# IS THERE A DIFFERENCE IN POVERTY OUTREACH BY TYPE OF MICROFINANCE INSTITUTION? COUNTRY STUDIES FROM ASIA AND LATIN AMERICA 1

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#### Abstract

Microfinance is often seen as an effective tool to reach the poor, yet there is a paucity of studies on the poverty level of microfinance clients, differentiated by type of microfinance institution. This paper seeks to make a contribution in closing that knowledge gap, and focuses on Bangladesh and Peru, two of the pioneering countries in microfinance. We examine the poverty status of savers and borrowers with micro-banks, savings and credit cooperatives, and NGO-based microfinance institutions. In order to determine the poverty status of clients, the analysis is carried out for national as well as international poverty lines. Member- or NGO-based microfinance institutions are found to have a higher poverty outreach

Key words: outreach, poverty, poverty line, savings, credit, Peru, Bangladesh.

# 1. POLICY OBJECTIVES FOR BUILDING INCLUSIVE FINANCIAL SYSTEMS

The purpose of this paper is to assess the poverty outreach of various types of microfinance institutions (MFIs). While the main focus of this paper is on

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measuring MFIs' outreach to the poor, we briefly outline in this section that outreach is only one of three operational policy objectives for building inclusive financial systems. The other objectives are financial sustainability of the microfinance institution and impact on poverty reduction (Zeller et al., 2002). When considering all three objectives, a microfinance institution that is highly unsustainable (i.e. requires subsidies) but effectively targets the poor and enables them to move out of poverty may in fact be less effective in reducing poverty per dollar of public resources spent than an MFI that only reaches microentrepreneurs above the poverty line. This is because the clients of the latter MFI might provide significant positive spillovers for the poor, for example, by creating employment for those below the poverty line. Furthermore, this MFI may require only small subsidies by the government or donors that can be phased out after a few years. This example highlights that poverty outreach per se cannot be used as the only criterion for evaluation of a microfinance institution. The three operational objectives of microfinance (see Zeller and Meyer, 2002) should be evaluated using a social cost-benefitanalysis.

At first glance, many might be tempted to say that the poor are neither creditworthy nor are they able to save; nor can they pay for insurance against any of the risks they face. That these common assumptions are wholly unfounded has been demonstrated time and again by empirical research on informal financial markets and risk-coping behavior of households (Alderman and Paxson, 1992; Deaton, 1992; Udry, 1990; Rutherford, 2000; and Townsend, 1995). During the past twenty years since the paradigm shift from subsidized credit to public investment for pro-poor financial systems, these myths should also have been laid to rest by the increasing number of successful institutional innovations that provide savings, credit, and insurance services to poor women and men in developing countries who were previously thought to be unbankable and uninsurable. Given our improved understanding of the demand for financial services by the poor, many policy strategies now advocate building more inclusive financial systems as an efficient and effective policy instrument for sustainable poverty reduction. This raises the question of the comparative advantage of different types of microfinance institutions in providing financial services to the poor.

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# 2. INSTITUTIONAL TYPES OF MICROFINANCE INSTITUTIONS: THEIR COMPARATIVE ADVANTAGE IN REACHING THE POOR

Institutional innovation in microfinance does not necessarily require creating a new institutional type (as the pioneers of the cooperative movement did), but includes the adaptation of an existing institutional type to the constraints and potential of a certain client group in a specific environment. MFIs can be distinguished by two criteria (Zeller, 2006): their legal status and their lending technology. With respect to the first criteria, we distinguish member-based institutions such as credit unions, cooperatives, and village banks from private-for-profit institutions such as micro-banks. In addition, state-owned banks play a significant role as providers of microfinance services in a number of Asian countries, namely Thailand (Yaron, 1992) and Vietnam (Dufhues et al, 2007).

1) Savings and credit cooperatives (SCOs) are owned and controlled by their members and function according to democratic rules (if not captured by government or by cronyism among members). Profits are reinvested or shared among members. SCOs – especially larger ones with paid staff and professional management – are focused on profit, but the cooperative origins and the member-based governance structure also feature equity concerns for weaker members. The one-person, one-vote rule is a clear expression of the cooperative spirit of self-help and care for weaker members in the cooperative movement. SCOs are usually registered under a country's cooperative law, but may lack effective external supervision or authorizing legislation. The unions often form national networks so as to transfer excess liquidity. Savings and credit cooperatives are a sustainable institutional type for microfinance: They can draw on 150 years of experience and are in fact the number one provider of micro-finance<sup>2</sup>. The major comparative advantages of SCOs lie in their ability to serve large numbers of depositors in urban as well as higher-potential rural centers and use these savings to provide a diversified range of loans to individual members. While most members of SCOs are non-poor, this type of institution also has a great potential to reach many poor people because of its breadth of outreach.

**2) Village banks** are semi-formal, member-based institutions that are promoted by international NGOs, first by FINCA (Foundation for International Community Assistance) and later by Freedom from Hunger, CARE, CRS

<sup>&</sup>lt;sup>2</sup> Based on a postal survey of international microfinance NGOs and networks with 67% and 50% response rates respectively, Lapenu and Zeller (2001) estimated that 60.5% of savings and 59.9% of loans are provided by the cooperative model. See, for example, also Cuevas (1999) on the role of credit unions in Latin America.

(Catholic Relief Services), Save the Children, CIDR (Centre International de Développement et de Recherche), and others, with modifications to the original model such as providing complementary services or greater decision-making autonomy to members. The village bank is owned by its members, but ownership is not formally registered. Members can determine interest rates on internally generated savings deposits and on-lending through the internal account, usually at higher interest rates than the going rates in commercial banks. Village banks serve a poorer clientele than credit unions and have a high proportion of female members and are promoted with the ultimate objective of reducing poverty. Emphasis is therefore put on the depth of outreach and impact on poverty reduction, while NGOs often provide complementary services such as education or business training to enhance impact.

A village bank is less complex in structure and administration than a credit union, thus enabling less educated members to manage the bank. However, start-up costs for formation and training are considered relatively high and are externally financed by the supporting NGO and its donors. The main form of credit guarantee is social pressure. One of the major advantages of village banks, especially for rural areas, is that they can eventually operate as autonomous institutions. Thus they are highly flexible in determining admission rules and interest rates for savings and loans are adapted to local socio-economic conditions. The expectation is that the village banks accumulate and retain sufficient equity capital to become self-reliant. However, this objective has not been generally achieved. Village banks have shown great strength in reaching poorer clientele, but not in reaching financial sustainability, probably because they chose disadvantaged locations and clientele to begin with.

Their major disadvantage is that – unless they are linked with a bank, credit union or federation of village banks – their savings and loan portfolio is bound to be constrained and influenced by the local economy, including the threat of covariant risk. Because of the small size of a village bank (30-50 members), it is unclear whether they have any significant advantage over informal community-based institutions in financial intermediation and risk pooling, other than access to donor-funded external capital for on-lending. From a financial systems perspective, the long-term sustainability and outreach of village banks hinges upon their ability to integrate into the formal financial system.

As both credit unions and village banks are *member-based institutions*, they have some common characteristics (Annex 2) and strengths. These include their ability to build institutions that can empower communities as a whole

and create social capital, their low-cost of in-depth information on low-income or illiterate clients, and the flexibility (at least, in principle, if not heavily regulated) to adjust interest rates and other terms for savings and credit products to location-specific demand schedules. All these points are highly relevant for extending finance to heterogeneous areas and clientele groups.

Before describing the third MFI type of private micro-banks, two further distinctions based on the lending technologies of the the member-based institutions are discussed. The lending technology in microfinance refers to either individual lending or solidarity group lending. In addition, the latter can further be distinguished from the linkage type group lending model, as described in the following.

Solidarity credit groups. The important characteristics of solidarity groups are listed in Annex 2. They represent a common lending technology used by NGO-type MFIs. Major MFIs such as Grameen Bank, ASA (Association for Social Advancement) and SHARE and the rural operations of the women-owned SEWA bank in India offer loans to solidarity credit groups. The use of solidarity groups as retail institution allows MFIs to reduce their transaction costs, and thereby increase their depth of poverty outreach. Large-scale solidarity group lending schemes operate either as banks (e.g. Grameen Bank, SEWA), or as NGOs (ASA, SHARE) that use the services of rural banks for deposit and payments between NGO branches and headquarters. All four of the abovementioned MFIs are considered to be successful at reaching poor women, for which the subsidy that they require is well spent from a social investor's point of view (Morduch, 1999a and 1999b; Zeller et al, 2002). However, as competition heats up between the large, group-based MFIs, for example, in Bangladesh, subsidies for individual poverty-focused MFIs may need to be reviewed to provide a more level-playing field. The comparative advantage of solidarity credit groups in increasing depth of outreach are increasingly recognized and used by other MFIs. Microbanks, such as BancoSol, use the solidarity group approach to improve depth of outreach or to reach clientele in rural areas.

