A market approach to microfinance: a deserving research agenda*

Klaus P. Fischer
CREFA, *Laval University*

August 17, 2000

Abstract. *A research agenda is presented that focuses on the use of market principles and institutions as a microfinance development strategy. The strategy is based on the central idea that a poverty reduction strategy can be based on the creation of employment opportunities in micro- and small sized enterprises (MSE) for which it is necessary to facilitate the access to credit to these enterprises. This financing, in turn, should be promoted through market-based microfinance intermediaries (MFI) rather than the usual non-market mechanisms such as NGO and other public funding schemes. To create the conditions that will allow these market-based MFI to operate, the appropriate "enabling environment" must exist. A research agenda in proposed that may to provide evidences about the efficacy of this strategy and insights about some of the key issues that must be studied to better understand the functioning of these market-based MFI.*

Keywords and Phrases: Microfinance, micro and small sized enterprises, poverty reduction.

*Associate professor in finance and researcher at the CREFA. E-mail *Klaus.Fischer@fas.ulaval.ca*. This research was financed by the Canadian International Development Research Center (IDRC) and Developpement International Desjardins (DID). The opinions expressed are those of the author and do not attempt to represent those of the sponsors with respect to the subjects covered.

1. Introduction

Poverty and poverty alleviation is a complex problem. Addressing it implies also a complex set of policy tools that include education, health care, macroeconomic policies and development of adapted production technologies among others. One additional policy tool is finance. [1] There is little debate that more advanced economic systems are associated to more advanced financial systems. More debatable is whether a more advanced financial system "causes" economic development or whether financial development is a consequence of economic development. Policy makers have generally assumed the first, thus encouraging the development of the financial system, convinced that this would results in more economic development. The academic debate, as could be expected, has been less clear.

For the same reason that the development of the financial system is viewed as a motor of economic growth, policy-makers assume that encouraging the creation of microfinancial intermediaries (MFI) to operate with a target population among the less favored segments of the population will encourage poverty alleviation.[2] Whether this strategy produces the desired effect remains open to debate. Although intuition suggests that this should be the case, the evidences are hard to come by. To complicate matters, there are more than just one policy option. Even if we focus on credit availability only, and *ignore for the moment all other financial products*, there are strategic options for poverty eradication policies based on the use of credit. The two major are:

1. providing financing directly to poor individuals (a strategy used by many non-government or private voluntary development organizations, NGO), or
2. providing financing to business and entrepreneurs capable of generating the employment that will provide income to the poor.

The problems involved in both strategies are not the same. Among many other issue is the one related to risk taking by the MFI. For example, since the nature of the risks taken in both forms of intermediation is different, their operation rules also differ. Another one is what has come to be known as the "enabling environment" with different policies requiring perhaps quite different environments. While there seems to be a reasonable agreement that NGO have been able to address successfully the first form of financing the poor, there is much less understanding on the issues related to the latter form of financing. NGO type of finance is oriented toward home-based

[1] That the absence of financial services represents a symptom of poverty for communities that they seek to overcome, can be seen by the *substitute* mechanisms implemented by these communities themselves. These substitutes, often informal, appear in all of the three groups of financial products (insurance, savings and credit). In insurance, communities develop alternative schemes that intend to emulate sophisticated insurance products available in developed financial markets (see e.g. Bender et al., [6]; Lund and Fafchamp, [42]). Savings and credit intermediaries are created at community level that substitute for the lack of access to the formal financial markets. These intermediaries include financial cooperatives (FC), other mutual intermediaries (e.g. mutual and community banks) and less formal approaches such as the ubiquitous tontines and savings circles (e.g. Ravicz, [55]; Jagannathan, [30]; Johnny, [35]; Schmidt, [57] among many others).

[2] Generally the agenda followed by policymakers to encourage microfinance is either one or a combination of the following: i) as a means to alleviate poverty or to allow access to credit to the poorest sectors of the population; ii) to facilitate the financing of micro, small and medium sized enterprises, presumably rationed by the traditional commercial banking sector. The latter notion finds theoretical support in the much-cited seminal work of Stiglitz and Weiss [59] and many other works that followed including. This assumes of course that MSE represent a "higher risk" than larger enterprises. Certain strategies may be consistent with both objectives, other not. In this document we will focus on the first objective, while aware that financing MSE –and indeed we will argue so– may have an effect of poverty.

production by self-employed masses in which personal property and group engagements play a central role. When financing small business the more traditional commercial type credit risk comes to the forefront and these techniques become less efficient or useless altogether.

On the other hand, among the providers of financial services to the poor we find non-market based mechanisms (NGO, Development Banks, subsidy programs) or market based mechanisms (financial cooperatives, merchant rural banks, commercial banks, etc.).[3] Also here, the policy differences to encourage one or other type of MFI can be quite substantial. While for non-market based mechanisms the fundamental question is the availability of resources to be channeled to the target population, in the case of market based mechanisms the fundamental question becomes the environmental conditions that will make local intermediation possible including such complex issues as the legal and regulatory framework, macroeconomic policy, taxes, property rights, to mention just a few (the "enabling environment", World Bank [3])

To clarify the debate let us classify microfinance-for-the-poor strategies into four clearly distinguishable options, based on the following two criteria:[4]

1. whether the microfinance strategy is targeted at providing credit to the poor itself, or to provide employment opportunities to the poor, mostly through MSE;

2. whether the microfinance is provided by a market based MFI, operating at market-prices or by a non-market based MFI.

This simplified schema is presented in Table 1. Some amount of overlapping occurs, but the classification is useful to identify the main thrust of the different option available. In the table I have made some assessments about the level of performance of each strategy. I will discuss this assessment later on.

Microfinance-for-the-poor strategies have been subject to a considerable amount of criticism. Mostly because it does not appear to deliver the economic development or poverty alleviation that its promoters expected to see. The critique comes from various fronts. At a *policy-making* level the loudest critique comes from the United Nations itself, long a supporter of microfinance as a means to alleviate poverty. In particular, the shortcomings of a strategy of financing the poor directly have increasingly been brought to the forefront. To cite the UN General Secretary: "*studies show that there are limits to the use of credit as in instrument of poverty eradication, including difficulties in identifying the poor and targeting to reach the poorest of the poo*r" (UN, [47]). The report also adds that most poor people are usually not in a position to undertake independent economic activities, partly because they lack the business skills and even the motivation to engage in business activities. Thus the need to target the credit to where the entrepreneurial skill is already available (the "entrepreneurial poor", UN, [47]) and that may generate income among the poor who lack those skills. The conclusion of the UN based study is to recommend a stronger support to small enterprises, a sector that in the microfinance literature has come to be known as the *micro- and small sized enterprises* (MSE). At a more academic level, Larievière and Martin,

[3] Strictly speaking we define as a "*market-based solution*" as one capable to operate ex-ante, in the particular designated market, with a subsidy dependence ratio (SDR, measured as the ratio of net subsidy to interest income, Yaron, [71]) of zero or is in the process of achieving a SDR of zero. We will define these concepts more precisely later on. Often many market based institutions are classified as NGO. For example Seibel [58] describes NGO's as i) humanitarian organizations, usually relying on donor support, working for the benefit of others such as self-help groups, micronentrepreneurs or small farmers; ii) apex and umbrella organizations of financial self-help groups, business associations and the like working for the benefit of their own members.

[4] There are other ways of classifying microfinance development strategies. For a review of other frameworks see Seibel, [58].

