Microfinance for Microenterprise: A Source Book for Donors

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Abstract

This source book summarizes the state of the art in the field of microfinance for microenterprise, with a focus on examples from Latin America. It reviews lessons learned and offers practical guidelines for donors who want to use their resources wisely. The chief role for donors is to speed the evolution of the types of financial institutions and the types of financial services that microenterprises find useful. This husbandry encompasses three areas of action: improving the overall economic environment, reconciling the goal of financial self-sustainability with the goal of outreach to the poor, and encouraging experimentation with organizations and services.

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Overview

This source book summarizes the state of the art in microfinance for microenterprise, with a focus on examples from Latin America. It reviews lessons and provides practical guidelines for donors who want to use their resources wisely.

The chief role for donors is to speed the evolution of the types of institutions and services that microenterprises find useful. This husbandry encompasses three areas of action: improving the overall economic environment, reconciling the goal of financial self-sustainability with the goal of outreach to the self-employed poor, and encouraging experimentation with organizations and services.

What roles can donors play? Unlike individual microentrepreneurs, donors have the clout, motivation, and vision to lobby for systemic economic reform. Macroeconomic constraints may preclude market-driven evolution. The structure of the microenterprise sector may result less from free competition than from misguided macroeconomic policy, excessive regulation, or absent ancillary markets. The economic environment may favor an unnaturally large microenterprise sector, killing off opportunities outside it while stunting growth within it. Donors may have a comparative advantage in intervening to instill a long-term vision against distortions harmful to microenterprise.

Donors may also have a comparative advantage in building incentive structures that encourage financial institutions to strive for self-sustainability and to provide the

types of services demanded by microenterprises. So far, microenterprises have not found that for-profit financial institutions serve them well. Non-profit institutions have done better, but these institutions have not usually been self-sustainable. The most appropriate way for donors to build institutional strength for both self-sustainability and outreach to the poor is technical assistance.

Finally, donors can assist in replicating the few self-sustainable financial institutions that have successfully served large numbers of microenterprises. Donors can also enlarge the pool from which healthy institutions may emerge. Donors have a unique role to play in encouraging experimentation, in providing funds, in evaluating progress, and in disseminating results. Without donors, learning to balance profitability with depth of outreach would require a longer, more costly process of trial-and-error. With donors, financial institutions learn not only from their own mistakes but also from the mistakes of others. Donors can encourage the speedy discovery of mistakes, and thus also successes, by promoting many innovative experiments.

This source book has four sections. Section 1 introduces a conceptual justification for interventions in microfinance for microenterprise. Section 2 discusses donor promotion self-sustainable financial institutions that serve the self-employed poor. Section 3 catalogs financial and organizational technologies and stresses matching technology to the needs of both the financial institution and its clients.

1. Why support microfinance for microenterprise?

1.1 Introduction

This source book focuses on the potential to accelerate the microenterprise development through donor-supported microfinance. Financial-market projects are more likely to succeed if the overall economic, legal, institutional, and social environment are supportive of microenterprise development. Donors have the incentives and the resources to support improvements in the various aspects of the environment affecting microenterprises. This source book focuses of three areas of donor intervention:

- Support for the enabling environment, especially through improved policies, laws, regulations, and institutions that affect microenterprise performance;
- Support for efficient, self-sustainable financial institutions;
- Support for financial and organizational technologies that match the supply of financial services with the demand.

This introductory chapter first defines some basic terms. It then explores justifications for donor intervention in support the development of microenterprises.

1.2 Definitions

1.2.1 Microenterprises

In the 1970s, the search for a definition of *microenterprise* that was both theoretically satisfying and operationally useful was associated with the discussion of

the informal sector. Although there was never a consensus, most definitions were based on sector, level of assets, number of workers, and scale of operation or of output.

One current definition of *microenterprise* encompasses firms with less than 10 workers (IPC, 1994). A more complex definition looks at three aspects: the type of activity, the number of workers, and the level of output. In this usage, manufacturing firms employing four or fewer workers and using less than US$300 in capital are microenterprises, but firms in trade may employ as many as nine workers and still qualify as microenterprises.

In this source book, the distinguishing characteristic of microenterprises is their use of financial services on a size and scale unavailable from the modern, private financial sector. References to number of employees, level of output, or type of activity are only complementary means of identification. Microenterprises are firms owned by the self-employed poor that use microfinance.

1.2.2 Self-sustainability

Supporting the sustainable development of microenterprises through financial markets requires self-sustainable financial institutions. *Self-sustainability* refers to the long-term ability to meet goals. For financial institutions and for firms, this requires private profitability: a return on equity, net of subsidy, that exceeds the private opportunity cost of resources (Schreiner and Yaron, 2001).

1.2.3 Financial institutions used by microenterprises

The financial institutions whose products are found useful by microenterprises may be small or large, of local or of foreign origin, or funded locally or by external development agencies. Usually, these institutions are not banks, but rather:

- Non-government organizations, often with a mandate to relieve poverty;
- Credit unions or cooperatives, often with a small scale of operations;
- Informal institutions, often a source of financial services for microenterprises.

While donors can interact directly with NGOs and credit unions, they cannot directly affect informal institutions. In practice, donors work most often with NGOs.

1.2.4 Target groups

The source book assumes that donors aim to target urban and rural microenterprises who, although presently without access to formal financial services, have the potential to be good clients.

1.2.5 The role of donors

Donors have the power and desire to channel resources to the benefit of a target group. Donors can be effective forces in a market, especially when working directly with individual businesses. Unfortunately, the numbers of microenterprises preclude much direct action. Instead, donors usually provide indirect support, intervening in markets used by microenterprises with funds, technical assistance, and training.

Donors have a fundamental comparative advantage in the support of a healthy macroeconomy and robust ancillary markets. The enabling environment for

microenterprise development is shaped not only by the market and the private sector (over which donors have little influence) but also by government (over which donors may have substantial influence). Specific interventions that promote a healthy enabling environment include doing research and disseminating results, advocating for worker's organizations, and lobbying for the reform of public institutions.

Careful donors can help strength the supply of microfinance for microenterprise. Most donors have recognized the fundamental flaws in what has been historically the most-popular assistance strategy, subsidizing funds for on-lending. Better uses of donor funds include replenishing past loan losses, reinforcing capitalization, or covering non-operating, one-shot costs that otherwise could stall the drive toward self-sustainability.

1.3 Why intervene in the microenterprise sector?

1.3.1 Economic and historical reasons

The economic, social, political, and institutional history of Latin America has determined the current environment for microenterprise. The current size and importance of microenterprise is due in large part to the legacy of misguided policies. Of course, the current policy environment also affects microenterprise projects.

In most of Latin America, development policy has been characterized by:

- Unbalanced regional growth and a marked urban bias in access to public services;
- Unbalanced distribution of population with increasing rural-to-urban migration;
- Unbalanced policy focus on macroeconomics.

In Latin America, the principal problems following from the world recession of the 1980s were uncontrolled inflation, fiscal deficits, macroeconomic imbalances, and balance-of-payments crises. Most countries, in urgent need of alternate policies, opted for structural adjustment. This implied liberalizing prices, reducing the fiscal deficit, reorienting spending toward non-tradables, and reducing subsidies for non-self-sustainable financial programs.

The net effect of structural adjustment on access to finance for microenterprise was negative. On the one hand, restructuring the economy destroyed financial markets and, while many markets became more competitive, financial markets lagged behind. On the other hand, financial liberalization reduced the size of the loan market, especially for microenterprise.

In the early 1980s, financial-market development followed a supply-driven strategy. In many cases, the objective was to distribute subsidized credit to marginalized groups. This led to the propagation of non-viable, high-cost, inefficient institutions whose losses were unacceptable in a context of structural adjustment. Non-viable institutions did not serve the self-employed poor, but they did encourage incompetence, corruption, and opportunistic behavior by managers and wealthy clients.

Since the 1980s, microenterprise has been recognized as a crucial sector in sustainable development, and financial-service programs have been reoriented away

from rural finance for farmers and towards microfinance for microenterprises. Donors hope for success in these new microfinance programs because:

- Microenterprise projects seem to break from the history of failed rural-credit projects;
- Microenterprises, with regular income streams, are less risky than farmers;
- Microenterprises are densely concentrated in cities, implying lower transaction costs.

Donors have also recognized the failure of public institutions as financial intermediaries and as project partners and so now prefer grassroots institutions. Success will require innovation in institutional design to strengthen the role of NGOs while eliminating interference from the public bureaucracy.

1.3.2 Distribution and democracy

Equity also requires changes in the strategy used to reach microenterprises. Many donors believe that microenterprise has the potential to combine growth with equity, and other point out that, for democracy, microenterprise has the potential to create opportunities beyond microenterprise as well as the capacity to create more owners. Finally, given that donors have some blame for past failures, they have some responsibility to do better now.

Support for microenterprise also promises long-term benefits, as today's small business may be tomorrow's large-scale employer. In general, microenterprise may be useful as a human-capital development strategy (Sherraden *et al.*, 1998).

According to Besley (1994) and Krahnen and Schmidt (1994), microenterprises interventions could increase economic efficiency under the following assumptions:

- Microenterprises have the capacity to save, to borrow, and to repay as promised;
- Microenterprises have good investment opportunities, even if they do not have resources to invest;
- Interest rates are not repressed, so intermediaries can charge enough to cover costs.

It may be that microfinance for microenterprise is profitable, but perhaps private firms are exogenously constrained from taking advantage of it. This might occur if:

- The financial system is very fragmented or inefficient;
- Private lenders avoid microenterprise because they overestimate the risk;
- Informal financial institutions provide weak competition.

1.3.3 Market failure

Market failure occurs when a competitive market fails to achieve a Pareto-efficient allocation, given any constraints (Besley, 1994). Credit-market failure may be caused by, among other things, high transactions costs, imperfect information, externalities, or the presence of non-exclusive goods. Although market failure is a necessary condition for intervention, it is not sufficient. In practice, the externalities and problems created by the intervention itself may not only exacerbate the market failure it was intended to eliminate but also introduce new distortions.

For example, imperfect information abounds in financial markets because they deal in dynamic contracts whose future fulfillment is inherently uncertain. In principle, government intervention could ameliorate this problem. In practice, however, the

provision of information is difficult and costly. A more efficient route turns out to be promoting institutions and innovations that may work to reduce the imperfection.

