R9 Portfolio at Risk

The Portfolio at Risk ratio measures the potential for future losses based on the current performance of the portfolio. It is the most widely accepted standard and ratio of portfolio performance in microfinance. It measures more than the amount collected compared to the amount due (popularly referred to as the Repayment Rate), but the risk that the entire amount outstanding on a late loan will not be repaid. It is important to include the *balance* of all loans with a payment overdue and not just the amount of principal that is overdue.



The portfolio is the most important and primary asset of an MFI. Any decline in portfolio quality signals problems of one kind or another, and should illicit a strong management response. The ratio takes the Portfolio at Risk over 30 days late and adds the Renegotiated Loans in the numerator. Loans delinquent for up to 30 days generally have high potential of being collected, with the appropriate management approach. However, Renegotiated Loans are already at risk, since they have already had repayment problems.

$$\text{Portfolio at Risk} = \frac{\text{Portfolio at Risk} > 30 \text{ days} + \text{Renegotiated Loans}}{\text{Gross loan portfolio}}$$

Trend: A decreasing Portfolio at Risk is positive.

R10 Write-Off Ratio

The Write-Off Ratio, sometimes called the Loan Loss Ratio or the default rate, measures the actual amount of loans which were “written off” as unrecoverable during a given period of time, in relation to the loans outstanding. Naturally MFIs want to minimize their losses, but the nature of the financial services sector, and lending in particular, is that losses are a normal part of doing business. Many institutions resist writing off loans because of the belief that some of the loan may still be recuperated. Once a loan has been written off, collection efforts for this loan may continue if it makes economic sense. Loan write-offs are simply a prudent approach to financial management, not a legal acknowledgment that the borrower no longer is in debt to the institution.

Write-offs pose a significant threat to the MFI, since the result is reducing the asset base and future earning potential. The ratio is affected by the institution's write-off policy – whether it is for Portfolio at Risk over 180 days, or 365 days. Continuing to maintain loans on the books rather than write them off once it has been determined that they are uncollectible overstates the size of the portfolio. “A well-defined policy that establishes an *Allowance for Loan Losses* and periodically declares loans non-recoverable through a write-off policy, saves an institution from declaring a large amount non-recoverable all at once, and thereby drastically decreasing assets.”

$$\text{Write-off Ratio} = \frac{\text{Value of Loans Written Off}}{\text{Average Gross Loan Portfolio}}$$

Trend: A decreasing Write-off Ratio is positive.

R11 Risk Coverage Ratio

The **Risk Coverage Ratio** measures the adequacy of the Allowance for Loan Losses to “cover” potential loan losses reported as Portfolio at Risk over 30 days. It is an indication of how well the MFI is prepared to absorb loan losses should all of the Portfolio at Risk over 30 days be uncollectible. Note

that although the Allowance for Loan Losses is reported as a negative number on the balance sheet, the ratio will be expressed as a positive percentage.

One might think that a ratio of 100 percent might be the desired number. However, this might mean that the MFI's tolerance for risk is very low, perhaps because the MFI's history of collecting delinquent loans is very poor. The ideal number will likely vary amongst institutions. It is a function of the MFI's policy for the Allowance and Provisions for Loan Losses, that takes into account its risk tolerance, and history of delinquency and collections management. It is also a function of portfolio quality. The Risk Coverage Ratio should be looked at frequently, but in conjunction with an annualised Write-Off ratio. Looking at the actual amount of write-offs – in current and in previous periods -- will provide some idea of whether the Risk Coverage Ratio is adequate.

$$\text{Risk Coverage Ratio} = \frac{\text{Allowance for Loan Losses}}{\text{Portfolio at Risk over 30 days}}$$

Trend: A fairly constant, stable ratio is desired. Sudden changes usually indicate a deterioration or improvement in portfolio quality or an excess or shortage in the Allowance for Loan Losses account.