[37], Hulme and Mosley [27], Braverman and Huppi [13] among others also provide critical views of the effects of some MFI because they do not reach the poorest of the poor, providing support to the contention of the UN-report [47]. The critique does not only focuses on measures of poverty alleviation but also on a number of other criteria. Navajas *et al* [49] provide factual evidence for the specific case of Bolivia. Both these critiques, from the policy-making as well as academic front, are directed mostly at the microfinance strategies represented in the second raw of Table 1, with a certain emphasis on the first column. That is, the critique is directed mostly at the use of non-market options to finance directly the poor.

As a result of this critique, attempts where made to identify means so that non-market based mechanisms could be adapted to a market approach in what has come to be known as the *financial system approach to microfinance* (Ledgerwood [38]).[5] This is an interesting paradox. There appear to exist a general consensus that public-based microfinancing approaches are generally not desirable or even discredited. Yet, considerable effort in resources and research are devoted to solutions that are essentially non-market solutions, such as NGO. On the other hand, little attention seems to be paid to understand the functioning of various eminently market-based approaches and institutions that exist in several economies and that have been in operations for decades with varying degrees of success.

In fact, the feasibility of the strategy proposed by the UN-report, [47] (represented by the third raw of Table 1), based on the creation of employment opportunities for target "poor" households through credit to local micro- and small sized enterprises (MSE), either through market based or non-market based MFI remains largely unknown. In particular, quantitative assessments of the effects of such a strategy, are to my knowledge, altogether inexistent. On the other hand, in his extensive survey Morduch, although focusing on NGO with a considerable SDR (and thus non-market solutions) concludes that:

> "the movement has shown that, despite high transaction costs and no collateral, in some cases it is possible to lend profitably to low income households. The experiences haves shown as well that many relatively poor households can save in quantity when given attractive savings vehicles; this suggests that one way to address the borrowing constraint faced by the poor household may be to address savings constraints instead of addressing just the credit side."

Clearly, the implication of this conclusions drawn by the author from this thorough survey is that market based financial intermediation among the poor is feasible. Further, that the presumed constraints such as savings capacity, transaction costs, collateral related credit rationing, can "profitably" be overcome.

1.1. A strategy worth researching

This being the case, it behooves that rather than seeking means to convert essentially non-market approaches to microfinance into market approaches, one should focus on the study of existing market based MFI as instruments to alleviate poverty. This does not imply that efforts should be abandoned to reduce the SDR of NGO or to expand the supply of services provided by these institutions. However, emphasis should rather be given to improve the understanding and the operating environment of already existing market based MFI. This is what I call the "market approach to microfinance" and is based on the following premises:

[5] One example of this, is the rather inflated debate about the means to reduce the SDR of NGO to a point where they become "sustainable," a non-issue of market-based solutions.

1. *Poverty alleviation through employment:* That one strategy of poverty alleviation can be based on the promotion of small and medium sized enterprises (MSE) (specifically rural farm and non-farm MSE) as a sector capable of mobilizing productive forces and generating income in particularly relevant sector of the population through an increase in the demand of local inputs, including employment (the UN proposed strategy).

2. *Financing through market based MFI:* That one particular strategy to promote MSE passes by providing financing to these enterprises using market based MFI that are, by definition, auto-sustainable and thus do not dependent from public or private originated subsidies. One particularly interesting alternative of market based solution are mutual and cooperative forms of MFI with a considerable history of success, but with extreme variations in performance among different economies.

3. *Creation of an enabling environment:* That to make this alternative possible, it is necessary to create the legal, regulatory and supervisory framework that will facilitate a sustainable growth of these market-based type of financial intermediaries. Special (but not exclusive) attention should be devoted to the regulation and supervision (R&S) of mutual intermediaries. In particular the experiences of federated networks and delegated monitoring should be studied in depth, its comparative advantage to other models of R&S of market based MFI, and is application to other forms of MFI, should be evaluated.

However, no single strategy should be expected to solve all problems, and we do not expect this to be different for the strategy proposed in this paper. Despite critiques (noted above) non-market based approaches that focus on direct financing to the poor appear to have certain advantages that are not present in a "market approach" to microfinance. Among these is the fact that NGO can be targeted to address specific segments of the population considered priority for whatever reason, quite independent of whether the "enabling environment" exists or not. This type of bullet-targeting is much more difficult to put into practice using a market approach since these types of MFI depend heavily on a favorable "enabling environment" of considerable complexity that includes many factors already noted.

In the remaining of the paper I will present, based on existing literature, theoretical arguments and a-priory evidences that make this strategy worthwhile investigating. This is possible because both, MSE and market-based MFI, have been in operations regardless of the interest shown in their operation and the level of support they have received in terms of understanding, financial support or creating the "enabling environment." In section 2 I look into the potential of MSE as instruments of creation of employment for the poor. In section 3 I touch theoretical issues and empirical evidences of financing MSE. In section 4 I consolidate the central ideas of the strategy proposed and the research needed to validate it, and to improve its potential impact.

2. Rural micro and small enterprises (MSE) and poverty

For simplicity, we will call the group of economic agents among the poor that act productively as entrepreneurs, simply MSE. For the purpose of this presentation, we will include under MSE all traditionally defined small and medium sized business and family based business, the so-called "microenterprises," independent workers and farmers. That is, the lower echelon of the real sector that consist of the smallest producing units in an economy.

The reason why financing for MSE may potentially be important resides in the fact that in developing as well as industrialized countries, MSE of all sorts constitute the principal employers in the economy. Finance being an important input of any enterprise, implies that a poverty reduction program based on the generation of employment must address, among others, the fundamental problem of financing MSE.

To concentrate the research work on a specific target population and clarify objectives and methodology, it appears convenient as a first approach, to concentrate on rural farm and non-farm enterprises. This particular choice of target population is based on two arguments, one quantitative and the other qualitative:

Quantitative argument: The distribution between rural and urban MSE or whether it is farm or not farm related activity is important. At the empirical level, there is growing evidence that for many economies, rural non-farm (and to a lesser degree farm) enterprises are the largest employers and the ones with the highest potential of employment growth. This assertion is supported by considerable research evidences, including Jayaraman and Langouw [33], Lanjouw [36], Hazell and Hagblade [26], Liedholm and Kilby [39], Hagblade, Liedholdm and Mead [22], among others. Hazell and Haggblade [26] emphasize that when rural towns are included in employment calculations, the share of the rural labor force employed primarily in non-agricultural activities rises sharply. They calculate that in Latin America, 47% of the labor force in rural settlements and rural towns is employed in nonfarm activities. This can be compared to 28% when only rural settlements are included. In Mexico 3.5 million microenterprises (with 1-16 employees) employ 6.65 million people.[6] Hazell and Haggblade [26] also highlight the importance of female participation in non-agricultural activities: 79% of women in the Latin American rural wage-labor force are estimated to be employed in non-agricultural activities. In another example, Jayaraman and Langouw [33] summarize the results of a 35-villages study in India. They report a relative increase in nonagricultural rural employment and a reduction in traditional farm employment. This structural change is associated to an increases in mean real income.