In the case of microfinance for microenterprise, the principal source of asymmetric information is the inability of the self-employed poor to demonstrate creditworthiness under traditional risk-evaluation technologies. This results from lack of income from wage work, a lack of tangible collateral, and the absence of verifiable accounting records. Furthermore, contracts may be difficult to enforce, microenterprises may be risky even if that risk is perfectly evaluated, and transactions costs are very high relative to loan size. Financial institutions simply cannot assure themselves that the benefits of microfinance for microenterprise outweigh the costs.

The evolution of financial markets accelerates when individual institutions learn not only from their own mistakes but also from the mistakes of others. Problems of individual lenders in specific markets may sometimes be traced to a lack of technical know-how that does exist somewhere else in the market. Donor intervention may thus have a role in reducing the costs of developing and disseminating new technologies. While some information problems are not susceptible to cure by intervention, some are.

Interventions by donors should facilitate innovation in microfinance while avoiding new distortions. Because financial markets in Latin America are incipient and imperfect, interventions may indeed improve the allocation of resources (Krahnen and Schmidt, 1994). Given the complexity of the economy and the imperfections likely bred

into the interventions themselves, however, interventions should reinforce and strengthen incipient or potential market forces rather than replace them.

1.3.4 Externalities

Financial markets are particularly susceptible to market failure from externalities. On the microeconomic level, the decision of one borrower to repay a loan affects the strength of the lender and thus the financial health of other clients. This is an externality because the borrower does not consider these effects.

On the macroeconomic level, a harmful externality may result if the riskiest banks offer high rates of interest for deposits. To compete, healthy banks must also raise their deposit rates, and—to cover increased costs—increase lending for risky projects. This can lead to a downward spiral for the entire financial system. Avoiding such problems requires regulation and strong complementary markets, such as those for education, communication, and insurance (Besley, 1994).

Of course, financial intermediation also can produce positive externalities. If access to finance constrains microenterprise development, then greater access to credit and to other financial services such as deposits and insurance may start multiplier effects that ripple through the economy.

According to the new vision of finance for development (Krahnen and Schmidt, 1994), development depends on efficient institutions. In turn, efficient institutions depend on efficient performance by the financial sector. Financial institutions are not

passive conduits of society's capital; rather, they active facilitators and monitors of its accumulation and allocation.

Donors can help to ensure that positive externalities outweigh negative externalities. For example, donors can structure incentives to reward profitable, self-sustainable institutions, or they can help mitigate the effects of imperfect information, by promoting credit bureaux.

1.4 The role of donors in microenterprise intervention

1.4.1 Caveats

Are the interventions suggested by a theory based on market imperfections and on imperfect information feasible? The goal here is to define limits and provide guidelines for donors who value both self-sustainability and depth of outreach.

Governments and donors have intervened directly in markets to correct imperfections, without success. The gravity of the defects of direct intervention means that it should be abandoned. Donors should focus instead on improving the institutional environment so as to supply permanent access to scarce inputs such as capital, technical knowledge, and information.

Donors should not intervene in imperfect markets on the basis of criteria or expectations that disregard the natural evolution of emerging markets. Instead, donors should carefully identify and strengthen those factors of demand, supply, and price that are required for well-functioning markets.

Donors can act fruitfully and non-destructively in three areas:

- Creation of conditions favorable to microenterprise. The ideal enabling environment permits long-term, impersonal contracting with low transaction costs.
- Design of institutions that give all stakeholders with the opportunity and the incentives to behave in ways conducive to long-term viability (Schreiner, 1997).
- Research and development of financial and organizational technologies that match clients' demands with institutional needs for profits.

1.4.2 Role of donors in learning

Donors can help unleash a process of innovation and learning by relaxing bottlenecks in acquiring and applying new technologies. For example, investors need the technology to evaluate the risk of small loans to the self-employed poor before they can need funds to loan. Donors have a role because in much of Latin America, the only microfinance organizations serving microenterprise are those supported by donors.

Donors can stimulate experimentation and innovation through incentives (Besley, 1994). For example, research-and-development departments funded or operated by donors can test innovations and do reduce the risk to financial intermediaries of adopting innovations. Or donors can fund research into how to handle small transactions efficiently.

1.4.3 Donors, self-sustainability, and depth of outreach

The ultimate goal of donors should be to create incentive structures that lead intermediaries to seek self-sustainability by providing services demanded by the self-employed poor (Schreiner and Morduch, forthcoming). Self-sustainability may be compatible with subsidies, especially during an institution's genesis, if the subsidies

focus on building assets (tangible or intangible) that lead to long-term permanence. A permanent institution that produces expensive but valuable services assists microenterprise more than a temporary institution with inexpensive but non-valued services (IPC, 1994).

2. Building Self-Sustainable Institutions

2.1 Lessons for donors

2.1.1 Self-sustainability defined

For institutions in general, *self-sustainability* means the ability to meet long-term goals. For financial institutions, *self-sustainability* means acting so that the return on equity, net of any subsidy, exceeds the opportunity cost of funds. This does not imply pure profit maximization because donors insist not only on self-sustainability but also on depth of outreach. For markets, *self-sustainability* connotes a process that rewards institutions that increase overall well-being and that punishes others.

2.1.1.1 Self-sustainability as profitability

Self-sustainability requires profits: revenue from interest and fees must cover interest costs, non-interest costs, and opportunity costs. Interest costs arise from the deposits or loans which fund the loan portfolio. Non-interest costs include operational expenses such as salaries, transportation, and loan losses. Opportunity costs are the return that the resources employed could have earned elsewhere.

Microfinance organizations must account for opportunity costs. For example, measures of self-sustainability should recognize that concessional loans have an opportunity cost because donors allow capitalization of what otherwise would be paid as interest (IADB, 1994). An opportunity cost should be imputed for all resources from

non-private entities. This requires imputing market prices for capital, quasi-capital, and grants, whether in-cash or in-kind.

Of course, cost-coverage, or even opportunity-cost coverage, does not imply self-sustainability. Capital must accumulate, and that requires a return on equity above the opportunity cost of capital. Capital provides self-insurance for independently weathering storms and loan losses. It also fuels growth and the expansion of services, prerequisites for economies of scale. An institution that erodes the real value of its equity base meets present goals at the expense of future goals.

2.1.1.2 Self-sustainability coupled with depth of outreach

The twin of financial profitability is depth of outreach, products and services of sizes and designs that microenterprises find useful. The process of self-sustainability is compromised if either goal is sacrificed for the other. Recognition of the importance on financial performance should not lead to subordination of outreach (Von Pischke, 1994). There are plenty of self-sustainable financial institutions; the challenge is to push some of them toward service to the self-employed poor.

2.1.1.3 Self-sustainability as a process

Finally, viewing the development of microfinance for microenterprise as an evolutionary process means widening the perspective of donors from individual institutions to the process that rewards success and punishes failure. Von Pischke (1994) asks, “What should developers attempt to ensure, continuation of the market

process or the perpetual life of specific firms participating in the market? In this context, some formal institutions reasonably and predictably become dispensable as priorities and opportunities shift over time as a result of the innovation that is indispensable to a competitive market. Likewise, many financial intermediaries and a multitude of microenterprises will exit a competitive market for a wide variety of reasons, while many more are formed".

The vision of donors as breeders of continually stronger financial institutions is difficult and unsafe. An incremental success may come only after many, costly mistakes, if it comes at all. Experiments may mutate into financial Frankensteins, well-meaning-but-blundering monsters that undermine development rather than accelerate it. Market forces (or the creation of market-like forces by donors) must be allowed to weed-out bad experiments. Von Pischke (1994) notes that "evolution is challenging: innovative financial instruments or services are difficult to price. They thereby easily create market inefficiencies, which should eventually be ironed out by competition, facilitated by possibilities of entry and exit."

An approach to the development of microenterprise through institution-building must recognize the ultimate goal of healthy financial markets. This financial-systems approach focuses on capturing resources within the economy, allocating resources to creditworthy uses, and operating on a commercial basis (Rhyne and Otero, 1993).

Box 2.1: Characteristics of self-sustainable financial institutions used by microenterprises

Self-sustainability rests on three pillars. The first is voluntary deposits.

The second is a rational pricing policy, with interest rates on loans high enough to cover costs while increasing the value of equity yet low enough for microenterprises to afford. Interest rates on deposits should exceed the return those resources would earn in if saved in other forms, while interest rates on loans should undercut those of informal moneylenders but exceed those of commercial banks.

The third cornerstone of self-sustainability is high repayment rates. In turn, this requires promoting financial discipline among borrowers. The organization must contain costs and stress efficiency in assessing investment plans, screening borrowers, processing loans, collecting repayments, and mobilizing savings.

Self-sustainability is more than a given financial institution's ability to provide a return on equity above its opportunity costs while providing products demanded by the self-employed poor. It is also the process of moving the entire financial system toward rewarding the supply of services useful to microenterprises. Krahnen and Schmidt (1994) write that "any good project in the field of finance should contribute to shaping or influencing the financial sector so that there will be financial institutions that are, and remain, able and motivated to provide quality financial services with moderate operating and transactions costs to large segments of the population."

2.1.2 Why self-sustainability matters

2.1.2.1 Failed institutions create negative externalities

The forces shaping institutional permanence also affect the economic environment for microenterprise. Failed financial institutions create larger negative externalities when the failure results from non-market forces than from market forces.

Failure destroys confidence and damages the formation of healthy expectations. Failure also discourages savings and encourages capital flight. Just as donors and governments abandoned rural-credit projects, they will eventually abandon microfinance projects if the institutions fail.

The problems spawned by a lack of self-sustainability multiply in a non-competitive environment. Governments and donors lose face as well as money. The broken contracts implicit in institutional failure make future contracting more difficult. Entering a market that has a reputation for broken contracts is costly. Failing institutions increase corruption, as bankers may trade political favors for bail-outs.

Worst of all, failed financial institutions hurt those they were supposed to help. They create instability for the poor, the people most in need of stability. They require subsidies that are captured by the non-poor. Finally, they punish the borrowers who do repay as promised by putting them at a disadvantage *vis-a-vis* defaulters.