Tips for Managing for Portfolio Quality:

- Loan recovery begins with **providing services that clients value**, through **efficient and effective** loan administration.
- Loan recovery is possible through **good, thorough loan assessment** that looks at the willingness and capacity of the client to repay.
- Effective loan recovery is strengthened through **good management information systems** that provide relevant, timely and accurate information about the loan's status.
- **Immediate late loan follow up** and effective delinquency management that uses incentives as well as dis-incentives is critical for preventing chronic problems or high write-offs.
- The MFI needs to establish clear **accounting policies** to account for **portfolio aging**, the **provision for loan losses**, and **write-offs for loans** that are considered uncollectible.
- The MFI should provide clear and transparent **disclosure of financial information** related to its portfolio quality, its accounting policies for the portfolio, and actual performance for the reporting period.

"Delinquency can be likened to cancer, in the sense that it can start small, build up and spread, then destroy the body. A 2% loan loss is not half as good as a 4% loan loss. With a 2% loan loss, there are probably 6% of clients who are tough customers. With 4% loan loss, about 12 - 15% of clients are tough customers."

"If 15% of the clients are tough customers, they could start talking to one another about how they are tough customers. This then has a "building effect" where many staff suddenly find themselves spending an inordinate amount of time collecting from tough customers because they are talking to one another. Thus, 4% is many times worse than 2% and the jump to 8% can be catastrophic. At 8%, the institution can be dead or fighting a losing battle to stay alive. And although the interest rate spread could cover this, it is not the issue. The issue is that most institutions do not want their staff to spend all of their time running around collecting bad loans."

The New World of Microfinance

“Microfinance Institutions Operating on the Frontier”

Robert Christen, USAID Conference Proceedings
Manila, Philippines



Efficiency and Productivity

It is important to note that the efficiency ratios must be used carefully. They are highly dependent on the loan methodology used, the number of products and services offered, staffing structures, the physical context (rural or urban) and the maturity of the MFI. Efficiency ratios should also be examined in conjunction with Portfolio Quality ratios, since a quality portfolio should not be sacrificed for high efficiencies.

R12 Operating Expense Ratio

The Operating Expense Ratio measures the MFI operating expenses (not including the Cost of Funds or the Provision for Loan Losses) as compared to the average loan portfolio. There are numerous efficiency indicators used in the financial services industry, using a variety of other denominators, including Average Performing Assets and Average Total Assets. The advantage of using the Average Gross Loan Portfolio is that the Yield and the Cost of Funds ratios are all based on the same denominator. Once MFIs select the ratio and the denominator that they wish to use, they should be consistent in using it.

A decreasing Operating Expense Ratio is considered desirable since it will generally be an indication of increased efficiencies as the portfolio grows. If the portfolio remains relatively flat, changes and experiments in methodology or service delivery will quickly reveal through the ratio whether they are actually improving the MFI's efficiency. However, an increase in average loan size will also create a decreasing trend, but not necessarily signal increased efficiencies.

$$\text{Operating Expense Ratio to Average Gross Loan Portfolio} = \frac{\text{Operating Expenses}}{\text{Average Gross Loan Portfolio}}$$

Trend: A decreasing Operating Expense Ratio is positive.

R13 Cost per Active Client

This ratio measures the operating expenses (not including cost of funds or provision) that the MFI requires to serve a single active client. It is then also the amount of revenue that the MFI needs to generate from every single client in order to break-even. The ratio will also be affected by the methodology and the technologies used by the MFI. The largest operating expense in most MFIs is its labour costs. By examining the trends in the ratio's numerator and denominator, and the ratio itself, one can determine whether a reduced Cost per Client is the result of reduced labour costs or the more efficient use of labour. Many MFIs compare their Cost per Active Client with other national or international MFIs. When doing so, it is useful to consider that different countries have different national incomes, and that straight forward comparisons may not be that meaningful.



$$\text{Cost per Client} = \frac{\text{Operating Expenses}}{\text{Average Number of Active Clients}}$$

Trend: A decreasing Cost per Client.