Linkage type. This alternative retail group-based model builds on existing informal self-help groups (SHGs), such as ROSCAs (Rotating Savings and Credit Associations). Its major advantage is that group formation costs have already been born by members. Like other member-based institutions, the "linkage model" (Kropp et al, 1989; Seibel, 1985; Seibel et al. 1994) seeks to combine the strengths of existing informal systems (client proximity, flexibility, social capital, reaching poorer clients) with the strengths of the formal system (e.g., risk pooling, term transformation, provision of long-term investment loans, financial intermediation across regions and sectors).

3) Micro-banks. Micro-banks include a wide array of institutions. Their primary operational focus is reaching financial sustainability. They differ from commercial banks in two aspects: First, they acknowledge and wish to serve the demand for financial services from micro- and small-scale entrepreneurs, however they often avoid mentioning "poor" or "poverty" in their mission statements. Second, they use collateral substitutes and other innovations just like other MFIs. Micro-banks include the state-owned community-level banks of the Rural Bank of Indonesia (BRI), BancoSol in Bolivia (transformed from an NGO), Calpiá (first a donor-funded credit project, then a NGO) in El Salvador, and micro-banks "built from scratch" with technical assistance from consulting companies such as International Project Consult (IPC). Their main difference from credit unions and village banks (or NGO-type banks such as Grameen and SEWA) is that they are not owned by their members, but by individuals or legal entities (legal entities can be the state, NGOs, private companies, individuals, or a combination thereof). While the social and poverty focus of member-based MFIs is clearly embedded in the ownership scheme and therefore the incentive structure, micro-banks depend on the social commitment of their owners to make compromises between profit and staying at the lower end of the market.

Due to their heterogeneous origins, the ownership structure of MFIs differs widely. Calpiá, for example, grew out of a credit program with a strong sustainability focus (Navajas and Gonzalez-Vega, 1999) and is owned by non-profit NGOs. Micro-banks lend mainly on an individual basis such as BRI-community banks or IPC-supported banks, but also feature solidarity group lending such as BancoSol.

Because of their profit orientation, micro-banks offer relatively high loan sizes (Zeller, 2006), and are therefore unlikely to reach the poor in any significant number. However, these better-off clients may not have had access to traditional commercial banks and loans to small and medium enterprises, making an indirect contribution to poverty reduction by creating jobs for poor people. While depth of outreach is certainly not their objective (unless they link with village banks or solidarity groups such as BancoSol once did), the advantages of micro-banks lie in their serving the neglected middle market.

4) State-owned rural development banks. Due to structural adjustment, many of the state-owned agricultural and rural development banks were dismantled. The major reasons for closing these banks was their failure in becoming efficient, self-reliant institutions. Moreover, because of their subsidized interest rates and related rent-seeking, the banks did not reach significant numbers of the poor. However, there are some successful cases of transformation of once highly-subsidized state-owned rural banks in Southeast Asia. The ex-

amples of the Rural Bank in Indonesia (BRI) and the Bank for Agriculture and Agricultural Cooperatives (BAAC) in Thailand demonstrate that state-owned banks can be successfully transformed based on business principles. We note that financial sustainability can be compatible with public ownership provided that there is political commitment and an appropriate incentive and supervision system for bank management. In Vietnam, the two major state-owned banks operating in urban as well as rural areas are the Vietnam Bank for Social Policies (VBSP) and the Vietnam Bank for Agriculture and Rural Development (VBARD). These two banks also underwent a number of reforms that are described by Dufhues et al (2007). While VBARD does not have an explicit focus on reaching poor households and aims to serve the agricultural sector as a whole, the mandate of VBSP is to provide loans targeted to poor households. VBSP channels loans both to individual rural households as well as to groups. However the allocation of credit is controlled by local government in both systems. Dufhues (2007) shows that socially marginalized groups are relatively more constrained in their access to loans from VBSP compared to above-average households in Northern Vietnam.

In the following section, we analyze the poverty outreach of different types of micro-finance institutions in Peru and Bangladesh. Apart from NGOs using solidarity group or individual lending technologies, we distinguish cooperatives, micro-banks, as well as private/commercial and public banks as institutional types. In these two countries, we use recent nationally representative household data. The data include per-capita daily expenditures enumerated using Living Standard Measurement Survey methodology. These data are unique as they also contain detailed information about client status with financial institutions.

# 3. POVERTY OUTREACH OF FINANCIAL INSTITUTIONS IN PERU AND BANGLADESH

## 3.1 Information on sampling and computation of poverty measures

A nationally representative sample of 800 households was constructed in Peru. The sampling design had to consider the pronounced regional diversity in agro-climatic, cultural, and socioeconomic conditions resulting from the north-south extension of the Andes. Therefore, the multi-stage cluster sampling used to select a random sample of 800 households, was controlled for the four main geographic macro-regions (Metropolitan Lima, the rest of the coastal region, the Andean highlands, and the lowlands) as well as for rural

and urban areas in each of the latter three, which combine to sum up to seven geographic domains.

The first stage of sampling was conducted at the department level and consisted of randomly selecting 8 of the 24 departments: Arequipa, Cajamarca, Cusco, La Libertad, Lima (twice), Loreto, and Piura. A probability-proportionate-to-size sampling (PPS) selected 100 households in each of these departments with equal population shares at each subsequent stage of the sampling.

The Government of Peru calculates a poverty line to account for differences in the consumer basket based on regional consumption habits and prices. As illustrated in Table 1 below, between 44% and 69% of all households in 2000 fell below this regionally disaggregated national poverty line in each of the seven domains. The weighted average at the national level results in a total head-count of 54.1% poor in Peru derived from the National Living Standard Measurement Survey of Peru from the year 2000 (Webb and Fernández, 2003). Following a poverty definition given by a U.S. Congressional legislation,<sup>3</sup> half of this 54.1% can be considered 'very poor'. We call this benchmark, which identifies the 50% below the national poverty line, 'median poverty line'. In the sample, 26.88% of households are very poor when applying this median, which is very close to the bottom 50% cut-off of the published headcount index (i.e. yielding a headcount index of 'very poor' of 27.05%).

In addition to the national and median poverty lines, the international poverty lines of one and two dollar per day per capita (equal to \$1.08 and \$2.16 per day in purchasing power parity (PPP) dollars at 1993 prices) are used as alternative criteria for identifying the 'poor' and 'very poor'. As the benchmark questionnaire used<sup>4</sup> enumerates per-capita expenditures in current *Nuevos Soles* (local Peruvian currency) as of the survey date, we converted the national and international poverty lines into *Sole* values as of July 2004 adjusted by the loss in purchasing power (expressed by the national consumer price index (CPI) for Lima).

<sup>&</sup>lt;sup>3</sup> The U.S. Congressional legislation in terms of *The Microenterprise Results and Accountability Act of 2004* requires the United States Agency for International Development to measure the amount of funding that assists 'very poor' microenterprise clients. The legal text refers to two alternative poverty lines in defining the 'very poor': (1) individuals living in the bottom 50% below the poverty line established by the national government, or (2) individuals living on the equivalent of less than \$1/day. Through the above term 'or', the legislation implies that a person could be considered very poor if he/she was *either* living on less than a dollar a day, *or* was in the bottom half of the distribution of those below the national poverty line.

<sup>&</sup>lt;sup>4</sup> The benchmark questionnaire enumerated total household expenditures following the methodology of the Living Standard Measurement Survey (LSMS). The questionnaire for Peru and Bangladesh can be downloaded at www.povertytools.org.

Table 1. National poverty lines and headcount indices in Peru in 2000, by region

Expenditures May 2000	Daily nat. poverty line	Poverty headcount	Daily median poverty line	Poverty headcount
Region	(Soles/ pers./ day)	(percent)*	(Soles/ pers./ day)	(percent)*
Lima Metro.	7.7	45.2%	5.5	22.6%
Urban Coast	6.4	53.1%	4.3	26.6%
Rural Coast	4.3	64.4%	2.8	32.2%
Urban Highland	5.5	44.3%	3.7	22.2%
Rural Highland	3.6	65.5%	2.2	32.8%
Urban Lowland	5.3	51.5%	3.5	25.8%
Rural Lowland	3.6	69.2%	2.4	34.6%
National total		54.1%		27.1%

Source: adapted from Zeller, Johannsen and Alcaraz (2005).

Table 2 compares the four poverty lines with their adjusted values for the year 2004. The median national poverty line defines a higher percentage of the population as very poor than the international \$1 poverty line in every geographic domain.

Table 2. Poverty lines in Peru for the year 2004, by region

Expenditures July 2004	Median poverty line	National poverty line	Internat. \$1 poverty line	Internat. \$2 poverty line
Region	(Soles/ pers./ day)	(Soles/ pers./ day)	(Soles/ pers./ day)	(Soles/ pers./ day)
Lima Metro.	5.98	8.45	2.08	4.16
Urban Coast	4.68	6.99	2.08	4.16
Rural Coast	3.04	4.75	2.08	4.16
Urban Highland	4.04	6.01	2.08	4.16
Rural Highland	2.38	3.93	2.08	4.16
Urban Lowland	3.83	5.81	2.08	4.16
Rural Lowland	2.60	4.04	2.08	4.16

Source: Own calculations derived from Zeller, Johannsen, and Alcaraz (2005).

Basically the same multi-stage cluster sampling described for Peru was used for the nationally representative sample of 800 households in Bangladesh.

