October 2000

microFINANCE: *A PATHWAY FROM POVERTY*

Edited by Manohar Sharma

These summaries cover research results from a multicountry research program on rural finance policies for food security of the poor, 1994–2000.

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RURAL FINANCIAL POLICIES
for FOOD SECURITY of the POOR

POLICY BRIEF No. 1 • MARCH 2000

The Demand for Financial Services by the Rural Poor

MANFRED ZELLER AND MANOHAR SHARMA

RESEARCH PROGRAM MISSION

The research program titled Rural Financial Policies for Food Security of the Poor seeks to identify policies and institutional arrangements that help the poor integrate themselves into sustainable savings and credit systems in order to increase capacity to invest, bear risk, and preserve livelihoods.

FOCUS COUNTRIES

- Bangladesh
- Cameroon
- China
- Egypt
- Ghana
- Madagascar
- Malawi
- Nepal
- Pakistan

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This policy brief summarizes lessons learned from IFPRI´s multicountry program on rural finance and household food security with regard to the poors' demand for financial services. The lessons are derived from detailed household surveys conducted in nine countries of Asia and Africa: Bangladesh, Cameroon, China, Egypt, Ghana, Madagascar, Malawi, Nepal, and Pakistan.

The Myth and Reality

At first glance, many might be tempted to say that the poor earning less than $1 per day are not creditworthy, able to save, or able to afford insurance against the risks they face. That this myth is wholly unfounded has been demonstrated time and again by empirical research on informal financial markets and risk-coping behavior of households. Poor households are indeed willing to pay market rates for reliable and continued access to different types of financial services, including insurance. Credit and savings facilities can help poor rural households manage—and often augment—their otherwise meager resources and acquire adequate food and other basic necessities. Credit facilities enable the poor to tap financial resources beyond their own and take advantage of profitable investment opportunities. Well-managed savings facilities provide incentives for households to build up funds for investment or future consumption. Credit and savings facilities enable farmers to invest in land improvements or agricultural technology such as high-yielding seeds and fertilizers that increase incomes (while sustaining the natural resource base). For landless rural households, credit and savings facilities can help establish or expand family enterprises, potentially making the difference between grinding poverty and an economically secure life. Short-term borrowing or savings are often used to maintain consumption of basic necessities when household incomes decline temporarily, e.g., after a bad harvest or between agricultural seasons.

The myth of the unserviceable poor should also have been laid to rest by the recognition of an increasing number of successful institutional innovations that provide savings, credit, and insurance services to poor people in developing countries.

The Myth Has Led to Wrong Policies

Faulty perceptions about the poor have led to faulty policy strategies and financial products. Much of financial policy at the end of the 1980s and even today has been based on the unserviceable myth, leading to well-meant, but inefficient and costly policies for the development of financial institutions with negligible outreach to and impact on the poor. Either the poor were thought uncreditworthy or unable to pay market interest rates. The former myth led to policy inaction, whereas the latter led to massive interest rate subsidies. The myth that the poor were unable to save or to insure induced past policy to neglect altogether the savings and insurance services that are particularly relevant to the poor.

Patterns of Demand for Financial Services by the Poor

To satisfy the demand for financial services by the poor through institutional and product innovation is not possible without a thorough appreciation of the issue of food insecurity. In the nine countries of the IFPRI research program, households belonging to the lowest income quartile spend as much as 91 percent of their consumption budget on food. On average for all households in the nine countries, 60–70 percent of expenditures in incurred for food. No wonder then that much of the demand for loans, savings, and insurance services by the poor is driven by their motivation to avoid food insecurity.

The average cumulative yearly amount borrowed by poor households from the formal and informal sectors ranges from about US$4 in Malawi to $80 in Bangladesh to $133 in Cameroon. Informal lenders—friends, relatives, neighbors, informal groups, or moneylenders—provide the bulk of loans. In Pakistan and Cameroon, less than 5 percent of the amount borrowed by poor rural households was obtained from formal lenders such as state and agricultural development banks and microfinance institutions (e.g., credit unions, cooperatives, and group-based programs run by government, nongovernmental organizations, and village banks). The IFPRI program shows that several member-based microfinance institutions successfully reach the poorest income quartiles in Bangladesh and Malawi.

Overall, however, the formal sector lends disproportionately more to upper income groups. The poor obtain a smaller share of their loans from the formal sector than the nonpoor in six countries (China, Egypt, Madagascar, Malawi, Nepal, and Pakistan). Even in a country like Egypt, with a relatively dense coverage of formal financial institutions, the role of informal lenders remains important.

Many loans obtained by poor households are used for consumption, mainly of food. About 50–90 percent of loans obtained from the formal and informal sectors combined went to consumption-related purchases. In Pakistan, more than 80 percent were spent on consumption. Moreover, in six out of eight countries, loans for consumption are more important for the poorest quartile than for the nonpoor. In every country, the share of loans used for consumption was higher for informal loans than for formal loans.

In poor households, the spheres of consumption, production, and investment are inseparable in the sense that consumption and nutrition are important to a household's ability to earn income. If a laborer does not have enough to eat, he may be too weak to work productively. In general, family labor is by far the most important production factor, and the maintenance and enhancement of labor productivity is central for securing and increasing income. Bankers in particular frequently argue against consumption loans on the grounds that loans should finance activities that generate income for repaying the loan. The reality, however, is that consumption loans have to be considered as working capital loans for maintaining and enhancing the production factor labor. While the wealthy may invest in land and capital assets, the poor invest in their labor. Both types of investment have economic returns that can generate cash income for loan repayment.

Policy Conclusions

The truth is that the poor are creditworthy, can save, and pay for insurance—they have done it all along as the myriad of informal savings, credit, and insurance arrangements between friends, relatives, and other networks daily demonstrate. But it is also true that financial institutions (and related knowledge and technology) as well as an enabling policy environment were not in place in the past (and still are not in many countries). Because the two gaps were not given due consideration in central and commercial, as well as parastatal, banks, the poor were simply deemed to be unbankable. To put it positively, the microfinance revolution taught that institutional innovations—not just technological ones—and related changes in the legal and regulatory policy framework could extend the feasibility frontier of sustainable finance to reaching the poor. While increasing numbers of people living around or somewhat below the poverty line are reached by innovations in financial institutions, outreach to the poorest, especially in rural and disadvantaged areas, remains low.

Research by IFPRI on the demand for financial services points out that product innovation that responds to the food security motives of rural households can lead to higher outreach and higher impact on the poor. However, policy also needs to recognize that while the poor are creditworthy and able to save and insure, financial institutions may still fail to cover their costs, even with improved products. Many of the poor, particularly in remote areas having high transaction costs, still cannot be served by financially sustainable institutions. The primary role of policy should therefore be to foster institutional innovations, such as the development of new information technologies, which can allow this to occur. ■

Selected References

Zeller, M., and M. Sharma. 1999. The role of rural financial services for improving household food security. Concept, evidence, and policy implications. In *Overcoming world hunger: Challenges, opportunities, and strategies*, ed. M. Schulz and U. Kracht. Münster, Westfalen: Litt Verlag, pp. 531–54.

Zeller, M., and M. Sharma. 2000. Many borrow, more save, and all insure: Implications for food and microfinance policy. Forthcoming in *Food Policy* (April).

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RURAL FINANCIAL POLICIES
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POLICY BRIEF No. 2 • MARCH 2000

Impact of Microfinance on Poverty Alleviation: What Does Emerging Evidence Indicate?

MANOHAR SHARMA

The spectacular growth of the microfinance industry has been fueled not by market forces but by conscious actions of national governments, nongovernmental organizations (NGOs), and donors who view microfinance as an effective tool for alleviating poverty. Since much of the impetus behind this large and increasing support for microfinance hinges on the assumption that its economic and social impacts are significant, it needs to be examined more closely.

Why Measure Benefits

Some question the value of assessing impact in the first place, arguing that when institutions that serve the poor attain financial viability, a level of impact that justifies investment is automatically assured. After all, profitability—the extent to which revenues exceed costs of providing services—is a reflection of the extent to which returns to clients from whatever they finance are high enough to pay for the financial services they received. This approach, however, is not of much help when it comes to evaluating institutions that are not yet financially sustainable but that are assumed to make significant contributions to poverty alleviation and depend on continuing public support to remain operational. When confronted with this type of situation, policymakers, who have to allocate *public* resources between competing ends, ask how credit programs affect broader social goals such as adoption of agricultural technology, income generation, and attainment of food security. Sometimes even broader goals are considered such as women's empowerment or environmental quality. Assessing these benefits helps policymakers evaluate the relative weight to attach to credit programs vis-à-vis other poverty alleviation programs and helps them answer the question of whether shifting resources away from other poverty programs toward credit-based programs is good social policy.

The Format of Impact Studies

Two types of impact studies have been conducted. First are those that may be termed "investment-led," since they attempt to measure returns on credit as an input that facilitates investment. They attempt to answer the question of whether greater access to credit leads to greater levels of income, wealth, and consumption. The second type of studies may be termed "insurance-led," as they measure the extent to which access to credit assists households in upholding essential expenditures in the aftermath of unexpected income shocks (e.g., bad harvests) or expenditure shocks (e.g., health emergencies). A common methodological problem in conducting impact research is the difficulty of finding a satisfactory control group that can be used to isolate the effects of improved access to microfinance services. For example, the level of entrepreneurial skill is likely to affect an individual's decision to join a microfinance program. But because entrepreneurial skill is hard to observe and quantify, finding a control group that actually controls for this unobserved trait would be difficult. This, in turn, makes it difficult to obtain a clean estimate of the effects of improved access. In recent years several studies have attempted to address this problem by using quasi-random experimental methods, qualitative surveys, special instruments that measure access to credit, and panel data techniques. However, two additional caveats are noted. First, investments yield a flow of returns over time, so the time profile of

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yields and the timing of the impact study have an important bearing on the magnitude of benefits reported. Second, many microfinance institutions bundle credit with other services (training, health, etc.) and the reported impact is likely to include the effect of such services.

Results of Investment-Led Studies

Overall, the investment-led studies present mixed results of the impact of credit on various indicators affecting household welfare. Apart from methodological differences, country- and program-specific conditions drive results of these studies. For example, the extent to which households have access to other complementary production inputs may affect the returns to credit. Studies in Bangladesh, Malawi, and Madagascar reiterate that access to credit carries good returns to poor households only when complementary inputs such as seeds or irrigation water, or market access are present.

The impact of credit on household food security via increases in household productivity and income also falls under the same caveat as above. However, it is found again and again that most loans taken by the poor, especially in the informal sector, are for financing consumption-related expenditure, especially during low-income seasons. Despite this fact, the effect of credit on the nutritional status of children has generally remained unclear—mainly because nutritional outcomes are strongly conditioned by many other factors on which credit, by itself, has little effect.

Many microfinance services in Asia and Africa target women on the assumption that empowering women and targeting services to them leads to better allocation and use of household resources. Several studies in Bangladesh support this assumption, indicating that services directed to women significantly increase assets, incomes, and educational attainment of children, especially girls. But positive gender effects cannot always be taken for granted, as other studies, also in Bangladesh, highlight cases where only a few of the targeted women were able to exercise effective control over loan use. Some point out that some-times the very lack of women's empowerment makes it easier for program managers to enforce loan conditions, thus making them preferable borrowers.

Results of Insurance-Led Studies

A number of studies in Asia suggest that poor households generally use a combination of savings, credit, and increased wage employment to cope with income volatility and unexpected expenditure requirements. Access to credit and saving services makes it feasible for households to borrow during, or save for, adverse times; thus access to financial services has an important impact on the welfare of the poor. The importance of access to financial services increases with the severity of income downturns. When households confront severe events such as floods or drought that depress their incomes temporarily, access to financial services, especially in the informal sector, enables them to buy enough food to maintain the nutritional status of their children and finance other important activities such as education.

The insurance cover provided by access to credit and savings also has an impact on the efficiency with which household resources are managed. For example, with the insurance cover, poor households may be emboldened to undertake more efficient, albeit riskier, projects to increase household income, such as adoption of new agricultural technology or off-farm microenterprise. Insurance benefit studies show evidence of consistent positive impact, perhaps because insurance benefits, unlike investment benefits, are conditioned less by access to or ownership of other comple-mentary inputs.

Remaining Gaps

Impact-benefit studies are still somewhat clouded by methodological issues, i.e., the difficulty of obtaining a comparable control group. There are also several other considerations. First, most credit programs studied are actually hybrids that bundle credit with other services such as health and education. Disentangling credit impact from overall impact and accounting for the full range of benefits produced by a program is a challenging task. Second, many microfinance programs also induce empowerment at the community level by enabling collective action as well as by setting the foundation for sustainable community-based organizations. A more complete evaluation needs to account for these types of benefits. Third, many impact studies fail to reveal the exact processes by which poverty is affected. To improve the impact of microfinance, more explicit discussion of the actual process of impact is needed. Finally, impact has been evaluated only for the most successful programs, and generalization can be dangerous.

Whatever the current size of impact, further increases in benefits per dollar of investment critically depend on cost-saving innovations that microfinance institutions make. Public support to fuel this process is critical, especially since private market-based initiatives are hardly forthcoming. Returns on such efforts will be substantial, but strongly conditioned on access to other comple-mentary inputs. Our review also indicates that impact studies themselves must be improved to make more accurate assessments of benefits. This is important, for only through cycles of innovation, experimentation, and evaluation can we hope to establish lasting institutions that alleviate the financial constraints faced by the poor. ■

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POLICY BRIEF No 3 • MARCH 2000

Product Innovation for the Poor: The Role of Microfinance

MANFRED ZELLER

This policy brief reviews evidence and draws lessons regarding the role of microfinance for income and consumption smoothing by the poor, and highlights potential areas for product innovation by the microfinance sector to address the demand for financial services for income and consumption smoothing.