R14 Borrowers per Loan Officer

This ratio reflects the productivity of loan staff in serving their client caseload. The higher the caseload per officer, the more clients will be served, and the greater the efficiency gained. The ratio is useful when the MFI sets growth targets; it is easy to calculate and to measure on a regular basis. However, the ratio does have some limitations, since it is also highly reflective of the methodology

used – the loan products (groups vs. individual lending) or the geographical context (low density populations as in some rural area vs. an urban client base). As a result, comparisons between MFIs become less helpful or meaningful. A final factor to consider is that there is an optimal caseload that Loan Officers can carry before their portfolio quality begins to drop. Sacrificing quantity for quality is not the objective of managing for greater efficiencies. There are also operational issues that cause the ratios to plateau at optimal levels. Streamlining the methodology or introducing technological changes may be the only way in which to break the plateau.

$$\text{Borrowers per Loan Officers} = \frac{\text{Number of Active Borrowers}}{\text{Number of Loan Officers}}$$

Trend: An increasing ratio is positive.

R15 Active Clients per Staff Member

This ratio reflects the total number of active clients – savers and borrowers – that are served per MFI staff member. An increasing trend is desirable. The ratio does not differentiate between credit or service staff and administrative staff. The same variables and factors affecting the previous ratio should be considered for the Active Clients per Staff Member. A low ratio however does not necessarily mean that staff is not working hard. There are many factors affecting both service and administrative productivity, not to mention paperwork, technology, remote service locations, etc. What is important to remember is to regularly monitor this ratio, particularly in relation to the MFI's business plan.

$$\text{Active Clients per Staff Member} = \frac{\text{Number of Active Clients}}{\text{Number of Personnel}}$$

Trend: An increasing ratio is positive.

R 16 Client Turnover

This ratio is intended to give MFI managers some indication of clients who leave the program during a particular period of time. It does not tell management why clients may leave. The ratio is not precise or perfect – it does not provide information about clients who leave for a while and then return at a later date. It does not provide information about clients who may use a remittance service occasionally after no longer using lending services. The ratio is considered important because managers need some level of client satisfaction with the MFI's products and services. The general thinking is that cost of retaining clients is relatively lower than the cost of recruiting and initiating new clients to the MFI. Therefore the lower the turn over, the higher perceived level of satisfaction of clients.

$$\text{Client Turnover} = \frac{\text{Number of Active Clients, Beginning of Period} + \text{Number of New Clients During Period} - \text{Number of Active Clients, End of Period}}{\text{Average Number of Active Clients}}$$

Trend: A decreasing ratio is positive.

R 17 Average Outstanding Loan Size

For many, this ratio is some indication of the MFI’s ability to reach as many lower-income and poor clients as possible. This is important to many donors and investors, but also to the MFI’s vision of reaching its targeted clientele. MFI managers who need to monitor this ratio regularly should do so in light of the Gross National Income per capita (provided in external Macro-Economic Data) and the Cost per Client. The average income level of clients in the area served may also be less than the official Gross National Income per capita. From a financial perspective, this ratio can be used to project and plan portfolio growth as loan size is one of the drivers of profitability.

$$\text{Average Outstanding Loan Size} = \frac{\text{Gross Loan Portfolio}}{\text{Number of Loans Outstanding}}$$

Trend: This ratio may fluctuate for many reasons – seasonality, change in methodology, disbursements patterns and loan size. It is important to compare against the MFI’s business plan.

R 18 Average Loan Disbursed

This ratio gives MFI managers some idea about the MFI’s demand for loans, client profitability and the capacity to increase income. Increased loan sizes generally increases financial revenue for the MFI. The challenge is for managers to understand why loan sizes increase. Are clients’ businesses growing and able to absorb higher amounts of debt? Are clients diversifying the loan proceeds to other activities? Are repeat loan size increases automatically expected – both clients and Loan Officers? This ratio should be monitored in conjunction with portfolio quality ratios, to ensure that the client still has the capacity to repay the loan, in spite of increased amounts of debt.

$$\text{Average Loan Disbursed} = \frac{\text{Value of Loans Disbursed}}{\text{Number of Loans Disbursed}}$$

Trend: This ratio may fluctuate for many reasons – seasonality, change in methodology, disbursements patterns, increasing capacity of clients to handle debt, the growth of client businesses, high client retention, and automatic loan size increases, to name a few.