<sup>\*</sup> The poverty headcount corresponds to the official figures based on ENNIV data of the year 2000, as published in Webb and Fernández (2003).

Divisions are the highest administrative unit in the country. There are six divisions, disaggregated into 64 districts. Each district has an average of eight counties (*Thanas*). To reduce sampling errors, the first stage was conducted at the *Thana* level, the lowest administrative level with centrally available and published population data. Ten *Thanas* located in five divisions were randomly selected. In subsequent stages, 80 households were again selected by probability-proportionate-to-size sampling (PPS) in each of these 10 *Thanas*. Due to one drop out household, the total sample comprises 799 households.

In Bangladesh, the national poverty line is expressed in Taka, the local currency. Based on Bangladesh's most recent Household Income and Expenditure Survey (HIES) of 2000, a total of 49.8% of households fell below the national poverty line. Consequently, the 'median poverty line' of 24.9% would be considered 'very poor'. On the other hand, 36% of the population in Bangladesh fall below the international poverty line of \$1/day. Hence, in contrast to Peru, the international poverty line defines a higher percentage as 'very poor' in almost all of the geographic areas than the median of the national poverty line. Therefore, 'very poor' will refer to the international \$1 poverty line in Bangladesh. According to this benchmark, 31.4% of sample households were 'very poor'. This is reasonably close to the published headcount index of 36%, derived from the Bangladesh Bureau of Statistics' Household Income and Expenditure Survey of 2000. As in Peru, it was necessary to convert \$1 into Taka using purchasingpower parity (PPP) rates and to adjust the poverty lines by the loss in purchasing power up to the survey date in March 2004. Table 3 shows the three poverty lines used with their adjusted values for the year 2004.

Table 3. Poverty lines in Bangladesh for the year 2004, by region

Expenditures March 2004	National poverty line	poverty Median line	Internat. \$1 poverty line
Region	(Taka/ pers./ day)	(Taka/ pers./ day)	(Taka/ pers./ day)
Rural Dhaka	24.80	22.96	23.10
Rural Faridpur, Tangail, Jamalpur	22.24	17.05	23.10
Rural Sylhet, Comilla	27.77	21.84	23.10
Rural Noakhali, Chittagong	27.06	20.94	23.10
Urban Khulna	30.22	24.85	23.10
Rural Barishal, Pathuakali	23.18	19.47	23.10
Rural Rajshahi, Pabna	25.97	20.16	23.10
Rural Bogra, Rangpur, Dinajpur	21.90	17.57	23.10

Source: Own calculations derived from Zeller, Alcaraz, and Johannsen (2005).

### 3.2 Poverty outreach in Bangladesh

In the nationally representative sample of 799 households, there are 2,209 adults 18 years or older including 1700 non-clients and 509 clients of financial institutions who provided data on their recent and past borrowing activities with these MFIs. Before analyzing the poverty status of MFI clients, we first give a general overview of the distribution of clients among the main types of microfinance institutions represented in the sample, further differentiating men and women and whether the client's residence is located in a rural area or not.

Table 4. Clients of the main MFIs in the sample by type of microfinance institution

Major MFI in sample	NGOs providing micro finance	Public bank	Other governmental institution providing microfinance	Other (private bank, coop., etc.)	Non-clients	Total
Grameen Bank			81			
BRAC	70					70
ASA	43					43
Proshika Manobik Unnayan Kendra	22					22
Concern Bangladesh	28					28
Bangladesh Rural Development Board (BRDB)			16			16
Bangladesh Krishi Bank		86				86
Sonali Bank		35				35
Other financial institution	84	23	8	13		128
Non-clients					1700	1700
Total	328	144	24	13	1700	2209

The majority of clients (328 out of 509) are members of five important NGOs that provide microfinance. Although Grameen Bank is a bank, its social mission and its solidarity group lending technology is similar to other NGO-based MFIs in Bangladesh and is therefore included in the NGO category rather than with private banks. The main public banks used by sample clients are Bangladesh Krishi Bank and Sonali Bank. As there are very few cases for private banks or cooperatives, we group them together in a residual 'other' category.

Table 5. Gender and residence of clients, by type of financial institutions in Bangladesh

Main type of financial institution	Does client household live in rural area?		Sex of client		Total
	No	Yes	Female	Male	
NGOs providing microfinance	107	221	297	31	328
	(32.6%)	(67.4%)	(90.5%)	(9.5%)	(100%)
Public bank	23	121	11	133	144
	(16.0%)	(84.0%)	(7.6%)	(92.4%)	(100%)
Other governmental institution providing microfinance	2	22	13	11	24
	(8.3%)	(91.7%)	(54.2%)	(45.8%)	(100%)
Other (private bank, coop., etc.)	9	4	7	6	13
	(69.2%)	(30.8%)	(53.8%)	(46.2%)	(100%)
Non-clients	337	1363	843	857	1700
	(19.8%)	(80.2%)	(49.6%)	(50.4%)	(100%)
Total	478	1731	1171	1038	2209
	(21.6%)	(78.4%)	(53.0%)	(47.0%)	(100%)

We observe a notable difference in rural outreach among the types of institutions. Compared to the general sample population with 78% of adults living in rural areas, public banks and other governmental institutions have a pronounced outreach in rural areas where most of the poor live. This is in contrast to NGO clients, one-third of who reside in urban areas. NGOs and public banks further differ in the gender composition of their clientele. Over 90% of NGO clients are women. The opposite is true for public banks. In Table 6, the poverty status of clients of different types of MFIs is compared to that of nonclients, using three different poverty lines.

Table 6. Poverty status of clients, by type of financial institution, compared to non-clients

Main type of financial institution		Daily expenditures per capita (Taka)	Below the median poverty line (adj. by regions) (%)	Below the national poverty line (adj. by regions) (%)	Below the international poverty line (\$PPP 1.08 at 1993 prices)
NGOs providing microfinance (N=328)	Mean	34.6	21.0	38.7	32.3

Public bank (N=144)	Mean	42.2	7.6	25.0	16.7
Other government institution providing microfinance (N=24)	Mean	52.7	8.3	8.3	8.3
Other (private bank, coop., etc.) (N=13)	Mean	39.2	30.8	30.8	30.8
Non-clients (N=1700)	Mean	37.1	16.5	35.7	28.1
Total (N=2209)	Mean	37.2	16.6	35.1	27.8

Note: This table does not include multiple client relationships (i.e. every adult household member is considered as a client of only one financial institution, namely the first one mentioned).

Based on the national poverty line, over 35% of non-clients are considered poor. Among NGO clients, the share of the poor is over 38%, as compared to 25% of public bank clients. When applying the stricter international poverty line, 32% of NGO clients are very poor, compared to only around 17% of public bank clients. The difference between both types of MFI gets even more pronounced when applying the strictest benchmark, i.e., the median poverty line. Public banks hence have a considerable *width* of poverty outreach of one quarter of their clients when measured by the more generous national poverty line. Their *depths* of poverty outreach, however, i.e., the share of very poor among the poor clientele, are low. As expected, NGOs have a higher depth of poverty outreach as they show a large share of clients considered very poor.

These findings are confirmed when considering the outreach with respect to relative poverty. For this analysis, the percentile ranges – in terms of quintiles – are computed from the nationally representative sample of 799 households using the daily per-capita expenditure measure. Table 7 shows these value ranges for each quintile.

 $<sup>^5</sup>$  The poverty headcounts under the national poverty line are significantly different (P < 0.05) with respect to the comparison of non-clients and public bank clients as well as those of other governmental institutions, but not between non-clients and NGO-clients. The same applies to the poverty headcount comparisons between clients and non-clients under the international poverty line.

 $<sup>^6</sup>$  Also the within-client comparisons of NGO and public bank clients as well as NGO clients and those of other governmental institutions yield significantly different poverty headcounts (P < 0.05) under all of the three poverty lines.

Table 7. Value ranges for quintiles of daily per-capita expenditures based on nationally representative survey

Quintile	Quintile range (in Taka)
1	Less than or equal to 19.76
2	Greater than 19.76 and less than or equal to 25.91
3	Greater than 25.91 and less than or equal to 33.60
4	Greater than 33.60 and less than or equal to 47.19
5	Greater than 47.19

Similar to the ranking method used in the CGAP microfinance poverty assessment tool (Henry et al., 2003), the relative poverty outreach of MFI types is evaluated by determining the percentile in which the client households belong. The number of client households' daily per-capita expenditures are grouped within a certain quintile (see Table 8). The results are expressed in relative frequencies.

