Delinquency Management and Interest Rate Setting for Microfinance Institutions

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Introduction

BACKGROUND OF THE CGAP *SKILLS FOR MICROFINANCE MANAGERS* COURSE SERIES

In 1997, Jennifer Isern and Brigit Helms of CGAP launched a pilot program in Africa to provide financial management courses to microfinance institutions (MFIs), based on industry-wide observation that the greatest constraint to the development of microfinance in the region was the lack of management capacity. The Pilot initiative had two complementary long-term objectives: 1) to improve the institutional viability of MFIs in Africa and 2) to enhance the human resource base in microfinance in Africa through sustainable training programs that would help develop stronger MFIs and increase the market for local training services. By 1999, the Africa Pilot program had become the MFI Training Program, with new partners in South and South-East Asia, Central Europe, and the Newly Independent States (NIS). In addition, CGAP launched AFCAP, an East/Southern Africa program focusing on 12 countries and CAPAF, the Francophone Africa program focusing on 19 countries, to build the capacity of national training service providers to offer training and consulting services. During the early years, Jennifer Isern and Brigit Helms served as overall coordinators of the MFI Training Program and regional programs with colleagues Tiphaine Crenn, Nathalie D'Ambrosio-Vitale, Mike Goldberg, and Joyita Mukherjee, and primary consultants Janis Sabetta, Ruth Goodwin, and Kim Craig.

Through this initiative, CGAP developed seven courses for MFI managers conceived to be globally relevant, short and practical, and incorporating adult training design. These courses are collectively called the *Skills for Microfinance Managers* series. Based on feedback from trainers and participants from hundreds of courses, the courses were revised and improved over several years. As the program matured, Jennifer Isern, Leslie Barcus, and Tiphaine Crenn managed the Global MFI Training Program. By the time CGAP transferred its training activities to the Microfinance Management Institute in January 2007, CGAP's 39 training partners had trained more than 12,000 people in 52 countries.[1] In 2007–2008, Tiphaine Crenn coordinated revisions and overall editing of the MFI courses to reflect changes in microfinance standards, especially in financial statements and ratios.

In line with CGAP's role as a global resource center on microfinance, the full trainer materials for the seven courses developed under the MFI Training Program are now being made publicly available.

NOTICE ABOUT USING THE CGAP *SKILLS FOR MICROFINANCE MANAGERS* COURSE MATERIALS

In parallel to developing course materials, the program aimed to identify qualified national and regional training institutions and help build their capacity to deliver high-quality courses, expand their training markets, and offer courses on a cost-recovery basis. Hundreds of training of trainer (ToT) sessions were organized for the seven courses throughout the world. In some regions, CGAP also developed a certification process, and certified trainers were given broad access to the training materials. Certified training partners invested heavily in building their reputation for offering high-quality, useful courses and building up their businesses.

Although the CGAP *Skills for Microfinance Managers* course materials are now publicly available, CGAP recognizes only those partners and trainers who went through the certification process as CGAP training partners. Others who offer a course using materials from one of the CGAP *Skills for Microfinance Managers* course should not refer to themselves as CGAP trainers or CGAP-certified.

[1] By December 2008, the number of people trained was closer to 14,000, given the ongoing training activities of CAPAF's 19 training partners in Francophone Africa.

CGAP also requests that all those who offer the "Delinquency Management and Interest Rate Setting" course use the following text in their marketing materials and course descriptions: "The Delinquency Management and Interest Rate Setting course is based on the materials developed by CGAP which are publicly available on http://www.cgap. org. CGAP is a leading independent resource for objective information, expert opinion, and innovative solutions for microfinance. CGAP works with the financial industry, governments, and investors to effectively expand access to financial services for poor people around the world."

HOW TO WORK WITH THE COURSE MATERIALS

The CGAP *Skills for Microfinance Managers* course materials are all organized in the same manner, with eight to twelve sessions in each course. Each session generally consists of the following sections:

1. **Trainer Instructions** give step-by-step instructions to trainers on how to lead the session, including when to show which PowerPoint slide, distribute handouts, organize participant activities, discuss during short lectures or general discussions, etc. The instructions include suggested timing, although this should be adapted according to the context. The first page (Session Summary) of the Trainer Instructions section in each session lists all the supplies, technical materials, overheads, handouts, and case study sections that will be required for that specific session. ***Optional overheads and handouts, which are included in the course material for use at the discretion of the trainer, are clearly identified within shaded boxes in the Session Summary.*** If there are additional technical materials in the session, the Trainer Instructions include a section called Trainer Materials, marked M in the right-hand top corner. Trainer Instructions are not intended for participants. If technical explanations are included in the Trainer Instructions, they are also generally provided in the handouts for the participants.
2. **Overheads** introduce topics, underscore key messages, and summarize issues. Overheads are clearly marked O in the right-hand top corner. (For example, DQ3-O2 means that this is the second overhead of the third session in the Delinquency Management portion of the course.) ***Optional overheads*** are identified by black (as opposed to white) reference numbers. The overheads are in PowerPoint format but can be printed out on transparencies and shown using an overhead projector. Overheads are not meant to be distributed to participants since the handouts in the same session will cover the same points, generally in greater detail.
3. **Handouts** are marked H in the top right-hand corner, in the same manner as the overheads. Handouts include exercises, instructions, and financial statements, as well as additional reading and in-depth information on the topic. Some handouts give instructions to the trainers about a publication to distribute, and these publications may need to be ordered or downloaded separately.
4. **Case studies** are used in most of the CGAP courses. Files for the case study are sometimes kept separate from the other handouts. The instructions in the Trainer Notes explain the section of the case study at each point in the session. Printing case studies on colored paper (and using different colors for different sections of the case) makes it easier for participants to organize their materials.
5. **Reference materials** and additional reading are listed for each course. Excerpts or the entire document are often included in the handouts. On the Web site, each course home page contains a box on the right-hand side with links to download the documents, if they are available publicly, or information on how to purchase them.

Please note that the overheads in PowerPoint format need to be downloaded separately. The course file contains the trainer instructions, the trainer technical materials, the overview of the overheads, the handouts, and the case study. The pages are formatted to be printed double-sided and blank pages are included as necessary.

Overview of the Course

Based on the premise that MFIs have to be sustainable for long-term impact, the" Delinquency Management and Interest Rate Setting for Microfinance Institutions" course concentrates on two areas that are especially important for MFI managers: controlling delinquency and defaults and determining a sustainable interest rate. During this 3- to 4-day course, participants learn to determine causes and costs of delinquency, to measure and control arrears, to calculate the costs of credit for clients, among other skills, through exercises, group activities and case study analysis.

INTENDED AUDIENCE

This course is recommended for Executive Directors, Finance Managers, Credit Managers, Operations Managers, Branch Managers and Board Members from Microfinance NGOs, credit unions, banks and other financial institutions, microfinance networks, apex institutions, national government regulators, and donors and consultants.

COURSE OUTLINE

Delinquency Management

Session 1: Understanding Causes and Costs of Delinquency

How to:
- Define delinquency and default
- Identify the main causes of delinquency
- Calculate the costs of default
- Discuss the impact of delinquency and default on an MFI

Session 2: Measuring Delinquency

How to:
- Define portfolio quality
- Define and calculate portfolio-at-risk and repayment rates
- Explain the advantages and disadvantages of each of the formulas
- Calculate loan loss for a sample portfolio

Session 3: Controlling Delinquency

How to:
- Articulate strategies for keeping delinquency within acceptable limits
- Analyze institutional factors affecting delinquency
- Identify incentives and disincentives of timely repayment from the borrower's perspective

Session 4: Managing a Delinquency Crisis

How to:
- Analyze a major delinquency problem
- Plan a comprehensive response, with both short-term and long-term actions to resolve the problem

Session 5: Using New Skills and Knowledge

Interest Rate Setting

Session 1: Interest Rates and Microfinance
- Importance of interest rates for sustainability in microfinance
- Impact of subsidized interest rates

- Difference between nominal, effective, and real rates

Session 2: Setting Sustainable Interest Rates

How to:

- Calculate interest rates for sustainability
- Apply the formula

Session 3: Effective Interest Rates

How to:

- Define and calculate effective interest rates
- List various types of fees and their impact
- Manipulate rates, fees, and loan terms to achieve different levels of income

Session 4: Costs of Credit for the Borrower

How to:

- Define financial, transaction, and opportunity costs
- Analyze and calculate total borrowing costs
- Assess impact of forced savings on a borrower
- Analyze implications of various costs to the MFI and the borrower

Session 5: Using New Skills and Knowledge

- Identifying barriers within one's institution to setting sustainable interest rates
- Creating action plans for applying new knowledge in one's institution

Date of last substantive update: 2008

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(updated in 2009)

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WELCOME AND INTRODUCTION

Delinquency Management and Interest Rate Setting

OBJECTIVES: By the end of the session, participants will be able to:

- Introduce each other
- Determine their training needs
- Establish expectations
- State the training objectives

TIME: 100 minutes

Session Topics:
A. Welcome *(10 minutes)*
B. Introduction *(90 minutes)*

SUPPLIES: Flipchart paper, markers
Blank index cards
LED projector or overhead projector

TRAINER MATERIALS

W-M1 Sustainability Equation: The Icebreaker Exercise
W-M2 Precourse Skills Audit – Answers
W-M3 CGAP Managing Delinquency and Setting Interest Rates Courses – Summary of Main Messages
W-M4 Suggested Allocations of Time per Session
W-M5 Sample Name Tents

PARTICIPANT MATERIALS

OVERHEADS:
W-O1 Sustainability Equals
W-O2 Goals
W-O3 I hear, I see, I do

HANDOUTS:
W-H1 Interest Rates – Organizational Information Form
W-H2a Precourse Skills Audit
W-H2b Precourse Skills Audit *(Answer Sheet)*
W-H3 Delinquency Management and Interest Rate Setting – Goals
W-H4 CGAP Occasional Paper 3 – "Measuring Microcredit Delinquency: Ratios Can Be Harmful to Your Health" *(to be downloaded and distributed to participants)*
W-H5 CGAP Occasional Paper 1 – "Microcredit Interest Rates" *(to be downloaded and distributed to participants)*

PREPARED FLIPCHARTS

Introductions: What we want to know about each other (title only)
Small Group Members' Names
Expectations
Questions/clarifications (title only)

Welcome and Introduction

Topic A: Welcome

Pass out the organizational information form (W-H1) and ask participants to fill it out as they wait for participants to arrive. Remind participants during breaks and over lunch to complete the form. The form should be completed and returned by 2 p.m. of the first day, but specific time does not need to be allocated to the activity.

1. *(3 minutes)* A welcome to participants by a representative from the sponsoring organization, and opening of the workshop.

2. *(5 minutes)* Remarks from official guests.

3. *(2 minutes)* Introduction of facilitators.

Topic B: Introduction

4. *(5 minutes)* Open the session by making remarks on the following points. (Do not read the points; talk them through convincingly.)

   - International best practice suggests that sustainability is an attainable goal for microfinance institutions (MFIs). This course will introduce two important concepts and their relationship to the sustainability of an MFI.
   - Loan delinquency, which can lead to default, is probably the largest single downfall of institutions involved in the provision of financial services. Even in financial institutions operating quite successfully, the specter of delinquency and default must be continually addressed.
   - Interest rates on loans represent the principal mechanism for achieving program sustainability within the framework of a cost structure. Only institutions that can cover all their costs, including those related to loan losses, can become sustainable.
   - Over the next three days, this course will consider the best practices pertaining to delinquency management and setting of interest rates for sustainability, and will explore their impact on sustainability.

   Launch the activities by saying: Let’s get started.

Icebreaking Exercise to Introduce Participants

5. *(5 minutes)* Ask participants what they would like to know about each other and list the responses on a flipchart. After five or six items are given, conclude the list. Try to ensure that some of the following are included: name, organization, nature of participant’s job, time with job or organization, and biggest challenge of the job. If expectations are suggested, tell participants that they will be discussing expectations separately later (or write down the expectations stated during the introductions to use later in the session).

6. *(3 minutes)* Begin the introductory exercise by showing the sustainability equation overhead (W-O1) and briefly discuss the equation as it relates to the course.

7. *(3 minutes)* Walk around the group and hand out small slips of paper with fragments of the sustainability equation cut from W-M1. Tell participants that each equation has six pieces, as in the overhead. They must find five other people whose pieces, when combined, make up one complete equation. Remind participants that this exercise is also to meet other people.

   Be sure to count the participants ahead of time so that full equations can be made. If number of participants is not evenly divisible by six, explain that some groups will have more than six people with more than one person with the same piece of the equation. Avoid passing out the equation in order, as this will result in the six people sitting next to each other being able to form an equation. The purpose is to have people get up and move around and talk to other participants. Also, putting the sustainability equation on a flipchart and posting it on the wall will serve as a visual reminder for participants throughout the course.

8. *(4 minutes)* Ask participants to get up and search for other people to complete the equation and form a group of six.

9. *(10 minutes)* After groups have completed the equation, have the members sit for a few minutes and share the information shown on the flipchart. After 5 minutes, announce that groups should break into pairs. The pairs should prepare to introduce each other to the large group.

10. *(20 minutes)* Reconvene and have each participant stand and introduce a member of the group. Everyone should have a chance to introduce someone else; one person should not be introducing all members of the group. This exercise is important for making participants feel comfortable speaking in front of the group because it gets the initial public speaking experience out of the way in a nonthreatening situation.

Discussion of Expectations and Precourse Skills Audit

11. *(10 minutes)* Begin a discussion of participants' expectations for the workshop. State: Now that we know a little about each other, we would like to know why we are all here. Next, pass out blank index cards and ask participants to list their primary expectations on the card. Collect the cards.

    While participants are completing the next step, review the cards and make two flipcharts, one with the most common expectations that the course will meet and a second chart listing expectations that will not be met in the course.

12. *(15 minutes)* Pass out the Precourse Skills Audit (W-H2). Ask participants to complete it as best they can, giving answers that reflect how they understand and use the concepts in their organizations. Tell participants they will have 15 minutes to complete the audit. Explain that the audit will not be graded and will be used to give the trainer a better idea of what to emphasize in the remainder of the course.

The audit will also help participants assess how well their understanding of key topics has changed during the three days of the workshop.

Remind the participants that they are not expected to already know all the answers. Joke that if the participants could answer all of the questions at this point, the trainer would be out of a job and there would be no need for this course!

Explain that the test is to be used to help select and balance small groups for workshop activities (see Trainer Note 1). Tell them that a flipchart will be posted listing group members.

Goals, Rules, and Logistics

13. *(5 minutes)* To begin the discussion of goals, post the flipcharts made earlier listing participants' expectations for the course. Present the overhead with the course's goals (W-O2). If a schedule of the course has been prepared, hand it out at this point. Briefly discuss expectations, goals, and the schedule.

    If some expectations clearly cannot be met, discuss this and make some suggestions as to why those are not included. Suggest options for how participants can best meet their particular goals, such as other courses, reading material, lunch discussions, and so forth. Tell participants that the remaining expectations will be revisited at the end of day 3 to see how well they have been met. Pass out W-H3, the handout on workshop goals.

14. *(3 minutes)* Present the following trainer's rules; summarize and post the rules on a flipchart titled "Don't Forget!"

    - All questions are good questions. There are no stupid questions. The only stupid question is the one that goes unasked. Tell participants that there is also a blank flipchart to record questions they have during the sessions. Remember to refer to the flipchart and answer relevant questions as the course progresses.
    - Everyone needs to participate in order to succeed and reach the goals of this course. (Note: Acknowledge different levels of background and experience and encourage those with more experience to assist those with less.)
    - Everyone needs to stretch from time to time, so the workshop has a stretch monitor. (Note: Appoint a stretch monitor or ask for a volunteer.)
    - Have fun!

15. *(5 minutes)* Go over any relevant logistical arrangements (payments, lunch hours, and so forth).

16. *(2 minutes)* Post overhead W-O3 and explain the quote in terms of the course philosophy and methodologies. Remind participants that they will be asked to do many exercises, because that is the best way to learn.

    If desired, take some time to explain, in detail, the course methodology, emphasizing that it is a proven method of adult education. Acknowledge that it is

different from traditional lecture-oriented courses. Reassure participants that they should see better results and higher retention than in lecture-oriented courses. Point out that lectures are used only in small doses, while exercises and discussions are used to reinforce and extend the material presented. Solicit and address objections and concerns on a private, individual basis, if necessary.

17. *(2 minutes)* Remind participants to complete and return the organizational data form (W-H1) and pass out CGAP Occasional Paper 3 (W-H4) if not previously distributed or included in participants' notebooks. Ask participants to read the paper before day 2.

18. *(1 minute)* Close the session and bridge to an introduction of delinquency management.

Trainer Notes:

- As soon as the participants have completed the precourse skills audit, one of the trainers will "grade" the forms and categorize participants by their level of understanding of the topics. The trainer will then designate groups so that they have a mix of knowledge and ability for future work in small group activities. The trainer should not place participants from the same organization in the same group.
- Because the course sessions can sometimes be tedious, it may be helpful to introduce the "stretch monitor." This concept allows participants to have input into the pace of the program and to set short breaks. During the discussion on trainer's rules, the trainer can tell participants that they will be responsible for themselves not getting overtaxed during the workshop. Two or three volunteers could take on this responsibility, or the whole group could monitor the energy level.

  The volunteer stretch monitors suggest pausing to let participants stand up or stretch.

  The trainer could prompt one of the volunteers to stretch shortly into the session so that everyone can see what happens.
- The trainer can decide to present basic rules for small group work, for example, when leading the "Don't Forget" flipchart activity and discussing participation. Use the following rules:
  a. Select a facilitator to lead discussions and a reporter to take notes and report discussions to the main group.
  b. Encourage all to participate more or less equally.
  c. Respect everyone's contributions.
  d. Work toward consensus but allow minority opinions.
  e. Make it a point to learn from each other—all participants have knowledge to share.

Sustainability Equation: The Icebreaker Exercise

Photocopy and cut apart on the lines

SUSTAINABILITY = COVERAGE OF

Financial Expenses
(Cost of Funds and Inflation) +

Loan Loss +

Operating Expenses
(Personnel and Administrative Expenses) +

Capitalization for Growth

FROM FINANCIAL REVENUE

SUSTAINABILITY = COVERAGE OF

Financial Expenses
(Cost of Funds and Inflation) +

Loan Loss +

Operating Expenses
(Personnel and Administrative Expenses) +

Capitalization for Growth

FROM FINANCIAL REVENUE

Precourse Skills Audit – Answers

MARK TRUE, FALSE, OR I DON'T KNOW

1. **F**
2. **T**
3. **F**
4. **T**
5. **F**
6. **F**
7. **F**

MARK A, B, C, D, OR E

8. **A**
9. **B**
10. **B**
11. **C**
12. **C**

13. **Portfolio-at-Risk =** $\frac{\text{Unpaid Principal Balance of all loans with payments at least 1, 31, 61, over 90 days past due}}{\text{Gross loan portfolio}}$

14. **Write-off Rate =** $\frac{\text{Amount written off}}{\text{Gross loan portfolio}}$

15. **Three ways to increase sustainability are:**

1. Reduce costs	2. Increase income by raising interest rates, fees, and commissions	3. Reduce bad debt

16. **Four things to consider when setting an interest rate are:**

1. Operating costs	3. Cost of capital
2. Inflation	4. Loan loss

W-M3

CGAP Managing Delinquency and Setting Interest Rates Courses

SUMMARY OF MAIN MESSAGES

(The core concepts participants need to walk away with in addition to the session objectives)

Session	Main Messages
Introduction	⇒ Sustainability is distinct from self-sufficiency. ⇒ Delinquency affects sustainability. ⇒ The course is structured so participants learn about delinquency management and interest rate setting. ⇒ Experiential methodology increases comfort.
Delinquency Management	
1 A. Delinquency Management Concepts	⇒ Delinquency occurs when one payment is one day late. ⇒ Zero tolerance for delinquency is a reasonable goal. ⇒ A zero-tolerance attitude is critical for staff. ⇒ Anything less than zero is the MFI's decision. ⇒ Delinquency is a hidden beast; it can easily spin out of control.
1 B, C, and D. Causes and Costs of Delinquency	⇒ The MFI is responsible for delinquency; it cannot blame anyone or anything else. ⇒ Delinquency is expensive for an MFI and has an impact on all financial statements and the portfolio report. ⇒ Default is a catastrophic event; it is difficult for MFIs to recoup all the lost funds.
2 A. Concepts of Loan Portfolio Quality	⇒ The loan portfolio is the major asset generating MFIs' income. ⇒ High portfolio quality generates more income. ⇒ For all ratios measuring loan portfolio quality, ask what is in the numerator and denominator. ⇒ Only ratios with *portfolio* in the numerator or denominator measure its quality. ⇒ Repayment rate does not measure loan portfolio quality.
2 B. Measuring Portfolio-at-Risk	⇒ PAR is best. ⇒ The arrears rate overestimates portfolio quality. ⇒ Aging of the portfolio allows risk analysis. ⇒ PAR has limitations (rapid growth, write-offs, and village banking).
2 C. Measuring Repayment Rates	⇒ Repayment rate does not measure loan portfolio quality. ⇒ Repayment rate is good for cash-flow planning.

Session	Main Messages
2 D. Impairment Loss Calculations	⇒ MFIs must have an impairment loss allowance and provision for loan impairment for accurate financial statements. ⇒ Impairment loss allowance rate should be based on historical portfolio performance. ⇒ Provision for loan impairment is an expense and affects sustainability. ⇒ MFIs should have a reasonable write-off policy.
3 A, B, C. Controlling Delinquency	⇒ Borrowers behave rationally in response to incentive and disincentive. ⇒ There are no bad borrowers, only bad loans. ⇒ MFIs need to create incentives and reduce disincentives for borrowers to pay. ⇒ Rescheduling and refinancing hide delinquency, and clients stop paying once these are options for them. ⇒ A good information system is crucial for preventing delinquency. ⇒ Staff is another crucial factor in controlling delinquency. *Note:* Participants can attend the CGAP Operational Risk Management workshop to obtain a better understanding of the role of staff in mitigating risk.
4. Managing a Delinquency Crisis	⇒ Managers should understand the causes of the problem before developing a solution. ⇒ Prevention is better than cure.
Interest Rate Setting	
1 A. Introduction to MFI Sustainability	⇒ Interest and fees are the only source of operating income. ⇒ Interest rates are fundamental to sustainability. ⇒ MFI interest rates compete with informal finance.
1 B. Nominal Effective and Real Interest Rates	⇒ The different terminology for interest rates has specific meanings: nominal, real, flat, declining, effective, and APR. ⇒ The effective interest rate represents the financial cost to the borrower.
2 A, B. Setting Sustainable Interest Rates	⇒ Interest rates must include *all* the MFI's costs and capitalization for growth. ⇒ Interest rates can be set to reach sustainability in the future. ⇒ MFI managers have control over (most) elements of the formula.
3 A. Calculating Effective Interest Rates	⇒ APR is the amount the portfolio should yield. ⇒ The flat method gives a higher yield than the declining balance method. ⇒ A calculator or computer is needed to compute an accurate effective interest rate (EIR).
3 B. Impact of Fees etc. on Effective Interest Rates	⇒ MFI managers can manipulate EIR using fees, up-front interest, frequency of payment, term of the loan, and more.

Session	Main Messages
4 A, B. Costs of Credit for the Borrower	⇒ MFIs must understand the borrower's perspective when designing products. ⇒ Three types of costs are important to borrowers: financial, transaction, and opportunity. ⇒ Transaction and opportunity costs benefit neither the MFI nor the borrower. ⇒ MFIs need to reduce borrowers' transaction and opportunity costs.
5. Barriers to Setting Sustainable Interest Rates	⇒ MFIs should not subsidize interest rates. ⇒ An MFI that cares about its clients uses a sustainable interest rate because: ⇒ Sustainable interest rates ensure long-term service for clients. ⇒ Sustainable interest rates enable the MFI to reach more clients. *Note:* Participants need the CGAP financial analysis and accounting courses to go further.

W-M4

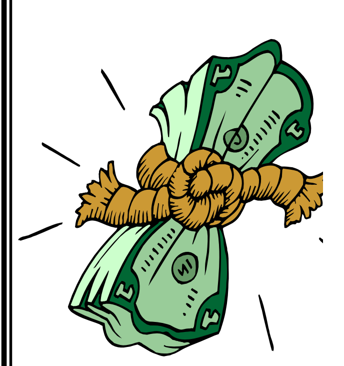
Suggested Allocations of Time per Session

(To be adjusted based on trainer's knowledge of participants and market)

"Delinquency Management and Interest Rate Setting for Microfinance Institutions"	**Min time in minutes**	**Max time in minutes**
Welcome and Introduction	80	100
DQ1: Understanding Causes and Costs of Delinquency		
Topic A: What Is Delinquency?	25	35
Topic B: Causes of Delinquency	30	40
Topic C: Costs of Delinquency and Default	40	45
Topic D: Impact of Delinquency and Default on Financial Statements and Portfolio Report *(Optional)*	90	110
DQ2: Measuring Delinquency		
Topic A: What Is Loan Portfolio Quality?	60	70
Topic B: Measuring Repayment Rates	35	40
Topic C: Measuring Portfolio-at-Risk (PAR)	70	80
Topic D: Impairment Loss Allowance Calculations	40	60
Topic E: Effect of Provision for Loan Impairment, Impairment Loss Allowance, and Write-offs on Financial Statements	40	60
DQ3: Controlling Delinquency		
Topic A: The Borrowers' Perspective	35	50
Topic B: Finding Organizational Solutions	35	45
Topic C: Information Systems for Controlling Delinquency	20	30
DQ4: Managing a Delinquency Crisis	40	60
DQ5: Using New Skills and Knowledge Review and Participant Action Plans	50	60
IR1: Interest Rates and Microfinance		
Topic A: Introduction to MFI Sustainability	25	35
Topic B: Nominal, Effective, and Real Interest Rates	20	30
IR2: Setting Sustainable Interest Rates		
Topic A: Formula for Setting Sustainable Interest Rates	50	60
Topic B: Applying the Formula	45	60
IR3: Effective Interest Rates		
Topic A: Calculating Effective Interest Rates	50	65
Topic B: Impact of Fees, Forced Savings, and Loan Terms on Effective Interest Rates	20	30
IR4: Cost of Credit for the Borrower		
Topic A: Dramatizing Costs of Credit for the Borrower	25	35
Topic B: Types of Costs	35	45
IR5: Using New Skills and Knowledge		
Topic A: Barriers to Setting Sustainable Interest Rates	40	60
Topic B: Participants' Action Plan	20	35
Topic C: Summary	30	70
Topic D: Auditing for Comprehension	15	20
Course Evaluation and Closure	30	60
Total minutes	**1,095**	**1,490**
Divided by 60 minutes = total hours	**18.25**	**24.83**
If 6-hour days, number of days	**3.04**	**4.14**
If 6.5-hour days, number of days	**2.81**	**3.82**

Sample Name Tents

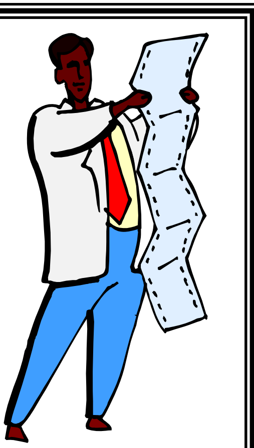
participant name goes here



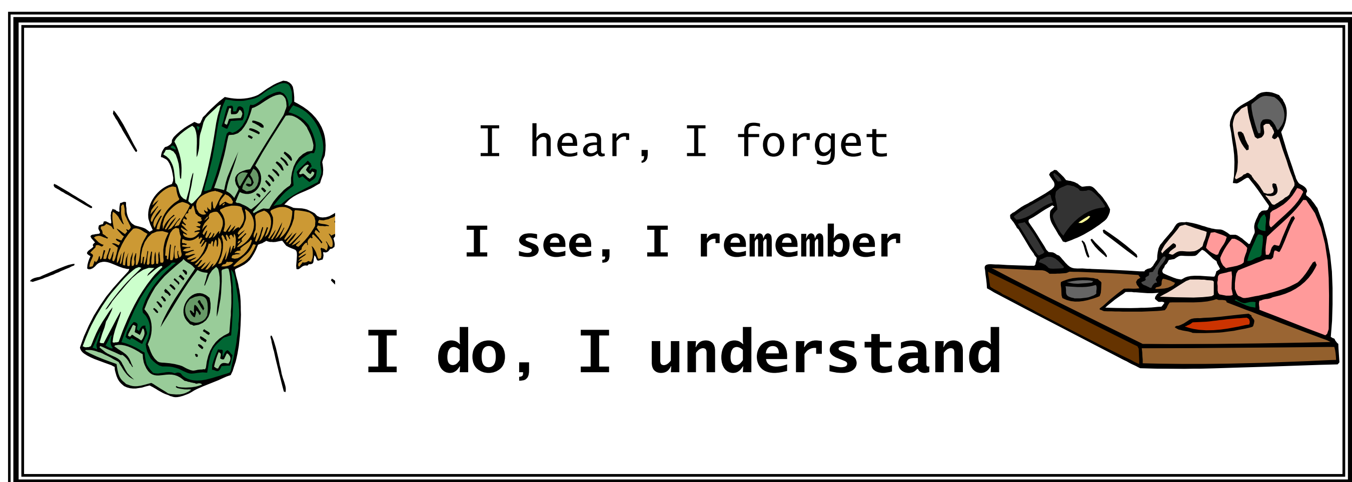
I hear, I forget

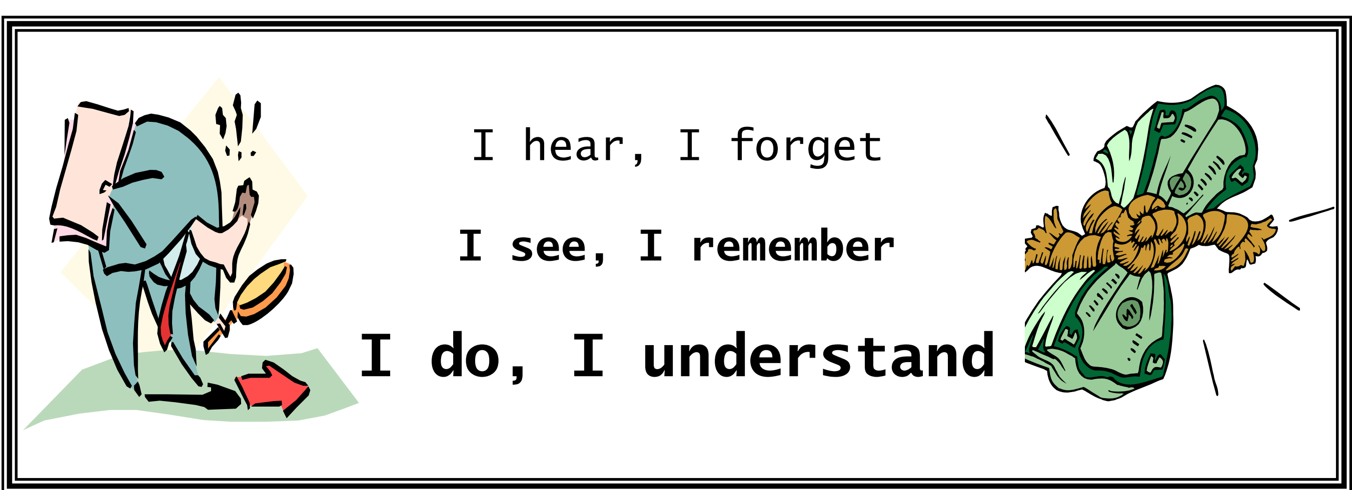
I see, I remember

I do, I understand



To Use: Cut along solid lines, then fold on dotted line. Make sufficient copies (preferably copied on hard paper) for all participants. Distribute to participants and ask participants to write their name in the space provided.


I hear, I forget
I see, I remember
I do, I understand


I hear, I forget
I see, I remember
I do, I understand

Overheads

THE COMPLETE SET OF OVERHEADS IS IN A SEPARATE POWERPOINT FILE ENTITLED "CGAP DELINQUENCY MANAGEMENT AND INTEREST RATE SETTING OVERHEADS"

W-O1

Sustainability Equals

Coverage of

Financial Expenses (incl. cost of funds + inflation)
+
Loan Loss
+
Operating Expenses (incl. personnel and administrative expenses)
+
Capitalization for Growth

from Financial Revenue

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W-O2

Goals

- Explain relationship of delinquency management and interest rates to sustainability
- Analyze the causes of delinquency
- Explain the institutional costs of delinquency
- Calculate and explain provisioning for loan impairment, impairment loss allowance, and write-offs
- Apply ratios and tools to measure and control delinquency
- Define interest rate terminology
- Calculate effective interest rates
- Establish interest rates for sustainability
- Discuss the impact of interest rates on borrowers and lenders
- Develop an institutional action plan on delinquency management and interest rate policy

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W-O3
I hear and I forget
I see and I remember
I do and I understand,....
Confucius
450 BCE
©CGAP/World Bank, 2009
CGAP

Handouts

Interest Rates – Organizational Information Form

(Please use a pen.)

Name ________________________________ **Organization** ________________________________

Interest Rate of Main Credit Product _____% per ☐ Month on ☐ Flat
☐ Year ☐ Declining

Who sets the interest rate?

What factors does your MFI consider when setting the interest rate?

When was it last reviewed?

What fees does your MFI charge and when are they charged?

Type of Fee | Amount (% or Actual) | When Charged (at registration, disbursal, etc.)

SAVINGS

Does your institution offer deposit services? ☐ Yes ☐ No

How much interest is the client paid?

SAVINGS – Compulsory/Required

Does your MFI require compulsory savings? ☐ Yes ☐ No

If yes, in what amounts?

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How and when are the savings collected?

Does your MFI hold these savings? ☐ Yes ☐ No

Is the client paid interest? ☐ Yes ☐ No

How much is the client paid? (state percentage or amount, as appropriate)

When is the client paid interest on his or her compulsory savings?

Can the client access the savings? ☐ Yes ☐ No

If yes, how and when?

FIRST LOAN DETAILS

These details will be used to calculate the effective interest rate of your MFI. If you do not have specifics of the first loan, then please enter the data for any single (sample) loan that is offered.

Amount of Loan ______________ Interest Rate on this loan ______________

Loan Term ______________ When Paid (up front, equal payments, etc.)

Frequency of Payments ______________ ____________________________________

Fees:

Purpose	Amount or percentage of loan size	When they are paid (up front, ongoing, etc.)

Principal payment amount ______________ ☐ per week OR ☐ per month OR

☐ Other – Explain (for example, lump sum end of term)

Amount paid in interest ______________ ☐ per week OR ☐ per month OR

☐ Other – Explain (for example, up front)

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Precourse Skills Audit

Managing Delinquency and Setting Interest Rates for Sustainability

Mark your answers on the answer sheet provided. If you are not reasonably sure of the answer, please mark "I don't know" instead of guessing. You will not be graded. The results of this test will be used to help the instructors match their presentations to the background and knowledge of the students.

FOR QUESTIONS 1–7, MARK ON YOUR ANSWER SHEET: **T** (TRUE) **F** (FALSE) OR **?** (I DON'T KNOW)

1. Most microfinance institutions (MFIs) are financially sustainable.
2. Many MFIs require clients to make savings deposits before, or during, a loan.
3. If they want to be financially sustainable, MFIs should charge their borrowers a "market" interest rate (that is, a rate close to what commercial banks charge to their usual customers).
4. Loan delinquency can spin out of control faster in an MFI than it might tend to in a commercial bank.
5. Repayment rate is the best way to monitor the quality of your loan portfolio.
6. Delinquency control is out of the hands of the MFI; it is totally in the hands of the borrower.
7. Outstanding loan portfolio is equal to the total amount of loans disbursed by an MFI.

FOR QUESTIONS 8–12, SELECT THE APPROPRIATE LETTER AND MARK IT ON THE ANSWER SHEET.

8. Which of the following is the easiest to achieve?
   A. Operational Self-Sufficiency
   B. Financial Self-Sufficiency
   C. Profitability
   D. I don't know
9. Which of the following describes meaningful measures of portfolio risk?
   A. Amount of late payments divided by total gross loan portfolio
   B. Outstanding amount of loans with one or more payments late, divided by total gross loan portfolio
   C. Both of the above
   D. Neither of the above
   E. I don't know
10. An interest rate that has been adjusted to reflect the impact of inflation is called a(n)
    A. Effective rate
    B. Real rate
    C. Nominal rate
    D. Adjusted rate
    E. I don't know
11. Provision for loan impairment will affect the
    A. Balance sheet
    B. Income (profit and loss) statement
    C. Both of the above
    D. Neither of the above
    E. I don't know
12. An interest rate that is the stated or quoted rate to be paid on a loan contract is called a(n)
    A. Effective rate
    B. Real rate
    C. Nominal rate
    D. Adjusted rate
    E. I don't know
13. What is the formula for portfolio-at-risk?
14. What is the formula for write-off ratio?
15. Name three ways to increase sustainability of a microfinance program.
16. Name four factors that should be considered when determining an interest rate.

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Precourse Skills Audit

Managing Delinquency and Setting Interest Rates for Sustainability

Name ______________________ **Organization** ______________________

Position: ______________________ **Length of time in position:** ______________________

MARK TRUE, FALSE, OR I DON'T KNOW

1. ☐
2. ☐
3. ☐
4. ☐
5. ☐
6. ☐
7. ☐

MARK A, B, C, D, OR E

8. ☐
9. ☐
10. ☐
11. ☐
12. ☐

13. **Portfolio-at-risk =** ______________________

14. **Write-off rate =** ______________________

15. **Three ways to increase sustainability are:**

1.	2.	3.

16. **Four things to consider when setting an interest rate are:**

1.	3.
2.	4.

