

***DRAFT***

**Microfinance in Latin America and the Caribbean:  
Connecting Supply and Demand**

**by**

Sergio Navajas ([sergion@iadb.org](mailto:sergion@iadb.org)) and Luis Tejerina([luist@iadb.org](mailto:luist@iadb.org))  
Inter-American Development Bank

November 2006

This working paper is being published with the sole objective of contributing to the debate of a topic of importance to the region, and to elicit comments and suggestions from interested parties. This paper has not gone through the Department's peer review process or undergone consideration by SDS Management. As such, it does not reflect the official position of the Inter-American Development Bank.

## **Foreword**

Financial services allow households to take full advantage of business opportunities, respond adequately to unexpected shocks, leverage assets and transfer resources safely. Access to high-quality and diverse financial services is a key ingredient for sustained economic growth. The benefits of this access, however, are only realized when financial services reach all segments of the population.

The expansion of microfinance in the region shows that building inclusive financial systems is feasible and, in many instances profitable. The region has witnessed the development of new and better financial technologies that are closing the gap between formal financial systems and previously considered un-bankable populations. Nonetheless, this expansion has clearly not yet reached millions of households in the region. To understand the magnitude of this gap it is crucial to continually monitor the development of the financial system –including now the microfinance sector as a major component– and to what extent financial services are reaching larger segments of the population.

The purpose of this paper is to offer an up-to-date snapshot of access to financial services in Latin America and the Caribbean. The approach is two-fold. In the first part, the analysis hinges on primary information collected from microfinance institutions as of 2005. The second part presents information on access to financial services as found in national household surveys. The use of this type of surveys allows us to better understand the landscape of financial services available to all segments of the population (poor, non-poor, with microenterprise activity or not). Finally, we present a simple and practical framework that could be utilized to improve the measurement of access to financial services in the region.

**Alvaro R. Ramírez**  
**Chief**  
**Micro, Small and Medium Enterprise Division**

**Carlos E. Vélez**  
**Chief**  
**Poverty and Inequality Unit**

# Contents

|                                                                              |    |
|------------------------------------------------------------------------------|----|
| Abstract .....                                                               | 1  |
| 1. Introduction .....                                                        | 2  |
| 2. Microfinance in LAC – Data from the Institutions .....                    | 3  |
| <i>Results by Type of Institution</i> .....                                  | 4  |
| <i>Results by Country</i> .....                                              | 6  |
| <i>Performance of LAC Institutions</i> .....                                 | 10 |
| 3. Microfinance in LAC – Data from National Household Surveys .....          | 14 |
| <i>Access to Financial Services by Households</i> .....                      | 15 |
| <i>Access, Demand and Use of a Financial Service</i> .....                   | 17 |
| <i>Characteristics of Financial Services</i> .....                           | 20 |
| 4. Connecting Supply and Demand – Making Sense of Diverse Data Sources ..... | 23 |
| <i>Improving the Measurement of Microfinance</i> .....                       | 25 |
| References .....                                                             | 26 |
| Annex A. Inventory of Microfinance Institutions (CIRCA 2005) .....           | 28 |
| Annex B: Sample Module to Measure Access to Financial Services.....          | 44 |

## **Abstract**

In recent years, microfinance has greatly expanded the outreach of the financial system to millions of households in Latin American and the Caribbean. This expansion has taken place through a diverse set of institutions –called microfinance institutions- that are reaching an increased number of low-income households. The success experienced by these institutions has caught the attention of traditional providers of financial services, such as commercial banks, which are now entering into this market. However, there is a fundamental question that has not yet been sufficiently explored: what is the magnitude of the microfinance market in Latin America and the Caribbean? This paper aims to answer this question through the use of institutional as well as household survey data. Data shows that, around 2005, the number of microfinance borrowers was about six million, with most clients (64%) being reached by regulated financial institutions. When we use national household surveys, we find a figure of 4.5 million for the number of borrowing households connected with a microenterprise (probably microfinance clients) and an aggregate number of eight million for overall access to credit in the region. This paper also offers a simple and practical framework to improve measurement of access, demand and use of financial services.

## **Microfinance in Latin America and the Caribbean: Connecting Supply and Demand**

### **1. Introduction**

Latin American microfinance organizations have had an unprecedented and much-heralded success in expanding financial services to under-served populations. Since the late 1980s, the number of microfinance clients has steadily grown to make Latin America one of the regions -along with South East Asia- where microfinance has expanded the most. Access to financial services is no longer the privilege of a few. Our estimates indicate that, through microfinance institutions (MFIs), financial services are now available to close to six million low-income households<sup>1</sup> in Latin America and the Caribbean (LAC).

The microfinance innovation process centered on viable lending technologies for tiny and informal urban enterprises but it has recently expanded to a wider array of financial services. This creative push led financial services to reach different population groups that were previously considered un-bankable. Outreach, however, is still modest and there is still ample room for expansion in terms of both the number of people and the type of financial services offered to low-income populations. The expansion of services has not been equal among countries or even within a single country. For instance, the microfinance industry has mainly reached an urban clientele in small countries such as Peru, Bolivia or El Salvador but it still lags behind in the largest LAC countries (Brazil, Mexico or Argentina) where most of the poor in the region live.

The uneven expansion of microfinance services in LAC raises basic questions: What types of institutions are offering microfinance services? What is the size of the microfinance sector in each particular LAC country? What is the potential demand for microfinance? This paper seeks to answer these questions. As information sources, we use data collected from microfinance institutions in 23 countries in addition to the analysis of household surveys from twelve countries. The next section, section 2, discusses data on the type and size of institutions offering microfinance services in LAC. Section 3 analyzes who is accessing credit and deposit services as reported by national household surveys and offers a framework to improve its measurement. Proper measurement will help microfinance key stakeholders to understand better the limits and potential of microfinance as it has evolved in LAC. Section 4 compares the results of our analysis on access to financial services by low-income households using two different data sources.

---

<sup>1</sup> These estimates include borrowers only.

## 2. Microfinance in LAC – Data from the Institutions

As any new idea, microfinance started small. In the 1970s, and after a strain of well-documented failures with agricultural development banks, groundbreaking programs were initiated in countries as dissimilar as Brazil and Bangladesh. The common factor in these programs was the conviction that low-income households – or more generally the poor- could and should be subject to credit. The early programs showed that low-income households engage in income-generating activities that require financing. For these households, access to formal financial services was just not possible (See Armendariz and Morduch, 2005, for of a recent review of worldwide microfinance initiatives).

In the following years, the examples set by the early innovators expanded throughout Latin American countries. New approaches to lending were introduced and tested. These new approaches included the group-lending scheme prompted by ACCION International, the individual lending approach perfected by the German Consultant firm *Internationale Projekt Consult GmbH* (IPC) and the village-banking concept shaped by FINCA. These new methodologies were, at the beginning, housed within Non-Governmental Organizations (NGO) and outside the formal financial system. A notable exception was BancoSol, a Bolivian bank fully dedicated to microfinance, which initiated operations as early as 1992.

Today, microfinance in LAC is much more varied. In some countries, such as Bolivia, Peru or Honduras, the regulatory authorities created specialized non-bank charters for MFIs. These are supervised full-fledged financial institutions that need to comply with the regulations set forth by the corresponding financial authority. The most significant difference with a bank is usually lower capital requirements (sometimes significantly lower) and a limited number of services that may be provided.

Commercial banks are also noticing microfinance. Some banks carry microfinance as its most significant line of business (MiBanco-Peru or Banco ProCredit- Ecuador). In others, microfinance becomes a new product (BanHcafe-Honduras, Banco Pichincha-Ecuador or Banco Santander-Chile). In a way, banks “downscale” to be able to reach the typical microfinance client (see Westley 2006, for more details). On the other side of the regulation scale, we still find non-regulated MFI that now seem to focus more on less urbanized areas. NGOs continue to be the most important non-regulated MFIs, although privately-owned companies (with clear shareholder participation) are starting to emerge in markets such as Argentina.

The purpose of this section is to report on the current structure of microfinance in LAC. For this, we conducted a survey during late 2005 and finalized during the first quarter of 2006. The data collected contains information from 23 LAC countries regarding type of MFI, gross portfolio and number of borrowers. We have also collected data on credit unions when available. Lastly, we analyze the performance of MFIs in the region with respect to their peers around the world and the traditional banking sector.

### ***Results by Type of Institution***

The objective of our survey was to obtain the most comprehensive database of MFIs possible. Nonetheless, we did not intend to obtain information on every single MFI but focused on having enough information to estimate the size of the sector. The emphasis was on obtaining information on microcredit operations (gross portfolio and number of borrowers).

The sources of information were several. While primary data was preferred, we also relied on information provided by organizations such as ACCION International, The Mix Market, ProCredit Holding AG, World Council of Credit Unions (WOCCU), World Bank, Women's World Banking, United States Agency for International Development, regional and local MFI networks as well as consultations with microfinance experts within the Inter-American Development Bank (IDB) and all over the region. Our objective was to collect information as current as possible thus most data reported corresponds to 2005.