Table 8. Relative poverty outreach of different types of MFIs, by quintile of daily per-capita expenditures from nationally representative sample

Ouintile of		Main type of fin				
daily per-capita expenditures from nationally representative sample	NGOs providing micro-finance (N=228)	Public bank (N=123)	Other government institution providing microfinance (N=12)	Other (private bank, coop., etc.) (N=8)	Non-clients (N=428)	Total (N=799)
1	24.1%	7.3%		37.5%	21.5%	19.9%
2	22.8%	18.7%			19.9%	20,0%
3	21.5%	21.1%	25.0%		19.2%	20,0%
4	16.2%	21.1%	25.0%	37.5%	21.3%	20,0%
5	15.4%	31.7%	50.0%	25.0%	18.2%	20,0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0

Among the major types of microfinance institutions, only NGOs have a considerable share of their clients (24%) in the first expenditure quintile (not considering the infrequent and highly mixed category of 'other institutions'). In contrast, public banks and other governmental institutions have a disproportionately low share of clients belonging to the first quintile (7.3% and 0% compared to 20%). With respect to the second quintile, only the NGOs capture a disproportionately high share (nearly 23%) of clients in this quintile. All other MFI types, i.e., 'other governmental institutions' (including the Bangladesh Rural Development Board) and public banks clearly serve the wealthiest quintile disproportionately. The group of public institutions with disproportionately high shares of male clients (Table 5) is especially notable in this regard. These latter two institutional types reach the highest shares of wealthy clients of 50% and 32%, respectively.<sup>7</sup>

One can observe notable differences in poverty outreach when further comparing single MFIs (Table 9). Among the largest NGO-MFIs in the sample, Concern Bangladesh and BRAC have the highest share of very poor clients (measured by the median poverty line), followed by ASA and Grameen Bank. While Grameen Bank reaches similarly high shares of poor people compared to the other NGOs, one can note a much lower outreach to the very poor. Only 16% of Grameen Bank's clients belong to the very poor.<sup>8</sup> Among the public banks, the lowest outreach to the very poor is achieved by Bangladesh Krishi Bank and Sonali Bank.<sup>9</sup> Note, however, that the results in Table 9 suffer from the small client numbers in each category. They can, therefore, be taken only as indications of the probable poverty outreach of specific MFIs.

 $<sup>^7</sup>$  The ANOVA and t-tests confirm a significant difference (P < 0.05) between the average quintile value of NGO and public bank clients as well as those of other governmental institutions in Table 8. The Chi-square test permits rejections of an equal client distribution to the expenditure quintiles (P < 0.05) for the public bank category only, indicating that this type of MFI serves the poorest quintile clearly less.

 $<sup>^8</sup>$  In fact, within the NGO MFIs, the comparison of Grameen Bank and BRAC yields a significant difference in poverty headcounts (P < 0.05) under the median poverty line. All other combinations with ASA and Concern (and among those) reveal no statistically significant difference in poverty outreach between the single NGO MFIs.

<sup>&</sup>lt;sup>9</sup> Compared to each single NGO, i.e. Grameen Bank, BRAC, ASA and Concern, the public Bangladesh Krishi Bank achieves significantly lower poverty headcounts under the median poverty line (P < 0.05). The same applies to the public Sonali Bank, except for the comparison with Grameen Bank that is not significant at this alpha level.

Table 9. Poverty status of clients of the major microfinance institutions in the nationally representative sample

Major MFI in sample		Daily expenditures per capita (Taka)	Below the median poverty line (adj. by regions) (%)	Below the national poverty line (adj. by regions) (%)	Below the international poverty line (\$PPP 1.08 at 1993 prices)
Grameen Bank (N=81)	Mean	36.4	16.0	42.0	32.1
BRAC (N=70)	Mean	29.6	31.4	44.3	38.6
ASA (N=43)	Mean	35.9	23.3	37.2	27.9
Concern Bangladesh (N=28)	Mean	27.1	32.1	42.9	50.0
Proshika (N=22)	Mean	45.0	13.6	18.2	22.7
Bangladesh Krishi Bank (N=86)	Mean	42.6	5.8	24.4	15.1
Sonali Bank (N=35)	Mean	41.4	5.7	20.0	14.3
Bangladesh Rural Developm. Board (N=16)	Mean	51.4	0.0	0.0	0.0
Client of other financial institution (N=128)	Mean	38.6	17.2	34.4	26.6
Non-clients (N=1700)	Mean	37.1	16.5	35.6	28.1
Total (N=2209)	Mean	37.2	16.6	35.1	27.8

Next, we analyze the relative poverty outreach of two selected MFIs separately, as done above for the different types of institutions as a whole. As the clientele of each major MFI in the survey is located in more than one of the geographic areas, we remove population from all those areas that host at least 85% of the sample clients of the respective MFI. For the Grameen Bank, for ex-

ample, 400 households located in four areas (Rural Dhaka; Rural Sylhet, Comilla; Rural Barishal, Pathuakali; and Rural Bogra, Rangpur, Dinajpur) serve as the reference population for 88% of the Grameen client households in the sample. Their tercile ranges for daily per-capita expenditures are shown in Table 10 and serve as evaluation bases for the relative poverty outreach of Grameen Bank in Table 11.

Table 10. Value ranges for terciles of daily per-capita expenditures based on the population in the operational areas of Grameen Bank

Tercile	Tercile range (in Taka)
1	Less than or equal to 23.73
2	Greater than 23.73 and less than or equal to 38.40
3	Greater than 38.40

Table 11. Relative poverty outreach of Grameen Bank, by expenditure terciles

Tercile of daily per-capita expenditures from geographic subsample of nationally representative sample (N=400)	Client households of Grameen Bank
1	35.1%
2	33.3%
3	31.6%
Total	100%

Table 11 might suggest that Grameen Bank is not particularly successful in reaching the poorest of the poor within their major operational areas. For BRAC, a second example for the relative poverty outreach of a single MFI, 559 households located in five areas (Rural Faridpur, Tangail, Jamalpur; Urban Khulna; Rural Barishal, Pathuakali; Rural Rajshahi, Pabna; and Rural Bogra, Rangpur, Dinajpur) serve as the reference population for 91% of the BRAC client households in the sample. Their tercile ranges for daily per-capita expenditures are shown in Table 12 and serve as evaluation bases for the relative poverty outreach of BRAC in Table 13.

Table 12. Value ranges for terciles of daily per-capita expenditures based on the population in the operational areas of BRAC

Tercile range (in Taka)	Tercile
Less than or equal to 22.98	1
Greater than 22.98 and less than or equal to 34.61	2
Greater than 34.61	3

Table 13. Relative poverty outreach of BRAC, by expenditure terciles

Tercile of daily per-capita expenditures from geographic subsample of nationally representative sample (N=400)	Client households of BRAC
1	48.0%
2	32.0%
3	20.0%
Total	100%

Within its major operational areas, BRAC reaches an above-average percentage of households in the poorest expenditure tercile. Grameen Bank, in contrast, has a similar poverty distribution among its clientele compared to the general population in its operational areas.<sup>10</sup>

Apart from different targeting policies and management foci, the length of the client relationships might serve as an important further factor explaining the observed differences in poverty outreach (Table 14 and Table 15).

According to Table 14, 37% of NGO clients have been MFI members for less than two years. This is the highest share of 'new' clients of all MFI types in Bangladesh. <sup>11</sup> There are, however, notable differences between single MFIs, as Annex suggests.

 $<sup>^{10}</sup>$  For BRAC, the Chi-square test permits rejection of the null hypothesis of an equal tercile distribution at P = 0.052, while for Grameen Bank, the respective P value (0.949) is much higher.

 $<sup>^{11}</sup>$  The Chi-square test in crosstabs allows rejection of the null hypothesis of no relationship between the length of the client relationship and the type of MFI (P < 0.05). Furthermore, for each of the main MFI types (i.e., NGOs, public banks, and other governmental institutions), an equal distribution of clients to the terciles of length of membership can be rejected (P < 0.05) in separate one-sample Chi-square tests.

Table 14. Length of client relationship (in tercile ranges) by type of institution

Length of the client relationship (in approx. tercile ranges)	NGOs providing microfinance	Public bank	Other government institution providing microfinance	Other (private banks, coop., etc.)	Total (terciles)
Less than two years	121	23	2	4	150
	(36.9%)	(16.0%)	(8.3%)	(30.8%)	(29.5%)
Two to five years	142	45	8	5	200
	(43.3%)	(31.3%)	(33.3%)	(38.5%)	(39.3%)
Longer than five years	65	76	14	4	159
	(19.8%)	(52.8%)	(58.3%)	(30.8%)	(31.2%)
Total	328	144	24	13	509
	(100%)	(100%)	(100%)	(100%)	(100%)

As Annex shows, Grameen Bank in comparison with BRAC and ASA has a much lower percentage of clients who were members for less than two years. This may indicate that BRAC and ASA grow faster than Grameen Bank. On average for all clients, irrespective of length of membership, BRAC and ASA reach a higher share of poorer households, as shown above. The lower poverty rate among Grameen Bank clients could thus be partially explained by a higher average length of membership if one assumes a poverty-reducing impact of microfinance over time.

Indeed, the length of MFI membership serves as one possible explanation for the observed differences in poverty outreach of Grameen Bank as opposed to ASA and BRAC. The poverty rates show a decreasing pattern with increasing length of membership for the 509 clients, as Table 15 shows. <sup>12</sup> If one assumed that the different cohorts did not differ in their poverty level at the time of joining the MFI, the pattern of declining poverty with increasing length of membership could be interpreted as evidence of an impact of access to financial services through poverty reduction. The rigorous analysis by Khandker (2005) showed considerable impacts on poverty reduction by BRAC and Grameen Bank.

 $<sup>^{12}\,</sup>$  ANOVA tests confirm a significant difference between the terciles of membership length with respect to the expenditure means and poverty headcounts under each of the different poverty lines (P < 0.05).