2.1.2.2 Positive externalities due to successful institutions

On the other hand, self-sustainable institutions spark positive externalities. Achieving economies of scale requires spontaneous growth, and growth in turn requires financial viability (Rhyne and Rotblatt, 1994). Lending on a large scale reduces average costs, and this means better, cheaper products for more microenterprises.
Self-sustainable institutions forged in a competitive market contribute to development chiefly by mobilizing private savings and channeling them into productive activity. The

incentive to use loans for production would decrease if the loan were confused with a grant (Branch, 1994). Success breeds success in that sound institutions can offer the salary and job security necessary to attract good employees (Richardson *et al.*, 1998).

2.2 Ownership, incentives, and self-sustainability

A corporate constitution is a "system of incentives and rights and opportunities of individuals to decide and to act in the framework of any given situation" (Krahnen and Schmidt, 1994). A good constitution "contains checks and balances and assigns rights and responsibilities." A corporate constitution should provide for ownership with the power and motivation to maintain an incentive structure that balances the desires of various stakeholders with the institution's self-sustainability. For financial institutions used by microenterprises, the constitution should ensure that owners, managers, regulators, clients, and donors have both the incentives and the opportunities to act to promote self-sustainability (Schreiner, 1997). The constitution must also provide for internal regulation and auditing, usually through a board.

Individual corporations evolve; for example, donors may wean microfinance organizations from subsidies. Corporate constitutions, therefore, must be meta-constitutions, rules for making rules (Schreiner, 2001). The constitution of an institution committed to becoming self-sustainable has built-in flexibility as well as the power to change itself. This will drive the metamorphosis from a top-down, donor-dependent, non-sustainable model to a grassroots, locally autonomous,

self-sustainable model. Unforeseen challenges always arise, and the constitution must provide for responses. For example, it anticipate a way for the institution to evolve from dependence on subsidized funds into dependence on deposits.

2.2.1 Equity ownership

The two basic ownership structures, equity and non-equity, provide different sets of incentives. BancoSol in Bolivia is an example of a microfinance organization with equity ownership that serves microenterprises. Equity holders have incentives to monitor management and to push for self-sustainability. Owner's equity functions as a deductible, a liability that pays no fixed return but absorbs any residual, positive or negative, after fixed obligations are met.

Local private-sector investors make better owners than do donors, governments, or microenterprise clients. A small cadre of local investors with large shares of their own portfolios at-risk has strong incentives to monitor and enforce. Local investors also bring management expertise and can tap commercial finance. Private, profit-oriented owners, however, tends to forget the poor and depth of outreach (Von Pischke, 1994).

2.2.2 Non-equity ownership

Non-equity ownership structures, in contrast, are less likely to forget the poor, but they also are more likely to forget self-sustainability. With non-equity structures, ownership is usually poorly defined or diffuse. No single agent or viable coalition has

the incentive to monitor clients and management. Without well-defined ownership, no one has incentives to work to improve or to seek constructive feedback.

In general, ownership by governments, clients, or donors has not worked. Government credit schemes have a long, sad history of failure and politicization. Clients would be ideal owners, but their inability to organize themselves cheaply results in control being captured by donors or by elites among the clients. Historically, donors have not acted like owners. Equity participation by donors is difficult to distinguish from grants or loans, and donor resources are difficult to price.

2.2.3 Building institutions through sound incentive structures

The new institutional economics has turned donor attention from assistance with funds to assistance with incentive structures. "The problem posed by the provision of financial services in developing countries is primarily one of incentive-oriented financial institution building rather than one of availability of 'loanable funds'" (Krahnen and Schmidt, 1994). Constitutions must lay out incentives such that individual behavior leads to institutional behavior that is both profitable and serves the self-employed poor. Design must provide for sound incentives because "sustainability as a process survives only as long as participants in the process have incentives to behave in ways that enables the process to continue" (Von Pischke, 1994).

Designing incentives is not easy. The financial institution must control a resource desired by the agent, for example, a stable, high salary. Further, the designer must

know how badly the employee wants the salary, and the designer must have some idea of the other opportunities available to the employee. Finally, the salary offered must be high enough to satisfy the employee but not so high as to wreck profitability. Striking such a balance is difficult, and it may not be possible in all cases.

2.2.4 Evaluating potential self-sustainability in a partner

The nitty-gritty details of accounting matter. Cutting-edge discussions of finance are stimulating, but the fatal mistakes are usually mundane. For example, donors should worry less about what exactly is a *microenterprise* and more about accounting for subsidies, shadow-pricing grants, and provisioning for loan losses.

Institutions likely to qualify as partner usually have four characteristics (Krahnen and Schmidt, 1994). First, they are physically and socially close to the target group. Second, their current financial performance and their current service to the target group indicate a potential for both self-sustainability and depth of outreach. Third, they provide (or have serious plans to provide) diverse financial services, including deposits. Fourth, the institution is flexible enough to change during a project.

2.2.5 Measurement as a tool for sustainability

Measurement is a tool for sustainability in five ways (Schreiner, 2000a). First, it forces stakeholders to define objectives. Second and third, it both indicates and influences what is considered important. Fourth, it provides technical feedback. Fifth, measurement reveals the possibilities of microfinance for microenterprise. These four

features mean that "clarity in measurement of financial performance can contribute greatly to the sustainability of systems benefitting the poor" (Von Pischke, 1994).

2.2.5.1 Measurement helps to define objectives

Ill-defined objectives do not survive attempts at measurement. Abstract concepts like *self-sustainability* can easily become meaningless buzzwords, but the nuts-and-bolts problems involved in measurement bring discussions back to reality. Attempts to measure self-sustainability forces donors to come to grips with the concept.

2.2.5.2 Measurement affects priorities

Measurement affects priorities because valid measurements cannot ignore client demand. Managers who must measure and report return-on-equity cannot help but become concerned with it. "Attention to measurement of the financial results of a lender to the poor would create incentives for better performance, reducing cost and opening new avenues for risk management to benefit to poor" (Von Pischke, 1994).

2.2.5.3 Measurement reveals priorities

Measurement also reveals priorities. A willingness to measure self-sustainability indicates a willingness to work toward it. Groups that worry about measuring efficiency care about it, whereas "a conclusion that can be drawn from the lack of financial data on credit programs is that donors do not really care whether these activities are financially sound" (Von Pischke, 1994). Donors' historical emphasis on loan

disbursement was perhaps encouraged by the ease of measuring that definition of success. Donors now realize that success, and therefore its measure, is more complex.

2.2.5.4 Measurement helps management

Measurement of financial performance is also a technical tool. Regular monitoring and evaluation require good performance indicators. Measurement allows setting targets for improvement, detecting trends, and comparing results with peers. For example, peer-group reports of financial indicators fostered competition among credit unions in Guatemala (Richardson *et al.*, 1998): "[The information system PERLAS] permitted the credit unions to analyze their own operations, set specific goals, and then, achieve them. This reinforced the concept that when performance was measured, results multiplied. As results were compared and ranked among other credit unions, objective dialogue replaced emotional argument."

Likewise, Von Pischke (1994) argues that attention to measuring risks and costs "would eventually transform discussions about how financial services and delivery mechanisms or institutions contribute to or undermine development."

2.2.5.5 Measurement informs expectations

Finally, without measurement, donors do not know if self-sustainability is realistic or not. Recent success stories, including BancoSol of Bolivia and the *unit-desa* system of Bank Rakyat Indonesia, suggest that self-sustainability is possible, daring donors to begin measuring it and demanding progress toward it. Without reliable

indicators, however, donors will be pestered by the fear that an institution may, after all, be attempting the impossible, and then they will expect less.

Measurement is progressing. Von Pischke (1994) writes that "the wider application of the Subsidy Dependency Index now underway should help identify the scale to which subsidy-free sustainability is not likely to be achieved." Even if self-sustainability turns out to be impossible, measurement will at least make explicit the level of subsidy required. For example, donors may accept a $10 subsidy per borrower, but without measurement, donors cannot know that the subsidy is not $100 (Von Pischke, 1994).

2.2.6 Technical assistance: institution-building for self-sustainability

Donors can best assist microfinance for microenterprise through technical assistance. The goals of technical-assistance programs should include improving operations, averting insolvency, increasing competitiveness, and providing continuously improved service to the target group. Technical assistance can lead to the adoption of better practices and reduce the chances of future problems (Branch, 1994).

Technical assistance can promote self-sustainability in ways that straight financial assistance cannot. The object is to break vicious cycles by empowering the institution with tools, competencies and incentives. "Donors should use subsidies at their disposal to equip organizations to rely on non-subsidized sources of funds" (Rhyne

and Otero, 1993). Technical assistance intends to solve the problems that keep an organization from solving its own problems.

Technical assistance is a donor responsibility partly because once donors raise their standards, they should also help raise the ability to meet them. IPC (1993) writes that "the 'rules of the game' and the 'price' for participating have been defined and raised, but at the same time the participating players have not been put into a position to survive the same game."

2.2.7 The role of financial assistance in promoting self-sustainability

Financial assistance can complement technical assistance. Financial assistance can "speed the process of strengthening and increasing capital" (Branch, 1994). Not unimportantly, financial assistance can motivate participation in a program that otherwise stresses technical assistance. Although money may be the spoonful of sugar donors use to help the medicine of training go down, institutions must avoid addiction.

Financial assistance does not include subsidized interest rates for borrowers. Interest-rate subsidies have three negative effects (Adams and Von Pischke, 1992):

- They are captured by the non-poor;
- They repress deposit interest rates paid on deposits and destroy incentives to mobilize deposits;
- They make institutions more responsive to donors than to clients.

If donors subsidize funds intended for on-lending, the rediscount rate should exceed the deposit rate so as to avoid incentives against mobilizing deposits. For example, IPC (1993) has proposed a quasi-market approach in Jamaica where the

rediscount rate on donor funds is linked to the average passbook savings rate offered in local commercial banks. In addition, subsidized funds for on-lending need not imply subsidized interest rates for borrowers.

Donors may also cover start-up, temporary, or one-shot costs. For example, the government of Indonesia subsidized start-up costs for many of its successful microfinance institutions. In the same vein, Yaron (1994) writes that "financial resources made available by the state or donors (not necessarily at a subsidized interest rate) can contribute substantially to developing a newly established rural finance institution during the initial, negative cash-flow stage. . . . (But) state or donor lending should assist only in temporarily closing the gap between the institution's fully motivated savings mobilization and its bankable loan portfolio."