The difficulties encountered in data collection were not only logistical. As found in similar exercises (Marulanda *et. al* 2006; Marulanda and Otero, 2005; Christen *et. al*, 2004; Westley, 2001; Christen, 2000), information about MFIs is not uniformly reported. Definitions are not necessarily consistent across countries or even within countries. To avoid additional biases with our own classification, we always used data as it was reported to us. We did not make adjustments of any sort. Nonetheless, we always tried to obtain the portion of the financial institution's portfolio that corresponded to microcredit only. This was especially important in the case of commercial banks where it is typical that the microcredit portfolio represents a small portion of overall lending operations. Also, in most cases we made the assumption that the number of borrowers is equal to the number of outstanding loan accounts.

To allow comparability with previous exercises, we classified our data in five groups. The first group corresponds to "downscalers", this is banks and non-bank financial institutions (*financieras*) that added microcredit as a new line of business (through an internal unit, a subsidiary or any other mechanism). The second group corresponds to "upgraders" or NGOs that have transformed themselves to regulated financial institutions. The third group is called "greenfields" which corresponds to institutions, which started from its inception to work as regulated MFIs. The fourth group is non-regulated MFIs which corresponds to NGOs, foundations and any other type of non-regulated financial institutions. Finally, the fifth group –analyzed separately- is credit unions (or cooperatives).



In the case of credit unions, it was not possible to obtain information per institution for each single country. Therefore, we report information only in those countries where information was available. In most cases we only obtained information on the number of members and not the number of borrowers. Only in a few cases (Colombia, Ecuador, Honduras and Paraguay) we obtained information on microcredit portfolio and microcredit borrowers (see table 4).

Table 1 summarizes the main results of data collected for MFIs in 2005. We made a special effort to extend the number of countries in order to provide a sound baseline in countries where microfinance is just emerging. Data for 2001 corresponds to a survey carried out by the IDB and the Consultative Group to Assist the Poor (CGAP).<sup>2</sup>

**Table 1**  
**Microfinance Institutions in Latin America and the Caribbean**  
**2005 and 2001**

| Type of Institution                                  | Number of Institutions | Portfolio (US\$ Millions) | Borrowers        | Average Loan (US\$) |
|------------------------------------------------------|------------------------|---------------------------|------------------|---------------------|
| <b>Data from 2005 (23 countries)</b>                 |                        |                           |                  |                     |
| Regulated MFIs                                       | 98                     | 4,407                     | 3,848,071        | 1,145               |
| Downscale (Banks & <i>Financieras</i> ) <sup>a</sup> | 32                     | 1,821                     | 1,260,553        | 1,444               |
| Greenfield <sup>b</sup>                              | 30                     | 1,005                     | 738,671          | 1,361               |
| Upgrades <sup>c</sup>                                | 36                     | 1,581                     | 1,848,847        | 855                 |
| Non Regulated MFIs                                   | 239                    | 1,035                     | 2,128,062        | 486                 |
| <b>All MFI – 2005</b>                                | <b>337</b>             | <b>5,442</b>              | <b>5,976,133</b> | <b>911</b>          |
| <b>Data from mid 2001 (17 countries)</b>             |                        |                           |                  |                     |
| Regulated MFIs                                       | 60                     | 901                       | 936,936          | 962                 |
| Downscale (Banks & <i>Financieras</i> ) <sup>a</sup> | 21                     | 343                       | 365,171          | 939                 |
| Upgrades <sup>c</sup>                                | 39                     | 558                       | 571,765          | 976                 |
| Non Regulated MFIs                                   | 124                    | 288                       | 869,509          | 332                 |
| <b>All MFIs – 2001</b>                               | <b>184</b>             | <b>1,189</b>              | <b>1,806,445</b> | <b>659</b>          |

<sup>a</sup> Downscales are regulated financial institutions which added microcredit as a new line of business.

<sup>b</sup> Greenfields are MFI which started as regulated financial institutions since their inception.

<sup>c</sup> Upgrades are NGOs that have transformed themselves into regulated financial institutions.

*Source:* The 2005 data was collected by the authors and corresponds to the available information around December 2005. The 2001 data are from a survey carried out by Glenn Westley of the IDB and Bob Christen, then of CGAP (Consultative Group to Assist the Poor).

---

<sup>2</sup> For data around 2004, see Marulanda and Otero (2005) and Marulanda *et. al* (2006).

Several features stand out in Table 1. The first one is the volume that microfinance is reaching. By 2005, microfinance institutions were reaching close to six million clients with an outstanding portfolio of over US\$5.4 billion. This estimate does not include the number of clients with access remittances, deposits, payment services or other type of financial services. It also does not adjust for those clients who have more than one loan at a given time.

A second important feature is that regulated MFI continue to have the lion's share of microlending. Already in 2001, most microfinance clients -52 %- were served by regulated MFIs. In 2005, this percentage went up to 64%. Regarding portfolio, these percentages climb to 76% for regulated MFIs in 2001 and 81% in 2005. Third, the average outstanding loan size for non-regulated institutions represent less than half (35% in 2001 and 42% in 2005) the average loan of regulated MFIs.

With respect to industry growth, data reveals an average annual growth rate of 35% for the number of borrowers and 46% for portfolio. Nonetheless, when we only compare information from MFIs that were counted in both periods the average annual growth rate decreases to 27 % for borrowers and 36% for gross portfolio.

### ***Results by Country***

Although aggregated numbers give us an idea of the overall magnitude of microfinance in LAC, differences between countries are significant. Table 2 presents the size of the sector in each country. The information we collected is ranked by number of clients in microfinance institutions. Note that when countries are ranked in this manner, Mexico ranks first, followed by more traditional microfinance markets such as Peru, Colombia or Bolivia.

**Table 2**  
**Microfinance in Latin America and the Caribbean**  
**(Circa 2005)**

|    | Country            | Number of MFIs | Portfolio<br>(US\$ Millions) | Borrowers        | Average Loan<br>(US\$) |
|----|--------------------|----------------|------------------------------|------------------|------------------------|
| 1  | Mexico             | 39             | 471                          | 1,217,920        | 387                    |
| 2  | Peru               | 67             | 1,516                        | 1,174,361        | 1,291                  |
| 3  | Colombia           | 22             | 315                          | 608,282          | 518                    |
| 4  | Bolivia            | 21             | 635                          | 548,242          | 1,158                  |
| 5  | Nicaragua          | 21             | 261                          | 399,614          | 652                    |
| 6  | Guatemala          | 23             | 273                          | 360,013          | 757                    |
| 7  | Ecuador            | 20             | 322                          | 327,065          | 985                    |
| 8  | Chile              | 5              | 663                          | 297,995          | 2,223                  |
| 9  | Brazil             | 16             | 91                           | 289,697          | 313                    |
| 10 | Dominican Republic | 15             | 164                          | 175,716          | 932                    |
| 11 | El Salvador        | 11             | 138                          | 143,461          | 964                    |
| 12 | Honduras           | 14             | 80                           | 139,424          | 575                    |
| 13 | Haiti              | 9              | 24                           | 81,222           | 374                    |
| 14 | Paraguay           | 5              | 71                           | 59,936           | 1,193                  |
| 15 | Costa Rica         | 19             | 341                          | 45,607           | 7,469                  |
| 16 | Venezuela          | 5              | 37                           | 44,969           | 816                    |
| 17 | Panama             | 6              | 16                           | 28,103           | 552                    |
| 18 | Uruguay            | 3              | 10                           | 7,155            | 1,422                  |
| 19 | Argentina          | 10             | 4                            | 10,649           | 402                    |
| 20 | Jamaica            | 3              | 4                            | 10,401           | 376                    |
| 21 | Guyana             | 1              | 2                            | 4,184            | 413                    |
| 22 | Trinidad & Tobago  | 1              | 3                            | 1,733            | 1,500                  |
| 23 | Barbados           | 1              | 4                            | 384              | 9,446                  |
|    | <b>Total</b>       | <b>337</b>     | <b>5,442</b>                 | <b>5,976,133</b> | <b>911</b>             |

*Source:* Authors' calculations.

The absolute number of clients, however, says little about the relative importance of microfinance in each particular country. To solve this problem, we also ranked countries according to two additional criteria: number of microfinance clients over total population and number of microfinance clients over total number of microenterprises (See Table 3). The use of any of these two criteria does not affect the relative position of smaller countries (Bolivia, Nicaragua, and Ecuador) but it does affect the relative position of larger countries such as Mexico, Colombia or Brazil. In those three cases, the use of a relative measure for the magnitude of microfinance reveals still large unexploited opportunities.