Table 15. Poverty status of clients, differentiated by length of client relationship in the MFI expressed in terciles

Length of client relationship (in approx. terciles)		Daily expenditures per capita (Taka)	Below the median poverty line (adj. by regions) (%)	Below the national poverty line (adj. by regions) (%)	Below the international poverty line (\$PPP 1.08 at 1993 prices)
Less than two years (N=150)	Mean	32.7	21.3	40.0	34.0
Two to five years (N=200)	Mean	37.4	20.0	38.5	29.0
Longer than five years (N=159)	Mean	42.8	8.8	20.1	17.0
Non-clients (N=1700)	Mean	37.1	16.5	35.6	28.1
Total (N=2209)	Mean	37.2	16.6	35.1	27.8

Of the total sample of 799 households, there are 509 adults in 371 households who are current clients of financial institutions. Of these, 344 households have current or past loans from their financial institution(s), and provided data on their most recent loans with these financial institutions. (The remaining 27 have either not yet got a loan or only received business development services). Note that some households have more than one adult member borrowing from a financial institution, and some persons had more than one outstanding loan at the time of the survey. Of these (mainly borrowing) 371 client households, 143 (38.5%) additionally hold savings accounts in formal financial institutions. Hence, saving activities are relatively more pronounced among households with additional (or former) borrowing relationships, which might be due to obligatory savings schemes, especially among NGO solidarity credit group schemes.

Of the 428 non-borrowing households, only 88 (20.6%) have a savings account. In total, there are 231 saving households (88+138) among the 799 sample households. As theory suggests, those with (fixed term or passbook) savings are clearly less poor than those households with only insurance or

Table 16. Poverty status among account-holding households, differentiated by type of financial account

Type of financial account		Daily expenditures per capita (Taka)	Below the median poverty line (adj. by regions) (%)	Below the national poverty line (adj. by regions) (%)	Below the international poverty line (\$PPP 1.08 at 1993 prices)
Savings account (passbook savings and/ or fixed term deposit) (N=139)	Mean	48.5	5.0	18.0	9.4
Only other financial account (checking, insurance, etc.) (N=92)	Mean	45.2	13.0	23.9	18.5
Total (N=231)	Mean	47.2	8.2	20.3	13.0

Note: Saver households might in addition hold checking account, insurance, etc.

checking accounts (Table 16). <sup>13</sup> Further data analysis, not reported here for reasons of brevity, shows that more than 90% of households not having any savings account cite lack of sufficient income as the major reason.

## 3.3 Poverty outreach in Peru based on nationally representative sample

In the sample of 800 households, there are 2325 adult members of 18 years or older including 2174 non-clients. Only 151 clients of financial institutions provided data on their recent and past borrowing activities with these MFIs. As for Bangladesh, we first give a short overview of the distribution of clients among the main types of microfinance institutions represented in the sample, differentiating clients by sex and the rural or urban location of their residence. (Table 17)

 $<sup>^{13}</sup>$  The mean expenditures and poverty headcounts under the three poverty lines are significantly different (P < 0.05) between account-holding households with savings and those with other accounts. Thus, savers are significantly less poor than non-savers.

Table 17. Gender and residence of clients, by type of financial institutions in Peru

Main type of financial institution		household iral area?	Sex of client		Total
	No	Yes	Female	Male	
Public bank	30	4	20	14	34
(Banco de la Nación)	(88.2%)	(11.8%)	(58.8%)	(41.2%)	(100%)
Private banks (including micro-banks such as MiBanco)	53	4	43	14	57
	(93.0%)	(7.0%)	(75.4%)	(24.6%)	(100%)
Municipal Savings and	26	9	27	8	35
Loan Banks (CMACs)	(74.3%)	(25.7%)	(77.1%)	(22.9%)	(100%)
Other (NGO, rural savings banks, coop., etc.)	18	7	18	7	25
	(72.0%)	(28.0%)	(72.0%)	(28.0%)	(100%)
Non-clients	1523	651	1021	1153	2174
	(70.1%)	(29.9%)	(47.0%)	(53.0%)	(100%)
Total	1650	675	1129	1196	2325
	(71.0%)	(29.0%)	(48.6%)	(51.4%)	(100%)

In contrast to the predominance of NGOs as microfinance providers in Bangladesh, there are several institution types in Peru. Privately owned banks and micro-banks, followed by municipal savings and loan banks, rural savings banks, and public banks play an important role and are therefore listed as separate categories. The microfinance movement in Peru started in the early 1980s, supported by a number of external donors. For example, the municipal savings and loan banks (CMACs for their abbreviated name in Spanish) were promoted by Germany based on the success of the German Sparkassen (Ebentreich, 2005). They are owned by local governments, and help to promote the local economy through lending to small and medium enterprises. In the mid-90s, most NGO-run credit programs were transformed into credit-only financial institutions (EDPYME). The rural savings and loan banks were created after the collapse of the public agricultural banks. These rural banks are owned by private individuals (Ebentreich, 2005).

We observe notable differences in rural outreach between the banks and the more socially or community-oriented institutions. The latter group includes municipal savings and loan banks. These are owned by communities and may pursue financial sustainability as an objective, while providing support for the local economy by lending to small and medium enterprises. Among the 'other' category, we find NGOs that pursue social objectives, as their mandate often explicitly states. This group also includes member-owned cooperatives. Compared to the general sample population with 30% of adults living in rural areas, public and private banks have a pronounced outreach in urban areas, as only 12% and 7% of their clients live in rural areas, respectively. This contrasts to municipal bank clients, 26% of which reside in rural areas, which is still below the national average. Apart from the general rural/urban distinction, only a few MFIs in Peru have wide outreach throughout the country. In contrast to Bangladesh, most MFIs in Peru operate in selected regions.

Institution types further differ in the gender composition of their clientele. While the 59% share of females among the public bank clientele is higher than among the more gender-balanced non-client population, it is nevertheless still considerably below the female share of all of the remaining MFI types of 72% to 77%. As explored in the following section on specific MFIs, few microfinance institutions in Peru specifically seek to reach female and poor clients, and, as a consequence, purposely reach out to marginalized rural areas, which are generally less lucrative to the banking system. In Table 18, the poverty status of clients of different types of MFIs is compared to that of non-clients under the scenario of the four different poverty lines. Note that multiple client relationships for the same individual are not considered in the following analyses. We consider each of the 509 persons as a client of only one MFI, namely the first one mentioned.

Compared to non-clients, MFI clients in all types of institutions in Peru are less poor under the scenario of all of the four different poverty lines. Based on the most generous benchmark, the national poverty line, there are no extreme divergences between the main types of financial institutions. The greatest difference in poverty outreach lies between private banks (21% poor) and the aggregated category of NGOs, rural savings banks and cooperatives (28% poor). A similar picture can be observed when employing the homogeneous international 1-dollar-line (2.08 *Soles* p.c.). This line, however, is set too low and hence defines too little percentage shares of the population as poor to allow meaningful comparisons across the MFI types.

 $<sup>^{14}\,</sup>$  While non-clients are significantly poorer (P < 0.05) under the national poverty line when compared to the clients of any of the MFI types, there does NOT exist any significant difference between the poverty headcounts of the different MFI types within the client population (P < 0.05). The same applies to the international poverty line.

Table 18. Poverty status of clients of different types of financial institutions compared to non-clients in Peru

Main type of financial institution		Daily expenditures per capita (Soles)	Below the median poverty line (adj. by regions) (%)	Below the national poverty line (adj. by regions) (%)	Below the international poverty line (\$PPP 1.08 at 1993 prices)	Below the international 2\$ poverty line (\$PPP 2.16 at 1993 prices)
Public bank (Banco de la Nación) (N=34)	Mean	10.2	23.5	26.5	2.9	23.5
Private banks (including MiBanco) (N=57)	Mean	11.8	8.8	21.1	0.0	3.5
Municipal Savings and Loan Banks (N=35)	Mean	9.4	0.0	25.7	0.0	2.9
Other (NGO, rural savings banks, coop., etc.) (N=25)	Mean	10.3	8.0	28.0	8.0	20.0
Non-clients (N=2174)	Mean	7.2	29.2	53.6	9.6	33.5
Total (N=2325)	Mean	7.4	28.0	51.7	9.1	32.0

Under the scenario of the (regionally disaggregated) median poverty line, however, the public Banco de la Nación achieves a considerable depth of poverty outreach (23.5% of very poor). This outreach figure lies far above that of the other MFI types, including between 0% (municipal banks) and 9% (private banks) of very poor clients. The same applies to the 2-dollar international line, under which the aggregated 'other' category achieves an outreach

 $<sup>^{15}</sup>$  Among clients, only the difference in poverty headcounts between the public bank and the municipal banks turns out to be statistically significant (P < 0.05) under the median poverty line. Under the international two-dollar line, the poverty headcounts between public banks and municipal banks as well as between public and private banks are significant (P < 0.05).

to the poor of 20%. This is given by the fact that in the geographic areas of operation of the public bank and the 'other' category, consumer costs and prices are relatively lower than in other areas. Consequently, the homogeneous international poverty line defines relatively more people as poor in these predominantly rural areas than in regions with higher living costs and thus higher national poverty lines.

