Performance Evaluation of MFIs

TRIAS Training session
Brussels
January 2005
Objective of the 2 sessions

- Give a brief overview about the concept of Performance Evaluation as a tool to:
  - have an opinion about the performance and risk profile of an MFI (strengths/weaknesses)
  - to see how an MFI evolves
  - to compare an MFI to the sector

- Financial ratios and indicators are divided into four groups
  - Portfolio analysis
  - Efficiency and Productivity analysis
  - Financial Management analysis
  - Profitability analysis

- We will only show a couple of examples and illustrate a few indicators
Presentation of PILARH

- Location: Honduras.
- Type: rural microfinance
- Main objective: enable a maximum of families to access to farmland through two types of loans:
  - Long term loans (70% of the gross loan portfolio) - 750$ for 7 years on average- to purchase the land, at an annual interest rate of 24% secured by the land itself.
  - Short-term loans (30% of the gross loan portfolio) – 300$ for 10 months on average- to pay for farm equipment and labour, at an annual interest rate of 30%.
- No savings services.
- Compulsory life term insurance: 0.3% of the loan amount per year.
What is « Performance Evaluation »?

- Analysis based on standard indicators to assess the level of performance and risk of a microfinance institution (MFI)

- It might be a tool for the MFI
  - to have a clear view about its current performance and risks (strengths and weaknesses)
  - to facilitate decision-making through the identification of improvement areas.
  - to motivate the entire institution towards performance improvement
  - to follow up its development, assess progress in achieving sustainability
  - to compare to its peers
  - To improve transparency and getting more credit from third-parties
  - To present itself to potential funders
What is « performance evaluation »

- It might be a tool for a donor or a supporting NGO
  - to better know the performance / level of sustainability of its partner
  - to better understand the kind of support its partner is asking for
  - to easily follow-up the evolution of its partner

- It might be a tool for investors
  - to identify potential investments
  - to follow-up the MFIs they are investing into
What are the progress made in terms of Performance Evaluation?

- About seven years ago...
  - MFI follow-up was based on:
    - cumulative number of disbursed loans, members, clients,...
    - repayment rate, average loan size,...
    - net income
  - Each entity (donor, NGO or investor) needed to assess the sustainability of its partners through its own method which was time consuming for it and for the MFI as well.

- Today
  - There is a set of standard indicators (non exhaustive)
  - There is a consensus about terms and definitions to be used within the microfinance industry
  - There are several agencies specialized in MFIs performance evaluation
  - MFIs may use one evaluation report internally as well as for several of their partners (from donors up to investors)
  - The IADB/CGAP Rating Fund may co-finance a performance evaluation
Important rules when analyzing ratios

- Ratios can help answer two primary questions that every institution involved in microfinance needs to ask.
  - Is this institution either achieving or progressing towards sustainability?
  - How efficient is it in achieving its given objectives?

- Ratios must be:
  - Analyzed together,
  - Consistently and periodically tracked over a period of time—trend analysis

- In addition to analyzing past trends, ratios, in conjunction with policy decisions, are helpful when preparing financial projections.
Financial ratios and indicators

They are usually divided into four groups:

- Portfolio quality;
- Efficiency and Productivity;
- Financial management / Risk management;
- Profitability and sustainability.
The Loan Portfolio Quality Analysis
Gross Loan portfolio

- **Portfolio:**
  - Main assets, main source of revenue;
  - Main risk sources; especially given the fact that microfinance clients do not offer collateral and are facing a lot of risks.

- **Characteristics in microfinance:**
  - If well managed, portfolio quality is usually better than in commercial banks
  - Portfolio quality may deteriorate or improve very quickly.
Portfolio quality

- Portfolio Quality will depend primarily on:
  - The portfolio affected by arrears
  - The level of provisions
  - Loan losses
Main indicators for portfolio quality

- $\text{PAR}_n$: Which part of my portfolio is at risk?
- Write-off ratio: which part of my portfolio is a loss?
- Risk coverage ratio: which part of my Portfolio at Risk is covered? How to protect myself against losses?
- Provision expense ratio: how much does this protection cost?
Portfolio at Risk: calculation

- The PAR measures the risk to come: what is at risk of not being repaid, notion of contamination.

\[
\text{PAR}_n = \frac{\text{Outstanding Balance on Arrears over « n » days}}{\text{Total Outstanding Gross Portfolio}} + \text{Total Gross Outstanding Refinanced (restructured) Portfolio}
\]

- The MFI chooses the appropriate number of days: 1, 15, 30 days… It could also be useful to specify the end of the period of calculations: \text{PAR}_{30-365} or \text{PAR}_{30-180}

(1) Specify if the numerator includes the « refinanced/rescheduled » portfolio
Portfolio at Risk: Analysis

- Should remain **low** and rather **stable**
- **A PaR > 10% IS WORRYING**
- The following points will be discussed to better understand why the MFI has a good or bad PAR:
  - Appropriateness of the requested products;
  - Write-off policy
  - Loan repayment frequency
  - Period of growth
  - Seasonality
  - National crisis;
  - Guarantees quality.
Portfolio at Risk: limitations

- Non-integration of rescheduled and refinanced loans
- Bad accountancy of partial repayments
PILARH: Gross Loan portfolio and PAR30

Average PaR30 in LA: 5.6%

Gross loan portfolio: 
- 2000: 4.3% (8,000) + 8% 
- 2001: 6.2% (9,900) + 48% 
- 2002: 9.9% (14,000) + 48% 
- 2003: 2.1% (11,000) + 21% 

% PaR 30: 
- 2000: -1% 
- 2001: 1% 
- 2002: 3% 
- 2003: 5%
PILARH: PAR1, PAR30, PAR90 and PAR 180

2000: 8.1%, 4.3%, 0.9%
2001: 8.4%, 6.2%, 4.2%
2002: 12.5%, 9.9%, 4.0%
2003: 5.1%, 2.1%, 0.9%
**Risk coverage ratio: calculation**

- This ratio shows:
  - The part of the portfolio at risk that is covered by provisions
  - The capacity of the MFI to create adequate provisions for covering possible losses without cutting into its own funds.

Risk Coverage ratio = \[
\frac{\text{Loan Loss Reserves}}{\text{(Outstanding Balance on Arrears over 30 days + Refinanced Loans)}}
\]

- Most of the time, the level is quite high (>100%).
Risk coverage ratio: analysis

- This ratio should be fairly constant.
- This ratio must be analyzed in conjunction with the PAR and Write-Off ratios, since all three are interdependent.
- Quality of the guarantees.
Risk coverage ratio: limitations

Pay attention to the influence of the existing regulatory framework regarding provisions: legal provision is the minimum, not the optimal amount.
## Provisioning policies

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<th>Rating agency Y</th>
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<td>1-30 days :</td>
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PILARH: Risk Coverage ratio and PaR

<table>
<thead>
<tr>
<th>Year</th>
<th>Risk Coverage Ratio</th>
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<tbody>
<tr>
<td>2000</td>
<td>4.3%</td>
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<tr>
<td>2001</td>
<td>6.2%</td>
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<tr>
<td>2002</td>
<td>9.9%</td>
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<tr>
<td>2003</td>
<td>2.1%</td>
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</tbody>
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% PaR 30

Risk coverage ratio
Monitoring the portfolio quality

1. Periodical analysis of the PaR through a delinquency report detailed:
   - By term of the loan product
   - by activity sector
   - For each analyst
   ⇒ **Objective:** understand why and identify where the PaR comes from.