The Poor Demand Financial Services to Avoid Shortfalls in Consumption

Poor, food-insecure households seek to avoid the risk of falling below a minimum level of consumption of food and other basic goods that would threaten their survival. In general, there are two types of risk coping, income smoothing and consumption smoothing. Households can smooth income by making conservative production or employment choices, diversifying economic activities, or taking steps to protect themselves from adverse income shocks before they occur. Households can smooth consumption by borrowing and saving and by employing formal and informal insurance arrangements. These actions help insulate consumption from income variability.

In short, improved access to financial services can have two principal effects on households. First, it can raise the expected value of income and therefore of consumption and future investment and asset accumulation. This is the traditional and often sole argument for provision of services by MFIs. Second, it can decrease the downward risk of too low an income to satisfy basic consumption needs. Poorer households, for which this consideration is especially important, tend to value financial services that address the risk-coping motive relatively more, while wealthier households tend to place higher value on financial services that generate income and aid the accumulation of assets.

Empirical Studies

A number of studies reviewed in a synthesis paper by IFPRI (see references) show that lack of access to financial services for income and consumption smoothing can have serious implications on livelihood. For example, the nutritional status of children in poorer households in Bangladesh severely suffers in the aftermath of disastrous floods as a result of insufficient informal coping mechanisms and access of credit. Similarly, a study in Peru found that during adverse times, credit-constrained parents tend to withdraw children from school and put them into income-earning jobs. In India, child labor plays a significant role in the self-insurance strategy of poor rural households.

Most formal credit and savings services are not useful for consumption smoothing because they may be approved only after considerable waiting time, carry high transaction costs, or specifically given for production purposes. In the same vein, many commonly found savings products are of little use to those who wish to save because of precautionary motives, e.g., some savings deposits may only be withdrawn after a waiting period or, as is common in the majority of credit-focused microfinance schemes, a fixed percentage may be held to secure a loan.

IFPRI's studies point out that much of the savings behavior of the poor is motivated by the wish to hold precautionary savings so as to retain capacity for future consumption smoothing. It is important to recognize that such savings can be held in four different forms. First, households may hold buffer stocks in the form of assets that can be liquidated in the event of transitory income shocks. Livestock, food, and money under the pillow are common forms of precautionary savings in developing countries. These informal savings are subject to a number of risks, such as inflation, animal disease, and theft. Second, households may choose not to fully utilize available credit limits but preserve the option to borrow for "worse" times. Third, precautionary savings can be held in the form of human capital, for example, by having more children to meet unexpected future shortages in family labor due to health risks, or by having better-educated children. Finally, investing in personal relationships and membership can generate precautionary savings in the form of social capital, for example, in

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social and other institutions at the community level. It is not unreasonable to expect that social capital, like any other form of capital, can be used more intensively in future periods when transitory income shocks occur. The culture of reciprocal gift giving is deeply embedded in many societies. Having more social capital can increase one's (insurance) claims toward society.

Product Innovation by Microfinance Institutions

It is important to distinguish between idiosyncratic and covariant risks, that is, risks that affect only some individuals or larger groups of people in the same locality, respectively. Covariant risks include, for example, drought and flood, whereas individual risks are disability to work or old age. Since most MFIs in developing countries at present are too small in terms of number of clientele and geographical coverage, their ability to effectively cover covariant risks is very limited. However, as MFIs grow over time and reach operational scales like those achieved by Bank Rakyat Indonesia (BRI), BRAC, or the Grameen Bank, there is also considerable potential to sustainably address covariant risks. For example, the Grameen Bank and BRI have rescheduled loans to clients in areas of natural disasters. BRI can do this without assistance from the state because of its high profits and its business conviction that the loss of a good borrower is also a loss to BRI. The Grameen Bank has also rescheduled loans for clients affected by flood. The Grameen Bank requires members to deposit small amounts of savings into a so-called emergency fund. The pooling of such funds over larger areas can, in principal, address covariant risks.

A few innovative MFIs have developed financial products that address idiosyncratic risks. While MFIs should not be overburdened by being asked to provide health insurance services, MFIs can provide precautionary savings services and consumption credit that can indirectly address health risks. For example, village banks that follow the FINCA model or the model developed by the French NGO Centre International de Développement et de Recherche (CIDR) raise funds for internal consumption loans for their members. Other examples of MFIs that explicitly provide consumption credit, include Caja Social in Mexico and BRAC in Bangladesh. SEWA in India, which targets microloans to very poor women, allows borrowers to stop loan repayment during pregnancy. Health risks can also be addressed by the provision of precautionary savings services. This type of service is useful for many types of risks, provided that the maturity of the deposit, its interest rate, and its transaction costs for deposits and withdrawals on short notice are adjusted accordingly. For health risks that occur relatively frequently and demand immediate response, the cost and time for withdrawal must be minimal. A current account at a village bank or a nearby bank branch offers such features as does a term deposit that can be withdrawn at short notice with a penalty. Examples of banks that successfully offer savings services to a diverse clientele, including the poor, are BancoSol in Bolivia and BRI in Indonesia.

A number of MFIs offer life insurance to cover risks of death or lack of care during old age. Most often, however, the contract only covers the borrower's outstanding debt in case of death. This is the case, for example, for BRI or ASA in Bangladesh. BRAC, on the other hand, offers a life insurance contract that pays a predetermined sum in case of the member's death.

Because of sociocultural constraints, women often cannot get a loan unless they are married and their husband is a cosigner. MFIs ought to refuse to practice such discrimination. By providing women with individual credit lines and savings accounts, their household bargaining power may increase. Moreover, individual accounts for women will enable them to have a much stronger economic position in case of family breakup.

Policy Implications

Access to microfinance has the potential not only to assist the poor to earn income from microenterprise, but also to smooth income and consumption. The first potential effect is what primarily motivates the microfinance movement today. Yet, the second-effect increases in relative importance as the poverty level of MFI-clients increases. MFIs, especially if they seek to benefit the poor, should concentrate more effort on credit, savings, and insurance services that can mitigate risks. The largest potential for microfinance is seen for addressing idiosyncratic risks, such as those related to health, disability, old age, and divorce. When MFIs grow in scale and increase their outreach to both poor and nonpoor groups, they also increase their potential to help their clients' address covariant risks.

A number of innovative MFIs offer financial products that respond to these risks. These include flexible saving services that permit prompt withdrawals, consumption credit, and even explicit health and life insurance.

The poorer the target group of an MFI, the more important is that MFI's experiment with new products for income and consumption smoothing. Through pro-poor product innovation, the MFIs' costs of targeting the poor may decrease. However, when MFIs choose to broaden their offering of financial services, they must be aware of the greater portfolio and liquidity risks that such a strategy entails. Prudence would suggest that MFIs first target areas with low covariant risks, and gradually expand client outreach to higher risk areas. Higher liquidity reserves and larger equity capital appear also to be appropriate responses to covariant risks. Client-funded emergency funds that are pooled over large areas have the potential to spread these risks at sustainable levels. ■

Selected References

Mordoch, J. 1995. Income smoothing and consumption smoothing. *Journal of Economic Perspectives* 9 (3): 103–14.

Zeller, M., G. Schrieder, J. von Braun, and F. Heidhues. 1997. *Rural finance for food security of the poor: Implications for research and policy*. Food Policy Review No. 4. Washington, DC: IFPRI.

Zeller, M. 2000. On the safety net role of microfinance for income and consumption smoothing. In *Shielding the poor: Social protection in developing countries*, ed. N. Lustig. Washington, DC: Brookings Institution and Interamerican Development Bank. Forthcoming.

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POLICY BRIEF No 4 • MARCH 2000

Consideration in the Placement and Outreach of Microfinance Organizations: The Case of ASA, BRAC, and PROSHIKA in Bangladesh

MANOHAR SHARMA AND MANFRED ZELLER

Background

Governments, policymakers, and donors attach a great deal of importance to poverty outreach—the extent to which MFIs serve poor and disadvantaged locations—when evaluating microfinance institutions (MFIs). One may ask why this consideration is important. First, for many policymakers and planners, regional or area-specific growth and equity outcomes are important. Second, there is a widespread but implicit assumption that because MFIs serve the poor, by implication they serve the poor everywhere, but this cannot be taken for granted. As with most other industries, the very nature of the products and technology, and the constellation of incentives within MFIs may be such that certain locations are systematically favored while others are systematically avoided. Studies of the location of services by commercial banks in Bangladesh and India find that they generally favor economically well-endowed areas. Is this the case with MFIs as well? For example, what kinds of tensions arise between organizational goals, performance standards, and operational requirements, and how do these affect placement of branches? Once branches have been established, are levels of client coverage similar across branches? What factors drive the differences? Answers to such questions assist policymakers and project managers to recognize operational constraints and improve product design and service delivery. Third, a better knowledge of the determinants of placement assists in disentangling program effects from location effects and hence becomes useful in the assessment of the impact of credit programs.

Institutions and Data

With the above considerations in mind, IFPRI undertook a study of the service placement of three major NGOs in Bangladesh: the Association of Social Advancement (ASA), the Bangladesh Rural Advancement Committee (BRAC), and Proshika Manobik Unnayan Kendra (PROSHIKA). All three institutions have large nationwide networks of branches and provide credit on the basis of group liability to a closely targeted population consisting of poor households.

Three-hundred-and-ninety-one *thanas* from all over Bangladesh were considered for the study. Data on the *thana*-wide existence of branches of three institutions and their client density (number of clients per 1,000 persons in the *thana*) were collected for the year 1994 and then mapped on *thana*-wide indicators of poverty level and infrastructure to discern placement. These indicators were collected from statistical yearbooks published by the Bangladesh Bureau of Statistics and from Helen Keller International in Dhaka.

Considerations in Placement Decisions

Since profit making is not the principal aim of the NGOs, standard economic principles provide little guidance in analyzing determinants of their service placement rules. However, two important pointers are available. First, all three NGOs came into being principally in response to the challenge of delivering basic social services to an impoverished population that had been devastated by war. Second, all three NGOs received—or continue to receive—funding from governments and donors, and are likely to be bound by various conditions related primarily to maintaining minimum standards of financial performance (e.g., caps on delinquency rates and administrative costs) and of positive program impact. These conditions led the authors to hypothesize that there are four expected determinants of branch placement and client coverage that can be empirically tested using the collected data.

1. ***Poverty-targeting***. All three NGOs claim to be guided, first and foremost, by a common mission to serve the poorest in the rural areas. All three

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institutions also claim to have clear, strict, and well-enforced poverty-based eligibility rules. If this is the case, these institutions should be targeting locations with above-average poverty levels.

2. ***Expected level of demand for credit services.*** This consideration is important for two reasons. First, fixed costs associated with branch establishment imply that when demand is lower than some minimum threshold level, credit delivery becomes prohibitively costly to administer. Second, the marginal impact of financial services on participating households is likely to be highest in areas with strongest credit demand. For these reasons, branch and service placement decisions are likely to respond to the level of physical and market infrastructure and the general economic buoyancy of the area, all of which fuel credit demand.
3. ***Cost of supplying services.*** While per-unit costs of supplying services are important, the underlying relationship is not as clear-cut as it is in profit-seeking institutions because of the various types of subsidies received. Nonetheless, there are at least three related considerations. First, credit transactions raise security concerns, and proximity to police stations or other law-enforcement establishments is important. Proximity to branches of commercial banks (which tend to locate in urban areas) is also important, since the NGOs do not provide banking services. Third, to the extent that salaries and other compensations do not reward appointments in more remote locations, managers are likely to prefer locations that have fairly well-developed services (education, market, health). If these considerations are significant in the decision to place branches, placement will be higher in *thana*s that have such services.
4. ***Perceived risk.*** Maintaining high repayment rates is of utmost importance to all three institutions in securing continued access to donor grants and subsidies, and they are thus likely to avoid areas where marginal returns from new microenterprises are low enough to affect repayment rates. They are also likely to avoid areas that are highly susceptible to natural disasters such as flooding and other covariate risks. Some tension between poverty-targeting and financial performance is thus likely.

Results

Results indicate that even though the placement of branches of NGO institutions were attentive to poverty considerations, branches were nevertheless more likely to be established in locations with better access to transport and communication infrastructure. Hence it appears that NGO services are geared more toward the poor who reside in relatively well-developed areas rather than the poor in more remote and less developed regions. Client density of existing branches, however, did not exhibit such a feature and actually tended to be better in less favorable and more "distressed" locations.

Greater concentration of branches in more developed areas may in part be because in these locations, the marginal impact of credit services is the greatest. For example, loans for financing production of highly market-dependent outputs, e.g., commercial crops and other nonfarm microenterprises, are less suitable for remote areas. Moreover, banking services become especially risky in remote areas where covariance in household incomes is likely to be very high. In such areas, the high repayment rates necessary to maintain NGOs' access to donor funding are harder to achieve. Furthermore, the unavailability of commercial banks limits financial operations in remote or poor locations. Hence, NGOs may follow a strategy of placing fewer branches in distressed areas, but with each of these branches serving a larger number of clients. The tension between poverty targeting and ensuring adequate financial performance is thus quite evident in the way the NGOs place their services geographically.

Policy Implications

If efforts to simultaneously reach the poor, maximize marginal impact of services, and keep loan repayment rates high introduce considerable tension in service placement decisions, solutions for reducing this tension may lie in innovative lending technologies that reduce transaction costs to both lenders and borrowers and increase marginal returns of loans to the poor in disadvantaged locations. Three specific recommendations are suggested: (1) set in place an institutional mechanism that provides freedom and incentive for front-line managers (rather than headquarters staff) to assess market potential and constraints and identify, design, and price services accordingly; (2) create additional incentives for NGOs to locate branches in remote areas where access to basic social services and economic infrastructure is lacking; and (3) introduce mobile banking, where remote locations are served by regional or district-level branches on a prescribed time schedule. ■

Selected Reference

Sharma, Manohar, and Manfred Zeller. 1999. Placement and Outreach of Group-Based Credit Organizations: The Cases of ASA, BRAC, and PROSHIKA in Bangladesh. *World Development* 27 (12): 2123–2136.