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Delinquency Management and Interest Rate Setting

Goals

✓ Explain the relationship of delinquency management and interest rates to sustainability

✓ Analyze the causes of delinquency

✓ Explain the institutional costs of delinquency

✓ Calculate and explain provisioning for loan impairment, impairment loss allowance, and write-offs

✓ Apply ratios and tools to measure and control delinquency

✓ Define interest rate terminology

✓ Calculate effective interest rates

✓ Establish interest rates for sustainability

✓ Discuss the impact of interest rates on borrowers and lenders

✓ Develop an institutional action plan on delinquency management and interest rate policy

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SESSION 1: UNDERSTANDING CAUSES AND COSTS OF DELINQUENCY

Session Summary

OBJECTIVES: By the end of the session, participants will be able to:

- Define delinquency and default
- Identify the main causes of delinquency
- Calculate the costs of default
- Discuss the impact of delinquency and default on an MFI

TIME: 120 minutes total (time does not include topic D)

Session Topics:

A. What is delinquency? *(25–35 minutes)*
B. Causes of delinquency *(30–40 minutes)*
C. Costs of delinquency and default *(40–45 minutes)*
D. Impact of delinquency and default on financial statements and portfolio reports *(90–110 minutes; optional)*

SUPPLIES: Flipchart paper, markers
LED projector or overhead projector

PARTICIPANT MATERIALS

OVERHEADS:

DQ1-O1	Delinquency
DQ1-O2	Three Questions About Delinquency
DQ1-O3	Delinquency—The Hidden Beast
DQ1-O4	Causes of Delinquency (Exercise)
DQ1-O5	Costs of Delinquency – How Delinquency Affects an MFI
DQ1-O6	Default
DQ1-O7	Costs of Default – How Default Affects an MFI
DQ1-O8	Costs of Delinquency – Postponed Income
DQ1-O9a–b	Calculating the Costs of Default (WORKSHEET)
DQ1-O10	Costs-of-Default Formulas

Optional for Topic D:

DQ1-O11	Sample Format for an Income Statement
DQ1-O12	Sample Balance Sheet
DQ1-O13	Sample Direct Cash Flow Statement
DQ1-O14a–b	Sample Portfolio Report

HANDOUTS:

DQ1-H1	Costs of Delinquency – How delinquency affects an MFI
DQ1-H2a	Calculating the Costs of Default
DQ1-H2b	Calculating the Costs of Default *(Answers)*
DQ1-H3	Delinquency and Default Definitions

Optional for Topic D:

DQ1-H4	Income Statement (formatted as half page)
DQ1-H5	Balance Sheet (formatted as half page)
DQ1-H6	Direct Cash Flow Statement (formatted as half page)
DQ1-H7	Sample Portfolio Report (formatted as half page)
DQ1-H8	Discussion Questions
DQ1-H9	Background Information on MFI Financial Statements

PREPARED FLIPCHARTS:

Key vocabulary terms
What is delinquency?
Summary of who defines delinquency
Small group work guidelines
Responses—Causes of delinquency, by category
How does delinquency affect your program? Other stakeholders?
What is default?

Session 1: Understanding Causes and Costs of Delinquency

Topic A: What Is Delinquency?

Technique: Brainstorming in small groups

1. *(5 minutes)* Ask the group to describe delinquency and to say what it means to them. Discuss responses. They will likely propose more than one definition and equation. Follow with the question: What does “past due” mean in your MFI? (Answer: Anything over one minute late!). Discuss as you introduce the session.

2. *(7 minutes)* State: The terms used to describe delinquency (or repayment and default) mean nothing if everyone defines and calculates them differently. Emphasize the need for a common understanding of the terms used by MFIs.

   Show overhead DQ1-O1 and discuss international best-practice definitions. All these definitions say the same thing but in different words: a loan payment that is late is delinquent.

   Try to combine the participants’ answers and the expert definitions to come up with an agreed-upon wording for delinquency. Write this definition on a flipchart as time or the situation permits. Ask participants: Have we all agreed to what we will mean by *delinquent* in this course?

3. *(13 minutes)* Show the following questions on overhead DQ1-O2, and ask participants to discuss in groups of three (using their neighbors) the following questions:

   - Who defines delinquency in each participant's organization (for example, board of directors, management, government)?
   - What are the explicit or implicit levels of accepted delinquency?
   - Do their organizations have a written policy on delinquency or a general understanding?

   This activity will get participants thinking about delinquency in their own institutions and about possible strategies for change. Ask participants to share responses. Focus discussion on core concepts; highlight ZERO tolerance!

4. *(8 minutes)* Summarize by asking participants for main points of discussion. Ask: Why are we so concerned about delinquency? Show the overhead DQ1-O3 and talk about delinquency as the hidden beast. Conclude and link to the next concept: causes of delinquency.

Trainer Notes:

- The session is set up to put participants at ease initially and to prepare them for increased use of experiential learning approaches in later sessions by basing discussion on their own knowledge of the subject, pulling ideas from them, and increasing confidence in their capacities to serve as experts among their peers.

- Core concepts to be learned:
  - Zero percent delinquency is an obtainable and a reasonable goal, but it has its own costs.
  - Zero percent delinquency is an attitude that the whole agency must adopt in order to make it a reality.
  - If the institution accepts any delinquency level above zero percent, that is the decision of the institution itself.
  - Delinquency is a "hidden beast." This means that once you see a little delinquency (like the nose of a hippo or the footprint of a bear), it can easily and suddenly get out of control and eat away at your loan portfolio.
- The trainer's growing list of terms can be organized as a flipchart that remains visible throughout the course to reinforce key vocabulary.
- Term clarification:
  - Delinquency is the situation that occurs when loan payments are past due.
  - Delinquent loans are loans on which any payment is past due.
  - "Past due" is measured beginning one day after a missed payment.
  - "Loans in arrears" is used synonymously with the term delinquent loans.
  - Payments in arrears are also called delinquent payments.

  All of the above relate to the principal owed on a loan. The same can be applied to interest payments, but they should be considered separately from principal. Principal in arrears puts assets at risk, while interest in arrears disrupts a program's cash flow (SEEP Network 2005).

  Trainer must make sure that all local terminology for delinquency is clarified (that is, the terms used by the participants' organization and region). Participants need to be comfortable with the concept of delinquency as any payment that is late, whatever terminology is used.

TOPIC B: CAUSES OF DELINQUENCY

Technique: Small group work

5. *(15 minutes)* Introduce the topic of the causes of delinquency. Divide participants into random small groups of no more than five to discuss the following points (listed on overhead DQ1-O4):

   - Develop a list of up to 10 causes of loan delinquency.
   - Organize the causes into categories.
   - Discuss and list which are most important causes and categories in an MFI.

   Present the categorization task so that participants understand it and start thinking about their MFI's responsibility.

6. *(13 minutes)* Return to the large group and ask participants to present their responses. Ask them which categories they came up with and make a flipchart for each category. (Suggest that the three categories be the MFI, client, and external.) Then ask participants for the causes and fill out a subsequent list of the

causes by category. Their responses should include the following: for the MFI heading—inappropriate loan product design, such as inadequate repayment amounts, lack of grace period, inappropriate loan term, lack of appropriate collateral, no future possibility of higher loan; for the client heading—unwillingness to repay, inability to repay, illness or death in family, theft in household, business failure; and for external heading—disasters such as flood or drought, economic crisis, government interventions.

End up with three clear flipcharts that summarize the causes of delinquency, with the MFI list being by far the longest (see Trainer Notes). Put flipcharts on the wall as a visual reminder that MFIs have the primary responsibility for delinquency. Responses will be used for making DQ3-H1.

7. *(7 minutes)* In summary, ask for a vote (by a show of hands) in response to the following questions: How many people think the number one reason for delinquency is the MFI (category 1), the client (category 2), or external (category 3)? Lead the discussion to the conclusion that the MFI plays a very large role in the problem of delinquency, that controlling delinquency is the responsibility of the MFI, and that it is an achievable goal.

Trainer Notes:

- The list of causes for the three categories could include the following. The MFI category could list inappropriate loan product design, inadequate repayment amounts, lack of a grace period, inappropriate loan term, lack of appropriate collateral, no future possibility of higher loan, poor loan appraisal and risk analysis of the business. The client category could include unwillingness to repay, inability to repay, illness or death in the family, theft in the household, and business (although this also could be under the MFI category). The external category could list disasters such as flood, drought, economic crisis, bank failure, and government interventions. Government interventions could be political meddling in the financial sector or changes to the regulatory environment.
- Before writing up responses from participants, ask probing and clarifying questions so that what is written up is correct and clear. First, ask if any group put any of the responses in a different category. For example, a participant may say that a client's unwillingness to pay is a client problem. Ask if this is an MFI problem or a client problem. You may end up listing a client's refusal to pay under both MFI and client. Try to distill participants' responses into key words that fit well on a flipchart.
- The attitude the trainer wants to implant during the session is that ultimately the microfinance institution itself is responsible for delinquency (even when the proximate cause seems external to the MFI), because it sets its own principles, promotes its own repayment culture, instills credit discipline in staff and borrowers, and plans for events beyond its control. This discussion prepares participants for DQ3-H3, and the message that there are no bad clients, only bad loans.
- By now participants should be comfortable with each other and confident enough to tackle some quantitative tasks.

Topic C: Costs of Delinquency and Default

Technique: Simulation exercise in large group

8. *(5 minutes)* Ask participants to first brainstorm the answers to some questions:

   - How does delinquency affect your organization or program?
   - How does delinquency affect other stakeholders?

   Record the answers on two flipcharts and briefly discuss and relate the two charts to each other. If appropriate, share local examples.

   To summarize, refocus on effects to the program by showing overhead DQ1-O5 (also pass out handout DQ1-H1).

   The point to get across is that, although there are many stakeholders, only the MFI has the power to do anything about the problem.

9. *(7 minutes)* Ask participants what default means in their MFI. Record their responses on flipcharts. Show DQ1-O6 to summarize.

   Emphasize the relationship between default and loan loss and review the difference between delinquency and default, stressing that delinquency and arrears refer to late payments, whereas default refers to a loan that is no longer expected to be repaid. However, the MFI will still continue to pursue the loan, perhaps by selling it to a collector to recover as much as possible.

10. *(8 minutes)* Ask what the associated costs of delinquency or default are to their MFI and briefly discuss. Summarize using DQ1-O7.

11. *(5 minutes)* Show quantitatively how delinquency affects an MFI by taking participants through a simple calculation of the lost (or postponed) income from delinquent loans (DQ1-O8).

12. *(15 minutes)* Distribute the handout on calculating the costs of default (DQ1-H2a), based on data from a hypothetical microfinance institution. Then work through the case step-by-step on the overhead (DQ1-O9a and DQ1-O9b), asking for answers from the participants, and jointly calculating the costs of default in the case, using variable costs of loan disbursement and management.

    Call attention to the costs in terms of lost principal, lost income (from interest), and the number of new loans required to generate revenue to cover these losses. Pass out DQ1-H2b, the answers.

    Note that the participants do not need to know how to calculate these costs. The handout and practice are to help participants see that default has an actual cost. Provide additional examples if participants are interested.

13. *(5 minutes)* Wrap up the exercise with a presentation of the costs-of-default formulas (using the optional overhead DQ1-O10). Remind participants that the costs to the MFI are real and considerable. They affect the institution as well as good borrowers. Restate that the MFI *can* do something about reducing

delinquency and default and therefore its costs. Hand out DQ1-H3 with the definitions of delinquency and default.

Trainer Notes:

- The rationale for this session is to quantitatively illustrate the financial and operational costs of delinquency and default to an MFI.
- Delinquency negatively affects a program in the following ways:
  - slows rotation of the portfolio
  - delays earnings
  - increases collection costs (visits, analysis, legal costs)
  - decreases operating spreads
  - can cause program to lose credibility
  - leads to ever increasing repayment problems and threatens long-term institutional viability (adapted from Christen)
- Default is the situation that occurs when a borrower cannot or will not repay his or her loan and the MFI does not expect to receive repayment, that is, the loan is "in default."
- Usually a loan is declared in default when the borrower has not made a payment on a loan for more than two or three due dates; the time is determined by the MFI. The amount defaulted depends on how much is outstanding when the borrower stops making payments.
- Amounts that will have to be written off or counted as "loan loss" may be different from the amount defaulted, depending on whether the MFI can collect any collateral or guarantee (adapted from SEEP Network 2005).
- Default is a catastrophic event, and it is difficult to recoup all the lost funds.
- As this is the first quantitative exercise of the course, the trainer should stop after each subsection to quickly check that all small groups are on track. In particular, he or she will check that participants calculate the 15 percent interest correctly.
- The trainer will bring out the unacceptable costs to good borrowers and to the agency itself, and will reinforce the responsibility of the agency in preventing high delinquency from developing in the first place. Only the MFI can do something about delinquency.
- If the participants follow this exercise quickly, the trainer may add the more difficult question: How many loans would be required to earn back ALL the principal and interest (which may happen if the client leaves the village)?
  - Answer: ($75,000 + $11,250)/$3,750 = 23 loans
- There is a possibility that a few participants may use accrual accounting and ask about recognition of interest income. After thanking them, the trainer would do best to address this individually and not have a group discussion. This course is about delinquency management; accounting issues will be addressed in the accounting course.

TOPIC D (OPTIONAL): COSTS OF DELINQUENCY FROM THE PERSPECTIVE OF FINANCIAL STATEMENTS AND PORTFOLIO REPORTS

(Note: The trainer will decide whether to include this topic in the training. In some cases it might be advisable to deliver this session on the eve of the training.)

Objectives: By the end of the session participants will be able to:

- State the purpose and components of the three types of financial statements and a portfolio report
- Identify how delinquency and default affect each of the financial statements and the portfolio report

Technique: Small group work, presentations, large group discussion

14. *(5 minutes)* Introduce participants to an exercise to review the purpose and components of financial statements and the relationships among them. Explain that they will each be given half of a financial statement or report and will have to find other group members who hold the other half. People with the same type of report or statement will then form small groups. (Ensure that groups have a place to sit when the time comes.) Then explain that groups will have 30 minutes to prepare a 10-minute presentation that answers the following questions about their statement or report. Refer to the following questions, written in advance on a flipchart.
    - What is the name and definition of your statement or report?
    - How and when is it prepared?
    - What are its relationships to other financial statements or reports?
    - How might delinquency and default affect the statement or report?
15. *(5 minutes)* Hand out the statement halves (DQ1-H4 through DQ1-H7). Be sure to use the right number of halves to match the desired number and size of groups, and make sure the halves are mixed in distribution to ensure that participants seated next to each other are not in the same group.
16. *(3–5 minutes)* Ask participants to get up and walk around to find people who have the other half of the statement they are holding. The activity should produce small groups, one each for the income statement, typical balance sheet, cash flow statement, and portfolio data report.
17. *(30 minutes)* Once groups are formed, tell them to quickly sit in the assigned areas. Give each group the handout DQ1-H8, the discussion questions (the same as those written on the flipchart; groups may move around, and the flipchart may not be visible). Tell the group to prepare answers to the questions for a brief presentation to the entire group.
18. *(40–60 minutes).* For the presentations, each group will have 10 minutes to present and discuss. Call up groups in order. As a particular statement or report is being presented, show the relevant statement on the overhead (overheads DQ1-

O1 through DQ1-O14) for the large group to see (participants will have seen only the statement for their own small group).

To ensure that participants get the right answer, refer to DQ1-H9, information on financial statements.

Summarize by adding any notable points if necessary. Hand out DQ1-H9 information on financial statements.

Trainer Notes:

- When introducing DQ1-H4 through DQ1-H7, point out that the financial statements are from *Measuring Performance of Microfinance Institutions: A Framework for Reporting, Analysis and Monitoring* published by the SEEP Network in 2005 (and is referred to as the SEEP Framework), which is the result of a long process of consultation among donors, practitioners, experts, and rating agencies to arrive at a consensus on financial standards for the microfinance industry. Point out that CGAP uses these statements, methods for calculating adjustments, and ratio definitions in its courses and in its new *Appraisal Guide for Microfinance Institutions*. The CGAP *Appraisal Format* has two volumes (the Technical Guide and the Resource Manual). Open to page 96 of the Resource Guide and show the participants that the terms and definitions of the financial statements that you will be using are listed there and on the following pages for easy reference.
- You can also mention that both CGAP and SEEP have developed Excel-based tools to help fill out the financial statements and calculate adjustments and financial ratios. The internet addresses where the Excel tools can be downloaded are included in the Reference List in the introduction of the course materials.
- *When discussing the impact of delinquency and default on the statements, the trainer should go line item by line item, as in the following examples.*

Income statement

- Interest and fee income from loans are not received in a delinquency situation (link back to the postponed income example, DQ1-O8, under Topic C). The MFI is short of what was planned (in case of accrued interest). On a cash basis, the MFI receives neither regular income nor income from other finance-related services (penalties).
- When the MFI has not received repayment, it might be forced to use its investments for loan disbursements.
- Total operating income goes down (very strong influence of delinquency).

Operating expenses:

- Interest and fee expense might be increased in case of a shortfall of cash, requiring more interest on more borrowings.
- Provision for loan impairment goes up.
- Under administration expenses, personnel expense goes up, and other administrative expenses go up—more telephone calls (communications), site visits, legal expenses, and so forth).
- In general, income goes down, expenses go up, and net operating profit goes down.

Nonoperating income:

- Cash donations could potentially go down if the reputation of the MFI is affected by the delinquency problem, so fewer donors are willing to fund the MFI.
- Other nonoperating income is not necessarily affected, depending on circumstances.

- Nonoperational expenses may increase; for example, the MFI may spend more on public relations to improve image and reputation.
- The total consolidated profit goes down, resulting in much poorer financial performance.

Balance sheet

Assets:

- Cash due from banks goes down since less money is available.
- Reserves held in the central bank may go up.
- Short-term investments may go down.
- Impairment loss allowance should go up.
- Long-term investments could also be affected.
- Net fixed assets are not affected.
- Total assets may well go down; growth of negative assets (impairment loss allowance) affects the total assets.

Liabilities:

- Compulsory savings will go down (when used as collateral to pay off delinquent loans).
- Voluntary savings may go down (people will not place their money in an institution with a bad reputation; high delinquency means high risk for every deposit).
- Loans from commercial banks may go up to make up for loss in voluntary savings (loans from commercial banks are a more expensive source of funding).
- Loans in the central bank are probably not affected.
- Subsidized loans may go down because an MFI with a delinquency problem may have a harder time finding subsidized sources of funding.

Equity:

- Paid-in shareholders will probably not be affected by a delinquency crisis unless the company is public.
- Donated equity of the prior year stays the same.
- Donated equity in the current year goes down.
- Prior year’s profit and loss stay the same.
- Current year profit goes down and loss goes up.
- Other capital accounts go down (not enough cash to fund capital accounts; for example, a social development fund).
- The general conclusion of the impact of delinquency on the balance sheet is that it shrinks, because the major asset—the loan portfolio—decreases.

Cash flow

Cash flow from operating activities:

- Delinquency has a negative effect on almost all line items.
- Cash received from interest, fees, and commissions on the loan portfolio goes down.
- Cash received from interest on investments goes down.
- Cash received as other operating revenue goes down.
- Value of loans repaid goes down.
- Cash paid for financial expenses on funding liabilities goes down.
- Cash paid for operating expenses increases.
- Value of loans disbursed goes down.

- Deposits/withdrawals from clients might increase.
- Net cash from operating activities goes down.

Cash flow from investing activities:

- Changes in investments show a negative impact.
- Changes in gross fixed assets show a negative impact.
- Net cash used in investing activities goes down.

Cash flow from financing activities:

- Changes in commercial loans go up.
- Concessional loans are difficult to get when delinquency rises.
- Net cash provided shows a negative impact.
- Net annual increase in cash will be decreased.
- Ending year cash balance may be smaller.
- Almost every line of the cash flow is affected. Instead of growing, the MFI has to think about how to survive.

Portfolio report

Outreach:

- Outreach to new clients may go down.
- If using solidarity group methodology, the number of new groups will also go down.
- Client dropout rate will rise.
- Total number of clients will drop.

Loan portfolio:

- Total loans outstanding stay the same (delinquent loans stay in the gross loan portfolio).
- Number of active clients falls.
- Average amount outstanding may fall (if the dropout rate rises and the MFI can't hold on to clients who have graduated to larger loan sizes).
- Write-offs increase.
- Total of loans disbursed falls.
- Average loan size is likely to fall.
- The proportion of first-time borrowers in the overall client pool may rise (because existing clients may switch to another MFI).
- Average of effective loan terms may become longer because of rescheduling or may become shorter because of an increase in first-time loans for new clients.
- Number of loan officers could remain the same or fall (some people might be fired).
- Portfolio-at-risk will probably rise (delinquency is contagious!).
- In summary, the portfolio report is greatly affected by delinquency and default.

After analyzing all financial statements and the portfolio report, the trainer can emphasize that all the documents are very heavily affected by delinquency, and that these reports reflect the performance of the MFI. The conclusion: MFIs must pay attention to delinquency!

Overheads

THE COMPLETE SET OF OVERHEADS IS IN A SEPARATE POWERPOINT FILE ENTITLED "CGAP DELINQUENCY MANAGEMENT AND INTEREST RATE SETTING OVERHEADS"

DQ1-O1

Delinquency

- The situation that occurs when loan payments are past due
- A delinquent loan (or loan in arrears); a loan on which payments are past due
- Also referred to as arrears or late payments; measures the percentage of a loan portfolio-at-risk
- Delinquent payments or payments in arrears; loan payments that are past due; delinquent loans; loans on which any payments are past due (adapted from SEEP Network 2005)

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DQ1-O2

Three Questions About Delinquency

1. Who defines delinquency in your organization?
2. What is the level of accepted delinquency in your organization?
3. Is it a written policy? Or is it a “general understanding”?

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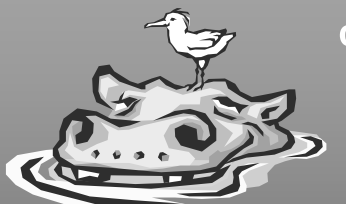
DQ1-O3

Delinquency—The Hidden Beast—



can eat away at a portfolio without anyone realizing it, and then suddenly explode out of control, like a hidden beast

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DQ1-O4

Causes of Delinquency (Exercise)

a) Develop a list of up to 10 causes of loan delinquency.

b) Organize the causes according to categories.

c) Discuss which are most important to your MFI.

d) Discuss a way to control these causes of delinquency.

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DQ1-O5

Costs of Delinquency
How Delinquency Affects an MFI

- Postpones interest income, yet costs remain, so viability is lowered
- With slower portfolio rotation, lowers productivity of assets and reduces fee income
- Can spread quickly
- Costs far more to fight delinquency; prevention is cheaper
- Raises cost of providing for loan impairment (reserves set aside to cover late payments on loans)
- Reduces cash flow and affects liquidity management
- Affects institution's image
- Lowers staff morale
- Lowers image of clients in their community
- Increases likelihood of default, resulting in loss of both income and assets
- Erratic cash flow and difficulties planning

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DQ1-O6

Default

When a borrower
cannot or will not repay his or her loan

and

When the MFI no longer expects to be repaid
(although it keeps trying to collect)

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DQ1-O7

Costs of Default
How Default Affects an MFI

- Provision for loan impairment (funds set aside for bad debts) increases expenses and so reduces surplus.
- Interest income from the loan is never received.
- The institution loses a nonrecoverable portion of an outstanding loan.
- Written-off loans result in the decapitalization of the institution.

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DQ1-O8

Costs of Delinquency – Postponed Income

Example: The actual amount of postponed income can be determined by comparing the interest (and fees) received in a given month with the interest (and fees) expected.

Portfolio on January 1, 2005	$100,000
Interest Rate (24% flat per year/12)	2%
Interest Due January 31 (2% x 100,000)	2,000
Interest Received January 31	1,500

If the MFI receives only $1,500 of the interest payments due by January 31, then its January income is $500 less than it should be because of delinquent payments.

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Calculating the Costs of Default (considering variable costs)

DQ1-O9a

WORKSHEET

Initial loan amount		$75,000	
Interest (15% flat)			
Loan term, weeks	25		
Weekly repayment of principal			
Weekly repayment of interest			
Total weekly repayment			
Payments received	15		
Payments lost	10		
Lost interest income			
Lost principal			
Total lost income and principal			
Expected revenue earned ($75,000 loan for 25 weeks)			
Costs per loan			$7,500
Net expected revenue per loan			
Actual net revenue earned (10 weeks lost payment)			

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DQ1-O9b

Calculating the Costs of Default *(continued)*

WORKSHEET

Number of Loans Required to Earn Lost Principal
(taking into account variable costs of disbursing and managing loans)

___ loans of $75,000

Lost principal/net revenue per $75,000 loan

/

Number of Loans Required to Earn Lost Interest and Principal
(taking into account variable costs of disbursing and managing loans)

___ loans

Lost interest and principal/net revenue per loan

/

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DQ1-O10

Costs-of-Default Formulas

Number of loans required to earn lost principal (+ interest)

$$= \frac{\text{Lost principal (+ interest)}}{\text{Revenue per loan}}$$

Number of loans required to earn lost principal (+ interest), taking costs per loan into account

$$= \frac{\text{Lost principal (+ interest)}}{\text{Net revenue per loan}}$$

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DQ1-O11

Sample Format for an Income Statement

Financial Revenue	Operating Expense
Financial Revenue from Loan Portfolio	Personnel Expense
Interest on Loan Portfolio	Administrative Expense
Fees and Commissions on Loan Portfolio	Depreciation and Amortization Expense
Financial Revenue from Investments	Other Administrative Expense
Other Operating Revenue	Net Operating Income
Financial Expense	Net Nonoperating Income/(Expense)
Financial Expense on Funding Liabilities	Nonoperating Revenue
Interest and Fee Expense on Deposits	Nonoperating Expense
Interest and Fee Expense on Borrowings	Net Income (Before Taxes and Donations)
Other Financial Expense	Taxes
Net Financial Income	Net Income (After Taxes and Before Donations)
Impairment Losses on Loans	Donations
Provision for Loan Impairment	Donations for Loan Capital
Value of Loans Recovered	Donations for Operating Expense
	Net Income (After Taxes and Donations)

Source: SEEP Network 2005.

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Sample Balance Sheet

DQ1-O12

ASSETS	Accounts Payable and Other Short-term Liabilities
Cash and Due from Banks	Long-term Time Deposits
Trade Investments	Long-term Borrowings
Net Loan Portfolio	Other Long-term Liabilities
Gross Loan Portfolio	Total Liabilities
Impairment Loss Allowance	EQUITY
Interest Receivable on Loan Portfolio	Paid-In Capital
Accounts Receivable and Other Assets	Donated Equity
Other Investments	Prior Years
Net Fixed Assets	Current Year
Fixed Assets	Retained Earnings
Accumulated Depreciation and Amortization	Prior Years
Total Assets	Current Year
LIABILITIES	Reserves
Demand Deposits	Other Equity Accounts
Short-term Time Deposits	Adjustments to Equity
Short-term Borrowings	Total Equity
Interest Payable on Funding Liabilities	Total Liabilities + Equity

Source: SEEP Network 2005.

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Sample Direct Cash Flow Statement

DQ1-O13

Cash Flows from Operating Activities
Cash Received from Interest, Fees, and Commissions on Loan Portfolio
Cash Received from Interest on Investments
Cash Received as Other Operating Revenue
Value of Loans Repaid
(Cash Paid for Financial Expenses on Funding Liabilities)
(Cash Paid for Other Financial Expenses)
(Cash Paid for Operating Expenses)
(Cash Paid for Taxes)
(Value of Loans Disbursed)
Net (Purchase)/Sale of Trade Investments
Deposits/(Withdrawals) from Clients
Cash Received/(Paid) for Other Operating Assets and Liabilities
Net Cash from Operating Activities

Cash Flows from Investing Activities
Net (Purchase)/Sale of Other Investments
Net (Purchase)/Sale of Fixed Assets
Net Cash from Investing Activities

Cash Flows from Financing Activities
Net Cash Received /(Repaid) for Short- and Long-term Borrowings
Issuance/(Repurchase) of Paid-In Capital
(Dividends Paid)
Donated Equity
Net Cash from Financing Activities
Net Cash Received/(Paid) for Nonoperating Activities
Net Change in Cash and Due from Banks
Cash and Due from Banks at the Beginning of the Period
Exchange Rate Gains/(Losses) on Cash and Cash Equivalents
Cash and Due from Banks at the End of the Period

Source: SEEP Network 2005.

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Sample Portfolio Report

DQ1-O14a

1. Outreach	Number		
New clients			
(New groups formed)			
Client dropouts			
Total clients			
(Total groups)			
Number of women clients			
Number of branches			
2. Loan Portfolio	Number	Amount	
Loans outstanding:			
Total gross loan portfolio			
Number of active clients			
Average amount outstanding per client			
Loans written off			
Disbursements:			
Total loans disbursed			
Average loan size disbursed			
Loans disbursed to first-time borrowers			

(cont.)

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DQ1-O14b

Sample Portfolio Report *(continued)*

	Number	Amount	
Other data:			
Average loan term (months)			
Average number of credit officers			
3. Portfolio Aging	Number	Amount	Portfolio-at-Risk
On-time loans			
1–30 days past due			
31–60 days past due			
61–90 days past due			
91–120 days past due			
120–180 days past due			
Total			

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Handouts

Costs of Delinquency

How delinquency affects an MFI

- Postpones interest income, yet costs remain, so viability is lowered.
- With slower portfolio rotation, lowers productivity of assets and reduces fee income.
- Can spread quickly.
- Costs far more to fight delinquency; prevention is cheaper.
- Raises cost of providing for loan impairment (reserves set aside to cover late payments on loans).
- Reduces cash flow and affects liquidity management.
- Affects institution's image.
- Lowers staff morale.
- Lowers image of clients in their community.
- Increases likelihood of default, resulting in loss of both income and assets.
- Erratic cash flow and difficulties planning.

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Calculating the Costs of Default (considering variable costs)

Initial loan amount		$75,000	
Interest (15% flat)			
Loan term, weeks	25		
Weekly repayment of principal			
Weekly repayment of interest			
Total weekly repayment			
Payments received	15		
Payments lost	10		
Lost interest income			
Lost principal			
Total lost income and principal			
Expected revenue ($75,000 loan for 25 weeks)			
Costs per loan			$7,500
Net expected revenue per loan			
Actual net revenue earned (10 weeks lost payment)			

Number of Loans Required to Earn Lost Principal
(taking into account variable costs of disbursing and managing loans)

___ loans of $75,000

Lost principal/net revenue per $75,000 loan

/

Number of Loans Required to Earn Lost Interest and Principal
(taking into account variable costs of disbursing and managing loans)

___ loans

Lost interest and principal/net revenue per loan

/

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Calculating the Costs of Default (considering variable costs)

Initial loan amount		$75,000	
Interest (15% flat)		11,250	$86,250
Loan term, weeks	25		
Weekly repayment of principal		3,000	
Weekly repayment of interest		450	
Total weekly repayment		3,450	
Payments received	15	51,750	
Payments lost	10	34,500	
Lost interest income		4,500	
Lost principal		30,000	
Total lost income and principal		34,500	
Expected revenue ($75,000 loan for 25 weeks)			11,250
Costs per loan			$7,500
Net expected revenue per loan			3,750
Actual net revenue earned (10 weeks lost payment)			−750

Number of Loans Required to Earn Lost Principal
(taking into account variable costs of disbursing and managing loans)

8 loans of $75,000

Lost principal/net revenue per $75,000 loan

$30,000/$3,750

Number of Loans Required to Earn Lost Interest and Principal
(taking into account variable costs of disbursing and managing loans)

9 loans

Lost interest and principal/net revenue per loan

$34,500/$3,750

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Delinquency and Default Definitions

DELINQUENCY

- The situation that occurs when loan payments are past due.
- A delinquent loan (or loan in arrears); a loan on which payments are past due
- Also referred to as arrears or late payments; measures the percentage of a loan portfolio-at-risk
- Delinquent payments or payments in arrears—loan payments that are past due; delinquent loans—loans on which any payments are past due (adapted from SEEP Network 2005).

DELINQUENCY

Can eat away at a portfolio without anyone realizing it, and then suddenly explode out of control, like a hidden beast.

DEFAULT

When a borrower cannot or will not repay a loan, and the MFI no longer expects to be repaid (although it keeps trying to collect).

COSTS OF DEFAULT—HOW DEFAULT AFFECTS AN MFI

- Providing for loan impairment (provision for bad debts) increases expenses and so reduces surplus.
- Interest income from the loan is never received.
- The institution loses a nonrecoverable portion of an outstanding loan.
- Written-off loans result in decapitalization of the institution.

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Income Statement

Financial Revenue	
Financial Revenue	from Loan Portfolio
Interest on	Loan Portfolio
Fees and Commissions	on Loan Portfolio
Financial Revenue	from Investments
Other Operating	Revenue
Financial Expense	
Financial Expense	on Funding Liabilities
Interest and Fee Expense	on Deposits
Interest and Fee Expense	on Borrowings
Other Financial	Expense
Net Financial Income	
Impairment Losses	on Loans
Provision for	Loan Impairment
Value of	Loans Recovered
Operating Expense	
Personnel	Expense
Administrative	Expense
Depreciation and	Amortization Expense
Other Administrative	Expense
Net Operating	**Income**
Net Nonoperating	**Income/(Expense)**
Nonoperating	Revenue
Nonoperating	Expense
Net Income	**(Before Taxes and Donations)**
Taxes	
Net Income	**(After Taxes and Before Donations)**
Donations	
Donations for	Loan Capital
Donations for	Operating Expense
Net Income	**(After Taxes and Donations)**

Source: SEEP Network 2005.

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Balance Sheet

ASSETS	
Cash and	Due from Banks
Trade	Investments
Net Loan	Portfolio
Gross	Loan Portfolio
Impairment	Loss Allowance
Interest Receivable	on Loan Portfolio
Accounts Receivable	and Other Assets
Other	Investments
Net Fixed	Assets
Fixed	Assets
Accumulated	Depreciation and Amortization
Total	**Assets**
LIABILITIES	
Demand	Deposits
Short-term	Time Deposits
Short-term	Borrowings
Interest Payable	on Funding Liabilities
Accounts Payable and	Other Short-term Liabilities
Long-term	Time Deposits
Long-term	Borrowings
Other Long-term	Liabilities
Total	**Liabilities**
EQUITY	
Paid-in	Capital
Donated	Equity
Prior	Years
Current	Year
Retained	Earnings
Prior	Years
Current	Year
Reserves	
Other Equity	Accounts
Adjustments to	**Equity**
Total	**Equity**

Source: SEEP Network 2005.

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Direct Cash Flow Statement

Cash Flows from	Operating Activities
Cash Received from Interest, Fees,	and Commissions on Loan Portfolio
Cash Received from Interest	on Investments
Cash Received as Other	Operating Revenue
Value of	Loans Repaid
(Cash Paid for Financial	Expenses on Funding Liabilities)
(Cash Paid for Other	Financial Expenses)
(Cash Paid for	Operating Expenses)
(Cash Paid	for Taxes)
(Value of	Loans Disbursed)
Net (Purchase)/	Sale of Trade Investments
Deposits/(Withdrawals)	from Clients
Cash Received/(Paid) for	Other Operating Assets and Liabilities
Net Cash from	**Operating Activities**

Cash Flows from	Investing Activities
Net (Purchase)/Sale of	Other Investments
Net (Purchase)/Sale of	Fixed Assets
Net Cash from	**Investing Activities**

Cash Flows from	Financing Activities
Net Cash Received/(Repaid)	for Short- and Long-term Borrowings
Issuance/(Repurchase)	of Paid-in Capital
(Dividends	Paid)
Donated	Equity
Net Cash from	**Financing Activities**
Net Cash Received/(Paid)	for Nonoperating Activities
Net Change in Cash	**and Due from Banks**
Cash and Due from Banks at the	**Beginning of the Period**
Exchange Rate Gains/(Losses) on	Cash and Cash Equivalents
Cash and Due from Banks at	**the End of the Period**

Source: SEEP Network 2005.

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Sample Portfolio Report

1. Outreach	Number		
New clients			
(New groups formed)			
Client dropouts			
Total clients			
(Total groups)			
Number of women clients			
Number of branches			
2. Loan Portfolio	**Number**	**Amount**	
Loans outstanding:			
Total gross loan portfolio			
Number of active clients			
Average amount outstanding per client			
Loans written off			
Disbursements:			
Total loans disbursed			
Average loan size disbursed			
Loans disbursed to first-time borrowers			
Other data:			
Average loan term (months)			
Average number of credit officers			
3. Portfolio Aging	**Number**	**Amount**	**Portfolio-at-Risk**
On-time loans			
1–30 days past due			
31–60 days past due			
61–90 days past due			
91–120 days past due			
121–180 days past due			
Total			

Source: SEEP Network 2005.

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Discussion Questions

1. Give the name of your statement or report and define it.

2. How and when is it prepared?

3. What relationship does your statement have to other statements?

4. What is the impact of delinquency and default on the statements or report?

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Background Information on MFI Financial Statements

Income Statement

The income statement is a flow statement that represents activity over a given period, such as a day, month, quarter, or year. The income statement may also be referred to as a profit-and-loss statement because it illustrates the overall net profit or loss for that period (nonprofit MFIs may also use the terms net surplus or deficit). The income statement summarizes all the revenue and expense transactions for a defined period, usually the financial year to date. The income statement may have two columns of data showing present and past period performance to facilitate comparison.

The presentation of the income statement is normally divided between revenue accounts and expense accounts. It also usually includes some division of operating accounts and nonoperating accounts. Operating accounts include all revenue and expenses that are directly related to the MFI's core business of making loans, accepting deposits, borrowing funds, and providing other financial services. Nonoperating accounts include all revenue and expenses that result from activities outside the MFI's core financial business, such as training or the sale of merchandise. Although many MFIs have ongoing support from donors, donations and grant funds from donors are considered to be nonoperating revenue. All donations for loan capital and operating expenses are included in the income statement.

Revenue refers to money received (or to be received if accrual accounting is used) by an organization for goods sold and services rendered during an accounting period.

Revenue for an MFI includes interest earned on loans to clients, fees earned on loans to clients, interest earned on deposits with a bank, and so forth.

Expenses represent the costs incurred for goods and services used in the process of earning revenue. Direct expenses for an MFI include financial costs, operating expenses, and provision for loan impairment.

The income statement relates to other reports as follows:

- The IS relates to the balance sheet, through the transfer of cash donations and net profit (loss) as well as depreciation and through the relationship between the provision for loan impairment and the allowance.
- It relates to the portfolio report, using historical default rates (and the current reserve) to establish the provision for loan impairment.
- It relates to cash flow through the net profit and loss, as a starting point on the cash flow.

By recording the net profit and loss earned, the income statement measures the financial performance from which indicators on efficiency and profitability can be extracted.

Balance Sheet

The balance sheet is a stock statement. In other words, it captures the financial position or financial structure of an MFI at a moment in time. A balance sheet is usually produced monthly or quarterly (at a minimum, annually), although MFIs with an adequate management information system can usually produce a balance sheet on a daily or weekly basis. The balance sheet summarizes the ending balance of all asset, liability, and equity accounts.

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Recording donations, grants, and in-kind contributions is important for MFIs.

Its main components are assets, liabilities, and equity in balance, specifically: Assets = Liabilities + Equity.

Assets represent what the organization HAS or what is OWNED by the organization or OWED to it by others**.** Assets are those items in which an organization has invested its funds for the purpose of generating future receipts of cash.

Liabilities represent what is OWED by the organization to others, for example, a loan that has been granted to the organization or obligations that the organization has to provide goods and services in the future.

Equity represents the capital or net worth of the organization. Equity includes capital contributions of any investors or donors, retained earnings, and the current year surplus.

A balance sheet is prepared at least annually, but often more frequently, such as monthly or quarterly.

The balance sheet depends on the transfer of data from the income statement, namely, net surplus (or deficit) in the current year; the amount of income (or loss) generated in the current year; and donated equity in the current year (from cash donations on the income statement). The expense for provision for loan impairment is also considered in recording the allowance for loan impairment.

It relates to loan portfolio data for data on gross loan balances and savings collected.

The changes between balance sheets from year to year are the major inputs into the cash flow statement.