The findings based on the 2-dollar international poverty line are confirmed when considering the relative poverty incidence measured at the aggregated household level. Again, the quintile ranges are computed from the nationally representative sample of 800 households for the daily per-capita expenditure measure (Table 19). The relative frequency of clients that have daily per-capita expenditures within a certain quintile are displayed by MFI type in Table 20.

Table 19. Value ranges for quintiles of daily per-capita expenditures based on nationally representative survey

Quintile	Quintile range (in Soles)
1	Less than or equal to 3.00
2	Greater than 3.00 and less than or equal to 4.85
3	Greater than 4.85 and less than or equal to 7.08
4	Greater than 7.08 and less than or equal to 11.12
5	Greater than 11.12

Table 20. Relative poverty outreach of different types of MFIs, by quintile of daily per-capita expenditures from nationally representative sample

Quintile of daily		Main type of fin				
per-capit expenditures from nationally representative sample (N=800)	Public bank (Banco de la Nación)	Private banks (includes micro-banks)	Municipal Savings and Loan Bank (CMACs)	Other (NGO, rural savings bank, coop., etc.)	Non-clients	Total
1	8.7%			11.8%	22.4%	20%
2	26.1%	7.9%	3.7%	17.6%	21.2%	20%
3		26.3%	40.7%	11.8%	19.7%	20%
4	43.5%	18.4%	29.6%	35.3%	18.6%	20%
5	21.7%	47.4%	25.9%	23.5%	18.1%	20%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Among the major types of microfinance institutions, the public Banco de la Nación, followed by the socially oriented institution types in the aggregated 'other' category, have a considerable share of clients in the first two expenditure quintiles (34.8% and 29.4%, respectively). No MFI type, however, reaches disproportionately out to the poorest population parts in the first quintile or to the poor in the combined first two quintiles. Even the share of public bank clients in these two lowest quintiles is still below the expected 40% under the assumption of an equal distribution. <sup>16</sup>

On the other hand, private banks have a disproportionately high share of their clients (47%) belonging to the wealthiest quintile, followed by municipal savings and loans banks, with a high share of 26%.<sup>17</sup> All MFI types clearly serve the upper two non-poor quintiles disproportionately more: over 40% of their clients belong to these income percentiles. In particular, public and private banks show the highest outreach to the wealthy with over 65% of their clients belonging to the upper two quintiles. As for Bangladesh, we explore whether an increasing length of client relationship is associated with reduced poverty rates.

Table 21 shows the length of client relationships at the individual client levels differentiated by type of institution. In general, among the 151 clients in the nationally representative sample, about one-third has been a client for one year or less. There is no statistically significant difference in the length of the client relationship between the different MFI types (P < 0.05).

In terms of poverty reduction, Table 22 shows a notable – although statistically not significant (P < 0.05) – pattern with increasing length of membership for the four poverty lines, which is different from the more pronounced and significant picture for Bangladesh. *Ceteris paribus*, the less pronounced 'poverty reduction impact' of microfinance in Peru can partly be explained by the shorter duration of client membership in Peru than in Bangladesh. Note that 'impact' is put in apostrophes as such descriptive results cannot be taken as evidence of a poverty reduction impact.

 $<sup>^{16}</sup>$  The ANOVA and t-tests confirm a significant difference (P < 0.05) only between the average quintile value of public and private bank clients in Table 20.

 $<sup>^{17}</sup>$  In fact, the Chi-square test permit rejections of an equal client distribution to the expenditure quintiles (P < 0.05) only for the private bank category, and for municipal banks at P = 0.05, indicating that these types of MFI clearly serve the poorest quintile less.

Table 21. Length of client relationship (in tercile ranges) by type of financial institution

Length of the client relationship (in approx. tercile ranges)	Public bank (Banco de la Nación)	Private banks (includes Mibanco)	Municipal Savings and Loan Bank	Other (NGO, rural savings bank, coop., etc.)	Total (terciles)
Less than or equal to 1 year	10	18	12	11	51
	(29.4%)	(31.6%)	(34.3%)	(44.0%)	(33.8%)
Longer than 1 year and less than or equal to 1 year and 7 months	9	19	10	11	49
	(26.5%)	(33.3%)	(28.6%)	(44.0%)	(32.5%)
Longer than 1 year and 7 months	15	20	13	3	51
	(44.1%)	(35.1%)	(37.1%)	(12.0%)	(33.8%)
Total	34	57	35	25	151
	(100%)	(100%)	(100%)	(100%)	(100%)

Table 22. Poverty status of clients, differentiated by length of client relationship expressed in tercile ranges

Length of the client relationship (in approx. tercile ranges)	)	Daily expenditures per capita (Soles)	Below the median poverty line (adj. by regions) (%)	Below the national poverty line (adj. by regions) (%)	Below the international poverty line (\$PPP 1.08 at 1993 prices)	Below the international 2\$ poverty line (\$PPP 2.16 at 1993 prices)
Less than or equal to 1 year (N= 51)	Mean	9.1	11.8	33.3	1.0	13.7
Longer than 1 year and less than or equal to 1 year and 7 months (N= 49)	Mean	10.2	10.2	26.5	4.1	8.2
Longer than 1 year and 7 months (N=51)	Mean	12.6	7.8	13.7	0.0	9.8
Non-clients (N=2174)	Mean	7.2	29.2	53.6	9.6	33.5
Total (N=2325)	Mean	7.4	28.0	51.7	9.1	32.0

The relatively small decreasing poverty pattern might also be explained by the fact that new clients in Peru with less than one year of membership are already much less poor than the general non-client population, a notable effect under all of the four poverty lines. This is in contrast to Bangladesh where new clients, in general, are at least as poor as the non-client population if not poorer.

After this focus on borrowing clients and client households, it is also important to take a short look at the savers' poverty status as compared to non-savers. This information is relatively sensitive in Peru and was provided only at the aggregate household level.

Any withdrawable savings	Sex of head of household		
account in households	Female	Male	
no	129 (17.7%)	601 (82.3%)	
yes	16 (22.9%)	54 (77.1%)	

Table 23. Account-holding by sex of head of household

On average, 18% of households in the Peru sample are female-headed. Table 23 shows that among saving households this share is 23%. 18

145

(18.1%)

655 (81.9%)

Table 24 shows the poverty status of saving households relative to non-savers. Similar to Bangladesh, we find that savers are significantly richer than non-savers with respect to all the poverty lines (P < 0.05). According to further results not shown here, over 96% of households without withdrawable savings accounts give demand constraints as the main reason, a small proportion of which has additional access constraints. Only 3.2% of the households name the lack of access to financial institutions as the only reason for not having a savings account. Again, the reasons for not saving with a formal institution are surprisingly similar to those of Bangladesh. While the poor certainly do save through a myriad of informal mechanisms, it appears that formal microfinance institutions have not yet found savings products that are attractive for the majority of the poor.

**Total** 

 $<sup>^{18}</sup>$  The Chi-square test cannot derive a statistically significant difference in account-holding between male and female-headed households (P < 0.05).

Table 24. Poverty status of clients, differentiated by holding of any financial account

Any withdrawable Any savings account in households		Daily expenditures per capita (Soles)	Below the median poverty line (adj. by regions) (%)	Below the national poverty line (adj. by regions) (%)	Below the international poverty line (\$PPP 1.08 at 1993 prices)	Below the international 2\$ poverty line (\$PPP 2.16 at 1993 prices)
no (N=730)	Mean	7.0	28.9	53.2	10.7	34.5
yes (N=70)	Mean	12.8	5.7	21.4	2.9	11.4
Total (N=800)	Mean	7.6	26.9	50.4	10.0	32.5

## 3.4 Peru - sample related to six selected microfinance institutions<sup>19</sup>

For the additional MFI sample in Peru, six microfinance institutions were purposely selected to encompass a range of different types of MFIs (cooperatives, micro-banks, rural savings banks, NGOs) across urban and rural locations. Within the MFIs, only new clients within a confined geographical area were sampled. New clients were defined as those who joined the MFI less than six months ago, with the exception of a rural based MFI for which 12 months was accepted. Sampling criteria included: (1) MFIs should represent different institutional types (savings and credit cooperatives, NGOs, micro-banks, etc.); (2) Some MFIs should have significant rural outreach and should target the poorer citizens; (3) The size of the MFI should be large enough to allow for a sample size of 200 new clients; (4) The 200 new clients should be sampled from a complete list of new clients provided by the MFI for a smaller geographical area of Peru (i.e., one or few districts) in order to reduce logistical costs of the survey.

The following six MFIs, unfortunately excluding MiBanco which is the largest pro-poor financial service provider in Peru, volunteered to cooperate and provided information for a sampling frame of new clients:

- EDYFICAR, a registered NGO and non-bank financial institution that only provides credit
- CRAC Cruz de Chalpon (a rural savings and loan bank)

<sup>&</sup>lt;sup>19</sup> This chapter draws from a report prepared for CGAP (Zeller and Johannsen, 2005).

- CMAC Chincha (a municipal savings and loan bank)
- Coop San Isidro Huaral (a cooperative)
- Coop San Pedro Andahuaylas (a cooperative)
- Caritas (an NGO).