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RURAL FINANCIAL POLICIES
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POLICY BRIEF No 5 • JULY 2000

Current State of Development and Prospects for Microfinance Institutions

CÉCILE LAPENU

The database compiled by IFPRI (see policy brief on microfinance institutions [MFIs] in Africa, Asia, and Latin America) counts almost 1,500 microfinance institutions (688 in Indonesia and 790 in other countries) supported by international organizations in 85 developing countries. They reach 54 million members: 44 million of them save, and 23 million of them borrow. The total volume of outstanding credit stands at $18 billion and the total savings volume stands at $13 billion, or 72 percent of the volume of the outstanding loans. MFIs operated out of at least 46,000 branches and employed around 175,000 persons. Analyzing this world of mushrooming MFIs can provide fresh insights on potential service outreach and the overall role of MFIs in developing countries.

Diversity Among MFIs

Lending Technologies

Four main types of lending technologies can be distinguished in terms membership, the role of savings, and the guarantees used for the loans. These are cooperatives, solidarity groups, village banks, and individual client-based institutions.

The IFPRI database shows that when Indonesian MFIs are included, the individual client-based institutions predominate in number, followed by solidarity groups and cooperatives. Cooperatives and solidarity groups have about the same number of members. On the other hand solidarity groups have the largest number of borrowers, which reveals an active policy of lending for solidarity groups. The cooperative model dominates in loans and savings volume, followed by solidarity groups.

Indonesian individual-client based MFIs are numerous but, except for the Bank Rakyat Indonesia, mostly represent small institutions at the village level. If these MFIs are excluded from the sample, then solidarity groups dominate in number and in terms of borrowers, while cooperatives dominate in terms of volume of savings mobilized and loans disbursed. Village banks account for a significant number of MFIs and branches and for 12.5 percent of members but remain small in terms of volume.

Size and Share of Market

MFIs are also quite diverse in terms of size: 49 percent of MFIs have fewer than 2,500 members, 73 percent have 10,000 members or fewer, and only 7.5 percent have more than 100,000 members, which represents an impressive world of tiny institutions. This diversity is due to the fact that competition is uneven; donors and governments subsidize institutions of various sizes (with small MFIs receiving relatively larger shares of subsidies in relation to their costs). Also, market segments in which they operate differ in terms of products and clientele, and small MFIs entering new market segments, such as rural areas or rural poor, have higher startup costs. The combination of these factors results in a financial system with a multitude of institution types but a concentration of activity at the top. According to IFPRI's database (for MFIs in which the number of members is known), 3 percent of the MFIs (the 18 largest ones) account for 80 percent of the clients.

Legal Status

In terms of their legal status, MFIs generally take one of the following forms: projects, nongovernmental organizations, cooperatives, or banks. Table 1 shows that 91.5 percent of MFIs, with more than 100,000 members, are regulated under cooperative law or banking law, while the same is true for only 16 percent of MFIs with fewer than 20,000 members. Although around 60 percent of MFIs are still unregulated, they account for less than 2 percent of the volume of savings mobilized and loans dis-

Table 1. Regulation status of MFIs, by number of members

	Size of MFI, by number of members			
Status of regulation	0-20,000	20,000-100,000	>100,000	Total
Regulated—cooperative, bank (percent)	15.8	51.6	91.5	24.6
Unregulated—nongovernmental organization, project (percent)	69.0	35.5	8.5	61.4
Not available (percent)	15.2	12.9	0	14.0
Number total of MFIs	538	62	47	650

Source: IFPRI survey on worldwide MFIs, 1999.

RESEARCH PROGRAM MISSION

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bursed. More than 95 percent of the volume of microfinance transactions flows through regulated institutions.

The Future of MFIs

Breadth and Depth of Outreach

The extreme concentration of activity among the largest MFIs underscores the current difficulty in significantly and rapidly increasing MFIs' breadth of outreach. MFIs must be supported and innovation must be used so that they can reach a significant scale in terms of the number of clients and the volume of activity.

Efficiency in depth of outreach can come from three main strategies. First, some huge institutions, such as the Bank for Agriculture and Agricultural Cooperatives in Thailand or the Bank Rakyat Indonesia, have an impressive breadth of outreach. They may only have a low percentage of poor among their clients, but on the whole, they can reach more poor households compared with tiny nongovernmental organizations that struggle to target specifically the poorest but that have no means to grow in scale. Second, some solid, self-sufficient institutions, which first concentrate their efforts on institution building and financial autonomy, can develop, in a second step, direct services or links for reaching the poor. Finally, some institutions clearly focus their services on the poor. They target actively and rely on specific organizations to compensate for the specific costs and constraints faced in reaching the poor: e.g., village banks or solidarity groups delegate part of the screening and monitoring process to clients and use new forms of guarantees to lower costs. This last category of MFIs generally grows more slowly and takes more time to reach self-sufficiency.

Regulation

The necessity for regulating microfinance is based on several arguments. The protection of savers is generally the first argument. To implement efficient intermediation, MFIs will also have to leverage capital and mobilize external resources. This requires them to formalize their activities and to follow standard financial rules to gain the confidence of other financial institutions. Finally, MFIs may find that official recognition gives them a competitive edge over informal competitors.

Even if it is generally accepted now that specific regulations can be defined for MFIs, the debate continues on which MFIs should be regulated. All tiny MFIs clearly cannot be regulated and supervised. Moreover, many large MFIs are already regulated. The question of regulation is importantly linked to the change of scale of some nongovernmental organizations that will have to grow larger to serve more clients.

Innovation

The IFPRI worldwide survey underscored the MFI industry's progress in overcoming many constraints. However, innovations are still necessary to further improve outreach, to reach sustainability more rapidly, and to expand the provision of sustainable financial services in areas where little progress has been made. These areas are smallholder agriculture, credit for agribusiness, and insurance (such as old age, disability, unemployment, and health).

Support for MFIs

Given the current structure of the financial systems with a large number of tiny MFIs, and given the need for innovations, two types of MFIs should be supported in the financial landscape: those for profit and those that have a social ambition. Their characteristics are outlined in Table 2.

Of course, the world of microfinance is not strictly divided between these two types; indeed, a range of situations falls between these extremes. Further, a dynamic must be encouraged so that small MFIs can grow and serve more clients. However, both types should be encouraged, as each fulfills a specific role in the outreach and innovation generation. In particular, they nourish each other in terms of innovation: small organizations can benefit from the information on regulation and best practices to improve their performance and governance; large organizations can draw on the pool of innovations bearing on breadth and depth of outreach tested by smaller nongovernmental organizations. The diversity of the world of MFIs must be seen as an asset and not necessarily the result of inefficient support. ■

Table 2. Main characteristics of the two types of MFIs

MFI characteristic	For-profit MFIs	Nonprofit MFIs
Size	Large	Small
Regulation	Formal financial institution (bank, cooperative)	Unregulated status (project, nongovernmental organization)
Main objective	Financial self-sufficiency, breadth of outreach	Impact on the poor, innovation, depth of outreach
Main means	Application of well-known best practices Professional and efficient functioning Incentive structures for staff and clients	Search and test of innovations Professional and efficient functioning Incentive structures for staff and clients
Lending technology	Mainly individual approach and cooperative	Solidarity groups, village banks, linkage, innovative technologies
Financial activities	Full-fledged financial services (credit, savings, insurance)	Most begin with credit, some with savings
Complementary services	None, or minimalist approach	Possible (training, social services)
Sources of funds	Savings, interbank loans	Concessionary loans
Dependence on subsidies	Maybe in the short run, rapidly declining	In the medium term, slowly declining
Self-sufficiency	Rapidly reached (few years)	Slowly reached (can be 5 to 10 years or more)
Incentive	Profit	Donor or sponsor-driven: national or international recognition, concessionary funding, evolution towards more autonomy

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RURAL FINANCIAL POLICIES
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POLICY BRIEF No 6 • JULY 2000

Worldwide Distribution and Performance of Microfinance Institutions

CÉCILE LAPENU

How many microfinance institutions (MFIs) exist in the developing world? How well are they performing? What is their role in household economies? Are they using their funds efficiently? In 1999, the International Food Policy Research Institute (IFPRI) conducted a survey on MFIs in Asia, Africa, and Latin America to offer a new in-depth analysis of the distribution and performances of MFIs at the international level. This brief summarizes the results of the survey.

Nature of the IFPRI Survey

IFPRI systematically sampled data on MFIs obtained through international nongovernmental organizations and other networks supporting these institutions. The survey adopted an average loan size of US$1,000 as the ceiling in defining MFIs. Information from the survey was complemented by a review of publications and technical manuals on microfinance. Geographically, the information concerns Africa, Asia, and Latin America, but the richest countries in Asia (those with per capita gross domestic products (GDPs) exceeding US$5,000) have been excluded. All of the selected MFIs receive some form of inter-national support, either through funding, technical assistance, or information dissemination. This mode of sampling underestimates local initiatives and national programs, but it does offer an overview of the role of the donors in the development of the MFIs. Data are all self-reported; however, as the information comes from supporting institutions, it is expected that this data have undergone some minimal amount of scrutiny and checking.

Table 1 summarizes the information computed from the database obtained.

Table 1. Overview of the volume of activities of MFIs in the developing world, 1999

Measure	Total
Countries	85
MFIs recorded in the sample	1,478
MFIs with data	1,366
Local branches established	45,958
Staff	175,067
Borrowers	23,542,955
Savers	43,929,072
Members	54,050,639
Savings	US$12,269,966,267
Outstanding loans	US$17,452,192,521

Source: IFPRI surveys on worldwide MFIs, 1999.

Global Overview of the Distribution of MFIs

This database of MFIs from 85 developing countries shows 1,478 institutions (688 in Indonesia and 790 in other countries) supported by international organizations. They reach 54 million members, 44 million savers (voluntary and compulsory savings), and around 23 million borrowers. The total volume of outstanding loans is US$18 billion. The total savings volume is US$12 billion, or 68 percent of the volume of the outstanding loans. MFIs have

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developed around 46,000 branches and employ around 175,000 persons.

A range of microfinance models is in use. Latin America and East Asia are particularly well served. Among the large countries with no MFI or low outreach (less than 0.1 percent of the population) are those affected by internal conflicts, such as Algeria, Somalia, Angola, or Afghanistan; or countries receiving low international support for political reasons, such as Cuba, North Korea, or Iraq. Data are indicative that a minimum of political and economic stability is required for MFIs to develop.

Lending Technologies and Legal Status of MFIs

MFIs are diverse in terms of technology and legal status and, as observed in previous surveys, are highly concentrated in size. MFIs have been classified into five major types according to the main technology they use to provide financial services: cooperatives, solidarity groups, village banks, individual contracts, and linkage banking. Cooperatives are responsible for the largest proportion of the credit volume and savings transactions, while solidarity groups score high in terms of number of borrowers. The village-bank and linkage models, thanks to the delegation of supervision to local voluntary staff, record higher staff productivity and achieve better depth of outreach than other MFIs. In terms of regulation and legal status, more than 95 percent of the volume of microfinance transactions flows through regulated institutions. Banks, which are subject to prudential laws, record the highest repayment rates and staff productivity. Nongovernmental organizations cater to a specific clientele and record good repayment and depth of outreach, but low staff productivity.

MFIs by Continent

Asia is tops in terms of volume of MFI activities, with 70 percent of the institutions, 77 percent of the members, 55 percent of the savings volume, and 65 percent of the loan volume. However, when Indonesia is excluded, Africa compares well in terms of number of MFIs (45 percent). The number of MFIs and the number of their clients remain more modest in Latin America compared with Asia. However, MFIs mobilize an impressive amount of savings and distribute a significant amount of loans in Latin America. The largest loan transactions take place in Latin America (US$418) and the smallest in Asia (US$153), but in terms of percentage of per capita GDP, Africa has the largest transactions (82 percent of GDP compared with 33 percent and 35 percent for Latin America and Asia, respectively). In fact, the large volume of loans as a percentage of per capita GDP in Africa could be partly due to the predominance of cooperatives, which reach a wealthier population. In Asia, solidarity groups dominate, while village banks are largely represented in Latin America.

In terms of performance, African MFIs have the lowest repayment rates. Asia, on the other hand, benefits from good repayment rates. However, Asian productivity is quite low, both in terms of number of clients and volume transactions per staff compared with both Africa and Latin America. Surprisingly, staff productivity in terms of number of clients is the same in Latin America as in Africa, where problems arising out of inadequate infrastructure and low population density are more severe. However, employees in Latin America have loan portfolios three times larger than their African counterparts. Greatest women focus is recorded in Latin America, where 54 percent of MFI members are women, whereas African and Asian MFIs have less than 50 percent women as members.

The IFPRI database on MFIs underlines the presence of a multitude of MFIs that, except in unstable countries, are widespread, with no regions completely by-passed. They offer small financial services to 54 million households and savings mobilization plays a major role. MFIs are diverse in terms of lending technologies and legal status. But scope for better outreach exists, and each type of institution could be strengthened by increasing its size and productivity. ■

Selected Reference

Lapenu, C., M. Zeller, and M. Sharma. 2000. Multicountry synthesis report on Institutional Analysis. Report prepared for the German Federal Ministry for Economic Cooperation and Development. International Food Policy Research Institute, Washington, D.C.

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RURAL FINANCIAL POLICIES
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POLICY BRIEF No 7 • JULY 2000

Rural Financial Services for Poverty Alleviation: The Role of Public Policy

MANOHAR SHARMA AND MANFRED ZELLER

For poor rural families in developing countries, access to credit and savings facilities has the potential to make the difference between grinding poverty and an economically secure life. Well-managed savings facilities permit households to build up funds for future investment or consumption. Credit enables them to tap finances beyond their own resources and to take advantage of profitable investment opportunities. Credit and savings also serve as insurance for the poor. In rural areas of developing countries, short-term loans or past savings are often used to provide basic necessities when household incomes decline temporarily—after a bad harvest or between agricultural seasons, for example.

But in most developing countries, rural financial services are sadly inadequate. Those who want to borrow from the formal sector are usually deterred by the strict collateral requirements and high transaction costs involved in doing business with formal institutions. Many potential borrowers are in such need of credit that they are willing to pay substantially higher interest rates in the informal markets—sometimes as high as 80 percent per year. But the amount of credit available through informal markets is often constrained by bottlenecks in the local supply of funds.