Back in the industrialized countries where statistics are much more readily available, in Europe it is estimated that enterprises with less than 500 employees generate between 60 and 70% of the total employment and those with less than 10 employees, 29.8% of employment.[7] Thoughout the also account for a "disproportionately large share of new jobs."(OECD [51]) A vast majority of businesses in the United States are small, over 90% have fewer than 20 employees. Small firms accounted for between 40 and 50 percent of GNP and over 60% of net job growth in the 1980's. Like in many other fields of business, the issue has been studied the most in the United States. However, these figures can easily be transported to developing countries. In global numbers, it is considered that 500 million people worldwide run micro- and small businesses. These businesses account for 30 to 80 per cent of the labor force.[8]

Qualitative argument: At a more qualitative level, it is possible to argue that rural farm and non-farm enterprises have particularly interesting development properties including the following (e.g. Salazar [56]):

- they mobilize local rural labor forces discouraging migration to urban areas;
- they creates a dispersal of industries in wider regions rather than in concentrated urban areas;

[6] Source: Los Micronegocios Manufactureros 1996. *El Mercado de Valores*, December 1997, pp. 18-22. Assuming a labor force of 35 million this would imply that nearly 20% of the total labor force is employed by MSE with less than 16 employees!

[7] *Financial Times*, November 3, 1992, pp. 11. For an in-depth analysis of the role of SME in job creation in the OECD countries see OECD [51].

[8] *Development & Cooperation*, "Facts and Trends: Seeding the grassroots," May 1998, p. 6.

- they tend use indigenous raw materials having thus a larger local impact.

At a more technical level, using data from Sierra Leone, Honduras and Jamaica collected in the late 1970s, Liedholdm and Kilby [39] address the question of the relative social impact of rural small-scale firms (with 50 employees or less) versus their large-scale counterparts in urban areas. They calculate social benefit/cost ratios for enterprises in different industries including baking, wearing apparel, shoes, furniture and metal products. The shadow price of capital was assumed to be 20 percent, unpaid family labor was (conservatively) valued at the level of wages in the small-scale sector for skilled workers, and labor in urban firms was valued at 80% of actual wages (with the latter based on survey estimates of minimum wage distortions, see Haggblade, et al., [22]). *In over two thirds of the industries the social benefit/cost ratios for the rural firms were greater than one and higher than the ratios for the urban firms in the same country and industry. The social benefit/ cost ratios for the large urban firms were often less than one - that is, their production actually decreased social welfare.* Similar results were obtained for industries where output could be valued at world prices - which reflect shadow values.

3. Financing of MSE - an unresolved problem

Financing (microcredit) is one of the key issues related to the promotion of MSE. The theoretical literature suggests that MSE are credit rationed due to a market failure. The United States image of the small business as one that is starved for capital, is reproduced –perhaps even amplified– in most developing countries. A wide array of academic research, mostly of American origin (e.g. DeYoung *et al.* [15], Jarayatne and Wolken [34], Berger and Udell [8], Goldberg and White [20], Peek and Rosengren [52], Strahan and Weston [61], Weinberg [64] and Humes and Samolyk [28]) and professional and journalistic literature supports the notion of a MSE that is severely rationed by the banking system. Further, the OECD [51] notes: "the greater variance in profitability, survival and growth of SME compared to large firms accounts for special problems in financing." Perhaps the situation in most developing countries can be summarized in the following title of the London based *Financial Times* journal (April 9, 1999, pp. 16) article "The (Moroccan) banks still say that small companies are too risky and cannot be touched".

Theoretical arguments in support for the hypothesis of rationing of MSE by banks find their roots in the seminal works on credit rationing of Stiglitz and Weiss [59] and continues to be supported by a continuous flow of very resent research, as some of the latest citation mentioned above show. A straight forward extension of Stiglitz and Weiss [59] model by Tybout (1984) to developing countries yields that the loan offer function is upward sloping in firm size, a result that the author test and confirms on Colombian data. Yan [70] also provides theoretical evidence of credit rationing being more severe for MSE.[9] To complicate things, several authors have argued and tested that the ongoing worldwide consolidation in the banking sector, a process that reaches developing countries as well, is increasing the size of average banks. On the other hand, larger banks are more prone to credit-ration smaller firms (De Young *et al.*[15]). This implies that MSE may be loosing even more ground. Empirical tests performed in the United States generally tend to support both hypothesis: that MSE are financed predominantly by small banks and that the consolidation of banks implies a reduction in credit to these enterprises.

[9] Lopez [40], addressing issues related to *informal* MSE (an important portion of our target population) notes that financing to these enterprises is made difficult for the following reasons: i) lack of credit history, ii) small amounts of loans required, iii) lack of collateral, iv) lack of formal documentation about the enterprise, and v) risk (see also OECD [51]).

3.1. Financial liberalization, poverty and MSE financing

The financial liberalization process ongoing in many developing countries complicates the picture. Indeed, a substantial body of economic literature supports the drive toward market-based price and allocation of financial resources. This literature rests on the idea that financial liberalization will improve allocation of financial resources and promote savings and production. In both cases, the supposed outcome is an increase in level and efficiency of sustained economic growth and reduction of poverty. Most analysts agree that one of the long-term effects of these reforms is a deepening of the financial system accompanied by the creation of new instruments and institutions. Supporting this notion, empirical evidence suggests that since the beginning of the 1990's there exists a direct relationship between structural reforms and economic growth, with the slowest reformers displaying the lowest growth rates (Lora and Barrera [41]).

However, a growing critic is that the beneficial effect is concentrated on a few members of society. In fact, several studies report that financial liberalization and economic reforms coincide or are directly attributable to worsening of poverty indicators and deep economic restructuring, with massive failures of MSE and a tightening of credit rationing for this sector. In effect, two problems damp the success stories:

- In many cases, FL led to a crisis in the financial system accompanied with a severe slow-down in growth (or contraction of the GNP) and worsening of poverty indicators (the Asian tigers are the latest and most publicized case).
- The new prosperity does not appear to benefit poorer portion of the population as much as would be desirable. Many reforms have lead to elimination of institutions whose function was to channel financial resources to the poor and MSE and the private sector does not appear to be filling the gap.

We have no actual data about the effect of financial liberalization on our target population, the rural farm and non-farm enterprises, nor do we know of any work-in-progress about this issue. To compensate I provide some study results and examples from the more broadly defined SME sector. Financial liberalization is reported to have a negative effect (both in quantity and cost), at least in the short term, on the supply of credit to enterprises in general and MSE in particular (Jaramillo, et al. [32], Harris, et al. [23]).[10] But the evidences are not uniform, in fact de Melo and Tybout [44] report some evidence against this hypothesis, and Navajas [48] in a quite different approach, suggests that reforms did not have a negative effect on wealth distribution in the case of Argentina. One of the problems with these results is that they are difficult to compare. Usually the principal objective of the study is another one, and the effect on MSE is only assessed collaterally. The lack of unanimity in these results suggests that more work is needed in this field as well.