**Table 3**  
**Microfinance Country Ranking in Latin America and the Caribbean**

|    | Country                 | MFI Clients<br>(Circa 2005) | Household Surveys |                   | MFI clients/<br>Population<br>(%) | MFI clients/ ME<br>(%) |
|----|-------------------------|-----------------------------|-------------------|-------------------|-----------------------------------|------------------------|
|    |                         |                             | Date of<br>Survey | Microenterprises  |                                   |                        |
| 1  | Nicaragua               | 399,614                     | 2001              | 684,885           | 7.0                               | 58.3                   |
| 2  | Ecuador                 | 327,065                     | 2003              | 885,748           | 2.4                               | 36.9                   |
| 3  | Bolivia                 | 548,242                     | 2002              | 1,736,984         | 5.9                               | 31.6                   |
| 4  | Peru                    | 1,174,361                   | 2001              | 4,993,399         | 4.2                               | 23.5                   |
| 5  | Guatemala               | 360,013                     | 2000              | 1,600,041         | 2.8                               | 22.5                   |
| 6  | Chile                   | 297,995                     | 2003              | 1,497,112         | 1.9                               | 19.9                   |
| 7  | Honduras                | 139,424                     | 2004              | 1,036,684         | 1.9                               | 13.4                   |
| 8  | Dominican Rep.          | 175,716                     | 2004              | 1,399,785         | 2.0                               | 12.6                   |
| 9  | Mexico                  | 1,217,320                   | 2004              | 10,394,629        | 1.2                               | 11.7                   |
| 10 | Panama                  | 28,103                      | 1999              | 289,004           | 0.9                               | 9.7                    |
| 11 | Costa Rica              | 45,607                      | 2004              | 516,527           | 1.1                               | 8.8                    |
| 12 | El Salvador             | 143,461                     | 2002              | 1,991,091         | 2.1                               | 7.2                    |
| 13 | Guyana                  | 4,184                       | 1999              | 58,327            | 0.5                               | 7.2                    |
| 14 | Colombia                | 608,282                     | 2003              | 8,713,336         | 1.3                               | 7                      |
| 15 | Paraguay                | 59,936                      | 2003              | 1,542,800         | 1.0                               | 3.9                    |
| 16 | Jamaica                 | 10,401                      | 2002              | 408,627           | 0.4                               | 2.5                    |
| 17 | Uruguay                 | 7,155                       | 2004              | 387,145           | 0.2                               | 1.8                    |
| 18 | Venezuela               | 44,969                      | 2004              | 3,247,271         | 0.2                               | 1.4                    |
| 19 | Brazil                  | 289,697                     | 2002              | 22,407,968        | 0.2                               | 1.3                    |
| 20 | Argentina               | 10,649                      | 2004              | 3,787,634         | 0                                 | 0.3                    |
| 21 | Haiti                   | 81,222                      | n.a.              | n.a.              | 1.0                               | n.a.                   |
| 22 | Barbados                | 384                         | n.a.              | n.a.              | 0.1                               | n.a.                   |
| 23 | Trinidad & Tobago       | 1,733                       | n.a.              | n.a.              | 0.1                               | n.a.                   |
|    | <i>Total</i>            | <i>5,976,133</i>            |                   | <i>67,578,997</i> |                                   |                        |
|    | <i>Weighted Average</i> |                             |                   |                   |                                   | <i>8.7</i>             |

n.a. Not available

*Source:* Authors' compilation based on household and MFIs' surveys, and World Bank population estimates.

Finally, while our survey did not target credit unions, we acknowledge the fact that credit unions have an important presence in the region and that they work with low-income populations. However, there is some degree of overlap and competition MFIs that needs to be better understood. To do this, we present some information that can help us to better understand the commonalities between credit unions and MFIs. Table 4 summarizes the information we were able to collect organizes in in three categories. The first category corresponds to those countries in which we only have information about total portfolio and the total number of members (not borrowers). The second category refers to countries with information on total portfolio and borrowers but with no distinction on microcredit portfolio. The third category reports on those countries in which we were able to collect information on microcredit portfolio and microcredit borrowers. Category three gives us a lower bound of the probable importance of credit unions in LAC microfinance.

**Table 4**  
**Credit Unions in Latin America and the Caribbean –**  
**(Circa 2005)**

| <b>Category 1. Information on Total Portfolio (not only microcredit) and Total Number of Members (not only borrowers)</b> |                                |                                  |                              |                                        |
|---------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------------|
|                                                                                                                           | <b>Number of Credit Union</b>  | <b>Portfolio (US\$ Millions)</b> | <b>Members</b>               | <b>Average Loan<sup>a</sup> (US\$)</b> |
| <b>Bahamas, Barbados, Belize, Brazil, Chile, Jamaica, Costa Rica, Guyana, Mexico, Peru, Dominican Republic</b>            | 1,560                          | 4,930                            | 6,882,022                    | n.a.                                   |
| <b>Category 2. Information on total portfolio (not only microcredit) and total number of borrowers</b>                    |                                |                                  |                              |                                        |
|                                                                                                                           | <b>Number of Credit Unions</b> | <b>Portfolio (US\$ Millions)</b> | <b>Borrowers</b>             | <b>Average Loan (US\$)</b>             |
| <b>Bolivia, Guatemala, Haiti, Nicaragua, El Salvador, Panama</b>                                                          | 38                             | 401                              | 156,942                      | 2,556                                  |
| <b>Category 3. Information on Microcredit Portfolio and Total Number of Microcredit Borrowers</b>                         |                                |                                  |                              |                                        |
|                                                                                                                           | <b>Number of Credit Unions</b> | <b>Portfolio (US\$ Millions)</b> | <b>Microcredit Borrowers</b> | <b>Average Loan (US\$)</b>             |
| <b>Colombia, Ecuador, Honduras, Paraguay</b>                                                                              | 56                             | 465                              | 294,783                      | 1,576                                  |

n.a. Not available

<sup>a</sup> Average loan per member was not computed because in credit unions, members are not necessarily borrowers.

Source: Authors' calculation

### ***Performance of LAC Institutions***

In the previous sub-section, we focused on the size of microfinance in LAC. Now, we turn the discussion to the analysis of the overall performance of the sector. First, we will analyze basic indicators of MFI such as borrowers per loan officer, return on assets and portfolio at risk in the region vis-à-vis their peers in the rest of the world. Second, we draw on recent research that compares microfinance indicators (especially profitability) with the rest of the financial sector.

Table 5 presents selected performance indicators for the period 1999 to 2004. For this analysis, we draw on information collected by the *Microbanking Bulletin* (MBB).<sup>3</sup> The use of data from this source allows us to use comparable and standardized indicators from MFIs in LAC and the rest of the world. A wide variety of institutions now report to the MBB including a few credit unions and rural banks. Note, however, that the MBB does not necessarily report on the same MFIs each single year. There has been a continuously increased number of reported institutions so the results should be taken as trend indicators rather than the performance of the same group of institutions.

---

<sup>3</sup> The *Microbanking Bulletin* (MBB) is the premier source of high-quality information on the microfinance industry worldwide and the last edition covers over 450 MFIs. The MIX Market covers over 800 MFIs worldwide (and almost 200 in LAC), though with somewhat lower information quality for a few of them. The MBB applies adjustments for inflation, subsidies and loan loss provisioning in order to create comparable results. The *Microbanking Bulletin* only gives data on groups of MFIs, the MIX Market provides individual MFI data.

**Table 5**  
**Selected Performance Indicators for Microfinance Institutions**  
**(1999 – 2004)**

|                                                | Year        | Borrowers per<br>Loan Officer |            | Average<br>Portfolio at Risk<br>> 30 days (%) |            | Average<br>Return on Assets<br>(%) |            |
|------------------------------------------------|-------------|-------------------------------|------------|-----------------------------------------------|------------|------------------------------------|------------|
|                                                |             | Worldwide                     | LAC        | Worldwide                                     | LAC        | Worldwide                          | LAC        |
| <b>Banks</b>                                   | <b>2004</b> | 204                           | 236        | 5.7                                           | 2.3        | 0.9                                | 3.3        |
| <b>Non-Bank<br/>Financial<br/>Institutions</b> | <b>2004</b> | 280                           | 296        | 3.5                                           | 2.7        | 0.5                                | 2.7        |
| <b>NGOs</b>                                    | <b>2004</b> | 292                           | 316        | 2.9                                           | 2.0        | 0.5                                | 4.5        |
| <b>Credit Unions</b>                           | <b>2004</b> | 324                           | 340        | 5.7                                           | 5.5        | 1.2                                | 1.8        |
| <b>Rural Banks</b>                             | <b>2004</b> | 165                           | n.a.       | 6.6                                           | n.a.       | 0.7                                | n.a.       |
| <b>All Institutions</b>                        | <b>2004</b> | <b>234</b>                    | <b>305</b> | <b>4.4</b>                                    | <b>2.6</b> | <b>0.6</b>                         | <b>3.2</b> |
| <b>All Institutions</b>                        | <b>2003</b> | 269                           | 323        | 4.3                                           | 5.2        | -0.8                               | -0.2       |
| <b>All Institutions</b>                        | <b>2002</b> | 289                           | 344        | 3,4                                           | 3,6        | 2,7                                | 3.9        |
| <b>All Institutions</b>                        | <b>2001</b> | 280                           | 345        | 3.3                                           | 4.0        | 2.0                                | 2.5        |
| <b>All Institutions</b>                        | <b>2000</b> | 262                           | 315        | 4.1                                           | 4.8        | -0.6                               | 2.3        |
| <b>All Institutions</b>                        | <b>1999</b> | 266                           | 321        | 4.4                                           | 4.8        | -3.7                               | 2.3        |

n.a. Not available

*Note:* A different (increasing) number of MFIs report to the MBB.