The story on the savings side is similar. Costs involved in managing small deposits at faraway banks are high, discouraging farmers and rural entrepreneurs from making a series of tiny deposits, as they prefer to do. Many of the rural financial institutions choose not to accept deposits; others are legally forbidden to do so to protect depositors from fraud and for other reasons.

Traditional Institutions and the Rural Poor

As important as rural finances are, the task of providing credit and saving opportunities at a reasonable cost to those who have only meager assets has been neither straightforward nor easy. Until the 1980s, in many developing countries, state-run agricultural development banks—armed with subsidized funds and eloquent pro-poor directives—took the lead in establishing formal credit markets in rural areas. However, the shortcomings of the institutional principles they were based on—collateralized lending, an organizational setup without any incentives to do business with the poor, and pervasive political patronage—severely handicapped their performance. Not only did they fail to serve the poor who could not pledge collateral, their inefficiency made them so dependent on state subsidies that they became financially unsustainable. Since then, support for state-sponsored agricultural banks has greatly declined, and the need for financial market reforms to rectify distortions caused by past policies is almost universally acknowledged.

Now, the most basic roles of government—establishing macroeconomic stability, ensuring that financial markets are free to respond to economic incentives while following sound banking practices, and maintaining and enforcing a legal framework that ensures contract compliance—are beyond dispute. However, these actions alone cannot trigger development of rural financial institutions that serve the poor. This is because rural financial markets have inherent problems that make investments risky as well as costly, and formal financial institutions have been unable to devise profitable savings and loan services for the rural poor. Information about potential borrowers, especially in far-flung areas, is difficult to obtain, making loan applications excessively costly to evaluate, especially when loans are small. The poor also own few assets, making it infeasible for the financial institution to secure its lending with collateral. As a result, private investors either shy away from the financial sector or limit their services within the urban economy, where information on prospective borrowers is less costly to obtain.

This is not to say that private-sector banks will not have a role in the rural financial sector in the future. Many countries initiated serious financial reforms only in the second half of the 1980s. Therefore, it is too early to conclude that private banks, which are just now establishing themselves in urban areas, will not gradually expand their

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services to rural areas as these become more developed and prosperous.

Lenders in informal markets do provide loans to the poor. In all these countries, informal lenders make loans without collateral, using various techniques for screening applicants and enforcing repayment. Households or even small communities may enter into mutually beneficial risk-pooling schemes; traders disburse credit to farmers in exchange for the right to market the growing crop; shopkeepers increase sales by providing credit for food, farm inputs, and household necessities; and large landholders secure access to labor in the peak season in return for earlier loan advances to laborers. In many countries informal credit and savings associations play an important role in the provision of financial services. In fact, the ingenuity of informal lenders and self-help organizations in tailoring loan products to the requirements of their clients or members makes them indispensable in both the urban and rural financial landscape of developing countries.

But innovative and useful as the informal sector may be, it frequently runs up against severe constraints. Informal credit markets, by their very nature, are segmented. A "market" typically consists of a single village community. And informal lenders seldom manage savings deposits. Hence, financial intermediation in the sense of providing a common clearinghouse for borrowers and lenders does not take place to the fullest extent possible. As a result, the supply of credit is limited, resulting in either severe credit rationing or extremely high interest rates for some lenders. Also, especially in agricultural regions, risks arising out of droughts or floods affect both informal lenders and borrowers simultaneously, so a credit supply crunch is likely to take place just when the demand for credit peaks.

Overall, it is clear that the task of delivering financial services to the rural poor cannot be left entirely to market forces.

The Promise of New Institutions

Successful financial outreach to the rural poor requires institutional innovations that reduce the risks and costs of lending small amounts of money. So far, most innovations in microfinance have come from nongovernmental organizations (NGOs) that do not have commercial profit as their principal objective. By taking fresh approaches, these new microfinance institutions have penetrated rural financial markets and serviced an underclass of borrowers in a way that was unimaginable some 20 years ago.

Far from being one-shot transfers, loans from such institutions have helped poor families make permanent positive changes in the quality of their lives. Of course, lack of capital is only one factor keeping poor rural households from improving their welfare. In rural areas of developing countries, illiteracy is high, basic social and market infrastructure is lacking, and many people are in poor health. When seed or irrigation water for the farmer, market access for the rural producer, or elementary bookkeeping skills for the would-be entrepreneur are absent, the returns to financial services will be low or sometimes even wasted.

Public Policy for the Future

One important lesson that is becoming increasingly clear: there is no single institutional blueprint for success. Recent experience with institutional innovations has shown that programs must be designed to harness a community's particular strengths in order to reduce costs of screening participants, monitoring financial activity, and enforcing contractual obligations. The group-based system has worked well in Bangladesh, whereas several programs in Indonesia successfully use local agents to assess borrowers' creditworthiness.

Designing, experimenting with, and building financial institutions for the poor require economic resources and adequate consideration of longer-term social returns. In the last two decades, NGOs have taken the lead partly because the support they receive from donors and government organizations make it feasible for them to invest in innovations. Just as public policy should play a role in promoting technological innovations that generate social benefits, it should also help promote institutional innovations that assist the disadvantaged or address intrinsic market failures. As policymakers seek to make rational policy choices, they must weigh the social costs of designing and building financial institutions for the poor against their social benefits. Of course, some experiments in institutional innovations will succeed, while others will fail. Public policy will need to support and evaluate this experimentation process and nurture those designs or institutions that hold promise of future success. Governments, donors, practitioners, and research institutions must work together closely to pinpoint the costs, benefits, and future potential of emerging financial institutions.

In the long run, the payoff to public investment in institutional innovations will lie in the transformation of now nascent microfinance institutions into full-fledged, financial intermediaries that offer savings and credit services to smallholders, tenant farmers, and rural entrepreneurs, thus alleviating poverty. Evidence of this transformation is already emerging in countries such as Bangladesh, Indonesia, and Thailand. The payoff will also come from the development of viable lending methodologies that private commercial banks can readily adopt to profitably provide savings and loan services to the poor. This is already happening in some parts of the world: in urban Latin America, for example, private commercial banks have started to adopt group-based lending methods developed and tested by nonprofit organizations that initially depended on public support. With the right combination of public policy, private initiative, and objective research, public investments in financial institutions designed to serve the poor in other rural areas of Africa, Asia, and Latin America will bear fruit as well. ■

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POLICY BRIEF No 8 • JULY 2000

Informal Markets: What Lessons Can We Learn From Them?

MANOHAR SHARMA AND MANFRED ZELLER

RESEARCH PROGRAM MISSION

The research program titled Rural Financial Policies for Food Security of the Poor seeks to identify policies and institutional arrangements that help the poor integrate themselves into sustainable savings and credit systems in order to increase capacity to invest, bear risk, and preserve livelihoods.

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In most developing countries, it is the private, informal markets that the rural poor have traditionally turned to service their financial needs. Why have these institutions succeeded in providing services to the poor when formal institutions have not? Do these informal institutions provide any lessons that bigger formal institutions could use? What are their basic limitations? Answers to such questions indicate important directions for public policy.

Typically, institutions can be categorized as follows:

1. **Lending and borrowing among relatives, neighbors, and friends**. Borrowing from socially close lenders is often the first recourse that poor households have in financing expenses, especially those related to essential consumption expenditure. Transactions are collateral-free and in most cases interest is not charged. These are essentially informal social insurance schemes that have the principle of reciprocity at the core of transactions. Hence, both the lender and the borrower gain from the transaction, and the process is self-sustaining. The borrower is able to finance urgently needed expenditures quickly and with little transactions costs: there is no lengthy appraisal process involved, little or no paperwork or travel time is involved, and the terms of transactions are well understood. The lender gains a right to reciprocity that he can lay claim to in the future. Further, risk of loan recovery is at a minimum since the lender only lends to persons who are part of his or her social network, within which contracts can be enforced. For each partner, therefore, the long-term gains associated with maintaining borrowing privilege is greater than the short-term gain of reneging on the payback.

2. **The rotating credit and saving associations (ROSCAs)** found in many countries are also network-based but address different needs of its members and the rules of conduct are more formalized. These associations, which may even operate under a designated manager, pool in savings from members each period and rotate the resulting pot among them using various rules. The process is repeated each period until the last member receives the pot. Because of the rotating rules, these schemes are less suited to address household risk unless the timing of the receipt coincides with unexpected events. Also, unlike demand deposits, once the saving is committed, it cannot be drawn immediately and the member is required to wait her turn.. The main goal of a ROSCA is to mobilize savings and channel this to borrowers in some prespecified order, and thus fulfill an important intermediation function.

3. **Informal moneylenders**. Typically, informal moneylenders are approached when the amount of credit required is larger than can be obtained from friends and neighbors. Moneylenders charge explicit interest rates in order to obtain real positive returns on their capital. In fact, interest rates are usually high and rates in the range of 5-7 percent per month are not uncommon. Typically, moneylenders lend only to households about whom they possesses enough information. However, they may also lend to others about whom they possess less information if punitive actions on those that default are feasible. In communities in which they are acceptable, lending may be either explicitly secured by collateral, or

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upon a community-wide understanding that allows the lender to resort to punitive action when contracts are breached. The informal nature of these transactions must be noted: these sanctions are enforced not by any legal authority but by the commonly understood rules of the communities themselves. Of course, this may not be feasible in all communities.

4. **Tied Credit.** Credit transactions are frequently tied with transactions in land and labor markets to circumvent problems of inadequate information and lack of collateral suitable assets. Thus, traders disburse credit to farmers in exchange for the right to market the growing crop; shopkeepers increase sales by providing credit for food, farm inputs, and household necessities; large landholders secure access to labor in the peak season in return for earlier loan advances to laborers. The important feature of these types of transactions is that the lender also deals with the borrower in a nonlending capacity and is able to use this position to screen applicants and enforce contracts.

Lessons From the Informal Sector

A number of important lessons can be learned from the informal systems described above.

1. **Credible long-term partnership.** The belief that the accumulated benefits associated with continued long-term transactions are larger than short-term gains associated with delinquent behavior is what propels self-enforceability of most informal institutions. Formal institutions therefore also need to successfully demonstrate to clients in small rural communities that they are not transitory phenomena and that it is worthwhile for them to invest in a long-term, profitable relationship. This demonstration is essential for maintaining high repayment rates. Short-term and sporadically implemented "credit projects" generally encounter higher rates of loan delinquency precisely because short-run gains associated with default outweigh extremely uncertain future gains.

2. **Tailoring financial services to specific demand patterns**. As with the marketing of any products, financial services need to be finely sculpted to specific demand patterns of the borrowers. For the poor, borrowing privilege in various informal institutions is worth preserving precisely because their services are very responsive to specific conditions of households. Emergency loans, for example, are obtainable immediately on demand, repayment structure is closely linked to local production cycles associated with the borrower's occupation, and loans are renegotiated, taking into account both lender's and borrower's specific circumstances. These attributes greatly increase the utility of loans to borrowers and provide further incentive for them to retain borrowing privileges. On the contrary, when loans terms are incompatible with local production patterns or when loans are tied to activities that, given the structure of local resources, yield poor returns, very little is gained by retaining borrowing privileges. Benefits from defaulting in such cases may outweigh retaining borrowing privileges.

3. **Knowledge of local economy is important; therefore, so is decentralization of decision-making**. The ways in which financial transactions are interlinked with transactions in the market for land, produce, and labor by informal agents indicate the potential for making such types of innovations in the formal sector. This requires intimate knowledge of the structure of local economy as well as of local institutional arrangements that may be used to strengthen financial links between the borrower and the lender. Generally this is not possible within a top-down organizational framework; what is needed is the active involvement of front-line managers who can design financial products that take full account of local institutions and local resource endowments.

4. **Not all financial contracts are self-enforcing and adequate steps must be taken to enforce contract compliance**. The majority of informal financial contracts between friends and relatives are of a self-enforcing nature, but socially distant lenders depend a lot on external, though not necessarily legally codified, mechanisms to enforce repayments. Just as moneylenders win the mandate of small communities to take punitive actions against defaulters, it is also important for formal institutions to have clear and implementable plans for contract enforcement and loan recovery before lending begins. Lack of a credible plan will only invite greater rates of default. ■

Selected Reference

Zeller, M., and M. Sharma. 1998. *Rural finance and poverty alleviation*. Food Policy Report. Washington, D.C.: International Food Policy Research Institute.

ABOUT IFPRI

IFPRI's mission is to identify and analyze strategies for meeting food needs of the developing world, with particular emphasis on low-income countries and the poor.

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POLICY BRIEF No. 9 • JULY 2000

Factors Affecting Repayment Rates in Group-Based Lending: Findings From Bangladesh and Madagascar

MANOHAR SHARMA AND MANFRED ZELLER

Lending is a risky enterprise because repayment of loans can seldom be fully guaranteed. The failure of a large number of state-sponsored agricultural development banks in many developing countries was due, among other things, to their inability to ensure good repayment rates among their borrowers. In the context of providing credit to the rural asset-poor, what is being increasingly called for is institutional innovation that combines prudent banking principles with effecttive screening and monitoring strategies that are not based on physical collateral (such as land). One important innovation has been the formation of borrower groups and the use of group responsibility and peer monitoring as the core principles guiding financial transactions. The success story of Bangladesh's Grameen Bank's using small groups of borrowers in servicing the poor and achieving high rates of repayment is now well known. So are the experiences of SANSA in Sri Lanka and Credit Solidaire in Burkina Faso. In Thailand, the Bank for Agriculture and Agricultural Cooperatives achieved high repayment rates even though it sometimes uses groups consisting of as many as 30 members. However, repayment rates are not uniformly high for all institutions or across groups within an institution. In Nepal, the repayment performance of groups formed under the Small Farmers Development Program (SFDP) exhibits a very mixed result. Examples from other countries show how repayment rates of groups can fluctuate according to changing external circumstances.