It is useful to compare balance sheets from previous periods in order to determine if the organization is growing and how well it is managing its financial resources, to perform trend analysis, and to analyze the relative distribution of assets, liabilities, and equity.

CASH FLOW STATEMENT

As its name states, the cash flow statement is a flow statement that represents the inflows and outflows of cash during a specified period. Of the three main financial statements, the cash flow (or sources and uses of funds) is the statement MFIs are least likely to create. A monthly cash flow statement is a valuable liquidity management tool, and without sufficient cash, MFIs cannot disburse loans, pay employees, and settle debts.

The cash flow statement summarizes each transaction or event that causes cash to increase (the sources of cash) or decrease (the uses of cash). Increases in cash, however, are not sources; rather, the sources of cash are the events that cause the cash increase. Similarly, decreases in cash are not uses; the events causing cash to decrease are the uses. For example, the increase in the gross loan portfolio is not the use of cash; rather, the use is the disbursement of loans to clients. 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
- An increase in retained earnings through generating net income (after taxes and donations)

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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 repurchasing shares or reimbursing member shares
- 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
- Financing activities, the borrowings and repayment of borrowings, the sale and redemption of paid-in capital, and the payment of dividends

For financial institutions, the distinction between operating activities and financing activities may be a bit confusing. Operating activities include most activities that would appear as operating income and operating expenses on the income statement, as well as all lending activity that appears on a portfolio report. For example, accepting and repaying deposits is considered an operating activity because these actions are financial services, whereas borrowing is considered a financing activity. All interest paid on deposits and borrowings, however, is considered an operating activity.

Several accounts in a cash flow statement are similar to those in an income statement, particularly if an MFI uses cash accounting. For instance, "Cash received from income, fees, and commissions on loan portfolio" is the same as "Financial revenue from loan portfolio" if the MFI uses cash accounting. If an MFI accrues interest, these two accounts may not be the same.

A cash flow statement also shows clearly how an organization obtains cash (sources of funds) and how it spends cash (uses of funds), including the borrowing and repayment of debt, capital transactions, and other factors that affect the cash position.

It relates to other statements through the balance sheet—that is, the increases and decreases in assets and liabilities from one balance sheet to the next—as well as through the income statement.

PORTFOLIO REPORT AND ACTIVITY REPORT

A portfolio report and activity report link the loan portfolio information of the three previously discussed statements—income statement, balance sheet, and cash flow. The purpose of the portfolio report is to represent in detail an MFI's microlending activity, present the quality of the loan portfolio, and provide detail on how the MFI has provisioned against potential losses. Unlike other statements, the design of this report varies from MFI to MFI. The content, however, should be consistent and must include the following:

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- Portfolio activity information
- Movement in the impairment loss allowance
- A portfolio aging schedule

The closely linked movement in the impairment loss allowance and the portfolio aging schedule are related to an MFI's assessment of the default risk associated with its loan portfolio. Impairment loss allowance is a contra (negative) asset account that reduces the value of the gross loan portfolio. The value of that allowance is determined by first creating a portfolio aging schedule.

All MFIs should have a policy for calculating and creating an impairment loss allowance and writing off loans. The generally accepted method for MFIs to assess default risk is based on the timeliness of principal payments on loans. The assumption is that the longer a loan remains past due, the more at risk the outstanding balance of the loan will become. This remaining outstanding balance is referred to as the portfolio-at-risk (PAR). Understanding the difference between arrears and portfolio-at-risk is important. Arrears measure the sum of all past-due payments, whereas portfolio-at-risk is the total value of loans outstanding that have one or more past-due payments—a much larger amount. The word *delinquency* may refer to either, which leads to confusion.

MFIs create a portfolio aging schedule by segregating their loans into groups based on their "age," or how many days have passed since the first payment was missed. Each of these categories is multiplied by a loss allowance (or provisioning) rate, which represents the perceived chance of the loan not being repaid. The portfolio-at-risk for each age is then multiplied by the appropriate loss allowance rate. The sum of these calculations is the amount the MFI should set aside in the impairment loss allowance. If the existing impairment loss allowance is less than what is required, the MFI will need to increase it, usually monthly or quarterly, through a provision for loan impairment.

MFIs should also have a policy on writing off loans. Both the gross loan portfolio and the impairment loss allowance are reduced by the outstanding balance of the loan for the amount of the write-off, which reduces the MFI's total assets. This action is the financial representation of the management's belief that the loan is unlikely to be repaid. Of course, the MFI should continue to seek to recover these loans until all legal and other efforts have failed. If the write-off exceeds the value of the impairment loss allowance, the MFI must first increase the impairment loss allowance by increasing the impairment losses on loans before reducing the gross loan portfolio and the impairment loss allowance.

Adapted from *Measuring Performance of Microfinance Institutions: A Framework for Reporting, Analysis, and Monitoring.* Developed by the SEEP Network Financial Services Working Group and Alternative Credit Technologies, LLC, 2005.

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SESSION 2: MEASURING DELINQUENCY

Session Summary

OBJECTIVES: By the end of the session participants will be able to:

- Define portfolio quality
- Define and calculate portfolio-at-risk (PAR) and repayment rates
- Explain the advantages and disadvantages of each of the formulas
- Calculate loan loss for a sample portfolio

TIME: 325 minutes

Session Topics:

A. What Is Loan Portfolio Quality? *(60–70 minutes)*
B. Measuring Repayment *(35–40 minutes)*
C. Measuring Portfolio-at-Risk (PAR) *(70–80 minutes)*
D. Impairment Loss Allowance Calculations *(60–70 minutes)*
E. Effect of Provision for Loan Impairment, Impairment Loss Allowance, and Write-Offs on Financial Statements *(40–60 minutes)*

SUPPLIES: Flipchart paper, markers
LED projector or overhead projector

PARTICIPANT MATERIALS

OVERHEADS:

DQ2-O1	Gross Loan Portfolio of a Microfinance Institution
DQ2-O2	Importance of the Gross Loan Portfolio
DQ2-O3	Portfolio Performance and Collection Ratios
DQ2-O4a	Repayment Problem
DQ2-O4b	Repayment Problem *(Answers)*
DQ2-O5	Formulas: Amount Past Due and PAR
DQ2-O6	Sample Portfolio of Four Loans
DQ2-O7	PAR by Age
DQ2-O8	Sustainable Access to Finance for Microenterprise (SAFE) Case – Sample portfolio of four small groups
DQ2-O9a–b	PAR Calculations
DQ2-O10	Loan Loss Definitions
DQ2-O11	Rationale for Provision for Loan Impairment and Impairment Loss Allowance
DQ2-O12	Effect of Impairment Loss Allowance and Write-Offs on Balance Sheet
DQ2-O13	Sample Aging Report
DQ2-O14	SAFE Impairment Loss Allowance Calculation
DQ2-O15a–b	SAFE Income Statement *(Original)*

	DQ2-O16a–c	SAFE Balance Sheet *(Original)*
	DQ2-O17a–b	SAFE Income Statement *(With provision for loan impairment adjustment)*
	DQ2-O18a–c	SAFE Balance Sheet *(With impairment loss allowance)*
	DQ2-O19a–c	SAFE Balance Sheet *(After write-off)*
HANDOUTS:	DQ2-H1	Loan Performance and Collection Ratios – Individual
	DQ2-H2	Loan Performance and Collection Ratios
	DQ2-H3	SAFE Case – Sample portfolio of four small groups
	DQ2-H4a	Repayment Rate Problems
	DQ2-H4b	Repayment Rate Problems: Solution Guide
	DQ2-H4c	Repayment Rate Problems *(Answers)*
	DQ2-H5	Sample Portfolio of Four Loans
	DQ2-H6	SAFE Case **Optional**
	DQ2-H7a	Portfolio-at-Risk (PAR) Calculations
	DQ2-H7b	Portfolio-at-Risk (PAR) Calculations *(Answers)*
	DQ2-H8a	Loan Loss Definitions *(Simple)*
	DQ2-H8b	Accounting for Provisions for Loan Impairment and Write-Offs *(Advanced)*
	DQ2-H9	Loan Loss in Your MFI
	DQ2-H10a	SAFE Impairment Loss Allowance Calculation
	DQ2-H10b	SAFE Impairment Loss Allowance Calculation *(Answers)*
	DQ2-H11	SAFE Financial Statements *(Originals)*
	DQ2-H12	SAFE Financial Statements with Provision for Loan Impairment Adjustment and Impairment Loss Allowance – Exercise
	DQ2-H13	SAFE Financial Statements with Provision for Loan Impairment Adjustment and Impairment Loss Allowance – Answers
	DQ2-H14	SAFE Balance Sheet with Write-Off – Exercise
	DQ2-H15	SAFE Balance Sheet with Write-Off – Answers

PREPARED FLIPCHARTS:

What is a loan portfolio?
Measuring the delinquency problem
Arrears rate formula
Portfolio-at-risk (PAR) formula
How do you measure risk in your portfolio?
Calculating PAR problems
Impressions of PAR
Repayment rates
Calculating repayment rates problem
Guidelines for write-offs

Session 2: Measuring Delinquency

TOPIC A: WHAT IS LOAN PORTFOLIO QUALITY?

Techniques: Guided discussion, individual work

1. *(5 minutes)* Ask participants what comes to mind when they hear the term *gross loan portfolio*. Take a few responses and then show DQ2-O1, the definition of portfolio. In this course the term *portfolio* will be used interchangeably with gross loan portfolio.

2. *(5 minutes)* Next ask what they understand the term portfolio quality to mean and why portfolio quality is important to an MFI. Discuss a few responses. Show DQ2-O2 to highlight the importance of the portfolio to an MFI. If necessary, explain concepts in DQ2-O2 in more detail if the terms are new to participants.

3. *(10 minutes)* State: MFIs measure the quality of the portfolio in a number of ways. We will take time to examine them during this workshop. First, we would like to know what is already being done in your MFI.

   Pass out the Loan Performance and Collection Ratios handout (DQ2-H1) and ask participants to complete the worksheet individually.

4. *(10 minutes)* Ask for a show of hands on who uses which measure and have a number of participants explain how they compute that measure. Write some of the different formulas on a flipchart. Add other local examples if appropriate. Point out that there seem to be a few different definitions and measures for the same concept.

   Explain the session's purpose: to review the recommended definitions and formulas for each measure. The advantage will be that participants will all be talking about the same measurement and therefore will be able to accurately calculate portfolio quality and better track trends and compare performance.

5. *(20 minutes)* In a short lecture, show the overhead on portfolio performance and collection ratios (DQ2-O3) and hand out the list of formulas (DQ2-H2). Go through each measure and formula. Important issues might include why repayment rate does not measure portfolio quality; the difficulty of comparing over the years and across MFIs without standard assumptions for *past due* and other terms; and how agency policies on write-offs affect measurements.

   Handing out DQ2-H2 here may generate questions. Focus on DQ2-O3 definitions and say that the meanings will be discussed in the next session.

6. *(5 minutes)* Have each participant rapidly share (in a word or two) his or her impressions on how delinquency is measured in their MFI, now that these definitions have been given.

7. *(5 minutes)* Summarize by saying that these are the ratios, definitions, and calculations that will be used in this course and examined more closely in the remainder of this session. Take any questions.

Trainer Notes:

- *Portfolio* refers to the principal amount of loan balances outstanding. The portfolio includes all outstanding principal due within or at 12 months for all outstanding client loans, including current, delinquent, and renegotiated loans, but not loans that have been written off. All delinquent loans should be considered short term and included here. The portfolio does not include interest receivable. (SEEP Network 2005). The loan portfolio is the MFI's major asset, and it generates the MFI's income. *High portfolio quality* means the portfolio is generating almost all the income it can. High quality means that delinquency is low, and the MFI's major asset is generating income (interest + fees); the principal is being paid back with interest, and the MFI can distribute new loans (increase turnover).
- When explaining the ratios (DQ2-O3 and DQ2-H2) and what they measure, it may be helpful for the trainer to have the participants examine what is in the numerator and the denominator. For example, when showing that the repayment rate does not measure portfolio quality—the portfolio is clearly not part of the ratio because it is in neither the numerator nor the denominator—note that it cannot tell anything about the portfolio.
- The trainer, with the participants, will determine the current state of measurement used by participants' agencies and adjust the rest of the session's activities accordingly. The use of more sophisticated and accurate measurement techniques would indicate the possibility of going into more complex aspects of measurement, whereas relatively low usage of these techniques would suggest the session should concentrate on basic concepts.
- Although the portfolio-at-risk measure is the best for looking at portfolio quality (PAR is the total value of outstanding loans that have one or more past-due payments), it is difficult to apply to village banking schemes that accept partial payments. The institution makes the loan to the village bank as a whole and often does not track individual clients. This should be acknowledged and discussed if village banking schemes are represented.

TOPIC B: MEASURING REPAYMENT RATES

Techniques: Guided discussion, written exercise in small groups

8. *(5 minutes)* Begin a brief discussion of repayment rate calculation by asking participants how it is used in their MFIs.

9. *(10 minutes)* In the prearranged small groups, participants will complete exercises on the handout DQ2-H4a, measuring repayment rates (also distribute DQ2-H3, the SAFE Portfolio Report sample). Working through and explaining DQ2-O4 for one client before distributing the handout will save time, as the use of repayment rates to measure portfolio quality is not advocated.

10. *(15 minutes)* In the large group, process the answers on a flipchart and lead a discussion using DQ2-O4 answers and DQ2-H4b answers. Give special attention to the use and misuse of cumulative repayment rates and the concept of periodicity (that is, the interval of time between payments on the loan).

Focus the discussion on what these rates can and cannot tell about a microfinance program, and what factors might make direct comparison of such rates among MFIs less useful. Also look at several ways in which lower performance can hide or be concealed, that is, group guarantee funds and loan security funds that cover payments for otherwise delinquent individuals and the effect of prepayments.

11. *(5 minutes)* End by asking and discussing two questions: What do repayment rates measure? And what do repayment rates tell you about the health of the portfolio?

    Summarize by stating the uses of the ratio and ask which of the ratios discussed so far should the MFI be most concerned with.

Trainer Notes:

- In this activity the trainer must be careful not to appear to attack cherished techniques of participants whose agencies may be quite limited in this area. The emphasis must be to build on their current methods. The trainer will also focus on helping participants think about ways of convincing colleagues to adapt new measurements and tracking tools.
- At the same time, there is no reason to minimize the importance of these changes, or to underestimate the resources (staff time, software, and training) required to implement the changes.
- Repayment rates measure the amount received as a percentage of the payment expected during a given period. Because repayment rates indicate what the MFI is receiving in payments, they are useful in predicting and planning cash flow in the organization. Repayment rate is also useful in trend analysis within the organization and can sometimes be used to examine the performance of branch and loan officers over time.
- Repayment rates are not a measure of portfolio quality. The gross loan portfolio is not part of the ratio and therefore does not reveal anything about the health of the portfolio.
- Periodicity should be short enough for the MFI to use current information in portfolio management as well as to make reliable predictions of cash flow.

TOPIC C: MEASURING PORTFOLIO-AT-RISK (PAR)

Techniques: Presentation, written exercise

12. *(5 minutes)* Refer to the two ways to measure delinquency from topic B in this session. Refer to the prepared flipchart “Measuring the delinquency problem” and pose the following problem to illustrate the difference in the two measures.

    You have given two friends the same size loan of $1,000, which has to be repaid in 10 monthly installments. Friend A has made eight payments but missed the ninth payment of $100. Friend B has made three of the monthly payments but missed the fourth month’s payment of $100.

    Ask and briefly discuss: Which of the two friends is riskier? (Answer: B) Why? Because you stand to lose more if B stops paying back the loan than if A stops.

Explain: Both friends have missed one payment of $100 each. The value of the amount past due, arrears, or late payments is the same for both: $100. Friend A has paid $700 and has an outstanding balance of $300. You therefore stand to lose the outstanding balance of $300 from friend A. Friend B has more of her loan outstanding; therefore you stand to lose the entire remaining balance of $800.

13. *(10 minutes)* Present overhead DQ2-O5, on formulas for amount past due and portfolio-at-risk, to show two methods of measuring delinquency. Explain the formulas in relation to the scenario about the two friends in activity 1. Have the ratios written on flipcharts and post them.

    Hand out DQ2-H5 and show DQ2-O6, on the status of four loans in a loan portfolio. Explain what the handout shows. Use a flipchart to work out the example step-by-step using both formulas, starting with the gross loan portfolio.

14. *(5 minutes)* Ask again: Which ratio is a better measure of the risk in a portfolio? Answer: PAR. Lead a brief discussion of the merits and drawbacks of each and summarize by stating that PAR is the recommended ratio for measuring delinquency because it makes it easier to see the hidden beast. The arrears rate, or amount past due, overstates the quality of the portfolio.

15. *(5 minutes)* Ask participants: What does "past due" mean in your MFI? (Refer to previous discussions that may have arisen in session 1 when defining delinquency.) Lead into a discussion of the impact of having different definitions of past due, and their effect on the PAR formula—that is, the outstanding balance of loans over 1, 31, 61 days past due will make the PAR lower.

16. *(8 minutes)* Following directly on this last point, ask: What is meant by aging of the arrears? Clarify the concept and use overhead DQ2-O7, Portfolio-at-Risk, by Age, to illustrate the concept (see Trainer Notes). Begin by showing that both organizations have total PAR of 14 percent (hiding the aging categories on the overhead at this point). Then reveal the aging categories one by one and ask participants which organization is healthier. Lead a brief discussion on why organization A is healthier.

17. *(7 minutes)* Ask participants to refer back to the sample portfolio, handout DQ2-H3. Go through overhead DQ2-O8 briefly but carefully to ensure the participants understand the portfolio report.

    Hand out optional DQ2-H6, SAFE's case study, here, although the handout is not necessary for this exercise. If handing it out, introduce the case and allow participants time to read it.

18. *(20 minutes)* Have participants break up into preassigned small groups (based on the precourse skills audit), then let them read the case and solve the exercises in the handout DQ2-H7, on portfolio-at-risk (PAR) calculations.

19. *(15 minutes)* Go over all answers and then elicit the major points of the exercise from the participants. Hand out DQ2-H7 answers and shows DQ2-O9. Work through the formulas in detail, if necessary. If time permits, ask some volunteers to record answers on a flipchart.

    Ensure that the following points are discussed:

    - Strengths of the PAR calculation
    - Impact of having arrears that are somewhat concentrated in relatively few loans
    - Definition of past due
    - Effect of having arrears occurring later in the life of a loan, when the remaining balance is smaller
    - Limitations of the PAR calculation: that fast growth and write-offs can mask delinquency
    - How PAR relates to sustainability

20. *(5 minutes)* Ask participants to summarize main points based on what they learned from the exercises. Link to the next topic: establishing the impairment loss allowance.

Trainer Notes:

- Flipchart format for step 14:

  Gross loan portfolio =
  Amount past due =
  Unpaid principal balance of all loans with payments past due =
  Amount past due formula =
  PAR =

  Compare the PAR formula with the amount past due (or arrears) formula using the example to show why it is a better measure of portfolio quality.

  PAR = 80/150 = 53%
  Amount past due = 30/150 = 20%

  Note: This comparison illustrates that the major risk factor in the portfolio has to do with the balance of loans outstanding, *not* with the amount past due.

- The trainer can circulate among the participants when they are in groups to assess whether everybody understands the concepts and is able to calculate PAR. More advanced participants can be encouraged to act as mentors to slower ones (rather than just calculating the answers on their own). Since groups have been purposely mixed participants of various levels of ability, this should occur naturally.

- Aging categories will vary according to repayment schedules. For instance, for programs with daily or weekly repayments, 30-day increments may be too long for measuring risk. It may make more sense for participants to think of past due as the number of payments late rather than as a specific amount of time. Trainer should use local examples to illustrate these points.

- "Aging of arrears" means separating the late loan payments by the number of days or number of payments they are late. DQ2-O7 has used number of days late as an example. Aging of arrears calculation allows risk analysis of the loan portfolio. Generally, payments that are more than 90 days late are less likely to be recovered and so are more risky than payments that are less than 30 days late.
- The limitations of PAR calculations, especially with write-offs, will become more obvious in session 3, with the graphic presentation of the write-off on the gross loan portfolio and impairment loss allowance.
- Impairment loss allowance, previously known as the loan loss reserve, is the portion of the gross loan portfolio that has been expensed (provisioned for) in anticipation of losses due to default. This concept represents the cumulative value of the impairment losses on loans, less the cumulative value of loans written off. This item should be expressed as a contra (negative) asset account and stated as a negative number (SEEP Network 2005).

TOPIC D: IMPAIRMENT LOSS ALLOWANCE CALCULATIONS

Techniques: Guided discussion, small group exercise

21. *(8 minutes)* Ask participants to raise their hands if they make provision for loan impairment or for an impairment loss allowance. Ask who does write-offs. Then ask why these methods are used.

    Take a few answers and discuss to clarify. Note that this section takes a closer look at these issues.

22. *(5 minutes)* Using overhead DQ2-O10 or handout DQ2-H8, explain the three concepts: provision for loan impairment, impairment loss allowance, and write-offs.

23. *(5 minutes)* Briefly refer back to the write-off discussion held earlier in session 1. Go over DQ2-O11 and use overhead DQ2-O12 to demonstrate that write-offs have no effect on the net loan portfolio and to support the rationale for establishing impairment loss allowance.

24. *(7 minutes)* To begin the discussion, have participants individually complete handout DQ2-H9 on loan loss in their MFI.

25. *(10 minutes)* Have prearranged groups of five or six participants review their answers and compare experiences within their organizations on loan recovery, impairment loss allowance rates, and write-off policies. Ask them to propose some best practices in this area to present to the large group.

26. *(15 minutes)* In the large group, facilitate a discussion based on responses to the handout and small group work. Have participants debate and defend their various policies and come to a consensus on the question of best practice. Record major appropriate suggested guidelines on a flipchart (see Trainer Notes). State that SAFE has decided to use the same rates as the Microbanking Bulletin (MBB) until it has its own historical data. This also enables them to compare SAFE to the

MBB benchmarks. (It will be helpful to have a copy of the MBB and be able to explain what it is.)

27. *(7 minutes)* Guide participants through the sample aging portfolio (DQ2-O13) to demonstrate how an impairment loss allowance rate is established. First, pointing to the PAR percentages, ask the participants to comment on the quality of the portfolio. Then explain the rest of the overhead and ask the participants what the impairment loss allowance is in the overhead and mark the answer on the overhead (4.85 percent).

    Explain that the loss allowance rate should be based on the history of the MFI, although some organizations reserve a certain percentage of their portfolio for the allowance as policy, say 3 percent or 4 percent, but the decision is best made after a close analysis of past performance to calculate how much ought to be reserved.

    In new MFIs this is often not possible. A new MFI should collect information on similar programs, in similar areas, and estimate during its initial years until it has a history to base its reserve on.

28. *(5 minutes)* Summarize the discussion and move forward to account for provision for loan impairment, impairment loss allowance, and write-offs.

Trainer Notes:

- The trainer will want to point out the relationship between the likely recovery of a delinquent loan (as stated in DQ2-H8) and the likelihood of losing the gross loan portfolio (if the MFI stated the likely recovery was 10 percent, then the likelihood of losing that loan is 90 percent). This is where the impairment loss allowance rates arise.
- In this session, the trainer could begin to make some connections between the measurements used in managing delinquency and those needed for interest rate calculation in the companion training session. Without distracting from the tasks at hand, such references remind participants whose MFIs are ignoring or performing poorly in one area of measurement that the ramifications will spread throughout other parts of their programs. Loan loss is a cost that has to be covered by interest rates, so it affects an MFI's sustainability!
- The trainer will make the point that delinquency rates complement impairment loss rates in showing a portfolio's health. The trainer will emphasize the impact of write-offs on the portfolio-at-risk measure.
- Best practice on impairment loss allowance depends on whether the MFI has historical portfolio performance or not. For those MFIs with a significant track record, that history will be the best indicator of an appropriate reserve. MFIs that have just started can either follow local banking practice (often 2 percent) or use the *Micro Banking Bulletin* peer group as a guide. If an MFI needs a loan impairment loss allowance of over 5 percent, then this spells disaster for the MFI.
- MFIs should also have a policy on writing off loans. Both the gross loan portfolio and the impairment loss allowance are reduced by the outstanding balance of the loan for the amount of the write-off, which reduces the MFI's total assets. This action is the financial

representation of the management's belief that the loan is unlikely to be repaid. Of course, the MFI should continue to seek to recover these loans until all legal and other efforts have failed. If the write-off exceeds the value of the impairment loss allowance, the MFI must increase the impairment loss allowance (by increasing the provision for loan impairment) before reducing the gross loan portfolio and the impairment loss allowance (SEEP Network 2005).

- Provision for loan impairment, previously known as the loan loss provision expense, is the noncash expense calculated as a percentage of the value of the loan portfolio that is at risk of default. This value is calculated in the portfolio report and is used to create or increase the impairment loss allowance on the balance sheet (SEEP Network 2005).
- Impairment loss allowance, previously known as the loan loss reserve, is the portion of the gross loan portfolio that has been expensed (provisioned for) in anticipation of losses due to default. This item represents the cumulative value of the impairment losses on loans less the cumulative value of loans written off. The impairment loss allowance should be expressed as a contra asset account and stated as a negative number (SEEP Network 2005).

TOPIC E: EFFECT OF PROVISION FOR LOAN IMPAIRMENT, IMPAIRMENT LOSS ALLOWANCE, AND WRITE-OFFS ON FINANCIAL STATEMENTS

Techniques: Presentation, exercises, questions and answers

29. *(2 minutes)* Explain reasons for accounting for provisions for loan impairment, impairment loss allowance, and write-offs, noting that every MFI needs a policy on these processes. Introduce this topic, which involves tracking a case through the accounting process. The first step will be to establish the allowance rate for SAFE (the Sustainable Access to Finance for Microenterprise program).

30. *(13 minutes)* Distribute DQ2-H10 and ask participants to complete the exercises. (If the level of the group warrants it, this exercise may be completed in pairs or trios.)

31. *(5 minutes)* Reviews answers using DQ2-O14 and hand out DQ2-H10b (answers). Point out the effect of the write-off on the PAR.

32. *(15 minutes)* Show the overheads on SAFE financial statements (DQ2-O15a–b and DQ2-O16a–c) and pass out DQ2-H11 (original SAFE statements) and DQ2-H12 worksheets. Briefly explain an income statement and balance sheet if participants do not understand this handout (see Trainer Notes). Refer to the answers from the previous step in this activity, in which the allowance rate was established. Demonstrate the steps needed to adjust the financial statements for the provision and the allowance, making sure that everyone follows. Then have participants, individually or in pairs or trios, compute new financial statements for the year 2004 to show the effects of the provisions and allowance.

33. *(5 minutes)* Hand out DQ2-H13 and review the answers for provisions and allowances using DQ2-O17a–b and DQ2-O18a–c.

34. *(10 minutes)* Distribute DQ2-H14 and assign participants to complete the write-off for all loans over 6 payments past due (85) using the previous SAFE portfolio report as on DQ2-H10. Participants may need a reminder about write-offs before starting this exercise.

35. *(5 minutes)* Review answers using DQ2-O19a–c and pass out DQ2-H15 answers. Take any questions concerning the exercises or the result of financial statements.

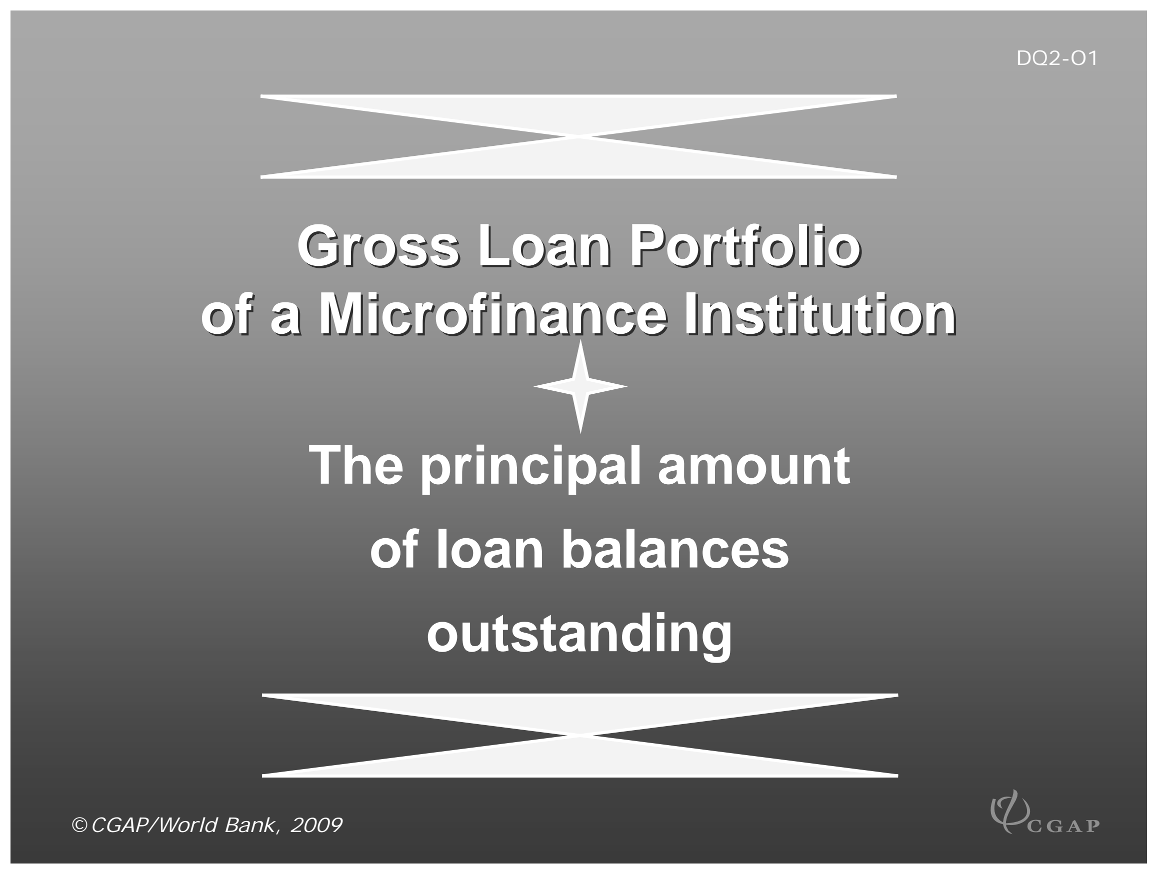
36. *(5 minutes)* Ask a few participants to summarize all points of the entire session. Draw conclusions and make recommendations for the best methods to measure portfolio quality.

Trainer Notes:

- The trainer should describe links between setting the provision for loan impairment and setting sustainable interest rates; that is, interest rates must cover the effects of the loan loss on the MFI. Provisions for loan impairment, as recorded on the financial statements, reduce profitability and surplus. The trainer should emphasize that loan losses decapitalize the MFI.
- It may be helpful to use flipcharts with a large income statement and balance sheet with their main elements. If the precourse skills audit indicates that understanding financial statements will be a real problem for a majority of participants, the trainer will want to allow more time here.

Overheads

THE COMPLETE SET OF OVERHEADS IS IN A SEPARATE POWERPOINT FILE ENTITLED "CGAP DELINQUENCY MANAGEMENT AND INTEREST RATE SETTING OVERHEADS"


DQ2-O1
Gross Loan Portfolio
of a Microfinance Institution
The principal amount
of loan balances
outstanding
© CGAP/World Bank, 2009
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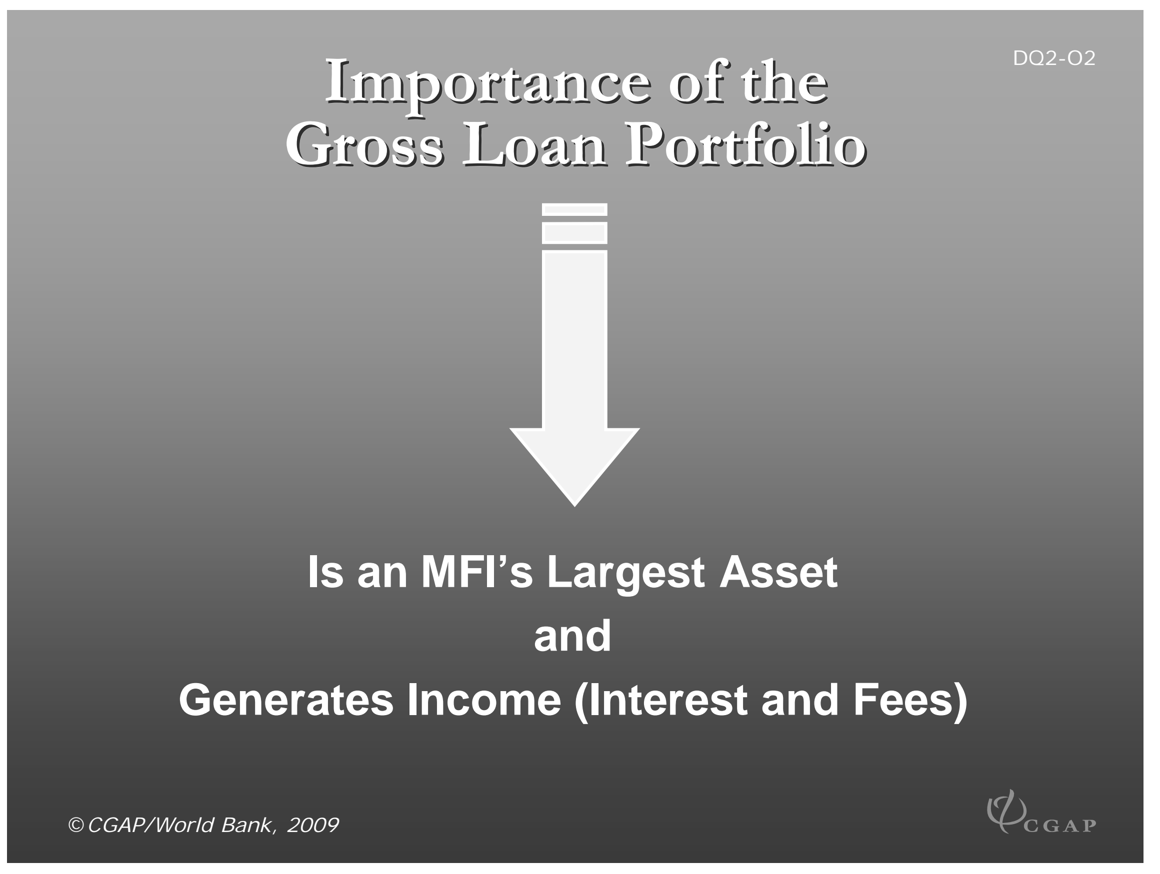
DQ2-O2
Importance of the
Gross Loan Portfolio
Is an MFI's Largest Asset
and
Generates Income (Interest and Fees)
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DQ2-O3

Portfolio Performance and Collection Ratios

INDICATOR	RATIO
Portfolio-at-Risk (PAR)	Unpaid principal balance of all loans with late payments+renegotiated loans / Gross Loan Portfolio
Arrears Rate (Past Due) Rate	Amount past due / Gross Loan Portfolio
Repayment Rate	Amount received (current + past due) less prepayments / Total amount due this period + amounts past due from previous periods
Current Recovery Rate	Amount received this period / Amount due this period under original loan terms
Write-Off Ratio	Amount of loans written off as unrecoverable / Average Gross Loan Portfolio

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DQ2-O4a

Repayment Problem

Client	Amount Due in December A	Amount Paid in December B	Amount Past Due before December 1 C
Total			

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Repayment Problem *(Answers)*

DQ2-O4b

Client	Amount Due in December A	Amount Paid in December B	Amount Past Due before December 1 C
F	58	58	
G	33	33	
H	60	60	
I	29	29	
J	50	50	
K	71	71	
L	69		69
M	58		174
N	60		60
O	44		0
P	55		55
Total	587	301	358

Repayment Rate = TOTAL B / (TOTAL A + TOTAL C)

301/945 = 32%

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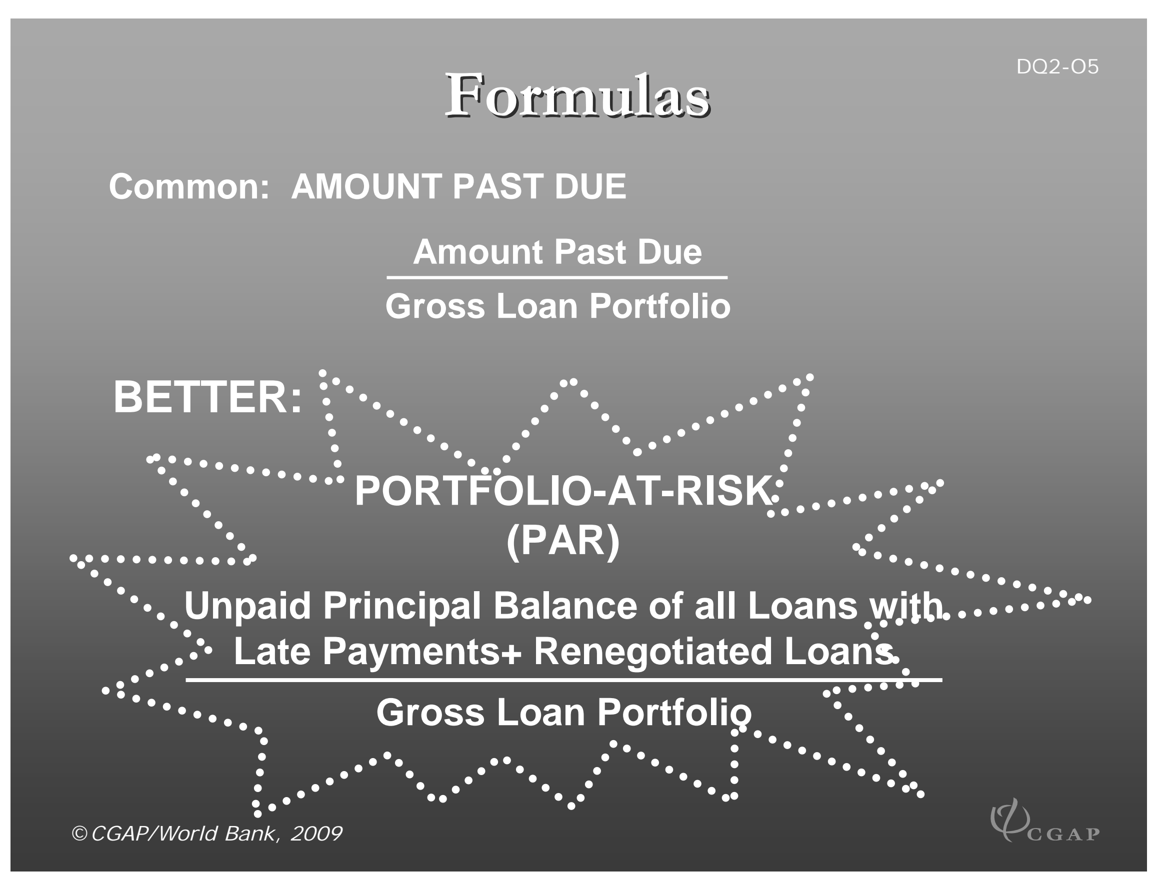