*Source:* Microbanking Bulletin ([www.mixmbb.org](http://www.mixmbb.org)).

When looking at the data (Table 5), we can see that LAC microfinance institutions have consistently showed better performance indicators than worldwide averages. For instance, in 2004 Latin America MFIs showed return on assets (ROA) equal to five times the world's average. It is also interesting to note that institutional charter seems to matter in LAC more than in the rest of the world. In 2004, ROA for different type of institutions around the world cluster around 0.6%. In LAC, ROA varies from 1.8% to 4.5% (worldwide from 0.5% to 1.2%).

A comparison of performance indicators across type of financial institutions as well as regions of the world may also serve to analyze the context and relative performance of the sector in Latin America and the Caribbean. For example, Gonzalez and Rosenberg (2006) compare weighted ROAs of regulated MFIs to the returns of commercial banks. As shown in Table 6, microfinance consistently shows higher returns than commercial

banks - the only exceptions are the regions of Eastern and Central Asia and Sub-Saharan Africa.

**Table 6**  
**Profitability of MFIs and Commercial Banks**  
**2001-2005**

|                                        | MFIs       |                 | Commercial Banks |                          |
|----------------------------------------|------------|-----------------|------------------|--------------------------|
|                                        | Number     | Average ROA (%) | Number           | Average weighted ROA (%) |
| <b>Latin America and the Caribbean</b> | 138        | 3.8             | 552              | 2.1                      |
| <b>Eastern and Central Asia</b>        | 89         | 0.8             | 521              | 2.4                      |
| <b>East Asia and the Pacific</b>       | 34         | 5.3             | 153              | 1.5                      |
| <b>Middle East and North Africa</b>    | 23         | 3.5             | 134              | 0.9                      |
| <b>South Asia</b>                      | 39         | 1.2             | 177              | 1.2                      |
| <b>Sub-Saharan Africa</b>              | 60         | 0.9             | 267              | 1.7                      |
| <b>Worldwide</b>                       | <b>383</b> | <b>3.1</b>      | <b>1,804</b>     | <b>1.8</b>               |

Note: Individual institution information from the Microbanking Bulletin and BANKSCOPE.<sup>4</sup> Only NGOs and regulated (licensed) MFIs were included in this calculation. ROA weighted by assets.

Source: Gonzalez, A. and Rosenberg, R. (2006)

However, as microfinance becomes an integral part of the formal financial system, it is important to understand the effects of adding a microfinance to the portfolio of services of a financial institution. To test this integration, Navajas *et al.* (2006) conducted an exploration in six LAC countries (Bolivia, Peru, Ecuador, Colombia, El Salvador and Nicaragua) with 2004 portfolio data from 310 institutions. The sample was comprised by all type of banks (not only those with microcredit operations), credit unions, regulated MFIs and the most important non-regulated MFIs.<sup>5</sup> The objective was to measure the consequences of increasing the share of microcredit portfolio in an institution. The results showed that, regardless institutional charter, ROA increases 0.27 percentage points (ROE

---

<sup>4</sup> BANKSCOPE is a comprehensive, global database containing information on public and private banks.

<sup>5</sup> For this calculation, data from all formal financial institutions (not only those identified as microfinance institutions) was utilized. This was complemented with consultations with country specialists, microfinance networks and The Mix Market database.



increases by 0.64 percentage points) as the share of microcredit in total portfolio increases in ten percentage points.

In addition, the most successful MFIs in the region have reached profitability levels that are way above region averages. The most profitable MFIs in the region have ROAs that range from 6.7% to 19.6%. The list includes NGOs as well as regulated MFIs from ten different countries. These outstanding accomplishments are accompanied by very low arrears. In fact, five of these MFIs report portfolio-at-risk (>30 days) of less than 1 % (See Table 7).

**Table 7**  
**Top Microfinance Institutions in Latin America and the Caribbean**  
**2005**

|    | <b>MFI</b>                        | <b>Country</b>     | <b>Regulatory Status</b> | <b>ROA (%)</b> | <b>ROE (%)</b> |
|----|-----------------------------------|--------------------|--------------------------|----------------|----------------|
| 1  | Compartamos                       | Mexico             | Regulated – Upgrade      | 19.6           | 51.2           |
| 2  | ADRA – Peru <sup>a</sup>          | Peru               | Non-regulated            | 13.9           | 20.1           |
| 3  | FMM Popayán <sup>a</sup>          | Colombia           | Non-regulated            | 12.7           | 24.3           |
| 4  | Pro Mujer – Peru <sup>a</sup>     | Peru               | Non-regulated            | 12.3           | 21.6           |
| 5  | EDPYME Efectiva                   | Peru               | Regulated – Upgrade      | 11.9           | 41.3           |
| 5  | FINCA – Mexico                    | Mexico             | Non-regulated            | 11.9           | 30.2           |
| 7  | ADOPEM                            | Dominican Republic | Regulated – Upgrade      | 11.7           | 22.3           |
| 8  | FINCA – Peru <sup>a</sup>         | Peru               | Non-regulated            | 11.0           | 11.4           |
| 9  | Crediamigo<br>(Banco do Nordeste) | Brazil             | Regulated-Downscale      | 10.8           | 59.5           |
| 10 | FUNDENUSE                         | Nicaragua          | Non-regulated            | 9.3            | 21.6           |
| 11 | FINCA - Ecuador                   | Ecuador            | Non-regulated            | 9.1            | 29.5           |
| 12 | CRECER                            | Bolivia            | Non-regulated            | 8.9            | 20.9           |
| 13 | FONCRESOL <sup>a</sup>            | Bolivia            | Non-regulated            | 8.0            | 9.9            |
| 14 | PRODESA                           | Nicaragua          | Non-regulated            | 7.7            | 22.4           |
| 15 | Financiera El Comercio            | Paraguay           | Regulated-Downscale      | 7.5            | 35.1           |
| 16 | CMAC Cusco                        | Peru               | Regulated-Greenfield     | 7.4            | 42.3           |
| 17 | ACODEP                            | Nicaragua          | Non-regulated            | 6.9            | 26.3           |
| 17 | CMAC Arequipa                     | Peru               | Regulated-Greenfield     | 6.9            | 37.6           |
| 17 | Pro Mujer - Nicaragua             | Nicaragua          | Non-regulated            | 6.9            | 9.7            |
| 20 | BanDesarrollo                     | Chile              | Regulated-Downscale      | 6.7            | n.a.           |

<sup>a</sup> These MFIs have a portfolio at risk (<30 days) of less than 1%.

n.a. Not available

Source: The Mix Market (2006).

### 3. Microfinance in LAC – Data from National Household Surveys

An alternative approach to answer the question about the magnitude of access to microfinance or, more generally access to financial services by low-income populations, is through the use of national household surveys. In an effort to contribute to this type of analysis, the Inter-American Development Bank (IDB) has put together a database with those household surveys with sound information on financial activities and which are representative of a country's overall population.<sup>6</sup> The primary objective of this effort is to understand better the quantity and quality of financial services available in the LAC region (Tejerina and Westley 2006).<sup>7</sup>

In this section, we present the results of using national household surveys as the main source information to analyze access to financial services in LAC. First, we present results on access to credit and savings by the overall population, and by different type of households classified by their poverty status or their connection with a microenterprise. Second, we present a simple framework that takes advantage of household surveys and can contribute to better measure access, use and demand of financial services. Third, we present the results of using the proposed framework in selected countries (where data was available) as well as some other information that can be extracted from such surveys (e.g. loan sizes and type of collateral). Annex 2 presents the type of questions that should be included in national household surveys so the proposed framework can be applied.

---

<sup>6</sup> All surveys analyzed are available at [http://www.iadb.org/sds/pov/publication/gen\\_21\\_4393\\_e.htm](http://www.iadb.org/sds/pov/publication/gen_21_4393_e.htm). These surveys have all been carried out by each country's official statistics agency.

<sup>7</sup> Data about access to financial services by income categories (in this case income deciles) can be accessed through the "Mapping the Majority" tool at: <http://www.digov.com/mappingv3/>. This tool is part of the new initiative launched by the Inter-American Development Bank oriented to improve living conditions of low-income households. Available indicators include those related to access to basics services and other socioeconomic indicators.

### ***Access to Financial Services by Households***

What is the level of interaction between households and the financial sector? What types of households are borrowing and saving? To answer these questions, we used twelve national household surveys from the LAC region. Table 8 presents a summary of data referring to those households that have credit or savings from/in a formal financial institution.<sup>8</sup> The category *formal institutions* includes regulated financial institutions and non-regulated financial institutions, which in most cases refers to different types of credit unions and NGOs. *Informal institutions* (excluded from Table 8) include all sources of credit that are not considered financial institutions such as rotating savings and credit associations (ROSCAS) loans from individuals, and relatives, etc. Households are also classified by level of poverty and microenterprise activity. For poverty classification, we used the official poverty line established in each country. For microenterprises, we used the convention of considering microenterprise activity if at least one member of the household was self-employed or owned a firm of no more than five people (including employers). This estimate includes independent agricultural activities.