What important factors affect group repayment rates within these new financial institutions? What are factors that managers of microfinance should consider when initiating group formation? These are important issues for emerging microfinance institutions since even small amounts of loan losses can weaken a microfinance institution very quickly. IFPRI studies in Bangladesh and Madagascar address these issues. The results of these studies are summarized below.

Factors Affecting Repayment Rates

Group size matters. The bigger the group, the more imperfect are flows of information likely to be between members, and repayment can falter because of poorer screening and monitoring.

Loan amount. Generally the bigger the loan amount, the more difficult it is to meet repayment obligations in the event of project failure. Hence, unwilling default is likely to increase.

Group's portfolio diversity. The greater the diversity of asset portfolio within group members, the less covariant the incomes within the group. This makes it easier for one member to bail out another member who is experiencing repayment difficulties.

Level of credit rationing. The higher the level of credit rationing imposed on the group, the higher level of the group's unfulfilled credit demand. If this generates a greater concern for protecting future borrowing privileges, groups can be expected to increase efforts to lower delinquency rates. However, if the degree of rationing is too high, it is likely to render the loan amount more and more trivial (in comparison to the needs of the groups), so that the lender may not be anymore considered as a preferred long-term partner. Hence, too much of rationing is likely to decrease incentives to adhere to the contracted repayment schedule.

Social interrelatedness within groups. Since information flows are expected to be better within socially connected groups made up of friends and relatives, there would be less moral hazard associated with bailing out a relative who is unable to meet the repayment requirements. However, cultural factors may turn important as when it becomes socially difficult to impose sanctions on relatives, and in this way dilute the enforcement process. For precisely this reason, to also prevent possible collusion, some credit programs have rules against groups consisting of close relatives.

RESEARCH PROGRAM MISSION

The research program titled Rural Financial Policies for Food Security of the Poor seeks to identify policies and institutional arrangements that help the poor integrate themselves into sustainable savings and credit systems in order to increase capacity to invest, bear risk, and preserve livelihoods.

FOCUS COUNTRIES

- Bangladesh
- Cameroon
- China
- Egypt
- Ghana
- Madagascar
- Malawi
- Nepal
- Pakistan

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Demographic composition of group. Frequently, households with a greater number of nonworking children and other dependents are perceived to be less creditworthy. Results indicate that this is not so: repayment rates in Bangladesh are better among groups made of households with more dependents. Indeed, it is likely that such households are more risk averse since the consequence of adverse shocks is likely to be more serious as it affects children and elders who are more vulnerable. Such risk-averse households would seek to avoid reduced borrowing privileges, or reduced access to special emergency funds in the future. Hence, they make special efforts to fulfill repayment obligations.

Gender composition of groups. Findings in Bangladesh show that repayment rates are higher for groups that have a higher percentage of women. Two factors may be at work. First, given that women have very limited experience in the market economy to begin with, they are extremely cautious in their business ventures and are likely to choose projects that are relatively less risky. Second, the cost of project failure is likely to be higher for females than for males, given pervasive gender inequities: project failure may lead to reprimand and significant negative sanctions against the woman within the household, and she takes account of this eventuality in her decisionmaking. Hence, women are not only likely to select less risky projects, they are also more careful about fulfilling repayment obligations.

Group formation. It is likely that screening and monitoring are more effective within groups that form on their own than within those groups that depend on the intervention of an outside agent. This leads to better repayment rates, except in cases when individuals collude to form groups with the express intent to default.

Community characteristics. The less remote and more buoyant the local economy, the better the market opportunities are for profitable enterprise. Hence repayment rates are better in such communities. However, IFPRI research indicates that this is not always so: in Bangladesh, remote communities had better repayment rates. The more remote the village, the greater the value placed on institutional credit services since other alternatives are less available (e.g., loans from traders, employers); delinquency rates therefore are low to avoid a loss of future borrowing privileges from this important, and sometimes only, source.

Conclusions

Overall, results indicate that once the right institutional structures are in place, there need not be a major conflict between prudent financial management and lending to the asset poor. Repayment rates can be good even in relatively remote communities with higher than average rates of poverty. The secret seems to lie not just in innovations that reduce the cost of screening, monitoring, and enforcing loan contracts, but also in the successful demonstration to transactors in small rural communities that these innovations and institutions are not transitory phenomena, that they address their financial concerns, and that it is worthwhile for them to invest in a profitable long-term association. In fact, it is precisely this type of realization among borrowers that has contributed to the building up of a critical mass of social capital that supports successful group-based institutions. Without this critical mass, joint liability would quickly flounder. Understanding the financial concerns of the poor is therefore indispensable; after all, there is little incentive for borrowers to build a lasting relationship with institutions that do not address their economic demand.

It is suggested that the process of group formation be made more endogenous to members themselves and less subject to external rules. IFPRI research indicates that factors such as asset and enterprise diversity within groups significantly affect repayment rates. A good mix of income activities, including agricultural production activities, is thus a desirable group characteristic. In general, potential members are in a better position to screen and select the best partners for group formation, giving due consideration to factors such as potential risk-pooling benefits by co-selecting members whose anticipated income and consumption shocks are negatively correlated.

Finally, the experience of group lending shows that the basic principles of prudential banking have to be adhered to at all times. Delivering finance to the poor should not be taken to mean that loan evaluation or rationing should be entirely dispensed. On the contrary, loan size has to take into consideration investment capacities and the risk-bearing abilities of the rural poor. In fact, our analysis indicated that delinquency rates do appear to increase with loan size. Hence, objective and realistic project evaluation is necessary prior to loan approval. In case graduated lending is considered, increases in credit lines should be granted only after a careful scrutiny of project risks and conditional upon satisfactory previous repayment performance. However, it is important to ensure that this evaluation of loan applications not be based on traditional forms of bias against gender, age or families with many children. As the results of our analysis indicate, these biases, however deep-rooted, are totally misplaced. ■

Selected References

Sharma, M., and M. Zeller. 1997. Repayment performance in group-based credit programs in Bangladesh: An empirical analysis. *World Development* 25 (10).

Zeller, M. 1998. Determinants of repayment performance in credit groups: The role of program design, intragroup risk pooling, and social cohesion. *Economic Development and Cultural Change* 46 (3): 599-620.

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POLICY BRIEF No 10 • JULY 2000

Assessing the Relative Poverty Level in Clients of Microfinance Institutions: An Operational Tool

MANFRED ZELLER AND MANOHAR SHARMA

Many microfinance institutions (MFIs) receive public support. In return for this support, governments and donors demand MFIs not only become financially sustainable but also reach the poor, or even the poorest of the poor. Effective evaluation of the achievement of these objectives requires appraising both the MFI's financial sustainability and the relative poverty of its clients. In recent years, several tools have emerged to assist donors in their assessment of the financial sustainability of MFIs. For example, the Consultative Group to Assist the Poorest (CGAP), which seeks to promote sustainable microfinance institutions for the poor, disseminates a number of tools that allow assessing the financial sustainability and other aspects of institutional performance of MFIs. Currently, no operational tool exists for measuring how well a MFI reaches the poor through its services. In order to gain more transparency on the depth of poverty outreach, CGAP supported research at IFPRI during 1999 and 2000 to design and test a simple, low-cost operational tool to measure the poverty level of MFI clients relative to nonclients.

This policy brief summarizes the main features of the tool, how it can be applied, and what type of results can be obtained. Another policy brief informs about the results from four test country cases.

> *The new tool can measure the poverty level of clients of microfinance institutions relative to nonclients at low costs. The tool may also be used for evaluating the poverty outreach of other types of development and safety net programs.*

Purpose of the Poverty Assessment Tool

The poverty assessment (PA) tool developed under the collaborative project of IFPRI and CGAP complements an array of methods already available for assessing various dimensions of the institutional performance of MFIs. A widely accepted method in poverty assessment is to conduct a detailed household expenditure survey and to use household total expenditure as the primary measure to evaluate standard of living of households. Although detailed quantitative studies are frequently regarded as accurate means of assessing poverty levels, the high cost of acquiring and analyzing such extensive information often precludes the methodology from being used for operational applications.

Therefore, the new PA tool responds to five specific design parameters set to accommodate microfinance industry needs:

- The tool is operationally straightforward.
- The cost of implementing the tool is relatively low.
- The timeframe for assessment is short.
- The tool specifically addresses poverty measurement in developing countries.
- The results are readily interpretable and comparable across programs and countries.

The Tool Uses Indicators for Assessing Poverty

Consideration of the above mentioned design parameters led to the adoption of an indicator-based poverty-assessment method. This involved

1. identifying a range of indicators that reflect powerfully on poverty levels and for which credible information can be quickly and inexpensively obtained;
2. designing a survey methodology that facilitates the collection of information on these indicators from households living in the operational area of the MFI.

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3. testing these indicators in diverse socioeconomic and cultural settings, and identifying those indicators that are strongly related to relative poverty levels in each of the four country cases so as to reduce the number of questions for future applications of the tool; and
4. formulating a single summary index that combined information from a range of indicators and that could be used to make poverty comparisons between client and nonclient households.

Because of the multifaceted nature of poverty, reliance on any one indicator would not be adequate. To capture different dimensions of poverty, IFPRI used the following classification of indicators in the process of developing the generic household-level questionnaire:

1. Indicators expressing the means available to households to increase their welfare. These reflect the earning potential and relate to
   - human capital (family size, education, occupation, etc.),
   - asset ownership,
   - social capital of household.
2. Indicators related to the fulfilment of basic needs:
   - health status and access to health services,
   - access to food, shelter and clothing,
   - other dimensions of achievement of welfare (security, social status, environment) assessments based on this experience.

From an exhaustive list of indicators derived through a literature review and expert consultation, the IFPRI team initially chose to include a smaller subset in a generic questionnaire that then was tested in four case study countries with diverse socioeconomic and cultural settings. In total, about 300 poverty indicators were contained in the questionnaire and tested in the four country case studies.

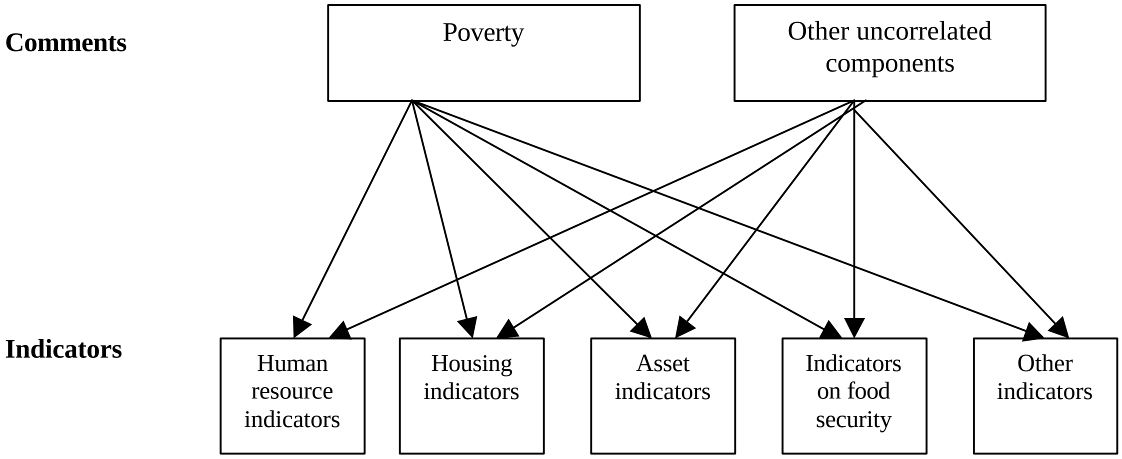
Using Principal Component Analysis to Estimate the Poverty Index

The tool prescribes how to collect household data on a range of poverty indicators through a standardized questionnaire. There are several reasons for identifying poverty indicators that are not specific to a particular country or region, but rather are general in the sense that they can indicate the level of poverty irrespective of socioeconomic characteristics of the chosen countries or regions within countries. First, general indicators allow within-country and across-country comparisons. Second, working from a standardized questionnaire avoids the risks of introducing error and eases the complex task of designing appropriate questions for creating indicators of poverty. However, complete standardization is also impractical, given the inherently relative nature of poverty: the “poor” in a wealthy country may be considered “nonpoor” in another country. Indicators must be such that they easily can be adjusted to different levels of absolute poverty.

Relative poverty levels of sampled households are measured by these indicators through calculation of a household poverty index. This index weighs the relative poverty of each household relative to all others and provides a ranking score. The mean of the score is zero, and its standard deviation is 1. The ranking score indicates how each household’s estimated poverty level compares with those of all other households surveyed. The higher the score, the relatively less poor the household is.

To accommodate the needed flexibility in measuring poverty to fit each country situation, estimation of the poverty index itself demands for a flexible approach. In other words, each country requires a different mix of indicators to calculate the most meaningful measurement of relative poverty for that country. For this reason, the statistical technique of principal components analysis was used for determining which indicators contribute the most to creating a poverty index for each individual country. Specifically, PC analysis

Figure 1. Indicators and underlying components



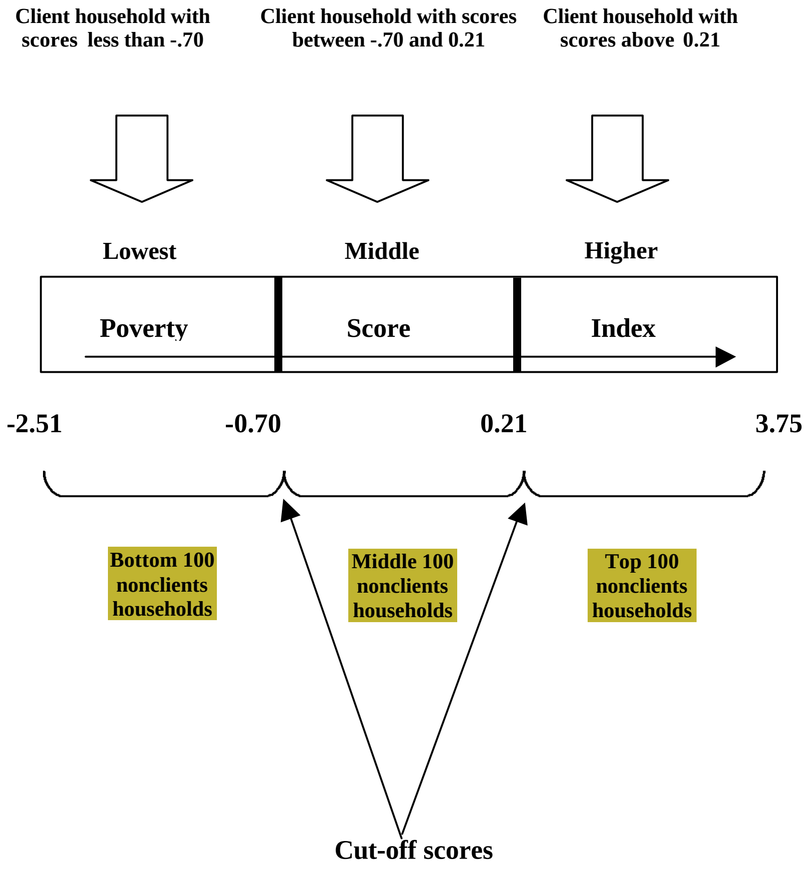
isolates and measures the poverty component embedded in the various poverty indicators and creates a household-specific poverty score or index (Figure 1). PC analysis extracts underlying components from a set of information provided by summary indicators. In the case of this poverty assessment tool, information collected from the questionnaires make up the “indicators” and the underlying component that is isolated and measured is “poverty.”

Application of the Tool Is Supported by a Manual

To guide evaluators in applying the field research tool and to estimate the poverty index, a manual has been written that will be published by CGAP (see Henry et al. 2000). An evaluation involves conducting a household survey with a random sample of 300 nonclient households and 200 client households within the operational area of the MFI. On average, conducting the interview takes about 15 minutes.

To use the poverty index for making comparisons, the nonclient sample is first sorted in an ascending order according to its index score. Once sorted, nonclient households are divided in terciles based on their index score: the top third of the nonclient households are grouped in the “less poor” group, the middle third grouped in the “poor” group and the bottom third in the “poorest” group (Figure 2). Since there are 300 nonclients, each group contains 100 households each. The cut-off scores for each tercile define the limits of each poverty group. Client households are then categorized into the three groups based on their household scores.

Figure 2. Constructing poverty groups

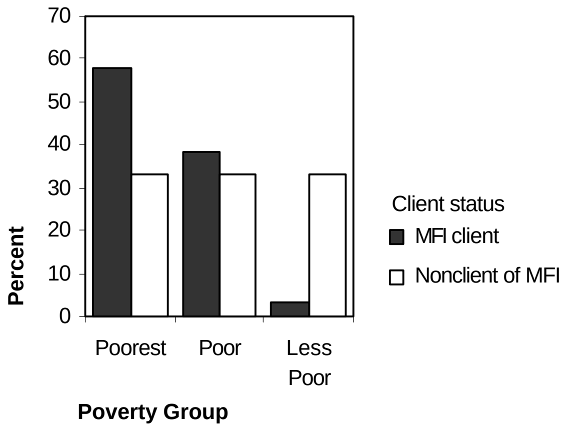


If the pattern of client households’ poverty matches that of the nonclient households, client households would divide equally among the three poverty groupings just as the nonclient households, with 33 percent falling in each group. Hence any deviation from this equal proportion signals a difference between the client and the nonclient population. For instance, if 60 percent of the client households fall into the first tercile or poorest category, the MFI reaches a disproportionate number of very poor clients relative to the general population.

The Results of a Poverty Assessment

The tool compares distributions of client and nonclient relative poverty levels by creating terciles of poverty groups based on poverty scores for nonclient households and adds MFI client households to these groupings according to their poverty-ranking scores. For example, MFIs having a greater share of their client households placed in the poorest tercile of the general population are credited with having a more favorable poverty outreach profile than MFIs having a smaller share assigned to the poorest tercile. Figure 3 shows the outcome of a recent assessment in one of the case-study countries.

Figure 3. Results of a recent MFI poverty-assessment case



It is recommended that assessment of the MFI's relative poverty outreach be made not only within the operational area of the MFI, but also in the context of regional poverty within a country. Recent research indicates that MFIs tend to locate their operations in above-average regions where transactions costs are lower and market volume is higher (Sharma and Zeller 1999). In addition, to assess the MFI's poverty outreach on an international scale, it is recommended that the country's poverty level be compared with those of other developing countries. The tool recommends this relative poverty comparison based on the Human Development Index (HDI), developed by the United Nations Development Program, and published annually in the *Human Development Report*. On average, households located in countries registering relatively low HDI rankings can be seen as relatively poorer than households from countries ranked higher in HDI.

Concluding Remarks

During the second half of 1999, the methodology was field tested by IFPRI in collaboration with national research institutions and counterparts in four case studies in Asia, Africa, and Latin America. Overall, these tests have shown that the tool is useful and sufficiently simple for evaluating the poverty outreach of MFIs in an operational context. Moreover, the case studies have shown that the four MFIs differ not only in terms of poverty outreach, but also in the mission they define for themselves, the type of market niche they seek for themselves, their preference for a specific type of institutional culture, and a host of conditions imposed by other external actors at various levels. Poverty assessment results have to be interpreted in light of these considerations. Ignoring them or providing incomplete information on institutional details fails to tell a complete story. Before recommending the use of the poverty assessment tool for widespread use, the tool ought to be further tested and eventually improved. For this purpose, a manual will be disseminated by CGAP that will assist future users in applying the tool. ■

Selected References

Henry, C., M. Sharma, C. Lapenu, and M. Zeller. 2000. Assessing the relative poverty of microfinance clients: A CGAP operational tool. Consultative Group to Assist the Poorest (CGAP), Washington, D.C. (forthcoming).

Sharma, M., and M. Zeller. 1999. Placement and outreach of group-based credit organizations: The cases of ASA, BRAC, and PROSHIKA in Bangladesh. *World Development*, Vol. 27(12), pp. 2123-2136, December 1999.

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POLICY BRIEF No. 11 • JULY 2000

Do Microfinance Institutions Reach the Poorest?

MANFRED ZELLER, MANOHAR SHARMA, CÉCILE LAPENU, AND CARLA HENRY

The question raised in the title is an important one to the microfinance sector, especially since the Microcredit Summit held in Washington, DC, in 1997. In order to gain more transparency on the depth of poverty outreach, the Consultative Group to Assist the Poorest (CGAP) supported research at IFPRI during 1999 and 2000 to design and test a simple, low-cost operational tool to measure the poverty level of MFI clients relative to nonclients. This policy brief informs about the results from recent case studies on the poverty outreach of four selected microfinance institutions (for more information, see Sharma et al. 2000).

> *All four institutions were found to reach clients that were as poor as the poorest third of nonclients residing in the operational area of the MFI. However, there were large differences in the depth of poverty outreach between the MFIs.*

Characteristics of the Selected Microfinance Institutions

The case studies were conducted for four MFIs worldwide: MFI A (Central America), MFI B (East Africa), MFI C (Southern Africa), and MFI D (South Asia)**.** In each country, 300 nonclients and 200 new clients of MFIs were randomly selected. The nonclients were used as a comparison group, and resided in the operational area of the MFI. On average, about six to eight enumerators in each country carried out the field research in a time span of four to six weeks. The field research cost, including data entry, ranged between US$5,000 and US$14,000. The selected four MFIs constituted a heterogeneous group serving a diverse set of clientele and using different approaches to service delivery. A brief background of each MFI is provided next and summarized in Table 1.

Founded in 1989, MFI A is the largest microfinance institution in this Central American country. By 1999, MFI A counted 11 branches and served around 14,500 clients, mostly in urban and semi-urban locations. The stated objective of the MFI is to reach all segments of the population that demand financial services for the development of their micro-, small-, and medium-scale enterprises. To reach this diverse clientele, MFI A offers a range of loan and savings products. Loan sizes range from US$20 to several thousand dollars. Apart from credit services, a number of savings products seek to also address poorer segments of the population. MFI A uses an individual loan methodology and does not directly employ targeting methods to reach poorer clientele.

An NGO founded in 1981, MFI B, located in Eastern Africa, provides loans specifically to women in business. In 1997 MFI B established four regional offices, all located in areas with above average population density and high levels of small business activity, and established both urban- and rural-based lending groups. MFI B now provides services to nearly 17,000 women entrepreneurs. To qualify for MFI B services, prospective clients must organize into groups of approximately 20 members, guarantee one another and save a certain amount each week. In addition, individuals must receive a favorable business assessment from both MFI B and other group members.

Operating in a Southern African country, MFI C is a credit and savings cooperative founded in 1993. In 1999, MFI C counted four branches and 58 local units, serving around 22,000 members, in both urban and rural locations. As a cooperative, MFI C requires its members to purchase shares and save for six months before receiving a loan. MFI C uses no explicit targeting methods and draws members from all segments of the population. MFI C employs an individual loan methodology. Since the beginning of the year 1999, however, MFI C launched a new program that specifically targets poor women. This new program requires that women clients form solidarity groups of five members and loans are provided without any prerequisite savings.

MFI D, established in 1989 in a South Asian country, provides credit and saving services to a targeted group of around 31,000 clients, mainly poor rural women, through a network of 19 branch offices in one particular state of the country. Eligibility for the program is tested using a household questionnaire and, following the Grameen Bank methodology, loans are provided without any collateral to clients who form groups of five. Clients are also required to make weekly contributions to a savings account.

RESEARCH PROGRAM MISSION

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Table 1. Summary characteristics of case study MFIs

Case study MFI	MFI characteristics								
	Location	Year of establishment	Stated mission/ goals	Number of branches	Areas served	Methodology	Target clients	Products	Number of clients (1999)
MFI A	Central America	1989	Provide services to micro, small, and medium enterprises	11 branches	Mostly urban and semi-urban locations	Individual loan contracts	No explicit targeting; some services specifically tailored to poor	Loan size varies from $20 to several thousand; savings products for the poor	14,500
MFI B	East Africa	1981	Provide services to women in business	4 regional branches	Areas with high population density and high levels of business activity	Group guarantee; compulsory savings	Women in business only; business plan must be approved	Loan size varies from $285-429	17,000
MFI C	Southern Africa	1993	Provide services to all segments of population + recently started program for poor women	4 branches and 58 local units	Urban and rural	Shareholders entitled to loan amount four times the amount of saving deposit. Women's program requires group formation.	No explicit targeting for ordinary share-owning members. A recently initiated program specifically targets poor women.	Loans of $25 and above for women's groups. Share paying members can access loans equal to 4 times the amount saved.	22,000
MFI D	South Asia	1989	Provides services specifically to poor women	19 branch offices	Mostly rural	Loans based on group guarantee; compulsory saving plan.	Specifically targets poor women only	Loan size varies from $100-300.	31,000

A Brief Narrative of the Methodology

Poverty has many dimensions, and a range of poverty indicators is required to capture these dimensions. Using various statistical techniques described in the manual for the poverty assessment tool (see Henry et al. 2000), a poverty index is used to aggregate the information contained in each of the poverty indicators. This index weighs the relative poverty of each household relative to all others and provides a ranking score. The ranking score indicates how each household's estimated poverty level compares with those of all other households surveyed. The higher the score is, the relatively less poor the household is.

To use the poverty index for making comparisons, the nonclient sample is first sorted in an ascending order according to its index score. Once sorted, nonclient households are divided in terciles based on their index score: the top third of the nonclient households are grouped in the "less poor" group, the middle third grouped in the "poor" group, and the bottom third in the "poorest" group. Since there are 300 nonclients, each group contains 100 households each. The cutoff scores for each tercile define the limits of each poverty group. Client households are then categorized into the three groups based on their household scores.

If the pattern of clients' poverty matches that of the nonclients, clients would divide equally among the three relative poverty groups just as the nonclients, with 33 percent falling in each group. Hence any deviation from this equal proportion signals a difference between the client and the nonclient population. For instance, if 60 percent of the client households fall into the first tercile or poorest category, the MFI reaches a disproportionate number of very poor clients relative to the general population.

The Poverty Indicators Used to Compute the Poverty Index

Each of the four case studies uses 15-20 indicators that are used to construct the country-specific poverty index. These indicators combine different dimensions of poverty concerning human resources, housing conditions, assets, and food security and vulnerability. Nine indicators were commonly used in at least three of the four country case studies.

Human resources. Eight indicators related to human resources are used in the four case studies. These indicators reflect the level of education in the household and the presence of unskilled labor force. The percentage of wage laborers in the household seems to be particularly important in the relatively poorer countries of Southern Africa and South Asia (MFI C and MFI D). The indicator expressing whether the household head achieved the secondary school level is important in countries with relatively high literacy rates (MFI A and MFI B).

Dwelling. Dwelling indicators discriminated among relative poverty levels well. In the case of MFI D in South Asia, 8 out of 20 indicators related to housing quality. The importance of dwelling indicators in South Asia supports the use of the housing index as an important indicator of poverty in that region. However, in the African cases (MFI B and MFI C), where housing is relatively homogenous, only four or five housing indicators were used. The presence or quality of latrines appears in all the case studies. House size (number of rooms per person) is used in three countries.

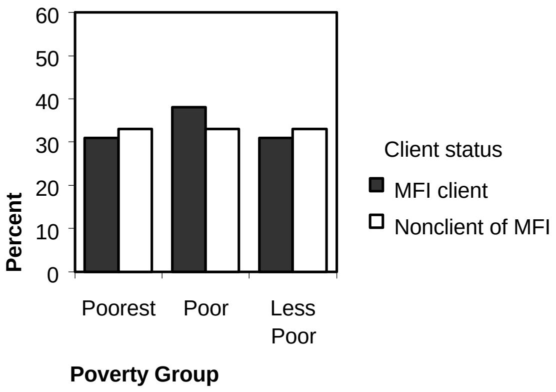
Assets. A total of 15 indicators on the number or value of assets are included in the four case studies. They are particularly important (5 out of 17 indicators) in the Central American country (MFI A), the most well-off country of the sample. The amount of land possessed is important only for MFIs serving rural and agricultural areas, as is the case in MFI D.