Grants may replenish loan losses that were never provisioned for. Grants may also reinforce capitalization. Both examples are once-in-a-lifetime events. Such grants, however, should be contingent on a strict commitment of partner contributions of in-kind resources in technical training, usually the time and energy of the institution's employees. Rations of donor funds should depend on the incorporation of technical advice into daily operations. For example, in Guatemala, "as credit unions modified their outdated policies and controls, they 'earned' the financial support which helped them to write-down non-performing assets and replenish the institutional capital required for safe operations" (Richardson *et al.*, 1998).

2.2.8 Donor coordination: cartels can improve competition

Competition among donors can undermine rapid evolution among microfinance institutions. In Jamaica, for example, "since the number of target-group-oriented NGOs is not infinite, in some cases donor organizations have exhibited a certain degree of competition in order to be associated with particular institutions" (IPC, 1994).

Competition among donors, whether purposeful or inadvertent, wrecks incentives for self-sustainability. It weakens one donor's threats to cut assistance if improvement stalls. Competition also creates an incentive problem for donors, perhaps leaving them unwilling to push a fledgling institution nearing self-sustainability out of the nest for fear another donor will adopt it and claim credit for its near-success.

On the other hand, coordination among donors—a cartel—has many benefits. A cartel could share the risks and responsibilities inherent in creating new microfinance institutions. For example, if donors coordinate the creation of a credit bureau, the cost of default rises and therefore its incidence falls (Schreiner and Colombet, 2001). A donor cartel would increase the potential for self-sustainability because microfinance organizations would then face monitors united in vision and methods.

The Dominican Republic provides an example of the virtues of coordination. USAID wanted to promote deposit-mobilization, but the Inter-American Development Bank was providing cheap funds for on-lending and thus discouraging deposit mobilization. Communication resulted in the end of the IADB's subsidy.

2.2.9 A catalog of institutional forms and their lessons

Different institutional forms have different lessons for donors concerning design for self-sustainability. The forms range from informal RoSCAs and moneylenders to formal commercial banks, credit unions, and NGOs.

2.2.9.1 Informal financial institutions

Moneylenders and RoSCAs informal financial institutions whose use by the self-employed poor promises insights for the design of formal institutions (Schreiner, 2001). Moneylenders charge high interest rates but disburse funds quickly and without burdening the borrower with transaction costs (Waterfield, 1994). The use of moneylenders by microenterprises indicates the feasibility of informal guarantees. Their use also shows that the poor can pay high interest rates. Moneylenders also indicate the potential for self-sustainability in microfinance.

Rotating Savings and Credit Associations are groups where individuals agree to contribute at regular intervals to a pot that is distributed after each collection to a single group member according to a rule of rotation (Ardener, 1964). RoSCAs provide for the accumulation of savings, transformation of size, limited financial intermediation, and insurance (Krahnen and Schmidt, 1994).

Although RoSCAs are generally too inflexible for microfinance for microenterprise (Waterfield, 1994), they demonstrate the power of self-enforcing contracts. RoSCAs show that the poor do have savings to be mobilized, that they can

manage their own financial institutions, and that incentive problems are ameliorated when all parties are both principal and agent, monitor and monitored. The peer review before group formation screens uncreditworthy individuals, and peer pressure after group formation motivates repayment. RoSCAs have a message for donors; their almost-exclusive use for consumption may indicate that lack of credit for consumption constrains the poor more than does lack of credit for production (Bouman, 1977).

2.2.9.2 Commercial banks

Donors can also glean lessons in design from commercial banks. Banks have comparative advantages in large loans, contracts supported by the legal system, and transaction accounts (Waterfield, 1994). Banks offer the following lessons:

- The importance of economies of scale;
- A focus on cost-recovery;
- Strong information-management systems;
- The development of key ratios for financial analysis;
- An example of how and when to use the legal system;
- The importance of external regulation to protect depositors;
- The value of different products to meet different demands.

The chief comparative advantage of banks—lending based on individual analysis of the applicant's character, project, and past relationship with the bank—is exactly the challenge for microfinance for microenterprise. Applying for a bank loan has high transactions costs for the self-employed poor because they cannot cheaply assemble the loan guarantees, such as physical collateral or enterprise accounting records, that make

individual analysis practical (Branch, 1994). High transactions costs coupled with small loan sizes make microenterprises and commercial banks avoid each other.

2.2.9.3 NGOs

Because moneylenders, RoSCAs, and commercial banks poorly suited for microenterprise, donor partners are usually NGOs or credit unions. NGOs are private institutions that provide public goods not supplied by governments. In some respects, NGOs are ideal channels for donors wishing to improve financial services for microenterprise (IPC, 1994). NGOs are not lethargic governments, nor are they profit-seeking banks. They may not be corrupt, and some target the poor with programs whose principles are capitalistic and oriented to private initiative and business. They are flexible and willing to attempt try microfinance. The best NGOs are problem-oriented and result-oriented, partly because of their values, and partly because of their relationship to donors and governments as contractors.

Most NGOs, however, have several severe weaknesses as potentially self-sustainable partners. Entry is easy: just add donor funds to an office, a few employees, and a charismatic leader. NGOs are unregulated, often lack financial expertise, and usually have weak governance structures. Having been fed a steady stream of donor funds since birth, NGOs may be reluctant and ill-equipped to be weaned to self-sustainability. Finally, the charitable origins of many NGOs may make it difficult to unlearn paternalistic, non-profit attitudes.

Box 2.2: The new model of credit unions: incentives designed for self-sustainability

In the late 1970s, soft money debilitated credit unions in Latin America. WOCCU's new credit union model provides lessons for donors who want to revitalize nearly ruined institutions. The metamorphosis meant changing:

- From dependence on outside funds to reliance on deposits from the community;
- From non-competitive interest rates on loans and deposits to cost-covering rates on loans and competitive rates on deposits;
- From domination by borrowers to a philosophy of safety first for members' deposits and share capital;
- From loan disbursement as a fixed multiple of a member's shares to disbursement based on repayment ability;
- From cosigners pledging their shares to loan guarantees using mortgages, other physical collateral, or personal reputation;
- From high delinquency to high repayment;
- From poor accounting for arrears to strict provisioning for loan losses;
- From shares with no yield to shares yielding like deposits;
- From no retained earnings to retaining all profits as institutional capital;
- From high operating expenses to a focus on streamlining and efficiency;
- From a volunteer staff to employees compensated as in commercial banks.

2.2.9.4 Credit unions

Credit unions have several comparative advantages in microfinance for microenterprise (Branch, 1994). They may not require formal collateral beyond a member's share capital and the share capital of cosigners. This means low transaction costs and allows small, short loans. The credit union's local membership and its face-to-face relationships allow flexible loan contracts and the use of local information and peer pressure in screening and enforcement. Best of all, credit unions, when left alone, will fund loans with member deposits and share capital.

To a donor, the traditional credit union design has severe deficiencies as an institution with potential for self-sustainability (Chaves, 1994). The ownership, diffused and weakened by the principal of one-person-one-vote, does not create strong incentives for management to monitor borrowers. Historically, credit unions have floundered under borrower domination and have flourished only when subsidized or heavily regulated through national agencies or federations.

2.3 Donors interventions in building self-sustainable financial institutions

2.3.1 Ownership and incentives

Donor interventions have a role in creating incentives that support self-sustainability. Donors can adopt the investor's attitude, they can sit on boards, they can measure incentives, and they can examine their own incentives.

2.3.1.1 Donors as investors

Donors could improve incentives for self-sustainability by aligning their philosophy with that of investors. Investors differ from donors in that investors have more incentives to make money, to base choices on risk and return, and to promote institutional self-sustainability. Donors can mimic investors by shifting their emphasis from the quantity of dollars disbursed to the quality of institution-building, by focusing on long-run performance, and by researching and developing appropriate tools.

Taking the stance of an investor also requires an emphasis on local ownership, management, and training. Donors must be able to commit to a project without overpowering the local organization nor eroding local support. Donors can encourage a healthy vision on the part of local investors by sharing risks, demanding precise definitions of objectives, and, like a non-profit venture capitalist, committing to pulling out after a set time frame. Donors should not stay too long in any one institution. Ideally, donors would support financial institutions up to the point where local investors would want to buy them because of their profitability.

2.3.1.2 Donors as board members

Donors can directly improve oversight, monitoring and internal regulation by sitting on the boards of financial institutions or on supervisory committees. Such micro-regulation is justified when the financial system lacks adequate systemic regulation, when corporate constitutions lack sound design, or when institutions lack protection from politicization. Donors can insist that the board be balanced between savers and borrowers and that board members delinquent on loans step down (WOCCU, 1994). Rather than sitting on the boards of many individual institutions, some donors sit instead on the board of a single second-tier umbrella organization, but it is still unclear whether this is an effective ownership strategy.

2.3.1.3 Donors as measurers of incentives

Measurement improves incentives by emphasizing their importance and by providing a benchmark from which to track improvement. An institution's background and its constitution provide clues to its incentives. Of background, donors can ask:

- Why was the institution born?
- Who conceived the institution and with what purpose?
- What role have donors played in the institution's past?
- How has the institution evolved since its conception?
- What clients use the institution's products?

The constitution or charter reveals official goals and objectives. A good charter also delineates the role and composition of the board and describes explicit procedures for internal regulation and auditing. Donors should seek those institutions whose official objectives include self-sustainability and whose constitutions are self-regulating, self-modifying, and incentive-compatible.

Measuring incentives also means examining ownership structure and profit orientation. A capitalization based on equity owners whose own money is at-risk signals a better incentive structure than otherwise. Profit orientation may be proxied by operational efficiency, arrears levels and their tracking, realistic provisioning for loan losses, effective of asset and liability management, and serious repayment enforcement.

Donors can examine incentives through the explicit measures used to keep a professional and motivated staff (IADB, 1994). For example, the incentives for loan officers are crucial because loan recovery depends on their efforts. An institution would

do well to offer good career prospects to employees, including seniority raises, pensions, and internal ladders for promotion.