On the other hand, the set of problems that face business both large and small following structural reforms are similar. They include facing global markets, rapidly changing and ever

[10] Mendez [45] is one exception. Without providing factual evidence, this author refers to the impact of liberalization on MSE in Mexico. He notes that the country's authorities subestimated the impact of the reforms on these enterprises, with a large proportion of these being "destroyed" within a period of less than 10 years of the start of the reforms. These, he states, have benefited the large industrial and commercial conglomerates, and to a lesser extent, medium sized enterprises tied to the first through supply contracts. This opinion is corroborated by Garrido [19] who, with somewhat better factual documentation, states that "the benefits or reinserting Mexico in the international financial system benefited a very small but powerful group of large non-financial and financial firms."

more demanding consumer demands, technological innovation and, above all, the need to invest to adapt to the new market environment. However, while the funds needed to finance investment by most large business are likely to be well served by domestic and international banks, the same cannot be said for MSE. In effect, although the investment needs in this new competitive environment is similar for both large and MSE, the evidence noted above suggests that they face serious restrictions in the availability of credit. In both cases, rural as well as urban MSE, the problems facing the entrepreneur are complex. In the case of rural "business," one of the reasons for failures that follow the liberalization of the economy is that they often produce types of products that are of local consumption and of limited value in the international markets. In the case of urban based MSE, these have most likely been operating under the shadow of high import barriers. Globalization shifts consumption patterns with a much larger share of internationally traded goods. A shift toward internationally traded produce or the adaptation to new market conditions requires investments in fixed assets and technology for which firms need funding. In the case of rural business, the low margins available in the traditional sectors does not allow for an accumulation of equity capital while credit –for rural or urban MSE– is hard to obtain. The point is that, although the financial sector may no be directly responsible for the failure of many businesses following liberalization, the difficulties that MSE face in obtaining debt financing aggravates considerably the problem. As examples of the effect of structural reforms on MSE we note the following. In Colombia, the deepest liberalization effort was initiated in 1990. This liberalization program is made responsible for the loss of 30,000 jobs between 1990-92 and for the loss of 150,000 jobs between 1990-96. In a large measure, as a result of this restructuring program, between 1994 and 1997, 6000 business were closed, an unprecedented number in Colombia's recent history. The fact that these reported closures provoked the loss of "only " 24,000 jobs points clearly that they were mostly SME. Only about 10% of these businesses have sales that exceed 10 million dollars. Another example is Argentina's toy industry. Between 1991 and 1996, as a consequence of the liberalization program initiated in the late 1980's, the share of imports in the toys market passed from 6% to 80%. This resulted in 170 out of 200 toys manufacturers being closed, predominantly SME.

4. A market approach to microfinance: creating the "enabling" environment

To clarify the exposition let us define first what we mean with market and non-market solutions. Strictly speaking we define as a "market-based solution" as one capable ex-ante of operating in the designated market, with a subsidy dependence ratio (SDR, measured as the ratio of net subsidy to interest income, Yaron [71]) of zero or is in the process of achieving a SDR of zero.[11] Although the definition may a-priori appear simplistic, it implies that the intermediary is capable of raising and placing resources locally or globally at market rates and thus is performing full intermediation functions under competitive conditions. In practice, it is possible to observe several types of intermediaries that satisfy this definition. However, a complete description of the most common formal market-based solutions that may be observed will be obtained as part of the research effort. I include tentatively the following:[12]

[11] This does not imply that these institutions may not be used by government sponsored programs to channel financing to targeted sector. These types of programs will result in ex-post subsidy dependent ratios larger than zero.

[12] A focus on the role played by FC in financing MSE with the objective of poverty reduction was given by Belkenhol [1]. In this presentation we ignore intentionally market-based informal MFI such as "tontines", "SuSu", etc. These arrangements have in certain occasions been used to build "official" MSE financing schemes (See e.g. Bartle [5]).

- Commercial and "rural" banks
- Financial cooperatives (FC)
- Mutual savings and loans associations and banks
- Other community and member-driven banks (including Grameen or Banco Sol type bank as potentially sustainable)
- Other NGO that are in the process of achieving a subsidy dependence ratio of zero.

Consistent with this definition, the majority of NGO's cannot be considered market-based solution. To illustrate with numbers, in the World Bank [3] surveyed NGO, nearly 70% of their financial resources come from local or international *donors*. The same survey yields the result that in FC and savings banks 75% of funding comes from deposits. Indeed, a large number of FC worldwide do not depend on any external funding at all. Of these options, commercial banks constitute the most conflictive source of financing. On one side, commercial banks are made responsible of credit rationing MSE and on the other they are often the most important source of funding for rural MSE (e.g. Mujeri, Singh and Rahman [46], case Pakistan).[13]

Traditionally, in emerging markets, financing needs of MSE have been (more or less efficiently) met by three types of programs:

1. by directed credit plans usually accompanied by controls and/or subsidies on interest rates through the commercial banking system (financial repression in its most classical form);
2. through development and agricultural banks acting as direct lenders or second floor sources of financing directed at MSE and most recently through NGO;
3. through market based intermediaries such as FC, some other forms of community banks or commercial bank financing that does not depend upon directed credit programs.

Of these three mechanisms, the first has largely been abandoned due to the negative effect of the development of the financial system and on the efficiency of credit allocation in the economy. This could suggest that financial liberalization could result in a reduction of financing to MSE by commercial banks, as these are no longer forced to lend to the sector. Also, increases in bank funding costs that follow liberalization may contribute to rationing. The study by Harris *et al.* [23] lends suppot to this hypothesis. The second alternative, development banks, has lost much of its former glamour as sources of official financing dry out or loose most of their subsidized character. This applies to local as well as international financing. As an example, concessionary flows of funds to developing countries where at a 20 year low in real terms at the end of 1998.[14] Both these mechanisms are strongly dependent on a paternalistic state with a heavy presence in the economy and the availability of subsidized financing. Financing by NGO is perhaps the only form of non-market financing to MSE that has been object of increasing interest and net growth.

To appreciate the relative importance of these mechanisms, it is interesting to note that the CGAP estimates that about 3,000 micro-finance (mostly NGO) institutions exist worldwide and that these institutions reach less than 2 per cent of their potential clients. On the other hand, taking just one (albeit possibly the most important) of the formal "market based mechanisms",

[13] This result, as well as other similar reported below, may be biased by the fact that in some countries, including Pakistan, banking is in part controlled by the state. These "commercial banks" act as development banks in providing subsidized credit to the poor and MSE. This hypothesis has not been verified.

[14] *Financial Times*. April 8, 1999, pp. 5.

financial cooperatives, in Latin America alone, the Confederation of Latin American Credit Cooperatives (COLAC) can boast a total of over 6,000 institutions in 17 countries that can vary between a few hundred up to 450,000 members (Caja Popular Mexicana) and an average of about 900 members each. Further, one of the main finding of the *Sustainable Banking with the Poor Project* is that the main providers of microcredit where, in order of importance (Ledgewood, [38], pp. 3):

1.Commercial banks

2.Financial cooperatives

3.NGO

That is, in practice, market solution (commercial banks and FC) are, independent of policies, the ones that take the lions' share of actual credit granting.

Modern microfinance oriented analysis bases much of its judgement about the quality of a program on two criteria: *outreach* and sustainability.. To provide an example of how market and non-market based solutions perform, we present some results on a study on microfinance programs implemented in Indonesia and reported in Ravicz [55] as well as some illustrative examples that serve to make the point. Ravicz [55] makes reference to 5 initiatives destined to provide financing to the poor. They include 4 government (domestic and foreign) sponsored programs and one based on a special type of financial cooperatives. By almost any measure of outreach or sustainability the BKD (the mutual ownership intermediaries) system displays superior performance, including the variable on real interest rate required to eliminate subsidies which is irrelevant for the BKD systems–they do not receive subsidies. More generally, Larivière and Martin [37] in a meta-study of cases, reported that the highest score for *innovation* in rural microfinance went to FC by a considerable margin. FC "are specially strong in product innovation and strategic planing for financial viability and outreach in rural areas" (Larivière and Martin [37], p. 18). But not all statistics are favorable to FC. A 1985 survey on rural financing in Pakistan (Qureshi, Nabi and Faruqee [54]), for example, reports that there were 9.24 million rural households in Pakistan, of which 5.18 million were farming households and 4.05 million were non-farm households. Only 32 percent of the households (2.95 million) reported taking loans, and 27 percent reported outstanding debt. Of households that borrow, a mere 10 percent (240,000 households) borrow from institutional sources (Agricultural Development Bank of Pakistan), 76 percent; commercial banks, 17 percent; and cooperative societies, 6 percent. The remaining borrow from non-institutional informal sources (friends and relatives, 67 percent; landlords, 11 percent; factories, 2 percent; and money-lenders, 2 percent). Since there is no breakdown of the data by household size it is difficult to establish the efficiency of FC or lack thereof in providing financing to MSE. The authors noted however that the cooperative sector is being hampered in its function by an unfavorable regulatory environment.

