

MAINSTREAMING MICROFINANCE OF HOUSING

Dr. Bruce Ferguson
(brucef@iadb.org)
and
Elinor Haider
Inter-American Development Bank

I. INTRODUCTION

Microfinance of housing is an embryonic but highly promising practice that has begun to spread throughout developing countries. For the purposes of this paper, the term *the microfinance of housing* refers to small loans to low/moderate-income households typically for self-help home improvement and expansion, but also for new construction of basic core units. Best practice in housing microfinance involves loans at unsubsidized interest rates and short terms, relative to traditional mortgage finance.

Various studies (USAID/Harvard/DAI, 2000; Mitlin; Appendix C of this study) have identified over 40 such programs in Asia, Africa, the Middle East, and Latin America and the Caribbean. NGOs operate many of these programs. The Habitat International Coalition, the main umbrella group for NGOs working on housing issues, has several hundred members, many of which operate some sort of micro-lending program. In addition, many for-profit private sector entities including financial institutions, informal land developers, and building materials suppliers, make such loans to their clients as part of their business. Indeed, if given the chance low/moderate-income households tend to invent some form of housing microfinance – such as savings clubs - in order to fund their shelter needs. Thus, housing microfinance currently encompasses an extraordinary spectrum of practices.

Housing microfinance lies at the intersection of microenterprise finance and mortgage finance. It shares characteristics with both, but also demonstrates some important differences (as detailed in Appendix A, and in Sections II and III of this paper). For example, the amount (US \$300 to \$5,000) and the length (two to ten years) of housing microfinance loans are typically much less than that of mortgage finance, but greater than that of microenterprise credits. As microenterprise finance, many housing microfinance programs work with para-legal title and income from self-employment – the typical security that low/moderate-income households can offer. In contrast, mortgage finance typically requires a mortgage lien and formal-sector employment.

Donors and government have invested considerable sums, technical assistance, and effort in making microenterprise finance and mortgage finance work in developing countries. Microenterprise finance, for example, has become an important program line of major donors such as the Inter-American Development Bank, USAID, and World Bank, with its own units,

* We would like to thank Gabriel Schor, of Frontier Finance International, and Glenn Westley, of the Inter-American Development Bank, for their valuable contributions to this paper.

protocols, and finance facilities. Donors have also recently invested much effort in establishing more traditional primary markets and secondary housing markets in developing countries.

In contrast, housing microfinance has received relatively little attention and much less funding from these same institutions, possibly because it lies between these more established disciplines and practices. The dearth of research specific to housing microfinance, as well as its situation in the juncture of these two sectors, have also made donor support much less standardized than in either microenterprise finance or mortgage finance. Overall, donors provide scant support to housing, although recognition seems to be growing of the importance of this sector. Between 1980 and 1993, less than 3 percent of development assistance went to housing finance and other housing programs. Many development assistance agencies gave no support to either (Satterthwaite, 1995). Microfinance of housing received only a small fraction of the modest support provided to housing overall.

Yet housing microfinance has great potential to help solve one of the developing world's most critical problems – providing and improving shelter for the low/moderate-income majority. In contrast to the programmatic priorities of donors, surveys of low-income households in developing countries typically show that housing has a higher priority than even education or healthcare. This ranking reflects the tremendous economic and social benefit that ownership of an adequate home conveys in the world of sudden emergencies, illness, and unstable income and employment in which the poor live. Most low-income households also prefer to improve their existing home in their current neighborhood rather than purchase a new unit. Housing microfinance fits these priorities, as it is well suited to the incremental building process that most low/moderate-income households use to construct their homes gradually over 5 to 15 years. Small loans for short terms well fit each discrete step, such as room addition or infrastructure connection, of this process.

In contrast, traditional mortgage finance typically fails to reach these households because: (1) the debt service for a loan necessary for most of the cost of a complete, commercially built unit (the only use of much mortgage finance in most developing countries) far exceeds the capacity of low/moderate-income households to pay (Ferguson, 1999; ESCAP); (2) the underwriting requirements, including full legal title to property and monthly payments far into the future (as long as 15 to 30 years in some countries), conflict with the survival strategies of these households; and (3) traditional mortgage lenders have little interest in making the organizational changes and learning the business of making small loans to low/moderate-income households. For these reasons, less than a fifth of families in emerging countries receive institutional home financing (Ferguson, 1999).¹ Many of the remaining households are potential clients for housing microcredit.

By and large, low/moderate-income households have access to few resources for settlement and building. A concerted, well-funded effort of donors, governments, financial NGOs, and financial institutions has proved key to mainstreaming microenterprise finance over the last three decades. The potential of housing microfinance may now justify a similar sustained effort. The key to success of this effort lies in joining the institutions and expertise of the microenterprise finance community with that of the housing and housing finance community. The next two sections of this paper examine microfinance of housing from the perspective of each of these disciplines and their institutions. The final section concludes with some principles, research, and program suggestions for mainstreaming housing microfinance.