Employee bonuses tied to quantifiable performance criteria indicate well-designed incentives. Similarly, basing rewards on team performance motivates peer monitoring (Bazoberry, 2001). Donors examining incentive structures should also note that if managers are to be paid based on performance, then they must possess discretionary powers over performance-related variables (Holtmann, 2001).

The best proxy for incentives for self-sustainability is the composition of liabilities. In general, the more diversified are funding sources and the greater the reliance on deposit mobilization, the better the incentives for self-sustainability.

For example, mobilizing deposits increases institutional stability and reduces political interference because deposits are more abundant and more reliable than external funds from donors or governments. Mobilizing deposits also increases the funds available for growth, a prerequisite for self-sustainability. Deposits also often induce a responsiveness to the local market. In Guatemalan credit unions, for example, "delinquency rates dropped as member-borrowers and credit union staff realized that the loan resources originated from the savings of local residents in their communities" (Richardson *et al.*, 1998).

2.3.1.4 Donors as measurers of incentives

Lastly, donors must examine (and possibly realign) their own incentives. Donor funds come from somewhere. Making funding sources and their influence on projects explicit would help to control the temptation to pay lip service to self-sustainability while following hiddne agendas. Donor organizations may reward their managers more for dollars disbursed than for routine, long-term progress toward self-sustainability. If self-sustainability the goal, then donors should shift attention to work-a-day concerns (Krahnen and Schmidt, 1994). Donors should likewise investigate the incentives their own donor organizations create for their employees.

Accelerating evolution depends on the ability of donors to impose artificially the discipline of the market while still running a cooperative cartel among themselves. A project manager may find that monitoring and enforcement are difficult when the manager had to tout the excellence of the project to get a budget approved in the first place. In the same way, successful institutions that approach self-sustainability are probably the institutions whose umbilical cord donors will find the most difficult to cut. Just as those with credit are the least likely to need it, those who do not need assistance are the most likely to find donors willing to supply it.

2.3.2 How to measure potential self-sustainability in a partner

Measures of financial performance and of target-group orientation can suggest potential self-sustainability. Donors can use financial measures, including financial

ratios and measures of operational efficiency, to check progress toward profitability and to provide feedback on weaknesses. Donors can use non-financial indicators to check the commitment to offering products matched to the demand of the self-employed poor. Donors should judge the self-sustainability of credit programs housed within larger, non-financial organizations apart from that of the host (Rosenberg, Christen, and Helms, 1997).

2.3.2.1 Self-sustainability as financial viability

Indicators of financial performance matter because "financial strength is the primary indicator of the overall efficiency and long-term viability of a financial institution" (IADB, 1994). Analyzing financial performance requires current balance sheets, income statements, and information on arrears cross-tabulated by age, size of loan, activity of borrower, gender of borrower, and size of enterprise. In addition, balance sheets and income statement from past reporting periods are indispensable for detecting trends, and historical data on arrears can indicate whether current provisioning is in line with historical repayment rates.

Some parameters for measuring financial performance are:

- Profitability of branches;
- Quantity of funds mobilized through deposits;
- Quality of loan portfolio;
- Policy for provisioning for loan losses;
- Distribution of loans and deposits by size;
- Ratio of administrative expenses to total expenses;
- Level of capitalization;
- Total assets;

- Size of loan portfolio;
- Number of loans and deposits;
- Funding from commercial bank loans;
- Level of non-productive assets;
- Estimated time to reach self-sustainability;
- Level of assistance from donors.

Operational efficiency is an important part of performance. Some measures are:

- Value and number of deposits per staff member;
- Value and number of loans per credit officer;
- Operating costs, including loan-loss reserve, per unit of loan;
- Net revenue per loan and per unit value of loan.

The quality of the information-management system also helps determine overall financial performance. The system must enable managers to detect quickly borrowers who miss payments, produce reports for informing expectations about loan-repayment rates and deposit flows, and facilitate the management of assets and liabilities.

2.3.2.2 Self-sustainability as service to the target group

For donors, measures of depth of outreach to the target group matter as much as measures of financial performance. Unlike financial-performance measures, however, outreach measures do not always coincide with measures useful to the financial institution itself. Donors should balance their desire for data, especially with respect to frequency and detail, against the institution's costs of reporting that information.

To ensure that donor-reporting requirements do not damage profitability, reports more frequent than annual should include only data that a sound institution would assemble frequently anyway. Fortunately, such measures are not only inexpensive but are also the most valid and useful measures of outreach. Examples include the number

of borrowers and savers or the size distribution of loans and deposits. Many and small deposits and loans tell donors the products are well-matched to the demand of the self-employed poor. Best of all, this information is inexpensiev to collect and should be as useful to the intermediary as to the donor.

Other measures also exploit a convenient coincidence of institutional and donor needs. These include type of loan (joint-liability loans have deeper outreach than individual loans), sex of clients (women tend to be poorer then men), type of financial product (microenterprises may use pawn loans rather than credit cards), number of branches, and real growth in assets.

Some measures of target-group orientation are inexpensive and useful to both donors and microlenders but should be assembled only annually or biannually. These include measures of the long-term cost of program delivery, descriptions of constraints to expansion, and details of conflicts encountered in lending policy.

Some measures are interesting to donors but useless and costly fto financial institutions. If donors insist on these measures, then donors should fund their collection by consultants, not by program employees. Examples include:

- The portion of the target population served;
- A comparison of interest rates and transaction costs for similar products from competitors, including informal agents;
- Trends in deposit demand.

Some measures are invalid, costly, and, because they are rarely reliable, usually worse than no measure at all. These include attempts to measure the impact of credit

on the incomes or asset levels of individual borrowers or changes in employment or output caused by microfinance.

The most important indicator of outreach is a product tailored to client demands as opposed to beliefs in credit needs. Financial products are multidimensional contracts, and these dimensions and the delivery method should mesh with client cash flows. Donors should not have to target loans; loans with the features desired by microenterprisese (at a price that allows for self-sustainable production) will attract microenterprises, while larger or richer people will choose other products from other sources. The contractual dimensions generally appropriate for microenterprise are:

- Short terms;
- Small sizes;
- Flexible pawn- or character-based collateral;
- Quick, timely disbursement;
- Repayment schedule tailored to client cash flows;
- High interest rates for deposits and loans;
- Low transactions costs;
- Convenient, liquid deposit instruments.

Finally, "the percentage of clients that receive second or third loans is an important indicator of client satisfaction with the financial product" (IADB, 1994). This measure inexpensively shows sustained outreach to a poorer clientele.

2.3.3 Donor interventions in measuring self-sustainability

Donors can both measure and influence the concepts to be measured. Their clout can influence the questions that measures will be designed to answer. Donors also have

a comparative advantage in funding the development and dissemination of benchmarks to guide policy and to detect comparative advantage.

2.3.3.1 Intervention through designing measures

Donors can focus measurement on looking for answers to the following questions:

- How does the cost of generating a job in microenterprise compare with the cost of generating a wage job?
- What quality of employment does microenterprise generate?
- How loans (and of what size) are required for a microenterprise to turn a profit?
- How would a typical microenterprise be expected to evolve in a 5-year period?
- What share of microenterprises disappear, grow, or remain unchanged?
- What progress should donors expect from microfinance for microenterprise, and in what time frame?
- How does depth of outreach affect profitability?
- What are the benefits and costs of the quest for self-sustainability?
- How can donors measure the risks of subsidy dependence or of deposit mobilization?
- How do donor interventions affect the economic environment for contracting?

2.3.3.2 Intervention through dissemination of measurements

Who makes a measurement maters as much as what is measured. "The critical issue is the location and power of those who will make the valuation and subsidy-dependence calculations that will shape and reinforce incentives for sustainable behavior" (Von Pischke, 1994). By setting performance targets, donors have the power to make measurement a means for promoting self-sustainability. Donors can also pay the costs of implementing new measures, or they can compile and disseminate handbooks of benchmarks such as the *Microbanking Bulletin*.

Finally, donors can intervene to improve accounting, the foundation for financial measurement. They can do this by (OECD, 1993):

- Training accountants and auditors;
- Upgrading professional organizations of accountants;
- Modernizing accounting procedures;
- Funding the training of teachers of accounting.

2.3.4 Summary measures of self-sustainability

Self-sustainability is the ability to meet goals in the long-term. Self-sustainability is, therefore, a dynamic process (Von Pischke, 1994). For example, Yaron (1994) writes that financial institutions used by microenterprises have high start-up costs and so "a dynamic approach is required to measure progress in reducing reliance on concessional funds over time." Progress matters more than the current level of achievement. Donors should use the four summary measures presented below to evaluate trends.

Measurement of performance should focus on improvement compared with the past, improvement compared with peers, and improvement compared with goals. Because donors are unsure whether self-sustainability is possible, relative measures give institutions the chance to prove themselves, even if the ultimate goal is unreachable.

Donors should also place the four summary measures below in the immediate context of short-term goals and feedback. For example, donors should require an annual business plan (Branch, 1994). The plan should include goals for improvement in at least one summary indicator, goals for specific activities, budgets, plans for frequent cost-to-budget comparisons, and a report on the realization of the previous plan.

Short-term, quantitatively measured goals provide the feedback and mid-stream monitoring that encourage broad, long-term success.

2.3.4.1 Self-sustainability as positive Net Present Value

The first summary measure of self-sustainability is the Net Present Value of project cash flows (Von Pischke, 1994). NPV measures self-sustainability because it attempts to account for future cash flows, risks, and incentives, that is, for the ability to meet future goals. Basing predictions on historical patterns, NPV includes the future value of the loan portfolio, the opportunity cost of capital, the direct non-interest costs and revenues of credit operations, and the indirect costs of credit operations. NPV should also consider future interest rates, default rates, and the behavior of borrowers and managers. A positive NPV means improved social welfare, at least in financial terms. Von Pischke (1991) provides a detailed example of the implementation of NPV.

2.3.4.2 Self-sustainability as positive accounting profit

The second summary measure of self-sustainability is accounting profit. This measure has several virtues (Von Pischke, 1994):

- It focuses on controlling and covering costs and building capital;
- It is based on annual change in net worth, what is left over after a project;
- It is concerned only with profitability;
- It recognizes that losses must be subsidized from somewhere.