4.1. Non-credit financial services

Another bias in the research literature is the focus on credit. Credit is only one of many financial services that make up the relationship finance-poverty. A number of other products are needed by agents, individuals to improve their income smoothing relationships, and MSE to create stable operating conditions. Enterprises of any size make use of a variety of financial services offered by the financial system that are essential to the functioning of the business activity, prevent disruption of production processes and income streams and contribute to the welfare of the firms' employees. From the point of view of a MSE we could add to this all the financial services besides credit that are required by an operating enterprise and that are normally available to enterprises with access to the commercial banking sector and other financial intermediaries operating in urban areas. Among these services we may include:

- Savings: savings products, liquidity management services, payroll management, etc.
- Insurance: health insurance for staff and workers, casualty insurance, old age income insurance (pension insurance), etc.

All the financial services that are offered as a matter of fact to a urban business enterprise are not available or available in a limited way in a rural setting. As in the case of financial liberalization, institutional reforms and state rationalization in many developing countries is forcing the state to limit even more the already scarce banquet services offered, such as health insurance or pension benefits. Instead these governments are seeking alternative, often private, means to cover those services abandoned by he state or to offer new services considered essential. When these transitions are not carried out efficiently, MSE and individuals are left exposed to contingencies. This retrenchment of the state is putting pressure on governments to find new and innovative forms of providing essential services to the poor in general and the rural sectors in particular.

To illustrate some of the issues at stake I will describe the Colombian effort to establish health insurance mutuals (Empresas Solidarias de Salud, ESS) to compensate the cutback in public health funding and to improve health insurance coverage to the rural population (similar efforts are being made in other areas of insurance such as unemployment and pension). The commonality of these efforts is that they are build on market based institutional forms, in particular mutual forms of corporate organizations. This initiative follows a model developed in Brazil with the same purpose. In the Colombian case the law that created the institutional figure of the ESS was passed in 1993. By 1997 there were already 175 of these companies covering 2.1 million members (2.8 by 1998) mostly in rural areas, the smallest one coring just 500 members and the largest one up to about 180,000 members. Of these 175 companies, 53% are mutual, 38% cooperative and only 9% limited liability corporations. (see Barona Z.[4] for more details). The explosive growth of this type of institutions in Colombia, in itself a mark of success and of the relevance of the initiative, presents some considerable challenges, for this country as well for any other that may consider similar schemes. The appearance of a large number of these types of institutions offering a public good and in which the contracts between the different parties involved generate incentives to moral hazard and agency conflicts, presents a challenge to the government authority responsible of supervising the financial system. A lively debate is going on with proposals as extreme as the abolition of the figure altogether to its unrestricted support. Some of the problems associated with this debate are for example, the fact that these institutions, essentially financial intermediaries are not supervised by the authorities responsible for the supervision of the insurance sector. Recent surveys (Barona Z. [4]) suggest an almost total absence of financial planning adapted to the actuarial particularities of a health insurance company. Further, if an effective supervision by competent authorities is introduced, to what extent can the practices and methods of R&S of a few large urban-based financial enterprises (casualty, life or health insurance for example) be applied a hundreds of mutual rural-based intermediaries? Often, even in the more traditional savings and credit market, authorities have tended to shy away of the R&S of microfinancial intermediaries or to apply to them literally R&S rules originated in an international context and for large multinationals operating in a global context such as the so-called Bank of International Settlement (BIS) standards prepared by the Committee on Bank Supervision of that institution.

Both negligence of the sector or literal application of these standards has had some catastrophic effects.

4.2. Conditions required for the functioning of market-based solutions

It makes thus sense to focus on the factor that determine the growth and stability of market based solutions. Yaron, Benjamin and Piprek [72] argue that the development (and stability) of market based solutions to the financing of the poor, is conditioned on three fundamental issues

- severity of market failure
- macroeconomic and sectorial policies
- legal, regulatory and supervisory framework

A considerable amount of work is being done by researchers to find ways to reduce the severity of market failure introducing innovations in the structure of the contract between the lender and the borrower. Examples of this work include Jaffer [29], Banerjee et al. [2] and Stiglitz [60]. Much of this research has evolved from the successful experience of sharing liability initiated by Grameen Bank. This is indeed a fertile research area that can be of considerable benefit to market-based as well as non-market-based type of solutions to microfinance.

Fanelli and Medhora [17]), although with a slightly different wording, emphasize the importance of the last two factors: the macroeconomic policies and the legal, regulatory and supervisory framework. Yaron, Benjamin and Piprek [72] also noted that rural oriented financing faces a number of other impediments that make their task even more difficult: a urban bias of existing regulation; the poor definition of property rights, among others. While market failure, is reasonably covered by theoretical and (less abundant) empirical literature, the latter two points have received less attention. In the microfinance literature only few advances have been made, with some incipient efforts made most notably the by Vogel, Gomez and Fitzgerald [63] Greuning, Gallardo and Randhawa [21], Fallavier [16] Chavez and Gonzalez-Vega [14].We can only speculate for the reason of this:[15]

1. The study of the microeconomic impact of macroeconomic policies has only recently started to develop and what is being learned is providing some interesting insights. When it comes to the legal, regulatory and supervisory framework the situation is perhaps even more primitive, with most of the attention focuses on the appropriateness of legal, regulatory and supervisory framework for the traditional commercial banking system (mostly to prevent financial crisis) and the adequacy of the Bank of International Settlement standards in the context of a developing country.

2. As long as the focus of microfinance policy is on non-market solutions, the legal, regulatory and supervisory framework is less relevant. This is so because these types of institutions tend to display practices that are consistent with the policies of their parent institutions and donors (usually some international or charity organization) or operate as specially licensed and government promoted institutions (e.g. Fundación Carabajal, Banco Sol), or are government institutions (e.g. Bank Rakyat Indonesia). Further, since most of these

[15] As often the case, some amount of work exists in relation to the LR&S environment of FC (e.g. Fischer [18], Poyo [53], McVeigh [43], Wolken and Navratil [69], Black and Dugger [10]) Several chapters on the subject are included in the volume by Westley and Branch [65].A more substantial current of literature exists for European and in particular German FC (e.g. Jager [31] among other).

institutions have a clear promotional nature, many of the perverse incentives (moral hazard, agency costs, adverse selection, etc.) associated with the intermediation process are either absent, strongly attenuated, are not borne by the target population or are exercised not by the institutions but by the borrowers (bad loans). Thus they can largely be ignored or are of preoccupation for the lending institution only. This is not so when market solutions are used, where all aspects of perverse incentives and adverse selections that result from intermediation contracts that are engaged in an environment of incomplete information, play a full role.