Tips for Managing for Efficiency and Productivity:

- **Develop and fine-tune your products and services** for your clients, and for the locations in which you work.
- Take advantage of any **technology** that will decrease your operating and transaction costs – for your institution and for your clients.
- Implement **effective incentive systems** for strong staff performance – your financial services team and your support and administrative staff. Staff working together toward common goals will think “win / win” rather than compete against one another.
- **Continually monitor portfolio quality** to ensure that efficiency is not compromised by increasing delinquency.
- Probe the ratios carefully, ensuring that the trends in the numerator and the denominator alone are understood and analyzed as well. This will strengthen understanding and management for efficiency in operations.
- Don’t jump to conclusions when analyzing and comparing efficiency ratios with other MFIs, particularly from other countries.

4. Basic Financial Ratio Analysis

Financial management helps the MFI to evaluate performance, to plan and to make decisions to strengthen its operations. Financial ratio analysis – as presented and discussed in the previous section – is one of the most useful tools for MFI managers to evaluate, explore and measure their MFI's performance. A solid understanding of the financial statements, their components and their relationships is critical to solid analysis.

In simple terms, ratios are relationships between numbers. They are comparative figures. Comparisons can be made with similar MFIs or comparisons can be made within the MFI itself over a period of time. Comparisons within the MFI mark the “trends” or the path of progress and are useful when actual trends are compared with trends projected in the business plans. None in itself is complete but when several are used together, they provide a concise, useful, and quantifiable description of the financial situation. If correctly utilized, they can provide the basic information upon which one can measure the financial “health” of the MFI.

The key factors to consider in ratio analysis are:

- Institutional size
- Maturity of organisations
- Geographical coverage
- Single-purpose vs. multi-purpose institutions
- Methodology

Cautions in Ratio Analysis



- Financial ratio analysis does not REPLACE or EQUATE decisions or leadership in managing the change process that MFIs undergo to improve, grow and strengthen operations.
- Financial ratios do not predict the future – they help to understand the past and give guidance for the future.
- A financial ratio should never be taken in isolation from other ratios – together, they provide a more complete picture.
- Comparative analysis with other MFIs MAY or MAY NOT be useful or helpful. Many of the ratios, particularly for efficiency or productivity, are highly dependent on the methodology, the context, and the maturity of the MFI.

Financial analysis is simple -- compare, compare and compare

- Comparing results with projections and targets
- Comparing results of the period with previous results and looking at the trends
- Comparing results with those of other comparable organisations

The Microfinance Information Exchange (MIX) provides online information of over a thousand microfinance institutions in the world. The MFIs are classified by region, country, by maturity, by legal structure, and by size. The MIX also produces the MicroBanking Bulletin publications from time to time that make special comparison and analysis of selected MFIs, usually by region. This type of transparency and information exchange promotes healthy evaluation and a strong sense of where

the industry is heading. To obtain the most recent copy of the MicroBanking Bulletin that includes Bulletin Tables for Benchmarking, visit The Mix at www.themix.org.

Best Practices Standards for MFI Indicators

For many of the portfolio and financial indicators, it is difficult to determine what is actually considered “international best practice.” So much depends on the methodology, the MFI itself, the country, and other variable factors. The most important issue is the trend. Is the organisation improving its portfolio quality over time, are sustainability and efficiency actually increasing?