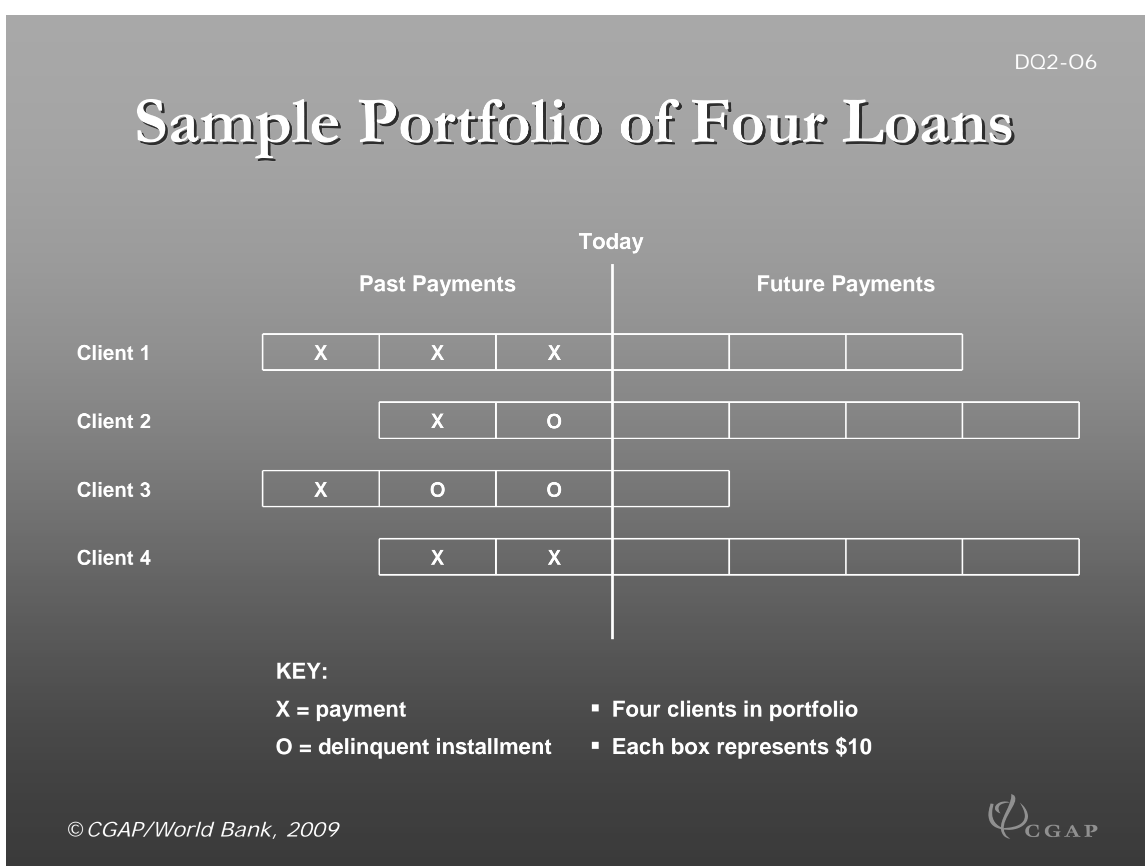

DQ2-O7

PAR by Age

Organization A

Total Portfolio-at-Risk	1–30 Days	31–60 Days	61–90 Days	Over 90 Days
14%	6%	4%	2%	2%

Organization B

Total Portfolio-at-Risk	1–30 Days	31–60 Days	61–90 Days	Over 90 Days
14%	1%	2%	4%	7%

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DQ2-O8

Sustainable Access to Finance for Microenterprise (SAFE) Case

Sample portfolio of four small groups (as of December 31, 2005)

1	2	3	4	5	6	7	8	9	10	11	12
Client	Disbursement Date	Term (months)	Loan Amount	Monthly Payment	Total Amount Paid	Amount Outstanding	Total Amount Past Due	*1 pmt* 1 to 30 Days	*2 pmts* 31 to 60 Days	*3 pmts* 61 to 90 Days	*>4 pmts* >90 Days
A	13-Dec-04	5	200	40	200	0					
B	23-Dec-04	4	175	44	175	0					
C	23-Dec-04	3	150	50	0	written off nonrecoverable in June 2005					
D	27-Jan-05	6	250	42	250	0					
E	13-Mar-05	3	100	33	100	0					
F	21-Jun-05	6	350	58	350	0					
G	11-Jul-05	6	200	33	167	33					
H	31-Jul-05	10	600	60	300	300					
I	20-Aug-05	6	175	29	117	58					
J	24-Sep-05	6	300	50	150	150					
K	23-Nov-05	7	500	71	71	429					
L	11-Jul-05	8	550	69	206	344	138	69	69		
M	21-Aug-05	6	350	58	0	350	232	58	58	58	58
N	30-Aug-05	5	300	60	120	180	120	60	60		
O	4-Oct-05	4	175	44	44	131	44	44			
P	1-Aug-05	4	220	55	110	110	110	55	55		
Q	13-Dec-05	4	200	50	0	200					
R	28-Dec-05	5	250	50	0	250					

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DQ2-O9a

PAR Calculations

1.

a) more than 1 day past due?

$$\frac{344 + 350 + 180 + 131 + 110}{2,535} = \frac{1,115}{2,535} = 44\%$$

b) more than 30 days past due?

$$\frac{344 + 350 + 180 + 110}{2,535} = \frac{984}{2,535} = 38.8\%$$

c) more than 90 days past due?

$$\frac{350}{2,535} = 13.8\%$$

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DQ2-O9b

PAR Calculations *(continued)*

2. Amount past due (past due= payments more than 30 days late):

$$\frac{242 + 58 + 58}{2{,}535} = \frac{358}{2{,}535} = 14.1\%$$

3.
a) PAR (delinquent, more than 30 days late):

$$\frac{984}{2{,}535 + 3{,}000} = \frac{984}{5{,}535} = 17.7\%$$

b)

$$\frac{984 + 1{,}500}{5{,}035} = 49\%$$

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DQ2-O10

Loan Loss Definitions

An IMPAIRMENT LOSS ALLOWANCE is an account that represents the amount of outstanding principal that is not expected to be recovered by a microfinance organization.

It is a negative asset on the balance sheet, reducing the gross loan portfolio.

PROVISION FOR LOAN IMPAIRMENT is the amount expensed on the income and expenses statement.

↑ It increases the impairment loss allowance.

LOAN LOSSES or WRITE-OFFs occur only as an accounting entry. They do not mean that loan recovery should not continue to be pursued.

↓ They decrease the impairment loss allowance *and* the gross loan portfolio.

Sources: Ledgerwood, 1996; SEEP Network 2005.

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DQ2-O11

Rationale for Provision for Loan Impairment and Impairment Loss Allowance

Maintaining loans on the books that are unlikely to be repaid overstates the size of the portfolio.

"All MFIs should have a policy for calculating and creating an Allowance for Loss Impairment and writing off loans. The generally accepted method for MFIs to assess default risk is based on the timeliness of principal payments on loans."

Sources: Stearns 1991; SEEP Network 2005.

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DQ2-O12

Effect of Impairment Loss Allowance and Write-Offs on Balance Sheet

Value of the gross loan portfolio

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DQ2-O13

Sample Aging Report

	Gross Loan Portfolio	Portfolio-at-Risk %	Loan Loss %	Impairment Loss Allowance $
Current	82,000		0	
1–30 days past due	8,750	8.75	10	875
31–60 days past due	5,000	5	25	1,250
61–90 days past due	2,500	2.5	50	1,250
91–120 days past due	1,100	1.1	75	825
>120 days past due	650	.65	100	650
TOTAL	100,000	18		4,850

Impairment loss allowance can be stated as a percentage of outstanding loans.

$$\text{Impairment loss allowance ratio} = \frac{\text{Total Allowance}}{\text{Gross Loan Portfolio}} = \square$$

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DQ2-O14

SAFE Impairment Loss Allowance Calculation (December 31)

Days in Arrears	Gross Loan Portfolio	Portfolio-at-Risk %	Allowance Rate %	Allowance Amount $
Current Loans	34,188			
< 30 days	9,467	22.5%	10%	947
31 to 60 Days	103	1.08%	30%	31
61 to 90 Days	170	0.85%	30%	51
91 to 120 Days	119	0.46%	60%	71
> 120 Days	85	0.19%	100%	85
TOTAL	44,132			1,185

$$\text{Impairment Loss Allowance} = \frac{\text{Total Allowance}}{\text{Gross Loan Portfolio}} = \frac{1{,}185}{44{,}132}$$

Impairment Loss Allowance = 2.68%

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DQ2-O15a

SAFE Income Statement
(Original)

Réf.	Intituté	2003 (000)	2004 (000)
I1	Financial Revenue	6,342	10,082
I2	Financial Revenue from Loan Portfolio	6,342	10,082
I3	Interest on Loan Portfolio	6,342	10,082
I4	Fees and Commissions on Loan Portfolio		
I5	Financial Revenue from Investments		
I6	Other Operating Revenue		
I7	Financial Expense	292	823
I8	Financial Expense on Funding Liabilities	292	823
I9	Interest and Fee Expense on Deposits		
I10	Interest and Fee Expense on Borrowings	292	823
I11	Other Financial Expense		
I12	Net Financial Income	6,050	9,259
I13	Impairment Losses on Loans	262	430
I14	Provision for Loan Impairment	292	472
I15	Value of Loans Recovered	(30)	(42)

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DQ2-O15b

SAFE Income Statement *(continued)*

Ref.	Account Name	2003 (000)	2004 (000)
I16	Operating Expense	3,264	4,562
I17	Personnel Expense	2,116	3,009
I18	Administrative Expense	1,148	1,553
I19	Depreciation and Amortization Expense	234	387
I20	Other Administrative Expense	914	1,166
I21	Net Operating Income	2,524	4,267
I22	Net Nonoperating Income/(Expense)	117	312
I23	Nonoperating Revenue	117	312
I24	Nonoperating Expense		
I25	Net Income (Before Taxes and Donations)	2,641	4,579
I26	Taxes	20	31
I27	Net Income (After Taxes and Before Donations)	2,621	4,548
I28	Donations	320	350
I29	Donations for Loan Capital	249	316
I30	Donations for Operating Expense	71	34
I31	Net Income (After Taxes and Donations)	2,941	4,898

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DQ2-16a

SAFE Balance Sheet
(Original)

Ref.	Account Name	2003 (000)	2004 (000)
	ASSETS		
B1	Cash and Due from Banks	801	1,781
B2	Trade Investments		
B3	Net Loan Portfolio	24,012	43,024
B4	Gross Loan Portfolio	24,690	44,132
B5	Impairment Loss Allowance	(678)	(1,108)
B6	Interest Receivable on Loan Portfolio	288	425
B7	Accounts Receivable and Other Assets	26	10
B8	Other Investments		
B9	Net Fixed Assets	2,321	2,748
B10	Fixed Assets	2,936	3,750
B11	Accumulated Depreciation and Amortization	(615)	(1,002)
B12	TOTAL ASSETS	27,448	47,988

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DQ2-16b

SAFE Balance Sheet *(continued)*

Ref.	Account Name	2003 (000)	2004 (000)
	LIABILITIES		
B13	Demand Deposits		
B14	Short-term Time Deposits		
B15	Short-term Borrowings	10,454	17,156
B16	Interest Payable on Funding Liabilities	25	62
B17	Accounts Payable and Other Short-term Liabilities	428	342
B18	Long-term Time Deposits		
B19	Long-term Borrowings	5,417	12,797
B20	Other Long-term Liabilities		
B21	TOTAL LIABILITIES	16,324	30,357

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DQ2-16c

SAFE Balance Sheet *(continued)*

Ref.	Account Name	2003 (000)	2004 (000)
	EQUITY		
B22	Paid-In Capital		
B23	Donated Equity	2,934	3,284
B24	Prior Years	2,614	2,934
B25	Current Year	320	350
B26	Retained Earnings	8,189	12,737
B27	Prior Years	5,568	8,189
B28	Current Year	2,621	4,548
B29	Reserves	1	1,610
B30	Other Equity Accounts		
B31	Adjustments to Equity		
B32	TOTAL EQUITY	11,124	17,631
	TOTAL LIABILITIES + EQUITY	27,448	47,988

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DQ2-O17a

SAFE Income Statement

(With provision for loan impairment adjustment)

Ref.	Account Name	2003 (000)	2004 (000)
I1	Financial Revenue	6,342	10,082
I2	Financial Revenue from Loan Portfolio	6,342	10,082
I3	Interest on Loan Portfolio	6,342	10,082
I4	Fees and Commissions on Loan Portfolio		
I5	Financial Revenue from Investments		
I6	Other Operating Revenue		
I7	Financial Expense	292	823
I8	Financial Expense on Funding Liabilities	292	823
I9	Interest and Fee Expense on Deposits		
I10	Interest and Fee Expense on Borrowings	292	823
I11	Other Financial Expense		
I12	Net Financial Income	6,050	9,259
I13	Impairment Losses on Loans	262	507
I14	Provision for Loan Impairment	292	549
I15	Value of Loans Recovered	(30)	(42)

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DQ2-O17b

SAFE Income Statement *(continued)*

Ref.	Account Name	2003 (000)	2004 (000)
I16	Operating Expense	3,264	4,562
I17	Personnel Expense	2,116	3,009
I18	Administrative Expense	1,148	1,553
I19	Depreciation and Amortization Expense	234	387
I20	Other Administrative Expense	914	1,166
I21	Net Operating Income	2,524	4,190
I22	Net Nonoperating Income/(Expense)	117	312
I23	Nonoperating Revenue	117	312
I24	Nonoperating Expense		
I25	Net Income (Before Taxes and Donations)	2,641	4,502
I26	Taxes	20	31
I27	Net Income (After Taxes and Before Donations)	2,621	4,471
I28	Donations	320	350
I29	Donations for Loan Capital	249	316
I30	Donations for Operating Expense	71	34
I31	Net Income (After Taxes and Donations)	2,941	4,821

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DQ2-18a

SAFE Balance Sheet

(With impairment loss allowance)

Ref.	Account Name	2003 (000)	2004 (000)
	ASSETS		
B1	Cash and Due from Banks	801	1,781
B2	Trade Investments		
B3	Net Loan Portfolio	24,012	42,947
B4	Gross Loan Portfolio	24,690	44,132
B5	Impairment Loss Allowance	(678)	(1,185)
B6	Interest Receivable on Loan Portfolio	288	425
B7	Accounts Receivable and Other Assets	26	10
B8	Other Investments		
B9	Net Fixed Assets	2,321	2,748
B10	Fixed Assets	2,936	3,750
B11	Accumulated Depreciation and Amortization	(615)	(1,002)
B12	TOTAL ASSETS	27,448	47,911

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DQ2-18b

SAFE Balance Sheet *(continued)*

Ref.	Account Name	2003 (000)	2004 (000)
	LIABILITIES		
B13	Demand Deposits		
B14	Short-term Time Deposits		
B15	Short-term Borrowings	10,454	17,156
B16	Interest Payable on Funding Liabilities	25	62
B17	Accounts Payable and Other Short-term Liabilities	428	342
B18	Long-term Time Deposits		
B19	Long-term Borrowings	5,417	12,797
B20	Other Long-term Liabilities		
B21	TOTAL LIABILITIES	16,324	30,357

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DQ2-18c

SAFE Balance Sheet *(continued)*

Ref.	Account Name	2003 (000)	2004 (000)
	EQUITY		
B22	Paid-In Capital		
B23	Donated Equity	2,934	3,284
B24	Prior Years	2,614	2,934
B25	Current Year	320	350
B26	Retained Earnings	8,189	12,660
B27	Prior Years	5,568	8,189
B28	Current Year	2,621	4,471
B29	Reserves	1	1,610
B30	Other Equity Accounts		
B31	Adjustments to Equity		
B32	TOTAL EQUITY	11,124	17,554
	TOTAL LIABILITIES + EQUITY	27,448	47,911

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DQ2-O19a

SAFE Balance Sheet
(After write-off)

Ref.	Account Name	2003 (000)	2004 (000)
	ASSETS		
B1	Cash and Due from Banks	801	1,781
B2	Trade Investments		
B3	Net Loan Portfolio	24,012	42,947
B4	Gross Loan Portfolio	24,690	44,132
B5	Impairment Loss Allowance	(678)	(1,100)
B6	Interest Receivable on Loan Portfolio	288	425
B7	Accounts Receivable and Other Assets	26	10
B8	Other Investments		
B9	Net Fixed Assets	2,321	2,748
B10	Fixed Assets	2,936	3,750
B11	Accumulated Depreciation and Amortization	(615)	(1,002)
B12	TOTAL ASSETS	27,448	47,911

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DQ2-O19b

SAFE Balance Sheet *(continued)*

Ref.	Account Name	2003 (000)	2004 (000)
	LIABILITIES		
B13	Demand Deposits		
B14	Short-term Time Deposits		
B15	Short-term Borrowings	10,454	17,156
B16	Interest Payable on Funding Liabilities	25	62
B17	Accounts Payable and Other Short-term Liabilities	428	342
B18	Long-term Time Deposits		
B19	Long-term Borrowings	5,417	12,797
B20	Other Long-term Liabilities		
B21	TOTAL LIABILITIES	16,324	30,357

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DQ2-O19c

SAFE Balance Sheet *(continued)*

Ref.	Account Name	2003 (000)	2004 (000)
	EQUITY		
B22	Paid-In Capital		
B23	Donated Equity	2,934	3,284
B24	Prior Years	2,614	2,934
B25	Current Year	320	350
B26	Retained Earnings	8,189	12,660
B27	Prior Years	5,568	8,189
B28	Current Year	2,621	4,471
B29	Reserves	1	1,610
B30	Other Equity Accounts		
B31	Adjustments to Equity		
B32	TOTAL EQUITY	11,124	17,554
	TOTAL LIABILITIES + EQUITY	27,448	47,911

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Handouts

Loan Performance and Collection Ratios – Individual

Take 5 to 10 minutes individually to complete this form based on your organization's current operating procedures.

Indicator	How do you compute it? (formula)	What plans are made based on this indicator?
Portfolio-at-Risk (PAR) Used: Yes ☐ No ☐		
Arrears Rate/ Past-due Rate Used: Yes ☐ No ☐		
Repayment Rate Used: Yes ☐ No ☐		
Current Recovery Rate Used: Yes ☐ No ☐		
Annual Write-Off (Loan Loss) Rate Used: Yes ☐ No ☐		
Other Used: Yes ☐ No ☐		

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Loan Performance and Collection Ratios

Accounting provides an ongoing history of financial activity. Ratios will allow you to examine financial relationships to diagnose the well-being of your project.

Key ratios should be monitored regularly to measure performance. The chart that follows defines and describes the purpose of each indicator.

INDICATOR	RATIO	MEASUREMENT
Portfolio-at-Risk By Age	Unpaid principal balance of all loans with payments at least 1, 30, or more days past due + renegotiated loans / Gross Loan Portfolio	Answer the question: "How much could you lose if all late borrowers default?" Aging separates more risky loans from less risky. (The longer a loan goes unpaid, the higher the risk it will never be paid.)
Arrears Rate/ Past Due Rate	Amount past due / Gross Loan Portfolio	Answer the question: "How commonplace is nonpayment?" Measures amount of loan principal that is due but not paid.
Repayment Rate	Amount received (current and past due) less prepayments / Total amount due this period + amounts past due from previous periods	Shows amount paid compared with amount due or expected during a specific period. Does not provide useful information about the performance of the gross loan portfolio.
Current Recovery Rate	Amount received this period (P or P + I) / Amount due this period (P or P + I) under original loan terms P= Principal I = Interest	Fluctuates from month to month. Is meaningful only for longer periods. Can be processed algebraically to predict eventual loan loss rates.
Annual Write-Off Rate	Value of loans written off as unrecoverable / Average Gross Loan Portfolio	Useful in interest rate setting. Annual cost of default, which must be balanced by higher interest income.

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Sustainable Access to Finance for Microenterprise (SAFE) Case

Sample portfolio of four small groups (as of December 31, 2005)

	2	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Client	**Disbursement Date**	**Term (months)**	**Loan Amount**	**Monthly Principal Payment**	**Total Amount Paid**	**Amount Outstanding**	**Total Amount Past Due**	***1 pmt*** **1 to 30 Days**	***2 pmts*** **31 to 60 Days**	***3 pmts*** **61 to 90 Days**	***>4 pmts*** **>90 Days**
A	13-Dec-04	5	200	40	200	0					
B	23-Dec-04	4	175	44	175	0					
C	23-Dec-04	3	150	50	0	written off nonrecoverable in June 2005					
D	27-Jan-05	6	250	42	250	0					
E	13-Mar-05	3	100	33	100	0					
F	21-Jun-05	6	350	58	350	0					
G	11-Jul-05	6	200	33	167	33					
H	31-Jul-05	10	600	60	300	300					
I	20-Aug-05	6	175	29	117	58					
J	24-Sep-05	6	300	50	150	150					
K	23-Nov-05	7	500	71	71	429					
L	11-Jul-05	8	550	69	206	344	138	69	69		
M	21-Aug-05	6	350	58	0	350	232	58	58	58	58
N	30-Aug-05	5	300	60	120	180	120	60	60		
O	4-Oct-05	4	175	44	44	131	44	44			
P	1-Aug-05	4	220	55	110	110	110	55	55		
Q	13-Dec-05	4	200	50	0	200					
R	28-Dec-05	5	250	50	0	250					

Note: For amounts past due
1-30 days past due equals one missed payment
31- 60 days past due is equivalent to two missed payments
61-90 days past due is three missed payments
Over 90 days past due, more than four missed payments

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Repayment Rate Problems

1. What was the repayment rate of the SAFE portfolio for December?

2. In what ways is December's repayment rate useful for the program management?

3. What does December's repayment rate indicate about the quality or amount of risk in the SAFE portfolio?

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Repayment Rate Problems: Solution Guide

Client	Amount Due in December A	Amount Paid in December B	Amount Past Due before December 1 C
F	58	58	
G	33	33	
H	60	60	
I	29	29	
J	50	50	
K	71	71	
L	69		69
M	58		174
N	60		60
O	44		0
P	55		55

Repayment Rate =

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Repayment Rate Problems

1. What was the repayment rate of the SAFE portfolio for December?

$$\frac{58 + 33 + 60 + 29 + 50 + 71}{301 + 644} = \frac{301}{945} = \mathbf{32\%}$$

2. In what ways is December's repayment rate useful for the program management?

- To compare with the repayment rates of previous months
- To compare actual with projected repayment rates
- To analyze whether repayments are increasing or decreasing
- Changes in repayment rates will provide some indication as to the effectiveness of any special efforts to recover past due payments. Could be used as an incentive scheme indicator for loan officers.
- Helpful when projecting cash flows to know what percentage of the amount due and past due is being received each month

3. What does December's repayment rate indicate about the quality or amount of risk in the SAFE portfolio?

- Repayment is NOT an indicator of the quality or amount of risk in the portfolio (the portfolio is not in the numerator or the denominator of the ratio).
- Repayment rate indicates the recovery performance of the program during a specific period (preferably short, such as one month).

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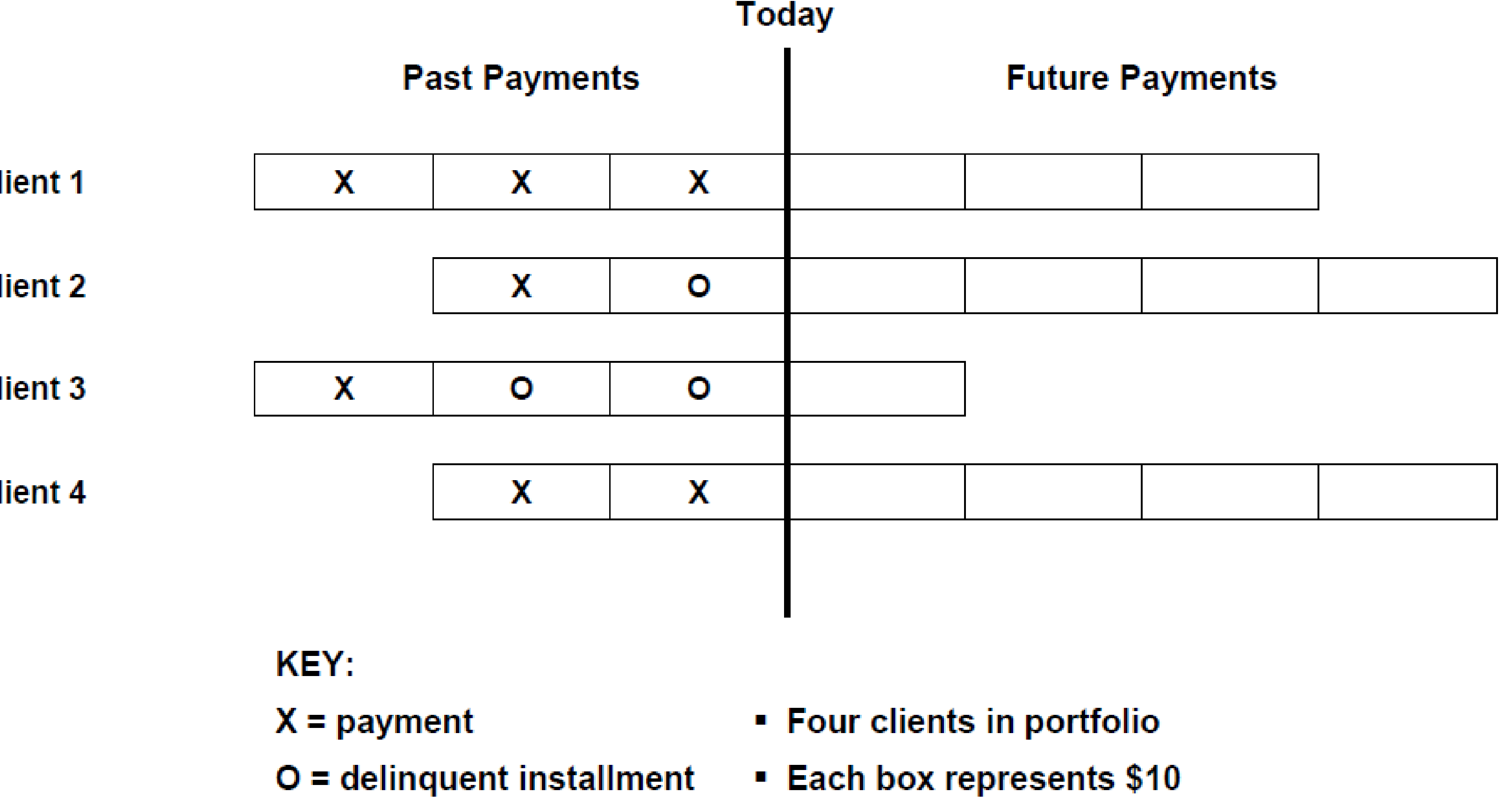
Sample Portfolio of Four Loans



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SAFE Case

The SAFE program was established in 2001 and began its credit operations in the same year. The program was received with a lot of enthusiasm by local microentrepreneurs. The first branch was opened in January 2002, and by December 2004 there were 20 branches with almost 20,000 clients/members. It is registered currently as a nonfinancial institution and under this regulation it cannot take deposits from the public, however it may do so in the future if it meets certain requirements to take deposits from its members.

Loans

SAFE has recently streamlined its loan products. It is now concentrating on one main product type that has proved to be highly successful. Currently the basic loan is offered in four levels with varying repayment periods (from 5 to 24 months), loan sizes (from 300 up to 20,000) and interest rates (26% to 34% nominal flat interest rate). Repayments are predetermined as either weekly or monthly. There is a possibility of a three-month grace period (repayment of interest only) for repeat loans.

Most loans are solidarity group lending. New loans are granted to individual members of the group following outlined procedures. A member is eligible for subsequent loans depending on her repayment performance. SAFE also has a number of individual loans—these are only granted to group members who have had a good repayment record with SAFE.

Performance to date has been excellent after the first 30days/1 payment. However, SAFE does seem to have a problem with delinquency on the first payment. They have no plans for handling such situations; they have no clear-cut policies or procedures and no policy for impairment loss allowance. However it is clear that improvement and change are needed in these areas.

MIS

The management information system enables SAFE to produce reliable, useful and up-to-date information on its loan portfolio and financial position. SAFE keeps accurate records on its clients and their payments also through a loan tracking system. The Accounting and Loan tracking systems are integrated and reports include microfinance best practices ratios, comparisons of planned versus actual results, budgets, and projections.

With growth, SAFE has also noticed other oddities in its program. For example, they are experiencing high client turnover. SAFE is also concerned about remaining a viable MFI. It is presently highly dependent on donor grants for its operations and its loan fund and realizes that the grants will not continue indefinitely.

SAFE is unclear on what next steps to take to ensure its growth and sustainability in the future.

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Portfolio-at-Risk (PAR) Calculations

Use the SAFE Portfolio Report sample (DQ2-H3) to answer these questions.

1. Calculate PAR for each situation where past due is defined as:

   a) more than 1 day past due.

   b) more than 30 days past due.

   c) more than 90 days past due.

2. Calculate the amount past due (as a rate), defining *past due* as loans with payments more than 30 days late.

3. What do the above percentages reveal about the quality of the portfolio?

4. If the program made 10 new loans of US$300 each, worth a total of US$3,000 in December 2004, what would the delinquency rate be?

   a) Use PAR formula; assume more than 30 days past due as delinquent.

   b) Why is the rate so much lower than it was without these new loans?

5. Consider these same new loans as being made October 1, 2004, and the monthly payment for each loan as US$50. Five of the clients with new loans had missed their November 1 and December 1 payments (that is, their first and second payments). The new gross loan portfolio is US$5,035. **Using the PAR formula, and assuming more than 30 days past due as delinquent, what would the delinquency rate be?**

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Portfolio-at-Risk (PAR) Calculations

Use the SAFE Portfolio Report sample (DQ2-H3) to answer these questions.

1. Calculate PAR for each situation where past due is defined as:

   a) more than 1 day past due.

   $$\frac{344 + 350 + 180 + 131 + 110}{2{,}535} = \frac{1{,}115}{2{,}535} = \mathbf{44\%}$$

   b) more than 30 days past due.

   $$\frac{344 + 350 + 180 + 110}{2{,}535} = \frac{984}{2{,}535} = \mathbf{38.8\%}$$

   c) more than 90 days past due.

   $$\frac{350}{2{,}535} = \mathbf{13.8\%}$$

2. Calculate the amount past due (as a rate), defining *past due* as loans with payments more than 30 days late.

   $$\frac{242 + 58 + 58}{2535} = \frac{358}{2{,}535} = \mathbf{14.1\%}$$

3. What do the above percentages reveal about the quality of the portfolio?

   - At one day past due the MFI stands to lose 44 percent (nearly half) of its entire portfolio, but at 90 days the MFI still stands to lose almost 14 percent of its portfolio.
   - Comparing the amount past due more than 30 days—14.1 percent — and the PAR more than 30 days—38.8%—one notes the vast difference when considering the balance of the outstanding loan as at risk.
   - Using the amount past due could lead to a different opinion than the PAR and mislead the MFI into thinking its portfolio is healthier than it actually is.

4. If the program made 10 new loans of US$300 each, worth a total of US$3,000 in December 2004, what would the delinquency rate be?

   a) Use PAR formula; assume more than 30 days past due as delinquent.

   $$\frac{984}{2{,}535 + 3{,}000} = \frac{984}{5{,}535} = \mathbf{17.7\%}$$

   b) Why is the rate so much lower than it was without these new loans?

   Rapidly growing portfolios can hide delinquency. In these cases one should look at actual amounts past due to see how the portfolio is changing.

5. Consider these same new loans as being made October 1, 2004, and the monthly payment for each loan as US$50. Five of the clients with new loans had missed their November 1 and December 1 payments (that is, their first and second payments). The new gross loan portfolio is US$5,035. **Using the PAR formula, and assuming more than 30 days past due as delinquent, what would the delinquency rate be?**

   $$\frac{984 + 1{,}500}{5{,}035} = \mathbf{49\%}$$

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Loan Loss Definitions

An **IMPAIRMENT LOSS ALLOWANCE** is an account that represents the amount of outstanding principal that is not expected to be recovered by a microfinance organization.

> It is a negative asset on the balance sheet and reduces the gross loan portfolio.

PROVISION FOR LOAN IMPAIRMENT is the amount expensed on the income and expenses statement.

↑ It increases the impairment loss allowance.

LOAN LOSSES or **WRITE-OFFs** occur only as an accounting entry. They do not mean that the MFI should not continue to pursue payment.

↓ Both decrease the allowance and the gross loan portfolio.

Sources: Ledgerwood 1996; SEEP Network 2005.

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Accounting for Provisions for Loan Impairment and Write-Offs

A **provision** records the possibility that an asset in the Balance Sheet is not 100% realizable. The loss of value of assets may arise through wear and tear, such as the depreciation of physical assets, loss of stocks, or unrecoverable debts.

Provisions expense this anticipated loss of value in the portfolio gradually over the appropriate periods in which that asset generates income, instead of waiting until the actual loss of the asset is realized.

Provisions are only accounting estimates and entries, and they do not involve a movement of cash, like saving for a rainy day.

Provisions for loan impairment charged to a period are expensed in the Income and Expense Statement. The corresponding credit accumulates over time in the Balance Sheet as **impairment loss allowance,** shown as a negative asset:

The accounting transaction is:

Dr Provision for loan impairment
Cr Loan loss reserve

Loan losses or **write-offs** occur when it is determined that loans are unrecoverable. Because the possibility that some loans would be unrecoverable has been provided for in the accounting books through impairment loss allowance, loan losses are written off against impairment loss allowances and are also removed from the gross loan portfolio.

The accounting transaction is:

Dr Impairment loss allowance
Cr Gross loan portfolio

Write-offs do not affect the net portfolio unless an increase in the impairment loss allowance is made.

When write-offs are recovered, they are booked in the income and expense statement as other operating revenue.

IMPAIRMENT LOSS ALLOWANCE

An account that represents the amount of outstanding principal that is not expected to be recovered by a microfinance organization.

A negative asset on the balance sheet that reduces the gross loan portfolio. (An alternative presentation is to show it as a liability.)

PROVISION FOR LOAN IMPAIRMENT

The amount expensed on the income and expenses statement.

↑ It increases the impairment loss allowance.

LOAN LOSSES or WRITE-OFFs

Occur only as an accounting entry (they do not mean that loan recovery should not continue to be pursued).

↓ They decrease the impairment loss allowance *and* the gross loan portfolio.

Sources: Ledgerwood 1996; SEEP Network 2005.

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Loan Loss in Your MFI

1. Using your experience in your organization, consider the likelihood of recovering loans once they are past due, given the periods in the sample aging report below.

My MFI	Likely Recovery Rate (%)
One payment past due	
Two payments past due	
Three payments past due	
Four payments past due	
More than four payments past due	

2. What is the allowance rate used by your MFI?

   How was it determined and by whom?

   How often is it reviewed?

3. Describe the write-off policy of your MFI.

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SAFE Impairment Loss Allowance Calculation

While SAFE has usually aged its portfolio it has not methodically used aging for the purpose of establishing the Impairment Loss Allowance. It has decided to adapt the **MicroBanking Bulletin (**MBB) **Benchmarking Allowance Rates** so that it may easily compare itself to benchmarks in the future. When SAFE has an established history, it will review the rates to ensure that it has sufficient allowance for impaired loans.

1. Refer to the impairment loss allowance table below and make an allowance for each category of aged loans.

Category	**Value of Portfolio**	**(MBB) Loss Allowance Rate (%)**	**Impairment Loss Allowance**
Current Portfolio	**34,188**		
1 payment (1–30 days) past due	**9,467**	**10**	
2 payments (31–60 days) past due	**103**	**30**	
3 payments (61–90 days) past due	**170**	**30**	
4–6 payments (91–180 days) past due	**119**	**60**	
>6 payments (180 days) past due	**85**	**100**	
Renegotiated Portfolio 1–30 days	**–**		
Renegotiated Portfolio more than 30 days	**–**		
TOTAL	**44,132**		

Formula Impairment Loss Allowance Ratio: $\dfrac{\textbf{Total Impairment Loss Allowance}}{\textbf{Gross Loan Portfolio}}$

2. Calculate Impairment Loss Allowance Ratio

3. Calculate portfolio-at-risk (PAR)
   a. For all noncurrent loans with one or more missed payments

   b. With 2 or more missed payments

4. Comment on the quality of this portfolio

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SAFE Impairment Loss Allowance Calculation

1. Refer to the impairment loss allowance table below and make an allowance for each category of aged loans.

Category	Value of Portfolio	(MBB) Loss Allowance Rate (%)	Impairment Loss Allowance
Current Portfolio	**34,188**		
1 payment (1–30 days) past due	**9,467**	**10**	**947**
2 payments (31–60 days) past due	**103**	**30**	**31**
3 payments (61–90 days) past due	**170**	**30**	**51**
4–6 payments (91–180 days) past due	**119**	**60**	**71**
>6 payments (180 days) past due	**85**	**100**	**85**
Renegotiated Portfolio 1–30 days	**–**	**10**	
Renegotiated Portfolio more than 30 days	**–**	**30**	
TOTAL	**44,132**		**1,185**

2. Calculate Impairment Loss Allowance Ratio

$$\frac{1{,}185}{44{,}132} = \mathbf{0.0268} = \mathbf{2.68\%}$$

3.a. Calculate Portfolio at Risk (PAR) after 1 payment late

$$\frac{9{,}944}{44{,}132} = \mathbf{0.2253} = \mathbf{22.5\%}$$

3.b. If you calculate the PAR for loans which are 2 or more payments late, what then happens to PAR?

$$\frac{(103 + 170 + 119 + 85)}{44{,}132} = \frac{477}{44{,}132} = \mathbf{0.0108} = \mathbf{1.08\%}$$

4. Comment on the quality of this portfolio

PAR > 1 Day is very dangerous. SAFE must adopt a policy of zero tolerance for delinquency and improve on-time payment. Most of the late loans are one payment late, so SAFE needs to find out why clients are slipping by one payment and then catching up in the next period. Comparing SAFE with fully financially self-sufficient MFIs in the MicroBanking Bulletin would be useful.