4.3. The legal, regulatory and supervisory (LR&S) environment, transaction costs and market efficiency

Transactions costs in financial markets are key determinants of efficiency. Much of the financial theory that describes the functioning of financial markets, savings decision and allocation of resources (Fisher separation) is based on the presumption that financial resources can be transferred between surplus units of the economy (savers) and the deficit units of the economy (consumers and investors in real projects) at zero or low transaction costs. However, a number of factors may increase considerably the (ex antes and ex post) costs of contracting in financial markets including: information asymmetries, enforceability of contracts and agency costs, often leading to the solution that only second-best types of contracts or no contracts at all (e.g. credit rationing) is acceptable. This has lead to a rich and growing literature on the "design of financial contracts" (e.g. Harris and Raviv [24], Bensanko and Kanatas [7], Boot and Thakor [11], Townsend [62]) seeking to improve on the contracts available and, if possible, find first-best type of solutions.

The LR&S environment influences considerably transaction costs in financial contracting. One of the traditional rationales for developing more advanced LR&S frameworks is to protect public goods. There is a vast literature on this subject we will not present here. However, on a related but more narrowly defined level, a reasons why the legal, regulatory and supervisory framework is important for the operation of any financial intermediary is that this affects the cost of realizing financial transactions (Fanelli and Medhora [17]). These authors present a list of several aspects of the LR&S environment that influence the costs of financial contracting including:

- The design of norms regulating financial transactions (and institutions)
- Practices regarding accounting and auditing
- Definition of property rights (see alsoYaron, Benjamin and Piprek [72])
- The tax structure

The idea that the LR&S framework affects transactions costs finds its support in several strands of related literature that exploits the principles of transaction cost economics (Williamson [66], [67]) and the governance of contractual relations when applied to financial contracting. Among the contributions in this direction we find Williamson [68], Neave and Johnson [50]. In this sense one should not ignore the close relationship that exists between the theory of transaction costs and the theory of agency costs as put in evidence by Williamson [68].

This being the case, it behooves that one of key issue that must be addressed to improve the efficiency of the financial system is to reduce the risk and the costs of engaging in contracts in financial markets. This, indirectly, embeds the objective of making credit and other financial services available to sectors that would otherwise be excluded from the market (the "poor"). Besides the design of innovative financial contracts, the two main tools available to achieve this objective are: 1) modify the macroeconomic environment to provide more stable conditions; and 2) to modify the LR&S environment so that contracts can be closed between potential parties at lower level of costs and/or risks. The latter can be achieved through a number of mechanisms, including:

- Reduce information asymmetry by forcing reliable information generation
- Improving financial contract enforcement rules and practices
- Facilitate the control for perverse incentives such as moral hazard and agency costs

Each and all of these mechanisms will have the simultaneous effect of reducing risk and thus risk premia (interest rates, insurance premia, fees, etc.) associated to financial transactions as well as costs of engaging and controlling contracts.

Regulation itself can be viewed as a contract in which the regulator assumes the position of principal (usually in representation of a principal that may be in a disadvantageous position to enforce the contract) and the regulated the position of the agent. In fact applications of this concept has been presented by Bhattacharya and Thakor [9], Boot and Thakor [12] and Harris and Raviv [25] to the regulation and "design" of financial markets and intermediaries. These concepts provide a rich theoretical background on which to develop or test designs of LR&S frameworks for market based financial intermediaries that serve our target population: MSE.

Besides the purely theoretic issue of reducing costs in financial transactions, the deficiency of LR&S environments are not without some serious consequences. In LA alone and during the 1990s, Argentina, Colombia, Costa Rica, Ecuador, Panama and Peru have experienced crisis that have shaken their respective financial cooperatives systems leaving millions of members with their savings impaired to a considerable degree, or lost altogether. Secondary effects were that large sectors of the population and important numbers of MSE lost their access to financial services of any sort, including credit. Failure of MSE often followed the financial cooperatives own failures. To a considerable extent we can trace the causes of these crises to an inadequate LR&S environment .

Thes crisis not only increase considerably the cost of operation in the market but contribute to government failure to alleviate poverty in the region. In some cases, the crisis has been so intense that the effects were felt in the traditional financial system. This wave of FC catastrophes comes at the back of another similar wave that practically wiped out the financial cooperatives system of Central America in the 1980s. After many years of struggling on the recuperation path, the movements of financial cooperatives of that region is now slowly getting back unto its feet. Yet, the regulatory environment is today as inappropriate as it was at beginning of the crises. In fact, the described events have left regulators wondering about how to bring this sector under control. In some countries, regulators have gone to the extreme of forcing FC to abandon altogether their traditional organization structures pressing them into unsuitable corporate structures (such as banks). These changes are accelerating the crisis and destroying (or reducing) their inherent capacity to serve the community and the poor. In other cases, legislators and regulators have started experimenting into untried territories with unknown results.5 In fact, developing a suitable regulatory and supervisory framework is now the single most important initiative to prevent the repetition of the boom-and-bust cycles.

How should the research on the R&S of market-based MFI be undertaken? Without entering into too many details about the process of regulation, we can provide some basic ideas to put into evidence the issues that need to be addressed in a research program like this. At the most fundamental level regulation is the response of government (or auto-regulatory bodies) to control the delivery of public goods. At a more practical level, regulation of financial institutions can be viewed as a mechanism used by governments (or auto-regulatory bodies) to control perverse incentives. These incentives result from contracting under asymmetric information with the potential for opportunistic behaviors on one or both of the contracting sides, and one of the parts in a disadvantageous position in the enforcement of the terms of the contract. The R&S authority steps in on behalf of the disadvantaged party. As noted before, laws and regulations in themselves can and should be viewed as contracts. If they are well designed, they induce agents to act in ways that will be consistent with the objectives of the regulation. This objective can be to provide a higher level of security for the institution, improve sustainability (or control moral hazard), control monitoring and administrative (agency) costs, etc.

In the banking sector, much progress has been made in understanding the financial contracts that are implicit in the various components of a typical balance sheet. This includes risk free deposits, risky debts, residual risk bearing shares and more recently the appearance of financial derivatives. Although it may be true that most contracts are the same in standard commercial bank and in a typical market-based MFI (and thus not much to be learned by studying them over again), this is not true for all contracts. Certainly not for some critical contracts such as share contributions in a FC, deposits in a mutual intermediary, or insurance contracts of a mutual insurance (see e.g. Mayers and Smith, 1988). The reason is that unlike shares and standard deposits (for example) the rights attached to these contracts are not emulated by any standard banking contract.

Neither are the governance structures that exist to control for the actions taken by the different contracting parties equal in a standard commercial bank and in the different market-based MFI.. In a standard commercial bank agency conflicts, albeit present, have not been severe enough as to force a legal, regulatory and supervisory framework to control for it (while moral hazard did). On he other hand, the seriousness of agency conflicts in mutual intermediaries has solid theoretical and empirical backing from research performed in the United States and elsewhere. This includes depository and insurance intermediaries among others. Examples of this research are Akella and Greenbaum, 1988; Branch and Baker, 1998; Keating and Keating, 1992; Mester, 1989. Agency costs where identified as a leading cause of malfunction of mutual intermediaries in Europe (Volker, 1995). However, unlike the banking sector, this understanding has not found its way to a body of knowledge on legal, regulatory and supervisory frameworks designed to control for it. By contrast, mutual financial intermediary movements and legislators of several countries have developed sophisticated R&S frameworks that offer a rich ground for study.

Bibliography

[1] Berndt (Ed.) Balkenhol. *Credit Unions and the Poverty Challenge*. International Labour Office, Geneva, 1999.