Food security and vulnerability. These indicators turn out to be very important in explaining differences in relative poverty in all four studies, particularly in the Southern African country (MFI C), which is the poorest among the four according to its value for the Human Development Index published by the UNDP. The indicator of chronic hunger (enough to eat in the last 12 months) appears in all four cases. Indicators of short-term hunger (enough to eat in the last 30 days) and of consumption of luxury food during the week appear in three cases.

The Results

Figure 1 presents the results for MFI A. The distribution of its clients across the three poverty groups closely mirrors the distribution of nonclients, indicating that MFI A serves a clientele that is quite similar to the general population in its operational area. This result is consistent with MFI A’s stated objective of reaching micro, small, and medium enterprises and the diversity in the financial products that it offers.

Figure 1
MFI A: Distribution of client and nonclient households across poverty groups

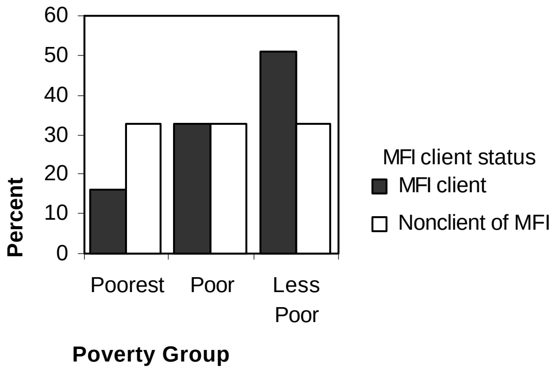


	% Client households	% Nonclient households
Poorest	31	33
Poor	38	33
Less Poor	31	33

Figure 2 shows that the poorest households are underrepresented among MFI B clients. However, about one-half of the clients fall into the two poorest categories, which is remarkable considering the mission of the institution (to reach all women in business), the focus of the product (to finance businesses after submitting a business plan), and the lack of overt targeting.

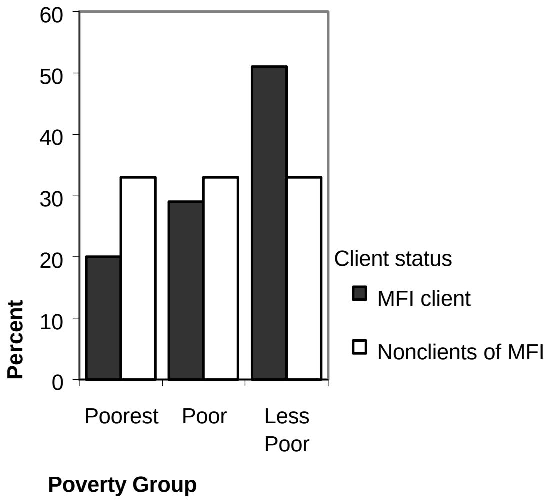
About half of MFI C’s clients belong to the “less poor” group while they are underrepresented in the poorest group (Figure 3). This result reflects the fact that MFI C’s membership is share-based and open to all individuals. However, poverty outreach is significantly higher when considering only clients belonging to the new program for women. Nearly one-half (45.2 percent) of these clients belonged to the “poorest” group, and only 19 percent of the new women clients belong to the “less poor” group.

Figure 2
MFI B: Distribution of client and nonclient households across the poverty groups



	% Client households	% Nonclient households
Poorest	16	33
Poor	33	33
Less Poor	51	33

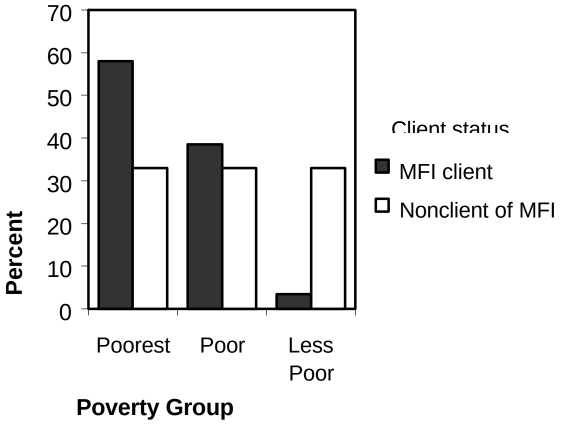
Figure 3
MFI C: Distribution of client and nonclient households across poverty groups



	% Client households		
	Typical clients	Women’s program	% Nonclient households
Poorest	20	45	33
Poor	29	36	33
Less Poor	51	19	33

Figure 4 indicates quite clearly that the poorest groups are strongly overrepresented and that less poor households are underrepresented among MFI D’s clients. This result is not only consistent with MFI D’s explicit aim to serve the poorest households in its operational area but also indicates considerable success in its targeting practices.

Figure 4
MFI D: Distribution of client and nonclient households across poverty groups



	% Client households	% Nonclient households
Poorest	58	33
Poor	38.5	33
Less Poor	3.5	33

Concluding Remarks

A comprehensive assessment of an MFI must include an evaluation of how its poverty outreach record reconciles with its mission and program objectives. As the case studies have shown, MFIs differ in terms of geography, their stated mission, the type of market niche they seek, and a host of other factors, such as the relative development level of the area in which the MFI operates in relation to the national average. Moreover, reaching moderately poor people in a very poor country may be more difficult to achieve than reaching the poorest in a relatively wealthy country that has well-developed institutions and infrastructure. Ignoring these considerations or providing incomplete information on institutional details fails to tell a complete story.

The case studies have contributed to the development and testing of a relatively simple tool that can be used to assess the poverty level of MFI clients. The four case study MFI managers unanimously considered the results to be credible and comprehensive for their institutions. The results also are consistent with the mission, priorities, and targeting practices of the case study MFIs. The Consultative Group to Assist the Poorest (CGAP) looks forward to testing the poverty measurement tool with a number of other MFIs over the coming year to further refine and improve the tool. ■

Selected References

Henry, C., M. Sharma, C. Lapenu, and M. Zeller. 2000. Assessing the relative poverty of microfinance clients: A CGAP operational tool. Consultative Group to Assist the Poorest (CGAP), Washington, D.C. (forthcoming).

Sharma, M., M. Zeller, C. Lapenu, C. Henry, and B. Helms. 2000. Assessing the relative poverty level of MFI clients. Synthesis report based on four case studies. International Food Policy Research Institute (IFPRI) and Consultative Group to Assist the Poorest (CGAP), Washington, D.C.

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RURAL FINANCIAL POLICIES
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POLICY BRIEF No. 12 • JULY 2000

Design and Sustainability Issues of Rural Credit and Savings Programs: Findings From Malawi

ALIOU DIAGNE

Joint liability group lending is currently the lending technology of choice of microfinance institutions because of the success of the Grameen Bank, which is using the technology to successfully lend to millions of poor Bangladeshi women. It is widely believed that the incentives for peer-selection, peer-monitoring, and peer pressure resulting from the joint liability clause are responsible for the high repayment rates of the Grameen Bank and other similar microfinance institutions. The analysis and findings presented in this brief are the results of research undertaken by the International Food Policy Research Institute (IFPRI) and Bunda College of Agriculture on the practice and performance of joint liability group lending in Malawi. This research provides evidence on the extent to which peer selection, peer monitoring, and peer pressure are taking place in the credit groups affiliated to the Malawi Rural Finance Company (MRFC), the main microfinance institution in Malawi, and their impact on the joint liability on loan repayment.

The empirical findings of the study contrast with the conventional wisdom and assumptions regarding the informational advantage of the joint liability and its implications for incentives for peer selection, peer monitoring, peer pressure, and loan repayment. In particular, the findings do not support the widely held presumption that joint liability is responsible for the high repayment rates of the successful group lending programs. In fact, the study finds a negative impact of the joint liability clause on the repayment outcomes of MRFC credit groups. The main findings and policy implications of the report are summarized below.

1. The relative value that borrowers attach to access to future credit is found to be the most important factor that motivates them to repay their loans and that of defaulters in their groups. The average amount MRFC borrowers are willing to pay in order to maintain their access to credit is found to be 523 Malawi kwacha (about US$12) or 24 percent of the average loan size per member. This is more than the 15 percent up-front cash deposit that the MRFC seasonal agricultural group members are required to pay. Hence, the findings demonstrate that a lending policy of gradually increasing the loan sizes of good and repeat borrowers (which increases the value of maintaining future access to credit) will have a positive impact on repayment rates and that higher interest rates (which increase both the value of defaulting on a current loan and that of the defaulted loans that must be repaid by nondefaulters under the joint liability rule) will have a negative impact on repayment rates.

2. Peer selection is very limited in MRFC credit groups because of the significant influence that extension workers, credit assistants, and village authorities have on the formation and composition of MRFC credit groups. The study found that 90 percent of the groups include members from families of their respective village authorities. In terms of wealth, MRFC credit group members are also found to be, on average, the same or richer than the rest of the population in their respective villages. These findings imply that powerless ordinary village residents are in a situation where, often, their only choice is either joining the only credit group in the village in which they have very little or influence on its membership composition, or be without credit.

3. Not much effective peer monitoring is taking place in MRFC credit groups because of the non-pecuniary “social cost” associated with it. For example, the lack of effectiveness of the group monitoring committees has been attributed to the fact that committee members are usually fearful of being seen by other members as spying on or interfering

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with other members' private businesses. Another explanation for the relatively limited peer monitoring is provided by the fact that MRFC credit group members are usually from more than one village (three on average). But, even when an effective peer monitoring takes place, its effect on loan repayment is not as important as it is believed to be because the main reason for default in MRFC credit groups is *unwillingness* to repay and not *inability* to repay. Indeed, *unwillingness* to repay is found to be the first cause of default in MRFC credit groups (25 percent of all defaults). Furthermore, the analysis of the reasons for default in MRFC credit groups shows that at most, 37 percent of the defaults in MRFC credit groups could have been possibly prevented by a more effective peer monitoring.

4. The monitoring activities of extension workers are very important for the well functioning and performance of MRFC credit groups. Extension workers play an important role, for example, in ensuring that in-kind loan packages, consisting mostly of fertilizer and seed, are not resold by borrowers. In the case of tobacco farmers, they are also involved in ensuring that all group members send their harvested tobacco on time to the tobacco auction floors instead of selling them to intermediate buyers. This part of their monitoring work is very important for MRFC because of its arrangements with the auction floors that allow MRFC to deduct the amounts owed by tobacco groups directly from the proceeds of their tobacco sales. Monitoring activities are usually undertaken in conjunction with their extension work and extension workers have strong incentives to give special attention to the credit groups in their sections because of the way they are rewarded in their jobs.

5. Peer pressure takes place less frequently than implied by the joint liability, and when it does take place, it is more likely to fail than to succeed in inducing defaulters to repay their loans. The relatively few instances of use of peer pressure are explained by the nonnegligible "social costs" that nondefaulters incur when they peer pressure defaulters. The evidence indicates that active peer pressure serves more as a credible mechanism for good borrowers to signal to future potential defaulters their willingness to apply peer pressure than a mechanism for recovering current defaulted loans.

6. Joint liability has negative impacts on the loan repayment of MRFC credit groups. The study found that MRFC groups that expected the joint liability not to be fully enforced performed much better in terms of repayment rates than groups in which the joint liability was expected to be fully enforced. The impact of the joint liability on enforcement is also found to worsen when some members have some doubt about the repayment intentions of other members in their groups—a situation that occurred in 62 percent of MRFC credit groups. Furthermore, the majority of the partially paid delinquent loans consist of good borrowers who are defaulting because of the joint-liability nature of contracts.

Conclusions

Based on the above findings, it is concluded that (1) the prominence given to the joint liability in explaining the high repayment rates does not hold up universally and (2) microfinance institutions targeted to poor people can operate successfully and achieve high loan recovery rates if they develop lending technologies that do not rely on collateral, but instead cultivate borrowers' expectations for higher and continuous access to credit, and establish an effective screening and monitoring system using their field staff. Empirical findings also suggest that joint liability can have a negative impact on loan repayment. This calls for institutions such as the MRFC to reconsider its inflexible *full* group joint liability policy (no new loans to any borrower until all loans are repaid), an arrangement generally disliked by the majority of its borrowers. It is recommended that MRFC adopt a *limited* group joint liability policy in which defaulters are excluded from the groups and nondefaulters are issued new loans when they pay a reasonable monetary penalty not tied to the total amounts of the defaulted loans. This more flexible group joint liability policy has the potential to yield both lower delinquency rates while retaining most of the cost-saving advantages of lending through groups. Finally, it is important to note that the proposed *limited* joint liability policy is different from a simple relaxation of the *full* joint liability in that it does not penalize nondefaulters in defaulting groups. Such simple relaxation—which usually takes the form of a policy of issuing new loans to nondefaulters in groups with repayment rates above some threshold value—has been experimented with in Malawi under the SACA program during the late 1980s and early 1990s with poor results. ■

Selected Reference

Diagne, A., W. Chimombo, F. Simtowe, and C. Mataya. 2000. Design and sustainability issues of rural credit and savings programs for the poor in Malawi: An action-oriented research project. International Food Policy Research Institute, Washington, D.C.

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RURAL FINANCIAL POLICIES
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POLICY BRIEF No. 13 • JULY 2000

Towards a New Measure of Access to Credit

ALIOU DIAGNE

Two common approaches are used for measuring household access to credit and credit constraints in the literature. The first method infers the presence of credit constraints from violations of the assumptions of the life cycle/permanent income hypothesis. More precisely, the method uses household consumption and income data to look for a significant dependence (or "excess sensitivity") of consumption on transitory income. Empirical evidence of a significant dependence is taken as an indication of borrowing or liquidity constraint. The second method uses direct information on households' participation and experiences in the credit market to classify them as credit constrained or not. This classification is then used in reduced form regression equations to analyze the determinants of the likelihood of a household being credit constrained. While inference based on the first method may not always be correct, the second method does not allow quantification of the level of credit constraint. This brief outlines a methodology based on the *credit limit* concept that allows a more satisfactory analysis of the determinants of a household's access to credit.