In spite of the difficulty of getting a best practice standard, the work conducted by The MIX and the results of benchmarking MFI performance are generally accepted as “industry norms.” The table below lists the overall targets, benchmarking ranges for all sustainable MFIs, and benchmarking ranges for Asian MFIs.⁵

Ratios	Targets	Benchmarking Ranges for all Sustainable MFIs	Benchmarking Ranges for all Sustainable MFIs in Asia
Operating and Financial Self-Sufficiency	> 100%	OSS 118% - 145%	OSS 123% - 127%
Return on Assets	> 0	1.3% - 6%	1.7 – 3.4%
Return on Equity	> 0	7.9% - 18.8%	12.3 – 17.1%
Portfolio at Risk	< 5%	.8% - 5.1%	1.1 – 2.3%
Write-off Ratio	< 2%	0 – 2%	0 – 1%
Risk Coverage	Variable	.5 – 1.1	.9 – 1.1%
Operating Expense Ratio	Ranges between 10 – 40%	12.5% - 36.4%	14.3 – 16%
Borrowers per Loan Officers	Variable	161 - 283	250 - 277

When MFIs in Asia reach sustainability, their returns on equity and assets tends to be very high comparative to other regions. Their Operating Expense Ratios and Loan Loss Write-Off ratios tend to be very low as well. The performance of Asian MFIs for other indicators is illustrated in *Handout 3.3 MicroBanking Bulletin Benchmarks for Asia*. The MIX has also recently published a review of the Indian sector. That report is also available on their website.

As the microfinance industry matures and becomes more and more competitive, it will also attract more and more equity and debt investors. At that point, investors will look more closely at Returns on Equity and Return on Assets. As institutions become regulated, Central Banks will pay more attention to capital adequacy and deposits to assets ratios. The sector continues to evolve, and monitoring your OWN performance is critical, whether you are just beginning operations, in strategic expansion, or in the throes of competition!

Other MFI Rating Systems

The ratios presented in this toolkit are commonly accepted and used ratios in the microfinance sector. However, there are other ratios that are extremely useful as MFIs diversify into deposit mobilization

⁵ The MicroBanking Bulletin issue No. 15 Autumn 2007. The MIX Microfinance Information eXchange (www.themix.org)

or become regulated. Capital adequacy, savings to assets, and the debt service coverage ratio are all used by many institutions.

Handout 4.1 CGAP Focus Note 22 – Resource Guide to Microfinance Assessments provides an overview of the different assessment approaches of five different organisations: ACCION, Planet Rating, the World Council of Credit Unions (WOCCU), MicroRate, and M-Cril of India. These assessments are conducted for the purposes of donor decisions, due diligence for debt or equity investors, or simply the sector analysis in a particular country. Most of the assessments include the ratios discussed in this toolkit, and also look at additional ratios and analysis.

Handout 4.2 CAMEL Rating Technical Note – ACCION provides an overview of ACCION's approach and methodology. *Handout 4.3 GIRAFE Rating Methodology – Planet Rating* and *Handout 4.4 PEARLS Rating - WOCCU* illustrate their ratios and approaches.

Micro-Credit Ratings International Ltd. of India has conducted analytical reviews for the Indian Microfinance sector from time to time. These reviews have been published in 2003, 2005 and again in 2007 (in collaboration with The MIX). The written reports provide excellent ratio analysis of the key areas discussed in this toolkit. They are available at www.m-cril.com.

Where to Go From Here

This toolkit has provided an overview of accounting systems, discussed the financial statements in details and presented the industry standard performance ratios relevant for measuring, reporting, and monitoring MFIs.

The first step to take in moving forward is to ensure that your MFI's accounting policies, accounting systems and Management Information Systems are adequate, well-managed, and produce timely and accurate reports. Without reliable and consistently prepared reports, ratio analysis is not reliable or useful.

Ratio analysis is generally conducted monthly in MFIs, although some only produce them on a quarterly basis. Ratio analysis can be simplified by using a spreadsheet tool called the SEEP FRAME available free of charge online at www.seepnetwork.org/frame. It accompanies the Framework document referenced to many times in this toolkit. It facilitates reliable ratio analysis, trend graphs and also prepares the Cash Flow Statement when key Balance Sheet, Income and Expense Statement and Portfolio Report data is entered.

It is a good place to start!

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