---

<sup>8</sup> The general question asked to the households in the case of credit is “Did you or any person in the household request a loan in the last twelve months?” followed by “Was the loan approved?”. In the case of savings, the general question was “Do you or any other member of the household currently have deposits in a bank, any other type of financial institution, family or friends?”.

**Table 8**  
**Percentage of Households with Loans or Savings from Formal Institutions**  
**Selected LAC Countries**

| Country                     | Year | Total  |      | Poverty         |      |                     |      | Microenterprise Activity          |      |                                      |      |
|-----------------------------|------|--------|------|-----------------|------|---------------------|------|-----------------------------------|------|--------------------------------------|------|
|                             |      |        |      | Poor Households |      | Non Poor Households |      | Households with a Microenterprise |      | Households Without a Microenterprise |      |
|                             |      | Credit | Sav. | Credit          | Sav. | Credit              | Sav. | Credit                            | Sav. | Credit                               | Sav. |
| <b>Bolivia <sup>a</sup></b> | 2000 | 7.0    | 9.9  | 5.3             | 4.5  | 9.7                 | 18.0 | 6.0                               | 6.0  | 7.2                                  | 15.3 |
| <b>Dom. Rep.</b>            | 2001 | 10.9   | 25.1 | 5.8             | 9.8  | 13.1                | 31.7 | 12.3                              | 2.33 | 9.2                                  | 25.9 |
| <b>Ecuador<sup>d</sup></b>  | 1998 | 9.8    | 22.7 | 4.9             | 7.9  | 12.2                | 29.9 | 13.9                              | 18.4 | 4.2                                  | 25.5 |
| <b>El Salvador</b>          | 2002 | 1.3    | 0.0  | 0.5             | 0.0  | 1.7                 | 0.0  | 1.2                               | 0.0  | 1.4                                  | 0.0  |
| <b>Guatemala</b>            | 2000 | 6.4    | 15.6 | 4.2             | 1.8  | 8.3                 | 27.3 | 6.9                               | 10.9 | 5.6                                  | 18.2 |
| <b>Haiti</b>                | 2001 | n.a.   | 11.7 | n.a.            | 3.7  | n.a.                | 23.9 | n.a.                              | 9.9  | n.a.                                 | 19.2 |
| <b>Jamaica</b>              | 1997 | 3.8    | 57.1 | 1.0             | 38.5 | 4.5                 | 61.5 | 3.0                               | 40.1 | 3.6                                  | 56.9 |
| <b>Mexico<sup>b</sup></b>   | 2004 | n.a.   | 32.9 | n.a.            | 21.8 | n.a.                | 40.7 | n.a.                              | 29.7 | n.a.                                 | 33.2 |
| <b>Nicaragua</b>            | 1998 | 10.4   | 4.8  | 5.0             | 0.5  | 13.8                | 7.5  | 15.6                              | 3.9  | 5.8                                  | 5.1  |
| <b>Panama</b>               | 2003 | 17.5   | 20.0 | 8.4             | 3.2  | 20.7                | 25.9 | 11.1                              | 13.9 | 19.7                                 | 23.0 |
| <b>Paraguay<sup>c</sup></b> | 2001 | 2.8    | 1.9  | 1.7             | 0.1  | 3.1                 | 2.5  | 2.1                               | 1.2  | 3.6                                  | 3.2  |
| <b>Peru</b>                 | 2001 | 3.5    | 4.5  | 1.5             | 0.9  | 5.1                 | 7.6  | 3.2                               | 3.0  | 3.6                                  | 6.4  |
| <b>Weighted Average</b>     |      | 6.4    | 24.3 | 3.3             | 14.5 | 8.4                 | 32.4 | 6.4                               | 18.5 | 5.8                                  | 28.6 |

n.a.: Not available

a The question for savings included "others"

b The question for savings included Rotating Credit and Savings Associations (ROSCAS)

c The questions for credit only include credit for household expenditures

d The question includes household expenditures and agricultural credit (so it, may exclude credit for non agricultural businesses).

Source: Tejerina and Westley (2006)

Table 8 shows that, on average, about a quarter of all households (24.3 percent) reported holding a savings account in a formal institution and about six percent requested and got a loan in the previous twelve months to the survey. Households with microenterprise activity reported a slightly higher use of credit (6.4 percent vs. 5.8 percent) but with a much lower use of saving facilities (18.5 percent vs. 28.6 percent). An important finding is also that households classified as poor report a significantly lower use of financial services compared to non-poor households. Only 3.3 percent of these households report having a loan and 14.5 percent report holding a savings account. Non-poor households double these figures (8.4 percent for credit and 32.4 for savings).

### ***Access, Demand and Use of a Financial Service***

Access to a financial service does not necessarily translate into use of that service. It is possible, for instance, to have a bank next door, be creditworthy and not have the need of credit because of accumulated wealth or lack of opportunities to invest. Alternatively, one could have money to save but prefer saving it “under the pillow” or through asset accumulation. In other words, people may have access to financial markets but prefer not to use them.

In Table 9 we propose a simple framework that can be used to analyze access, demand and use of financial services (in this case access to credit) using national household surveys.<sup>9</sup> From an initial situation of uncertainty about access to financial services we can start building a series of questions that reveal each household’s characteristics in terms of access, demand and use of financial services. In all cases, it is important to identify the provider of the service since access to a bank, for example, is different from access to services from a credit union or an NGO.

**Table 9**  
**Access, Demand and Use of Credit -**  
**Questions that Can Be Answered with Household Surveys**

|                         | <b>Requested a Loan</b> |                                         |                                                                            | <b>Did not Request a Loan</b>        |                                        |            |                   |                                                                     |
|-------------------------|-------------------------|-----------------------------------------|----------------------------------------------------------------------------|--------------------------------------|----------------------------------------|------------|-------------------|---------------------------------------------------------------------|
|                         | <b>Obtained a Loan</b>  | <b>Did not Obtain a Loan (Rejected)</b> |                                                                            |                                      |                                        |            |                   |                                                                     |
| <b>Possible Reasons</b> |                         | High risk/ bad credit                   | Low risk/ good credit (Collateral, asymmetric information, discrimination) | Proximity to a financial institution | Does not know how (financial literacy) | Not needed | Assumed rejection | Product characteristics (interest rate and other terms of the loan) |
| <b>Access</b>           | Yes                     | ?                                       | ?                                                                          | No                                   | No                                     | ?          | ?                 | ?                                                                   |
| <b>Demand</b>           | Yes                     | Yes                                     | Yes                                                                        | Yes                                  | Yes                                    | No         | Yes               | No                                                                  |
| <b>Use</b>              | Yes                     | No                                      | No                                                                         | No                                   | No                                     | No         | No                | No                                                                  |

*Note:* Question mark in the table cells means that we consider that the corresponding question cannot be answered with surveys only.

---

<sup>9</sup> An alternative approach is offered by Kumar (2005).

The simplest way to measure access is by the use of those services. In the case of credit, we can directly ask if a household has requested and obtained a loan. A positive answer to both questions will imply access, demand and use of credit. Rejection may simply mean that the applicant is a bad risk, which means that the financial system is working efficiently. If rejection is not based on lack of ability to repay, we may conclude that the financial system is not working adequately (if rejection is based on race for example).<sup>10</sup> It may, however, be difficult to clearly identify the reason for rejection. This is because it is usually hard for the respondent to objectively evaluate or interpret the reasons why the household was denied the loan.

Those who did not request a loan could be asked about the reasons behind that behavior. If the reason is proximity to a financial institution or lack of knowledge about how to get loans, we could conclude that those households do not have access to financial services (even if the household would be able to repay a loan at on-going prices). The demand is latent in this case.

However, in other cases conclusions about access are not straightforward. If the reason given is “Not needed” when people are asked about why did they not request a loan, then we can safely assume that there is no demand for credit, but we cannot be certain about the household’s access to financial services. If a loan were needed, we do not know if the household would be able to get a loan or not. It can also happen that a potential borrower considers (on her own mind) that the household might not meet minimum requirements for a loan. This assumed rejection does not provide us enough information about access. Demand seems very plausible but access is uncertain.

The last category is, probably, the most controversial and difficult to identify from household surveys. It refers to those potential borrowers who do not demand loan products due to current product characteristics (interest rates and other terms of the loan). They might represent genuine investment opportunities in need of external financing but current lending methodologies are not appropriate for them. They do not use credit nor do they demand it. However, this may change as available loan products evolve.

Using this simple framework (Table 9), we analyzed household surveys from five countries (Ecuador, Guatemala, Panama, Nicaragua, Dominican Republic). These are the only surveys that included questions about why some households did not ask for credit during the previous twelve months to the survey. While different surveys had different ways to pose these questions, we tried to group answers so that some degree of inter-country comparability was possible. Table 10 summarizes our results.

---

<sup>10</sup> See Stiglitz and Weis (1981) and Townsend (1979) as examples of a large strand of the literature that seeks to explain these phenomena.