[2] Abhijit V. Banerjee, Timothy Besley, and Timothy W. Guinnane. Thy neighbr's keeper: The design of a credit cooperative with theory and test. *Quarterly Journal of Economics*, 109:491–515, May 1994.

[3] World Bank. *A Worldwide Inventory of Microfinance Institutions*. The World Bank, Washington, D.C., 1998.

[4] Bernardo Barona Z. Empresas solidarias de salud in colombia: Evaluation and recommendations to achieve greater effectiveness in financial markets. ICESI University, Cali, Colombia., May 2000.

[5] Phil Bartle. Support to microenterprise programme: Income generation, credit and strengthening community capacity. Working Paper. Community Management Programme (CMP), UNDP, Uganda., 1999.

[6] Andrea Bender, Wolfram Kägi, and Ernst Mohr. Sustainable open access: Fishing and informal insurance in ha'apai, tonga. IWÖ Discussion Paper No 71, 1998.

[7] D. Bensanko and G. Kanatas. Credit market equilibirium with bank monitoring and moral hazard. *Review of Financial Studies*, 6:213–232, 1993.

[8] Allen N. Berger and Gregory F. Udell. The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of Banking and Finance*, 22:613–673, 1998.

[9] S. Bhattacharhya and A. Thakor. Contemporary banking theory. *Journal of Finanancial Intermediation*, pages 2–50, 1993.

[10] Harold Black and Robert H. Dugger. Credit union structure, growth and regulatory problems. *Journal of Finance*, pages 529–539, 1981.

[11] A. Boot and A. Thakor. Security design. *Journal of Finance*, 48, 1993.

[12] A.W.A. Boot and A. Thakor. Financial system architecture. *Review of Financial Studies*, 10:1099–1131, 1997.

[13] Avishay Braverman and Monika Huppi. Improving rural finance in developing countries. *Finance and Development*, pages 42–44, March 1991.

[14] Rodrigo A. Chavez and Claudio Gonzalez-Vega. Principles of regulation and prudential supervision and their relevance for microenterprise finance organizations. In James Boomgard and Kenneth Angell, editors, *The New World of Microenterprise Finance*, chapter 3, pages 55–75. Kumarian Press, West Harford, CN, 1994.

[15] Robert DeYoung, Lawrence G. Goldberg, and Lawrence J. White. Youth, adolescence, and maturity of banks: Credit availability to small business in an era of banking consolidation. *Journal of Banking and Finance*, 23:463–492, 1999.

[16] Pierre Fallavier. *Developing Micro-Finance Institutions in Vietnam: Policy Implications to Setup an Enabling Environment*. PhD thesis, The University of Britisch Columbia, 1998.

[17] José M. Fanelli and Rohinton Medhora. *Financial Reform in Developing Countries*. International Development Reserch Center (IDRC) and Macmillan Press Ltd, Houndmills., Ottawa, 1998.

[18] Klaus P. Fischer. Regulatory environment and financial cooperative performance: Atomized-competitive vs. federated-networks. ICA Research Conference, Quebec, Canada., October 1999.

[19] Celso Garri8do. Financial liberalization in mexico: What went wrong. *Journal of International Finance*, 4, Special Issue on Business Finance in Emerging Markets:forthcoming, 1996.

[20] Lawrence G. Goldberg and Lawrence J. White. De novo banks and lending to small business: An empirical analysis. *Journal of Banking and Finance*, 22:851–867, 1998.

[21] Hennie Van Greuning, Joselito Gallardo, and Bikki Randhawa. A framework for regulating microfinance institutions. Financial Sector Development Department, The World Bank, December 1998.

[22] S. Hagblade, C. Liedholdm, and D. Mead. The effect of policy and policy reforms on non-agricultural enterprises and employment in developing countries: A review of past experiences. Michigan State University International Development Working Paper no. 27, 1986.

[23] John R. Harris, Fabio Schiantarelli, and Miranda G. Siregar. The effect of financial liberalization on the capital structure and investment decisions of indonesian manufacturing establishments. *The World Bank Economic Review*, 8:17–47, 1994.

[24] Milton Harris and Artur Raviv. The role of games in security design. *Review of Financial Studies*, 8:327–367, 1995.

[25] Milton Harris and Artur Raviv. Organization design. Working Paper, University of Chicago., July 1999.

[26] P. Hazell and S. Hagblade. Farm-nonfarm growth linkages and the welfare of the poor. In Lipton and Van der Gaag, editors, *Including the Poor*. The World Bank, Washington, 1993.

[27] D. Hulme and P. Mosley. *Finance Against Poverty*. Vol 1 and 2. Routledge, New York, 1996.

[28] R. Wetmore Humes and Katherine A. Samolyk. Does small business need a financial fix? *Economic Commentary, FRB of Cleveland*, May 1993.

[29] Jameel Jaffer. Microfinance and the mechanics of solidarity lending: Improving access to credit through innovations in contract structure, April, 1999. Working Paper, SSRN Electronic Library.

[30] N. Vijay Jagannathan. *Informal Markets in Developing Counries*. Oxford University Press, New York, 1987.

[31] Wilhelm Jäger. Genossehshaftsdemokratie und prüfungsverband, October, 1984. Working Paper No 3; Institut für Genossenshaftswesen. Westfalischen Wilhelms Universität. Münster, Germany.

[32] Fidel Jaramillo, Fabio Schiantarelli, and Andrew Weiss. Capital market imperfections before and after financial liberalization: An euler equation approach to apnel data for ecuatorian firms. *Journal of Development Economics*, 51:367–386, 1996.

[33] Rajshhri Jayaraman and Peter Lanjouw. The evolution of poverty and inequality in indian villages. *The World Bank Research Observer*, 14:1–30, February 1999.

[34] Jith Jayaratne and John Wolken. How important are small banks to small business lending? *Journal of Banking and Finance*, 23:427–458, 1999.

[35] Michael Johnny. *Informal Credit for Integrated Rural Development in Sierra Leone*. Verlag Weltarchiv GmbH, Hamburg, 1985.

[36] Peter Lanjouw. Ecuador's rural nonfarm sector as a route out of poverty. Development Research Group, World Bank, Unpublished WP., 1997.

[37] Sylvain Larivière and Frederic Martin. Innovation in rural microfinance: The challenge of sustainability and outreach. Reserach Series No. 0298, Chair in International Development, Laval University, November 1998.

[38] Joanna Ledgerwood. *Microfinance Handbook: An Institutional and Financial Perspective*. The World Bank, Washington, D.C., 1999.

[39] C. Liedholm and P. Kilby. 'nonfarm activities in the rural economy. In J. Williamson and V. Panchamukhi, editors, *The Balance Between Industry and Agriculture*. St. Martin's Press, New York, 1989.

[40] Mario Lopez E. El financiamiento popular y la microempresa informal. *El Mercado de Valores*, 12:33–43, December 1994.

[41] Eduardo Lora and Felipe Barrera. A decade of structural reforms in latin américa: Measurement and growth effects. Technical report, Inter-American Development Bank, July 1997.

[42] Susan Lund and Marcel Fafchamps. Risk sharing network in rural philippines. Unpublished Working Paper, Stanford University, 1997.

[43] L.R. McVeigh. Inernationa standards regarding capital: A threat or an opportunity for financial co-operatives? *International Co-operative Banking Association Journal*, 9:34–42, 1997.

[44] Jaime de Melo and James Tybout. The effects of financial liberalization on savings and investment in uruguay. *Economic Development and Cultural Change*, pages 561–587, 1986.