In one of the MFIs only 175 instead of 200 clients could be surveyed, thus summing up to a total sample of 1175 households. In addition to the 1175 persons belonging to the 6 selected MFIs, there were 376 clients of other financial institutions in these households who also provided information on their financial transactions. Among them, the most important MFIs were: MiBanco (privately owned micro-bank), Banco del Trabajo (private bank), and Banco de la Nación (public bank). Clients of these three institutions are listed separately after the six MFIs in the following tables.

Edyficar can be categorized as a non-bank financial institution exclusively providing credit. It was transformed in the late 1990s out of an NGO-run MFI program. The rural savings banks (CRACs) and the municipal savings banks (CMACs) are micro-banks. The rural savings banks are owned by private individuals whereas the CMACs are owned by local government. Caritas, an NGO, aims explicitly to target the poor with financial services.

Table 25. Gender and residence of clients, by type of financial institutions in Peru

Microfinance institution	Does client household live in rural area?		Sex of client		Total
	No	Yes	Female	Male	
Edyficar (NGO-type micro-bank)	200	0	79	121	200
	(100.0%)	(0.0%)	(39.5%)	(60.5%)	(100%)
CRAC Cruz de Chalpon	171	4	107	68	175
	(97.7%)	(2.3%)	(61.1%)	(38.9%)	(100%)
CMAC Chincha	200	0	131	69	200
	(100.0%)	(0.0%)	(65.5%)	(34.5%)	(100%)
Coop San Isidro Huaral	199	1	87	113	200
	(99.5%)	(0.5%)	(43.5%)	(56.5%)	(100%)
Coop San Pedro Andahuaylas	1	199	155	45	200
	(0.5%)	(99.5%)	(77.5%)	(22.5%)	(100%)
Caritas (NGO)	200	0	35	165	200
	(100%)	(0%)	(17.5%)	(82.5%)	(100%

MiBanco	67	0	39	28	67
(privately owned micro-bank)	(100%)	(0%)	(58.2%)	(41.8%)	(100%)
Banco del Trabajo	44	0	25	19	44
(private bank)	(100%)	(0%)	(56.8%)	(43.2%)	(100%)
Banco de la Nacion	50	12	36	26	62
(public bank)	(80.6%)	(19.4%)	(58.1%)	(41.9%)	(100%)
Client of other financial institution	179	24	114	89	203
	(88.2%)	(11.8%)	(56.2%)	(43.8%)	(100%)
Total	1311	240	808	743	1551
	(84.5%)	(15.5%)	(52.1%)	(47.9%)	(100%)

Table 25 compares the gender balance and residence of clients, differentiated by MFI. Many MFIs in Peru aim to include more women, but to our knowledge, most MFIs have not formulated specific percentage goals or offered special products for women. Exceptions are certain MFIs managed by and/or for women not included in this sample. In this respect, it is remarkable that the sampled MFIs, in general, achieve a balanced gender composition of their clientele. The rural and the municipal savings banks (Cruz de Chalpón and Chincha) as well the cooperative San Pedro de Andahuaylas even have a disproportionately high share (between 61% and 78%) of women among their clients in the sample, respectively.

To our knowledge, only the cooperative San Pedro de Andahuaylas has a clear rural area focus in their objectives. Also Caritas has formulated the general objective of serving the population in rural areas with loans. Many of the 'rural' savings banks, in contrast, no longer consider rural targeting as an objective due to the severe draughts during recent years and the perceived low profitability of agriculture. Thus, their emphasis seems to be on financial sustainability rather than outreach or impact goals.

Based on these conditions, the differences in poverty outreach displayed in Table 26 are not surprising. To our knowledge, the first four MFIs in the table do not pursue any specific objective of targeting the poor. Only the cooperative San Pedro de Andahuaylas and the NGO Caritas, due to their explicit focus on rural, disadvantaged operational areas, can be considered as having a poverty targeting objective. However, this objective might not be supported by the use of any specific poverty assessment tool suitable to identify the poor and to exclude the non-poor. Nevertheless, the cooperative San Pedro indeed achieves high outreach to the (very) poor under any of the four poverty lines. This is in contrast to the NGO example of Caritas that does not appear to achieve its targeting objectives.

Table 26. Poverty status of clients of different MFIs in Peru

Main type of financial institution		Daily expenditures per capita (Soles)	Below the median poverty line (adj. by regions) (%)	Below the national poverty line (adj. by regions) (%)	Below the international poverty line (\$PPP 1.08 at 1993 prices)	Below the international 2\$ poverty line (\$PPP 2.16 at 1993 prices)
Edyficar (N=200)	Mean	10.7	16.5	41.0	0.0	2.5
CRAC Cruz de Chalpon (N=175)	Mean	11.5	12.6	23.4	1.1	9.7
CMAC Chincha (N=200)	Mean	10.2	8.0	38.5	0.0	6.0
Coop San Isidro Huaral (N=200)	Mean	12.2	4.0	15.5	0.0	1.5
Coop San Pedro Andahuaylas (N=200)	Mean	6.4	16.0	43.5	13.5	44.5
Caritas (N=200)	Mean	10.3	5.5	22.0	0.5	6.0
Total (N=1175)	Mean	10.2	10.4	30.8	2.6	11.7

With respect to the performance in poverty outreach, we can identify two groups. One is composed by the cooperative San Pedro, Edyficar and the CMAC Chincha, which achieve a significantly higher poverty outreach (P < 0.05) under the national poverty line when compared to any of the three remaining MFIs in the second group, i.e., the cooperative San Isidro, the NGO Caritas and the CRAC Cruz de Chalpon. In terms of the depth of outreach, as measured with respect to the median poverty line, again San Pedro and Edyficar, in addition to the CRAC Cruz de Chalpon, achieve significantly higher shares of very poor clients (P < 0.05) than any of the remaining MFIs.

#### 4. SYNTHESIS OF RESULTS AND CONCLUSIONS

This paper addresses the question of whether specific types of microfinance institutions differ in their poverty outreach performance. The descriptive analysis is based on nationally representative household samples that include data on per-capita daily expenditures based on LSMS-type recall questions and detailed information on client relationships with financial institutions. We examine the breadth and depth of poverty outreach of microfinance in Peru and Bangladesh and consider additional aspects such as the length of the client relationships and types of services demanded by the poor. As a classification criterion used to define different types of microfinance institutions, we opt for a distinction with respect to their legal status. This criterion, apart from being commonly used and understood in the microfinance community, does not differ substantially between Asia and Latin America and the specific countries in this study. The resulting groups are: (semi-formal) NGO-MFIs, cooperatives, public banks, private banks and micro-banks, with different weights of certain MFI types in the finance sector of each country.

Cooperatives are formal member-based organizations that employ social capital and peer pressure in their organizational structure. Social capital and peer pressure is also a feature of the NGOs that mainly lend through solidarity groups with an often unregulated ownership and participation of clients in the organization. Since transactions cost in finance are largely information costs, the member-based institutions could have a comparative advantage in obtaining information about the creditworthiness and other important characteristics of current and prospective poor clients compared to the socially distant agents of micro-banks, commercial and public banks.

The MFI sector presents important structural differences in the two country cases of this study. With respect to breadth of outreach, about 46% of the 799 sampled households in Bangladesh are clients of financial institutions. Their membership is motivated mainly to obtain credit services and less so for savings or insurance services (29% of the total households). In Bangladesh, a dominant share of financial services is provided by NGOs which use mostly solidarity group lending technology, but have also ventured in recent years into individual lending for mature customers as well as wealthier clients.

In Peru, a considerable part of the NGO sector was transformed in the 1990s into regulated formal institutions, namely micro-banks, such as the municipal banks (CMACs) and the rural savings and loan banks (CRACs). These institutions have very heterogeneous origins and therefore different social and financial objectives as well as poverty outreach objectives. The micro-banks, and to a lesser share the cooperative sector, provide the bulk of microfinance in

Peru. At the same time, MFI activities are much less wide-spread in the country than in Bangladesh. Only about 19% of the 800 sampled households in Peru are clients of financial institutions, again mainly for credit services and less so for savings and insurance services (9% of the total households).

The higher breadth of outreach in Bangladesh could possibly be explained by the earlier start of the microfinance movement in the 1970s, while Peru suffers from a continuing mistrust in formal financial institutions among the population. This mistrust may have its roots in the economic instability and hyper-inflation in the second half of the 1980s, in which many people lost their entire savings in rapidly emerging mutual savings banks, as well as in the political instability during the guerilla war of the 1980s and 1990s. In addition, Bangladesh presents a more homogeneous geographic structure, a higher population density, and relatively lower wage costs than Peru. These structural differences are likely to lead to considerably lower administrative costs of granting small loans to the 1-dollar-a-day or two-dollar-a-day poor in Bangladesh compared to Peru, enabling a greater breadth of outreach in Bangladesh.