2. Credit demand analysis and process
   - Importance of the credit analyst
   - Role of the credit committee
   - Rigor in the implementation of the credit methodology

3. Define a conservative provisions and write-off policy and implement it
How to react when the portfolio deteriorates?

- Focus on the PaR analysis
- Increase provisions
- Check the credit demand analysis process
- Review credit methodology or market targets.
A little exercise
MFI's Performance Analysis – TRIAS – Brussels, January 2005

PAR 31

PAR 91

Loan loss rate

A  B
Conclusions on the portfolio quality
Main indicators of performance evaluation

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Financial ratios and indicators

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- Profitability and sustainability.
Efficiency and productivity

- Operating expense ratio
- Active clients per staff member
- Active clients per loan officer
- Cost per borrower
Operating expense ratio: calculation

Operating Expense ratio = \frac{Operating Expense}{Average Gross Portfolio}

- The operating expense does not include the financial expense and the provision expense. It includes the staff expense, and the non-staff operating expense (i.e., “administrative expenses”, including depreciation and amortization).
Operating expense ratio: analysis

- This ratio provides the best indicator of the overall efficiency of a lending institution.
- The lower it is, the more efficient the MFI is.
Operating expense ratio: limitations

➤ Influence of:
  - The portfolio size
  - Average loan amount

➤ Need to consider the specificities of the MFI such as salary scale, the division of work, rural/urban location, savings collection
PILARH: Operating expenses vs Gross Loan Portfolio

Average portfolio: 22%

Operating expense ratio:
- 2001: 29%
- 2002: 31%
- 2003: 36%

Thousands

0% 5% 10% 15% 20% 25% 30% 35% 40%

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40

2001 2002 2003
Staff and Loan officers’ productivity: calculation

- Active clients per staff member = \( \frac{\text{Number of active clients}}{\text{Number of personnel}} \)

- Active clients per loan officers = \( \frac{\text{Number of active clients}}{\text{Number of loan officers}} \)

- Consumer loans and pawn loans are excluded from the calculation
- Voluntary work is not taken into account (cooperatives)
Staff and Loan officers’ productivity: analysis

1. The higher the ratio, the better the productivity

2. Analyze jointly loan officers’ productivity and staff productivity.

3. Productivity is important because staff is the main cost for the MFI.

4. A low ratio does not mean that staff members are not working hard. You should analyse the overall structure taking into account:
   - credit methodology (group-based, individual, credit unions)
   - Staff division (administrative / operational)
   - MFI’s background (location, density of clientele)
PILARH: productivity of staff members and loan officers

Average : 134
Financial ratios and indicators

- They are usually divided into four groups:
  - Portfolio quality;
  - Efficiency and Productivity;
  - Financial management / Risk management;
  - Profitability and sustainability.
Financial /Risk management

- The Funding expense ratio
- Cost of funds ratio
- Debt/Equity ratio
Funding expense ratio: calculation

- This ratio measures the total interest expense incurred by the MFI to fund its loan portfolio.

Funding Expense ratio = \[ \frac{\text{Interest and Fee Expenses}}{\text{Average Gross Portfolio}} \]
Funding expense ratio: analysis

- This ratio added to the provision expense and to the operating expense ratios, allows to define the minimum lending rate to charge to clients in order to cover all the expenses;

- The difference between the portfolio yield and the funding expense ratio accounts for the net margin of interests

- The ratio depends much on the funding resources: debt or donations.

- This ratio tends to increase as the MFI becomes less dependant on donations: this is not a bad sign of performance! (contrary to other expense ratios);

- For MFIs collecting savings, this ratio will probably be lower, but the operating expense ratio will be most likely higher.
PILARH: Funding expense ratio

Average in LA: 4,5%

1,7%  3,5%  7,0%

2001  2002  2003
Profitability

- Return on Equity (ROE)
- Return on Assets (ROA)
- Portfolio yield
Portfolio yield: calculation

\[
\text{Portfolio yield} = \frac{\text{Interest and fee income from loan portfolio}}{\text{Average Gross Loan portfolio}}
\]
Portfolio yield: analysis

- This accounts for the amounts effectively received by the institution from the clients.
- It indicates the capacity of the MFI to generate revenues in order to cover its financial and operating costs.
- It is to be compared to the effective interest rate and to the quality of the portfolio.
Portfolio yield composition

- Margin
  - Funding expenses
  - Provision expenses
  - Operating expenses

- Portfolio yield

- Loss
  - Funding expenses
  - Provision expenses
  - Operating expenses
PILARH’s portfolio yield composition