[45] Bernardo Mendez-Lugo. Micro y pequena empresa en méxico. *El Mercado de Valores*, 11:36–44, November 1995.

[46] Mustafa K. Mujeri, Lisa S. Singh, and Shafiqur Rahman. *Loan Repayment Behaviour Among Rural Poor*. CIRDAP, Dhaka, 1996.

[47] United Nations. Role of microcredit in the erradication of poverty, 1999. Report of he Secretary-General.

[48] Fernando H. Navajas. Structural reforms and the distributional effects of price changes in argentina. SSRN Electronic Paper Collection, 1999.

[49] S. Navajas, M. Schreiner, R.L. Meyer, C. Gonzalez-Vega, and J. Rodriguez-Mesa. Microcredit and the poorest of the poor: Theory and evidence from bolivia, 1998. Paper presented at the Latin American and Caribbean Economic Association. Universidad Torcuato Di Tella, Buenos Aires, Argentina.

[50] Edwin H. Neave and Lewis D. Johnson. Governance and financial system organization, 1993. Workin Paper 93-96, Queens University, Kingston.

[51] OECD. Small business, job creation and growth: Factos, obstacles and best practices. Technical report, OECD, 1998.

[52] Joe Peek and Eric S. Rosengren. Bank consolidation and small business lending: It's not just bank size that matters. *Journal of Banking and Finance*, 22:799–819, 1998.

[53] Jeffrey Poyo. A conceptual framework for the regulation and supervision of credit unions: How does it differ from stockholder-owned banking institutions. March, 1998.

[54] Saeed Qureshi, Ijaz Nabi, and Rashid Faruqee. Rural finance for growth and poverty alleviation in pakistan. Agriculture and Natural Resources Division, Country Department 1, South Asia Region, The World Bank, 1996.

[55] Marisol R. Ravicz. Searching for sustainable microfinance: A review of five indonesian initiatives. Development Economics Research Group, World Bank, Unpublished Working Paper, 1998.

[56] Melito S. et Al. Salazar. Financial factors and small and medium enterprise development in philippines. In Kenneth James and Narongchai Akrasanee, editors, *Small and Medium Business Imporvement in the ASEAN Region: Financial Factors*, pages 105–159, Singapore, 1986. Institute of Southeast Studies.

[57] Reinhard H. Schmidt. Small-scale financing and credit intermediaries. Technical report, Gesellschaft für Technische Zusammenabeit (GTZ), Eschborn, Germany., 1985.

[58] Hans D. Seibel. Upgrading, downgrading, linking, innovating: Microfinance development strategies, 1997. University of Cologne Development Research Center. Working Paper No 1997-6.

[59] Joseph Stiglitz and A. Weiss. Credit rationing in markets with imperfect information. *American Economic Review*, 71:394–410, June 1981.

[60] Joseph E. Stiglitz. Peer monitoring and credit markets. *World Bank Economic Review*, 3:351–, 1990.

[61] Philip E. Strahan and James P. Weston. Small business lending and the changing structure of the banking industry. *Journal of Banking and Finance*, 22:821–845, 1998.

[62] R.M. Townsend. Optimal contract and competitive markets with costly state verification. *Journal of Economic Theory*, 21:265–293, 1979.

[63] Robert C. Vogel, Arelis Gomez, and Thomas Fitzgerald. Regulation and supervision of microfinance: A conceptual framework. Microenterprise Best Practices Series. U.S. AID,, 1999.

[64] John A. Weinberg. Firm size, finance and investment. *Economic Quarterly, FRB of Richmond*, 80:19–38, Winter 1994.

[65] Glenn D. Westley and Brian Branch (Eds.). *Safe Money: Builidng Effective Credit Unions in Latin America*. John Hopkins University Press, Washington, D.C., 2000.

[66] Oliver E. Williamson. *The Economic Institutions of Capitalism*. Free Press, New York, 1985.

[67] Oliver E. Williamson. Transaction cost economics: The comparative contracting perspective. *Journal of Economic Behavior and Organization*, 8:617–625, 1987.

[68] Oliver E. Williamson. Corporate finance and corporate governance. *Journal of Finance*, 43:567–591, 1988.

[69] John D. Wolken and Frank J. Navratil. The choice of regulatory regime: A logit analysis of credit union chartering. *Quarterly Review of Economics and Business*, 25:40–57, Spring 1985.

[70] Ying Yan. Credit rationing, bankruptcy cost, and optimal debt contract for small business. Federal Reserve Bank of Cleveland Working Paper, November 1996.

[71] J. Yaron. Succesful rural financial institutions, 1992. World Bank Discussion Paper, No. 150, Washington, D.C.

[72] Jacob Yaron, McDonald P. Benjamin Jr., and Gerda L. Piprek. *Les Finances Rurales: Problèmes, Structures et Practiques Optimales*. Banque mondiale. Études et monographies sur le développement écologiquement et socialement durable. Série 14, Washington, 1997.

Table 1

Microfinance Strategies

	Non Market MFI		***Market MFI***	
Institutions	***Public***		***Mutual***	
	Industrial Development Banks Agricultural Banks		Financial Cooperatives Mutual Savings Banks	
	Private		***Merchant***	
	NGO's		Commercial Banks "Regional" Banks	
Direct "Poor" Financing	Strategy based on providing access to production or consumption credit to target "poor" household promoting the creation of MFI that rely on a government or private subsidy. Little or no local intermediation is performed.		Strategy based on providing access to production or consumption credit to target "poor" household by creating the conditions (legal, regulatory, etc.) that make possible the operating of market based MFI. This implies that MFI must carry out local intermediation and are capable of operating free of subsidy.	
	Implementation:	**Facile**	**Implementation:**	**Difficult**
	Enabling environment:	**Simple**	**Enabling environment:**	**Medium complex**
	Access to target:	**Facile**	**Access to target:**	**Difficult**
	Sustainability:	**Low**	**Sustainability:**	**High**
	Outreach:	**?? (Low to medium)**	**Outreach:**	**Medium/High**
	Risk exposure:	**Low**	**Risk exposure:**	**Low**
Generation of Employment	Strategy based on the creation of employment opportunities for target "poor" households through credit to local micro- and small sized enterprises (MSE). This credit depends on financial intermediaries that rely on a government or private subsidy.		Strategy based on the creation of employment opportunities for target "poor" households through credit to local micro- and small sized enterprises (MSE) by creating the conditions (legal, regulatory, etc.) that make possible the operating of market based MFI.	
	Implementation:	**More difficulty**	**Implementation:**	**Difficult**
	Enabling environment:	**Medium complex**	**Enabling environment:**	**Complex**
	Access to target:	**More difficult**	**Access to target:**	**Difficult**
	Sustainability:	**Low**	**Sustainability:**	**High**
	Outreach:	**Low/Medium**	**Outreach:**	**Medium/High**
	Risk exposure:	**High**	**Risk exposure:**	**Medium**

Definitions:

Implementation: Ease or difficulty of establishing a microfinance scheme
Enabling environment: The complexity of the macroeconomic, legal, regulatory and supervisory adjustments necessary to make the operation of the MFI possible.
Access to target: How easy or difficult it is to provide financial services to a specific target population.
Sustainability: The reciproca of the SDR. The capacity to generate sufficient revenues to cover operating costs of providing the service.
Outreach: The capacity to serve segments of the population that are otherwise undeserved by the financial system (usually the commercial banking system)
Risk exposure: The level of credit risk to which the MFI may be exposed on the asset side of the balance sheet.

Figure 1: