Performance and Standards in Microfinance: ACCION’s Experience with the CAMEL Instrument

Sonia B. Saltzman
Rachel Rock
Darcy Salinger

Discussion Paper Series
Document No. 7
PERFORMANCE AND STANDARDS IN MICROFINANCE:
ACCION’s EXPERIENCE WITH THE CAMEL INSTRUMENT

Sonia B. Saltzman
Rachel Rock
Darcy Salinger

Document No. 7

1998
Authors:

Sonia B. Saltzman is Vice President for Research and Development for ACCION International in Somerville, Massachusetts. For the past 10 years she headed the Financial Services Department, which housed the various funds managed by ACCION: U.S. and Latin America Bridge Funds as well as Gateway Fund. Ms. Saltzman has been involved in the CAMEL process since inception in 1993.

Rachel Rock is Director, Program Evaluation and Policy Development for ACCION International in Somerville, Massachusetts. She is responsible for researching and documenting issues in the microfinance field for the USAID Microenterprise Best Practices project. Ms. Rock edited the monograph, *From Margin to Mainstream: The Regulation and Supervision of Microfinance*.

Darcy Salinger is Director, Credit and Investment Analysis for ACCION International in Somerville, Massachusetts. Ms. Salinger has participated in several CAMEL evaluations and has made a significant contribution to the design, management, and analysis of the CAMEL database.
Performance and Standards in Microfinance:
ACCION’s Experience with the CAMEL Instrument

Table of Contents

Foreword
Preface
Acknowledgments

I. Introduction
   History of the ACCION CAMEL
   Challenges in Developing and Applying CAMEL
   Uses of the CAMEL Results
   ACCION’s CAMEL and Establishing Microfinance Standards
   Objectives: What Camel Does and Does Not Measure
   Necessary Conditions for an Effective CAMEL
   Overview of the CAMEL Instrument

II. Evolution of the Instrument
   How the ACCION CAMEL Differs from the Original CAMEL
   Revising the ACCION CAMEL

III. Components of the CAMEL
   CAMEL Adjusted Financial Statements and Programmatic Information
   The CAMEL Manual
      Capital Adequacy
      Asset Quality
      Management
      Earnings
      Liquidity

IV. Application of the CAMEL Instrument
   Level of Effort
   Team Composition
   Division of Labor and Process
   The Report
   Challenges to Application

V. Interpreting the Results of the CAMEL
   Overview
   Interpretive Examples
   Principal Analytical Conclusions and Challenges for the Future

VI. Lessons Learned
   By ACCION
   By the Microfinance Institutions

VII. Challenges
   For ACCION International
   For the Microfinance Industry

Appendixes
   I. ACCION Latin American Affiliates
   II. Financial Statements
   III. Supporting Indicators
FOREWORD

We hear a great deal these days about the setting of standards in the microfinance industry. Donors seek standards on which they can condition the performance of grantees. Governments are under increasing pressure to grant banking licenses to quasi-financial intermediaries offering credit services to the poor and worry about the safety and soundness of these institutions should they be allowed to capture savings.

The microfinance industry consists of an enormous variety of institutions offering very different products. Although all programs offer microcredit in one form or another, some require clients to form groups while others offer loans to individuals, some use collateral guarantees while others use none, some have relatively long loan terms (52 weeks) while others require loans to be repaid within 60 days. Microfinance programs operate as nongovernmental organizations (NGOs), as credit unions, as private banks, as divisions of larger institutions, and still others as small programs in multipurpose organizations. Microfinance institutions (MFIs) operate all over the world and respond to quite different accounting and financial reporting standards. Most MFIs do not have to report their overall financial performance to anyone, outside of the cursory and formal reports they make to the government agencies who authorized them to operate. In essence, the tremendous variety in the basic microfinance “product” makes setting standards complex.

In microfinance, we are still far from being able to establish useful standards. We have many perceptions about which programs have done well; often these perceptions reflect more wishful thinking and subjective evaluation than hardheaded financial analysis. Lately, several initiatives have set out to gather and systematize financial performance data from MFIs. Many of these are listed in the introduction that follows. An important challenge will be to homogenize these efforts in order to enhance the comparability of their results.

The ACCION CAMEL exercise represents one of the earliest and most comprehensive efforts undertaken in the microfinance field. From the outset, it served three purposes: (1) to generate a standardized evaluation framework that would assist ACCION affiliates in understanding their financial performance in comparison to other affiliates, (2) to serve as a management tool, allowing affiliates to concentrate efforts on improving a number of management and financial areas necessary to achieve exponential growth through accessing commercial sources of funding, and (3) to serve as the basis for an eventual rating system that might serve the investor community interested in obtaining objective verification and evaluation of the level of performance attained by individual institutions.

As a result of the 27 CAMEL evaluations done to date, ACCION affiliates can be counted among the few microfinance institutions around the world that can provide extensive and consistent financial information. One of the most important early results of the evaluations was that the affiliate organizations improved their reporting systems considerably after the initial evaluation. Ultimately, many of the affiliates changed management practices to accommodate the types of indicators stressed by the CAMEL exercises.

Setting of realistic and useful standards in the microfinance industry can only take place with the type of methodical, painstaking work represented in this discussion paper. Developing an effective instrument to consistently measure financial performance requires constant review and adjustment to the evolving nature of the providers of financial services to the poor. There are few top performers in the microfinance field. Given our interest in pushing microfinance forward, we frequently draw too many lessons from too little data; running the risk of setting unrealistic standards for others who operate very differently and in very different environments.

All that remains is to congratulate ACCION International and its affiliate institutions on their willingness to share this vital experience with the microfinance industry. For those of
us concerned about sustainability as a means to achieving exponential growth and deep impact, this publication represents an important contribution.

Robert Peck Christen
Director, Microfinance Program
The Economics Institute

Boulder, Colorado
PREFACE

The objective of this discussion paper is to document ACCION International’s experience with the financial diagnostic instrument known by the acronym, CAMEL. Though components of the discussion will address technical topics, this paper is not meant to serve as a “how-to” guide for the CAMEL.¹

ACCION has completed 27 CAMEL analyses between September 1993, when it was first applied, and October 1997 with 14 of its affiliate institutions in Latin America.² When ACCION first designed this instrument, it saw both internal and external uses for the CAMEL results. Currently, ACCION International uses these results as a guide in the provision of technical assistance, while the affiliate institutions use the results for internal management purposes. A few of the Network institutions have used their CAMEL results for external purposes, but most have kept the results confidential. In time, ACCION believes the CAMEL results will serve as an external rating that will significantly facilitate investments in the microfinance field.

The ACCION CAMEL was designed to be independent of any methodological biases and can be applied to any type of institution servicing the microenterprise sector. The challenge that arises, however, is the reconciliation of a standardized measurement with an industry comprised of vastly different organizations, in terms of size and geographic location. Unlike the traditional banking industry for which the CAMEL was created (an industry with hundreds of years of experience and widely accepted accounting practices), the microfinance industry is in its infancy. Many of the main questions and challenges associated with the ACCION CAMEL must be understood in this context. ACCION’s learning curve continues to be steep as we work to deepen our understanding of the standards of performance that are emerging among our affiliates.

The research for this document synthesized several sources of information. First, we summarized the ACCION CAMEL Manual. The Manual is used by members of the CAMEL team in the field and provides instructions for the consistent application of the CAMEL tool. Second, all CAMEL team members were interviewed. Third, directors of ACCION affiliate institutions that have received a CAMEL examination were surveyed. In both of these latter cases, individuals were asked for their input and perceptions about the success and challenges of the process. Fourth, the most recent data collected on the CAMEL examinations were analyzed.

The institutions reflected in the analytical examples presented in Section V of this document represent only a small sampling of microfinance institutions in the Western hemisphere and worldwide. Data from 11 ACCION affiliates comprise the database and have been included for analysis; 2 of these are regulated financial institutions. The majority service urban microentrepreneurs. As a result, the conclusions and the ranges of financial performance presented should be understood as coming from a geographically and programmatically limited pool. Nonetheless, we hope this analysis will contribute to a deeper understanding of the performance of microfinance institutions and to the establishment of standards for microfinance worldwide.

¹ ACCION is currently writing a Technical Note, as part of USAID’s Microenterprise Best Practices (MBP) research project, which will be a “how-to” guide for conducting a CAMEL examination.

² The ACCION International Network in Latin America consists of 18 microfinance institutions working in 13 countries. (See Appendix I for a full list of these institutions). For a variety of reasons, 4 of the 18 Latin American affiliates have not received a CAMEL rating. ACCION also has programs in six U.S. cities.
ACKNOWLEDGMENTS

We wish to express our appreciation to the many people who assisted in the writing of this monograph. We especially acknowledge the Agency for International Development, through its Matching Grant and Latin America Bureau, the Banyan Tree Foundation, the Ford Foundation, and the Wallace Global Fund for providing financial support for its preparation and printing. Many ACCION International colleagues generously contributed their ideas and time in the preparation and review of this monograph: Carlos Castello, Vice President Latin America Operations, has managed the CAMEL process since its inception during which time he has also led several CAMEL evaluations; César López, Senior Director Latin America Operations, has led many CAMEL evaluations and has been key in the revision process of the instrument; Deborah Drake, Senior Director and Coordinator Latin America Bridge Fund, has participated in CAMEL evaluations throughout the years and was involved in the conceptualization of this monograph. Our colleagues at Centro ACCION, Colombia, who make up the CAMEL team, provided valuable input: Lilian de Rivas, Carolina Navoa and Juan Carlos Diaz. We also gratefully acknowledge the immeasurable contribution of Maria Otero, Executive Vice President, who conceived of this monograph and who supported us in bringing it to fruition. Finally, without the support, patience, and feedback of the ACCION affiliates in Latin America who allowed for the application and evolution of the CAMEL instrument this document would not have been possible.

We are also grateful to the following people who read the first draft of this document and provided extensive and insightful comments: Shari Barenbach, of the Calvert Foundation, Stefan Harpe, Director International Operations of the Calmeadow Foundation, Alex Silva, Managing Director of Profund International, and Miguel Taborga, Senior Financial Specialist, Microenterprise Unit, Interamerican Development Bank. We owe enormous gratitude to Robert P. Christen, Director of the Microfinance Program at the Economics Institute, who in 1992 at ACCION’s request for a financial assessment instrument for microfinance institutions, used the US CAMEL as his conceptual framework to develop the first version of such an instrument. Robert P. Christen has been key in assisting ACCION in the application and evolution of the CAMEL instrument. We thank him as well for reviewing the draft of this monograph. Of course any errors or omissions are solely the responsibility of the authors.

For editing support, we would like to thank Linda Gregonis and Elizabeth Shaw as well as Dominique duBois for coordinating the printing of this monograph.
I. INTRODUCTION

History of the ACCION CAMEL
CAMEL is an acronym for the following five measurements of a financial institution: Capital Adequacy, Asset Quality, Management, Earnings, and Liquidity Management. CAMEL was first created in 1978 to enable North American bank regulators to measure the financial and managerial soundness of U.S. commercial lending institutions using key ratios, indicators, and institutional policies and procedures.
Beginning in the 1980s, ACCION and its network of affiliate institutions in Latin America recognized an increasing need to access capital from the formal financial markets in order to achieve the goal of massive reach. A significant first step in meeting this need was the establishment of the Latin American Bridge Fund in 1984, a guarantee fund for ACCION affiliates to secure lines of credit from local commercial lending institutions. As affiliates began to make use of the Bridge Fund and deal directly with bankers, it became clear that they required recognized financial performance measurements to demonstrate the health of their institutions. Moreover, the directors of the ACCION affiliates needed this information to manage successfully. ACCION International also required financial performance information in its efforts to provide quality control within its network and to better focus its technical assistance efforts.
In response to this demand for financial performance information, ACCION first designed a series of financial management workshops to train microfinance managers. But ACCION and its affiliates continued to lack the tool for efficiently and effectively gathering the appropriate financial ratios. In 1992, ACCION International\(^3\) designed a financial assessment instrument for use with microfinance institutions that took the original North American CAMEL as its conceptual framework. The same five areas of financial and managerial performance were reviewed, but the indicators used responded to the challenges facing the microfinance industry. In addition, the ranges for rating each indicator also reflected the characteristics of this industry.
The ACCION CAMEL was first presented to the ACCION Network at its annual Director’s Conference in 1993, at which time working groups consisting of affiliate directors and ACCION staff members reviewed and discussed issues related to content, application, and dissemination of the CAMEL. This process gave the ACCION affiliates the formal opportunity to approve the use of the CAMEL’s application and to participate in the development of the CAMEL. This laid the critical foundation of trust that has proven to be so essential to the CAMEL analysis.

Challenges in Developing and Applying CAMEL
Defining the standards to be used for measuring the financial performance of microfinance was the first significant challenge. No database existed that could define an expected and realistic level of financial performance for microfinance institutions. Robert P. Christen and ACCION based the initial standard ranges on available information. Then a series of three pilot CAMEL applications were completed, after which revisions were made to the CAMEL instrument. ACCION has continued to make significant progress in the last four years in further refining these standards, but the effort is still ongoing.
The second major challenge was the ongoing issue of availability of information. Because of the rigor of the information requirements of the CAMEL, which includes five years’ worth of financial and programmatic information, relatively sophisticated management

---

\(^3\) ACCION International commissioned Robert P. Christen, a financial consultant with many years of experience in the microfinance field and a former ACCION staff member, to design the financial evaluation instrument.
information systems (MISs) become essential. In many cases, such MISs were nonexistent. And in some cases where the microfinance institution (MFI) may have had the MIS capacity, staff was unaccustomed to extracting information that conformed to the CAMEL examination. ACCION affiliates have made significant progress in overcoming this challenge, and efforts are underway to further streamline the information gathering process.

Finally, the sensitivity of the microfinance institution to being rated posed a challenge to its application. Though the ACCION affiliates supported the end goal of the CAMEL as a guide and eventually a “stamp of approval” for accessing formal financial markets, few were actually prepared to do so. In acknowledgment of this perspective and as an essential ingredient in establishing a requisite base of trust, the ACCION CAMEL results were designed to be kept confidential. Going forward, however, a key challenge is how to allow for the public dissemination of the results of the CAMEL. As long as the results are kept confidential, the power of the ACCION CAMEL will remain limited to its internal use by MFIs and ACCION International.

**Uses of the CAMEL Results**

After four years of use, the ACCION CAMEL serves multiple purposes. For the microfinance institution, the CAMEL is a decision-making tool. It provides a reliable guide for those institutions interested in operating in the formal financial sector by indicating the key variables in successful financial management. Beyond serving as a “road map” to microfinance managers, CAMEL’s application should become increasingly powerful in broadening an MFI’s access to capital. In providing an objective assessment of the microfinance institution, CAMEL will reduce the risk profile of microfinance institutions seeking to access both domestic and international capital. Although its use by the capital markets remains unrealized for most ACCION Network affiliates, it serves as an important future goal.

For ACCION International, the CAMEL is an internal quality-control mechanism used to examine its affiliate institutions so as to provide more focused and strategic technical assistance. The CAMEL also contributes to ACCION’s process of “due diligence” for both the Bridge Fund and ACCION’s Gateway Fund. The purpose of the Bridge Fund is to provide guarantees to commercial banks that lend to ACCION affiliates; the Gateway Fund was set up to provide equity and quasi-equity to microfinance institutions.

The results gathered from the CAMEL applications have allowed ACCION to gain a deeper insight into the strengths and weaknesses of its affiliates. In Section V, an analysis of the results of CAMEL applications in 11 ACCION affiliates is presented. The conclusions and the ranges of financial performance discussed in this section draw from a limited pool of institutions, but one can begin to answer questions such as: What is the true level of profitability achieved by these institutions, after adjusting for the various implicit and explicit subsidies? What is the level of efficiency achieved to date and what factors have been found to contribute to efficiency? What can one say about the quality of microfinance loan portfolios as well as the volatility of the delinquency rate? To what extent is this pool of microfinance institutions actually funding its portfolio with borrowed funds? The information presented in Section V also contributes to the discussions currently taking place with regards to standards of performance for the microfinance industry.

**ACCION’s CAMEL and Establishing Microfinance Standards**

ACCION International’s broader priority is to create an internal assessment tool, which allows its affiliate institutions to evolve to the highest standards of performance. The establishment of such accepted standards for the microfinance industry is of critical
importance. Like the ACCION affiliates, microfinance institutions around the world are looking to the financial markets as a source of capital to meet the enormous demand for financial services by the microenterprise sector. Any MFI interested in such access must be able to provide accurate, consistent, and verifiable financial performance data for microfinance managers focused on achieving maximum results as well as potential lenders and investors interested in the microcredit industry.

The standards used by the CAMEL in rating the ACCION affiliate institutions are no less rigorous than those applied to traditional financial institutions in terms of the quality of the assets, profitability, and other key indicators. In fact, in some areas such as provisioning requirements and leverage limits, the ACCION CAMEL standards are more rigorous. Where they differ is in acknowledging the essential differences inherent to microfinance, for example the significantly higher level of operating costs in relation to outstanding loan portfolio associated with making very small loans.4

The original CAMEL used by North American regulatory agencies is applied based on the asset size of the financial institution, its number of branches, and whether or not it operates in a metropolitan area. For each size, there are an associated set of performance standards. No such peer grouping currently exists for the ACCION CAMEL. Although asset size is quite varied within the pool of ACCION affiliates, however, the institutions are programmatically and geographically quite homogeneous. But, as microfinance performance databases continue to grow, the ACCION CAMEL should explore the desirability of incorporating ranges from various peer groups.

Finally, ACCION’s development and use of the CAMEL is one of several efforts contributing to the establishment of a set of worldwide microfinance performance standards. In the past two years, other initiatives to gather and analyze financial performance data from MFIs have arisen, including the development of a rating agency by the Private Sector Initiatives Corporation (PSIC);5 The Economics Institute’s MicroBanking Financial Review project headed by Robert P. Christen and funded by CGAP/World Bank; the BASE Kenya, Micro Finance Institution Monitoring and Analysis System, funded by the British Department of Foreign Investment and Development’s (DFID), formerly ODA; and the U.S. Agency for International Development’s PEARLS rating system as used by the World Council of Credit Unions (WOCCU). Parallel to these applied efforts has been the creation of several guides or tools to gather financial performance data, including Robert P. Christen’s Banking Services for the Poor: Managing for Financial Success; the SEEP Network’s 1995 Financial Ratio Analysis of Micro-Finance Institutions; the Interamerican Development Bank’s 1994 Technical Guide for the Analysis of Microenterprise Finance Institutions; and Women’s World Banking, Principles and Practices of Financial Management. Ultimately, as worldwide data is amassed, a set of accepted standards and peer groups will emerge. Several of the institutions and individuals just mentioned, including ACCION, are currently coordinating efforts to develop common adjustments to financial statements and common ways of measuring key indicators in order to further the effort of developing standards for the microfinance industry.

Yet another challenge for ACCION and the network is to determine if an institution other than ACCION should take over the application of CAMEL examinations within the ACCION network. This decision will depend on the evolution of the above-mentioned

4 These differences are outlined in several sources including Berenbach and Churchill (1997), and Rock and Otero (1997).

5 The PSIC effort is funded by the U.S. Agency for International Development (USAID), the Swiss Agency for Development and Cooperation, the Interamerican Development Bank (IDB).
initiatives and whether the results obtained are comparable to the breadth and depth of analysis that ACCION currently obtains when it applies the CAMEL. If CAMEL is to be used by lenders and investors, however, it seems reasonable that an entity outside the ACCION network perform the evaluation. Undertaking CAMEL examinations by individuals outside of ACCION would also allow ACCION to redeploy the experienced professionals who now make up the CAMEL team to provide technical assistance in the areas identified as weak by CAMEL.

Objectives: What CAMEL Does and Does Not Measure

CAMEL plays a critical role in the development and management of healthy and sustainable microfinance institutions, but it is not an all-purpose tool. It is one process among several others employed by ACCION and microfinance institutions to strategically chart an affiliate’s course for future growth. Other technical assistance work, such as ACCION’s Business Planning process, human resource and organizational development efforts, and loan officer training courses also contribute directly to the realization of ACCION’s mission to create and support a network of financially self-sustaining institutions that specialize in providing services to the poor on a massive scale.

What does the CAMEL instrument measure? And equally important, what doesn’t the CAMEL measure? In 1994 Rhyne and Otero\(^6\) outlined the two pillars of success for microfinance to be scale and sustainability. Scale refers to the degree to which an MFI reaches its target market, in other words, its impact. Sustainability refers to the extent to which an institution, in reaching its target market, covers the costs of providing financial services after adjustments to its profit and loss statements (as discussed in Section III). The CAMEL diagnostic tool measures the relative level of sustainability of an MFI. Although for ACCION and its network the goals of sustainability and scale are equally important, the CAMEL overall rating measures only the former.\(^7\)

The CAMEL also takes into account the historical trends in any of the five main areas of the CAMEL. For example, two institutions with the same level of delinquency at the time of evaluation might receive different ratings if one institution has always had the same level while the other shows an increasing trend in delinquency.\(^8\)

Following is an elaboration of those elements that are neither measured nor accounted for by CAMEL. Some of the elements excluded from the CAMEL relate to the scale of operations of the local institution, that is, the extent to which the local institution achieves social impact. One factor currently not accounted for in the CAMEL rating is the environment in which the local institution carries out its micro-lending activities, especially the extent to which it faces competition. When the CAMEL was first designed, competition was very rarely considered by the microfinance institution, but it has become increasingly important. The manner in which the local institution responds to other players in the field is

---

\(^6\) The New World of Microenterprise Finance: Building Healthy Financial Institutions for the Poor. Published in 1994 in the United States by Kumarian Press, Inc.

\(^7\) In other words, an MFI may receive a very high CAMEL rating given its overall financial performance despite the fact that its client base might be quite small or stagnant in relation to the microfinance market in that country. Some in the microfinance industry have suggested that an “S” be added to the CAMEL diagnostic to measure Scale or Social Impact. For the immediate future, ACCION has no plans to do so with its CAMEL instrument.

\(^8\) The analyst can increase or decrease a rating by one point in either direction to reflect a positive or negative trend, as the case may be. The rating process is described in detail later in this section.
key in assessing the future financial viability of the institution. Thus, going forward, ACCION plans to incorporate this element into the overall rating.

In reviewing the list of factors excluded from the CAMEL rating, it is important to keep in mind the instrument’s key objective: to lead institutions towards accessing financial markets. Thus, only those aspects that “the market” deems relevant and important are included in the CAMEL rating. Moreover, the market has a clear hierarchy of performance, reflected in the CAMEL rating system, a system that is indifferent to the stage of development of the microfinance institution or the limitations of the financial markets.

**Target Market**

Though the original CAMEL was adapted for use in examining microfinance institutions, there still exist differences in these institutions’ target market. CAMEL does not account for the following variances.

**Size of target market (scale).** The CAMEL measures an MFI’s degree of efficiency in reaching its client base. It makes no judgment, however, on the social impact of the local institution: its share of the total market or the institution’s intention of growing its portfolio so as to reach additional clients.

**Appropriate outreach in terms of loan size.** Average loan size, especially of first loans, is a recognized measure of an MFI’s effectiveness in reaching the microenterprise sector (as distinct from the small business sector). Although a range exists within this average loan size measurement, the CAMEL does not account for where an MFI may fall within the range nor does it penalize an institution with an average loan size above this range.

**Geographic location of clients and density of microfinance market.** Although microentrepreneurs operate in both the urban and rural setting, the majority of ACCION affiliates exclusively service urban microentrepreneurs. The standard ranges used by the CAMEL to rate an MFI’s efficiency are based on urban microlending where clients are usually densely clustered in marketplaces or neighborhoods. The CAMEL does not make any adjustments for rural MFIs in which clients, especially in Latin America, tend to be more widely dispersed.

Examination of rural MFIs in other regions of the world has shown that comparable efficiency indicators can be achieved where there is sufficient population density. Whether such achievement is an exception or a realistic expectation can only be determined with additional data. As mentioned previously, if the data reflects fundamental differences between urban and rural efficiency indicators, then this may be a basis to establish peer group standards and the CAMEL would then account for this variance in the target market.

**Lending methodology.** The CAMEL examination is neutral to the type of lending methodology used by the microfinance institution. The same yardstick is applied regardless of whether the institution lends to individuals, solidarity groups, both individual and solidarity groups, or by applying the village banking methodology.

**Evolution**

There are three levels of evolution relevant to the development of microfinance. First is the microfinance institution’s internal evolution. Second is the evolution of the local microfinance market. Third is the evolution of the national economy and the local financial sector.

**Microfinance institution.** The field of microenterprise development has spawned a range of institutions. Some have been in operation for 20 years while others have just begun in the past year. One result of this difference may be the volume of clients the institution has been able to reach. An institution in its start-up phase is likely to have a lower level of operating efficiency than one that has had the time to reach economies of scale, resulting in a lower rating under Earnings. Likewise, under Management, where the CAMEL assesses the formalization of an MFI’s policies and procedures, a smaller start-up may receive a lower rating than a more established MFI. The CAMEL rating makes no exceptions for the start-up phase.
Microfinance market. The extent to which competition exists in servicing the microenterprise sector varies widely across national boundaries. The lack of direct competition, for example, allows an institution wider latitude in setting its interest rates, potentially resulting in a high rating for profitability. It may also result in a high rating for Capital Adequacy as the MFI is able to accumulate retained earnings. At this point in time the CAMEL does not take into account the existence or absence of competition.

Macroeconomy and development of the local financial sector. The CAMEL does not adjust for variances in the macroeconomy in which an MFI is operating. Where a recession may be occurring, undermining repayment rates or the ability of the institution to increase its volume of clients, the CAMEL is indifferent. Additionally, adjustments are not made for country-specific legal and regulatory characteristics. Among the most relevant characteristic is interest rate ceilings. In a country where none exist, an MFI can mask inefficiency by charging the necessary rate to make a profit. Alternatively, MFIs that operate where interest rate ceilings do exist may not be able to adequately cover the higher costs of servicing the microenterprise sector.

Type of Microfinance Institution
Most relevant in this case is whether or not an MFI is regulated. Certain costs are associated with regulation, such as increased security, a more complex management information system (MIS), and staff training. In the short-term, these costs will negatively affect an institution’s operating efficiency and profitability indicators until the benefits of formalization are realized (i.e., access to more extensive and cheaper funding resulting in portfolio growth and the achievement of economies of scale, as well as a reduction of financing costs.) CAMEL analyzes nongovernmental organizations (NGOs) and regulated financial institutions with the same standards.

Necessary Conditions for an Effective CAMEL
ACCION’s experience demonstrates that the following conditions must exist to complete a successful CAMEL analysis.

Transparency and Availability of Information
The depth and quality of the CAMEL analysis depends most fundamentally on the availability of financial performance information. The extent to which this condition is met is shaped by two factors. First is an MFI’s ability to provide the information. Second is the MFI’s willingness to provide the information.

The ability to provide information flows primarily from an institution’s management information systems (MIS). The MIS should provide accurate and timely information and be sufficiently flexible so that a variety of meaningful reports can be generated. Because in some areas, the CAMEL might require reports that the financial institution has never before generated, its MIS might not be able to automatically respond to the information requests of CAMEL. In some cases, new MIS programs are installed while the CAMEL team is still on-site and as a result, the information is eventually provided. In other cases, a more thorough upgrading of the MIS is required.

The willingness of an institution to provide information stems from different issues. First is the confidence on the part of management that the effort to gather the information is worth the result of the CAMEL analysis. How will a CAMEL analysis benefit an MFI either internally or externally? As described, ACCION’s affiliates’ basic acceptance of the value of the CAMEL was in place from the beginning. Nonetheless, during a few of the initial CAMEL examinations, the required information was not easily obtained as a result of a lack of familiarity with the in-depth nature of the analysis and with its practical value as a management tool. In most cases, once this obstacle was overcome by experience, the information gathering process was greatly strengthened.
Finally, there is the issue of timing. Once an institution demonstrates the ability and willingness to provide the required information for the CAMEL analysis, the issue becomes when the CAMEL team is able to receive it. Ideally, an MFI would provide the team with financial performance data *in advance* of the on-site analysis. This has only occurred in a very few cases, which is primarily the result of a lack of time on the part of busy microfinance managers and, as critical, the lack of a mechanism (and associated training) that easily gathers the information off-site.

**Trust**

A second condition that must be in place is the larger issue of trust and confidence on the part of MFI management that the information provided is kept confidential unless the institution decides otherwise. Additionally, senior management is given the opportunity to respond in writing to the final written report. These comments are attached to this final report submitted to the board.

**Availability of Staff (at All Levels) for Interviews**

A third condition is the availability of staff for interviews by the CAMEL team, which is initiated and directed by the executive director of the institution. This requires that the CAMEL examination be carefully scheduled by the executive director to take into account the significant investment of time required by that person and the entire staff.

The CAMEL examination requires a verification and cross-checking of information, which involves visits to the microfinance institution’s branches as well as visits with clients and interviews with local staff at various levels of the institution. A review of the credit files is also performed in order to verify the loan portfolio quality information provided by the MIS systems. This “due diligence” process requires a significant investment in time on the part of the local staff, whether it be coordinating field visits, obtaining credit files or being interviewed themselves.

**Appropriate Mix of Team Member Skills**

The skills required of the CAMEL team span a range of disciplines. Skill areas include financial analysis, microcredit methodology, internal control and internal audit, organizational development and human resources, and management information systems (MIS). Each member of the team must also have an expertise in the broader context of microfinance.

**Adequate Physical Space**

Finally, an adequate physical space with enough room to accommodate the team, good lighting, and sufficient electrical outlets ensures that the team members are able to complete the intense requirements of the examination in a timely fashion.

**Overview of the CAMEL Instrument**

**Five Main Areas Examined**

The CAMEL analyzes the five traditional aspects considered to be most important in the operation of a financial intermediary. These five areas reflect the financial condition and general operational strength of the microfinance institution and are briefly summarized below.

**Capital adequacy.** The capital position of the institution and its capacity to support growth of the loan portfolio as well as a potential deterioration in assets are assessed. The CAMEL analysis looks at the institution’s ability to raise additional equity in the case of
losses, and its ability and policies to establish reserves against the inherent risks in its operations.

**Asset quality.** The overall quality of the loan portfolio and other assets including infrastructure (e.g., office location and environment) is examined. This requires analyzing the level of portfolio-at-risk and write-offs, as well as the appropriateness of the portfolio classification system, collection procedures, and write-off policies.

**Management.** Human resource policy, the general management of the institution, management information systems (MIS), internal control and auditing, and strategic planning and budgeting are examined as distinct areas that reflect the overall quality of management.

**Earnings.** The key components of revenues and expenses are analyzed, including the level of operational efficiency and the institution’s interest rate policy, as well as the overall results as measured by Return on Equity (ROE) and Return on Assets (ROA).

**Liquidity.** This component of the analysis looks at the institution’s ability to project funding needs in general and credit demand in particular. The liability structure of the institution, as well as the productivity of its current assets is also an important aspect of the overall assessment of an institution’s liquidity management.

**Components of the CAMEL Instrument**

Following is a general discussion of the components of the CAMEL instrument. Each component is discussed in further detail in Section III, including the definitions for each of the financial indicators shown below.

The CAMEL instrument analyzes and rates 21 key indicators using two component parts: the CAMEL Manual and the CAMEL Spreadsheets (see Table 1). These 21 indicators are grouped under the five major areas of analysis described above (C-A-M-E-L). Indicators are either quantitative or qualitative and are each given a weighting. Eight quantitative indicators contribute to 48% of the final rating; 13 qualitative indicators contribute to 52% of the final rating (see Table 2).

The CAMEL Manual provides three elements:

1. the relevance of each indicator within the context of microfinance;
2. the ranges or descriptive information that allows the examiner to give the institution a rating on a scale of 0 to 5 (with 5 as the measure of excellence); and
3. the weightings for each indicator.

The CAMEL Spreadsheets contain two types of information:

1. the institution’s balance sheet and income statement, which have been inputted and adjusted to make the financial information comparable; and
2. programmatic statistics related to the microfinance institution.9

---

9 The CAMEL Spreadsheets, up to now, have included five years of audited statements plus the most recent statement and the comparable financials 12 months prior. This information is presented in local currency, in constant and nominal terms, as well as in dollars.
Table 1

CAMEL Analysis

CAMEL Manual: Step by step guide which provides: (1) the relevance of each indicator within the context of microfinance, (2) the ranges or descriptive information that allows the examiner to give the institution a rating on a scale of 0 to 5 (with 5 as the measure of excellence), and (3) the weightings for each indicator. The Manual also guides the examiner in completing the CAMEL Spreadsheets by explaining the necessary adjustments to the statements and how these are to be made. (See Section III for details of these adjustments and the twenty-one indicators.)

Quantitative information gathered from the institution.

Qualitative information gathered through staff interviews and analyses of institution’s policies and procedures.

CAMEL Spreadsheets

- Adjusted Financial Statements
- Programmatic Information

Supporting Indicators

This additional quantitative data is not used in the rating system. It allows, however, the examiner to better understand the factors impacting a given key indicator.

Key Quantitative Indicators Computed and Rated

8 Indicators (ratios) are computed. Ratings are determined using ranges in Manual.

Key Qualitative Indicators Examined and Rated

13 Indicators are examined using guidelines in Manual. Ratings are determined using criteria in Manual.

Component Rating Determined (C-A-M-E-L)

Individual indicator rating (0-5) is multiplied by its percentage weighting. The result is totaled under each of the five areas to determine the component rating.

Composite Rating Determined

The five component ratings are totaled. Result is a 0 to 5 which corresponds to an alphabetical range of AAA to NC.
<table>
<thead>
<tr>
<th>QUANTITATIVE INDICATORS</th>
<th>QUALITATIVE INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPITAL ADEQUACY</td>
<td></td>
</tr>
<tr>
<td>Capital Adequacy</td>
<td>5%</td>
</tr>
<tr>
<td>Reserve Adequacy</td>
<td>5%</td>
</tr>
<tr>
<td>ASSET QUALITY</td>
<td></td>
</tr>
<tr>
<td>Portfolio at Risk</td>
<td>8%</td>
</tr>
<tr>
<td>Write-offs/Write-off Policy</td>
<td>7</td>
</tr>
<tr>
<td>MANAGEMENT</td>
<td></td>
</tr>
<tr>
<td>Human Resources</td>
<td>4%</td>
</tr>
<tr>
<td>Management</td>
<td>5%</td>
</tr>
<tr>
<td>Information Systems</td>
<td>5%</td>
</tr>
<tr>
<td>Internal Controls, Auditing</td>
<td>4</td>
</tr>
<tr>
<td>Planning and Budgeting</td>
<td>4%</td>
</tr>
<tr>
<td>EARNINGS</td>
<td></td>
</tr>
<tr>
<td>Return on Equity</td>
<td>5%</td>
</tr>
<tr>
<td>Operational Efficiency</td>
<td>8</td>
</tr>
<tr>
<td>Return on Assets</td>
<td>8%</td>
</tr>
<tr>
<td>LIQUIDITY MANAGEMENT</td>
<td></td>
</tr>
<tr>
<td>Productivity of Other Current Assets</td>
<td>2%</td>
</tr>
</tbody>
</table>

TOTAL (100%) | 48% | 52%

### Table 3
RATIOS USED TO DETERMINE THE QUANTITATIVE INDICATORS FOR CAMEL

**CAPITAL ADEQUACY**

**RISK ASSETS**

- **EQUITY**

**Reserve Adequacy:**

- **ACTUAL LOAN LOSS RESERVE**
- **CAMEL ADJUSTED LOAN LOSS RESERVE**

**ASSET QUALITY**

- **LOAN BALANCE PAST DUE > 30 DAYS+LEGAL RECOVERY**
- **ACTIVE LOAN PORTFOLIO**

**Write-offs:**

- **NET WRITE-OFFS**
- **ACTIVE LOAN PORTFOLIO OF THE RELEVANT PERIOD**

**EARNINGS**

- **NET INCOME FROM OPERATIONS**
- **AVERAGE EQUITY**

- **OPERATIONAL EXPENSES**
- **AVERAGE LOAN PORTFOLIO**
Return on Assets:

<table>
<thead>
<tr>
<th>LIQUIDITY</th>
<th>NET INCOME FROM OPERATIONS</th>
<th>AVERAGE ASSETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Productivity of Other Current Assets</td>
<td>1-- interest income received on cash and cash equivalents</td>
<td>(av. interest income received on cash and cash equivalents - av. mthly cash + cash equiv. balances-liq. cushion)<em>(av. 6 mth CD rate)+ (liq. cushion</em>av saving rate)</td>
</tr>
</tbody>
</table>

Note: To determine the “Liquidity Cushion,” the examiner takes the past 12-month period and calculates the following: (Operating Expenses + Financial Expenses - Depreciation + Loan Disbursements - Loan Repayments)/52 *2.

The adjusted balance sheets and income statements of the CAMEL Spreadsheets are then used to generate the key quantitative indicators (see Table 3). This adjusted data is also used, in addition to the Spreadsheet programmatic statistics, to generate what are considered “supporting indicators.” These quantitative “supporting indicators” are not used in the rating system but rather allow the analyst to better understand the factors impacting a given key indicator, either quantitative or qualitative.

The information to measure the qualitative indicators is gathered through staff interviews and analyses of the institution’s policies and procedures. Qualitative indicators analyze those aspects of the institution that are nonquantifiable yet directly impact the financial situation and performance of the institution. The qualitative indicators are highly specific and applied consistently to each institution. Qualitative indicators are used in each of the five main areas examined under CAMEL in conjunction with quantitative indicators, with the exception of the assessment of Management, which is exclusively qualitative.

**CAMEL Rating**

Once the information is gathered (and adjusted in the case of the quantitative indicators) and analyzed, each indicator is given a rating. In the case of the quantitative indicators, the numerical result of a given ratio determines the rating as detailed in the Manual. In the case of the qualitative indicators, once a given policy or procedure is analyzed, the Manual provides guidance on how to rate the MFI for this indicator. Once an indicator has been rated, it is multiplied by a predetermined percentage (the weighting). Adding up all of these weighted ratings determines the component rating in each of the five areas (C-A-M-E-L). These component ratings are totaled to compute a final composite rating, which corresponds to an alphabetical rating.

This final CAMEL composite rating is a number on a scale of zero to five, with five as the measure of excellence. This corresponds to an alphabetical rating (AAA, AA, A; BBB, BB, B; C; D; and NC, which means “not rated”). It is important to point out that the rating system covers a broad spectrum of institutions and does not necessarily represent a continuum of movement from the NGO sector to the formally regulated sector. Rather, it represents a continuum of the quality and level of sophistication of financial management of the institution independent of its corporate structure. In other words, a “B” rated institution may be regulated while an NGO may receive an “A” rating and be capable of performing in the regulated formal financial sector. The alphabetical rating system presented below provides the framework and parameters for assessing MFIs.

“A” category classification generally indicates an MFI with strong financial performance in all of the key areas analyzed. Such performance has been maintained over time and is a result of carefully developed policies and planning.
<table>
<thead>
<tr>
<th>Composite Alphabetical Rating</th>
<th>Description of Institution</th>
<th>Composite Numerical Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>MFI exhibits superior performance in every area examined. It is resistant to the peaks and valleys of the business cycle and the impact of unforeseen circumstances.</td>
<td>4.6-5.0</td>
</tr>
<tr>
<td>AA</td>
<td>An institution that in general terms is considered excellent but scored lower in some variables.</td>
<td>4.3-4.59</td>
</tr>
<tr>
<td>A</td>
<td>A good institution with some minor weaknesses that lower the score.</td>
<td>4.0-4.29</td>
</tr>
<tr>
<td>BBB</td>
<td>An MFI that needs to make certain adjustments in the management of its resources without which a risk is posed to its longer term financial performance.</td>
<td>3.67-3.99</td>
</tr>
<tr>
<td>BB</td>
<td>The MFI is weak in financial administration and operational efficiency, areas that are correctable within the normal development of business.</td>
<td>3.33-3.66</td>
</tr>
<tr>
<td>B</td>
<td>The MFI is experiencing basic problems in the management of its financial resources and in its growth and efficiency.</td>
<td>3.0-3.32</td>
</tr>
</tbody>
</table>

“**B**" category classification may be applied to institutions undergoing a difficult period which is negatively impacting their normally strong financial condition.

<table>
<thead>
<tr>
<th>Composite Alphabetical Rating</th>
<th>Description of Institution</th>
<th>Composite Numerical Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBB</td>
<td>An MFI that needs to make certain adjustments in the management of its resources without which a risk is posed to its longer term financial performance.</td>
<td>3.67-3.99</td>
</tr>
<tr>
<td>BB</td>
<td>The MFI is weak in financial administration and operational efficiency, areas that are correctable within the normal development of business.</td>
<td>3.33-3.66</td>
</tr>
<tr>
<td>B</td>
<td>The MFI is experiencing basic problems in the management of its financial resources and in its growth and efficiency.</td>
<td>3.0-3.32</td>
</tr>
</tbody>
</table>

“**C**” category classification generally indicates an MFI experiencing fundamental problems administering its credit program, with basic weaknesses in various key indicators. Such an MFI requires basic technical assistance to overcome immediate problems and to survive without financial help. Nonetheless, the institution has a high probability of success with focused support in those areas of weakness identified by the CAMEL. The MFIs’ weaknesses do not promote losses that threaten the viability of the institution as long as it receives external subsidies. Aggregate points received are between 2.0 and 2.9.

“**D**” category classification indicates an MFI that should not be operating a credit program. It is highly likely that the institution is suffering severe losses and requires fundamental change in management to recover even with the availability of fresh funds. Aggregate points received are between 0 and 1.9.

“**NC**” (Not Rated) category classification is given where it becomes impossible to assess the institution due to a lack of basic operational information or because the MFI has not embraced the most minimal characteristics of an acceptable credit program.

With the overview of the history, objectives and CAMEL instrument presented, we will focus on several areas in the following sections. Section II will detail the specific evolution
of the CAMEL from its original format to the current instrument used by ACCION. Section III is an in depth presentation of the Adjusted Financial Statements and the 21 key indicators. Section IV presents the application of the instrument. Section V is an analysis of the ACCION database using illustrative composite examples. Section VI and VII present the lessons learned and challenges, respectively.
II. EVOLUTION OF THE INSTRUMENT

How the ACCION CAMEL Differs from the Original CAMEL

Since 1978 the U.S. Federal Reserve Banks, the Office of the Comptroller of the Currency, the Office of Thrift Supervision, the Credit Union Administration, and the Federal Deposit Insurance Corporation have used CAMEL for rating the financial solvency of the institutions under their supervision. Their examination is based on financial information as well as interviews with management.

No comparable matrix (specific indicators carrying specific weights, as outlined in Table 2, p. ***) to the ACCION CAMEL exists for the original CAMEL. Although the concepts under examination are clearly stated in the Examiners Manual of the original CAMEL for each of the five categories (capital adequacy, asset quality, management, earnings and liquidity) there is no matrix that outlines (1) the formulas or specific qualitative criteria to be used for each of the five areas under examination, (2) ranges for each of the ratios or qualitative criteria chosen, and (3) the respective weights in the composite ratio of the quantitative or qualitative criteria under examination. Uniformity in its application, is achieved by established review committees and through use of peer group comparisons. Thus, the examiner has a great deal of flexibility in the application of the original CAMEL.

This flexibility cannot be replicated in the ACCION CAMEL because of the lack of readily available and comparable information in the microfinance industry at this point in time and because of the emphasis in ensuring objectivity in its application. The latter was important because of the uncertainty at first in terms of who would apply the instrument (ever changing team members within ACCION, an external firm hired for this purpose, a mix of ACCION staff and outside personnel). Thus, the ACCION CAMEL Manual includes selected quantitative and qualitative ratios and criteria and provides ranges for each, allowing the examiner to classify the results obtained according to these specific guidelines.

The targets for each of the indicators included in the ACCION CAMEL were developed by taking into consideration the following factors: (1) performance of formal financial institutions, (2) theoretical conclusions about a given indicator, and (3) performance of the ACCION network and of microfinance institutions outside the network for which data was available. For example, in setting the range for return on equity, ACCION looked at the comparable rate in the formal financial system because, unless this rate is achieved, we cannot expect to attract investors to microfinance. The leverage ranges come about as a result of a theoretical analysis of what the level of indebtedness should be for a microfinance institution, as compared to a formal financial institution, given the unique characteristics of microlending. Once these two ranges are defined, the return on assets calculation becomes a given and is tested against reality by comparing it to the return on assets range achieved by ACCION and non-ACCION affiliates. In contrast, in the original CAMEL, the ratios that the examiner chooses to evaluate are compared to financial ratios of that institution’s peer group that are updated on a regular basis. The peer group is determined based on the institution’s asset size, the number of domestic branches, and whether it operates in a metropolitan area.

In the original CAMEL, the rating is a function of three factors: (1) the institution’s standing relative to its peer group, (2) the trends observed for the institution in question, and (3) “best practices” for the industry. The examiner applying the original CAMEL uses his or her discretion in weighing these three aspects for any given rating. If for example, the entire peer group is suffering from poor asset quality because of a recessionary environment, those who have fared best and are therefore within the highest percentile for their peer group, would still not be given a high asset quality ranking. In this example, the peer group data serves to inform the examiner in terms of the impact of the recession vis-à-
vis asset quality. Like the ACCION CAMEL, trends are also taken into account when assigning a rating by U.S. examiners applying the original CAMEL. That is, if two institutions have the same asset quality at a given point in time but one shows a clear negative trend in this indicator, the institution with the marked negative trend will receive a lower rating. The U.S. examiners give a composite CAMEL rating between 1 and 5, with 1 being the highest rating and 5 the lowest. No specified weighting is given to each of the five areas under examination to arrive at the composite rating. Up to now, the ACCION CAMEL has been ranking institutions in the reverse manner, with 5 being the highest rating possible. The interpretations of the five rating categories given by U.S. examiners coincide with that of the ACCION CAMEL; for example, the U.S. Examiner’s CAMEL Manual describes the highest rating as reflecting an institution that is sound in every respect and that is resistant to external economic and financial disturbances.

It is interesting to point out that although the ACCION CAMEL is almost equally divided between quantitative and qualitative components, the original CAMEL seems to be more quantitative than the ACCION CAMEL. Approximately 70% of the indicators that make up the composite rating for the original CAMEL are quantitative. The greater emphasis on qualitative indicators in the ACCION CAMEL, as compared to the original CAMEL, goes back to the instrument’s purpose, as discussed earlier. The ACCION CAMEL was designed to serve as a guide, a road map to microfinance institutions seeking to become formal financial intermediaries. Thus, many of the qualitative components of the CAMEL rating outline the types of practices (i.e., audit practices, portfolio classification, business planning, etc.) that need to be in place if the institution is to become a successful financial intermediary.

Revising the ACCION CAMEL

Since designing the CAMEL for use with microfinance institutions, ACCION has sought to improve the instrument’s ability to accurately reflect the financial strengths and weaknesses of the institution in light of the requirements for successful financial intermediation. The experience gained by ACCION in the application of CAMEL has been key in this revision process. Changes have been made to make the financial information as comparable as possible across institutions and to adequately capture strengths and weaknesses of a given institution by selecting the appropriate indicators or qualitative criteria and assigning them appropriate weights within the composite ranking.

The revision process included those involved in the CAMEL’s design and application. This group discussed the shortcomings encountered and arrived at solutions to the problems identified. Though changes should become less frequent, further adjustments will be made as the field of microfinance continues to evolve and as ACCION accumulates additional experience and information in this area. For example, as mentioned earlier, we are currently analyzing how to make the CAMEL instrument more forward looking, how to capture the manner in which the microfinance institutions are responding to the much more competitive environment that currently exists in the microfinance field in order to assess how their future financial viability might be affected. Also, we are evaluating changes to the CAMEL instrument that would more specifically address the issue of governance, as well as give it more importance in the overall weighting. The exchange of ideas with the affiliates combined with their patience and flexibility with a changing yardstick has been a key ingredient in the revision process. The changes made to date fall into several areas:

1. additional adjustments to the financial statements in order to make statements more comparable across institutions;
2. changes with respect to the extent of due diligence performed by the CAMEL team;
3. adding and substituting quantitative and qualitative indicators that complement or substitute what is already in the CAMEL in measuring a given aspect of the microfinance institution’s performance;
4. refining the ranges used to assign ratings under a given indicator;
5. changing the weightings given to individual indicators;
6. clarifying the narrative analysis in the CAMEL Manual; and
7. changing the presentation process of the ACCION CAMEL results.

Two major comprehensive revision processes have been completed. The first of the two occurred in early 1994, after three pilot CAMELs were conducted.\(^\text{10}\) The following changes emerged from this early review process. First was the addition of a review of a statistically significant sample of credit files from an institution’s main and branch offices. The principal purpose of the review of credit files is to ascertain the extent to which the portfolio might include rescheduled and refinanced loans.\(^\text{11}\) Also, the examiner is interested in understanding the type of financial analysis done for the various types and sizes of loans and the uniformity of application of this analysis across branches. A second significant change involved the key indicator used for measuring capital adequacy, which resulted in much narrower ranges, reflecting a more conservative view of the extent to which microfinance institutions should leverage themselves.

The second revision of the CAMEL occurred in the end of 1996. Eight major changes were made.

1. An additional adjustment to the financial statements was included which focused on the accrual of interest income.
2. More specific standards were applied for measuring the adequacy of an institution’s loan loss reserves that took into account its aging schedule. Differences between the CAMEL adjusted reserve levels and actual levels were reflected in the Income Statement and Balance Sheet as an additional adjustment.
3. The qualitative criteria under the area of Management was refined in order to more accurately assess the quality of an institution’s human resources.
4. The ranges for profitability indicators were made more aggressive.
5. A quantitative indicator was substituted to better measure liquidity management.
6. Changes were made to the weights given to certain indicators to better reflect the risks associated with microfinance institutions.
7. The definition of Portfolio at Risk was tightened to better reflect lending risk. The number of days past due for inclusion under this category was reduced from 90 to 30 days.
8. The comments to the CAMEL report of the institution being evaluated are now attached and, where appropriate, incorporated into the final CAMEL report provided they are given to the Team within a specified time period.

---

\(^{10}\) This initial data from the pilot CAMELs are not included in the ACCION database due to the incomplete nature of the results.

\(^{11}\) A refinanced loan refers to the disbursement of additional monies prior to the full repayment of the original loan. In contrast, a rescheduled loan involves extending the tenor of the facility and/or adjusting the interest rate on the loan prior to full loan repayment.
III. COMPONENTS OF THE CAMEL

In this Section, the two components of the CAMEL instrument are presented in greater detail: the CAMEL adjusted financial statements and the CAMEL Manual.

CAMEL Adjusted Financial Statements and Programmatic Information

The financial statements are presented based on a standard CAMEL format (see Appendix II) on an “adjusted basis.” The need to adjust the microfinance institution’s statements arises because many microfinance institutions (1) are operating in inflationary environments but inflation adjustments are not necessarily required under local accounting regulations, (2) are not regulated financial institutions and therefore have a great deal of discretion in areas such as write-off policies, provisioning policies, accruing interest on loans, and so on, and (3) are the recipients of significant subsidies. In order to more accurately reflect the financial performance of microfinance institutions and allow for comparability, it is essential to adjust their financial statements.\(^{12}\)

The six principal adjustments to the Balance Sheet and Income Statement are summarized next.\(^ {13}\) These adjustments are made to the historical financial statements that are presented both in nominal and constant local currency terms. Up to now, the ACCION CAMEL has included five years of audited financial statements plus the most recent interim statements, analyzed in relation to the comparable cut-off date 12 months earlier. ACCION is considering revising this requirement to include only three years of historical financials plus the most recent statements. This would reduce the time required to input data and make adjustments without significantly sacrificing the quality of the analysis.

Adjustments to Financial Statements:

1. **Scope Adjustment:** The CAMEL analysis segregates the microfinance operation from other businesses or activities carried out by the institution under examination. Activities such as health care programs, for example, would be segregated from the Balance Sheet and Income Statement of the microfinance operation but training of microentrepreneurs would be included if it is linked to lending. When the nonmicrofinance activities carried out by the institution are significant, the CAMEL examiners calculate a rating for the microfinance operation alone plus a rating for the institution as a whole.

2. **Inflation Adjustment:** This is done to account for the effects of inflation on the value of nonfinancial assets and liabilities as well as equity. The adjustment consists of recognizing the increase in the value of fixed assets (and nonfinancial liabilities,  

\(^{12}\) A much more detailed discussion on adjustments to a microfinance institution’s financial statements can be found in *Banking Services for the Poor: Managing for Financial Success* by Robert Peck Christen, a 1997 ACCION International publication. Christen gives examples that illustrate why these adjustments are necessary and offers a step-by-step explanation of how these adjustments are reflected in the financial statements. The IDB’s *1994 Technical Guide for the Analysis of Microenterprise Finance Institutions* is also useful in understanding adjustments to the financial statements of microfinance institutions.\(^ {13}\) If local accounting regulations differ from the CAMEL adjustments, CAMEL will still adjust the statements to reflect the same standards across microfinance institutions. For example, where provisioning policies are more liberal, CAMEL makes adjustments to the statements to ensure appropriate provisioning for this sector. Moreover, if the inflation adjustment is based on devaluation, which happens to be lower than inflation, the statements are adjusted to reflect the difference between the two.
if the institution has these) on the institution’s balance sheet by the percent of inflation and making the corresponding adjustment in the income statement as Inflation Adjustment Income. Equity’s exposure to inflation, which results in a cost to the institution, is reflected in the income statement as an expense entitled Inflation Adjustment, which flows through to the capital accounts via retained earnings. The corresponding entry in the balance sheet is an increase in the value of another capital account called Accumulated Inflation Adjustment.

3. **Subsidy Adjustment**: These adjustments take into account explicit as well as implicit subsidies. Explicit subsidies consist of donations to cover operating expenses and implicit subsidies consist of items such as below-market rate loans and in-kind donations (e.g., rent-free facilities, donated computers, vehicles, and the like). Explicit subsidies continue to appear in the Income Statement but are shown “below the line.” That is, they are considered nonoperating income and as such are excluded from the calculation of ACCION CAMEL ratios. The implicit subsidy requires that the analyst show as an additional expense the difference between the market price of the service, facility, or loan obtained by the institution and the rate that it actually pays. Thus, operating expense and/or interest expense would increase by the difference between the market rate and the subsidized rate. On the Balance Sheet, the subsidy adjustments appear as an Accumulated Capital Account. Thus, the decreased operating profit from increases to expenses is offset by the Accumulated Capital Account, but the profitability ratios clearly reflect the reduced profits due to explicit and implicit subsidies.

4. **Adjustments to Write-offs**: The default rate for a given institution is often understated because loans are not necessarily written off when they become past due over a certain number of days. Thus, when calculating this indicator the analyst determines what loans should have been written off, assuming that as a minimum loans over 180 days past due plus those in legal recovery should be considered lost. The analyst examines the aging schedule to determine the extent of loans past due over 180 days plus those in legal recovery and then writes these off in relation to the “relevant portfolio” or the portfolio outstanding when these loans were disbursed. The “relevant” portfolio is an approximation which takes into account the average loan tenor and relates write-offs to a 12-month loan portfolio average ending x months prior to the date of the aging schedule, where x is the average loan tenor. (e.g., 6 months.)

5. **Loan Loss Provisions**: These also need to be analyzed and adjusted when they do not reflect the level of risk in the loan portfolio. The examiner reviews the aging portfolio of the institution and determines the appropriate provision by applying a set percentage for each of the categories of the aged portfolio. The percentage to be provisioned is higher if the institution has undertaken significant refinancing or rescheduling of its loan portfolio. If the institution’s loan loss provision is different from the CAMEL adjusted loan loss provision, as per a set table that relates provisions to the aging of the portfolio (discussed later under Capital Adequacy), the difference is shown in the Profit and Loss Statement and in the Balance Sheet.

6. **Adjustment for Accrued Interest Income**: This adjustment eliminates interest income accrued from the Income Statement and Balance Sheet. Although theoretically, only the accrued interest income on past due loans after a certain period (e.g., 90 days) should be excluded, the effort to determine the portion that applies to the past due portfolio is large in relation to the small gain in accuracy that would result.

Besides the Adjusted Balance Sheet and Income Statement, the analyst prepares a spreadsheet with programmatic information (Appendix III) that captures, for the same historical period as the financial statements, the numbers of active clients, active solidarity groups, branches, staff, employees who have left, loan officers, number of loans, inflation rate, exchange rate, local interest rates, and so on.
Once the above six adjustments are made to the Income Statement and Balance Sheet, the financial ratios that compose the quantitative indicators of the ACCION CAMEL are generated and rated as discussed in Section I. Summaries of the 21 indicators, presented by category (C-A-M-E-L) are given below. For each of these indicators, a description is provided in Table 4 of the qualitative criteria or definition of the quantitative range that would result in the highest rating. These maximum ranges and descriptions of qualitative criteria serve as a road map to those microfinance institutions seeking the AAA rating as a means of intermediating funds and ultimately of reaching the microenterprise sector on a massive scale.

**The CAMEL MANUAL**
The Manual provides (1) an explanation of each of the five areas measured by CAMEL, including both the qualitative and quantitative indicators, (2) ranges or descriptive information

<table>
<thead>
<tr>
<th>Key Indicators</th>
<th>Range/Criteria for Maximum Rating (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capital Adequacy</strong></td>
<td></td>
</tr>
<tr>
<td>1. Capital Adequacy</td>
<td>Risk Assets/Equity ≤ 6</td>
</tr>
<tr>
<td>2. Ability to Raise Additional Equity</td>
<td>The institution has a clear policy of capitalization that combines increased funds with either the ability to obtain donations from the private sector non-profit or for-profit institution, respectively.</td>
</tr>
<tr>
<td>3. Reserve Adequacy</td>
<td>Actual Loan Loss Reserve/ CAMEL Adjusted Loan Loss Reserve = 80% have been created in other areas that require provisioning.</td>
</tr>
<tr>
<td><strong>Asset Quality</strong></td>
<td></td>
</tr>
<tr>
<td>4. Portfolio at Risk</td>
<td>(Balance of Past Due Loans over 30 Days) + (Loans in Legal Recovery)</td>
</tr>
<tr>
<td>5. Write-offs</td>
<td>Net Write-Offs/Active Loan Portfolio of the Period≤2%</td>
</tr>
<tr>
<td>6. Portfolio Classification System</td>
<td>A loan classification system that incorporates information beyond delinquency.</td>
</tr>
<tr>
<td>7. Productivity of Long-Term Assets</td>
<td>Plans for and evaluates the acquisition of long term assets so as to optimize their productivity.</td>
</tr>
<tr>
<td>8. Infrastructure</td>
<td>The infrastructure maximizes the efforts of the staff, especially in the area of security in all regards, and includes offices that allow for comfortable client service.</td>
</tr>
<tr>
<td><strong>Management</strong></td>
<td></td>
</tr>
<tr>
<td>9. Human Resource Policy</td>
<td>Demonstrates special attention to the management of human resources through a Department of Human Resources with defined and documented strategies, documented hiring procedures, diversified training programs, efficient and established performance evaluation procedures and comprehensive personnel administration policies.</td>
</tr>
<tr>
<td>10. Management</td>
<td>The management team has the requisite professional skills and degree of functions in a cohesive fashion. Their responsibilities are clear and known throughout the organization. Decisions are taken on at timely basis and are based on necessary skills, provides supervision and vision.</td>
</tr>
<tr>
<td>Key Indicators</td>
<td>Range/Criteria for Maximum Rating (5)</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>11. Management Information System</td>
<td>Has a computerized MIS which not only provides all the necessary information for daily operations and general strategic planning, but is also flexible enough to handle new requests, data and addresses control and security issues.</td>
</tr>
<tr>
<td>12. Internal Control &amp; Auditing</td>
<td>Has an internal auditing department, current and complete policy and procedures manuals, a strong external audit, and demonstrates stringent control of financial, administrative and operations.</td>
</tr>
<tr>
<td>13. Strategic Planning and Budgeting</td>
<td>Produces short and long term projections using technical criteria, that are thorough and precise and have been generated through a participatory process. In addition, the institution plans and conducts a monthly review with the Board of Directors.</td>
</tr>
<tr>
<td><strong>Earnings</strong></td>
<td></td>
</tr>
<tr>
<td>14. Return on Equity</td>
<td>Net income from operations/Average Equity ≥ 15%</td>
</tr>
<tr>
<td>15. Operational Efficiency</td>
<td>Operational Expenses/Average Loan Portfolio ≤ 20%</td>
</tr>
<tr>
<td>16. Return on Assets</td>
<td>Net Income from operations/Average Assets ≥ 2%</td>
</tr>
<tr>
<td>17. Interest Rate Policy</td>
<td>Sets its interest rate based on an analysis of market rates and its cost structure.</td>
</tr>
<tr>
<td><strong>Liquidity</strong></td>
<td></td>
</tr>
<tr>
<td>18. Productivity of Other Current Assets</td>
<td>Average Monthly Cash + Cash equivalent Balances - “liquidity cushion” containing interest in savings - interest in equivalent accounts &lt; 0.99</td>
</tr>
<tr>
<td>19. Composition of Liability</td>
<td>Operates with a clear strategy to both diversify its sources of funds and the potential for significant expansion of its relationships with the financial sector.</td>
</tr>
<tr>
<td>20. Availability of Funds to Meet Credit Demand</td>
<td>Exhibits efficient and timely disbursement of credit.</td>
</tr>
<tr>
<td>21. Cash Flow Projections</td>
<td>Prepares cash flow projections with rigor and accuracy for 30, 90 and 180 days, and they are easily replicable.</td>
</tr>
</tbody>
</table>

* Liquidity cushion: (Operating expenses + financial expenses - depreciation + loan disbursements - loan repayments) / 52² 2.
that allow the examiner to give the institution a classification of between 0 and 5, with 5 being the highest, and (3) weightings for each indicator within the composite.

**CAPITAL ADEQUACY**

*Two quantitative indicators:* Leverage (5%), Reserve Adequacy(5%)

*One qualitative indicator:* Ability to Raise Additional Equity(5%)

The principal objective of this area of the CAMEL is to assess whether the institution’s capital, in general, and the reserves in particular, are adequate to maintain financial solvency given operations. Also analyzed is the institution’s capacity to raise additional funds if needed.

**Leverage (Quantitative) = Risk Assets/Equity**

The leverage indicator is calculated by using a risk-weighted asset system. To determine the risk-weighting of assets, the CAMEL applies the following weights to these asset categories, reflecting the level of risk associated with each: cash (0%), net portfolio (100%), fixed assets (50%). Once the risk weighting is calculated, the resulting number is divided by the equity of the institution.

Traditional commercial banks generally operate within a parameter of Risk Assets/Equity of about 12.5 times. This is the maximum figure recommended by the international Basle Committee on Banking Regulations and Supervisory Practices, which has been adopted by Superintendencies in many countries. Several reasons exist, however, to support the argument that maximum leverage for microfinance institutions should be lower than the recommended level for commercial banks. First, although delinquency rates for a microfinance institution can be better than for traditional banks, the volatility of this rate is much greater in the microfinance sector. Second, as R. Christen notes in *Banking Services for the Poor*, the loan loss expense plus administrative costs as a percent of assets are much higher for an MFI than for a traditional bank. When management loses control in these areas, which could happen when faced with a rapidly changing macroeconomic environment, the resulting increase in these ratios would generate significant losses in relation to equity. Third, the ability of microfinance institutions to obtain additional funding from shareholders or donors, in the case of NGOs, is much more restricted than for a traditional financial institution. Even in the case of private sector microfinance institutions, the latter do not yet have the broad base participation of the private sector that allows for a quick response in recapitalizing an institution in times of crisis. Initial suggestions from experts in the field of microenterprise are to allow MFIs to leverage 5 to 8 times their equity base, rather than the 12.5 times recommended by Basle for commercial banks.

**Ability to Raise Additional Equity (Qualitative)**

The principal objective of this indicator is to assess management’s vision and strategy with respect to the institution’s capitalization, especially if the institution is projecting significant growth. This indicator looks not only at the institution’s ability to support growth over time but also at its ability to react to a crisis that might require a significant and quick infusion of

---

14 The percentage shows the weighting that the indicator carries within the overall CAMEL rating. See Table 1.

equity, beyond internally generated funds. In the latter case, the institutions ability to raise
donations from the private sector or to issue stock, depending on the MFI’s legal structure,
is assessed.

Reserve Adequacy (Quantitative) = Actual Loan Loss Reserve/ CAMEL Adjusted Loan Loss Reserve

The purpose of this indicator is to determine if the institution has created the necessary loan loss reserves to absorb future portfolio losses and if policies are in place to adequately manage these reserves. This quantitative indicator has been designed for the loan loss reserve of a microfinance institution, but the analyst should also assess the sufficiency of other reserves that might be necessary in the institution. For example, a foreign exchange reserve might be necessary if the institution has foreign exchange exposure.

To analyze the adequacy of loan loss reserves, the examiner considers the following factors: adjusted historic loss rate (as described under Adjustments), percent of loans refinanced or rescheduled and the current aging of the loan portfolio. If the adjusted loss rate for the previous year is up to 8%, then the following percentages (shown under column 1 below) are applied to the past due portfolio in order to arrive at the appropriate loan loss reserve level. If, however, the institution’s refinanced and/or rescheduled loan portfolio is above 10% of its outstanding portfolio and this portfolio’s delinquency is “erased” when loans are rescheduled and/or refinanced, the refinanced and rescheduled portfolio is provisioned according to the percentages shown under column 2 below:

<table>
<thead>
<tr>
<th>Number of Days Past Due</th>
<th>% of Provision to o/s Loan Portfolio if loss rate is up to 8% (1)</th>
<th>% of Provision to o/s Loan Portfolio if the institution has repeatedly carried out loan restructuring or refinancing (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>1-30</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>31-90</td>
<td>30</td>
<td>75</td>
</tr>
<tr>
<td>91-180</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>&gt;180</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

These guidelines will yield an amount that the CAMEL considers “appropriate” to cover anticipated losses. The examiner compares the adjusted percentage, as per the above calculation, to the amount the institution has actually provisioned to determine the rating.

ASSET QUALITY

Two quantitative indicators: Portfolio at Risk(8%), Write-offs(7%)

Three qualitative indicators: Portfolio Classification System(3%), Productivity of Long-term Assets(1.5%), and Infrastructure(1.5%).

The asset quality of a microfinance institution essentially measures the ability of the institution to collect on the loans it has made to the microenterprise sector. In other words,

16 The loan loss rate for the 11 ACCION affiliates for which data is analyzed in this discussion paper has ranged from .08% to 8%p.a., with an average of 2.73% p.a. See Section V under Asset Quality.
it is the quality of the delivery and administration of the loan methodology, the basic business of the institution. In this case, whatever the organizational form of the institution that administers a microcredit program—NGO, commercial bank, credit cooperative—the analysis in this area should be the same.

The analysis of Asset Quality falls into three principal areas: portfolio quality, productivity of long-term assets, and infrastructure.

**Portfolio at Risk (Quantitative)**

\[
\text{Portfolio at Risk (Quantitative)} = \frac{\text{Balance of Loans Past Due > 30 Days} + \text{Loans in Legal Recovery}}{\text{Active Loan Portfolio}}
\]

The portfolio at risk is comprised of the outstanding loan balance on which payment is delinquent. The latter is the measure used by regulated financial institutions, but microfinance institutions have typically presented the quality of their assets by comparing the value of past-due payments only (without including the loan balance that has yet to come due) in relation to the outstanding loan portfolio. This measure of asset quality, however, underestimates potential portfolio losses, especially if an institution is in a high growth cycle.

The CAMEL portfolio at risk indicator is the ratio of the balance of loans on which a payment has not been received for 30 days or more plus those loans in legal recovery, to the total active loan portfolio. If there is massive or repetitive refinancing (over 10% of outstanding portfolio) where delinquency is “erased” from the portfolio upon rescheduling or refinancing, that portion of the portfolio is added into the numerator of the ratio. If, however, the institution has effected massive refinancing for a specific external cause such as a general economic recession, the examiner uses only that portion of the refinanced/rescheduled portfolio past due more than one day to calculate Portfolio at Risk.

**Write-offs (Quantitative)**

\[
\text{Write-offs (Quantitative)} = \frac{\text{Net Write-Offs}}{\text{Active Loan Portfolio of the Period}}
\]

The second key indicator of the quality of the assets is the loss or write-off rate. This requires that the examiner perform the analysis detailed under Adjustments in Section III. That is, the write-off rate is calculated by the analyst by looking at the aging of the portfolio and determining the extent of the loans that should have been written off, those over 180 days past due plus loans in legal recovery as a minimum. Other loans that the institution has written off because it deems the loan uncollectible (for example in the case of death of the borrower), regardless of the days past due should also be included. The analyst also estimates when these loans should have been written off and adjusts the financials to reflect this. Thus, the ratio calculated reflects portfolio write-offs in relation to the “relevant” portfolio; that is, in relation to when these loans were disbursed.

The examiner also assesses the collection procedures of the institution as well as its commitment to recovering past due loans or the “culture of collection.” The examiner can lower the rating given for write-offs by as much as one point if this qualitative aspect is deemed inadequate or where the institution has no write-off policy.

**Portfolio Classification System (Qualitative)**

The basic objective of all portfolio classification frameworks is to estimate the potential losses due to unrecoverable loans. The CAMEL instrument analyzes the loan classification system used by the institution to determine whether it has been effective in predicting future losses.

Banks and bank regulators use various factors in addition to delinquency to achieve this objective, including nature of collateral, credit history of client, type of loan, and industry trends that could affect a client’s potential to repay. Loans to borrowers who may have some weaknesses in their financial condition but are still making payments on time would be classified as “watch” loans or “B” loans by formal financial institutions rather than as
“current.” Detecting weaknesses in a borrower’s ability to repay and placing that loan in a different category enables the institution to more closely monitor the borrower’s ongoing financial condition and performance. Exclusive dependence on delinquency without the use of additional variables may result in an inadequate classification.

In addition to delinquency, the loan classification system in a microcredit institution might classify loans by identifying refinanced loans, individual and group loans, industry sector of the loan pool, loan type (fixed asset vs. working capital), loan size, and guaranteed versus nonguaranteed loans.

Productivity of Long-term Assets (Qualitative)

This indicator analyzes those assets that are not directly related to the MFI’s daily business operations but still have an impact on the financial state of the institution. Among others, these include fixed assets, furniture, and permanent investments. The examiner reviews the policies regarding these assets and assesses whether the MFI’s decision to acquire them was appropriate, including the manner in which the purchase was financed, and if these assets are being used effectively.

Infrastructure (Qualitative)

This indicator makes an assessment of the physical space of the institution. In many cases, especially when NGOs with limited funds are administering the credit program, the physical work space is deficient and requires basic improvements to maximize the productivity of the institution’s human resources. Accessibility of the office for the institution’s clients is also a factor that is taken into account.

MANAGEMENT

Five qualitative indicators: Human Resource Policy(4%), Management(5%), Management Information System(5%), Internal Control & Auditing(4%), Strategic Planning and Budgeting(4%)

As is reflected in the CAMEL weighting, after Earnings (25%), Management is the key area (22%) for those institutions that want to achieve significant growth in the coverage of their target market. Often among NGO microfinance institutions, there is a real or perceived lack of resources dedicated to hiring personnel with the requisite financial skills, as well as to implementing formal planning and financial administration processes. But, only those institutions that have recognized the need to compete in the market for highly capable personnel and to formalize management processes have grown significantly without internal crisis.

Human Resource Policy (Qualitative Indicator)

Management of human resources in an institution is carried out by each and every individual with supervisory responsibility. One of the most important functions of the Department of Human Resources (or comparable entity) is to provide guidance and support to the operations staff. This guidance should be clearly defined and directly related to the organizational objectives. The CAMEL evaluates a detailed listing of component parts of human resource management policy, including aspects such as hiring and orientation procedures, the institution’s compensation system, performance evaluation systems, and so on, to determine the rating.

Management (Qualitative Indicator)

Although management is reflected in all aspects of the institution, this indicator specifically assesses the management team. Effective management of an organization occurs where
there is a clear vision and mission, as well as strategies for their achievement. The consolidation of a senior management team is one of the most apparent characteristics of a successful institution. Members of this team should possess the requisite qualification for the responsibilities assumed, the requisite commitment to their work and be empowered to flexibly and effectively make decisions based on technical criteria.

Management styles naturally vary and the CAMEL criteria are not based on any particular management model. The CAMEL does, however, look for evidence of mutual feedback among all levels of the organization. Effective upward and downward communication is considered an essential component of a successful microfinance institution, especially given the decentralized nature of the work that requires open and direct interaction with the client.

The Board of Directors is also evaluated using criteria such as the profile of the members, degree of commitment to their role, technical expertise, connections, and personal resources.

Management Information System (Qualitative)

A good management information system is key to the successful management of an institution’s loan portfolio. The CAMEL examines all periodic reports produced for management to assess the quality and availability of data. CAMEL also considers the flexibility of the MIS to respond with ease and minimal cost to the information requests that will continually increase as the institution grows as well as the extent to which security issues have been addressed in the design of the MIS. The MIS should be able to produce the information required by the CAMEL Financial Model.

Internal Control and Audit (Qualitative)

A major step in the evolution of a successful microfinance institution is the development of formal internal control procedures. But because of budgetary constraints MFIs rarely take the time or resources to develop adequate procedures of internal audit and control.

The examiner assesses the institution’s commitment to all areas of control by verifying the existence and application of up-to-date manuals and procedures. The Management Letters that accompany the external audit also provide important details on existing and potential weaknesses in internal control. The examiner reviews the history of fraud in the organization, its magnitude and frequency, as a measure of the effectiveness and evolution of the institution’s internal control procedures. Finally, CAMEL conducts a systems audit to compare various MIS reports to ensure consistency.

Strategic Planning and Budgeting (Qualitative)

An adequate strategic planning and budgeting system allows an institution to achieve its financial goals with a minimum of pitfalls. This requires that budgets be compared to actual performance and that a Business Plan be in place as a tool for long-term planning. The participation of staff at all levels in this process will assist in developing short and long-term projections that are comprehensive, in terms of the factors taken into consideration, and that are precise.

EARNINGS

Three quantitative indicators: Return on Equity (5%), Operational Efficiency (8%), Return on Assets (8%)

One qualitative indicators: Interest Rate Policy (4%)
The ability to generate earnings is a basic prerequisite for any microfinance institution carrying out financial intermediation. Without the assurance that the MFI is viable in the long run, depositors and shareholders will not be willing to put their funds at risk. As in the area of Asset Quality, the Earnings of an institution are essentially measured using quantitative indicators. In addition to the quantitative indicators, the examiner looks at the operational and interest rate risks that the institution faces. Operational risk is the risk that an institution will incur losses due to a lack of expense control that arises from a breakdown in its administrative systems. Interest rate risk is the risk that the institution’s financial margin is inadequate to cover its expenses due to changes in market interest rates.

The following Earnings indicators are calculated based on earnings from operations that exclude donations and have been adjusted for provisions, inflation, subsidized debt, and accrued interest income.

*Return on Equity (Quantitative) = Net income from operations/Average Equity*

The Return on Equity ratio measures in real terms (or after having adjusted the statements for inflation) the increase or decrease in capital resulting from the operations of the period. A real rate of 0% return on equity means that the MFI is at its point of equilibrium. Banks in Latin America can post returns on equity of 10 to 25% on a good year, while finance companies typically have annual returns on equity greater than 25%.

*Operational Efficiency (Quantitative) = Operational Expenses /Average Loan Portfolio*

Operational Efficiency is possibly the most important indicator after the Portfolio at Risk indicator. More than profitability in itself, this indicator measures the institution’s level of efficiency. Because a microfinance institution’s portfolio is made up of very small loans as compared to that of commercial banks or finance companies this ratio will always be higher than the 3% to 4% that is typical of commercial banks or the 9% to 12% typical of finance companies.

Despite the culture of austerity within which many NGOs operate, resulting in low investment in human resources, a need for improved salaries and infrastructure, the gap in this ratio between most NGOs and traditional lending institutions is extremely large. If the MFI wishes to ensure that it will compete with formal sector institutions, it will have to search out greater efficiency.

There are several “supporting indicators” used in this area to better understand the institution’s operational efficiency. The examiner looks at the ratio of active clients to the number of employees and to the number of credit officers. Also, the client retention rate is analyzed to better understand whether this is a factor in the level of efficiency observed.

*Return on Assets (Quantitative) = Net income from operations/Average Assets*

The Return on Assets indicator reflects the institution’s earnings capacity and overall efficiency but, unlike the return on equity indicator, it is not a function of leverage. Given the assumption that maximum leverage should be lower in a microfinance institution as compared to commercial banks (see explanation under Capital Adequacy indicator, p. ***), MFIs will have to generate higher returns on assets in order to achieve returns on equity that are comparable to those of the commercial banking sector in order to attract private equity capital.

*Interest Rate Policy (Qualitative)*

The examiner discusses with management its policies regarding the interest rates charged on loans and, if applicable, interest rates charged on deposits. This indicator assesses whether the institution’s interest rate policies result from an ongoing review of prevailing interest rates.
market rates and an analysis of its cost of funds and financial margins. The examiner looks at past policies and interest rate structures to ascertain whether policies were actually put into practice.

LIQUIDITY

One quantitative indicator: Productivity of Other Current Assets (2%)

Three qualitative indicators: Liability Structure (8%), Availability of Funds to Meet Credit Demand (4%), and Cash Flow Projections (3%)

The analysis of Liquidity focuses on five areas: the ability to maximize the productivity of short-term assets (excluding the loan portfolio), the timely delivery of credit to the client, the current composition of liabilities, the capacity of the MFI to fund its planned growth, and the quality of cash flow projections.

Productivity of Other Current Assets (Quantitative) =

\[
1 - \frac{\text{interest income received on cash and cash equivalents}}{\left(\frac{\text{av. mthly cash} + \text{cash equivalent balances}}{\text{liq. cushion}}\right)^* \text{av. 6-mth CD rate}} + \left(\text{liq. cushion} * \text{av. savings rate}\right)
\]

The long formula outlined above, although intimidating at first glance, is conceptually very simple. It aims to measure whether the MFI maximizes the use of its cash, bank accounts and investments. This implies investing these assets in a timely fashion and at the highest returns, commensurate with liquidity needs. The examiner compares the interest earned on cash and cash equivalents to what the institution could have earned if it had invested the “liquidity cushion” component of these funds in a liquid investment and the balance in a more aggressive investment (six-month CDs). The institution is equally penalized if its liquidity management is too conservative or too aggressive.

Microfinance institutions often face obstacles in achieving the maximum productivity of their other current assets other than their loan portfolio. Donors may require that the MFI set up separate accounts by fund, or that it invest donor funds in a certain way. The local banking system may not be sufficiently developed to permit the MFI to manage its funds through a central account forcing it to open accounts in several branch offices. These restrictions can lead to passive behavior by MFI management with respect to maximizing these resources. Nevertheless, achieving the highest return possible on bank accounts and investments, commensurate with liquidity needs, can make an important contribution to earnings.

Composition of Liabilities (Qualitative)

The examiner will review the composition of the MFI’s liabilities including their tenor, interest rate, payment terms, and sensitivity to changes in the macroeconomic environment. The analysis looks at the types of guarantees required, the sources of credit available to the MFI, and the extent of diversification of these resources. The examiner also analyzes the MFI’s bank relationships in terms of leverage achieved based on guarantees, the level of credibility the institution has vis-à-vis the banking sector, and the ease with which it can obtain funds when required.

Availability of Funds to Meet Credit Demand (Qualitative)

\[18\]

“Liquidity cushion”: Taking the past 12-month period, the examiner calculates the following: (Operating expenses + financial expenses - depreciation + loan disbursements - loan repayments) / 52 * 2. This calculation estimates the funds required by the institution over a two-week period, under the assumption that this is the average duration of a liquidity crisis, requiring that the institution have the necessary liquidity on hand to cover expenses plus net disbursements.
Studies about loan delinquency show clearly that restrictions on credit are one of the principal causes of delinquency. When the MFI lacks the liquidity to disburse loan funds to clients who are complying with the terms and conditions of their current loans in the understanding that they will receive a new loan, it creates a strong disincentive for repayment. But microfinance NGOs generally suffer liquidity problems due to an excessive dependency on donor funds that may be delayed due to bureaucracy and/or inadequate planning of loan disbursements.

The analytical task of the CAMEL examiner is to determine whether the MFI has delivered credit in a timely and agile manner. The examiner analyzes whether the institution takes into account in its disbursement planning the effect of increases in loan sizes that typically accompany a renewal, the impact of seasonal demand, and the number of groups that are forming in any particular moment.

*Cash Flow Projections (Qualitative)*

In assessing this area, the examiner takes the cash flow projections for the next 12 months prepared by the microfinance institution to determine whether these have been prepared with sufficient detail and analytical rigor. The cash flow projections take into account loan disbursements and collections as well as all other cash expenditures and income over the coming months.

With the CAMEL instrument now detailed, the next section focuses on its application. It will look at four aspects: Level of effort of a CAMEL analysis, CAMEL team composition, Division of labor and the CAMEL Report.
IV. APPLICATION OF THE CAMEL INSTRUMENT

Level of Effort

ACCION intends that each institution in its Network undergo a CAMEL examination about every two years. The level of effort required to complete a CAMEL examination depends upon several variables. First is the level of complexity of the institution. Second is whether or not a CAMEL examination has previously been completed. Third is the extent to which the requisite financial performance information is readily available and provided on a timely basis.

A first-time CAMEL requires a team of three to four people including a team leader, plus two or three analysts. This team of ACCION staff generally requires 10 working days on site at the affiliate institution to gather, adjust, and analyze five years worth of financial and management information provided by the institution. In the case where a CAMEL has been previously completed, the team consists of three people working eight days on-site. This may be increased if significant changes were made in the institution’s management or methodology since the last CAMEL.

During its time at the institution, the Team completes several tasks:

1. gathers data and makes adjustments to it;
2. interviews staff and clients;
3. reviews policies and procedures; and
4. analyzes the information and determines the rating.

In the case of a first time CAMEL, the entire Team of three to four analysts would arrive simultaneously and collectively complete the above work (the specific division of labor is detailed below), but in the last few CAMELs ACCION has implemented a new approach in its application of CAMEL. One member of the Team has arrived at the institution one week in advance of the others to complete the first task. Not only does this allow ACCION to reduce its Team members to three; it has also allowed the Team to initiate its activities at a much more advanced point from the previous model. With the adjustments to the data already completed, the remaining tasks can be completed in significantly less time and hence at a lower cost.

A first-time CAMEL examination is paid for by ACCION.\textsuperscript{19} Using the old application in which the entire Team arrives together, the cost to ACCION of a first time CAMEL has been approximately U.S. $20,000. With the new approach, ACCION has been able to reduce the cost to about U.S. $15,000.\textsuperscript{20} The cost for each subsequent CAMEL is about U.S. $15,000 under the old approach and about U.S. $11,000 using the new approach.

Team Composition

ACCION and its affiliates initially believed that the CAMEL team should include individuals outside of ACCION. Because of the closeness of the technical assistance

\textsuperscript{19}For subsequent CAMELs, the local institution pays $5,000 of the costs incurred by ACCION International.

\textsuperscript{20} Included in the cost is all staff time (including fringe and overhead), travel, hotel, and meals for each team member. Staff time includes the time to prepare prior to the site visit, the time on site as well as the time required to generate the final report. The cost to the local institution, in terms of the time that the local staff spend in the various aspects of the CAMEL application already described, is not included in this calculation.
relationship between ACCION and its affiliates, it was perceived that the ACCION employees involved in CAMEL would not have the objectivity to dissect the inner workings of the institution. The first year CAMEL analyses included professionals from a premier international accounting and management consulting firm. The participation of these professionals external to ACCION was unsuccessful, however, because it lacked several important characteristics. First was an in-depth knowledge of microfinance. Second was a professional commitment to the task as it was deemed a lower priority in the broader portfolio of activities of the accounting and consulting firm. Third was the lack of permanence of these professionals in the CAMEL effort as they were rotated through different client projects.

Based on this unsuccessful experience, by 1994, ACCION made the decision to build up its internal CAMEL examination capacity so that the entire team would be ACCION staff. CAMELs are now conducted by a team of ACCION staff members only. There is a core CAMEL team, which consists of a team leader and two other experienced professionals whose primary responsibility is to the CAMEL. Additional operational staff members also join this core CAMEL team when needed.

Ideally, the makeup of skills required of a team encompasses several key areas, which include financial analysis, microcredit methodology, internal control and internal audit, organizational development and human resources, and management information systems (MIS). CAMEL team members with expertise in these areas are also knowledgeable of the broader context of microfinance. It is only with both sets of skills and experience that a team member adds the necessary value to the CAMEL assessment.

The level of experience of the examiner is an important contributor to the conclusions of the CAMEL. Although the CAMEL Manual clearly defines areas of analysis, procedures, required information, and rating criteria (ensuring standardized application), team members draw on their own experience in assessing microfinance institutions in integrating both the qualitative and quantitative indicators. The ability to take the information and impressions gathered during a CAMEL examination, organize and analyze this information, and adequately contextualize the results requires experience with a range of MFIs.

Division of Labor and Process

There are two dimensions to the division of labor in completing the first three tasks of the CAMEL as outlined above: the CAMEL Team effort and the institutional effort. (The process of determining the rating is completed by the Team only.) The institution receives a list of required information, which falls into several key areas including economic, financial, portfolio quality, accounting, human resource management, strategic planning and budgeting, and procedures and manuals. The ideal is for the institution to gather and send the quantitative information to the CAMEL team in advance, and to have already gathered the information required to assess qualitative indicators (e.g., personnel manual) in preparation for the Team’s arrival. As discussed in the Introduction, for a variety of reasons, this has not yet become a part of the process.

The next best option is for the institution to have this information ready for the CAMEL team’s arrival. It is because this second option is not always possible that ACCION made the decision to send a Team member in advance to support the quantitative information gathering process. It is only once this information is available that the CAMEL team is able to focus principally on the verification and analysis of the quantitative data, and on measuring the qualitative indicators through interviews and observations. The division of labor among the CAMEL Team is generally according to the following pattern.\(^{21}\)

---

\(^{21}\) Any remaining areas of analysis are distributed among the team for completion. An additional and tedious task shared by the Team is the review of client files.
<table>
<thead>
<tr>
<th>Team Member #1:</th>
<th>Gathers, inputs, and adjusts the quantitative information in the CAMEL Spreadsheets. Completes the analysis of one of the five main areas.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Member #2:</td>
<td>Completes one area of analysis plus additional aspects of a second area of analysis.</td>
</tr>
<tr>
<td>Team Member #3:</td>
<td>Same as above.</td>
</tr>
<tr>
<td>Team Member #4:</td>
<td>Same as above.</td>
</tr>
</tbody>
</table>

When determining who should be given which area, several factors are considered. First is the need to balance versatility with specialization of skills. On one hand, it is important that specific individuals with the appropriate training become the most knowledgeable of specific areas of the CAMEL. On the other hand, the Team will be more flexible if several individuals can complete any given task. Second is the acknowledgment that certain CAMEL tasks are more interesting than others, and that in order to combat the tendency toward boredom, team members need to be rotated.

In terms of the level of effort on the part of the institution, key members of the senior management team are expected to make a presentation to the CAMEL team on the first day of the examination. Generally, this presentation should include the historical development of the institution, its strategic plan, and organizational structure; current interest rates and inflation statistics, relevant national regulations, and characteristics of the market; and an overview of the financial statements and the current state of the portfolio.

The presentation generally lasts for half a day and serves several purposes. First, it sets the stage for the CAMEL by introducing the Team to the institution. Second, it allows that formal introductions be made between the Team members and the staff with whom they will be working. Third, it allows the CAMEL Team to explain the process and procedures of the CAMEL review. The CAMEL Team’s work involves interacting with employees from all areas and levels of the institution, from senior management to administrative staff. During this presentation, interview appointments with others in the institution are made or identified. Finally, this presentation provides a key opportunity to work with the MIS staff in the ongoing process of completing the information requests of the CAMEL Team.

The remaining involvement of the staff of the institution centers on gathering any necessary information, such as procedures manuals and client files. In addition, staff is relied upon to coordinate key meetings and visits: visits to branch offices to interview managers and loan officers, and interviews with clients and with bank officers in charge of the lending relationship with the institution. Team members ideally conduct these interviews and visits without the accompaniment of the institution’s senior staff. This allows for a more frank and honest discussion to determine if field application is consistent with stated practice.

Finally, periodic debriefings occur among the CAMEL Team to integrate information throughout the examination. At the end of the analysis, the Team develops the ratings based on individual and collective information.

**The Report**

On the final day of the CAMEL examination, the Team makes two separate on-site presentations; the first is made to the institution’s senior management team and the second to the Board of Directors. These are critical presentations that assure that CAMEL findings reach the highest level of the institution. The presentation to senior management enables the staff of the institution to comment on the CAMEL results and perhaps identify where the Team may have made faulty assumptions or interpretations. The presentation to the Board
is less detailed than that to the staff but highlights all the key issues and conclusions reached by the CAMEL team.

Two to three weeks following the on-site assessment, a draft report with the following information is sent to the Executive Director of the institution:

1. An Executive Summary.
2. Detailed narrative analyses of each of the 21 quantitative and qualitative indicators (usually up to one page on each indicator). Reference is made to the supporting indicators where relevant. This narrative analysis includes recommendations for improvement in the areas where weaknesses are identified by the CAMEL Team.
3. The CAMEL adjusted financial statements, which incorporate the previous five years of data. Financial figures are expressed in local currency terms (both nominal and constant), as well as in dollars.
4. Listing of the resulting key and supporting indicators.
5. Various appendices: classification of loan portfolio and breakdown by aging, programmatic statistics, and entries made for each adjustment with corresponding background information.

Upon receipt of the report, senior management of the local institution has two weeks to respond in writing to the CAMEL team, and if received within this two week period, the comments are annexed to the final version sent to the Board. If the CAMEL Team deems it appropriate, these comments may also be incorporated into the narrative analysis of the final CAMEL Report which is usually sent one week after receipt of comments from the institution. The final CAMEL Report is a confidential document. The remainder of the institution’s staff is not given access to the CAMEL report unless the Executive Director decides to do so nor are the results disseminated to third parties unless ACCION and the institution mutually agree to do so.

Challenges to Application

Two significant challenges exist in the application of the CAMEL to microfinance. The first is how to bring about the public dissemination of the results of the CAMEL, or, seen another way, how to encourage demand for the CAMEL results and thus the motivation for disclosure. Second is what entity should implement the CAMEL examination in the long-term.

The confidential nature of the ACCION CAMEL results mirrors the practice of the original U.S. CAMEL. Neither U.S. regulatory agencies nor the subject institution are permitted to disseminate the results. Public rating agencies, such as Moody’s and Standard and Poor, serve as the mechanism for sharing requisite financial performance information with lenders and investors. These rating agencies exist because of the demand for information by the capital markets. Though they are given lesser access than regulators, rating agencies are able to successfully fulfill the demand for information because of a clear incentive for the subject institution; a public rating implies transparency and hence financial legitimacy to a well-established market of potential investors. In the case of microfinance, no such well-established market exists. Yet without publicly available and verifiable financial performance information, the evolution of this market will be significantly inhibited.

For the ACCION CAMEL, the confidentiality of the results derives from the necessary condition of trust as presented in the Introduction. Such confidentiality has a logical

---

22 Thus, the total turn-around time of the CAMEL report, from completion of the site visit to the final CAMEL report is between five and six weeks.
foundation given that a majority of the ACCION affiliates are in the early stages of the evolution of accessing capital markets or have not yet undertaken the process. It is only where there has been strong interest by private investors in microfinance that an ACCION affiliate has shared the results. As long as the results are kept confidential, the power of the ACCION CAMEL will remain limited to its internal use by MFIs and ACCION International. Can the ACCION CAMEL, however, maintain its integrity as an in-depth financial diagnostic instrument without the element of confidentiality? If not, then what factors are necessary for the development of a public rating agency for microfinance that can yield verifiable performance information? The single most important factor is the demand by the sources of microfinance funding—donors, agencies, lenders, and investors. Because the demand by the capital markets for in-depth analysis of MFIs is still very limited, it has been suggested that it could be the role of donor agencies to create a demand for the CAMEL rating for funding purposes. A second factor is the challenge of what entity will complete CAMELs in the long-term. Can it and should it be the so-called apex institutions that provide technical assistance to MFIs, such as ACCION, FINCA, Calmeadow, and Women’s World Banking? Or will an independent body evolve that can ensure the results will meet the demands of these technical assistance providers in addition to the sources of funding? At least part of the answer to these questions rests on the evolution of the instrument and the resolution of the first challenge. If and when a source of information is developed that will provide the same quality and depth of information that the ACCION CAMEL currently yields for ACCION International and its affiliates, then perhaps it will no longer be necessary for an ACCION to conduct its own CAMEL examinations. Although ACCION may always require additional or distinct information, other less comprehensive tools may be more feasible. In the short and medium term, it seems logical that a specialized rather than a conventional rating agency conduct evaluations of microfinance institutions. If, however, this specialized agency is to be successful in obtaining the credibility of financial markets it must be set up to guarantee objectivity of application and the highest professional standards in terms of the depth of analysis and degree of experience of those involved in generating the rating. Specialized agencies exist for the banking industry, such as Thomson Bank Watch, and thus a specialized microfinance rating agency might also have a future and endure in the longer term.

23 In the few cases where an affiliate has decided to disseminate the CAMEL, two factors were present. The first was the fact that the CAMEL resulted in a high rating. The second was that the dissemination enabled the institution to access capital that it would not have had the chance to do so otherwise.
ACCION has put together a database with the financial information and ratings on both the quantitative and qualitative indicators of the CAMEL examinations conducted over the past four-year period. The data relate to 11 of the 14 institutions that have received CAMEL evaluations. Three institutions were excluded from this analysis for various reasons. In one case, the CAMEL was only recently applied to the institution and therefore its information is not yet part of the database. In a second case the institution evaluated by CAMEL is an apex institution with very different characteristics from the rest of the ACCION affiliates. In the third case, we were unable to recalculate the indicators based on new definitions because we lacked information to do so.

Although the following is admittedly a limited universe of microfinance institutions, the data presented are important for several reasons. First, they back the ranges used in the CAMEL with empirical evidence. That is, if 1 of 11 institutions receives a 5 (highest mark) in operating efficiency we know that the 5 range is possible and, one might also conclude, at the high end of what can be expected. Second, the data lead to conclusions about the scoring of the CAMEL instrument. They point to the importance of focusing on the component scoring in order to understand what is driving the overall composite score and illustrates the importance given to key indicators by CAMEL. The scoring also illustrates the elements that are not considered to be factors in the overall rating, like the recession that led to significant increases in delinquency for the entire financial system in one of the institutions included in the database. Finally and at a broader level, one can begin to draw conclusions from the data that are valuable in identifying the challenges that lie ahead for the ACCION network and possibly for other microfinance institutions as well.

**Overview**

With the exception of one, the institutions evaluated to date currently fall in the B range. One institution has achieved a rating within the A range. Deficiencies and strengths vary among the institutions depending on their given situations, but operating efficiency (operating expenses/average portfolio) is the one key indicator that consistently ranks the lowest. Most institutions have scored 0 to 2 in this area with operating expenses divided by average portfolio ranging from 30% to 63%.

This indicator carries one of the highest weightings in the CAMEL, and as a result, while other areas may be strong, it can mean the difference between a “B” and an “A” institution. The optimal ratio suggested by the CAMEL instrument is less than 20%, and although three are close to that level, only one microlending institution in the ACCION network to date has achieved that level of efficiency (18%). Many institutions may have yet to achieve the economies of scale required to reach this level of efficiency in the cost intensive business of microfinance.

The final rating is not necessarily indicative of the same strengths and weaknesses when comparing institutions. Therefore, one needs to look at the individual components of each score. For example, two institutions evaluated fell just short of achieving an A rating with overall scores of 3.86 and 3.98, although the factors driving their scores are very different.

---

24 Results for the *overall rating* are taken from the most recent CAMELs for each institution and reflect the CAMEL instrument in place at the time of the CAMEL exam. Therefore, they do not take into account the changes that were incorporated after its application in a given institution. For instance, the past due portfolio was originally measured at 90 days past due, and has since been revised to 30 days. This more stringent measure would affect the ratings on most of the CAMEL’s to date. However, where references are made to *specific quantitative indicators*, these have been changed to reflect the manner in which they are *currently calculated*. The overall rating remains unchanged, however, because nonquantitative aspects have also been modified and thus a recalculation of this overall rating is not possible.
Interpretive Examples

Number 1

The first institution suffered primarily from its efficiency rating (operating expenses/average portfolio were 46%). Had the institution been more efficient, it would have fallen well into the A range. Despite its high costs, however, this particular institution has been extremely profitable and obtained the highest score in terms of return on assets. This profitability is the result of the institution’s very high financial margin, which it is able to maintain due to the lack of competition in its market. In addition, because this institution has been profitable for a number of years, it has built up its net worth to the point that it requires few liabilities to fund itself, thereby reducing its financial expense (liabilities/total net worth was 0.3X). It is interesting to point out that despite this very low leverage, the institution scored the maximum in terms of return on equity due to the very significant profits it generates.

Number 2

By contrast, another institution that achieved a similar overall rating is much more efficient with operating expenses/average portfolio of 23%. But this institution operates in a competitive environment and is much more highly leveraged, with total liabilities/net worth of 5.3X. Therefore, its financial margin is much lower. The return on average equity for this institution, was 3.8%, 63 points lower than the first institution! The “snapshot” nature of the CAMEL meant that management changes in the process of being implemented could not be taken into account, because they were not in place at the time the CAMEL was performed, which again negatively affected the overall score.

Number 3

In a third example, an institution with a rating of 3.00 was affected by both its negative earnings and low operating efficiency (operating expenses/average portfolio of 58%) and some weaknesses in the formalization of its management procedures. Had the institution’s returns been optimal, however, they would have outweighed the management deficiencies, bringing the institution very close to the A range. As an NGO, this institution is a successful fundraiser and has funded its growth primarily through donations. Although the institution is covering its costs, the CAMEL examination does not account for donated funds, and this institution’s credit activities have not achieved the scale necessary to become operationally self-sufficient, resulting in negative earnings. In the context of the institution’s national economy, which suffered overall from a deep recession during 1995, it is interesting to note that the overall banking sector in that country only achieved a return on equity of 0.75% and for the same period had a past due portfolio/total portfolio of 90%. By contrast, the portfolio past due more than one day for the microfinance institution was only 8%.

Number 4

The one institution to date to achieve an A rating, with a rating of 4.3, did so despite a score of 0 on efficiency (operating expenses were 52% of average portfolio), the only area in which it scored poorly. Again, although this institution’s costs are high, it is still able to achieve strong operating returns with a relatively high financial margin. This factor, coupled with its strong scores in all other areas of the CAMEL, placed it firmly in the A range.

Number 5

In comparison to the previous examples, one institution evaluated to date has demonstrated both efficient operations (operating expenses were 18% of average portfolio scoring a 5 in this area) and strong return on equity of 17%. This institution’s overall rating was 3.93, and it missed achieving the A range due primarily to weaknesses in its liquidity management and loan loss reserve policy.

Principal Analytical Conclusions and Challenges for the Future

Operating Efficiency

It is clear that, to date, the major challenge for the highest and lowest rated institutions is primarily one of efficiency. The inherently higher cost associated with making many small loans requiring extensive follow-up and personal contact continues to be a challenge for microfinance institutions. To the extent that these institutions operate without any real competition, they are able to overcome their relative inefficiency by charging higher interest rates. In general, however, it can be expected that this trend will not be sustained permanently. As the industry grows, MFIs will increasingly feel the competitive pressure to lower their interest rates and in turn will be forced to search for ways to improve their efficiency.

In attempting to understand the factors that might contribute to the level of efficiency in a MFI, operating expenses/average loan portfolio were examined in relation to: (1) outstanding loan portfolio, (2) client retention rate and (3) loan delinquency rate. The database shows what one would intuitively expect: a positive correlation between efficiency and outstanding loan portfolio. Except for one institution, the data point to the fact that as the loan portfolio of institutions grows, the ratio of operating expenses to average portfolio declines. Economies of scale are achieved in the business of microfinance.

A positive correlation was also found between the client retention rate and the level of efficiency. The client retention rate measures the extent to which the institution is retaining its client base. The numerator of the retention rate is the number of borrowers at the end of a 12-month period and the denominator is the number of borrowers at the beginning of the 12-month period plus new borrowers over this same period. This positive correlation between efficiency and client retention should signal to MFIs the importance of focusing on issues like client service, product pricing, and client preferences for loan products.

Finally, no correlation was found between loan delinquency rate and efficiency. One might have thought that institutions that are extremely vigilant in terms of loan quality, exhibiting low delinquency rates, would expend greater resources in relation to their loan portfolio than other MFIs to assess or monitor loans, but these institutions did not have higher operating expenses/average loan portfolio.

Leverage

Of the 11 institutions in the database, 9 place in the maximum category in terms of leverage, with the ratio of risk assets/equity below 6. For the nine institutions, this ratio averaged only 2.55. What emerges is the fact that the majority of these institutions are actually underleveraged. Although this indicator does not penalize institutions for under
leveraging, the results of doing so should be reflected in a low return on equity. As noted in Example Number 1, however, this is not always the case. There are several reasons that explain why most of the institutions within the ACCION network are underleveraged. First, in some cases, the institutions have funded their growth with retained earnings. Growth rates have been very significant for some MFIs but they have generated a high enough level of profits to fund this growth with their own resources. In other cases, the institutions have grown minimally and a much more limited level of profitability has funded the increase in operations. Second, for a smaller number of institutions, the linkage with the commercial banking sector has not yet taken place. Instead, they fund their portfolio with soft monies and donations. Third, at the other end of the spectrum are the regulated institutions that have initiated operations with required minimum capital levels that are quite high in relation to their portfolio. Moreover, it is interesting to note that the underleveraged situation we find now is almost unchanged as compared to four years ago. As of December 1993, the same number of institutions as we have now (9/12) had a ratio of risk assets/equity below 6. The challenge will be to increase leverage to prudent limits because as competition increases in the microcredit field with the resultant decrease in return on assets, the underleveraged situation of most of these institutions will depress the return on average capital. This is of concern to those institutions already operating on a for-profit basis as well as those who are interested in converting from an NGO to a for profit institution, since it limits their ability to attract private equity.

**Asset Quality**

The database shows that 4 of the 11 institutions fall within the best category in terms of loan delinquency rate, as measured by outstanding loan balance with payments past due over 30 days (after adjusting for write-offs). One should note that many microfinance institutions do not measure delinquency by including the entire loan balance when a payment has been missed, but rather the less rigorous approach is used, which includes only the missed payment in the calculation of delinquency. For these four institutions the delinquent portfolio was less than 3%. The average for the 11 institutions in the database stood at 6.7, with ratios ranging between .04% to 19.1%.

Although the level of asset quality is quite good for the network as a whole, in examining the change in this ratio for a given 12-month period over the past three years at specific points in time, one observes significant volatility. For the 11 institutions under consideration, in a given 12-month period the delinquency rate increased or decreased from a minimum of 32 percentage points to a maximum of 466 percentage points, with the average being 163 percentage points. These findings corroborate the argument that calls for a lower level of indebtedness for MFIs. To illustrate the point, if the average delinquency rate for the 11 institutions in the database is 6.7%, an average increase of 163 percentage points would translate into a delinquency rate of 17.5%.

An analysis of asset quality requires that the delinquency rate be examined together with the rate at which the institution is writing off past due loans. As discussed in the section on Adjustments, the examiner calculates this rate by assuming that all the portfolio past due over 180 days should be written off, regardless of whether this has been done by the institution. The adjusted loan loss rate calculated by the CAMEL shows a range of between .08% to 8.9%. The average loan loss rate for the 11 institutions examined is 2.73% and five of these institutions had loan loss rates below the 2% required to place in the maximum category. Given the averages for delinquency and write-offs of this database, one can conclude that approximately 41% of delinquent loans with past due payments between 30 and 180 days will eventually be written off.

**Profitability**

After making the adjustments to the financial statements discussed in Section III, one first observes that 5 of the 11 institutions are generating positive returns, with an average return on assets of 3.7% for all 11. Of the five institutions that are profitable, four fall within the maximum range of return on assets. Equally significant is the fact that of the remaining six
institutions that are not yet profitable, one has a level of self-sufficiency of 99.2% (operating income/total expenses after all adjustments), a second one is at a level of 89%, and the balance of four institutions averages 80%. It is also significant that the trend in return on assets over the past four years shows improvement for all institutions in the database except one.

As discussed in the Overview, however, the profitability achieved by these institutions is not due, except in one case, to a high level of operating efficiency. The average ratio for operating expenses/loan portfolio of the four MFIs that showed the maximum levels of profitability was 47%.

Given the underleveraged situation of many of the MFIs in the database, one would expect that despite the solid return on assets ratios, the return on equity would be low. This is not the case, however, because of the magnitude of the returns generated by some of these institutions. Three of the 11 institutions scored a 5, with the average ROE among these MFIs at 43% despite their average ratio of risk assets/equity of 1.5. The range for return on equity for the 11 institutions goes from a negative 195% to a positive 70.2%.

**Internal Control, Planning, and Budgeting**

Within the area of Management, the two weakest indicators relate to Internal Controls and the Planning/Budgeting process of MFIs. For the former indicator, the range among 11 institutions goes from 2.0 to 4.5 with the average at 3.3 and for the latter, the range is 0 to 4.5, with the average also at 3.3. Although these averages certainly leave room for improvement, as do the other three indicators within the Management category whose averages range from 3.5 to 3.7, Management aspects are not the weakest areas for the ACCION affiliates. It is interesting to note that the two institutions that scored the highest, with an overall 4 in this area, are NGOs rather than regulated institutions. That is, these two institutions have adopted systems, policies, and procedures that go beyond what the regulated institutions in the database are required to have in place.

**Liquidity**

In this area only three qualitative indicators have been measured consistently over time. These indicators show that on average, the liability structure of ACCION affiliates is strong, averaging a 4.0 for the affiliates in the database. Although the level of indebtedness is generally low, these institutions have for the most part been successful in diversifying their sources of funds and in minimizing their funding costs. The ACCION affiliates also received high marks, an average of 4.0, in terms of the efficiency and timeliness of loan disbursement. In the area of cash flow projections, however, the average score was only 2.75. As institutions begin to rely more heavily on borrowed funds, the ability to prepare comprehensive and accurate cash flow projections becomes even more critical.

Having presented the challenges and analytical conclusions of microfinance as drawn from the empirical evidence gathered by the ACCION CAMELs, we now turn to the set of general lessons learned and challenges of the ACCION CAMEL experience.
VI. LESSONS LEARNED

In designing the CAMEL for use with its affiliates, ACCION recognized the need for an appropriate tool to measure the financial performance of a microfinance institution. Although ACCION knew how the CAMEL was applied to traditional financial institutions and what it measured, ACCION did not know what it might face in trying to apply CAMEL to microfinance institutions. Likewise, affiliate members supported the effort to develop the CAMEL yet few had any direct experience with the CAMEL examination process. For both ACCION and its affiliate institutions, lessons have been learned over the past four years.  

By ACCION

1. The value of the CAMEL as a quality control mechanism for the Network. Throughout its history, ACCION International has confronted the challenge of maintaining high standards of performance to ensure the fulfillment of its mission to effectively provide the poor with financial services. The CAMEL diagnostic tool significantly sharpens ACCION’s ability to analyze the performance of its network of affiliates.

2. The value of the CAMEL as a planning tool with affiliates for technical assistance needs. The CAMEL diagnostic tool allows ACCION and the affiliate to scrutinize the internal workings of the institution on a variety of levels using a standardized measurement. In so doing, both ACCION and the senior management of the institution better understand where to focus technical assistance. The result is a strategic response to ensure productive growth and evolution of the ACCION affiliates and hence ACCION International. Through this approach, ACCION is also better able to meet the ever-present challenge of remaining relevant to its affiliates.

3. CAMEL as evidence that microfinance institutions can be evaluated with the same standards as those used for commercial banks. A significant obstacle to the massive expansion of microfinance throughout the world is the perception that microfinance institutions operate in a fundamentally different manner than traditional financial institutions. Although the capital structure of the institution or the composition of the microfinance portfolio may in fact differ, the standards of management and performance are the same. In fact, when Banco Solidario, S.A., a leading microfinance institution in Bolivia, is compared to other Bolivian commercial banks, its asset quality, earnings, and capital adequacy have been superior. By evaluating microfinance institutions with the same set of standards as those applied to traditional financial institutions, the CAMEL diagnostic tool is critical to the movement of microfinance towards the formal financial sector.

4. The importance of CAMEL team members with varied skills and experience in completing CAMEL examinations. In the case of microfinance, the areas of human resource management and credit methodology are key to the institutions’ success. Consequently, the presence of team members with expertise in microfinance operations, human resource management and organizational development are as critical as those with traditional financial analysis skills. The overall quality of the CAMEL examination is undermined if either set of skills is absent. In addition to their individual area of expertise, a team member must have in-depth knowledge of microfinance and participate in CAMEL examinations on a regular and ongoing basis. Without such experience, a team member would lack an understanding of the larger context in which microfinance performance is to be measured, and the established relations with other team members considered so critical to successful team dynamics.

26 The input for this section came from ACCION staff involved in CAMEL examinations and from the Executive Directors of ACCION’s affiliate institutions.
5. CAMEL complements but does not substitute for the due diligence process for ACCION’s financing mechanisms (the Latin American Bridge Fund and the Gateway Equity Fund). ACCION currently manages a guarantee fund known as the Latin American Bridge Fund, and an equity fund, known as the Gateway Fund. In both cases, financial and other information is required for investment decisions and ongoing monitoring. Although CAMEL does provide essential information and a useful context for investment decisions for ACCION’s fund managers, it lacks the in depth assessment of the institution’s relations with local banks or in the case of equity investments, the emphasis on projected performance.

6. CAMEL as a tool to strengthen the relationship between ACCION and the Boards of Directors of its affiliate institutions. Since its founding, ACCION has always worked closely with local leaders in the establishment of independent autonomous microfinance institutions. As with any governance structure, the board of directors of a microfinance institution provides the oversight, strategic guidance and holds managers accountable. In the past, however, ACCION’s relationship with the affiliate flowed most often through the Executive Director, which for much of the time proved adequate. As the financial operations of the affiliates have become more sophisticated and the Board’s fiduciary responsibility has increased, ACCION has used the CAMEL as a tool to strengthen its interaction with the members of the Board.

By the Microfinance Institutions
1. Value of CAMEL as an indicator of an institution’s performance, measured against standards that are recognized by the formal financial sector. Successful access to both local and international capital requires consistent, verifiable, financial performance data presented in a manner recognized by outside investors. The CAMEL provides this information to investors. Indeed, one ACCION affiliate, Fundación Paraguaya de Cooperación y Desarrollo (FUPACODE) in Paraguay, an NGO, used its CAMEL rating to make a highly successful bond offering in the local stock market.

2. Value of CAMEL as a planning and management tool. The CAMEL examination, although not necessarily analyzing new sources of financial information, does tie together and present its analysis in a way that the subject institution has rarely, if ever, experienced. By synthesizing the management of financial resources with the management of the microfinance methodology, the CAMEL provides fundamentally new information from an external perspective. Such data empowers senior management to more effectively determine institutional priorities and make critical operational decisions.

3. CAMEL enables an institution to make its technical assistance relationship with ACCION more strategic. The CAMEL diagnostic increases an affiliate’s capacity to channel ACCION’s technical assistance efforts effectively. The management of this relationship is a continually evolving process that requires each partner to direct resources towards the most strategic end. There is always more work than is feasibly possible to undertake by the available professional resources at ACCION and its affiliate institution. With areas of weakness well defined by the CAMEL, the institution can maximize the use of its own resources as well as those of ACCION.
VII. CHALLENGES

For ACCION International

1. **Reiterate the fact that CAMEL is a means to an end and not an end unto itself.** The CAMEL examination serves a very specific purpose—to measure the financial sustainability of a microfinance institution. As outlined, it does not measure elements of microfinance, such as outreach, which are considered critical to ACCION in fulfilling the mission to affect social impact. Clarifying the limitations of CAMEL with MFI managers will ensure that its results are understood within the appropriate context. Moreover, MFI managers may have the tendency to focus on the composite or “overall” rating of CAMEL rather than on the narrative explanations of each indicator. By doing so, the opportunity to maximize the CAMEL results to improve specific aspects of the institution may be lost.

2. **Determine the extent to which CAMEL findings should be disseminated.** The confidentiality of the CAMEL results is a fundamental component of the basis of trust required of the participating institution. Though the ACCION CAMEL may in time serve as a rating tool for potential lenders and investors, it is currently used mostly for internal purposes by ACCION and the affiliate. Nonetheless, ACCION recognizes its current and potential value in opening up the microfinance industry to critically needed capital. How to evolve what is an internal tool into an external one will challenge ACCION in the years to come.

3. **Improve the analysis of the area of Management by better integrating human resource, organizational development functions, and the analysis of the Board of Directors.** Although ACCION acknowledges the value of integrating nonfinancial skills and possesses the in-house expertise in management training and institutional development, it simply does not have the resources to incorporate the person-power required. Though the current CAMEL team has received training in these areas and has greatly improved its ability to evaluate these components of the affiliate, increased professional capacity is required to expand the application of the CAMEL diagnostic. Furthermore, the CAMEL examination does not adequately capture in-depth information about the Board functions, structures and procedures, considered critical to the effective governance of microfinance.

4. **Better educate local regulators and financial markets about the ACCION CAMEL.** Recognition of the ACCION CAMEL would significantly contribute to the ACCION affiliate’s capacity to enter the local regulated financial markets and thereby access needed capital. Several ACCION affiliates identified connecting the ACCION CAMEL to their local regulatory examinations as a way of enhancing the CAMEL’s value.

5. **Create improved mechanism to gather financial data in advance of CAMEL.** The data required by the institution for the CAMEL examination are currently input in a specific format to generate the CAMEL Spreadsheets. Even in those cases where an institution has received a previous CAMEL examination, retrieval of adequate information in the specific format can be problematic once the team is on-site, not to mention in advance of the team’s arrival. As ACCION works to improve the CAMEL examination process, it is considering more efficient mechanisms such as a customized software package to increase the efficiency of the application. Inherent to this improvement would be the training of local staff to generate and apply the financial analysis that the CAMEL incorporates. By building the institutional capacity to apply the CAMEL analysis, its adjustments and ratios could be calculated and used in order to achieve more frequent application and monitoring of the results.

6. **Determine who will perform CAMEL evaluations for ACCION affiliates.** The current arrangement whereby a permanent CAMEL team is supplemented with others who provide technical assistance can be a conflict of interest. For those who are not permanent CAMEL team members, it is very difficult to give an institution a low score and then follow-up with technical assistance. One solution is for the permanent CAMEL team to incorporate additional people. This would allow ACCION to evaluate all 18 of its affiliates on an
ongoing basis and provide the comprehensive written report in a timely fashion to the institution, without the inherent conflicts of interest that arise when the team includes ACCION staff who provide technical assistance. But, as noted earlier, the CAMEL doesn’t necessarily have to be performed by ACCION staff.

7. Maintain the value of the CAMEL diagnostic instrument over time, especially in its application to more advanced institutions. The ACCION affiliates span a wide range of stages of institutional growth. On one end are smaller institutions firmly rooted in the NGO sector. On the other are regulated financial intermediaries newly integrated into the formal financial sector. Currently, the CAMEL examination provides a useful guide to financial performance for all types of institutions, which is not gained through periodic audits. Not only is it a financial analysis rather than an audit, but the CAMEL sets this analysis in the context of microfinance. As institutions continue to become more sophisticated in servicing the microenterprise sector, however, so too must the tool being used to examine their performance. This also implies that the skills of the CAMEL teams will have to be upgraded, or new skills will need to be added, as institution’s operations become more complex.

For the Microfinance Industry

1. Build consensus in the microfinance industry for measuring financial performance and doing so in a standardized format. Unlike the traditional financial world, no Generally Accepted Accounting Principles (GAAP) exist for the microfinance field. As a result, methods of accounting vary widely across borders and across institutional types. The challenge is to arrive at a consensus in terms of required adjustments to the financial statements and the manner in which indicators are to be measured. Further complicating the process of standardization has been the emphasis by donors for institutions to measure indicators of growth which reflect the program’s outreach and social impact rather than reflecting its basic financial performance. Although such data are valuable additions to the examination process, they do not on their own provide the analysis to assess the institution’s financial solvency. Microfinance institutions are forced into inefficient and frustrating practices of providing multiple parties with varying forms of financial information. This is time better spent servicing the microentrepreneur.

2. Expand the use of a standardized measurement tool of financial performance of microfinance institutions around the world. Multiple efforts to extend the application of standards to the microfinance industry are underway. Not only is there likely duplication, but the experiences and lessons should be shared among all participants to benefit the field. Moreover, of the total number of microfinance institutions worldwide, estimated by the World Bank at around 7,000, very few are participating in the financial performance examination process. In order to effectively establish a recognized set of standards, more microfinance institutions must be included.

3. Determine who is going to pay for and undertake CAMEL examinations in the long-term. As discussed throughout this document, there are several uses of the CAMEL results. Whether or not ACCION (and potentially other technical assistance providers) continue to pay for and apply the CAMEL will depend directly on the potential development of an independent entity to replace this function. The success of such an entity would be determined by its ability to access the requisite information and to adequately analyze it for others to use.
The application of CAMEL over the past four years has allowed ACCION to better understand the financial performance of its affiliates and in the process, to develop a database of indicators of performance for these microfinance institutions in the key areas evaluated by the financial markets. In discussing the process and highlighting the results of these assessments, ACCION hopes to contribute to developing standards of performance for the industry and to achieving uniformity in the evaluation process of microfinance institutions. A great deal of coordination remains ahead of all of us—lending institutions, apex organizations, multilaterals and consulting firms—in the application of thorough financial evaluations and the dissemination of results to establish standards of performance. This effort, however, will open the doors for microfinance institutions to the financial markets and in so doing ensure that funding will be available to grow their portfolios and reach the millions of microentrepreneurs interested in obtaining financial services.
Appendix I: ACCION International Network in Latin America

As of June 30, 1997

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>PROGRAM</th>
<th>Active Portfolio</th>
<th>Active Clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Emprender</td>
<td>$2,845,000</td>
<td>2,810</td>
</tr>
<tr>
<td>Bolivia</td>
<td>BancoSol</td>
<td>$47,500,000</td>
<td>71,852</td>
</tr>
<tr>
<td>Bolivia</td>
<td>PRODEM</td>
<td>$8,229,740</td>
<td>27,976</td>
</tr>
<tr>
<td>Brazil</td>
<td>FENAPE</td>
<td>$5,531,430</td>
<td>9,293</td>
</tr>
<tr>
<td>Chile</td>
<td>PROPESA</td>
<td>$5,210,623</td>
<td>5,710</td>
</tr>
<tr>
<td>Colombia</td>
<td>Actuar Tolima</td>
<td>$3,331,648</td>
<td>5,998</td>
</tr>
<tr>
<td>Colombia</td>
<td>Coop. Emprender</td>
<td>$25,685,792</td>
<td>34,977</td>
</tr>
<tr>
<td>Colombia</td>
<td>FINANSOL</td>
<td>$7,579,818</td>
<td>10,435</td>
</tr>
<tr>
<td>Colombia</td>
<td>FMSD</td>
<td>$13,016,229</td>
<td>25,491</td>
</tr>
<tr>
<td>Ecuador</td>
<td>FED</td>
<td>$3,606,636</td>
<td>12,215</td>
</tr>
<tr>
<td>Guatemala</td>
<td>GÉNESIS</td>
<td>$8,176,387</td>
<td>14,214</td>
</tr>
<tr>
<td>Guatemala</td>
<td>FUNDAP PROSEM</td>
<td>$1,204,930</td>
<td>5,606</td>
</tr>
<tr>
<td>Honduras</td>
<td>FUNADEH</td>
<td>$2,359,242</td>
<td>4,943</td>
</tr>
<tr>
<td>Mexico</td>
<td>ADMIC</td>
<td>$10,274,000</td>
<td>6,841</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>FAMA</td>
<td>$1,588,101</td>
<td>6,583</td>
</tr>
<tr>
<td>Panama</td>
<td>MULTICREDIT</td>
<td>$13,746,916</td>
<td>2,127</td>
</tr>
<tr>
<td>Paraguay</td>
<td>F.PARAGUAYA</td>
<td>$1,878,300</td>
<td>4,101</td>
</tr>
<tr>
<td>Peru</td>
<td>ACP</td>
<td>$9,485,676</td>
<td>29,002</td>
</tr>
<tr>
<td><strong>Latin America TOTAL</strong></td>
<td><strong>$171,250,468</strong></td>
<td><strong>280,174</strong></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES**

1 Joined ACCION officially in July of 1997
Appendix II
Financial Statements
Assets and Liabilities (Adjusted/Camel Format)
**Assets**
Cash and banks
Temporary Investments
Current Loan Portfolio
Loan Portfolio past due up to 30 days
Loan Portfolio past due over 30 days
Total Gross Portfolio
(Loan Loss Provision)
Total Net Portfolio
Accounts Receivable
Accrued Interest Income Receivable
Other Current Assets

**Total Current Assets**
Equipment
Vehicles
Property
Depreciation

**Total Fixed Assets**
Revaluation of Fixed Assets

**Other Assets**

**Permanent Investments**

**Total Assets**
**Liabilities**
- Bank Overdrafts
- Deposits
- Short-term loans
- Accounts Payable
- Benefits Payable
- Interest Payable
- Other Current Liabilities

**Total Current Liabilities**
- Long-term bank debt
- Subsidized Loans
- Bonds in circulation
- Deferred Income
- Mortgages
- Reserve for personnel benefits
- Reserve for contingencies

**Total Long-term Liabilities**
- Total Liabilities

**Equity**
- Capital
- Reserves
- Adjustments to equity
- Capitalization of subsidized debt
- Prior period retained earnings
- Current period retained earning
- Total equity

**Total Liabilities and Equity**
Income and Expense (Adjusted/CAMEL format)

Operating Income:
Interest Income
Interest Income on temporary investments
Fee income on loans
Training Income
Other Operating Income
Exchange Rate Adjustment

Total Operating Income

Financial Expenses:
Interest Expense on Savings/Deposits
Interest Expense on Bank Loans
Interest Expense on Subsidized Debt
Commissions
Other Financial Expense
Exchange Rate Adjustment

Total Financial Expense

Gross Income from Microfinance Activities

Operating Expenses:
Salaries
External advisers and consultants
Personnel Training
Services
Materials
Rent
Maintenance and Repairs
Transportation
Legal Commissions
Publicity
Depreciation
Amortization
Insurance
Taxes
Others

Total Operating Costs of Microfinance Activities

Other Financial Expenses:
Loan loss provision expense
Reserve for Severance and other employee benefits
Contingent Expenses
Adjustment to Equity and Assets
Capitalization of Subsidized Debt

Total Other Financial Expenses

Net Income of Microfinance Activity

Other Income
Donations for Microfinance Activity
Other expenses
Extraordinary expenses

Institutional Net Income
Appendix III

Supporting Indicators

I. Capital Adequacy

Loan Loss Provision/Average Loan Portfolio
Loan Portfolio past due over 30 days/Total equity

II. Asset Quality

Total fixed assets/Total Assets
Total fixed assets/Loan Portfolio
Average loan portfolio/Average Assets

III. Management

Number of current borrowers/number of personnel
Number of current borrowers/number of loan advisors
Total loan portfolio/number of loan advisors
Personnel who has left the institution (past 12 months)/Total number of personnel hired (past 12 months)
Number of loan advisors/Total number of personnel
Number of administrative personnel/Number of loan advisors

IV. Profitability
Total salaries/Average loan portfolio

Financial Margin: (Total Operating Income-(Financial Expenses+ Other Financial Expense))/Average Loan Portfolio

Operating Margin: Net income of Microfinance Activity/Average loan portfolio

Overall Institutional Profitability: Institutional Net Income / Average equity

Financial Self sufficiency: Total operating income/(Total financial expense + operating expenses + other financial expenses)

Loan Loss provision expense/Average loan portfolio

Rentention rate: # of borrowers at time y/# of borrowers at y-12 months plus new borrowers during same 12 mth period

V. Liquidity
Current Assets/Current Liabilities
Cash and banks, temporary investments, overdrafts and loans/Current assets
Cash and banks, temporary investments, overdrafts and loans/End of period loan portfolio
Discussion Papers in this Series:

1. **ACCION International/AITEC**: A Methodology for Working with the Informal Sector.  
   Mirtha Olivares

2. **Microenterprise Assistance Programs**: Their Benefits, Costs, and Sustainability.  
   Maria Otero

3. **Microenterprise Development Programs**: Is Client Graduation a Myth?  
   Katherine Stearns

4. **What Microenterprise Credit Programs Can Learn From the Moneylenders**.  
   Robert Peck Christen

5. **The Hidden Beast**: Delinquency in Microenterprise Credit Programs.  
   Katherine Stearns

6. **Exposing Interest Rates**: Their True Significance for Microentrepreneurs and Credit Programs.  
   Carlos Castello, Katherine Stearns, Robert Peck Christen

7. **Performance and Standards in Microfinance**: ACCION’s Experience with the CAMEL Instrument.  
   Sonia B. Saltzman, Rachel Rock, Darcy Salinger

**ACCION International** is a private non-profit organization dedicated to reducing poverty and unemployment in the Americas by providing credit and other financial services to microentrepreneurs. An international leader in the field, ACCION is an umbrella organization for a network of microfinance institutions in 13 Latin American countries and six U.S. cities. ACCION seeks to ensure the long term availability of microcredit by helping its associated institutions achieve large scale operation and financial self-sufficiency, and access lending capital from the international financial markets. In the last five years, the ACCION Network has loaned $1.7 billion to more than one million people with a loss rate of approximately two percent.

ACCION’s internationally-known publication series has been addressing current developments and challenges in the microenterprise field since 1989.

120 Beacon Street • Somerville, MA 02143, USA  
Tel: (617) 492-4930  Fax: (617) 876-9509