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SAFE Financial Statements (Originals)

SAFE Income Statement

Ref.	Account Name	2003 (000)	2004 (000)
I1	Financial Revenue	6,342	10,082
I2	Financial Revenue from Loan Portfolio	6,342	10,082
I3	Interest on Loan Portfolio	6,342	10,082
I4	Fees and Commissions on Loan Portfolio		
I5	Financial Revenue from Investment		
I6	Other Operating Revenue		
I7	Financial Expense	292	823
I8	Financial Expense on Funding Liabilities	292	823
I9	Interest and Fee Expense on Deposits		
I10	Interest and Fee Expense on Borrowings	292	823
I11	Other Financial Expense		
I12	**Net Financial Income**	**6,050**	**9,259**
I13	**Impairment Losses on Loans**	**262**	**430**
I14	Provisions for Loan Impairment	292	472
I15	Value of Loans Recovered	(30)	(42)
I16	Operating Expense	3,264	4,562
I17	Personnel Expense	2,116	3,009
I18	Administrative Expense	1,148	1,553
I19	Depreciation and Amortization Expense	234	387
I20	Other Administrative Expense	914	1,166
I21	**Net Operating Income**	**2,524**	**4,267**
I22	**Net Nonoperating Income/(Expense)**	**117**	**312**
I23	Nonoperating Revenue	117	312
I24	Nonoperating Expense		
I25	**Net Income (Before Taxes and Donations)**	**2,641**	**4,579**
I26	Taxes	20	31
I27	**Net Income (After Taxes and Before Donations)**	**2,621**	**4,548**
I28	**Donations**	**320**	**350**
I29	Donations for Loan Capital	249	316
I30	Donations for Operating Expense	71	34
I31	**Net Income (After Taxes and Donations)**	**2,941**	**4,898**

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SAFE Balance Sheet

Ref.	Account Name	2003 (000)	2004 (000)
	ASSETS		
B1	Cash and Due from Banks	801	1,781
B2	Trade Investments		
B3	Net Loan Portfolio	24,012	43,024
B4	Gross Loan Portfolio	24,690	44,132
B5	Impairment Loss Allowance	(678)	(1,108)
B6	Interest Receivable on Loan Portfolio	288	425
B7	Accounts Receivable and Other Assets	26	10
B8	Other Investments		
B9	Net Fixed Assets	2,321	2,748
B10	Gross Fixed Assets	2,936	3,750
B11	Accumulated Depreciation and Amortization	(615)	(1,002)
B12	**TOTAL ASSETS**	**27,448**	**47,988**
	LIABILITIES		
B13	Demand Deposits	-	-
B14	Short-term Time Deposits		
B15	Short-term Borrowings	10,454	17,156
B16	Interest Payable on Funding Liabilities	25	62
B17	Accounts Payable & Other Short-term Liabilities	428	342
B18	Long-term Time Deposits		
B19	Long-term Borrowings	5,417	12,797
B20	Other Long-term Liabilities		
B21	**TOTAL LIABILITIES**	**16,324**	**30,357**
	EQUITY		
B22	Paid-in Capital		
B23	Donated Equity	2,934	3,284
B24	Prior Years	2,614	2,934
B25	Current Year	320	350
B26	Retained Earnings	8,189	12,737
B27	Prior Years	5,568	8,189
B28	Current Year	2,621	4,548
B29	Reserves	1	1,610
B30	Other Equity Accounts		
B31	Adjustments to Equity		
B32	**TOTAL EQUITY**	**11,124**	**17,631**
	TOTAL LIABILITIES + EQUITY	**27,448**	**47,988**

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SAFE Financial Statements with Provision for Loan Impairment Adjustment and Impairment Loss Allowance – Exercise

Record an Adjustment for Loan Impairment and COMPLETE the Income Statement and Balance Sheet

2004 Current Impairment Loan Allowance =	
2004 Recommended Impairment Allowance as per aging report =	
2004 Adjustment =	

Income Statement

Ref.	Account Name	2003 (000)	2004 (000)
I1	Financial Revenue	6,342	10,082
I2	Financial Revenue from Loan Portfolio	6,342	10,082
I3	Interest on Loan Portfolio	6,342	10,082
I4	Fees and Commissions on Loan Portfolio		
I5	Financial Revenue from Investment		
I6	Other Operating Revenue		
I7	Financial Expense	292	823
I8	Financial Expense on Funding Liabilities	292	823
I9	Interest and Fee Expense on Deposits		
I10	Interest and Fee Expense on Borrowings	292	823
I11	Other Financial Expense		
I12	**Net Financial Income**	**6,050**	**9,259**
I13	**Impairment Losses on Loans**	**231**	
I14	Provisions for Loan Impairment	261	
I15	Value of Loans Recovered	(30)	(42)
I16	Operating Expense	3,295	4,562
I17	Personnel Expense	2,116	3,009
I18	Administrative Expense	1,179	1,553
I19	Depreciation and Amortization Expense	234	387
I20	Other Administrative Expense	945	1,166
I21	**Net Operating Income**	**2,524**	
I22	**Net Nonoperating Income/(Expense)**	**117**	**312**
I23	Nonoperating Revenue	117	312
I24	Nonoperating Expense		
I25	**Net Income (Before Taxes and Donations)**	**2,641**	
I26	Taxes	20	31
I27	**Net Income (After Taxes and Before Donations)**	**2,621**	
I28	**Donations**	**320**	**350**
I29	Donations for Loan Capital	249	316
I30	Donations for Operating Expense	71	34
I31	**Net Income (After Taxes and Donations)**	**2,941**	

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Balance Sheet

Ref.	Account Name	2003 (000)	2004 (000)
	ASSETS		
B1	Cash and Due from Banks	801	1,781
B2	Trade Investments		
B3	Net Loan Portfolio	24,012	
B4	Gross Loan Portfolio	24,690	44,132
B5	Impairment Loss Allowance	(678)	
B6	Interest Receivable on Loan Portfolio	288	425
B7	Accounts Receivable and Other Assets	26	10
B8	Other Investments		
B9	Net Fixed Assets	2,321	2,748
B10	Gross Fixed Assets	2,936	3,750
B11	Accumulated Depreciation and Amortization	(615)	(1,002)
B12	**TOTAL ASSETS**	**27,448**	
	LIABILITIES		
B13	Demand Deposits	-	-
B14	Short-term Time Deposits		
B15	Short-term Borrowings	10,454	17,156
B16	Interest Payable on Funding Liabilities	25	62
B17	Accounts Payable & Other Short-term Liabilities	428	342
B18	Long-term Time Deposits		
B19	Long-term Borrowings	5,417	12,797
B20	Other Long-term Liabilities		
B21	**TOTAL LIABILITIES**	**16,324**	**30,357**
	EQUITY		
B22	Paid-in Capital		
B23	Donated Equity	2,934	3,284
B24	Prior Years	2,614	2,934
B25	Current Year	320	350
B26	Retained Earnings	8,189	
B27	Prior Years	5,568	8,189
B28	Current Year	2,621	
B29	Reserves	1	1,610
B30	Other Equity Accounts		
B31	Adjustments to Equity		
B32	**TOTAL EQUITY**	**11,124**	
	TOTAL LIABILITIES + EQUITY	**27,448**	

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SAFE Financial Statements with Provision for Loan Impairment Adjustment and Impairment Loss Allowance – Answers

Income Statement

Ref.	Account Name	2003 (000)	2004 (000)
I1	Financial Revenue	6,342	10,082
I2	Financial Revenue from Loan Portfolio	6,342	10,082
I3	Interest on Loan Portfolio	6,342	10,082
I4	Fees and Commissions on Loan Portfolio		
I5	Financial Revenue from Investment		
I6	Other Operating Revenue		
I7	Financial Expense	292	823
I8	Financial Expense on Funding Liabilities	292	823
I9	Interest and Fee Expense on Deposits		
I10	Interest and Fee Expense on Borrowings	292	823
I11	Other Financial Expense		
I12	**Net Financial Income**	**6,050**	**9,259**
I13	**Impairment Losses on Loans**	**231**	**507**
I14	Provisions for Loan Impairment	261	**549**
I15	Value of Loans Recovered	(30)	(42)
I16	Operating Expense	3,295	4,562
I17	Personnel Expense	2,116	3,009
I18	Administrative Expense	1,179	1,553
I19	Depreciation and Amortization Expense	234	387
I20	Other Administrative Expense	945	1,166
I21	**Net Operating Income**	**2,524**	**4,190**
I22	**Net Nonoperating Income/(Expense)**	**117**	**312**
I23	Nonoperating Revenue	117	312
I24	Nonoperating Expense		
I25	**Net Income (Before Taxes and Donations)**	**2,641**	**4,502**
I26	Taxes	20	31
I27	**Net Income (After Taxes and Before Donations)**	**2,621**	**4,471**
I28	**Donations**	**320**	**350**
I29	Donations for Loan Capital	249	316
I30	Donations for Operating Expense	71	34
I31	**Net Income (After Taxes and Donations)**	**2,941**	**4,821**

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Balance Sheet

Ref.	Account Name	2003 (000)	2004 (000)
	ASSETS		
B1	Cash and Due from Banks	801	1,781
B2	Trade Investments		
B3	Net Loan Portfolio	24,012	**42,947**
B4	Gross Loan Portfolio	24,690	44,132
B5	Impairment Loss Allowance	(678)	**(1,185)**
B6	Interest Receivable on Loan Portfolio	288	425
B7	Accounts Receivable and Other Assets	26	10
B8	Other Investments		
B9	Net Fixed Assets	2,321	2,748
B10	Gross Fixed Assets	2,936	3,750
B11	Accumulated Depreciation and Amortization	(615)	(1,002)
B12	**TOTAL ASSETS**	**27,448**	**47,911**
	LIABILITIES		
B13	Demand Deposits	-	-
B14	Short-term Time Deposits		
B15	Short-term Borrowings	10,454	17,156
B16	Interest Payable on Funding Liabilities	25	62
B17	Accounts Payable & Other Short-term Liabilities	428	342
B18	Long-term Time Deposits		
B19	Long-term Borrowings	5,417	12,797
B20	Other Long-term Liabilities		
B21	**TOTAL LIABILITIES**	**16,324**	**30,357**
	EQUITY		
B22	Paid-in Capital		
B23	Donated Equity	2,934	3,284
B24	Prior Years	2,614	2,934
B25	Current Year	320	350
B26	Retained Earnings	8,189	**12,660**
B27	Prior Years	5,568	8,189
B28	Current Year	2,621	**4,471**
B29	Reserves	1	1,610
B30	Other Equity Accounts		
B31	Adjustments to Equity		
B32	**TOTAL EQUITY**	**11,124**	**17,554**
	TOTAL LIABILITIES + EQUITY	**27,448**	**47,911**

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SAFE Balance Sheet with Write-Off – Exercise

Ref.	Account Name	2003 (000)	2004 (000)
	ASSETS		
B1	Cash and Due from Banks	801	1,781
B2	Trade Investments		
B3	Net Loan Portfolio	24,012	
B4	Gross Loan Portfolio	24,690	
B5	Impairment Loss Allowance	(678)	
B6	Interest Receivable on Loan Portfolio	288	425
B7	Accounts Receivable and Other Assets	26	10
B8	Other Investments		
B9	Net Fixed Assets	2,321	2,748
B10	Gross Fixed Assets	2,936	3,750
B11	Accumulated Depreciation and Amortization	(615)	(1,002)
B12	**TOTAL ASSETS**	**27,448**	
	LIABILITIES		
B13	Demand Deposits	-	-
B14	Short-term Time Deposits		
B15	Short-term Borrowings	10,454	17,156
B16	Interest Payable on Funding Liabilities	25	62
B17	Accounts Payable & Other Short-term Liabilities	428	342
B18	Long-term Time Deposits		
B19	Long-term Borrowings	5,417	12,797
B20	Other Long-term Liabilities		
B21	**TOTAL LIABILITIES**	**16,324**	
	EQUITY		
B22	Paid-in Capital		
B23	Donated Equity	2,934	3,284
B24	Prior Years	2,614	2,934
B25	Current Year	320	350
B26	Retained Earnings	8,189	
B27	Prior Years	5,568	8,189
B28	Current Year	2,621	
B29	Reserves	1	1,610
B30	Other Equity Accounts		
B31	Adjustments to Equity		
B32	**TOTAL EQUITY**	**11,124**	
	TOTAL LIABILITIES + EQUITY	**27,448**	

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SAFE Balance Sheet with Write-Off – Answers

Ref.	Account Name	2003 (000)	2004 (000)
	ASSETS		
B1	Cash and Due from Banks	801	1,781
B2	Trade Investments		
B3	Net Loan Portfolio	24,012	**42,947**
B4	Gross Loan Portfolio	24,690	44,047
B5	Impairment Loss Allowance	(678)	**(1,100)**
B6	Interest Receivable on Loan Portfolio	288	425
B7	Accounts Receivable and Other Assets	26	10
B8	Other Investments		
B9	Net Fixed Assets	2,321	2,748
B10	Gross Fixed Assets	2,936	3,750
B11	Accumulated Depreciation and Amortization	(615)	(1,002)
B12	**TOTAL ASSETS**	**27,448**	**47,911**
	LIABILITIES		
B13	Demand Deposits	-	-
B14	Short-term Time Deposits		
B15	Short-term Borrowings	10,454	17,156
B16	Interest Payable on Funding Liabilities	25	62
B17	Accounts Payable & Other Short-term Liabilities	428	342
B18	Long-term Time Deposits		
B19	Long-term Borrowings	5,417	12,797
B20	Other Long-term Liabilities		
B21	**TOTAL LIABILITIES**	**16,324**	**30,357**
	EQUITY		
B22	Paid-in Capital		
B23	Donated Equity	2,934	3,284
B24	Prior Years	2,614	2,934
B25	Current Year	320	350
B26	Retained Earnings	8,189	**12,660**
B27	Prior Years	5,568	8,189
B28	Current Year	2,621	**4,471**
B29	Reserves	1	1,610
B30	Other Equity Accounts		
B31	Adjustments to Equity		
B32	**TOTAL EQUITY**	**11,124**	**17,554**
	TOTAL LIABILITIES + EQUITY	**27,448**	**47,911**

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SESSION 3: CONTROLLING DELINQUENCY

Session Summary

OBJECTIVES: By the end of the session participants will be able to:

- Articulate strategies for keeping delinquency within acceptable limits
- Analyze institutional factors affecting delinquency
- Identify incentives and disincentives of timely repayment from the borrower's perspective

TIME: 100 minutes

Session Topics:

A. The Borrowers' Perspective *(35–50 minutes)*
B. Finding Organizational Solutions *(35–45 minutes)*
C. Information Systems for Controlling Delinquency *(20–30 minutes)*

SUPPLIES: Flipchart paper, markers
LED projector or overhead projector

PARTICIPANT MATERIALS

OVERHEADS:

DQ3-O1a	Borrowers' Perceptions – Benefits
DQ3-O1b	Borrowers' Perceptions – Costs
DQ3-O2	Rescheduling and Refinancing
DQ3-O3	Uncontrollable Factors in Delinquency Management
DQ3-O4	Questions on Information Systems
DQ3-O5a–b	Sample Portfolio Report
DQ3-O6	Delinquency Prevention

HANDOUTS:

DQ3-H1a	Borrowers' Perceptions
DQ3-H1b	Borrowers' Perceptions *(Answers)*
DQ3-H2	Organizational Causes of Delinquency *(solutions matrix)*
DQ3-H3	Delinquency Causes and Controls

PREPARED FLIPCHARTS:
Solutions for Controlling Delinquency

Session 3: Controlling Delinquency

TOPIC A: THE BORROWERS' PERSPECTIVE

Techniques: Small group exercises

1. *(3 minutes)* Introduce the session by referring to the flipchart generated in session 1 on causes of delinquency. (This could also be made into an overhead as for DQ3-H1.) Lead a brief discussion noting that some causes of delinquency have been discussed; note that this session will look deeper into the matter and try to offer some solutions.

   Using overhead DQ3-O1, explain that for this topic, participants must put themselves in the place of their MFI's actual and potential borrowers, including all of the cultural, economic, social, historical, and other factors that influence borrowers' perceptions and decisions. (Participants with little microfinance experience will need to think of when they have borrowed money or used a credit card.)

2. *(10 minutes)* Have participants form small groups of two or three (based on proximity and time constraints) and hand out the matrix of borrowers' perceptions (DQ3-H1). Ask the groups to brainstorm costs and benefits from the perspectives of their borrowers and to fill in the matrix as a group. Explain that costs are not restricted to financial costs.

3. *(7 minutes)* In the main group, lead a discussion on the costs and benefits, soliciting responses from the participants and bringing in local examples. Then briefly compare responses to the matrix in the overheads DQ3-O1a and O1b and in the DQ3-H1 answers.

4. *(10 minutes)* Ask how MFIs can increase the incentives and decrease the costs in order to have better on-time repayment. Discuss major points and record important solutions on a flipchart (if appropriate). Remember to be specific and apply examples to local MFIs.

   As the participants discuss ways to increase incentives, note that the crucial point is to create incentives that encourage credit discipline among borrowers. Examples of incentives are to increase perceived benefits of on-time payment, reduce perceived costs of on-time payment, reduce benefits of late payment, and increase costs of late or nonpayment.

5. *(5 minutes)* Summarize by reminding participants that the organization is primarily responsible for delinquency. Examining client perspectives has produced a number of organizational solutions; this section will explore those options.

Trainer Notes:

- The trainer should have relevant flipcharts from session 1 readily available and posted in the front of the room for easy reference. It is also a good way to remind participants that the causes of delinquency were ones they raised themselves.

- The trainer's goal is to help participants see the decisions of borrowers as rational within their MFI's database. Participants should also realize their institution's responsibility to fit the borrowers' needs and values and to inform borrowers fully about the institution's principles.
- The trainer should again remind participants of the costs associated with delinquency. Participants should now understand that the fundamental causes of delinquency can only be addressed when the incentives to repay and the disincentives not to repay are strong. Making sure that incentives and disincentives are clear and compelling to the client is the MFI's responsibility. Reinforce the message that delinquency is largely under the control of the MFI.

TOPIC B: FINDING ORGANIZATIONAL SOLUTIONS

Techniques: Small group work, volunteer cofacilitator

6. *(15 minutes)* Hand out DQ3-H2, the matrix of organizational causes of delinquency that comes from the initial discussion on causes of delinquency (session 1, topic B, flipcharts). Have the participants form small groups (either the prearranged groups or new groups, depending on the dynamics and time). Ask each group to come up with a specific solution for the causes listed under the organization category.

   Note: The solution should not be the reverse of the cause; that is, the solution for tardy loan disbursement is not on-time disbursement, but rather an action that addresses the root causes of this internal contribution to delinquency.

7. *(7 minutes)* Ask a group member to state his or her best solution to one of the problems. Summarize the discussion using the handout on delinquency causes and controls (DQ3-H3) and briefly relate the causes on the matrix to the kinds of solutions reached by the group.

8. *(5 minutes)* Ask participants if their organization allows rescheduling or refinancing. Ask one or two participants to briefly describe their experience. Ask the group how these tactics affect the delinquency problem.

9. *(5 minutes)* Show DQ3-O2, on rescheduling and refinancing and talk about why these policies can be dangerous to the institution. Discuss the extreme conditions under which they might be considered, and advise participants how to account for them if in fact their MFI decides to reschedule or refinance. At the very least, if loans are rescheduled or refinanced, they should be tracked separately and not counted as current loans, because they are still at risk. Give local examples.

   These methods are dangerous for the following reasons: They cover up the problem of delinquency, they do not solve it. They disguise the quality of the loan portfolio from managers, so it is easy for the "hidden beast" to get out of control with all the problems discussed in session 1. Finally, once clients learn that rescheduling or refinancing is an option, they may stop paying.

10. *(8 minutes)* Briefly cover the topic of external factors using DQ3-O3, on uncontrollable factors in delinquency management. Elicit possible strategies for coping or planning for these events. Inform participants that factors such as these require constant monitoring and consideration. While the program may not be able to control them, they can influence the quality of the portfolio, and the program should be able to compensate for them in its design, methodology, and collection procedures.

    Summarize and close.

Trainer Notes:

- Trainer needs to have edited the responses from session 1 flipcharts so that they are succinct and logically grouped as in the example.
- This activity should encourage participants to reflect on the role of their institutions in setting and promoting standards, attitudes, institutional culture, and credit discipline, and on the impact of credit methodology in delinquency. The theme is that it is the institution's responsibility to prevent delinquency.
- *Rescheduling* is the process of extending the loan term, and/or changing the payment schedule or the size of payment. *Refinancing* is the process of developing a new loan agreement before a previous one is completed. It provides for an additional amount of loan funds to be added to the original loan amount.
- The methods are usually used to prevent a borrower from falling into arrears by allowing the borrower to begin to make payments again, which (it is hoped) they will continue to do until the loan is repaid in full.
- Both are very risky measures, have a negative impact on the program, reduce cash flow, delay income, slow portfolio rotation, lower credibility, and more, and they are not recommended as methods to control delinquency. Examples of use are in circumstances of natural disaster or regional calamity; groups sometimes are refinanced or rescheduled. In any circumstance these loans must be tracked separately and tracked as delinquent.

TOPIC C: INFORMATION SYSTEMS FOR CONTROLLING DELINQUENCY

Techniques: Guided discussion

11. *(15 minutes)* State that a few minutes will be spent discussing information systems, a crucial organizational factor in controlling delinquency.

    In the large group, ask participants to briefly discuss the questions contained in overhead DQ3-O4, listed here.

    - How does the quality of an institution's information systems—either manual or automated, or both—affect its delinquency rates?
    - What are the specific data needs of field officers and program managers?
    - How might these data be used to control delinquency?
    - What would it take to bring your MFI's information systems to where they can supply needed data?

Follow the discussion with overhead DQ3-O5. This sample portfolio report provides examples of the kinds of information that the institution's information systems can provide and that can be used to monitor and control delinquency.

12. *(5 minutes)* Facilitate a synthesis of findings on delinquency causes based on inadequate information systems. To summarize, show the delinquency prevention overhead, DQ3-O6, highlighting the main points.

Trainer Notes:

- At this point in the course, participants should be increasingly directed toward thinking about applying new learning and ideas when they return home.
- By now, participants should be used to the format of learning that starts from their knowledge and experiences and then is enriched by the input of the trainer and experts in the field. Participants should increasingly see themselves as the future experts who will be called upon to convey new learning to others. These attitudes are important for developing individual action plans in the final session of this course.

Overheads

THE COMPLETE SET OF OVERHEADS IS IN A SEPARATE POWERPOINT FILE ENTITLED "CGAP DELINQUENCY MANAGEMENT AND INTEREST RATE SETTING OVERHEADS"

DQ3-O1a

Borrowers' Perceptions

	On-Time Payments	Late or No Payments
BENEFITS	▪ Probability of immediate, larger follow-up loans ▪ Development of positive credit history ▪ Positive reputation among peers ▪ Access to training, savings, or other program services ▪ Access to advice from credit officers ▪ Award or prizes for timely repayment ▪ Lower interest on second or third loans ▪ Interest rebate	▪ Lower expenses if interest payments are not made ▪ Maintain capital (or portion) from loan business or used for other purposes ▪ Fewer or no trips to financial institution to make payments (lower transaction costs) ▪ Lower transaction costs of attending meetings and other activities of the lending institution ▪ Possibility of not having to repay at all, if there is a low cost to default

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DQ3-O1b

Borrowers' Perceptions *(continued)*

	On-Time Payments	Late or No Payments
COSTS	▪ Payment of interest and capital of current loan ▪ Time and transportation costs to make payments ▪ Opportunity costs	▪ Late fees for late payments ▪ Delay in future loans or loss of access to future loans ▪ Possible legal action and costs ▪ Possible loss of collateral ▪ Loss of access to other program services ▪ Hassle of frequent visits by loan officers ▪ Hassle of pressure from group members if a group loan ▪ Negative reputation among peers

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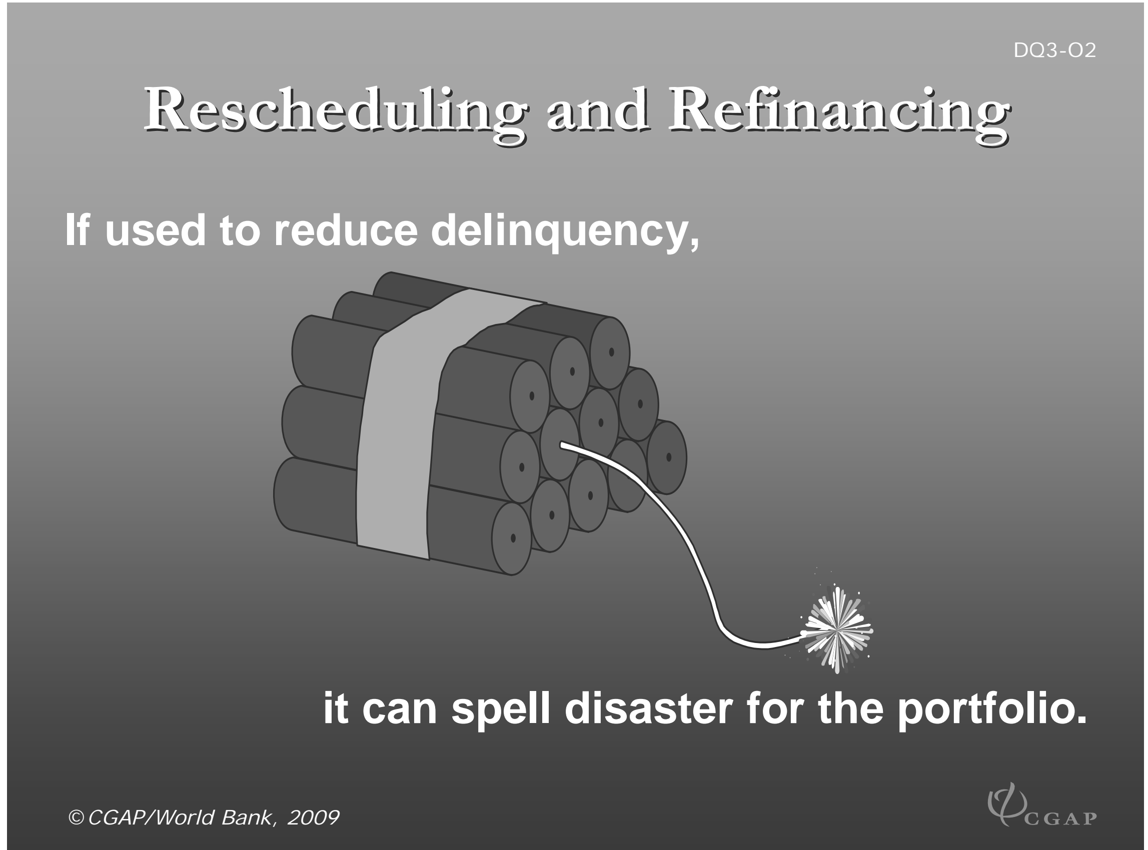

DQ3-O3

Uncontrollable Factors in Delinquency Management

Natural Disasters

Earthquakes, fires, floods, and drought wreak havoc on economies and the activities of micro-entrepreneurs.

Changes in Government Policy

A crackdown on street vendors, or a new tax, may alter clients' revenues and businesses.

Individual Crisis

Illness or death, fire, or theft can throw the household into a dire economic situation.

State of Local, National and World Economies

Even petty traders are often dependent on imported goods.

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DQ3-O4

Questions on Information Systems

THINK | DISCUSS

- How does the quality of an institution's information systems affect its delinquency rates?
- What are the specific data needs of field officers and program managers?
- How might these data be used to control delinquency?
- What would it take to bring your MFI's information systems to where they can supply needed data?

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Sample Portfolio Report

DQ3-O5a

For the period January–December 2005

1. Outreach	Number		
New clients	885		
(New groups formed)	177		
Client drop-outs	219		
Total clients	2,942		
(Total groups)	698		
Number of women clients	2,863		
Number of branches	5		
2. Loan Portfolio	Number	Amount ($)	
Loans outstanding			
Total gross loan portfolio	3,110	287,430	
Number of active clients	2,942		
Average amount outstanding per client		98	
Loans written off	6	548	
Disbursements			
Total loans disbursed	2,658	491,730	
Average loan size disbursed		185	
Loans disbursed to first-time borrowers	885	132,750	

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DQ3-O5b

Sample Portfolio Report *(continued)*

	Number		
Other data			
Average loan term (months)	6		
Average number of credit officers	16		
3. Portfolio Aging	Number	Amount ($)	Portfolio-at-Risk (%)
On-time loans	2,750	269,354	
1-30 days past due	200	8,750	3.0
31-60 days past due	75	5,076	1.8
61-90 days past due	60	2,500	0.9
91-120 days past due	15	1,100	0.4
120-180[a] days past due	10	650	0.2
Total	3,110	287,430	6.3

a. Aging does not have to extend this far. The MFI's write-off policy will affect how far the aging is extended. The Impairment loss allowance information is not included in this report. It is included in the balance sheet. However, this portfolio information will directly contribute to the calculation of the allowance.

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DQ3-O6

Methodology

- Borrower selection
- Loan size and terms
- Incentives

Information Systems

- Reliable, accurate, and timely data
- Relevant detail for level of use (Board of Directors, Management, Staff)
- Relevant and timely dissemination
- Cost effective

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Handouts

Borrowers' Perceptions

In your group, brainstorm a list of benefits (incentives) and costs (disincentives), both financial and nonfinancial, of payment options from the borrowers' perspective. Please have at least two to three responses in each square.

	On-time Payments	Late or No Payments
BENEFITS		
COSTS		

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Borrowers' Perceptions

	On-time Payments	Late or No Payments
BENEFITS	• Probability of immediate larger follow-up loans • Development of positive credit history • Positive reputation among peers • Access to training, savings, or other program services • Access to advice from credit officers • Award or prizes for timely repayment • Lower interest on second or third loans • Interest rebate	• Lower expenses if interest payments are not made • Capital (or portion) from loan maintained in business or used for other purposes • Fewer or no trips to financial institution to make payments (lower transaction costs) • Lower transaction costs of attending meetings and other activities of the lending institution • Possibility of not having to repay at all, if there is a low cost of default
COSTS	• Payment interest and capital of current loan • Time and transportation costs to make payments • Opportunity costs	• Late fees for late payments • Delay in future loans or loss of access to future loans • Possible legal action and costs • Possible loss of collateral • Loss of access to other program services • Hassle of frequent visits by loan officers • Hassle of pressure from group members if a group loan • Negative reputation among peers

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Organizational Causes of Delinquency

Topics are taken from participant responses generated in Session 1, Topic B.

	Solutions
Loan terms and sizes	
Poor lending methodology/loan appraisal	
Lack of monitoring	
Inadequate information systems	
Unwillingness of clients to repay	
Natural hazards	
Other	

SAMPLE

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Delinquency Causes and Controls

- **ACCEPT THAT MOST DELINQUENCY IS CAUSED NOT BY BAD BORROWERS BUT BY MFIS THAT HAVE NOT IMPLEMENTED AN EFFECTIVE METHODOLOGY.**
- Create an image and philosophy that does not consider late payments acceptable. The benefit of creating disciplined borrowers is critical to the success of the microfinance institution.
- Clients must value the credit service. Loan products should suit clients' needs, the delivery process should be convenient, and clients should be made to feel that the organization respects and cares about them. Incentives won't work if the clients do not value the access to the credit.
- **There are no bad borrowers, only bad loans. Make sure loan sizes and terms do not make repayment difficult. Do not base loans on projections; base them on capacity to repay.**
- Establish an incentive system that uses both financial and nonfinancial incentives to encourage on-time repayments. For the borrower these can include larger loans, follow-up loans, interest rebates, and access to training (or disincentives, such as penalty fees, no further access to loans, collection of collateral, and legal action).
- Design an incentive system for the field staff and loan officers that includes on-time payments as an important variable. An incentive system places the responsibility for portfolio quality on the shoulders of the loan officers, who with support can best respond to repayment problems. It can motivate officers to look for and eliminate the causes of arrears.
- Ensure that from the borrowers' perspective the benefits of on-time repayment and costs of late repayment far outweigh the benefits of late repayment and costs of on-time repayment.
- Develop systems that provide information to field workers that enables them to conduct effective and timely follow-up of loans and to manage their portfolios efficiently. The easier it is for the field staff to figure out whose payments are due and when, who is late and by how much, the more time they can spend with borrowers.
- Develop a portfolio information system that enables management to conduct timely and useful analysis of portfolio quality, determine trends in the portfolio over time, and identify possible causes of delinquency.
- Effective delinquency follow-up procedures are needed. Develop policy that lists the steps one takes when a loan becomes past due. Examples include activating the group to follow up, visiting clients, and holding frequent staff meetings to discuss problem loans.
- Establish a target level of acceptable delinquency based on thorough understanding of the costs and effects of delinquency on the program. Establish prudent loan loss reserves and write-off policies. Ensure that income and assets are accurately reflected in the financial statements.

Source: Stearns 2005.

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SESSION 4: MANAGING A DELINQUENCY CRISIS

Session Summary

OBJECTIVES: By the end of the session participants will be able to:

- Analyze a major delinquency problem
- Plan a comprehensive response, with both short-term and long-term actions to resolve the problem

TIME: 60 minutes

Session Topic: Responding to a Delinquency Crisis *(40–60 minutes)*

SUPPLIES: Flipchart paper, markers

PARTICIPANT MATERIALS

HANDOUTS: DQ4-H1 Microfinance Program in Crisis: A Mini Case Study

Session 4: Managing a Delinquency Crisis

TOPIC A: RESPONDING TO A DELINQUENCY CRISIS

Technique: Mini case study and small group work

1. *(2 minutes)* Explain that this session will use participants' knowledge and skills gained so far to analyze a short case study. The case simulates a microfinance institution that finds itself in a crisis situation with rampant loan delinquency. The task is to find solutions to this crisis. Emphasize that the possible solutions are found in several sources: the material of this course, past experiences of participants dealing with organizational crises, and the group's creativity coming up with new ideas.

2. *(20 minutes)* Distribute the case study handout (DQ4-H1). Ask for several volunteers to read the case aloud (a paragraph per participant). After reviewing the handout, split the participants into preassigned groups to discuss the MFI's problems and develop an action plan that will include both short- and long-term interventions. Participants should appoint a reporter and list main points on a flipchart to present later. Provide guidance in the small group discussions, as needed.

3. *(5 minutes)* In the large group, lead a brief discussion on the appropriateness of the four proposed solutions. Elicit answers from the group and summarize reasons why they are largely not appropriate responses to the crises.

4. *(25 minutes)* Have each group make a brief presentation of its action plan and lead a follow-up discussion. Suggest that groups build on each other's presentation, providing alternatives and details if a similar solution was already presented.

5. *(5 minutes)* In a general discussion and wrap-up of the main points, stress that participants now have the skills to handle such situations in their own MFIs, and that they should begin thinking of how the tools introduced in these last four sessions can be applied in their own institutions.

Trainer Notes:

- The trainer should make sure that the participants use all of the hints in the handout; for example, understand the causes of a problem before developing solutions, such as what to do with the small number of loan officers with poorly performing portfolios: fire them, retrain them, or what?
- Participants should identify the following problems from the case study:
  - Only the "amount past due" formula is used to measure portfolio quality, which doesn't give a true picture of the state of delinquency.
  - Nonperforming loans have never been written off from the portfolio.
  - Delinquency was to be "kept low," which is not a precise performance standard.
  - No impairment loss allowance exists to offset effects of delinquency crisis.

  - The loan tracking system is inadequate.
  - PAR for previous year was at 42 percent.
  - A small number of loan officers have worse repayment than others.
  - Delinquent borrowers have no real reasons for being so.
  - Unused funds for loans from donors give a cushion to the MFI's management, who have less of an incentive to improve financial performance.
- Causes are:
  - Lack of performance monitoring (for problems 1, 2, 7)
  - Delinquency management (1, 2, 3, 4, 6)
  - Lack of delinquency standard or acceptable delinquency rate for institution (3)
  - Lack of write-off policy (2)
  - No controls (internal audit) (7)
  - Weak information system (5)
  - Lack of client incentive systems (8)
  - Lack of staff incentive systems (7, 9)
- Short-term actions may include:
  - Aging of arrears
  - Establishing an allowance rate
  - Provisioning for loan impairment
  - Writing off some loans
  - Analyzing the costs and benefits of on-time repayment to the borrower
  - Analyzing the reasons for delinquency with a small group of loan officers
  - Providing training to field staff on delinquency and how to deal with it
- Long-term actions may include:
  - Establishing an information system in general
  - Establishing a loan tracking system in particular
  - Examining the strengths and weakness of the loan products and designing new products, as appropriate
  - Developing a client incentive structure
  - Determining the causes of delinquency and establishing controls
  - Establishing an incentive scheme for staff, in particular for the loan officers
  - Installing a zero delinquency culture within the institution
- Trainer can remind the participants that preventive steps in developing credit discipline are by far the better option, but crises do arise, and now they have the tools to analyze an MFI's delinquency situation and to plan appropriate action.

Handouts

Microfinance Program in Crisis: A Mini Case Study

Mrs. Theresa Samuel, the chief accountant of Kidepo Microfinance Program (KCP), was in a slight panic after she had completed a training program on delinquency management. She realized that many of the procedures, measures, and attitudes that were proposed in the training were not being used at KCP, such as taking measurements beyond the simple “amount past due” formula to monitor portfolio quality or aging arrears. She had only been at KCP for a year, but as far as she knew, no nonperforming loans had ever been written off in KCP's four years of existence, nor did KCP ever refinance loans with overdue payments. What is more, KCP did not really have a clear standard for delinquency rates other than its motto "Keep it low." As chief accountant, she was sure KCP did not have an impairment loss allowance in its accounting books.

Theresa’s fears were well founded. Even with the inadequate loan tracking system of KCP, which had not been updated since the agency started, she determined that the delinquency rate using the “portfolio-at-risk” formula was 42 percent last year. The program had seen steady growth in its loan portfolio size, and this had apparently helped conceal the problem. Despite this growth, KCP also had unused loan funds, since donors keep supplying KCP with new capital.

Other measurements Theresa took were equally worrisome, so the KCP Management Committee set up a task force to do something. They put Theresa in charge, since she had found the problem.

A rapid study of the credit program revealed that the loan portfolios of a small number of loan officers had far worse repayment rates than the average, although these loan officers claimed they were unaware of this because of limited information from KCP's tracking system. The study also found that a sampling of borrowers with delinquent loans seemed not to have real reasons for late payment and were rather unconcerned about being in arrears. KCP's program uses both individual and solidarity-style credit methods, and the latter type of loan is currently performing much better.

Members of the task force proposed four solutions: (1) automatic refinancing, (2) much faster growth to cover the problem, (3) immediate write-off of all loans over six months in arrears to improve repayment rates, and (4) redefining of delinquency so KCP would look better. Theresa decided to call her fellow course participants for advice.

1. What are the problems? What are the probable causes?

2. Discuss the appropriateness of the four solutions. Give reasons for your position on each proposed solution.

3. Suggest up to five immediate actions that might contribute to a quick improvement of the KCP situation (be as bold as you think appropriate).

4. Give Theresa guidance on what actions the task force should propose to the Management Committee that should be taken within the next year. Theresa says the bosses want up to 10 new ideas, a clear explanation of how each will help, and a sense of priority among the proposals so they will know where to start.

5. **You will have three minutes to present your action plan to the large group.**

Hint: Start with an analysis of the problem and its causes.

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SESSION 5: USING NEW SKILLS AND KNOWLEDGE

Session Summary

OBJECTIVE: By the end of the session participants will be able to develop an individual action plan for applying new skills.