While superior to NPV, accounting profit has weaknesses as a measure of self-sustainability (Von Pischke, 1994): it does not reflect subsidies hidden in conventional accounting; it does not reflect outreach to the target group; and it may not

be meaningful in a distorted economic environment. Krahnen and Schmidt (1994) present an example analysis of accounting profit.

2.3.4.3 Self-sustainability as a negative Subsidy Dependence Index

The third summary measure of self-sustainability is independence from subsidy. Any resource received by a financial institution from a public entity is subsidized. The Subsidy Dependency Index "measures the percentage increase in the average sub-loan interest rate that would be required to break-even if the subsidy were removed" (Yaron, 1994). A negative SDI connotes self-sustainability.

The SDI "demonstrates the extent to which a lender requires subsidy to earn a return equal to the opportunity cost of capital" (Von Pischke, 1994). The SDI is more appropriate than NPV or accounting profit because it focuses on a decision variable (the sub-loan interest rate), because it addresses losses due to default, and because it goes beyond accounting data to reveal subsidy "in a form of public-interest analysis" (Von Pischke, 1994). NPV and accounting profit measure profitability from a private point of view; the SDI attempts to measure profitability from a social point of view.

The SDI is a relative performance measure. This is appropriate because even among the relatively successful agricultural finance institutions reviewed by Yaron (1994), only the *unit-desa* system of Indonesia had an SDI below zero. The SDI enables relative comparisons between different institutions at the same time and between the same institution at different times.

Von Pischke (1994) details the calculation of the SDI: "The SDI formula is $S/(LP{\cdot}i)$. It is applied to a lender's financial results for one accounting period, generally a year. S is the subsidy received by the lender, LP is the average outstanding loan portfolio, and i is the portfolio's weighted average on-lending rate. The subsidy is defined as $A{\cdot}(m-c)+[(E{\cdot}m)-P]+K$. A is the average volume of concessional borrowed funds in use by the lender, m is the market interest rate the lender would have to pay if concessional funds were not available, c is the weighted average concessional rate of interest actually paid on A, E is average equity or net worth, P is reported annual before-tax profit (adjusted for loan-loss provisions, inflation, etc.), and K is the sum of all other subsidies received by the lender."

2.3.4.4 Self-sustainability as local funding

The fourth (and best) summary measure of self-sustainability is the source of funds. Concessional funds from donors are not sustainable. Local funds from investors, depositors and commercial lenders are sustainable.

Deposit mobilization improves the incentives for self-sustainability. "There is some evidence . . . that suggests credit programs last longer to the extent that they are funded with savings deposits mobilized in the areas in which they lend" (Von Pischke, 1994). Cultivating depositors has several advantages: the lender has better information about borrowers who are also depositors; the lender's attitude sweetens as it realizes its dependence on clients; borrowers value their relationship with the lender more (and so

are less likely to default); and depositors may monitor institutional performance. Loans from local banks also create no-nonsense external monitors. “Institutions that mobilize savings as well as lend are more likely to be viable than directed credit institutions that just lend” (Branch, 1994).

Donors should measure the importance of organic funds in microfinance organizations. Donors should check the relative importance of loans from donors, loans from banks, local deposits, and equity. Self-sustainability requires local liabilities.

2.3.5 Donor interventions with financial assistance

Donors should honor the following commandments of financial assistance:

- Subsidize institution-building, not interest rates;
- Do not discourage deposit mobilization;
- Limit subsidies to non-revenue-producing, one-shot expenses;
- Make subsidies transparent;
- Do not create organizational dependence on subsidies;
- Link grants to in-kind contributions from the partner;
- Cut subsidies if the partner fails to progress.

2.3.6 Donor interventions with technical assistance

Donors interventions of technical assistance can be classified along three dimensions. First, technical assistance may be direct or indirect. Second, the assistance agreement between the donor and the partner organization must be crafted with incentives in mind. Third, donor/partner agreements, while recognizing that the fruits of technical assistance bloom slowly, should set strict deadlines.

2.3.6.1 Intervention as direct technical assistance

Donor technical assistance can mean training in:

- Accounting for donor assistance transparently;
- Analyzing the risk of loan applications;
- Administering and collecting loans;
- Managing risk soundly through:
  - — Matching the term structures of small deposits with short-term loans;
  - — Matching the price of expensive deposits with high-priced loans;
  - — Managing liquidity and reserves;
  - — Diversifying assets and liabilities.
- Projecting future flows of deposit withdrawals and loan repayments;
- Funding travel for managers to learn from successful microfinance organizations;
- In-kind grants through:
  - — Revamping information-management systems;
  - — Developing and installing computer systems;
  - — External regulation and monitoring;
  - — Updating lending forms, procedures, and marketing materials and models.

2.3.6.2 Intervention as indirect technical assistance

Donor technical assistance can mean establishing or modernizing guidelines or standards in:

- Lending policies;
- Underwriting standards;
- Internal regulations;
- Institutional by-laws;
- Peer-institution comparisons and the publication of benchmarks.

2.3.6.3 Intervention as designing assistance contracts for incentives

Crafting an partnership agreement for technical assistance that promotes self-sustainability requires a focus on incentives. The donor should first assess the potential partner's needs. Once the parties agree on a strategy, they should prepare a

legal contract spelling out responsibilities and detailing objective measures of conformance. Agreements should be short, perhaps for one year, and renewable based on evaluations of practices and results (Branch, 1994).

Donors can write the following conditions into technical-assistance contracts with partners (Rhyne and Otero, 1993; Richardson *et al.*, 1998; IPC, 1994):

- Increasing the share of funds raised from deposits;
- Full-cost pricing;
- Realistic loan-loss provision;
- Standard, transparent accounting without accruals;
- Record of use by microenterprises;
- High repayment rates;
- External supervision;
- Reasonable liquidity of assets;
- Low levels of non-productive assets;
- Frequent, standardized evaluations;
- Commitment to meet a target capital/assets ratio;
- Demonstrated willingness and potential to cover all costs;
- Ability to conform with reporting requirements;
- Business-like mentality.

2.3.6.4 Intervention as conditionality of assistance

Donors can maintain programmatic control by arranging a sequence of conditional stages of goals through time, at any one of which assistance can be reduced or cut (Krahnen and Schmidt, 1994). Evaluations at each stage help donors pinpoint trouble, detect training requirements, and discover areas in need of technical advances.

Donors' leverage works only if they can credibly threaten to abandon projects when the partner does not fulfill the contract. Killing a project requires donor discipline; "most often, it is not so much a problem of devising the appropriate scheme, but rather

sticking to it despite adverse pressures" (Krahnen and Schmidt, 1994). In this vein, Von Pischke (1994) writes that "a focus on incentives demands that every effort be made to develop and enforce policies that discontinue support for those that fail to evolve to the point where they create a market niche built on tested clientele or a tested set of procedures that enable them to move toward profitability."

Donors should insist that assistance taper off with time. Although unit costs may be high at first, the learning process associated with the design of financial technology means that cost should fall (Krahnen and Schmidt, 1994; Lepp, 1996). Because the rewards to technical assistance develop slowly, donors should give institutions the benefit of the doubt when setting deadlines so as to avoid the temptation of lax enforcement later.

While time limits for meeting goals must be explicit, donors must also adjust their expectations to match the partner's stage of life. For example, older and larger institutions have greater potential for self-sustainability than do younger and smaller ones (Lepp, 1996). The growth required for economies of scale and thus greater potential for self-sustainability may preclude cutting costs immediately. Yaron (1994) writes that "a consistently high growth rate of total assets is likely to require opening new branches that initially perform less well and entail high training costs. . . . Obviously, servicing new clients, opening new branches, and providing services to an

increased share of the rural population can and should, if necessary, prolong the period and increase the financial support rendered."

2.3.7 How donors can coordinate their interventions

Donor coordination depends on donor communication. Dialogue, perhaps through annual seminars, could produce a common set of terms and conditions for donor finance, ensure streamlined packages of technical assistance, and prevent overlap.

Donors should also be conscious of the culture they work in. For example, U.S. donors from the United States are associated with minimalist approaches in Latin America, while European donors are associated with integrated approaches in Africa.

3. Financial and Organizational Technology

3.1 Definitions

3.1.1 Supply and demand of financial products

The design of financial services must consider both their use by microenterprises and their contribution to institutional self-sustainability. On the supply side, institutions desire services that can be produced inexpensively. On the demand side, microenterprises desire services that can be tailored to their capital requirements and their cash flows. Designers of microfinance services must ask not only "What do clients demand?" but also "What can be offered profitably?"

On the supply side, "the design of target-group oriented financial systems must always be such that the costs incurred in delivering these services can be met with the income they generate" (Lepp, 1996). Even a self-sustainable institution, however, cannot raise prices unilaterally because effective demand may disappear (Krahnen and Schmidt, 1994). As expressed by IADB (1994), "the institution must attend to its own needs, but it is ultimately only as strong as the business ventures it finances."

On the demand side, microenterprises desire services with reasonable prices and low transaction costs. Designers must distinguish between the potential demand expressed in interviews and the effective demand expressed by purchases. "We cannot separate the question of what type of financial services a microenterprise would like to have from the question of what type of financial services he or she can pay for" (Lepp,

1996). Aggregate is the sum of individual demands, and individual demand is a function of costs. Because donors influence costs, donors influence effective demand.

3.1.2 Heterogeneous demand

Diverse microenterprises have diverse demands for credit because they have diverse cash flows and diverse investment goals. For example, not all demands are satisfied by high-volume, short-term, working-capital, loint-liability loans. The demand for microfinance by microenterprise can be classified along a continuum by enterprise size. Income-generating activities appear at the smaller end, microenterprises in the middle, and small enterprises at the larger end (Waterfield, 1994).

3.1.2.1 Income-generating activities

IGAs are part-time, often seasonal economic activities by semi-subsistence households. IGAs generally employ only the entrepreneur and have less than $500 in assets. With many diversified sources of income, the entrepreneur consumes the profits of the IGA. IGAs demand small, short-term, working-capital loans, and therefore they are able and willing to pay high interest rates.

3.1.2.2 Microenterprises

Microenterprises are larger than IGAs, having less than 10 employees and less than $10,000 in assets. The microenterprise is the family's chief source of income, and profits are partly reinvested and partly consumed. Microenterprises demand more flexible financial products than IGAs because microenterprises seek to finance both

Box 3.1: A characterization of the demand for loans by microenterprises in Perú

A sectoral analysis by Lepp (1996) provides a detailed characterization of microenterprise in Perú and the implications for the design of financial services.