**Table 10**  
**Access, Demand and Use of Credit**  
**Data From Household Surveys (%)**

|                                            | <b>Ecuador<br/>(household<br/>businesses)</b> | <b>Guatemala</b> | <b>Nicaragua</b> | <b>Panama</b> | <b>Dominican<br/>Republic</b> |
|--------------------------------------------|-----------------------------------------------|------------------|------------------|---------------|-------------------------------|
| <b>Year of Survey</b>                      | <b>1998</b>                                   | <b>2000</b>      | <b>1998</b>      | <b>2003</b>   | <b>2003</b>                   |
|                                            |                                               |                  |                  |               |                               |
| <b>Requested a loan</b>                    | <b>15</b>                                     | <b>13</b>        | <b>18</b>        | <b>34</b>     | <b>22</b>                     |
| Obtained from formal institutions          | 14                                            | 6                | 10               | 18            | 11                            |
| Obtained from informal sources             | 2                                             | 7                | 7                | 20            | 11                            |
| Rejected from formal and informal sources) | 0.7                                           | 1.5              | 0.9              | 0.7           | 1.6                           |
| <b>Did not request a loan</b>              | <b>85</b>                                     | <b>87</b>        | <b>82</b>        | <b>66</b>     | <b>78</b>                     |
| Not needed                                 | 48                                            | 39               | 25               | 28            | 29                            |
| Product Characteristics                    | 20                                            | 7                | 25               | 14            | 10                            |
| Financial literacy                         | 9                                             | 2                | 4                |               | 2                             |
| Proximity to financial institution         | 3                                             | 1                | 5                |               |                               |
| Assumed rejection                          |                                               |                  |                  |               |                               |
| <i>Requirements not met</i>                |                                               | 10               | 21               | 11            | 33                            |
| <i>Insolvency</i>                          |                                               | 18               |                  | 9             | 1                             |
| <i>Discrimination</i>                      |                                               | 8                |                  |               |                               |
| Other                                      | 4                                             | 3                | 2                | 5             | 1                             |

*Note:* For households that obtained a loan, multiple choices were allowed.  
*Source:* Ecuador, 1998 “Encuesta de Condiciones de Vida”, Guatemala, 2000 “Encuesta Nacional de Condiciones de Vida”, Panama, 2003 “Encuesta de Niveles de Vida” Nicaragua, 1998 “Encuesta Nacional de Hogares sobre medición de Niveles de Vida “, and Dominican Republic, 2004 “Encuesta Nacional de Condiciones de Vida”.

The most frequent reason given by respondents was just not needing credit. The percentage for these answers goes from 25 (Nicaragua) to 48 (Ecuador) percent. Another important group of answers correspond to those respondents who did not consider asking for credit because of product characteristics (7 to 25 percent of all answers). An interesting finding is that financial literacy is not seen as a major problem. The exception being Ecuador where financial literacy (lack of) seems to affect about 9 percent of households who did not request credit. Proximity to a financial institution (the option given is “do not offer loans in the community”) is also less important than other issues ranging from 1 (Guatemala) to 5 (Nicaragua) percent. The single most important reason for not requesting credit (other than lack of demand or product characteristics) is that people believe that requirements will not be met due to insufficient income, collateral or other documentation. These answers range from 10 (Guatemala) to 33 (Dominican Republic) percent of households.

### ***Characteristics of Financial Services***

Not all loans (or savings) analyzed in our initial sample could be categorized as microfinance services. To constrain our analysis to small-sized loans, we used information about the distribution of the volume of loans given to households from the surveys that had that information available. Using this information we filtered only those loans that were below a certain amount to count them as microfinance. Household surveys conducted by government agencies often lack detailed information on characteristics about each financial service. From the surveys we analyzed, we found only five surveys with information on loan amounts

In order to be able to compare amounts from different countries and time periods, we converted loan amounts into US dollars as of December of 2005. From this, we classified loans into four categories: those smaller than US\$100, those larger than US\$100 but smaller than US\$1,000, those larger than US\$1,000 but smaller than US\$5,000, and those larger than US\$5,000. Table 11 presents the findings of this exercise.



**Table 11**  
**Characteristics of Financial Services in LAC: Loan Sizes**

|                                                                                               | <b>Ecuador<br/>(household<br/>businesses)</b> | <b>Guatemala</b> | <b>Nicaragua</b> | <b>Paraguay</b> | <b>Peru (only for<br/>household<br/>spending<br/>loans)</b> |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------|------------------|------------------|-----------------|-------------------------------------------------------------|
| <b>Year of Survey</b>                                                                         | <b>1998</b>                                   | <b>2000</b>      | <b>1998</b>      | <b>2001</b>     | <b>2001</b>                                                 |
| <b>A. Households which<br/>Requested and Obtained a<br/>Loan -Formal Institutions<br/>(%)</b> | <b>14</b>                                     | <b>6</b>         | <b>10</b>        | <b>3</b>        | <b>3</b>                                                    |
| <b>B. Type of Loans Granted</b>                                                               |                                               |                  |                  |                 |                                                             |
| <i>All Sources (%)</i>                                                                        |                                               |                  |                  |                 |                                                             |
| >US\$5,000                                                                                    | 13                                            | 7                | 3                | 5               | 0                                                           |
| US\$1,000 – 5,000                                                                             | 32                                            | 21               | 8                | 14              | 9                                                           |
| US\$100 – 1,000                                                                               | 42                                            | 48               | 64               | 66              | 54                                                          |
| < US\$100                                                                                     | 13                                            | 24               | 25               | 15              | 36                                                          |
| <i>Sub-total</i>                                                                              | <i>100</i>                                    | <i>100</i>       | <i>100</i>       | <i>100</i>      | <i>100</i>                                                  |
| Median loan size (US\$)                                                                       | 781                                           | 452              | 221              | 258             | 221                                                         |
| <b>B.1 Formal Institutions (%)</b>                                                            |                                               |                  |                  |                 |                                                             |
| >US\$5,000                                                                                    | 18                                            | 13               | 5                | 6               | 1                                                           |
| US\$1,000 – 5,000                                                                             | 42                                            | 31               | 11               | 19              | 24                                                          |
| US\$100 – 1,000                                                                               | 38                                            | 53               | 75               | 68              | 73                                                          |
| < US\$100                                                                                     | 1                                             | 4                | 9                | 8               | 3                                                           |
| <i>Sub Total</i>                                                                              | <i>100</i>                                    | <i>100</i>       | <i>100</i>       | <i>100</i>      | <i>100</i>                                                  |
| Median loan size(US\$)                                                                        | 1,660                                         | 754              | 269              | 258             | 630                                                         |
| <b>B.2. Informal Sources (%)</b>                                                              |                                               |                  |                  |                 |                                                             |
| >US\$5,000                                                                                    | 10                                            | 1                | 1                | 3               | 0                                                           |
| US\$1,000 – 5,000                                                                             | 26                                            | 12               | 4                | 7               | 4                                                           |
| US\$100 – 1,000                                                                               | 44                                            | 41               | 47               | 61              | 45                                                          |
| < US\$100                                                                                     | 20                                            | 46               | 48               | 29              | 50                                                          |
| <i>Total</i>                                                                                  | <i>100</i>                                    | <i>100</i>       | <i>100</i>       | <i>100</i>      | <i>100</i>                                                  |
| Median size of loan (US\$)                                                                    | 391                                           | 121              | 66               | 129             | 110                                                         |
| <b>C. Average number of loans<br/>per household- Formal</b>                                   | <b>1.11</b>                                   | <b>1.19</b>      | <b>1.30</b>      | <b>n.a.</b>     | <b>n.a.</b>                                                 |

*Note:* Loan amounts were converted to 2005 US\$.

*Source:* Encuesta de condiciones de vida (Ecuador), Encuesta Nacional sobre Condiciones de Vida (Guatemala), Encuesta nacional de hogares sobre medición de nivel de vida (Nicaragua); Encuesta de hogares (Paraguay); Encuesta nacional de condiciones de vida (Dominican Republic).

According to the data, between a quarter and a third of the loans taken by households belong to the first category (between 0 and US\$100), approximately half of the loans belong to the second category (US\$100 to US\$1,000), between a third and a tenth belong to the third category (more than US\$1,000) and around ninety percent of the loans are below US\$5,000 in size. Either using the US\$1,000 or the US\$5,000 threshold we conclude that most loans to households count as microfinance. From Table 11, we might also infer that most of the loans taken by households classify as microcredit (or microfinance loans) if we would simply define them as loans smaller than US\$5,000 or even US\$1,000. Moreover the distribution of loan sizes varies considerably between the formal and informal sector: the median loan size for the formal sector is between four and six times larger than that of the informal sector. Hence, while low-income households may have access to informal market for loans it is clear that the demand for larger amounts is usually met by the formal sector.

Lack of collateral has also been discussed as one of the main factors affecting access to credit in developing countries. However, information on collateral is even more scarce than for loan amounts. We only found two household surveys (Guatemala and Nicaragua) that capture this type of information and which results are presented in Table 12.

**Table 12**  
**Characteristics of Financial Services in LAC: Types of Collateral**

|                             | Total (%) |           | Formal (%) |           | Informal (%) |           |
|-----------------------------|-----------|-----------|------------|-----------|--------------|-----------|
|                             | Guatemala | Nicaragua | Guatemala  | Nicaragua | Guatemala    | Nicaragua |
| Date of Survey              | 2000      | 1998      | 2000       | 1998      | 2000         | 1998      |
| Land, house                 | 25        | 12        | 40         | 17        | 13           | 5         |
| Livestock, crop             | 1         | 4         | 1          | 3         | 2            | 5         |
| Movable goods               | 2         | 26        | 3          | 40        | 2            | 7         |
| Guarantor, solidarity group | 15        | 8         | 30         | 9         | 2            | 5         |
| Nothing                     | 49        | 45        | 19         | 24        | 78           | 76        |
| Other                       | 6         | 5         | 7          | 7         | 3            | 2         |

*Source:* Nicaragua, 1998 “Encuesta Nacional de Hogares sobre medición de Niveles de Vida “, and Guatemala, 2000 “Encuesta Nacional de Condiciones de Vida”.

Overall, real estate (land and houses) accounts for about 25% of all collateral in Guatemala and 12% in Nicaragua. However, close to 50% of respondents report not using any type of collateral. The use of moveable goods (appliances, cars, livestock) as collateral seems to be more common in Nicaragua than in Guatemala. Another important

result is the different type of collateral used in formal financial markets *vis-à-vis* informal markets. In formal markets of Guatemala, we found that real estate was the most common type of collateral (40 %). In Nicaragua we found that the category of movable goods constitute the most widely used form of collateral (40%). In the informal sector, most loans were granted without any type of collateral (78% for Guatemala and 76% for Nicaragua).

#### **4. Connecting Supply and Demand – Making Sense of Diverse Data Sources**

In the previous sections, we presented data on access to financial services in LAC from two perspectives. First, we reported on a 2006 IDB survey of microfinance institutions from all over the region. Second, we analyzed those national household surveys with reasonably good information regarding financial transactions.

The survey of MFIs focused on obtaining an acceptable estimate (“big numbers”) on the overall portfolio and number of clients of the sector. As it is common with these surveys, we relied on the opinion of experts in each country and the institutions themselves. In a way, these are “self-proclaimed” microfinance institutions. We emphasized that we were looking for those financial institutions (regulated or not) that were serving microenterprises. It also should be clear that we did not collect information on every possible MFI but we did try to obtain data from the most important MFIs in each single country.

Nonetheless, we acknowledge the fact that microfinance has evolved considerably during the last few years and it has become increasingly difficult to have a single (“one for all”) definition. For example, some analysts suggest that only institutions that demonstrated the use of well-known credit technologies for microenterprises should be included in this type of inventories. Others suggest that the focus should be on financial institutions that provide any type of financial service (credit or not) that are reaching low-income segments of the population. The difficulties and lack of agreement in the definition are simple reflections of what occurs in the field. In the field, microfinance has taken as many forms as the objectives and motivations of its founders and funders. Today, microfinance encompasses activities run by NGOs, non-bank financial institutions or commercial banks. Each type of organization offers different services and combination of services to its clients.

The main result of the survey is that total microfinance portfolio in LAC is about US\$5.4 billion distributed among 5.9 million borrowers. Most borrowers (64 %) and portfolio (81%) correspond to regulated MFIs. Nonetheless, non-regulated MFIs continue to provide smaller average loans (compared to regulated MFIs) to over 2 million borrowers.

Credit unions are other type of “double-bottom” institutions (Christen et al. 2004) that should be also taken into account. While our survey did not target this type of institutions, we report the data we collected. Unfortunately, with the exception of a few countries (Colombia, Honduras, Ecuador, Paraguay), we were not able to get information on microfinance portfolio and their respective borrowers. Most information we have refers to members and not borrowers. In annex 1, we present all the information we collected.

Regardless data caveats, this exercise confirmed that microfinance is well and strong. In a 2001 inventory, the figure for microfinance borrowers was 1.8 million whereas now it is close to the 6 million mark. Also, there is increasing evidence that microfinance lending (or microcredit) is a profitable activity so it will very likely continue to expand even if the flow of public resources (local or international) diminishes. A huge potential market still exists for microfinance since our estimates indicate that there are close to 67 million households that rely on microenterprise income in the region. Appropriate financial services for these potential clients and other low-income populations are still scarce in LAC.

In section 3, we analyzed access to financial services from a different point of departure: national household surveys. We used national household surveys of twelve countries that contained adequate information on financial transactions. An important numerical result is the number of households with a loan from a formal institution, which indicates that 6.4 percent of all households have access to credit services. When we expand this result to the overall region, we obtained a figure close to eight million households with access to credit services.

The most important numerical result refers to the number of households with a loan from a formal institution. Our estimates indicate that about 6.4 % of all households have such access. When we expand these results to the overall region, we obtain a figure of eight million households with access to using credit. Slightly over half of these households (4.5 million) are typically connected to a microenterprise. If we multiply these figures by 1.2 (the average number of loans per household) we obtain 9.6 million loans for all households and 5.4 million loans for households with microenterprises.

Nonetheless, the most important contribution of national household surveys is the possibility to analyze use as well as demand and access of financial services. Inventories, such as the one presented in the section 2 of this paper, only shed light on use but neither on demand nor access. These are concepts that ought to be understood and analyzed separately. In section 3 we offer a simple framework that might be utilized to distill this type information from household surveys as they are currently carried out in the region.

Annex 2 presents an example of best practices in terms of a sample module for household surveys that might be used to analyze access, demand and use of a financial service. This module is based on a review of existing national household surveys of the LAC region. The objective is to offer a manageable (small) number of questions that could be included in household surveys without major changes to already lengthy questionnaires. Simple

and comparable modules will ensure that data on access is regularly collected - at reasonable costs- in a much larger set of countries.<sup>11</sup>

### ***Improving the Measurement of Microfinance***

The motivation of this paper was to measure the magnitude of the microfinance industry in the LAC region. We found that close to six million people may be accessing microfinance lending. However, we also found a considerable diversity in the way microfinance and, more generally, access to financial services by low-income segments of the population is measured. Improved measurement will certainly help all microfinance stakeholders to better identify growth opportunities. To do this we propose: First, a clear differentiation between access, demand and use of financial services needs to be made. Second, the concept of microfinance itself needs to be clarified. Microfinance should be understood and measured as the provision of all types of financial services to low-income segments of the population. Currently, discrepancies of definitions among countries may be affecting the data - Brazil and Mexico are good examples of possible underestimations. Third, the use of information from each institution (inventories) should be complemented with information from national household surveys. Such surveys are frequently carried out in the region for a variety of purposes and a simple addition or modification of a module about financial services could improve the monitoring of financial sector development. In addition, modules should be follow common definitions so comparability across countries is possible. These are not easy tasks, but they are important if we want to provide microfinance stakeholders with quality information relevant for decision-making.

---

<sup>11</sup> Another approach is to carry out very detailed surveys designed with the sole objective of analyzing access to financial services. An excellent example is provided by Kumar (2005), who presents the results of a survey to 2,000 individuals in nine cities and two metropolitan areas in Brazil.

## References

- Armendáriz de Aghion, B. and Morduch, J. 2005. *The Economics of Microfinance*. Cambridge, MA: The MIT Press.
- Christen, R.. 2000. *Commercialization and Mission Drift: The Transformation of Microfinance in Latin America*. Occasional Paper No. 5. Washington, D.C.: Consultative Group to Assist the Poor.
- Christen, R., Rosenberg, R. and Jayadeva, V. 2004. *Financial Institutions with a Double "Bottom Line": Implications for the Future of Microfinance*. Occasional Paper No. 8. Washington, D.C.: Consultative Group to Assist the Poor.
- Gonzalez, A. and Rosenberg, R. 2006. The State of Microfinance- Outreach, Profitability and Poverty: Findings from a Database of 2600 Microfinance Institutions. Paper presented at the conference Access to Finance: Building Inclusive Financial Systems. Washington, D.C.: The World Bank Group and the Brookings Institution.
- Kumar, A. 2005. *Access to Financial Services in Brazil*. Washington, D.C. : The World Bank Group.
- Marulanda, B. and Otero, M. 2005. *Perfil de las Microfinanzas en Latinoamérica en 10 Años: Visión y Características*. Boston. Accion Internacional.
- Marulanda, B., Paredes, M. and Fajury, L. 2006. Las Microfinanzas desde un Enfoque de Competitividad. Informe Red de Microfinanzas FOMIN. Bogotá. Mimeo.
- The Microfinance Information Exchange, Inc. (The Mix). 2006. Championship League: The Top 100 in Latin America and the Caribbean. In *MicroEnterprise Americas (Fall 2006)*. Washington DC: Banco Interamericano de Desarrollo.
- Navajas, S., Navarrete, E., Simbaqueba, L., Cuevas, M., and Salamanca, G. 2006. Indicadores de microfinanzas en América Latina: rentabilidad, riesgo y regulación. Serie de informes de buenas prácticas del Departamento de Desarrollo Sostenible No. MSM 134, Banco Interamericano de Desarrollo. Washington D.C.
- Sannino, I. and de Araujo Dantas, V. 2005. Estudio de las cooperativas de crédito y posibilidades de cooperación con recursos FOMIN. Informe de Consultoría BID. Milán. Mimeo.
- Tejerina, L. and Westley G. 2006. "Poor households and the financial sector: Identifying the gaps in borrowing and saving". Inter-American Development Bank. Manuscript.