TIME: 50 minutes

Session Topic:	Review and Participant Action Plans

SUPPLIES: Flipchart paper, markers

PARTICIPANT MATERIALS

HANDOUTS: DQ5-H1 Participant Action Plan Form

PREPARED FLIPCHARTS:
Delinquency Action Plans

Session 5: Using New Skills and Knowledge

TOPIC: REVIEW AND PARTICIPANT ACTION PLANS

Technique: Individual work and group discussion

1. *(15 minutes)* Review and summarize delinquency management and session 4 case study.

2. *(5 minutes)* Explain the level of evaluation involved in this exercise, that is, changed behavior and results, and emphasize that participants can use this action plan form in their MFIs. Ask participants to visualize themselves back in their jobs with new ideas, skills, and attitudes. Have them think in concrete terms about what it is they would like to do differently as a result of this training, and what impact these actions will have on their institution as a whole.

3. *(15 minutes)* Ask participants to identify the most important delinquency issue facing their MFI and complete the action plan form (DQ5-H1) based on solving this problem. Participants can work individually or in pairs by organization or by similar problem. Explain again that the plan is a guide they can apply once they return to their MFI.

   If applicable, explain that the information will be photocopied by the trainer and used to plan ongoing technical assistance for the MFI should the occasion arise.

4. *(5 minutes)* When groups have finished, reconvene to the large group and ask participants to share their delinquency problem. Quickly go around the room asking participants to share what they will implement first when they return to the office.

5. *(10 minutes)* Acknowledge the action participants are already taking: a plan is the first step for action!

   Summarize the main points of the delinquency portion of the workshop, ask for any final questions, and introduce the second half of the workshop: setting interest rates for sustainability.

Trainer Notes:

- This session may be merged with the interest rate (IR) action plan if trainers are short of time. However, if at all possible, it should be completed just after the DQ case.
- The action plan is a personal statement of participants' intention to monitor themselves and their MFI going forward. If the trainers want to evaluate the impact of this training, it is useful to survey course participants at three- and six-month intervals to monitor the application of their plan.

Handouts

Participant Action Plan Form

NAME: ____

The final phase of this part of the program is designed to give you an opportunity to apply the concepts and skills that you have learned to actual on-the-job problem(s) of your choice. Completing this plan should give real and lasting meaning to your training experience. It will also provide you with a maximum return from your investment of time and effort in this workshop.

Select a delinquency problem in your organization about which you have genuine concerns, that is, a problem area that requires some worthwhile improvement or remedial action. The problem may involve overcoming a deficiency or meeting a new challenge or opportunity. You alone know where a real need for change or improvement exists. Use this worksheet to help you work through the details of your problem-solving activity.

I Defining the Problem

1. The delinquency problem or problems I want to solve are:

2. These are the causes of the delinquency problem:

II Seeking a Solution

1. The steps I will take to solve this problem are:

2. The obstacles that we might face are:

3. The deadlines for completing each of these steps are:

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SESSION 1: INTEREST RATES AND MICROFINANCE

Session Summary

OBJECTIVES: By the end of the session participants will be able to:

- State the importance of interest rates for sustainability in microfinance
- Discuss the impact of subsidized interest rates
- Articulate the difference between nominal, effective, and real rates

TIME: 55 minutes

Session Topics:

A. Introduction to MFI Sustainability *(25–35 minutes)*
B. Nominal, Effective, and Real Interest Rates *(20–30 minutes)*

SUPPLIES: Flipchart paper, markers
LED projector or overhead projector

TRAINER MATERIALS

IR1-M1 Levels of Sustainability *(adapted from Otero and Rhyne)*
IR1-M2 Old and New Myths of Microfinance

PARTICIPANT MATERIALS

OVERHEADS:

IR1-O1	Four Historical Myths Proved Wrong by the Microfinance Industry...
IR1-O2	New Microfinance Myths
IR1-O3a–c	Interest Rate Concepts and Terminology
IR1-O4	MFI Nominal Interest Rates

HANDOUTS:

IR1-H1	Sustainability: Comparative Table
IR1-H2	The Microfinance Information Exchange, Inc. (MIX)
IR1-H3	Key Concepts and Definitions

PREPARED FLIPCHARTS:

What is interest? Why charge it?
How can an MFI move up the pyramid?
Who sets interest rates in your organization?

Trainer Notes:

Before this session, the trainer should identify characters for the skit on the costs of borrowing (session IR4, topic A). The trainer should give the characters the skit's script and direct them through at least one rehearsal (over a lunch or tea break, or at the end of the day) before the scheduled performance.

Session 1: Interest Rates and Microfinance

TOPIC A: INTRODUCTION TO MFI SUSTAINABILITY

Techniques: Discussion and brainstorming

1. *(5 minutes)* Introduce the session by linking delinquency management to interest rates. Refer to the flipchart of the sustainability equation on the wall. Ask participants: What is interest? Why do lenders charge interest? How does interest relate to sustainability? Take a few oral responses from participants, which can include that interest is income to the MFI, therefore higher income may lead to more control of the organization, allowing it to grow bigger, to be less dependent on donors, to cover more costs, to increase its portfolio, and therefore to become more sustainable.

2. *(8 minutes)* Talk about the importance of sustainability to MFIs: to enable significant outreach and avoid the limitations of remaining dependent on donor funds (see IR1-M1 on levels of sustainability).

3. *(5 minutes)* Present the four historical myths about the microfinance industry, using overhead IR1-O1. Briefly discuss how they have been proved wrong (see Trainer Notes).

4. *(10 minutes)* Show the list of the new myths using IR1-O2 and ask the group to choose one or two that they think are the most challenging from the point of view of sustainability. (Depending on the number of workshop participants, the discussion could be done in groups of two or more to get a variety of opinions.) Ask for a short justification of their choice then sum up, building on participants' comments and providing more justification using the Trainer Notes. Use the last myth to link to the overall goal of sustainability. Hand out IR1-H1 and H2.

5. *(2 minutes)* Summarize by asking participants how they think successful MFIs become increasingly sustainable. Link once again to setting interest rates for self-sufficiency and sustainability.

Trainer Notes:

- Trainer should use this session to introduce the concepts involved in interest-rate setting and to discover where participants are in their understanding and use of these concepts. It is a critical building block for the whole case for charging high enough interest rates to ensure sustainability!
- The core concept to be learned is that interest and fees are MFIs' major sources of income. If an MFI is to survive, interest rates must cover costs. MFI interest rates compete with informal finance, not with banks.

TOPIC B: NOMINAL, EFFECTIVE, AND REAL INTEREST RATES

Techniques: Guided discussion, brainstorming

6. *(8 minutes)* Ask participants to define nominal, effective, and real interest rates. Present and discuss overhead IR1-O3. Ask participants which of the three types of interest are most relevant for sustainability, that is, cover institutional costs. Distribute the handout on key concepts and definitions (IR1-H3).

7. *(10 minutes)* Present and explain overhead IR1-O4, with nominal interest rates and fees from the organizational survey. Ask a sampling of participants to describe:
   - Who sets the interest rates in their MFI?
   - When was it last reviewed?
   - What fees does their organization charge?

8. *(2 minutes)* Summarize main points: types of interest, who sets rates, what other fees are charged, and how interest affects sustainability. Link to the next session.

Trainer Notes:

- The trainer should highlight the use of various interest rate terminology and the problem of comparing programs based on nominal interest rates alone.
- It is important for the individual who sets the interest rate for an organization to be in a position to access or collect information on relevant costs so that policy makers know whether they are covering these costs.
- The trainer may want to illustrate real interest rates by explaining that if the nominal interest rate is 30 percent and inflation is 10 percent, then the real interest rate is about 20 percent. If the inflation rate is 40 percent, then the real rate is about minus 10 percent (which means the institution is not making money based on the real value of money). The following formula used to calculate the real rates in countries with hyperinflation (SEEP Network 2005):
- Real rate = $\{1 + \text{nominal rate}) / (1 + \text{rate of inflation}) - 1\}$

IR1-M1

Levels of Sustainability

Institutional performance can be analyzed in terms of four levels of sustainability.

LEVEL ONE

- **These are the highly subsidized programs, which are the least sustainable.**
- Grants or soft loans cover operating expenses and establish a revolving loan fund.
- If performing poorly, a loan fund's value erodes quickly through delinquency and inflation.
- Revenues fall short of operating expenses so the need for grants doesn't end.
- MFIs are characterized by high operating costs and either a reluctance to charge full cost-recovery interest rates or ignorance of the high effective interest rates being charged.

LEVEL TWO

- **Interest income covers some operating expenses and subsidized cost of funds.**
- Using proven principles, MFIs increase the efficiency of their credit methodology.
- MFIs raise funds by borrowing below market rates.
- Some grants are still needed, but subsidies are significantly smaller than at level one.
- Most charge above commercial banks' interest rates but below informal sector rates.

LEVEL THREE

- **Most subsidies are eliminated, so interest income covers all operating costs.**
- MFIs at this level tend to have large-scale operations.
- Dependence on some element of subsidy is difficult to eradicate; for example, an MFI's cost of capital can still be below market and receive financing from soft loans funds.

LEVEL FOUR

- **At the highest level of sustainability, fees and income cover the real cost of funds, loan loss reserves, operations, and inflation.**
- Programs are fully financed from the savings of clients and/or funds raised at commercial rates from formal financial institutions.
- The operations maintain full cost-pricing policies; interest rates tend to be at or above commercial rates.

Discussion—How long does it take MFIs to become sustainable?

Research on 640 MFIs reporting to MicroBanking Bulletin (numbers 10–12) and the MIX Market™ in February 2006 shows three main results:

1. Of the MFIs that became financially sustainable (FSS), 50 percent did it in three years or less, even though one-third of them took more than six years.

2. Younger MFIs are getting sustainable faster than older ones (based on a sample of 170 MFIs that became financial sustainable and report to the Microfinance Information Exchange, Inc. (MIX)**.**

3. There is no evidence that low-end MFIs (those that target poorer clients) need more time to become financially sustainable than other MFIs, once the age difference of the institutions is taken into consideration.

Adapted from Otero and Rhyne.

IR1-M2

Old and New Myths of Microfinance

The first of the myths, the belief that poor people do not pay back loans, has been disproved by the success of microfinance over the past two decades. The second, that poor people cannot pay high interest, is not true, because in programs where clients set their own interest rates for their own savings funds (that is, village banking, some Grameen-type programs), the clients themselves will often charge each other very high interest rates. Also, the alternative to microfinance is often the informal moneylenders, who charge even higher interest rates.

Several MFIs operating at levels 3 and 4 are presently meeting the third challenge, disproving the belief that MFIs could never obtain commercial funding.

The fourth challenge, the myth that MFIs could never attract private investors, is also being proved false.

The supply of funding for microfinance looks radically different today than it did 10 years ago. Newcomers such as private investment funds and foundations are offering fresh funding options. The public sector continues to play a significant role, increasingly working through channels such as budget support and apexes. More attention is also being focused on local sources of financing.

THE NEW MYTHS THAT ARE A CHALLENGE FOR TODAY (AND REBUTTALS)

1. **Microfinance is only about lending for productive purposes.**
   - Clients use loans to:
     - increase their incomes
     - build assets
     - manage risks to reduce their vulnerability
   - Many households use loans for consumption and income smoothing.
   - Vulnerability and risk are key organizing principles for clients.
   - Savings and credit are used to protect against risk.
   - Credit rather than savings is often used to respond to shocks after they occur.
   - Clients need access to a wide range of services, not only credit and savings, but also insurance, payment services, and money transfers.

   When discussing this myth, the trainer might also state that a key aspect of preventing delinquency is to provide adequate products for the target clients.

2. **MFIs are not that profitable.**

   In a study of financially sustainable MFIs reporting to the MIX, it was found that their return on investment was higher than that of the commercial banks operating in their countries. Handout IR1-H1 is a table prepared by using the comparative analysis on the MIX Market™ platform. On the platform one can choose MFIs by either country or region and select appropriate indicators for comparison. The data

provided in the IR1-H1 table are for MFIs from the Eastern Europe and Central Asia regions.

Are MFIs more profitable than commercial banks? Since subsidies and donations in MFIs inflate profitability of the microfinance industry, adjusted figures are required in order to make a fair comparison of MFIs with non-microfinance commercial banks.

The general conclusion of the analysis of 344 MFIs and 1,800 commercial banks is that performance-oriented MFIs tend to be more profitable than the non-microfinance financial institutions at the national level for more countries with a mature microfinance industry. Whether licensed MFIs or NGOs are more profitable varies by region.

This analysis was carried out by MIX and CGAP and is based on Microfinance Information eXchange, Inc. MicroBanking Bulletin (9–12), Washington, DC; public ratings in *Rating Fund for MFIs* (http://www.ratingfund.org); and BankScope – online world banking information source (http://www.bankscope.bvdep.com).

3. Poorer MFI clients means MFIs have less likelihood of becoming sustainable.

Again, a study of MFIs reporting to the MIX showed no correlation with loan size (smaller loans were used as a proxy for poverty level of clientele) and profitability.

This analysis has been performed with MFIs reporting to the Microcredit Summit (MCS) (more than 1,800 MFIs) and the MIX (more than 650 MFIs). The general result is the existence of a significant but very small relationship between loan sizes (depth of outreach) and profitability. This result is important because it suggests that MFIs may increase depth of outreach without having to sacrifice profitability.

Combining self-reported sustainability data from MCS with MIX data produces a sample of 96 million borrowers or 2,300 MFIs (as of 2004). MFIs in this sample were classified according to their sustainability level.

This analysis shows that some large government MFIs are very good in terms of outreach, but very bad in terms of sustainability. Only 12 percent of borrowers served by government MFIs are served by the sustainable ones. On the other hand, about 60 percent of borrowers served by nongovernment MFIs are served by sustainable MFIs.

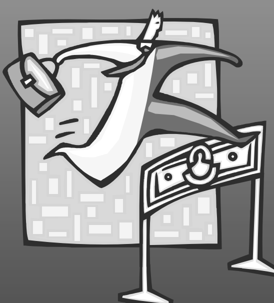
Overheads

THE COMPLETE SET OF OVERHEADS IS IN A SEPARATE POWERPOINT FILE ENTITLED "CGAP DELINQUENCY MANAGEMENT AND INTEREST RATE SETTING OVERHEADS"

IR1-O1

Four Historical Myths Proved Wrong by the Microfinance Industry...

- That poor people do not pay back loans
- That poor people cannot pay high interest rates
- That MFIs could never obtain commercial funding
- That MFIs could never attract private investors



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IR1-O2

New Microfinance Myths

- Microfinance is only about lending for productive purposes.
- MFIs are not that profitable.
- Reaching poorer clients means less likelihood of becoming sustainable.

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IR1-O3a

Interest Rate Concepts and Terminology

Interest

the amount a borrower pays in addition to the principal of a loan to compensate the lender for the use of the money

Interest Rate

the expression of interest as a percentage of the principal

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IR1-O3b

Interest Rate Concepts and Terminology *(continued)*

Nominal

- The interest rate quoted to the borrower that is to be paid on a loan contract, usually stated as a monthly or annual percentage
- Does not reflect inflation, loan fees, commissions, and other expenses

Effective

- Includes the effects of interest, fees, commissions, calculation method, and other loan requirements (forced savings) on the total cost of the loan
- Expressed as declining balance interest calculation – either monthly or annual
- Includes the effects of compounding
- Represents the financial costs to the borrower

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IR1-O3c

Interest Rate Concepts and Terminology *(continued)*

Annual Percentage Rate (APR)

- Includes interest, fees, commissions, and the calculation method on the loan principal stated in an annualized figure. Does *not* include forced savings.
- Does not include the effects of compounding
- Represents the income the MFI should earn on the loan

Real

- Rates that have been adjusted to compensate for the effects of inflation. A negative real rate implies the interest charged falls below the inflation rate.
- Simple calculation method:

  Nominal or effective rate − inflation rate

- Accurate calculation method: $\frac{(1+\text{ nominal or effective rate})}{(1+\text{ inflation rate})} - 1$

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IR1-O4

MFI Nominal Interest Rates

Organization	Nominal Interest Rate	Fees

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Handouts

Sustainability: Comparative Table

Comparative analysis of profitability, AROA, and operational self-sufficiency for MFIs from the ECA region on basis of data from the MIX Market™ platform (http://www.mixmarket.org).

Name	Country	Gross Loan Portfolio	Return on Assets	Profit Margin	Operational Self-Sufficiency
ACF	Kazakhstan	1,959,980	3.50%	21.50%	127.38%
AFK	Kosovo	2,377,280	9.44%	40.50%	168.06%
Alternativa	Russian Federation	412,311	10.44%	25.92%	134.99%
ANIV	Armenia	1,224,350	−8.34%	−70.12%	58.78%
AREGAK	Armenia	5,746,570	16.72%	61.27%	258.19%
ASTI	Tajikistan	64,622	−2.72%	−9.51%	91.31%
Aurora	Russian Federation	–	–	–	–
BAI	Georgia	–	–	–	–
BBK	Georgia	–	–	–	–
BENEFIT	Bosnia and Herzegovina	8,659,842	4.56%	19.98%	124.96%
BESA	Albania	18,553,631	7.70%	33.61%	150.61%
BTFF	Kyrgyz Republic	3,517,808	13.58%	59.33%	245.87%
BZMF	Kosovo	–	–	–	–
CEF	Russian Federation	1,634,772	3.58%	18.20%	122.25%
Constanta	Georgia	4,924,009	1.05%	3.63%	103.77%
CRYSTAL FUND	Georgia	836,184	5.37%	15.78%	118.74%
DEMOS SLC	Croatia (Hrvatska)	1,799,133	−4.47%	−19.33%	83.80%
DRC	Georgia	–	–	–	–
EKI	Bosnia and Herzegovina	25,913,772	6.61%	30.74%	144.39%
FFECC	Russian Federation	3,912,094	0.99%	2.85%	102.93%
FINCA - AZE	Azerbaijan	3,043,475	−8.70%	−19.82%	83.46%
FINCA - GEO	Georgia	2,761,607	6.56%	17.94%	121.86%
FINCA - Tomsk	Russian Federation	1,507,248	−9.07%	−20.65%	82.89%
FinDev	Azerbaijan	580,102	14.42%	32.91%	149.06%
FMCC	Kyrgyz Republic	8,598,438	11.44%	27.67%	138.25%
FORA	Russian Federation	15,283,740	8.57%	30.32%	143.51%
FULM	Macedonia, FYR	118,115,000	1.76%	9.68%	110.72%
Horizon	Armenia	1,017,442	7.58%	29.72%	142.30%
IM	Poland	2,464,299	3.50%	18.13%	122.14%

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Name	Country	Gross Loan Portfolio	Return on Assets	Profit Margin	Operational Self-Sufficiency
Imokoniyat	Tajikistan	306,194	16.95%	29.65%	142.15%
IMON	Tajikistan	1,804,910	18.93%	40.37%	167.70%
Intellekt	Russian Federation	756,693	12.40%	36.05%	156.38%
KAFC	Kyrgyz Republic	36,873,942	5.55%	40.13%	167.04%
KAMURJ	Armenia	2,074,532	16.45%	40.59%	168.32%
KEP	Kosovo	–	–	–	–
KLF	Kazakhstan	6,154,594	7.20%	22.79%	129.52%
Kredo	Bulgaria	1,220,845	7.48%	65.37%	288.74%
KSK RPK	Bulgaria	1,839,016	2.16%	13.21%	115.22%
LIDER	Bosnia and Herzegovina	3,702,425	2.18%	14.86%	117.45%
LOKmicro	Bosnia and Herzegovina	9,293,916	1.00%	4.35%	104.55%
MAFF	Albania	11,747,752	1.12%	7.57%	108.19%
MAYA	Turkey	420,911	−24.80%	−89.23%	52.85%
MDF	Serbia and Montenegro	2,342,750	4.22%	22.45%	128.94%
MI-BOSPO	Bosnia and Herzegovina	9,370,844	6.81%	26.02%	135.17%
Microinvest	Moldova	792,124	−32.47%	−100.21%	49.95%
MIKRA	Bosnia and Herzegovina	7,155,909	8.33%	27.73%	138.37%
Mikro ALDI	Bosnia and Herzegovina	2,321,033	6.53%	21.27%	127.02%
MIKROFIN	Bosnia and Herzegovina	28,866,936	9.88%	42.23%	173.10%
Mikrofond	Bulgaria	3,486,768	−7.13%	−47.27%	67.90%
MLF MicroInvest	Tajikistan	658,955	13.19%	31.01%	144.94%
Moznosti	Macedonia, FYR	13,290,262	4.47%	24.80%	132.98%
Nachala	Bulgaria	4,444,968	−3.32%	−17.48%	85.12%
NOA	Croatia (Hrvatska)	4,101,361	2.58%	28.64%	140.13%
Normicro	Azerbaijan	1,249,168	8.71%	25.62%	134.45%
OMRO	Romania	3,406,505	18.52%	54.32%	218.93%
OXUS	Tajikistan	606,339	−4.25%	−25.08%	79.95%
Partner	Bosnia and Herzegovina	30,564,217	12.31%	43.66%	177.49%
PRIZMA	Bosnia and Herzegovina	9,242,945	11.84%	37.25%	159.37%
PSHM	Albania	9,396,676	1.83%	7.78%	108.43%
Razvitiye	Russian Federation	1,954,553	−0.14%	3.56%	103.69%
Rost	Russian Federation	5,052,373	0.13%	1.07%	101.08%
SEF-ARM	Armenia	1,142,171	−10.74%	−31.20%	76.22%

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Name	Country	Gross Loan Portfolio	Return on Assets	Profit Margin	Operational Self-Sufficiency
SINERGIJA	Bosnia and Herzegovina	8,399,044	8.16%	33.04%	149.35%
Sodeystviye	Russian Federation	2,416,917	3.27%	9.40%	110.38%
Soyuz	Russian Federation	280,199	7.18%	25.48%	134.20%
Sunrise	Bosnia and Herzegovina	12,823,108	6.73%	21.80%	127.88%
USTOI	Bulgaria	2,734,632	0.89%	4.14%	104.32%
VFCF	Georgia	1,280,770	−4.04%	−11.62%	89.59%
VMCA	Azerbaijan	1,428,929	8.66%	29.82%	142.49%
VRFSMES	Russian Federation	555,285	2.92%	17.86%	121.74%
XacBank	Mongolia	16,119,864	2.67%	17.35%	120.99%

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The Microfinance Information Exchange, Inc. (MIX)

Incorporated in June 2002 as a not-for-profit company, the MIX aims to promote information exchange in the microfinance industry. It is a partnership between CGAP, Citigroup Foundation, Deutsche Bank Americas Foundation, Omidyar Network, Open Society Institute, Rockdale Foundation, and other private foundations.

MIX addresses one of the key challenges facing the microfinance industry—the lack of reliable, comparable, and publicly available information on the financial strength and performance of microfinance institutions (MFIs), which underpin the development of the market for microfinance services. Its mission is to help build the microfinance market infrastructure by offering data sourcing, benchmarking, and monitoring tools, as well as other specialized information services.

MIX carries out its activities through two main channels: MIX Market™ (http://www.mixmarket.org), a global Web-based information service, and the MicroBanking Bulletin (http://www.mixmbb.org), a publication that is dedicated to promoting transparency in microfinance operations and that has become the premier source of industry benchmarks.

MIX Market provides information to sector actors and the public at large on microfinance institutions in developing countries, public and private funds that invest in microfinance, MFI networks, raters and external evaluators, advisory firms, and governmental and regulatory agencies. MIX Market seeks to develop a transparent information market to link MFIs worldwide with investors and donors and to promote greater investment and information flows. At the end of December 2008, MIX Market carried profiles on 1364 MFIs, 104 investors, and 182 partners.

MIX helps MFIs by:

- Providing a global platform for financial information disclosure and for greater visibility to MFIs committed to the highest levels of disclosure
- Providing benchmarking services that allow MFI managers to track their performance against that of their peers
- Reducing the research costs of seeking funding and partnership opportunities for MFIs and donors or investors through a centralized information platform
- Enhancing the ability of MFIs to improve client services through greater efficiency
- Offering tools and services to a wide range of sector actors—networks, regulators, donors, and investors—to promote improved monitoring and advisory services

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Key Concepts and Definitions

Term	Definition
Nominal interest rate	A nominal rate is the stated rate to be paid on a loan contract, usually as a monthly or annual percentage. It does not reflect inflation or take into account related loan fees, commissions, and other expenses.
Effective interest rate	An effective rate converts all financial costs such as interest, fees, and commissions into a declining-balance interest calculation and includes the effect of compounding. The effective rate represents the financial cost to the borrower. It includes all financial charges as a percentage of the loan amount used during each payment period. (The best way to calculate this rate is to use the function for calculation internal rate of return on a financial calculator.)
Annual percentage rate (APR)	The APR is the rate of interest on a declining balance for a period (for example, for a month), which is then multiplied by the number of periods in a year (for example, 12 months) to get the annual interest rate. The key difference between APR and effective interest rate is that the APR does not include the effects of compounding or forced savings.
Real interest rate	A real rate adjusts the interest rate to reflect the rate of inflation. A negative real rate implies that the rate of interest charged falls below the inflation rate. People frequently speak of positive rates of interest to mean that the rate is set above the inflation rate.
Interest spread	The spread is the amount between the nominal lending rate and the nominal rate of interest paid on savings stated as a percentage.
Flat rate method	Flat-rate interest is calculated by multiplying the term of the loan by the monthly interest rate by the principal amount, irrespective of the payment plan (which may be a lump sum or in installments).
Declining balance method	This method calculates interest on the principal amount of the loan that is actually in the hands of the borrower during each period of the loan term. For example, if a borrower has a $100 loan for two months with two equal payments of the principal and an interest rate of 3% a month, she would pay $3 (3% x $100) in interest the first month and $1.50 the second month. Thus, her monthly payments would not be equal. The first month she would pay $53 and the second she would pay $51.50. (Normally both institutions and clients prefer to pay in equal installments.)
Fees	Fees are normally fixed-amount one-time charges that are part of the loan process. Examples would be registration, stationery, notary, or legal fees. Fee amounts are normally independent of the principal amount of the loan.
Commission	Commissions are one-time charges, generally calculated as a percentage of the loan amount. A commission is not normally considered an ongoing charge.
Penalty	Penalty interest is that interest charged on a loan when payments are missed or delayed. Normally a penalty interest is stipulated in the loan contract as a certain percentage increase over the interest rate applied to the loan. In some cases it is a fixed and predetermined rate.
Compound	Compound interest is the concept of earning interest on top of interest in a savings account. This occurs when the interest is left in the account from period to period and the bank “capitalizes” the interest (adds the interest to the savings account balance) for purposes of paying interest in later periods.
Adjustable	Adjustable rates are rates that change over the term of the loan to reflect changes in general market rates. The manner in which this adjustment occurs is clearly stated in the loan contract.
Indexed	An indexed rate is a rate tied to something other than local currency, for example, an inflation index or a foreign currency. (This is sometimes called a floating rate.)

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SESSION 2: SETTING SUSTAINABLE INTEREST RATES

Session Summary

OBJECTIVES: By the end of the session participants will be able to:

- State the formula for this method of estimating interest rates
- State the purpose of this method of estimating interest rates
- List, define, and calculate components of the formula
- Calculate interest rates for sustainability

TIME: 120 minutes

Session Topics:

A. Formula for Setting Sustainable Interest Rates *(50–60 minutes)*
B. Applying the Formula *(45–60 minutes)*

SUPPLIES: Flipchart paper, markers
LED projector or overhead projector
CGAP Occasional Paper 1
Calculators

PARTICIPANT MATERIALS

OVERHEADS:

IR2-O1	Factors to Consider When Determining Interest Rates (as reported by participants in the precourse skills audit)
IR2-O2	CGAP Formula
IR2-O3	Representation of Costs That Need to be Covered by the MFI's Interest Rate
IR2-O4	Applying Sustainable Interest Rates

HANDOUTS:

IR2-H1	SAFE Financial Statements (Projected 2010)
IR2-H2a	Applying the Formula for Setting Sustainable Interest Rates – SAFE Example
IR2-H2b	Applying the Formula for Setting Sustainable Interest Rates – SAFE Example *(Answers)*

PREPARED FLIPCHARTS:

CGAP formula components
Presentation directions and components
Participant presentations on components of the formula
Calculation of sustainable rates

Session 2: Setting Sustainable Interest Rates

TOPIC A: FORMULA FOR SETTING SUSTAINABLE INTEREST RATES

Techniques: Discussion, small group exercises

1. *(10 minutes)* Introduce the session and show the overhead on factors that participants' MFIs consider when setting interest rates (IR2-O1; responses selected from the precourse skills audit completed at the beginning of the course). Then introduce the components of the CGAP pricing formula, which are written on a flipchart, and ask participants to compare the two lists.

   Guide the participants to categorize their factors to match the CGAP formula components. Make the explicit connection between the participants' own answers and the CGAP formula, clarifying and explaining any mismatches.

2. *(3 minutes)* Show the overhead IR2-O2, the CGAP formula, and quickly review it. It may be useful to remind participants that the formula has all the same elements as the sustainability equation. Ask participants to retrieve their copies of the CGAP Occasional Paper 1 (distributed in the Welcome and Introduction session).

   Refer to the paper and explain that the participants will next break into subgroups and prepare to present and explain one component of the equation to the larger group.

3. *(15 minutes)* Divide the group into the prearranged subgroups, modified if necessary to yield five small groups. Using the instructions from a prepared flipchart, explain that each small group will study an assigned component of the equation and explain its significance within the entire equation to the rest of the participants. Point out that presentations should include major points of the concept (those written on the prepared flipchart), the elements and components, calculations, examples, and desired range, as appropriate. Work closely with each of the small groups to ensure that they give clear presentations.

4. *(25 minutes)* As each group presents its findings on a flipchart, use questioning and comments to ensure the group's understanding.

5. *(5 minutes)* Review the formula using IR2-O2 now that the components are understood, highlighting that MFI managers have control over most of the elements in the formula. Summarize the concept of setting an interest rate to cover costs using IR2-O3.

Trainer Notes:

- Participants are meant to see how each component affects the sustainability of the MFI and that all the elements are essential for sustainability and growth. The methodology allows the participants to work through the formula on their own to better internalize this critical concept.

- The trainer should assign a group with strong experience to cover the cost of funds (CF) calculation, and they should choose to present only one of the methods used in the next session. The trainer should be prepared to supplement the presentation and to work closely with this subgroup to ensure accuracy.
- Trainers will need to prepare carefully for this session so they have no problems with the calculations themselves and can explain all the components clearly (particularly if trainers have not revised the cost-of-funds calculation recently).

TOPIC B: APPLYING THE FORMULA

Techniques: Discussion, small group exercises

6. *(5 minutes)* Begin by stating that the program Sustainable Access to Finance for Microenterprise (SAFE) has begun to plan for the future. They have developed project targets and created estimated financial statements for 2010. SAFE would like to know now what interest rate it needs to charge in order to meet the projected growth targets. Hand out IR2-H1, SAFE's financial statements (projected 2010), and IR2-H2, the exercise on how to apply sustainable interest rates. Explain the exercise.

7. *(30 minutes)* In prearranged small groups, have participants work through the exercise, while closely monitoring the groups and offering guidance as needed. Also guide participants to help one another clarify areas they are uncertain about.

8. *(10 minutes)* In the large group, ask for volunteers to share their answers, with a different participant presenting each component. All should have correct answers as a result of the assisted group work. Record results on flipcharts.

9. *(10 minutes)* Present the answers to the exercise (IR2-O4) and pass out IR2-H2 (answers). Ask participants for their reactions to the pricing formula and its application.

   Lead a discussion on the types of costs in this formula that the MFI can control. Focus of the discussion on the largest costs: administrative expenses and loan losses. Those that the MFI cannot control are inflation and cost of commercial funds. To illustrate, ask participants to see what effect a lower inflation rate would have on the result or prepare an example on a flipchart.

   Briefly discuss ways to cut MFI costs to a manageable level. Ideas include improving productivity of loan officers (that is, the ratio of clients to loan officers), reducing expenses, and cutting costs of funds (focus on savings and formalization).

Trainer Notes:

- The trainer should explain that balance sheet items should be averaged over the year to be compared with income or cost flows. For instance, to calculate the cost of funds on commercial loans, apply the commercial interest rate, say 15%, to the *average* commercial liability over the year, not to the end-of-year total. The formula for obtaining the average is

(beginning-of-year balance + end-of-year balance) divided by 2. This might require additional time to explain to participants.

- Some smart participants might point out inconsistencies, such as the large increase in the impairment loss allowance. Since this is an actual case using SAFE's projections (yes, they were inconsistent!), the trainer can praise participants for being smart and encourage them to apply this rigor in their MFIs.
- The trainer should acknowledge that the formula is normally used for expected *future* variables, within a reasonable range. The formula can also be used with current financial statements. The question that is then being answered is: What interest rate would I have to charge given my current financial situation?
- The trainer should let the participants guide the discussion as much as possible so that gray areas emerge and are dealt with by the group.
- The answer to the problem reflects a typical MFI's position. This is global reality! Some participants might be shocked at the result of over 55 percent, but this is not what SAFE actually charges. It is what they would need to charge unless they improved productivity or reduced their costs.
- Participants are meant to see what needs to be done in their organization if they are to begin the process of reaching sustainability by focusing on changing their interest rates and increasing efficiency. However, the trainers must be clear that they are not recommending that the MFIs apply the sustainable rate immediately; rather, MFIs would use it as a benchmark with which to compare their existing or planned rates.
- Alternatively, the trainer could assign these problems as homework.

Overheads

THE COMPLETE SET OF OVERHEADS IS IN A SEPARATE POWERPOINT FILE ENTITLED "CGAP DELINQUENCY MANAGEMENT AND INTEREST RATE SETTING OVERHEADS"

IR2-O1

Factors to Consider When Determining Interest Rates

(According to the MFIs represented here, as reported by participants in the precourse skills audit)

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IR2-O2

CGAP Formula

$$R = \frac{AE + LL + CF + K - II}{1 - LL}$$

R = interest rate the MFI needs to realize on its loan

AE = administrative expenses

LL = loan losses

CF = cost of funds, including inflation

K = desired capitalization rate

II = investment income

Each variable should be expressed as a decimal fraction denominated on the average outstanding loan portfolio.

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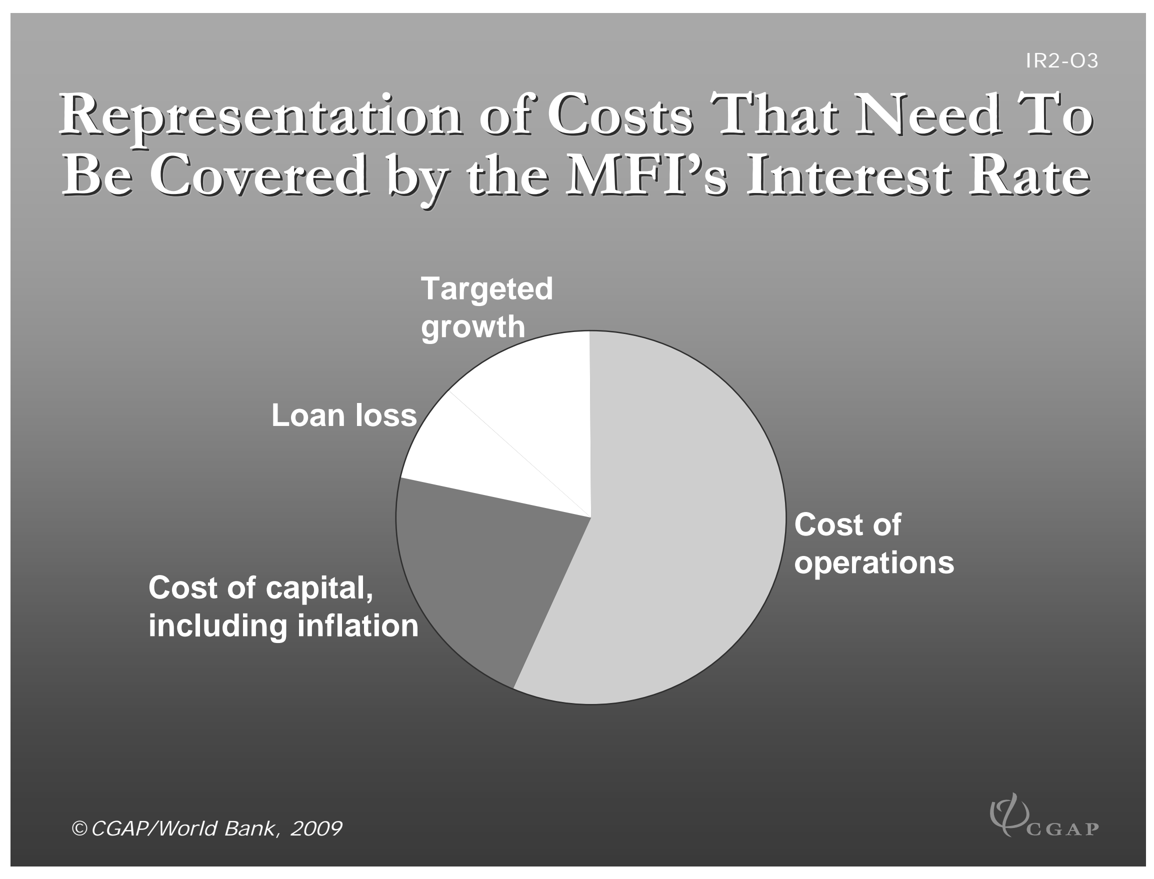

IR2-O4

Applying Sustainable Interest Rates

$$R = \frac{AE + LL + CF + K - II}{1 - LL}$$

$$= \frac{0.22 + 0.02 + 0.23 + 0.1}{1 - 0.02} = \frac{0.57}{0.98}$$

$$= 58.2\%$$

Average outstanding portfolio

Opening balance		183,720	
Closing balance		245,971	
		429,691	
Divided by 2	=	214,846	
Administrative expenses:	AE	$\frac{47,250}{214,846}$	= 22%
Loan loss:	LL	$\frac{4,297}{214,846}$	= 2%
Cost of funds:	CF	$\frac{48,845}{214,846}$	= 23%
Desired capitalization rate:	K		= 10%
Investment income:	II	$\frac{0}{214,846}$	= 0%

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CGAP

Handouts

SAFE Financial Statements (Projected 2010)

Ref.	INCOME STATEMENT (Projected)	2010
I1	Financial Revenue	71,812
I2	Financial Revenue from Loan Portfolio	70,000
I3	Interest on Loan Portfolio	70,000
I4	Fees and Commissions on Loan Portfolio	
I5	Financial Revenue from Investment	
I6	Other Operating Revenue	1,812
I7	Financial Expense	25,000
I8	Financial Expense on Funding Liabilities	25,000
I9	Interest and Fee Expense on Deposits	4,000
I10	Interest and Fee Expense on Borrowings	21,000
I11	Other Financial Expense	
I12	**Net Financial Income**	**46,812**
I13	**Impairment Losses on Loans**	**500**
I14	Provisions for Loan Impairment	500
I15	Value of Loans Recovered	
I16	Operating Expense	47,250
I17	Personnel Expense	21,250
I18	Administrative Expense	26,000
I19	Depreciation and Amortization Expense	500
I20	Other Administrative Expense	25,500
I21	**Net Operating Income**	**(938)**
I22	**Net Nonoperating Income/(Expense)**	**5,000**
I23	Nonoperating Revenue	5,000
I24	Nonoperating Expense	
I25	**Net Income (Before Taxes and Donations)**	**4,062**
I26	Taxes	
I27	**Net Income (After Taxes and Before Donations)**	**4,062**
I28	**Donations**	**1,000**
I29	Donations for Loan Capital	800
I30	Donations for Operating Expense	200
I31	**Net Income (After Taxes and Donations)**	**5,062**

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Ref.	BALANCE SHEET (Projected)	2009 (000)	2010 (000)
	ASSETS		
B1	Cash and Due from Banks	8,015	10,253
B2	Trade Investments		
B3	Net Loan Portfolio	183,720	245,971
B4	Gross Loan Portfolio	189,402	253,579
B5	Impairment Loss Allowance	(5,682)	(7,607)
B6	Interest Receivable on Loan Portfolio	1,913	2,447
B7	Accounts Receivable and Other Assets	45	58
B8	Other Investments		-
B9	Net Fixed Assets	5,274	6,829
B10	Gross Fixed Assets	6,750	8,625
B11	Accumulated Depreciation and Amortization	(1,476)	(1,796)
B12	**TOTAL ASSETS**	**198,966**	**265,558**
	LIABILITIES		
B13	Demand Deposits	23,500	45,757
B14	Short-term Time Deposits		
B15	Short-term Borrowings	66,193	71,343
B16	Interest Payable on Funding Liabilities	236	346
B17	Accounts Payable & Other Short-term Liabilities	1,300	1,907
B18	Long-term Time Deposits		-
B19	Long-term Borrowings	69,775	96,645
B20	Other Long-term Liabilities		
B21	**TOTAL LIABILITIES**	**161,003**	**215,997**
	EQUITY		
B22	Paid-in Capital	7,941	12,162
B23	Donated Equity	8,000	9,000
B24	Prior Years		
B25	Current Year		
B26	Retained Earnings	19,765	24,827
B27	Prior Years		
B28	Current Year		
B29	Reserves	2,257	3,571
B30	Other Equity Accounts		
B31	Adjustments to Equity		
B32	**TOTAL EQUITY**	**37,963**	**49,560**
	TOTAL LIABILITIES + EQUITY	**198,966**	**265,557**

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Applying the Formula for Setting Sustainable Interest Rates – SAFE Example

Refer to SAFE's projected financial statements for the year 2010. You have the following additional information:

- Commercial banks charge 25% for medium-quality borrowers.
- Short-term investments earn a net 10% per year.
- The projected inflation rate is 15%.
- SAFE targets a capitalization rate of 10% to support future growth.
- Loan losses are expected at 4,297.
- Of savings, SAFE pays its voluntary clients 15% per year.