Analyzing Access to Credit With the Credit Limit Variable

In general, lenders are constrained by factors outside their control on the maximum amount they can possibly lend to any potential borrower. Consequently, any borrower, however creditworthy he is, faces a limit on the overall amount he can borrow from any given source of credit; regardless of how much of an interest rate he is willing to pay and/or collateral he is willing to put up to back the loan. Furthermore, due to the possibility of default and lack of effective contract enforcement mechanisms, lenders have the incentive to further restrict the supply of credit even if they have more than enough to meet a given demand and the borrower is willing to pay a high enough interest rate. Therefore, from the borrower's view, the relevant limit on supply is not the maximum the lender is *able* to lend, but rather the maximum the lender is *willing* to lend. The latter perceived *maximum limit* or *credit limit* that cannot be exceeded when borrowing, regardless of how much interest one is willing to pay, is the focus of the methodology used in this brief for quantifying the extent of household access to credit.

Conceptual Framework

The conceptual framework follows from a contract-theoretic view of loan transaction. It is essentially based on the fact that the credit limit variable, b_{max} facing a potential borrower and the amount the potential lender wants to be repaid are the variables that lenders can choose. On the other hand, the optimal amount b^* to be borrowed within the range set by the lender remains the sole choice of the borrower, who also chooses ex post (i.e., once the loan is disbursed) whether and when to pay back the loan.

The lender's optimal choice of b_{max}, which is interpreted as the supply for credit, is determined by the maximum he is able to lend, $b^a{}_{max}$. It is also a function of the lender's subjective assessment of the likelihood of default and of other borrower characteristics. Similarly, the optimal interest rate r chosen by the lender is a function of $b^a{}_{max}$, the demand-for-credit function in the traditional meaning of the term. The fact that b^* is a function of b_{max} in addition to being a function of the interest rate is a mere reflection of the borrowing constraint and the imperfect substitutability of the different sources of loans. However, because of imperfections in the

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enforcement of the loan contract and the resulting adverse selection, the demand for credit need not be a downward-sloping function of the interest rate.

Access to Credit and Participation in Credit Programs

Access to formal credit is often confused with participation in formal credit programs. Indeed, the two concepts are often used interchangeably in many credit studies. The crucial difference between the two concepts lies in the fact that participation in a credit program is something that households choose to do freely, while access to a credit program is a limiting constraint put upon them (availability and eligibility criteria of credit programs, for example). The *lack of access to credit* from a given source of credit can be defined as when the maximum credit limit b_{max} for that source of credit is zero. That is, one *has access* to a certain type of credit when its maximum credit limit b_{max} for that type is strictly positive; and one *improves* one's access to that type of credit by increasing b_{max} for that type of credit.

"Expectation," Observability of the Credit Limit, and the Demand for Credit

The observations above suggest that the maximum credit limit a borrower faces depends on both the lender's and borrower's characteristics and actions. But also, it depends on random events that affect the fortune of lenders and other potential borrowers (who may compete with the borrower for the same possible credit). For example, one can expect the occurrence of drought in a rural agriculture-based economy to reduce the supply of informal credit, while also increasing the number of people looking for loans. Hence, the maximum credit limit b_{max} facing a potential borrower is determined by events, some of which are under the borrower's control, others under the lender's control, and still others outside the control of both.

The fact that b_{max} depends on random events also implies that its realized value at the time when borrowing actually takes place cannot be known exactly in advance by either the lender or the borrower. The borrower can only form "expectations" about the likely value of b_{max} at the time of actual borrowing. But formal lenders usually provide enough information about their loan policy (eligibility criteria, types of project funded, collateral and down-payment requirements, etc.) to enable potential borrowers to have reasonably accurate "expectations" about their b_{max} from each source of formal credit. In the cases of NGO- and government-supported credit programs, they even usually set and announce fixed credit limits for all potential borrowers.

Furthermore, at the time of borrowing it is only the lender who observes the realized value of b_{max} (which he himself determines), and may or may not have the opportunity to reveal it to the borrower. For example, if the borrower's realized optimal choice of loan size is strictly positive but strictly less than the realized value of b_{max}, then the lender may never have the chance to tell the borrower his actual realized choice of b_{max}. Clearly, if at a particular time a borrower does not ask for a loan from a given source of credit, he will never learn, even in retrospect, about his realized b_{max} from that source of credit at that time (there may be exceptions in the cases of NGO- and government-supported credit programs, which set and announce fixed credit limits for all potential borrowers). However, the potential borrower will always have "expectations" on what would have been the likely value of b_{max} at that time. Furthermore, it is precisely the borrower's prior "expectations" about the likely value of b_{max} and its variability that influence his behavior and make him decide in particular whether or not to seek a loan from that particular source of credit. Many "discouraged borrowers" do not seek any loan because either they *expected* to face zero or very low b_{max}, or they *expected* a relative high cost (including transaction costs) for getting loans. The "discouraged borrowers" may have been wrong in their expectations and could perhaps obtain worthwhile loans at reasonable costs. Even when a borrower seeks a loan from a given source of credit, the realized value of the optimal loan size is largely determined by his "expectations" about his b_{max} (especially if the borrower has reasonably accurate information that allows him to predict well the *location* of b_{max}).

The framework outlined above implies that borrower's "expectations" about b_{max} are much more important in determining the actually demanded amounts of credit than the realized values of b_{max}. In empirical work it is possible to collect information on the borrower's *expected* b_{max} from different sources of credit. An example of two studies—one in Malawi and the other in Bangladesh—is cited below. ■

Selected Reference

Diagne, A., M. Zeller, and M. Sharma. 1997. Determinants of household access to and participation in formal and informal credit markets in Malawi and Bangladesh. International Food Policy Research Institute, Washington, D.C.

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POLICY BRIEF No 14 • JULY 2000

The Scope for Policy Reforms in Rural Microfinance*

MANOHAR SHARMA

RESEARCH PROGRAM MISSION

The research program titled Rural Financial Policies for Food Security of the Poor seeks to identify policies and institutional arrangements that help the poor integrate themselves into sustainable savings and credit systems in order to increase capacity to invest, bear risk, and preserve livelihoods.

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This brief considers the scope for policy action in seven areas: (1) regulation of microfinance institutions, (2) provision of saving services, (3) product innovation, (4) organizational issues in microfinance, (5) poverty impact of microfinance, (6) agricultural finance, and (7) subsidy and sustainability issues.

Regulation of Microfinance Institutions

The principal objective of regulation should be to create a policy and legal framework that makes it feasible and attractive for microfinance institutions (MFIs) to operate in rural areas and serve the poor on a sustainable basis. To the clients, especially the savers, prudential regulation increases the level of confidence in banking transactions.

Three priority areas are noted: (1) prudential regulation enabling secure and sustainable internal financial management, (2) specific regulation governing transactions between financial agents and institutions, and (3) regulation ensuring competitive conditions.

Provision of Savings Services

It is recognized that (1) the poor place great value on saving services when such services match their saving patterns and (2) mobilization of local saving provides MFIs a reliable, inexpensive, and sustainable source of funds for on-lending. Well-designed saving services therefore are indispensable characteristics of a successful microfinance institution.

In order to be successful, saving services have to respond to the level and patterns of saving by the poor. Liquidity and safety of deposits are of primary concern to poor households. Hence, flexibility in deposits and withdrawals as well as assurance of safe, prompt, and reliable service become important factors in designing successful saving products.

Product Innovation

As with savings, innovations in financial products need to be primarily demand-oriented. It is only when products match clients' preferences that a market niche for MFIs is established and pricing at full cost—a requirement for financial sustainability—becomes at all feasible. Supply-side considerations are important too, for there needs to be a conducive policy environment that nurtures and provides incentives for MFIs to innovate and improve. For this reason, regulatory conditions as well as the organization and management structure of MFIs become important determinants of the pace and quality of product innovations.

Demand-Oriented Innovation. A closer understanding of demand patterns and preference structure of poor rural households is essential for demand-induced innovation. This requires continuous action-oriented interaction between practitioners/program managers and their clients. Decentralization in decision-making and adequate representation of the clients in the governance and management structure are powerful catalysts for innovations.

Collateral Substitutes. Developing collateral substitutes represents one important line of innovations that can greatly improve access of the poor who generally lack traditional collateral-suitable assets. Making use of local information to trigger positive group dynamics as well as bringing down costs of group-based participation is likely to have beneficial effects. There also remains scope for finding new collateral substitutes in individual-based lending. In general, not just physical assets, but many other things that are regarded to have some intrinsic value in a particular society—general reputation, threat of

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*This is a summary of the conclusions and recommendations resulting from the international workshop on Innovations in Microfinance for the Rural Poor: Exchange of Knowledge and Implications for Policy, 8-13 November, 1998, in Accra, Ghana. The workshop was jointly organized by Deutsche Stiftung für Internationale Entwicklung (DSE), the International Food Policy Research Institute (IFPRI), and the International Fund for Agricultural Development (IFAD).

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public citation of default, sanction by village or society elders—can potentially be used as a collateral subsitute. Better training of MFI staff in loan appraisal methods can assist them in recognizing good borrowers. Further, introducing incentive systems for MFI staff based on loan performance can also lead to better monitoring and enforcement of loan contracts.

Insurance Products. Income variability and unexpected expenditures arising from illness and other emergencies put considerable stress on the food security and livelihood of the poor. Hence insurance products are highly valued. Though credit and saving products themselves act as good insurance substitutes, innovations that reduce the cost of providing health, accident, and life insurance will have considerable impact on the poor. It is admitted that introducing innovations in this area is highly challenging. A first step for MFIs could be to consider retailing insurance products provided by formal financial institutions and make further assessments based on this experience.

Organizational Issues in Microfinance

Organization principles adopted have to be strictly aligned with organizational objectives. A widely endorsed objective is that MFIs develop a high level of competence in providing a core set of financial services in a sustainable manner.

Strategic Organization and Management. Whether member-based or not, organization and management should be based on the adoption of an entrepreneurial culture that gives due attention to market realities and potentials. A strong management information system that lets managers make decisions in the light of best possible information is also required. Hence, market analysis, product design, and incentive compatibility should be treated as key management concerns. This includes developing long-term relations with financial institutions in the private sector and negotiating a portfolio of investments and commercial loans that best suits the interest of the MFI.

Monitoring and Evaluation System. MFIs should establish and operationalize, on an ongoing basis, a monitoring and evaluation (M&E) system of their performance. The system adopted should provide for meaningful participation of MFI clients.

Poverty Impact of Microfinance

It is widely presumed that microfinance is an effective tool for poverty alleviation. In fact, it is this presumption that has fueled much of the support for allocating increasing amounts of public resources to the microfinance sector. Hence, assessing and monitoring the impact of MFIs on the livelihood of the poor as well as examining its cost-effectiveness vis-à-vis other poverty-alleviation measures is of interest not only to policy analysts, but also to concerned investors and managers of microfinance. Empirical research so far points out—albeit not universally—to significant and sizable improvements in income and food expenditures, but documents little impact on other welfare indicators such as nutrition, education, and empowerment of women. Clarifying the relationship between poverty alleviation and microfinance services has implications not only on a more meaningful discussion of subsidies and sustainability of institutions, but also on operational matters such as service targeting and product innovation. For this reason, more research is needed that leads to better impact assessment and also one that helps microfinance practitioners to operationalize poverty targeting and monitoring.

Agricultural Finance

Most of the world's poor consist of microentrepreneurs who are engaged in agricultural production on small farms. But providing financial services to this diverse group has been challenging for several reasons: they are vastly spread geographically, making service delivery and information collection very costly; many of the farmers are illiterate; production is not only weather dependent and risky, but also rigidly cyclical. Yet MFIs risk bypassing the poorest if this group is not serviced adequately. Hence, efforts to develop effective and sustainable microfinance services for small agricultural producers deserve priority.

Sustainability and Subsidy Issues

The issue of sustainability of institutions and the role of subsidies is a complex one. On the one hand, setting up institutions that are financially unsustainable distorts incentives, makes institutions hostage to uncertain donor or government financing, and, in some cases, leads to mistargeting as richer and powerful groups preempt services available at considerably below market prices. Further, as a number of empirical studies have shown, what is most valuable to the poor is access to services, as they are often willing to pay for services at full cost. The case for subsidies, on the other hand, can also be quite compelling. Simply put, if microfinance services are, dollar for dollar, more effective in achieving some objectives compared to alternative poverty alleviation programs (e.g., other transfer programs), then there is clearly a case for diverting public resources away from the latter into the microfinance sector.

Decisions on subsidies, ideally, have to be made on a case-by-case basis and with full accounting of all costs and benefits. But this is more easily said than done, since benefits and costs are notoriously difficult to pinpoint and measure.

Best use of subsidies is found in helping build institutions that are likely to attain sustainability in a clear time frame. Contributions to finance initial investments in physical infrastructure and human capital development have high sustainable returns in the future.

There also exists substantial scope for additional research in clarifying the nature of cost and benefits of microfinance services and using this knowledge to develop sustainable institutional formats. Researchers need to work closely with both practitioners and policymakers for this effort to be successful. ■

ABOUT IFPRI

IFPRI's mission is to identify and analyze strategies for meeting food needs of the developing world, with particular emphasis on low-income countries and the poor.

IFPRI is a member of the Consultative Group on International Agricultural Research (CGIAR).

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Multicountry Research Program on Rural Finance Policies for Food Security of the Poor, 1994–2000

Objective

To identify policies and institutional arrangements that help the poor integrate themselves into sustainable savings and credit systems such that they have an increased capacity to invest, bear risk, and smooth consumption

THE INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE (IFPRI)

Established 1975

Mission

To identify and analyze alternative national and international strategies and policies for meeting food needs of the developing world on a sustainable basis, with particular emphasis on low-income countries, poor people, and sound management of the natural resource base that supports agriculture; to make the results of its research available to all those in a position to use them; and to help strengthen institutions conducting research and applying research results in developing countries

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