Westley, G. 2001. *Can Financial Market Policies Reduce Income Inequality?* Sustainable Development Department Series Micro, Small and Medium Enterprise Division Technical Paper (MSM-112). Washington, D. C.: Inter-American Development Bank.

Westley, G. 2006. *Strategies and Structures for Commercial Banks in Microfinance.* Sustainable Development Department Best Practices Papers (MSM-123). Washington, D. C.: Inter-American Development Bank.

**Annex A. Inventory of Microfinance Institutions (CIRCA 2005)**





## **Annex B: Sample Module to Measure Access to Financial Services**

## DEPOSITS /SAVINGS

1. ¿Does any member of your household have money saved or invested in any institution, workplace, friends or family or other place?

☐ YES

☐ NO Go to question 3

Register the code of the persons who administer the main savings \_\_\_\_\_

|                  |  |
|------------------|--|
| <b>Account 1</b> |  |
| <b>Account 2</b> |  |
| <b>Account 3</b> |  |

2. Where do you have money saved? (Choose one option for each account)

|   |                                                        | <b>Account 1</b> | <b>Account 2</b> | <b>Account 3</b> |
|---|--------------------------------------------------------|------------------|------------------|------------------|
| A | <input type="checkbox"/> Bonds, shares                 |                  |                  |                  |
| B | <input type="checkbox"/> Private Banks                 |                  |                  |                  |
| C | <input type="checkbox"/> NGOs                          |                  |                  |                  |
| D | <input type="checkbox"/> Cooperatives                  |                  |                  |                  |
| E | <input type="checkbox"/> Private lender                |                  |                  |                  |
| F | <input type="checkbox"/> Friends, relatives, neighbors |                  |                  |                  |
| G | <input type="checkbox"/> Other? explain                |                  |                  |                  |

If you replied A or B please go to question 4

3. What is the main reason why you don't have money deposited in bank or bonds?

**Product characteristics**

- ☐ Interest rates are too low
- ☐ The costs of having deposits in financial institutions are too high.
- ☐ The Banks are too far away
- ☐ I do not have the necessary requirements (such as an identity document)
- ☐ The hours of operation are not convenient, process takes too long/too costly/products are hard to understand.

**Personal Reasons**

- ☐ Does not trust in banks to save money
- ☐ Prefers to save in other forms
- ☐ Does not have money to save
- ☐ Other? explain \_\_\_\_\_

Go to question 5

4. What type of account do you have?

|                | <b>Account 1</b> | <b>Account 2</b> |
|----------------|------------------|------------------|
| Savings        |                  |                  |
| Checking       |                  |                  |
| Other, explain |                  |                  |

Go to question 5

5. What use did you or would you give to your savings? (you can select more than one option)

|                              | <b>Account 1</b> | <b>Account 2</b> | <b>Account 3</b> |
|------------------------------|------------------|------------------|------------------|
| Business investment          |                  |                  |                  |
| Unforeseen expenses          |                  |                  |                  |
| Travel                       |                  |                  |                  |
| Home purchase                |                  |                  |                  |
| Education, training expenses |                  |                  |                  |
| Healthcare                   |                  |                  |                  |
| Clothing                     |                  |                  |                  |
| Vehicles                     |                  |                  |                  |
| Other? explain               |                  |                  |                  |

## Received Loans

6. In the last twelve months, has any member of the household solicited a loan in currency?

☐ YES

☐ NO Go to question 12

7. Have you been approved for the loan?

☐ YES

☐ NO Go to question 14

8. From which institutions did you obtain the loan? Each loan must correspond to one source, select the largest loan first)

(This section must be adapted to the specific characteristics of each country)

|                                     | <b>Loan 1</b>                |        |          | <b>Loan 2</b>                |        |          | <b>Loan 3</b>                |        |          |
|-------------------------------------|------------------------------|--------|----------|------------------------------|--------|----------|------------------------------|--------|----------|
|                                     | Member who obtained the loan | Amount | Currency | Member who obtained the loan | Amount | Currency | Member who obtained the loan | Amount | Currency |
| <b>Formal (regulated)</b>           |                              |        |          |                              |        |          |                              |        |          |
| Banks                               |                              |        |          |                              |        |          |                              |        |          |
| Regulated Microfinance Institutions |                              |        |          |                              |        |          |                              |        |          |
| NGOs                                |                              |        |          |                              |        |          |                              |        |          |
| <b>Informal (non regulated)</b>     |                              |        |          |                              |        |          |                              |        |          |
| Comercial financing                 |                              |        |          |                              |        |          |                              |        |          |
| Cooperatives                        |                              |        |          |                              |        |          |                              |        |          |
| Private lender                      |                              |        |          |                              |        |          |                              |        |          |
| Friends, relatives, neighbors       |                              |        |          |                              |        |          |                              |        |          |
| Other? explain                      |                              |        |          |                              |        |          |                              |        |          |

9. What did you use as collateral for the received loan?

|                                                       | <b>Loan 1</b> | <b>Loan 2</b> | <b>Loan 3</b> |
|-------------------------------------------------------|---------------|---------------|---------------|
| Non-movable assets (Such as land or house)            |               |               |               |
| Keeping a minimum amount deposited in the institution |               |               |               |
| Sign insurance to cover loan amount                   |               |               |               |
| Moveable assets such as jewelrv or livestock          |               |               |               |
| Crops and /or future harvest                          |               |               |               |
| Guarantor or cosigner                                 |               |               |               |
| Soidarity group                                       |               |               |               |
| Authoprization to have a percentage of salary reduced |               |               |               |
| Nothing                                               |               |               |               |

10. Would you have liked a larger loan at the same interest rate?

|        | Yes | No |
|--------|-----|----|
| Loan 1 |     |    |
| Loan 2 |     |    |
| Loan 3 |     |    |



11. What was the main purpose of the loan?

Agriculture and livestock industry

|                                    | <b>Loan 1</b> | <b>Loan 2</b> | <b>Loan 3</b> |
|------------------------------------|---------------|---------------|---------------|
| Tools or working instruments       |               |               |               |
| Machinerv                          |               |               |               |
| Furniture and equipment            |               |               |               |
| Inputs for production              |               |               |               |
| Livestock                          |               |               |               |
| Land                               |               |               |               |
| Repayment of loans of the business |               |               |               |
| Mills                              |               |               |               |
| Warehouses                         |               |               |               |
| Stables                            |               |               |               |
| Motor vehicles for agriculture     |               |               |               |
| Other?, explain                    |               |               |               |
| Tools or working instruments       |               |               |               |

Non Agricultural activities

|                                    | <b>Loan 1</b> | <b>Loan 2</b> | <b>Loan 3</b> |
|------------------------------------|---------------|---------------|---------------|
| Tools or working instruments       |               |               |               |
| Machinerv                          |               |               |               |
| Furniture and equipment            |               |               |               |
| Inputs for production              |               |               |               |
| Land or establishment              |               |               |               |
| Merchandise for the business       |               |               |               |
| Repayment of loans of the business |               |               |               |
| Motor vehicles for agriculture     |               |               |               |
| Other?. explain                    |               |               |               |
| Tools or working instruments       |               |               |               |

Household

|                                 | <b>Loan 1</b> | <b>Loan 2</b> | <b>Loan 3</b> |
|---------------------------------|---------------|---------------|---------------|
| Appliances                      |               |               |               |
| Emergency health expenses       |               |               |               |
| Repayment of household loans    |               |               |               |
| Purchase of house               |               |               |               |
| House construction              |               |               |               |
| House remodeling                |               |               |               |
| Education                       |               |               |               |
| Motor vehicles of the household |               |               |               |
| Other?. explain                 |               |               |               |

Go to question 13

12. What is the reason for not soliciting a loan?

- ☐ They do not offer loans in the community
- ☐ Does not know how
- ☐ Too many requirements
- ☐ Does not have goods to leave as collateral
- ☐ Fear of losing collateral
- ☐ Interest rate is too high
- ☐ Would rather work with own resources
- ☐ Does not have investment opportunity/not needed
- ☐ Insufficient income
- ☐ They do not lend to people like me
- ☐ Other?, explain \_\_\_\_\_

13. What other types of services have you used in the last twelve months?

- ☐ Payment of remittances
- ☐ Received payments from social programs
- ☐ Credit card
- ☐ Private health insurance
- ☐ Private life insurance
- ☐ Private property insurance

14. What do you buy with your credit card if you have it?

- ☐ Food outside of the household
- ☐ Monthly consumption
- ☐ Entertainment
- ☐ Pharmacy
- ☐ Fuel and maintenance of motor vehicle
- ☐ Clothing
- ☐ Emergencies?
- ☐ Other?, explain \_\_\_\_\_

15. If you do not have a credit card why did you not get one?

- ☐ Does not need one
- ☐ Has not applied for one
- ☐ High interest rates
- ☐ Does not fulfill the requirements
- ☐ Does not know how to apply/use
- ☐ Other?, explain \_\_\_\_\_