Compute the annualized interest rate that SAFE would have to charge its clients in order to reach its target and be sustainable.

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Applying the Formula for Setting Sustainable Interest Rates – SAFE Example

$$R = \frac{AE + LL + CF + K - II}{1 - LL}$$

$$= \frac{0.22 + 0.02 + 0.23 + 0.1}{1 - 0.02} = \frac{0.57}{0.98}$$

$$= 58.2\%$$

Average outstanding portfolio

Opening balance	183,720
Plus closing balance	+ 245,971
	429,691
Divided by 2	= 214,846

Administrative expenses: $AE = \frac{47{,}250}{214{,}846} = 22\%$

Loan Loss: $LL = \frac{4{,}297}{214{,}846} = 2\%$

Cost of funds: $CF = \frac{48{,}845}{214{,}846} = 23\%$

Weighted Average Cost

		Cost			
Avg. voluntary savings	34,629	x 0.15	= 5,194		
Avg. borrowings	151,978	x 0.25	= 37,995		
Plus			+		
(Avg. total equity	43,762			226,210	avg. financial assets[1]
minus avg. fixed assets)	− 6,052			− 188,500	minus avg. liabilities
	37,710	x 0.15	5,656	37,710	
			48,845		

Desired capitalization rate 10%

Investment income $II = \frac{0}{214{,}846} = 0\%$

[1] Financial assets are total assets minus fixed assets.

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SESSION 3: EFFECTIVE INTEREST RATES

Session Summary

OBJECTIVES: By the end of the session participants will be able to:

- Define and calculate effective interest rates
- List various types of fees and their impact
- Manipulate rates, fees, and loan terms to achieve different levels of income

Time: 95 minutes

Session Topics:

A. Calculating Effective Interest Rates *(50–65 minutes)*
B. Impact of Fees, Forced Savings, and Loan Terms on Effective Interest Rates *(20–30 minutes)*

Supplies: Flipchart paper, markers
Financial calculators (one for each three participants, if available); alternatively, laptops with Excel and an LED projector
CGAP Occasional Paper No. 1

PARTICIPANT MATERIALS

OVERHEADS:

IR3-O1a–b	Methods for Calculating Effective Interest	
IR3-O1c–d	Methods for Calculating Effective Interest *(Answers)*	
IR3-O2a	Impact of Fees on Effective Interest Rates	
IR3-O2b	Impact of Fees on Effective Interest Rates *(Answers)*	
IR3-O3	EIR Methods, Fees, and Terms	**Optional**
IR3-O4	Impact of Fees, Forced Savings, and Loan Terms	
IR3-O5	Effective Rates of Participants' MFIs	
IR3-O6a	Formula: Calculating Payments for Declining Balance Method	**Optional**
IR3-O6b	Example: Calculating Payments for Declining Balance Method	**Optional**

HANDOUTS:

IR3-H1a	Calculating Effective Interest Rates
IR3-H1b	Calculating Effective Interest Rates – Worksheet
IR3-H1c	Calculating Effective Interest Rates – Answers
IR3-H2	Effective Cost of Borrowing (Ledgerwood 1996)

PREPARED FLIPCHARTS:

Effective Interest Rate Formula
Group Answers to Effective Interest Rate Problem
Interest Rate "Trees" Based on CGAP Occasional Paper No. 1

Session 3: Effective Interest Rates

TOPIC A: CALCULATING EFFECTIVE INTEREST RATES

Techniques: Presentation, written exercise, small and large group discussions

1. *(5 minutes)* Ask participants to review what effective interest rates (EIRs) are and what components are included in that calculation. Explain that this session will involve some basic exercises to illustrate how effective interest rates vary depending on calculation methods, fees, and loan term changes. Make the link between effective rates and the CGAP pricing formula for sustainable interest rates. The previous session calculated the interest rate needed to be sustainable, to cover all MFI costs; this session looks at ways of constructing that rate.

2. *(5 minutes)* Ask participants what the two methods are for calculating interest rates. (Answer: flat and declining). Ask them to define each method and describe how they differ. Clarify concepts using overhead IR3-O1a–b to illustrate the difference. Note that the effective rate equals the nominal rate on a declining balance when there are no fees.

3. *(5 minutes)* Show the simple formula for calculating effective rates (prepared flipchart). Calculate EIRs for problems on IR3-O1a–b, then show the answers (IR3-O1c–d) to illustrate.

4. *(10 minutes)* Next, work through the problems on the overhead IR3-O2a to show the effects of a fee on the effective interest rate. Then show answers (IR3-O2b).

5. *(20 minutes)* Have participants break into their prearranged groups to work through the questions on IR3-H1a–b. Remind more advanced participants to act as mentors to slower ones, rather than just calculating answers on their own. Near the end of this step, circulate through the groups and assign each one the task of presenting one of the five answers (first make sure they have the correct answers). If there are more than five groups, assign two groups to the more difficult problems.

6. *(15 minutes)* Have each group present one of the answers on a flipchart, including how they calculated it. Clearly list answers on another flipchart next to a brief description of what they represent (*declining* = ; *flat* = ; *increased fees* = ; and so on). Pass out the answers (IR3-H1c). Briefly wrap up by highlighting how the EIR changed when changing calculation methods, fees, repayment periods, and so forth.

Trainer Notes:

- Regarding methods for calculating interest rates, interest calculated on a declining balance means that the borrower pays interest based on the amount of the loan outstanding, not on the original loan amount. The amount of interest the borrower pays with each payment depends on how much principal the borrower has outstanding during the period being

calculated. The amount of interest the borrower pays decreases as the principal amount owed is reduced.

Interest calculated on a flat basis is fixed for the life of the loan regardless of the amount of the loan outstanding. The amount of interest paid is calculated by multiplying the nominal interest rate of each period by the original loan amount for each payment period.

- If participants wish to understand how principal payments are calculated on the declining balance method, the trainer can show overheads (IR3-O6a and IR3-O6b) with the estimation formula and example for calculating principal payments on a declining balance to clarify that concept.
- The simple formula for calculating effective interest rates is

  EIR = total interest paid/average outstanding loan balance.

  - To calculate the balance when using the flat method with equal principal payments:

    average outstanding loan balance = [initial balance + final balance (before zero)] / 2
  - To calculate it when using the declining balance method:

$$\text{average outstanding loan balance} = \frac{\text{[initial balance+ all monthly balances + final balance (before zero)]}}{\text{number of payment periods}}$$

  The simple formula represents a rough approximation of effective rates and can only be used accurately for loans with relatively simple fee structures. For anything more complicated (that is, including forced savings), a financial calculator or computer spreadsheet is required.

- Participants may have their own financial calculators and would be familiar with their use, or trainer can buy them so they would all be the same (it is expensive in most markets to get the calculators, especially since this may be a one-time situation). Calculators should be used at a ratio of not more than three participants to one calculator. A brief session can be held at this point to explain how to use one. On a flipchart, the trainer should draw the face of the calculator exactly as it actually appears. The abbreviations should be written out on another flipchart, for example, PV = present value. The step-by-step process should also be outlined on yet another flipchart; for example: press C to clear. The trainer can demonstrate the use of the calculator by asking participants to solve an example at the same time.
- This exercise can also be done with normal calculators, and the more complex calculations can be done on Microsoft Excel. Also, the trainer can use an LED projecting Excel to calculate.

TOPIC B: IMPACT OF FEES, FORCED SAVINGS, AND LOAN TERMS ON EFFECTIVE INTEREST RATES

Techniques: Presentation, discussions

7. *(10 minutes)* Go through each of the CGAP examples using either IR3-O3 (with the relationship of “trees”) for the declining and flat rate examples, or IR3-O4. Ensure that participants understand the effects of including or adding fees, different terms, structures, or forced savings (or a combination) into the calculation. Remind participants that the Occasional Paper has other examples.

8. *(5 minutes)* Discuss the implications of the different ways MFIs can change various factors to achieve income for sustainability. Prepare a flipchart with all the

variables discussed by the group (for example, more frequent payments, flat versus declining balance), and ask participants for the effects of these variables on the EIR.

9. *(10 minutes)* Using a few examples from participants' organizations, calculate effective interest rates. Show IR3-O5. Ensure that information is displayed in a nonjudgmental way; remind participants that this activity is to illustrate the various ways fees and terms can be manipulated to achieve higher effective interest rates. Pass out IR3-H2 as a reference.

Trainer Notes:

- The point is not to cheat the customers, for example, by adding fees or using a flat rate, but to explore options for sustainability. Remind participants that they should not compare MFIs to banks when looking at interest rates. They should compare MFIs with the alternatives that are available to their clients, that is, other MFIs and money lenders, as well as explore options within their own costs and operations.
- Show IR3-O5. Participants also will want to know their own MFI's EIR. To give participants the opportunity to accurately calculate their EIR, make the time to work with each participant to calculate the EIR correctly. Use Excel or the cost-to-client page in the Microfin software.

Overheads

The complete set of overheads is in a separate PowerPoint file entitled "CGAP Delinquency Management and Interest Rate Setting Overheads"

IR3-O1a

Methods for Calculating Effective Interest

Example: **Loan size:** **$100**
Loan term: **3 months**
Interest rate: **2% monthly**

Declining Balance Method

Interest is charged on the outstanding loan balance at any point; hence, the interest amount is different for every period.

Mo.	Interest Calculation	Interest Payment	Principal Payment	Total Payment	Loan Balance
0					$100.00
1	$100.00 x .02	$2.00	$ 32.68	$ 34.68	$ 67.32
2	$ 67.32 x .02	$1.35	$ 33.33	$ 34.68	$ 33.99
3	$ 33.99 x .02	$0.68	$ 33.99	$ 34.67	$ 0.00
	Totals	$4.03	$100.00	$104.03	

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IR3-O1b

Methods for Calculating Effective Interest *(continued)*

Flat Rate Method

Interest is charged on the initial loan amount rather than on the outstanding loan balance.

Mo.	Interest Calculation	Interest Payment	Principal Payment	Total Payment	Loan Balance
0					$100.00
1	$100.00 x .02	$2.00	$ 33.33	$ 35.33	$ 66.67
2	$100.00 x .02	$2.00	$ 33.33	$ 35.33	$ 33.34
3	$100.00 x .02	$2.00	$ 33.34	$ 35.34	$ 0.00
	Totals	$6.00	$100.00	$106.00	

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Methods for Calculating Effective Interest *(Answers)* IR3-O1c

Example: Loan size: $100
Loan term: 3 months
Interest rate: 2% monthly

Declining Balance Method

Mo.	Interest Calculation	Interest Payment	Principal Payment	Total Payment	Loan Balance
0					$100.00
1	$100.00 x .02	$2.00	$ 32.68	$ 34.68	$ 67.32
2	$ 67.32 x .02	$1.35	$ 33.33	$ 34.68	$ 33.99
3	$ 33.99 x .02	$0.68	$ 33.99	$ 34.67	$ 0.00
	Totals	$4.03	$100.00	$104.03	

EFFECTIVE INTEREST RATE (SIMPLE FORMULA):

Using a financial calculator or Excel = 2% per month

Nper = Number of payment periods = 3
PMT = Amount of payment (must be equal) = $34.68
PV = Present value = $100
Future value = 0

Total Interest Paid / Average Outstanding Portfolio (Manual Estimation)

$$= \frac{4.03}{(100 + 67.32 + 33.99)/3} = \frac{4.03}{67.1} = 0.06 \rightarrow 2\% \text{ per month}$$

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Methods for Calculating Effective Interest *(Answers)* IR3-O1d

Example: Loan size: $100
Loan term: 3 months
Interest rate: 2% monthly

Flat Rate Method

Mo.	Interest Calculation	Interest Payment	Principal Payment	Total Payment	Loan Balance
0					$100.00
1	$100.00 x .02	$2.00	$ 33.33	$ 35.33	$ 66.67
2	$100.00 x .02	$2.00	$ 33.33	$ 35.33	$ 33.34
3	$100.00 x .02	$2.00	$ 33.34	$ 35.34	$ 0.00
	Totals	$6.00	$100.00	$106.00	

EFFECTIVE INTEREST RATE (SIMPLE FORMULA):

Total Interest Paid / Average Gross Loan Portfolio

$$= \frac{6.00}{(100 + 33.34)/2} = \frac{6.00}{66.67} = 0.09 \rightarrow 3\% \text{ per month}$$

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IR3-O2a

Impact of Fees on Effective Interest Rates

Loan amount:	$5,000
Loan term:	6 months
Interest rate:	30% flat (annual)
Loan fees/commissions:	5% of loan amount

Months	Payments	Principal	Interest	Principal O/S Balance
0	958.34	833.34	125	5,000.00
1	958.34	833.34	125	4,166.66
2	958.34	833.34	125	3,333.32
3	958.34	833.34	125	2,499.98
4	958.34	833.34	125	1,666.64
5	958.34	833.34	125	833.30
6	958.34	833.34	125	0
Total	$5,750.00	$5,000.00	$750	

EFFECTIVE INTEREST RATE *WITHOUT* FEE:

EFFECTIVE INTEREST RATE *WITH* FEE:

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Impact of Fees on Effective Interest Rates *(Answers)*

IR3-O2b

Loan amount:	$5,000
Loan term:	6 months
Monthly loan payments:	$958.34
Interest rate:	30% flat p.a.
Loan fees:	5%

Months	Payments	Principal	Interest	Principal O/S Balance
0	958.34	833.34	125	5,000.00
1	958.34	833.34	125	4,166.66
2	958.34	833.34	125	3,333.32
3	958.34	833.34	125	2,499.98
4	958.34	833.34	125	1,666.64
5	958.34	833.34	125	833.30
6	958.34	833.34	125	0
Total	$5,750.00	$5,000.00	$750	

Average Outstanding Loan Balance $\frac{(5{,}000 + 833.30)}{2} = 2{,}916.65$

EFFECTIVE INTEREST RATE *WITHOUT* FEE

$\frac{750}{2{,}916.65} = 0.257$ ➡ 51.4% Annualized

EFFECTIVE INTEREST RATE *WITH* FEE

$\frac{(750 + 250)}{2{,}916.65} = \frac{1{,}000}{2{,}916.65} = 0.343$ ➡ 68.6% Annualized

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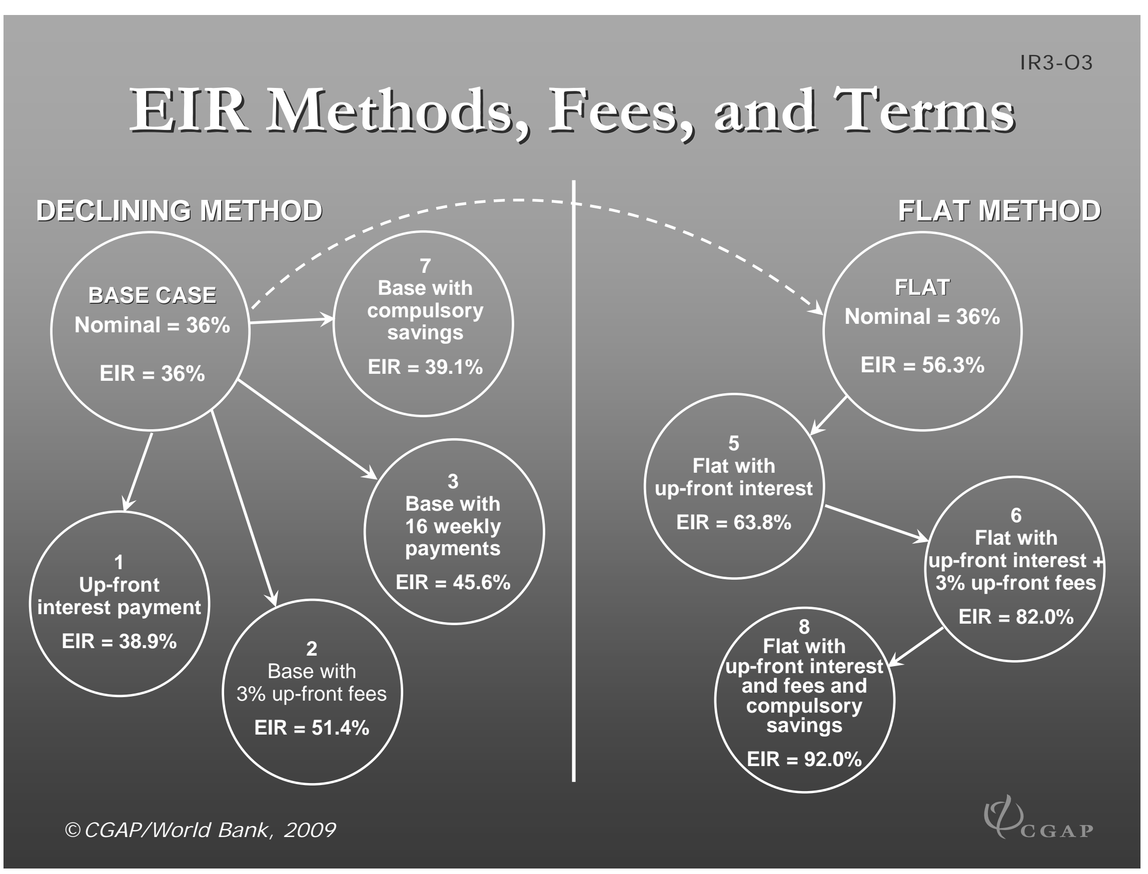

IR3-O4

Impact of Fees, Forced Savings, and Loan Terms

(from CGAP Occasional Paper No. 1)

BASE CASE:

Loan Amount:	$1,000
Term:	4 Months
Payments:	Monthly
Nominal Interest:	36% Per Year Or 3% Per Month

DECLINING BALANCES

	Declining	36.0%
1	Declining + Up-front Interest Payment	38.9%
7	Declining + Compulsory Savings	39.1%
3	Declining + Weekly Repayments	45.6%
2	Declining + 3% Commission	51.4%

FLAT

4	Flat	56.3%
5	Flat, Up-front Interest	63.8%
6	Flat, Up-front Interest + 3% Commission	82.0%
8	Flat, Up-front Interest + 3% Commission + Savings	92.0%

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IR3-O5

Effective Rates of Participants' MFIs

Annual Percentage Rate (APR)/Effective Interest Rates (EIR)

Organization	Nominal Interest Rate	Fees	Loan Amount	Loan Term	Repayment Plan	APR	Savings	Interest on Savings	Annual EIR Including Savings	Nominal Interest Rate
WEDCO	3% m flat	5up	100	6m	Mo.	78.8%	15 uf	–	103.9%	3%
SAFE	36% a flat	5up	150	6m	Week	72.2%	16u +1w	5%	94.1%	36%
WECARE	4% mD	1	500	4m	Lump end	54.7%				4%
PTF	1% w flat	–	50	4w	Week	82.5%	–	–	–	1%

sample

NOTE: This column added again for ease in comparison only.

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IR3-O6a

Formula: Calculating Payments for Declining Balance Method

For accuracy, a financial calculator or spreadsheet should be used to determine exact payments.

$$\text{PAYMENT} = P \times \frac{i \times (1 + i)^n}{(1 + i)^n - 1}$$

WHERE:

i = interest rate per installment period

n = number of installments

P = principal amount of the loan

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IR3-O6b

Example: Calculating Payments for Declining Balance Method

$$\text{PAYMENT} = P \times \frac{i \times (1 + i)^n}{(1 + i)^n - 1}$$

$$= 100 \times \frac{.02 \times (1 + .02)^3}{(1 + .02)^3 - 1}$$

$$= 100 \times \frac{.02 \times 1.0612}{1.0612 - 1} \qquad = 100 \times \frac{.0212}{.0612}$$

ω 34.68

WHERE:

i = interest rate per installment period
= 2%

n = number of installments
= 3

P = principal amount of the loan
= 100

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Handouts

Calculating Effective Interest Rates

DECLINING BALANCE

LOAN AMOUNT – $1,000
12 Month Loan Term
Monthly Loan Payments of $92.60
Fee – 3% ($30)
Interest Rate – 20% per annum

Month	Payments	Principal	Interest	O/S Balance
0				1,000.00
1	92.60	75.93	16.67	924.07
2	92.60	77.20	15.40	846.87
3	92.60	78.49	14.11	768.38
4	92.60	79.79	12.81	688.59
5	92.60	81.12	11.48	607.47
6	92.60	82.48	10.12	524.99
7	92.60	83.85	8.75	441.14
8	92.60	85.25	7.35	355.89
9	92.60	86.67	5.93	269.22
10	92.60	88.11	4.49	181.11
11	92.60	89.58	3.02	91.53
12	92.60	91.07	1.53	–

FLAT METHOD

LOAN AMOUNT – $1,000
12 Month Loan Term
Monthly Loan Payments of $100
Fee – 3% ($30)
Interest Rate – 20% per annum

Month	Payments	Principal	Interest	O/S Balance
0				1,000.00
1	100.00	83.33	16.67	916.67
2	100.00	83.33	16.67	833.34
3	100.00	83.33	16.67	750.01
4	100.00	83.33	16.67	666.68
5	100.00	83.33	16.67	583.35
6	100.00	83.33	16.67	500.02
7	100.00	83.33	16.67	416.69
8	100.00	83.33	16.67	333.36
9	100.00	83.33	16.67	250.03
10	100.00	83.33	16.67	166.70
11	100.00	83.33	16.67	83.37
12	100.00	83.33	16.67	–

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Calculating Effective Interest Rates – Worksheet

For best results, use a financial calculator or spreadsheet to complete the exercise. Use the sample loan information provided.

1. Calculate the effective interest rate, including fees, for both declining balance and flat rate:

   a) declining balance method:

   b) flat rate method:

2. For the **FLAT RATE METHOD ONLY**, calculate what happens to the effective rate when

   a) the fee increases to 8% (fees = $80):

   b) the loan term decreases from 12 months to 3 months (fee is back to the original 3%):

   c) the repayment term changes from monthly to weekly (50 weeks):

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Calculating Effective Interest Rates – Answers

1. **Calculate the effective interest rate, including fees, for both declining balance and flat rate:**

$$= \frac{\text{total interest paid + fees}}{\text{average gross loan portfolio}}$$

   a) **declining balance method:**

$$\frac{111.65 + 30}{(1{,}000 + \ldots + 91.53)/12} = \frac{141.65}{558.27} = \mathbf{25.4\%}$$

   b) **flat rate method:**

$$\frac{200.04 + 30}{(1000 + 83.37)/2} = \frac{230.04}{541.69} = \mathbf{42.5\%}$$

2. **For the FLAT-RATE METHOD ONLY, calculate what happens to the effective rate when**

   a) **the fee increases to 8% (fees = $80):**

$$\frac{200.04 + 80}{541.69} = \frac{280.04}{541.69} = \mathbf{51.7\%}$$

   b) **the loan term decreases from 12 months to 3 months (fee is back to the original 3%):**

   Total Interest = 200 p.a.
   Interest per month = 200 p.a./12 months = 16.66
   Interest for 3 months = 16.66 × 3 = 50

$$\frac{50 + 30}{(1{,}000 + 333.33)/2} = \frac{80}{666.67}$$ = 12% for 3 months or **48% per annum**

   c) **the repayment term changes from monthly to weekly (50 weeks):**

   (change in loan terms changes the payment amounts and the amount of the last payment)

$$\frac{200.04 + 30}{(1{,}000 + 20)/2} = \frac{230.04}{510} = \mathbf{45.1\%}$$

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Effective Cost of Borrowing*

EFFECTIVE COST CALCULATION

The effective rate of interest refers to the inclusion of all direct financial costs on a loan in one interest rate. Effective interest rates differ from nominal rates of interest in that they incorporate interest, fees, the interest calculation method, and other loan requirements into the financial cost of the loan. To be completely correct, the effective rate should also include the cost of forced savings or group fund contributions by the borrower. To do this, a financial calculator is required to calculate the internal rate of return (IRR). For the purposes of this course the effective rate of interest is calculated on an estimation basis using a formula that does not require a financial calculator.**** (Note that this method does not take into account the time value of money and the frequency of payments, which is considered in the IRR calculation. Although the difference is minimal, the longer the loan term and the less frequent the payments, the more substantial the difference will be. This is because the longer the loan is outstanding and the less frequent the payments are, the greater the effective cost will be and hence the greater the difference between the estimated effective cost and the IRR calculation.)

Effective rates of interest are useful for determining whether the conditions of one loan make it more expensive or less expensive for the borrower relative to another loan.

When interest is calculated on a declining balance, and there are no additional financial costs to a loan, the effective interest rate is the same as the nominal interest rate. Many microfinance organizations, however, calculate the interest on a flat basis, charge fees as well as interest, and often require the borrowers to maintain savings. This makes the effective interest rate on the loans higher than the nominal rate.

The effective cost to the client consists of the amount the borrower pays in interest and fees divided by the amount of money the borrower has outstanding over the period of time the loan is outstanding. An estimation of the effective cost can be calculated as follows (does not include the effect of forced savings):

Effective cost =

$$\frac{\text{amount paid in interest and fees}}{\text{average principal amount outstanding}}$$

Note: Average principal amount outstanding =

$$\frac{\text{sum of principal amounts outstanding}}{\text{number of payments}}$$

To calculate the effective cost per payment period, simply divide the resulting figure by the number of periods.

The effective cost changes in relation to the interest calculation method, the fee, and the loan term.

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* Excerpted from Ledgerwood, Joanna. 1996. *Financial Management Training for Micro Finance Organizations, Finance: Study Guide*. Calmeadow, Toronto..

** This method of estimating the effective rates was developed by Chuck Waterfield in Designing for Financial Viability of Microenterprise: Credit Progammes. Gemini Technical Note 4. Bethesda: Development Alternatives Inc.

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The following examples estimate the effective cost of a loan with interest calculated on a flat basis and on a declining basis:

FLAT RATE

LOAN AMOUNT – $1,000
12 Month Loan Term
Monthly Loan Payments of $100
Fee – 3% ($30)
Interest Rate – 20% per annum

Month	Payments	Principal	Interest	O/S Balance
0				1,000.00
1	100.00	83.33	16.67	916.67
2	100.00	83.33	16.67	833.34
3	100.00	83.33	16.67	750.01
4	100.00	83.33	16.67	666.68
5	100.00	83.33	16.67	583.35
6	100.00	83.33	16.67	500.02
7	100.00	83.33	16.67	416.69
8	100.00	83.33	16.67	333.36
9	100.00	83.33	16.67	250.03
10	100.00	83.33	16.67	166.70
11	100.00	83.33	16.67	83.37
12	100.00	83.33	16.67	–
	Total Interest Paid =		200.00	

$$\text{Effective Cost} = \frac{200.00 + 30}{541.69}$$

42% per annum (3.5% per month)

This results in an effective cost per month of 3.5%. Calculating the effective cost for loans with interest calculated on a flat basis is fairly simple, as each payment has the same portion of principal and interest.

Calculating the effective cost for loans with interest calculated on the declining balance method is more complicated because the amount on which the interest payments are calculated (the amount of principal outstanding) is different for each payment period.

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DECLINING BALANCE

LOAN AMOUNT – $1,000
12 Month Loan Term
Monthly Loan Payments of $92.60
Fee – 3% ($30)
Interest Rate – 20% per annum

Month	Payments	Principal	Interest	O/S Balance
0				1,000.00
1	92.60	75.93	16.67	924.07
2	92.60	77.20	15.40	846.87
3	92.60	78.49	14.11	768.38
4	92.60	79.79	12.81	688.59
5	92.60	81.12	11.48	607.47
6	92.60	82.48	10.12	524.99
7	92.60	83.85	8.75	441.14
8	92.60	85.25	7.35	355.89
9	92.60	86.67	5.93	269.22
10	92.60	88.11	4.49	181.11
11	92.60	89.58	3.02	91.53
12	92.60	91.07	1.53	–
		Total Interest Paid =	111.66	

Effective Cost = $\frac{111.66 + 30}{558.27}$

25% per annum (2.1% per month)

Calculating the interest on the declining balance results in an effective cost per month of 2.1%.

From the above examples, we can see that the interest rate calculation method has a large impact on the effective cost. With all other factors remaining the same, the cost decreases from 42% (3.5% per month) to 25% (2.1% per month) when the method of calculation is changed from flat to declining balance. As mentioned, the interest calculation method, the fee, and the loan term all affect the effective cost. The following table illustrates the effect that a change in the loan fee and a change in the loan term have relative to the effective cost.

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	Calculation 20% Annual Rate	Service Fee	Loan Term (months)	Effective Cost/Month
BASE CASE 1	Flat	3%	12	3.5%
Increase fees	Flat	8%	12	4.3%
Decrease term	Flat	3%	3	4.0%
BASE CASE 2	Declining Balance	3%	12	2.1%
Increase fees	Declining Balance	8%	12	2.9%
Decrease term	Declining Balance	3%	3	3.2%

Note that the effect of an increase in the fees from 3% to 8% has the same effect (increase of 0.8% per month in effective cost) whether the loan is calculated on a declining basis or flat method. Decreasing the term to 3 months from 12 months has a greater effect on the effective rate for the declining balance calculation method (increase of 1.1% in effective cost/month) than the flat method (increases of 0.5% in effective cost/month). This is because a shorter loan term with interest calculated on a flat basis is a much more costly loan; for example, the client has use of the money for less time but pays the same nominal amount of interest.

EFFECTIVE RATE CALCULATION

Calculate the effective rate for Base Cases 1 and 2 with an increase in the fee to 8% and a decrease in the loan term to 3 months together. How do those changes affect the effective rate?

EFFECTIVE YIELD

Generally, the effective cost to the client of borrowing relates to the effective “yield” earned by a microfinance organization. Yield refers to the revenue earned by the lender on the gross loan portfolio. For example, if the effective cost per loan is calculated (using the estimation method above) at 35%, the yield to the organization will approximate 35% of the gross loan portfolio, since interest and loan fees are paid to the lending organization. This is reduced by the amount of delinquent (or non-revenue-generating) loans and late payments, and can also be affected by low loan turnover (idle funds). The effective yield differs from the effective cost to the borrower because yield doesn't include other costs, such as savings, and the like.

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SESSION 4: COSTS OF CREDIT FOR THE BORROWER

Session Summary

OBJECTIVES: By the end of the session participants will be able to:

- Define financial, transaction, and opportunity costs
- List examples of each
- Analyze and calculate total borrowing costs
- Discuss impact of forced savings on a borrower
- Analyze implications of various costs to the MFI and the borrower

TIME: 85 minutes

Session Topics:

A. Dramatizing Costs of Credit for the Borrower *(25–35 minutes)*
B. Types of Costs *(40–50 minutes)*

SUPPLIES: Flipchart paper, markers
Optional: props for the role play (as in a PowerPoint presentation of "Fabric Sale")

TRAINER MATERIALS

IR4-M1 Skit outline and props (make six copies, one for each actor)

PARTICIPANT MATERIALS

OVERHEADS: IR4-O1a–b Costs of Credit
Slides for the role-playing (can be drawn on flipchart if projector not available)

HANDOUTS:

IR4-H1a	Costs to Borrowers
IR4-H1b	Costs to Borrowers *(Answers)*
IR4-H2a	Calculating Costs to Borrowers
IR4-H2b	Calculating Costs to Borrowers *(Answers)*
IR4-H3	Costs of Credit

PREPARED FLIPCHARTS:

Financial, transaction, and opportunity costs
Calculating costs to borrowers

Session 4: Costs of Credit for the Borrower

TOPIC A: DRAMATIZING COSTS OF CREDIT FOR THE BORROWER

Techniques: Skit and guided discussion, large group exercises and discussion

1. *(2 minutes)* Have six participants ready to act in the skit; begin the session with the skit (preferably after a break or lunch). Give only a small introduction and no explanation. Allow the participants to just watch and draw their own conclusions.

2. *(8 minutes)* Have participants perform the skit.

3. *(7 minutes)* Lead the large group in discussing and processing following the skit. Ask participants what they think happened. Ask what conclusions can be drawn from the skit, and how their organization's policies might be affected.

4. *(8 minutes)* Have participants develop categories and classify the costs of credit to the borrower.

   Summarize by proposing the three cost categories of financial, transaction, and opportunity. Ask participants to define each type of cost. Do not go into detail. The next exercise requires participants to cite examples of each.

Trainer Notes:

- The skit is a very good relief from all the number crunching and a great way for participants to learn the main messages. The trainer will have selected participants previously and allowed them time to practice the skit.
- In casting the players, the trainer should choose the more outgoing members of the group who will be willing to do some great acting and enjoy the performance. It is necessary for the trainer to practice with the actors at least once before performing for the large group.
- Props can be made in advance. These can include hats or badges that are labeled with the character's role and are large enough to be seen by the whole group; rolled up newsprint for the wood; lots of paper to be used as forms for the cheap loans; large sign for the wood seller; and so forth.
- In the discussion, the trainer should make sure that all sources of credit are brought up, including moneylenders, MFIs, banks, and formal lenders.
- Other relevant issues include short turnaround time, payment schedules, client reputation, approval process, lost opportunity due to methodology of MFI, travel costs, training costs, and more.
- Participants should be oriented toward the three types of costs that the session will build on—financial, transaction, and opportunity.

TOPIC B: TYPES OF COSTS

Techniques: Small group exercises and discussion

5. *(7 minutes)* Pass out IR4-H1 and ask people to individually or in pairs fill out as many kinds of financial, transaction, and opportunity costs as they can think of in 5 minutes. Ask participants to try to make a few entries in each category.

6. *(5 minutes)* On three flipcharts, quickly go around the room and ask a few participants for their answers. Use the suggested answers to make sure significant costs are not omitted. Distribute IR4-H2.

7. *(20 minutes)* Organize the participants into small, three-person groups to complete the problems in the handout.

8. *(5 minutes)* In the large group, review the answers to the problems by asking for participants' responses to each cost category and recording them on a flipchart. Pass out IR4-H2 answers.

9. *(5 minutes)* Wrap up with a discussion of costs from both the borrower's and lender's perspectives. Ask participants once again how these costs affect their MFIs and what they can do about those effects. Emphasize using overhead IR4-O1 and handout IR4-H3.

Trainer Notes:

- Costs are defined as follows (see IR4-H1 answers for more detail.)
  - *Financial costs* are those that are paid in cash directly to the MFI for credit, namely, interest and fees.
  - Transaction costs refer to cash or money paid to access a loan but not paid to the MFI. Some transaction costs are "financial" in that they require an outlay of money.
  - Opportunity costs are usually noncash costs that are associated with forgone opportunity.
- A few key points should come out of the final discussion in step 4:
  - Borrowers incur more costs than just financial costs.
  - These other costs (transactions, opportunity) are dead-weight losses, that is, no one benefits, neither the lender nor the borrower.
  - The nonfinancial costs can be higher than the financial costs from the borrower's perspective.
  - MFIs have to make sure these costs are reduced to a minimum when they design and price their loan products.
  - The borrower's perspective is imperative when designing loan products.
- If time is short, the trainer can suggest that, in step 4, part of the group work on identifying financial costs, while other members calculate the transactions and the remaining members work on the opportunity costs. The trainer can also work through problem 1 on IR4-H2 in step 7 in the large group, asking participants to provide the information as asked, and then also solve problems 2 and 3 in the large group.

- The point of the preceding calculation is for the participants to get a feel for the costs borrowers incur when getting access to credit, and to note that most of the costs do not benefit the borrower or the MFI. Seeing the actual monetary costs emphasizes that point. The calculation is used to illustrate the point; participants are not expected to master the skill of calculating these costs.

IR4-M1

SKIT
Interest rates: Costs and Impact of Borrowing

CAST OF SIX

- Microentrepreneur who is selling wood at $10,000
- Lender of "cheap loans"—inefficient, bureaucratic MFI
- Lender of "fast loans"—efficient MFI
- Moneylender
- Microentrepreneur carpenter 1
- Microentrepreneur carpenter 2

SETTING

The wood seller is sitting under a sign that advertises his wood at an attractive price (using a flipchart):

Wood seller's sign: *WOOD FOR SALE Price: $10,000*

All other cast members are identified either by a sign (cheap and fast loans) or by the hats or badges they wear (moneylender, carpenter 1, carpenter 2).