- 2001: Net Operating margin: -1.5%, Funding expense ratio: 0.2%, Provision expense ratio: 28.6%, Operating expense ratio: 4.5%
- 2002: Net Operating margin: 3.5%, Funding expense ratio: 4.7%, Provision expense ratio: 30.6%, Operating expense ratio: 35.9%
- 2003: Net Operating margin: 7.0%, Funding expense ratio: 6.6%, Provision expense ratio: 14.0%, Operating expense ratio: 22%
- Microrate average: Net Operating margin: 0.2%, Funding expense ratio: 14.0%, Provision expense ratio: 4.5%, Operating expense ratio: 22%
Conclusions on performance indicators

- Profitability is required to achieve growth (outreach), enables innovation and access to new sources of funding.

- Portfolio quality and Efficiency are the basis for sustainability.

- These ratios are part of the decision-making process.
Conclusions on the PILARH case
ANNEXES
Portfolio Quality Indicators

\[ \text{PAR}_n = \frac{\text{Outstanding Balance on Arrears over } \langle n \rangle \text{ days} + \text{Total Gross Outstanding Refinanced (restructured) Portfolio}}{\text{Total Outstanding Gross Portfolio}} \]

Write-off ratio = \[
\frac{\text{Amounts written-off for the period}}{\text{Average gross portfolio}}
\]

Risk Coverage ratio = \[
\frac{\text{Loan Loss Reserves}}{(\text{Outstanding Balance on Arrears over 30 days} + \text{Refinanced Loans})}
\]

Provision Expense ratio = \[
\frac{\text{Loan Loss Provision Expense}}{\text{Average Gross Portfolio}}
\]
Profitability ratios

ROE = \frac{\text{Net Income after taxes and before donations}}{\text{Average Equity}}

ROA = \frac{\text{Net Income after taxes and before donations}}{\text{Average Assets}}

Operational Self Sufficiency = \frac{\text{Financial Revenue}}{\text{Operational Exp.} + \text{Loan loss provision Exp.} + \text{Financial Exp.}}

Portfolio Yield = \frac{\text{Interest and Fee Income}}{\text{Average Gross Portfolio}}

Operating Expense ratio = \frac{\text{Operating Expense}}{\text{Average Gross Portfolio}}

Funding Expense ratio = \frac{\text{Interest and Fee Expense}}{\text{Average Gross Portfolio}}
Financial Terms

Balance Sheet terms definition

**Assets**

**Short term assets**
- Cash on hand / Non I-bearing deposits
- Short term I-bearing investments
- Net short term loan portfolio
  - Gross short term loan portfolio
  - Loan loss reserves
- Interests receivable
- Other short term assets

**Long term assets**
- Long term investments
- Gross long term loan portfolio
- Net fixed assets
- Other long term assets

**Liabilities**

**Liabilities**
- Short term liabilities
  - Savings
  - Short term loans
  - Other short term liabilities
- Long term liabilities
  - Loan term loans
  - Insurance
  - Other long term liabilities

**Equity**
- Paid up share capital
- Donated equity
- Current year profit/loss
- Retained earnings / Reserves
- Other equity accounts
Financial Terms

**Income Statement terms definition**

- Financial Revenue
- - Financial Expense
- = Financial Income
- - Operating Expense
- - Net loans provision expense
- = Operating Income
- + Non-operating revenue
- - Non-operating expense
- = Net Operating Income before taxes and donations
- - Income taxes
- = Net Operating Income before donations
- + Revenue from donations
- = Net Income

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We consider the Net Income BEFORE donations in order to measure the real performance of the MFI.
The « Vicious » cycle

Donor Funds → Growth → Less Demand

Need for Capital → Inefficiency and Losses → High Interest Rates
The « Virtuous » cycle

- Access to Capital
- Growth
- Increased Demand
- Increased Profits
- Increased Efficiency and Portfolio Quality
- Reduced Interest Rates