Microenterprises predominate in Perú, with 45 percent of the workforce in firms with less than four employees. Workers lack insurance and pensions, and two-thirds earn less than $50 per month. Women, children, and the elderly form a disproportionately large share of the workforce. Microenterprises break down by sector as follows:

- Commerce, 55 percent;
- Consumer goods, 18 percent;
- Services, 17 percent;
- Construction, 7 percent.

Most microenterprises are not registered, and the line between the firm and the household is blurred. While most microenterprises lack formal bookkeeping and bankable collateral, their monthly return to capital is about ten percent, in part because capital turns over about twice per month. As in the rest of Latin America and the world, most finance comes not from loans but from owner savings.

Lepp draws the following conclusions for the design of microfinance services:

- Most demand is for working-capital for inventory;
- Most loans will not fuel expansion but rather substitute for loans from more expensive sources;
- Microenterprises demand loans not only for investment in business but also for liquidity for the family;
- Loans should be small and short;
- Without formal bookkeeping and bankable collateral, risk evaluations cannot rely on traditional assessments of creditworthiness;
- Microenterprises not have appreciable surpluses, and their deposits act as insurance to be drawn down in emergencies.

working capital and fixed assets. Investments in fixed assets mean larger loans with longer terms, and as a consequence, borrowers can pay interest rates lower than IGAs.

3.1.2.3 Small enterprises

Small enterprises are larger than microenterprises, with less than 50 employees and less than $100,000 in assets. A small enterprise is the owner's primary source of income, and most profits are reinvested for further growth. Small enterprises demand larger, longer loans and are best served by banks. Like other bank borrowers, small enterprises can offer physical collateral but can afford commercial interest rates.

3.1.2.4 Other dimensions of classification

Waterfield's continuum by size is not the only useful typology of demand for microfinance by microenterprises. For example, sub-sector analysis of demand is appropriate because different types of microenterprises operate in different economic markets. Product design may also vary by sector (commerce, manufacturing, or service); location (rural or urban); purpose (fixed assets, working capital, consumption, or some combination); production type (continuous assembly or made-to-order); sex (man or woman); and borrower experience (new or repeat).

3.1.3 Homogeneous supply

Suppliers of microfinance for microenterprise face two hurdles to reduce costs to reach self-sustainability. First, the institution cannot inexpensively evaluate a borrower's credit risk. Second, microenterprise borrowers cannot provide the iron-clad guarantees that would reduce the need to evaluate risk.

To ameliorate the problems of imperfect information and weak guarantees, microfinance has resorted to homogeneous products. The goal of product design has not been to adjust to the heterogeneity of demand "but rather to solve the serious information problems entailed in lending to businesses of this type" (Lepp, 1996).

Institutions have good reasons for offering homogeneous contracts. Standardized services allow less-expensive, decentralized decision-making and accountability. Likewise, basing decisions on simple criteria such as the value of a pawned asset, a joint-liability guarantee, or a repayment history is less expensive than evaluating collateral or analyzing a business plan (Rhyne and Otero, 1993). Finely tailored financial products increase the cost of computers, financial control, and staff training.

Even though demand is heterogeneous, homogeneous supply may not stunt microenterprise development. Even standardized loans can be put to heterogeneous uses. Resources from a loan are indistinguishable from resources from other sources. Regardless of origin, wise agents will use available resources in their best use.

Ignoring the fungibility of money hurts both lender and borrower. Serious attempts to control loan usage creates costs that no self-sustainable institution can bear, and successful usage restrictions only distort borrowers' choices. If donors want to ensure that microfinance has a positive impact on social welfare, then they should worry more about loan repayment than about loan usage. A loan can only improve a

wise borrower's well-being, whether the loan buys an oven for a bakery or buys a cake for a birthday. A loan improves the intermediary's well-being only if repaid.

3.1.4 Design to match supply and demand

Loans and deposits are defined by the terms and conditions of their contracts. The design elements of a loan include size, term to maturity, average balance, average installment, time of disbursement and repayment, and form in-cash or in-kind (Schreiner, forthcoming; Waterfield, 1994; IADB, 1994).

3.1.4.1 The cost of loans

For a borrower, the costs of borrowing include the real effective interest rate, the opportunity cost of time used in application and repayment, out-of-pocket fees, the costs of arranging for guarantees or collateral, the opportunity cost of forced savings, and, for group loans, the costs of group formation, maintenance, and monitoring (IADB, 1994). The lender incurs costs in acquiring and managing funds, screening applicants, and monitoring and enforcing repayment.

3.1.4.2 The design of appropriate loan contracts

Small, short loans are usually appropriate for microenterprises. For the client, such structures are more likely to coincide with cash flows (Richardson *et al.*, 1998). If a project falters, borrowers with small loans can more easily repay with funds from informal sources or from savings.

For the lender, loans that are small and short match the sizes and terms of short-term deposit liabilities. Small loans also lessens the cost of default, and short loans reveal a borrower's character sooner. For example, Richardson *et al.* (1998) state that "a Quetzal 500 loan and a Q50,000 loan have very different levels of loss exposure."

Appropriate loan contracts for microenterprises are guaranteed not by physical collateral but by social pressure or by the value of continued access to credit. This suits microenterprises just fine because they usually cannot furnish tangible collateral. Such guarantees motivate repayment effectively because microenterprises operate without a safety net apart from the implied insurance of a continuing line of credit and their good standing in the community.

Social guarantees benefit lenders via lower costs of screening and enforcement. Although physical collateral and detailed analysis would reduce risk better, these guarantees are appropriate given the high cost of evaluating microenterprise risk and the low cost of default on a small loan. Seizing collateral may not be worth the trouble, which destroys the credibility of its threat to foreclose. An institution can avoid costly mistakes if it disburses only small loans to first-time borrowers and reserves larger loans for those who first prove themselves with small loans.

Appropriate loan contracts for microenterprises feature high interest rates but low transactions costs. For the lender, high interest rates promote cost-coverage, ration

loans more transparently than do transaction costs, and discourage borrowers who are not in the target group (Riedinger, 1994).

Borrower prefer loans with high interest rates to no loans at all. The poor need credit, not subsidy (Krahnen and Schmidt, 1994). Their demand depends less on interest rates and more on quick, convenient access (IPC, 1993; Riedinger, 1994).

Transactions costs matter more to the borrower than interest rates because, especially for small loans, transactions costs usually swamp interest costs. Also, low transaction costs for the borrower usually implies low transaction costs for the lender.

3.1.4.3 The cost of deposits

Deposit instruments may be characterized by their minimum balance, the real effective interest rate, and limits on unannounced withdrawals. Depositors earn interest and incur opportunity and transaction costs, while the institution pays interest and uses resources to manage liquidity, maintain branches, keep books, and pay salaries.

Deposit services are costly to supply. The information problem is reversed; now the institution must provide depositors with guarantees and information to gain their confidence. Institutions must build a reputation for safety and soundness. This requires investment in a secure building, in security personnel, and in advertising. In addition, the costs associated with handling many small deposits are high. Managerial effort must increase to find investments with returns high enough to cover these costs and to manage liquidity safely. Accepting deposits also means accepting regulation and the costs of compliance (Lepp, 1996; Von Pischke, 1994).

Box 3.2: Characteristics of NGOs that have successfully balanced outreach with profitability

Rhyne and Rotblatt (1994) catalog several common features of successful microfinance organizations, including BancoSol of Bolivia, Actuar/Bogotá in Colombia, Grameen Bank in Bangladesh, and the *unit-desa* system in Indonesia.

Invariably, these institutions have positive (and high) real interest rates for both loans and deposits. Careful screening of loan applicants and strict repayment enforcement shows concern for incentives. Guarantee requirements recognize that traditional collateral is rarely available and so use instead character references, loan-officer judgements of entrepreneurial ability, and/or joint-liability mechanisms. Financial incentives encouraging prompt repayment include rebates for timeliness, penalties for late payments, and collateral substitutes such as obligatory savings.

Successful intermediaries tend to decentralize decisions while maintaining clear connections between retail outlets and the central office. Decentralized decisions speed processing and place accountability with those employees close to clients. Retail outlets tend to be small, simple, and standardized. They are easily replicated and are placed close to clients in centers of economic activity. Clients develop personal relationships with loan officers, helping them to identify with the lender and to soften the impersonality of the otherwise-standardized operations. For its part, the central office provides financial management, oversight, and technical support.

3.1.4.4 The design of appropriate deposit contracts

Because microenterprises make small, frequent deposits and withdrawals, appropriate deposit instruments feature unrestricted withdrawals, low minimum balances, low transactions costs, and high interest rates.

Although deposits are costly for both the institution and client, and although the effect of a single loan is generally greater than the effect of a single deposit, well-designed deposit instruments probably have greater potential than loans to promote microenterprise development (Sherraden, 1991; Friedman, 1988). A microenterprise is more likely to have a formal savings account than a formal loan

(Lepp, 1996). Savings facilitate self-finance and also improve access to informal loans. Finally, deposits provide microfinance institutions with a sustainable source of funds.

3.1.5 Delivery techniques for financial services

Just like the financial services being delivered, the delivery technique must match the needs of both the microfinance organization and the client. *Delivery techniques* are the systems and procedures that an institution uses to deliver services to clients (Waterfield, 1994). For example, the technology of credit delivery encompasses risk evaluation, approval, disbursement, monitoring, and collection (IPC, 1994).

Typically, appropriate techniques for microfinance for microenterprise deviate from those of commercial banks. Techniques for credit delivery can be categorized along two dimensions, as integrated or minimalist, or as individual or group (IADB, 1994).

3.1.5.1 Delivery techniques for financial services

The integrated approach links loans to technical assistance or training. Services to the borrower may include engineering advice (such as telling a cobbler how to make shoes), instruction in bookkeeping or other management tasks, and matchmaking where the financial intermediary brokers information, connects buyers and sellers, locates sources of inputs, or organizes trade fairs of technology appropriate for microenterprise.

Most non-financial services have been developed outside of the discipline of market supply and demand and have not been refined much by evolution. Unless the client voluntarily pays cost-covering fees, the effective demand for integrated services

remains unknown. On the supply side, most institutions do not know enough about specific microenterprise trades to provide useful technical advice, although training in bookkeeping or other subjects that do not require enterprise-specific knowledge may be worthwhile. Although donors may have a comparative advantage in matchmaking, in general, institutions should not mix financial and non-financial services (IPC, 1994).

The minimalist technique focuses on loans because microfinance is not lucrative enough profits to cover losses from non-financial services. The minimalist technique focuses on simple applications and analyses, quick disbursement, short terms, and repeat borrowers. Loans are sized appropriately for microenterprise, and they carry relatively high interest rates. Clients pay only for the loan, not for integrated services.

3.1.5.2 Group versus individual technology

The technique of individual lending is based on the analysis of the individual's business plan and personal character. It is appropriate for relatively large, long-term loans for fixed assets, for example more than $600 and longer than 6 months (Waterfield, 1994). Individual loans are especially appropriate in dense settlements.

Individual lending for microenterprise has its weaknesses. First, individual analysis is expensive for the lender. Second, training loan officers to analyze risk is difficult. Third and finally, the instability of individual microenterprises can render meaningless even sound analysis. Credit scoring (Schreiner, 2000b) promises to help reduce at least some of the costs of risk evaluation for individual loans.

Box 3.3: Village banking

Village banking uses minimalist technology to produce loans and deposits of microenterpise size. Women manage and collectively guarantee a seed loan from a donor. Initial loans to members are small, untargeted, short, and cost-covering. The size of successive sub-loans depends on repayment and deposits. Ideally, donor funds become superfluous as deposits grow.

Village banking more a technology than an institutional form. IT works well for agricultural or working-capital loans between $50 and $300 and for terms of maturity of between four to six months. In particular, village banking works better than other technologies well in rural areas with low population densities.

The village-banking technology, however, has many weaknesses:

- As free-standing units, village banks do not benefit from external regulation, deposit insurance, or access to a lender-of-last-resort;
- Distribution of profits impedes the accumulation of institutional capital;
- Lapses in member savings and high turnover retard growth in practice;
- Fixed repayment schedules usually do not match borrower cash flows;
- Geographic concentration increases risk;
- Members lack skill in liquidity management and risk evaluation.

The technique of solidarity-group lending substitutes selection and pressure by peers for screening and monitoring by the lender. The institution takes advantage of built-in incentive structures, punishing the default of one member by denying all members access to future loans. Joint-liability groups are appropriate for loans between $80 and $500 and for terms between two and six months (Waterfield, 1994) and for:

- Homogeneous populations;
- Short-term, incremental lending;
- Clientele unable to provide other forms of guarantees;
- Commercial activities with quick turnover.

Joint-liability loans are not always effective. Peer pressure and peer selection work best in a stable society with a close-knit, homogeneous, non-transient population.

Although the technique reduces transaction costs for the lender, the costs are not eliminated but rather increased and shifted to borrowers. Group-lending multiplies the number of borrowers and so does not mix well with non-financial services.

3.1.6 A catalog of financial services

In addition to microfinance, microenterprises use informal financial services from their friends or their suppliers as well as formal savings services. Microenterprises might also use leasing and factoring of accounts receivable if they were available.

3.1.6.1 Deposits

Depositors use two types of savings accounts. *Passbook accounts* feature unrestricted withdrawals, while *time deposits* penalize withdrawal before a contracted date. Although passbook accounts pay lower rates of interest, they are generally more useful to microenterprises because they have smaller minimums and because their liquidity lets them act as insurance or as substitutes for checking accounts. On the other hand, institutions generally prefer time deposits because they are larger than passbook accounts and simplify liquidity management.

3.1.6.2 Checking accounts

Most microfinance organizations cannot provide checking accounts (Lepp, 1996). This payment services would probably not be used by microenterprises as much as by relatively affluent wage-earners, and they would require the institution to maintain a

higher liquidity ratio and more physical infrastructure. For microenterprise, liquid passbook accounts may be a workable substitute to for checking accounts.

3.1.6.3 Loans

Microenterprises get loans from both formal and informal intermediaries. Formal loans have already been discussed. Informal loans from family and friends and personal savings finance most of the self-employed poor. Family loans may function like equity because repayment may hinge on the project's success. This quasi-equity lowers financing costs by pooling risk, reducing information asymmetries, and creating monitors close to the microenterprise whose own money is at stake. Exclusive use of informal finance may not be optimal, however, because without intermediation between surplus and deficit units, the capcity for savings of the individual limits investment.

3.1.6.4 Supplier credit

Many microenterprises use informal credit from input suppliers. In fact, the main function of microfinance may be to replace high-cost supplier credit. Supplier credit manages risk by disbursing in-kind, using knowledge of personal character, and tying into a multi-faceted, on-going relationship.

3.1.6.5 Leasing

Leasing and factoring are two non-loan financial innovations that could be useful for microfinance for microenterprise. Leasing breaks up lumpy investments in fixed assets, sometimes allowing microenterprises to avoid borrowing altogether. The lessor,

which may be a larger enterprise subcontracting with the microenterprise, can seize leased equipment in case of delinquency. Leasing is appropriate for assets that are easily repossessed and resold, for example construction equipment or vehicles.

3.1.6.6 Factoring

Factoring of accounts receivables allowss a microenterprise to bank on its customers' credit rating. When a financial intermediary makes a loan guaranteed—at a discount—by the accounts receivables of the microenterprise, what matters is the risk of the accounts receivables, not the risk of the microenterprise itself.

3.1.7. A case study of microfinance services: Cajas Municipales in Perú

The Cajas Municipales in Perú transform deposits from the rich into loans to the poor (Lepp, 1996). A few large depositors (in particular, the local government) provide most of the funds, with accounts with balances over $1,000 comprising 72 percent of deposit liabilities but 2.5 percent of the number of accounts. With more borrowers than depositors, the Cajas Municipales have reversed the traditional transformation of many small depositors into few large borrowers.

This Robin-Hood situation developed because numerous deposits from microenterprises did not raise enough to finance the loan portfolio. The Cajas capture large deposits because they pay higher interest rates higher than the competition.

3.1.7.1 Pawn loans

The Cajas Municipales in Perú provide business, personal, and pawn loans. Loans secured by pawned assets are quick, small, and short, characteristics matched to microenterprise demand. Pawn loans are appropriate for liquidity squeezes in the household-enterprise because they are not targeted and because many poor people have non-financial savings in gold, tools, or electrical appliances. Pawning eliminates credit risk for the lender, but handling pawned items is costly in terms of administration, storage, security, and appraisal.

3.1.7.2 Business loans

In the Cajas Municipales, business loans (average $1,140) are larger than pawn loans ($101). Business loans rely on an analysis of the applicant's character, credit history, and business plan. While all business loans require collateral, loan officers base the risk evaluation on a simplified cash-flow analysis of the household-enterprise. Business loans fit microenterprise because of their sizes, terms (1 to 18 months), quick processing, simple applications for repeat borrowers, and flexible repayment schedules.

3.1.7.3 Personal loans

Personal loans are used less by microenterprises than by salaried employees with full-time jobs but low incomes. Usage is unrestricted, and repayment is guaranteed through monthly deductions from paychecks that are transferred directly to the lender. Although not very useful to microenterprises, personal loans benefit the lender because they diversify the loan portfolio, reduce risk, and increase profit.

Box 3.4: Financial products designed with incentives in mind: business loans from the Cajas Municipales in Perú

Before disbursement, the screening of applications for business loans by the Cajas Municipales of Perú rely on the sixth sense of loan officers. The banks motivate loan officers through performance-based pay. The incentives for loan officers are aligned with those of the institution though the monitoring of an internal auditor, by requiring loan officers to present applications judged creditworthy to a group of peers for review, and by applying the title "loan officer" rather than "client advisor" or "facilitator". To increase accountability, the institution uses the same loan officer to evaluate an application and to monitor and enforce repayment.

After disbursement, the Cajas Municipales motivate repayment via pledged collateral. Because foreclosing usually costs more than it is worth, the institution values collateral not at its resale value but rather at the owner's cost of replacement.

3.2 Donor interventions in financial and organizational technology

Donors have a role in developing financial services that satisfy the twin goals of self-sustainability and outreach to the self-employed poor. That role, however, entails less the promotion of specific services and more the promotion of self-sustainable financial institutions. Donors have a comparative advantage in institution-building through technical assistance, and a focus on self-sustainability will lead to services that satisfy both demanders and suppliers.

3.2.1 Interventions in the supply of loans

On the supply side, donors can support interventions that help the microfinance organization to solve the information problem and to evaluate better the risk of the self-employed poor. These include funding or establishing credit-rating agencies, promoting credit scoring, training loan officers, and improving computer systems.

3.2.2 Interventions in the demand for loans

Effective donor interventions on the demand side remain elusive because demand is the aggregation of individual microenterprises with whom donors have no direct relationship. Feasible interventions related to demand include creating incentive structures to keep lenders focused on microenterprise even as they evolve toward self-sustainability, funding research into better ways to study the effective demand of microenterprises, and studying the informal financial services that microenterprises use.

3.2.3 Interventions in deposit mobilization

Donors can intervene for better deposit mobilization by funding research in mobile banking and in better ways to capture remittances from overseas. Donors may also design lotteries to promote savings (Guillén and Tschoegl, 2000).

3.2.4 Finding a niche in the market for financial products

The effects of donors on financial markets has paralleled the effects of central planners on national economies. Zeal to lend—like belief in centralized knowledge—has obscured the multiple dimensions of financial intermediation. Demand matters as much as supply. Incentives affect institutions as well as clients. Financial intermediaries offer both deposits and loans. Clients care as much about transactions costs as about interest rates. The market kills institutions as it conceives new ones. Donors need a disciplining force to inform their efforts, a force that can only be found in the market.

Rather than disbursing loans with the ostensible purpose of augmenting the output of a microenterprise, donors should assist in the supply of financial products whose terms and conditions would be appropriate for a borrower whose best opportunity happens to be in augmenting the output of her microenterprise. If other agents have other uses for such a loan and can repay, fine. If other agents want to make deposits, great. Donors should not promote deposits and loans for microenterprises; donors should promote microdeposits and microloans.

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