With regard to the depth of poverty outreach of specific types of microfinance institutions, we find that member-based organizations, namely cooperatives in Peru and NGO-MFIs based on solidarity group lending in Bangladesh, generally achieve the highest depth of poverty outreach. This performance is clearly more pronounced in Bangladesh, where the NGO-MFIs are able to reach disproportionately high portions of the poor and very poor population. Some socially oriented micro-banks that have their origins in the NGO sector in Peru, such as Edyficar and MiBanco, are also able to reach a relatively large share of poor clients. However, none of the Peruvian MFI types reaches disproportionately out to the poorest population parts in the first quintile or to the poor in the combined first two quintiles of the income distribution. Not only in terms of the general breadth and depth of poverty outreach, but also with respect to reaching women and to rural markets, the microfinance market in Peru appears to be much less mature from a pro-poor development perspective.

An additional aspect examined in this study refers to the length of client relationship. In Peru, it sums up to only about three years on average, compared to five years in Bangladesh. The lower average length of client relationship may indicate that clients in Peru – for whatever reason – drop out after one or two years. The reasons for dropout may be linked to the demand side (lack of customer satisfaction and trust) or the supply side, such as loan default with subsequent cancellation of the contract by the MFI, or the entire collapse of an MFI. More research is needed in this area. With respect to specific types of microfinance institution, we observe that, in particular, the NGO-sector in

Bangladesh is able to develop long-term relationships with their clients. This enforces mutual trust among the contract partners and contributes not only to financial sustainability but also mostly likely to poverty reduction. In both countries, again particularly in Bangladesh, we observe a statistically significant correlation between declining poverty rates and increasing length of client relationship. While the descriptive statistical methods used in this paper are unable to provide any evidence whatsoever on poverty reduction as an impact of access to finance, the descriptive patterns regarding poverty rate and length of client relationship are consistent with the impact findings by Khandker (2005) for Bangladesh.

Furthermore, we have examined the type of service demanded by the clientele. In both countries, poor clients seem to mainly demand credit services. The majority of households do not have savings accounts with formal institutions. In particular, poor clients mention the lack of sufficient income as the most important reason for not being able to save; therefore they do not demand savings services. However, it is well-known and widely accepted (Rutherford, 2000; Zeller and Sharma, 2000) that the poor do save, but mainly for precautionary motives and using informal institutions or investment in physical assets. Hence, the issue arises of how to design more attractive formal savings services for the poor. The same holds true for micro-insurance, the forgotten third of microfinance.

Overall, the findings seem to suggest that poverty outreach differs by type of microfinance institution. NGOs in Bangladesh and cooperatives as well as micro-banks with strong NGO-origins and a social orientation in Peru are the best performers with respect to poverty outreach. This observation is independent of whether the outreach to the poor is explicitly stated in the objectives of the examined MFIs. However, the data analyzed here does not provide conclusive evidence on whether type (i.e. the legal status of the MFI) is the decisive criterion for poverty outreach. We assert that other features of an MFI could be at least as important to explain the poverty outreach of an MFI, be it a municipal bank, a semi-formal MFI managed by an NGO, or a cooperative. First and foremost, the mission of the institution will determine how the MFI places itself in the market. Second, its geographic and household targeting strategy is likely to be of imminent importance for poverty outreach. MFIs that expand in rural areas, actively target women, and use poverty targeting indicators to screen out wealthier applicants are likely to have a higher poverty outreach. Third, the employment of social capital and social pressure through member-based institutions (such as solidarity group lending or cooperative mechanisms) can exploit cost advantages for banking with the poor, compared to socially and geographically distant lenders. Fourth, specifically designed

pro-poor credit, savings, and insurance services will trigger demand by poorer people. Further institutional and technological innovation in microfinance, especially with respect to savings and insurance services, is required to improve the demand as well as the supply side of MFI outreach to the poor population.

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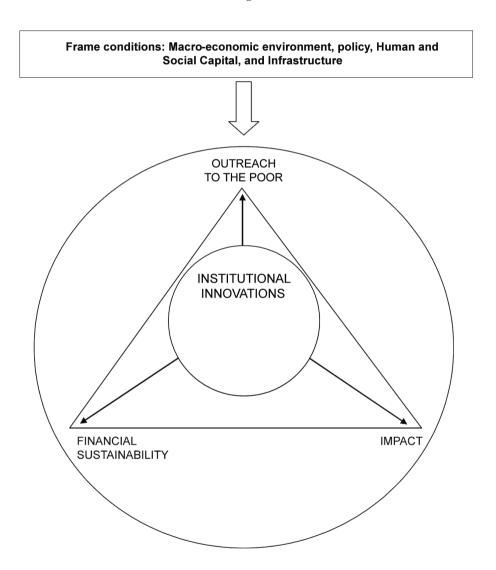
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#### Résumé

La microfinance est souvent vue comme un instrument efficace pour servir les pauvres. Toutefois, les études sur le niveau de pauvreté des clients de la microfinance, différenciées selon le type d'institution de microfinance, sont peu nombreuses. Cet article essaye de contribuer à couvrir ce manque d'information et se concentre sur le Bangladesh et le Pérou, deux pays parmi les pionniers de la microfinance. On examine la condition de pauvreté des épargnants et des emprunteurs auprès des micro-banques, des coopératives d'épargne et de crédit, des intermédiaires de microfinance sous forme d'ONG. Pour déterminer le niveau de pauvreté des clients, l'analyse est réalisée pour les lignes de pauvreté nationales et internationales. Les institutions de microfinance basées sur les membres ou liées aux ONG reportent un niveau d'outreach plus élevé.

#### Annex

Annex 1. The Triangle of Microfinance



Source: Zeller and Meyer (2002)

Annex 2: Types of microfinance institutions and major characteristics

		Size of the local organization	Ownership of equity	Rules/ decision-making	Eligibility/ screening	
1.	Credit unions, savings and credit cooperatives (e.g. supported by WOCCU, Raiffeissen, Desjardins)	New group, 100-200 members	Member (equity shares)	Democratic (One person = one vote)	Purchase of shares; sometimes type of occupation or social group	
2	Village Bank (for example supported by FINCA or CIDR)	New group, 30-50 members.	Member	Bottom-up /democratic, links with banks supported by NGO/state	Village member Fees for member- ship	
3	Microbanks (e.g. Ban- coSol, BRI village banks, IPC-supported banks)	Individual relationship with the client	Investors: donors providing equity, private firms or in- dividuals, founda- tions, or state (e.g. BRI)	Top-down	Information on the client	
4	Solidarity Group Retail Model, either by NGOs (e.g. ASA, SHARE) or Banks (Grameen Bank)	New group (5-9 groups of 5-10 members each)	Members	Top-down	Accepted as a member of a group by peers, or (worse) by supporting institution	
5	Linkage retail model, often with state-owned banks (e.g. NABARD in India and VBSP in Viet- nam)	Pre-existing informal group or groups with variable size that can ob- tain loans and save as a group with a public or private bank	Member	Mix of bottom-up and top-down ap- proaches (support- ing agency/ members)	Member of a pre-existing SHG peers, bank or NGO approval	

Main source of funding	Relations Savings/ Credit	Structure	Main type of guarantee	Management
Member savings	Focus on savings; credit mostly from savings	Pyramidal structure unions or federations/local branches	Savings	Salaried-staff and elected, voluntary members
External loans as well as loans from internal savings	Focus on credit, less on savings	Decentralized at the village level (linkage with a formal bank, credit union or federa- tions of village banks possible)	Savings, social pressure	Elected members (self-managed); some may be remunerated
Client savings, equity (partially provided by donors or state), and commercial loans	Focus on both credit and savings services	Centralized with local branches	Conventional collateral as well as innovative collateral substitutes	Salaried staff
External loans and grant	Focus on credit; mainly compulsory savings, some with micro-insurance prod- ucts	Pyramidal structure, mostly top-down	Group pressure	Salaried staff
External loans Member savings	Often savings first	Decentralized at the village level, linkage with closest bank branch	Saving, social pressure, NGO intermediation	Salaried staff

Source: Adapted from Lapenu and Zeller (2001), and Zeller, 2006.

Annex 3: Length of client relationship (in tercile ranges) by microfinance institution

Length of client relationship (in approx. terciles)	Grameen Bank	BRAC	ASA	Concern Bangladesh	
Less than two years	30 (37.0%)	33 (47.1%)	19 (44.2%)	2 (7.1%)	
Two to less than or equal to five years	31 (38.3%)	34 (48.6%)	12 (27.9%)	11 (39.3%)	
Longer than five years	20 (24.7%)	3 (4.3%)	12 (27.9%)	15 (53.6%)	
Total	81 (100%)	70 (100%)	43 (100%)	28 (100%)	

Proshika Manobik Unnayan Kendra	Bangladesh Krishi Bank	Sonali Bank	Bangladesh Rural Development Board (BRDB)	Other financial institution	Total (terciles)
5	12	7	1	41	150
(22.7%)	(14.0%)	(20.0%)	(6.3%)	(32.0%)	(29.5%)
16	33	9	3	51	200
(72.7%)	(38.4%)	(25.7%)	(18.8%)	(39.8%)	(39.3%)
1	41	19	12	36	159
(4.5%)	(47.7%)	(54.3%)	(75.0%)	(28.1%)	(31.2%)
22	86	35	16	128	509
(100%)	(100%)	(100%)	(100%)	(100%)	(100%)