ACT 1

Carpenter 1 arrives at the scene, likes the wood, and agrees to buy it for the advertised price. He goes off to obtain a "cheap loan."

The lender with cheap loans welcomes the potential borrower, indicates that there should be little problem with approving the loan, and then proceeds in a very nice way to request that the carpenter fill out an ever-increasing bundle of forms for the approval process. He also informs the carpenter that he will need to attend at least two business training sessions.

ACT 2

The irate moneylender bursts onto the scene, heading straight to the wood seller, demanding repayment of the wood seller's overdue loan. The moneylender is insistent that the money be repaid immediately and then leaves in a huff.

The wood seller, in response, decreases the price of wood to $9,000 in an attempt to sell it more rapidly.

ACT 3

Carpenter 2 appears on the scene, likes the wood that is for sale, indicates a willingness to buy. She then goes to obtain a "fast loan."

The lender with fast loans welcomes the applicant, indicates that, because she has obtained loans from him before and has a positive credit history, the loan may be approved immediately just by signing a simple form.

Carpenter 2 obtains the money, returns to buy the wood *(indicated by carrying off the wood)*, and exits.

As carpenter 1 returns, he sees her carrying away the wood) and vents his frustration at both the wood seller and the lender who was to give him a cheap loan.

(The moneylender can reenter the scene and demand payment from the wood seller.)

Overheads

THE COMPLETE SET OF OVERHEADS IS IN A SEPARATE POWERPOINT FILE ENTITLED "CGAP DELINQUENCY MANAGEMENT AND INTEREST RATE SETTING OVERHEADS"

IR4-O1a

Costs of Credit

From the BORROWER'S perspective:

	Financial Costs
	Transaction Costs
+	Opportunity Costs
=	TOTAL BORROWING COSTS

Challenge: to MINIMIZE transaction and opportunity costs because they don't benefit either the borrower or the lender

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IR4-O1b

Costs of Credit *(continued)*

From the LENDER'S perspective:

	Operational Costs
	Loan Loss Reserve
+	Financial Costs
=	TOTAL LENDING COSTS

Challenge: to REDUCE operational costs and become more efficient in order to provide improved services and compete

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Handouts

Costs to Borrowers

FINANCIAL COSTS

TRANSACTION COSTS

OPPORTUNITY COSTS

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Costs to Borrowers

FINANCIAL COSTS

Money, cash, paid to the MFI for the loan

- INTEREST
- FEES – Loan or membership
- Commissions
- Discounting
- Group fund or insurance fund contributions
- SAVINGS REQUIREMENTS

TRANSACTION COSTS

Money paid out to access a loan and not paid directly to the MFI; costs other than those paid to the financial institution but often imposed by lenders through the delivery system

- Transportation costs involved in receiving and repaying a loan
- Fees paid to obtain financial documents or business registration
- Costs of needed professional services (for example, lawyers, business plan consultant)
- Photos for mandatory identification cards
- Cost of maintaining a bank account that is a requisite for obtaining a loan
- Communication costs
- Bribes

OPPORTUNITY COSTS

Noncash costs incurred by the borrower associated with forgone opportunities related to accessing the loan; frequently greater than financial and transaction costs

- Forgone income because money isn't available to be used elsewhere
- Attendance at meetings and the corresponding absence from the business
- Missed procurement or investment opportunities
- Extra time spent processing a loan because of lost or misplaced documents by either MFI or borrower
- Costs of holding savings rather than using the money directly in the business
- Group guarantee responsibilities
- Time spent by borrower collecting needed information to access loan

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Calculating Costs to Borrowers

You are a tailor who needs $100 for three months to purchase material to fulfill a contract. If you buy the material this week, you will get a 20% discount. You earn approximately $300 a month for 200 hours of work or an hourly wage of $1.50.

The MFI closest to your neighborhood charges 2% interest flat per month and a small processing and monitoring fee of 3% of the loan value. They would allow you to repay the $100 loan plus interest at the end of the three-month term.

The MFI would require you to take a one-week (five-day) course for two hours a day; the course costs $2 total. Since you live on the fringes of the town, it takes two hours to travel to and from the institution. You would need to go five times for the course and then four times to apply for, receive, and repay the loan. Bus fare is $0.40 for a return trip. This example assumes that half of the time you spend in training and traveling would otherwise be spent working in your business (thus 14 of the 28 hours spent training and traveling would cost you $1.50 per hour). The loan would be disbursed in two weeks.

1. Complete the chart below, filling in the actual amounts paid for each cost noted.

Type of Cost	Explanation	Subtotal ($)	Total ($)	% of total
Financial Costs				
Transaction Costs				
Opportunity Costs				
Total Borrowing Costs				

2. Calculate the effective interest rate.

3. If transaction and opportunity costs are included in calculation, what is the effective interest rate and costs to the borrower? What does this say about our operations?

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Calculating Costs to Borrowers

1.

Type of Cost	Explanation	Subtotal ($)	Total ($)	% of total
Financial Costs	Interest (2%/month = $2 x 3 mo.	6.00	11.00	20%
	Training fee	2.00		
	Monitoring fee (3% of loan amount)	3.00		
Transaction Costs	Bus fare to training ($.040/trip x 5)	2.00	3.60	6%
	Bus fare for loan ($.040 x 4)	1.60		
Opportunity Costs	10 hours in training (10 x $1.50 x ½)	7.50	41.00	74%
	10 hours transportation for training	7.50		
	8 hours transportation for loan (8 x $1.50 x ½)	6.00		
	Lost discount on material purchase	20.00		
Total Borrowing Costs			**$55.60**	

2. **Effective interest rate (using simple formula)**

   $11/100 = 11% x 4 = 44% annual

3. **Effective interest rate with transaction and opportunity costs:**

   $55.60/100 = 55.6% x 4 = 222.40% per annum

   Therefore the annual cost to the client is 222.4% of what he or she borrows.

   In the tailor's case, the cost of borrowing $100 is $55.60.

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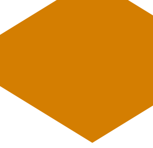
Costs of Credit

From the BORROWER'S perspective:

Financial Costs
Transaction Costs
\+ Opportunity Costs
= TOTAL BORROWING COSTS

CHALLENGE: TO MINIMIZE TRANSACTION AND OPPORTUNITY COSTS BECAUSE THEY DON'T BENEFIT EITHER THE BORROWER OR THE LENDER



From the LENDER'S perspective:

Operational Costs
Loan Loss Reserve
\+ Financial Costs
= TOTAL LENDING COSTS

CHALLENGE: TO REDUCE OPERATIONAL COSTS AND BECOME MORE EFFICIENT IN ORDER TO IMPROVE SERVICES AND COMPETE

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SESSION 5: USING NEW SKILLS AND KNOWLEDGE

Session Summary

OBJECTIVES: By the end of the session participants will be able to:

- Explain the case against subsidized interest rates
- Identify barriers to applying sustainable rates in their organizations
- Demonstrate an understanding of the relationship between delinquency management, setting of appropriate interest rates, and the institution's sustainability
- Develop individual action plans on how they will apply new learning
- Contribute to the improvement of the course through the post-training audit

TIME: 170 minutes

Session Topics:

A. Barriers to Setting Sustainable Interest Rates *(40–60 minutes)*
B. Participants' Action Plan *(20–35 minutes)*
C. Summary *(30–70 minutes)*
D. Auditing for Comprehension *(15–20 minutes)*

SUPPLIES: Flipchart, markers
LED projector or overhead projector

TRAINER MATERIALS

IR5-M1 Notes for Debate Participants
IR5-M2 Questions for Summarizing Competition

PARTICIPANT MATERIALS

OVERHEADS: IR5-O1 Debate Topic and Explanation of Barriers

HANDOUTS:
IR5-H1 Post-training Audit
IR5-H2a Post-training Skills Audit
IR5-H2b Post-training Skills Audit *(Answer Sheet)*
IR5-H3 Participant Action Plan Form
IR5-H4 Recommended Reading on Delinquency Management and Interest Rate Setting

PREPARED FLIPCHARTS:

Presentation on the barriers to setting sustainable interest rates
Interest rate action plans
Workshop topics for quiz
Original workshop goals (from Welcome session)

Session 5: Using New Skills and Knowledge

TOPIC A: BARRIERS TO SETTING SUSTAINABLE INTEREST RATES

Technique: Debate and group work, discussion

1. *(3 minutes)* Introduce the session. Explain that two randomly or preselected groups will each have different assignments (use IR5-O1)—the debate group and the barriers discussion group.

   Assign one group to be the debate team and introduce the topic: "MFIs should subsidize their interest rates." Explain the rules of the debate. Divide the debate group in half again and explain that one half will take the pro side (for subsidization) and the other will take the con side. They will have 20 minutes to prepare for a 10-minute debate.

   Tell the other group that they will be the jury for the debate (together with the trainer). In addition, while the debate team is preparing, they will draft a list of constraints or barriers to setting sustainable interest rates and tactics to overcome those barriers. They will be expected to present their findings using flipcharts to the entire group in a 7-minute presentation.

2. *(20 minutes)* Have the groups prepare their debate or presentation. Be ready to facilitate the debate groups' preparations, because it is often difficult for groups to agree on key arguments, spokespersons, and strategy. Use prepared notes (IR5-M1) to help them only if necessary.

3. *(13 minutes)* Announce that the debate will include a 3-minute presentation of the pro-subsidization position followed by a 3-minute presentation of the con position. These statements will be followed by a brief consultation within each team to decide on strategy for rebuttal and 2-minute rebuttals. If agreed to beforehand, debaters may also have a third and final round. Begin the debate, reminding the participants that it is meant to be fun.

4. *(5 minutes)* Briefly process the debate. Ask participants what they thought the best arguments were and what they learned from the debate, helping to focus them on the key issues and which side they thought won the debate. Assist the second group in their role as the debate jury.

5. *(7 minutes)* Have the second group present their findings on prepared flipcharts. Ensure that the following points are included in the discussion on barriers: government policies, legal issues, donor policies, MFI lending policies, and community perceptions.

6. *(5 minutes)* Wrap up the discussion, gathering participants' impressions. Conclude the interest rate section by emphasizing the need to charge interest rates to ensure the MFI's sustainability.

Trainer Notes:

- The debate requires having articulate people in the debate group, so it may be helpful to select the debate group before this session so the training objectives are met.
- The point of this exercise is to ensure that the participants have understood the sustainability message, which is "do not subsidize." It also will allow them to voice their doubts. Rather than try to convince participants not to subsidize, the trainer should let the participants convince each other.
- The trainer can use the following tips for facilitating the debate. Have both sides select two or three spokespersons. Debating groups should face each other if space allows (or put one or more empty chairs in the spokespersons' row, to allow participants to occupy these empty chairs when they want to join the debate). Invite one spokesperson to present his or her group's opening views. After the opening arguments, the spokespersons should confer with their groups to decide how to counter the opposing side's opening arguments. The second spokesperson will then present the counterarguments. The third spokesperson could sum up the team's arguments. Encourage group members to pass notes to their debaters with suggested arguments or rebuttals. Also urge them to cheer or applaud their team's arguments. This is meant to be fun for everyone! The debate teams may also prepare cartoons, flipcharts, or other types of examples to emphasize their points.
- When serving as the jury, the trainer can hold a full group discussion on what participants learned about the issue from the debate experience. The trainer also can ask participants to identify what they thought were the best arguments raised on both sides.

TOPIC B: PARTICIPANTS' ACTION PLAN

Technique: Individual work and group discussion

7. *(5 minutes)* State that, as for the session on delinquency management, participants will work on an action plan for setting sustainable interest rates. Remind them that the action plan is a personal statement of their intentions, which they will monitor on their own. Ask participants to visualize themselves back in their jobs with new ideas and attitudes. Have them think in concrete terms about what they would like to do differently as a result of this event, and what impact these actions will have on their institution as a whole. Participants from the same MFI may choose to work together.

8. *(15 minutes)* Ask participants to identify the most important interest rate issue facing them and complete the two-page action plan and worksheets (IR5-H3). Explain that they will be given 15 minutes for individual work.

9. *(10 minutes)* When they have finished, reconvene to the large group and ask participants to quickly share their top priorities for action based on course learning, noting answers on a flipchart if desired.

   Note: Plans can be taken and photocopied and then returned to participants before they leave. This information should later be transcribed and will be important for any potential follow-up.

10. *(5 minutes)* Make closing remarks, pointing out that the participants now have the tools necessary to implement a plan to charge interest rates that will lead to the sustainability of their MFI. In case participants want more to read on the subjects of delinquency management and interest rate setting, they may also look up the materials in IR5-H4, which can all be found on the CGAP Microfinance Gateway.

Trainer Notes:

- This session could be merged with the session for creating the delinquency management action plan (revising the time allotted for both). If at all possible, it is better to have participants do these activities at the end of the respective courses.
- The trainer can encourage participants from the same MFI to work together to have a greater impact on the MFI. It is advisable to survey course participants at three- and six-month intervals to learn how successful they have been in implementing their action plans.

TOPIC C: SUMMARY

Technique: Small group work, presentation (scored competition)

11. *(5 minutes)* Introduce the course summary by briefly restating the main messages of the past three days. To make sure participants did not forget something important, propose that the group have a competition.

12. *(10 minutes)* Have participants gather in their preassigned small groups. Give each group 10 questions on the main messages discussed throughout the training (see Trainer Notes). **)** Give the groups 10 minutes to come up with short, concise answers to the questions they received. Ask each group to have each of its members answer at least two questions (1 minute each for each question), and to state their answer as a main message of the course.

13. *(50 minutes)* Begin randomly choosing participants from the groups to present their answers. Have them write their message on the flipchart with the most appropriate heading (flipcharts with the different headings have already been prepared by the trainer and hung around the room).

    Keep score on another flipchart. Evaluate each group on (a) the accuracy of their answer (2 points), (b) appropriate placement of the message under the topic (1 point), and (c) timing (1 point).

    Put questions that are not answered or only partially answered into a general pool. Ask volunteers who want to answer them to raise their hands. Let them know they can collect extra points for their groups.

14. *(5–10 minutes)* Explain issues that the groups answered incorrectly or did not discuss. After counting the scores, give a prize or award (of the trainer's choosing) to the winning group.

Trainer Notes:

- The topics and questions below are based on the main messages from the Welcome and Introduction session. For the summarizing activity, the trainer will use IR5-M2, cutting out the questions and distributing them to the small groups (mixing topics and levels of difficulty).
- The number of participants will determine how many questions the trainer will allocate to each person. Extras can be put in a pool to be answered at the end. The trainer should prepare several flipcharts using topics from each of the sessions as headings.

What is delinquency?

⇒ When does delinquency occur? (Delinquency occurs when one payment is one day late.)

⇒ What is the reasonable goal for tolerance for delinquency? (Zero tolerance for delinquency is a reasonable goal.)

⇒ What kind of tolerance attitude should the staff have? (Zero tolerance attitude is critical for staff.)

⇒ Who decides on the standard for delinquency? (Anything less than zero is the MFI's decision.)

⇒ Why is delinquency so dangerous? (Delinquency is a hidden beast; it can easily spin out of control.)

Causes and costs of delinquency

⇒ Who is responsible for delinquency? (The MFI is responsible for delinquency; it cannot blame anyone or anything else.)

⇒ Why do we care so much about delinquency? (Delinquency is expensive for an MFI.)

⇒ What is one of the most catastrophic events for the MFI? (Default is a catastrophic event, and it is difficult to recoup all the lost funds.)

What is loan portfolio quality?

⇒ What generates income for the MFI? (The loan portfolio is the major asset generating MFI income.)

⇒ Why do we want to have high portfolio quality? (High portfolio quality generates more income.)

⇒ What does a ratio have to be composed of in order to indicate portfolio quality? (Only ratios with portfolio in them measure portfolio quality.)

⇒ What does the repayment rate say about portfolio quality? (Repayment rate does not measure loan portfolio quality.)

Measuring portfolio-at-risk

⇒ What is the best ratio for measuring portfolio-at-risk? (PAR is best.)

⇒ Why is the arrears rate not the best ratio for evaluating portfolio quality? (Arrears rate overestimates portfolio quality.)

⇒ What does aging of the portfolio allow MFIs to do? (Aging of the portfolio allows risk analysis.)

⇒ What limitations does PAR have? (PAR has limitations in the case of rapid growth, write-offs, and village banking.)

Measuring repayment rates

⇒ What does the repayment rate show? (Repayment rate does not measure loan portfolio quality; it shows amount paid compared with amount expected during a specific period.)

⇒ What is the best use of the repayment rate? (Repayment rate is good for cash-flow planning.)

Impairment loss calculations

⇒ Why should MFIs have an impairment loss allowance and provision for loan impairment? (MFIs must have an impairment loss allowance and provision for loan impairment for accurate financial statements.)

⇒ How should the loss allowance rate be established? (Establish the loss allowance rate based on historical portfolio performance.)

⇒ How should provision for loan impairment be treated, and what does it affect in the end? (Provision for loan impairment is an expense and affects sustainability.)

⇒ What kind of write-off policy should an MFI have? (MFIs should have a reasonable write-off policy.)

Controlling delinquency

⇒ What influences borrowers' behavior? (Borrowers behave rationally based on incentive and disincentive.)

⇒ Whose fault is delinquency? (There are no bad borrowers, only bad loans.)

⇒ How can an MFI influence borrowers' behavior? (MFIs need to create incentives and reduce disincentives for borrowers to pay.)

⇒ What are the dangers of rescheduling and refinancing? (Rescheduling and refinancing hide delinquency, and clients stop paying once these are options for them.)

⇒ What are the crucial factors for preventing delinquencies? (A good information system and staff are crucial for preventing delinquency.)

Managing a delinquency crisis

⇒ Where does an MFI start when it has a delinquency crisis? (MFIs should understand the causes of the problem before developing a solution.)

⇒ How can an MFI avoid a delinquency crisis? (Prevention is better than cure.)

Introduction to MFI sustainability

⇒ What are the sources of operating income? (Interest and fees are the only sources of operating income.)

⇒ What is the key to sustainability? (Interest rates are key to sustainability.)

⇒ Who is the competition for MFIs on interest rates? (MFI interest rates compete with informal finance.)

Nominal, effective, and real interest rates

⇒ What is the nominal interest rate? (The nominal rate is the rate quoted to the borrower; it does not reflect inflation, loan fees, commissions, and so forth.)

⇒ What is the effective interest rate? (The effective interest rate represents the financial cost to the borrower.)

⇒ What is the APR? (Annual percentage rate represents the income the MFI should earn on the loan.)

Impact of fees and other costs on effective interest rates

⇒ What can be done to raise the EIR? (MFI managers can manipulate EIR using fees, up-front interest, frequency of payment, and term of the loan.)

Costs of credit for the borrower

⇒ When is understanding the borrower's perspective the most crucial? (MFIs must understand the borrower's perspective when designing products.)

⇒ What types of costs are important to the borrowers? (Three types of costs are important to borrowers: financial, transaction, and opportunity costs.)

⇒ Who benefits from transaction and opportunity costs? (Transaction and opportunity costs benefit neither the MFI nor the borrower.)

⇒ What is the role of MFIs in transaction and opportunity costs? (MFIs need to reduce borrowers' transaction and opportunity costs.)

Barriers to setting sustainable interest rates

⇒ What is the golden rule for subsidizing interest rates? (Do not subsidize interest rates.)

⇒ Why does an MFI that cares about its clients need a sustainable interest rate? (Sustainable interest rates ensure long-term service for clients and also enable the MFI to reach more clients.)

Overall

⇒ Is sustainability the same as self-sufficiency? (Sustainability is distinct from self-sufficiency because it includes future growth.)

⇒ What does delinquency affect? (Bottom line: Delinquency affects sustainability.)

TOPIC D: AUDITING FOR COMPREHENSION

Technique: Written exercises to be done individually

15. *(2 minutes)* Explain the purpose for, instructions, and procedures of the post-training audit (or the trainer may choose to use the precourse audit again so as to compare the before and after results. Distribute handout IR5-H1 or IR5-H2.

16. *(20 minutes)* Tell participants they have 20 minutes to complete the audit.

17. *(3 minutes)* Collect the audit and go over any items that participants wish to discuss.

Trainer Notes:

- The trainer has two choices for the post-training audit. In theory, participants should know more at the end of training than on day one. If a trainer wants a more challenging subjective audit, then IR5-H1 should be used. This version cannot be directly compared with the precourse skills audit. If trainer is interested in exact comparison, then the same precourse audit can be used.
- The trainer should again allay any fears of examination by explaining that this will not be used as a test or performance review of specific individuals and that signing the audit is optional. This exercise is actually an audit of the course design and trainer's performance in communication and presentation.

IR5-M1

Notes for Debate Participants – Against Subsidized Rates

One goal of all MFIs is to serve poor clients with loans and savings services. Some MFIs have other goals of reducing poverty, empowering women, increasing business development, and more.

Focusing on our common goal of reaching more poor clients with financial services, we must consider how best to achieve our goal. Two basic options are available:

1. Be dependent on donors to give us the money to reach more clients, or
2. Be independent and grow from our own funds, for which we need a sustainable interest rate.

If we follow option two we can still take donor money but we are not dependent on it!

This is not a debate about interest rates; it is a debate about ensuring the future of microfinance. We can only guarantee that there is a future for our clients if we are in control of our sources of funding.

If we go for the donor dependency option, we will have the following problems:

- **We will not be able to serve our clients for the long term.** When the donors are tired of microcredit, they will move on. Those of us in development have seen that a lot. This means the daughters and granddaughters of our clients will not have access to credit and savings services. They could be back where they started!
- **We will be limited to serving the number and location of clients for which donors give us money.** We know our clients best, along with the services they need, but donors have other objectives and often require us to go to locations they want or to groups that are not our priority, and we are limited by how much they give us. We are constrained by their wishes.
- **Once clients think that it is donor money, not the local institution's money, there is a danger they will not be serious about paying the loan back.** We have all seen this with government programs in our countries.
- **If we are honest, we have a paternalistic attitude toward our clients. By being dependent on donors to subsidize our interest rate, we are essentially telling them that they will always be poor,** that they have no hope of ever being considered serious banking clients, that they will always need handouts. But we know this is NOT true. We know they are good clients who pay back loans and can increase their income. They just need access to financing.

If we go for the independent option, we need to charge an interest rate that covers ALL our costs. However, we will need to be very careful about the following:

- **We must be as efficient as possible**. The biggest factor in a sustainable rate is our administrative costs. We cannot make our clients pay for our inefficiency. We need to examine all our costs, asking whether we need four-wheel-drive cars, or extras that increase the interest rate to our clients. SAFE is a good example of what NOT to do!
- **We must not increase their costs above the interest rate.** We saw how many other costs our clients had: compulsory savings, transport costs, photos, time, and others. We must keep these to an absolute minimum so we do not charge them one cent, peso, or penny more than is necessary.
- **We must look for financing that is sustainable.** Perhaps this means getting registered to take in savings or reaching profitability fast so that we can get commercial funding.
- **If we accept donor funding it will be for very specific purposes that are consistent with our business plan, for example, to enable us to grow quickly to a sustainable scale or to experiment with new products.** We do not want to become dependent on them.

If we care about reaching as many as possible of the low-income people who want access to financial services, if we care about serving our clients for the long term, if we care about the daughters and granddaughters of our clients, then we will charge a sustainable interest rate and our MFI will grow, reach out, and be here for many generations.

Notes for Debate Participants – For Subsidized Rates

Our clients must be at the forefront of our thinking about interest rates.

MFIs serve the most vulnerable members of our societies. Our clients have very little; many find it a struggle to give their children one meal a day, and that often has no protein. Our clients are often already in debt to the landowner or moneylender that is charging them such high rates that they can end up being enslaved to them. Our clients need support and encouragement, not more high interest rates.

We must subsidize interest rates for the clients' sake, because if we do not:

- We will be like the moneylenders, extorting money from the poor for our own salaries.
- We will increase their debt and send them further into poverty.
- We will force them to choose between feeding their children and paying back the loan.

The laws must also be at the forefront of our thinking about interest rates.

Microcredit and microfinance is a new sector in most of our countries. There are usually no specific rules or policies about microfinance, but there are existing laws that must be followed, or else we will be operating illegally. These laws include usury laws on setting interest rates (and banking laws about lending being illegal if you are not a bank).

We must subsidize interest rates to comply with usury laws.

- The government has set up these laws to protect the people, and until the laws are changed we must comply with them. If we do not comply with the laws, we will be closed down and unable to serve any clients.

The issue is that sustainability must also be at the forefront when we think about interest rates. This discussion has focused on financial sustainability, but more important is institutional sustainability. Even if we charged an interest rate to cover all our costs, this would not guarantee that the MFI was a strong institution. A strong institution needs good management, a good board, good products, and clients who have access to other services to help them grow. If we really want a sustainable MFI, then we will need subsidies to develop the MFI's strength.

We must subsidize interest rates if we want an institutionally sustainable MFI.

- We need subsidies for board and management development. This cannot be done well if we are focusing on our costs all the time.
- We need subsidies for market research and product development. Otherwise we will not design our products to have the maximum impact.

- We need subsidies for our clients to learn about business development, perhaps accounting, design, or other skills development.

Perhaps after all this is completed we can think only about financial sustainability, but that is a long way off for most of us, and we still have to think about our clients and the laws.

If we care about our clients, want to obey the law, and want strong institutions, then we must accept donor subsidies for our interest rates! There is no way around it.

Questions for Summarizing Competition

Is sustainability the same as self-sufficiency?

What does delinquency affect?

What is the golden rule for subsidizing interest rates?

Why do MFIs need a sustainable interest rate?

What does the repayment rate show us?

What is the best use of a repayment rate?

Why should MFIs have impairment loss allowance and provision for loan impairment?

How should the loss allowance rate be established?

What is “provision for loan impairment,” and what does it affect in the end?

What kind of write-off policy should an MFI have?

What influences borrowers’ behavior?

Whose fault is delinquency?

How can an MFI influence borrowers' repayment behavior?

What are the dangers of rescheduling and refinancing?

What is crucial for preventing delinquencies?

Where does an MFI start when it faces a delinquency crisis?

How can an MFI avoid a delinquency crisis?

What are the sources of operating income?

What is the key to sustainability?

Who are MFIs competing with in setting interest rates?

What is the nominal interest rate?

What is the effective interest rate?

What is the APR?

What can be done to raise the EIR?

What is the role of MFIs in transaction and opportunity costs?

Who benefits from transaction and opportunity costs?

What types of costs are important to the borrower?

When is understanding the borrower's perspective the most crucial?

When does delinquency occur?

What is the reasonable goal for tolerance for delinquency?

What kind of tolerance attitude should the staff have?

Who decides on the standard for delinquency?

Why is delinquency so dangerous?

Who is responsible for delinquency?

Why do we care so much about delinquency?

What is one of the most catastrophic events for an MFI?

What generates income for the MFI?

Why do we want to have high portfolio quality?

What has to go into the formula of an indicator in order to indicate portfolio quality?

What does the repayment rate say about portfolio quality?

What is the best ratio for measuring portfolio-at-risk?

Why is the arrears rate NOT the best ratio for evaluating portfolio quality?

What does aging of the portfolio allow MFIs to do?

What limitations does PAR have?

Overheads

THE COMPLETE SET OF OVERHEADS IS IN A SEPARATE POWERPOINT FILE ENTITLED
"CGAP DELINQUENCY MANAGEMENT AND INTEREST RATE SETTING OVERHEADS"

IR5-O1

Debate Topic and Explanation of Barriers

MFIs SHOULD SUBSIDIZE THEIR INTEREST RATES

1. **Prepare a list of barriers to setting sustainable interest rates.**
2. **Propose tactics to overcome those barriers.**

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Handouts

Post-training Audit
Managing Delinquency and Setting Interest Rates for Sustainability

Name	**Role/Position in the Organization**

To serve as a review for you and an evaluation for us, we ask you to complete this brief audit.

Please write what you have learned about the following topics. Please try to include formulas, definitions, specific points, and any other comments you recall. You will have 15 minutes. Please use a pen.

Thank you.

1. Causes of Delinquency

   Costs of Delinquency

2. Measuring Delinquency

3. Controlling Delinquency

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4. Managing a delinquency crisis

5 Role of Interest Rates, Rationale

6 Types of Interest Rates

7 Costs of Credit to Borrower

8. Setting Interest Rates for Institutional Sustainability

9. Other lessons

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Post-training Skills Audit
Managing Delinquency and Setting Interest Rates for Sustainability

Mark your answers on the answer sheet provided. If you are not reasonably sure of the answer, please mark "I don't know" instead of guessing. You will not be graded. The results of this test will be used to help the instructors match their presentations to the background and knowledge of the students.

FOR QUESTIONS 1–7, MARK ON YOUR ANSWER SHEET: **T** (TRUE) **F** (FALSE) OR **?** (I DON'T KNOW)

1. Most microfinance institutions (MFIs) are financially sustainable.
2. Many MFIs require clients to make savings deposits before or during a loan.
3. If they want to be financially sustainable, MFIs should charge their borrowers a "market" interest rate (that is, a rate close to what commercial banks charge their usual customers).
4. Loan delinquency can spin out of control faster in an MFI than it might tend to in a commercial bank.
5. Repayment rate is the best way to monitor the quality of your loan portfolio.
6. Delinquency control is out of the hands of the MFI; it is totally in the hands of the borrower.
7. Outstanding loan portfolio is equal to the total amount of loans disbursed by an MFI.

FOR QUESTIONS 8–12, SELECT THE APPROPRIATE LETTER AND MARK IT ON THE ANSWER SHEET.

8. Which of the following is the easiest to achieve?
   - A. Operational Self-Sufficiency
   - B. Financial Self-Sufficiency
   - C. Profitability
   - D. I don't know
9. Which of the following describes meaningful measures of portfolio risk?
   - A. Amount of late payments divided by total gross loan portfolio
   - B. Outstanding amount of loans with one or more payments late, divided by total gross loan portfolio
   - C. Both of the above
   - D. Neither of the above
   - E. I don't know
10. An interest rate that has been adjusted to reflect the impact of inflation is called a(n)
    - A. Effective rate
    - B. Real rate
    - C. Nominal rate
    - D. Adjusted rate
    - E. I don't know
11. Provision for loan impairment will affect the
    - A. Balance sheet
    - B. Income (profit and loss) statement
    - C. Both of the above
    - D. Neither of the above
    - E. I don't know
12. An interest rate that is the stated or quoted rate to be paid on a loan contract is called a(n)
    - A. Effective rate
    - B. Real rate
    - C. Nominal rate
    - D. Adjusted rate
    - E. I don't know
13. What is the formula for portfolio-at-risk?
14. What is the formula for write-off ratio?
15. Name three ways to increase sustainability of a microfinance program.
16. Name four factors that should be considered when determining an interest rate.

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Post-training Skills Audit

Managing Delinquency and Setting Interest Rates for Sustainability

Name ______________________________ **Organization** ______________________________

Position: ___________________________ **Length of time in position:** ___________________

MARK TRUE, FALSE, OR I DON'T KNOW

1. ☐
2. ☐
3. ☐
4. ☐
5. ☐
6. ☐
7. ☐

MARK A, B, C, D, OR E

8. ☐
9. ☐
10. ☐
11. ☐
12. ☐

13. **Portfolio-at-risk =** ____

14. **Write-off rate =** ____

15. **Three ways to increase sustainability are:**

1.	2.	3.

16. **Four things to consider when setting an interest rate are:**

1.	3.
2.	4.

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Participant Action Plan Form

Name: ____________________________________

The final phase of this of the course is designed to give you an opportunity to apply the concepts and skills that you have learned to actual on-the-job problem(s) of your choice. This should provide real and lasting meaning to your training experience. It will also provide you with a maximum return from your investment of time and effort in this workshop.

Select an interest rate issue about which you have genuine concerns, that is, an area that requires some worthwhile improvement or remedial action. The issue may involve overcoming a deficiency or meeting a new challenge or opportunity. You alone know where a real need for change or improvement exists. Use this worksheet to help you work through the details of your problem-solving activity.

I Defining the problem

1. The exact nature of the interest rate issue I want to address is:

2. The causes of my concern are:

II Seeking a Solution

1. The steps I will take to address this issue are:

2. The obstacles I will need to be overcome are:

3. The deadlines for completing each of these steps are:

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Recommended Reading on Delinquency Management and Interest Rate Setting

Bernstein, Steven A. 2005. “Managing Credit Risk in Microlending Operations.” Remarks made at the International Year of Microcredit and Georgetown University Conference on Microfinance, Washington, DC, April 19, 2005. http://www.uncdf.org/english/microfinance/newsletter/pages/2005_06/index.php

Castello, C., K. Stearns, R. P. Christen. 1991. “Exposing Interest Rates: Their True Significance to Microentrepreneurs and Credit Programs.” Discussion Paper 6, Accion International, Cambridge, MA.

Economics Institute. 1996. *Managing the Delinquency Crisis*. Boulder, CO: Economics Institute.

Helms, Brigit, and Xavier Reille, 2004. “Interest Rate Ceilings and Microfinance: The Story So Far.” Occasional Paper 9, CGAP, Washington, DC. http://www.cgap.org/p/site/c/template.rc/1.9.2703

Porteous, D. 2006. “Competition and Microcredit Interest Rates.” Focus Note 33, CGAP, Washington, DC. http://www.cgap.org/p/site/c/template.rc/1.9.2575

Rosenberg, R. 1996. “Microcredit Interest Rates.” Occasional Paper 1. CGAP, Washington, DC. http://www.cgap.org/p/site/c/template.rc/1.9.2696

Rosenberg, R. 1999. “Measuring Microcredit Delinquency: Ratios Can Be Harmful to Your Health.” Occasional Paper 3. CGAP, Washington, DC. http://www.cgap.org/p/site/c/template.rc/1.9.2698

Rosenberg, R., A. Gonzalez and S. Nahrain. 2009. “The New Moneylenders: Are the Poor Being Exploited by High Microcredit Interest Rates?’’ Occasional Paper 15. CGAP, Washington, DC. http://www.cgap.org/p/site/c/template.rc/1.9.9534

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Tucker, William R. 2000. “Effective Interest Rate (EIR).” Bankakademie Microbanking Competence Center, UNCDF. http://www.uncdf.org/mfdl/readings/EIR_Tucker.pdf

USAID-MDO. 1995. “Controlling Delinquency.” MDO Brief 31. Washington, DC: USAID.

Von Pischke, J., J. Yaron, and R. Zander. 1998. “Why Credit Project Repayment Performance Declines.” *Savings and Development* 22 (2): 149–80.

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COURSE EVALUATION AND CLOSURE

Delinquency Management and Interest Rate Setting

OBJECTIVES: By the end of the session participants will have:

- Completed course evaluation forms
- Received certificates of completion

TIME: 60 minutes

Session Topics:
A. Workshop Evaluation *(40 minutes)*
B. Concluding Remarks and Certificates *(20 minutes)*

SUPPLIES:
LED projector or overhead projector } *(Optional background)*
Goals (W-O2) } *(Optional background)*
Certificates *(at the discretion of the trainer)*
Expectations flipchart (from Welcome session)

PARTICIPANT MATERIALS

HANDOUTS:

C-H1	Managing Delinquency and Setting Interest Rates for Sustainability – Workshop Evaluation	
C-H2	Technical Assistance Follow-up Request	**Optional**

Course Evaluation and Closure

TOPIC A: WORKSHOP EVALUATION

Technique: Completing evaluation and technical assistance forms

1. *(10 minutes)* Revisit the original goals on overhead W-O2 (or comparable slide from the Welcome and Introduction session) and ask participants which goals have been met and how. Post the expectation flipchart and ask which expectations have been met, and if not, which ones. Discuss how they were met or why they were not met.

2. *(20 minutes)* Give participants the workshop evaluation form (C-H1) to complete. The evaluation is meant to assess different aspects of the workshop and will be used for further improvement. (Insert the names of all the trainers.)

3. *(10 minutes; optional)* Use only if there is a follow-up plan and the trainers also provide follow-up technical assistance. Institutions that would like specialized follow-up will fill out the Technical Assistance Follow-up Request forms (C-H2).

4. *(5 minutes)* Bring the workshop to a close.

   In summary, emphasize that the organization has the control needed to reach sustainability by managing delinquency and setting sustainable interest rates.

   Thank participants for their efforts and wish them success in applying their new knowledge and skills.

5. *(1 minute)* Turn the session over for official closing.

Trainer Notes:

- The trainer should encourage the participants to be objective in completing the evaluation form, since their input will be used to improve the course. The trainer should not let participants complete the evaluations later or on their own, as it is too often the case that when participants leave the room with a blank evaluation form, the forms are never returned to the trainer.
- The Technical Assistance Follow-up Request form should be completed only if the organization actually plans to and has committed resources to carry out the follow-up within the following six weeks. Also, this is applicable only when the trainer is also able to provide technical assistance. If more than one participant from an institution is attending, only one Technical Assistance Follow-up Request form should be completed.

Topic B: Concluding Remarks and Certificates

Technique: Speeches, closing ceremony

6. *(8 minutes)* The representative of the host training institution or official representatives make closing remarks. Participants wishing to offer a vote of thanks or make remarks may do so.

7. *(10 minutes)* Certificates are issued to the participants.

8. *(2 minutes)* The training institution's representative officially closes the workshop.

Handouts

Managing Delinquency and Setting Interest Rates for Sustainability

WORKSHOP EVALUATION

PLEASE USE A PEN

1. What I learned most from this course was:

2. What I still need to learn more about is:

3. I will apply the following in my organization:

4. I will have difficulty applying the following in my organization:

5. My overall feeling about the course is:

6. The course might have been more effective if:

Any other comments: (use additional paper, as necessary)

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7. Please rate and comment on the following:

	1 = Poor	*2 = Fair*	*3 = Average*	*4 = Good*	*5 = Excellent*
Overall Course *(not food or logistics)*	1	2	3	4	5
Comments:					
Course Content	1	2	3	4	5
Comments:					
Course Methods	1	2	3	4	5
Comments:					
Course Materials	1	2	3	4	5
Comments:					
Trainer ______________ **Name**	1	2	3	4	5
Comments:					
Trainer ______________ **Name**	1	2	3	4	5
Comments:					
Course Organization	1	2	3	4	5
Comments *(including length, daily hours, etc.)*:					
Facilities	1	2	3	4	5
Comments:					
Precourse organization, communication, and advertising	1	2	3	4	5
Comments:					

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Technical Assistance Follow-up Request

PLEASE USE A PEN

Name: ____________________________ Position: ______________________________

Organization: _______________________________

1. Do you require follow-up technical assistance to assist you in applying the skills you learned in this seminar? ☐ Yes ☐ No.

2. In which specific topics do you anticipate requiring follow-up assistance?

3. How do you envision the technical assistance being conducted?
   (For example, through correspondence, personal visit, one-on-one assistance, or a meeting within your organization. How long would it take and over what time period?)

4. How would this follow-up technical assistance benefit your institution?

5. If your institution were selected for follow-up, who would be the key contact?

   Name: ____

   Position: ____

   Phone: ____

   FAX: ____

   E-mail: ____

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