II. THE HOUSING FINANCE PERSPECTIVE

Microfinance holds promise from a housing perspective for three central reasons. First, it well fits the incremental building process used by the low/moderate-income majority. It also provides a solution to the conundrum of social housing programs – how to reduce subsidies and achieve scope. Finally, microfinance resolves some of the difficulties encountered by mortgage finance in developing countries. It also, however, raises a central challenge of all finance that seeks to go downmarket - how to make small loans financially attractive to commercial institutions.

Housing microfinance fits the incremental building process.

The incremental building process constructs much of the physical plant of many cities in developing countries. An estimated 75% to 90% of all new housing is built outside the official land development and housing construction process, much of it incrementally (Mitlin). However, external resources and the formal financial sector rarely support the incremental building process. Without finance, the incremental building process often proves extremely inefficient and lengthy, and results in poor quality home construction and neighborhood environments.

Usually, low/moderate-income home ownership starts with the acquisition of land through one of a variety of means including squatting or the purchase of a lot in an informal subdivision (Ferguson, 1996). Particularly when some threat of expulsion exists, households build a small, makeshift, temporary dwelling to vouchsafe the property. Family or friends live in the dwelling, gradually adding space and increasing quality. When the lot is small, households usually add another story, ideally on a flat cement roof. If the lot is sizeable, they expand outwards. As the community becomes established, residents band together to pressure government for basic services. In the meantime, households usually obtain some of these services through clandestine connections to electricity and water lines, or by paying private providers exorbitant rates.

Microfinance fits the incremental building process in critical ways. Microfinance when applied to housing means small loans – typically US \$250 to US \$5,000 – at market rates of interest amortized over short terms (relative to mortgage finance) of 2 to 10 years. Most microlending occurs for home improvement and expansion – in effect, for the major phases of the incremental building process. Some loans result in the construction of a starter unit, which is also a phase in the incremental building process. NGOs and, increasingly, financial institutions originate these loans. The small amount of these loans makes their debt service affordable to low/moderate-income households. In contrast, the payments on the much greater loan amount necessary for a complete unit vastly exceed their capacity to pay.

The short terms of microfinance also well suits these households' situation. Low/moderate-income families resist incurring financial obligations for the long periods typical of traditional mortgage finance (15 to 30 years) because of the instability of their income. Many low/moderate-income households do not want the burden of long-term payments even if they can qualify for a loan

Sometimes, the incremental building process receives institutional financial support. Although commercial banks rarely make loans to low/moderate-income groups for housing, other financial institutions such as credit unions, and private sector entities such as building materials

suppliers and land developers occasionally extend these loans. In Karachi, Pakistan, building contractors and building materials suppliers commonly provide credit to their customers (Hasan, 1989). In Barbados, six materials stores provide lines of credit for self-constructed homes and improvements. If borrowers cannot afford to finance the total project, these stores break loans into incremental stages. A few of these suppliers hold large portfolios and have made financing a lucrative part of their business, with one company holding over 15,000 accounts for a total of US\$7.5 million (Hoek-Smit et al. 1998).

In El Salvador, an industry of low-income land subdividers takes back loans to finance lot purchase. These developers also extend small hard-money credits for incremental building, thereby financing low-income settlement and starter units in the rural and semi-urban areas of the country. Box 1 describes this experience.

Subdividers and building materials suppliers provide financing on a consumer loan basis so that customers can purchase their main product. These for-profit companies may have a comparative advantage in providing housing microfinance for their clients, and are well positioned to improve the terms and increase the scope of their credit. A similar evolution occurred for both the durable goods and housing sectors in the United States. For example, GMAC Financial Services evolved from financing its own GM cars into the largest commercial mortgage banker in the U.S. Similarly, Pulte Homes, the largest homebuilder in the United States, also offers mortgage loans, originating US\$408 million in the last quarter of 1997.

By and large, however, the low-income settlement and incremental building process continues without support from formal-sector institutions. The lack of finance and technical advice on building often results in low quality construction. Informal settlements often appear to be slums for long periods before households and governments consolidate them. The lack of effective guidance on location and lay-out of these settlements also frequently creates great environmental and land-use problems that the public sector must subsequently attempt to fix at substantial expenditure.²

In summary, the low-income settlement and incremental building process works, but at great cost and risk and without much support from formal-sector institutions. Ironically, formal financial markets are booming. Pension funds within developing countries are amassing large sums – in Chile, for example, private pension funds now manage US\$30 billion. International capital flows to developing countries have expanded five-fold since 1990 to over US\$250 billion per year.

In this context, connecting the incremental building process to formal sources of capital takes on special importance. A key piece of this puzzle potentially lies in housing microfinance, which also helps overcome some important constraints of mortgage finance.

Housing microfinance overcomes some key constraints of mortgage finance.

Microfinance helps solve two basic difficulties encountered by traditional mortgage finance in developing countries: (1) a highly limited market; and (2) the mismatch of the terms of liabilities with that of assets. Despite its advantages, microfinance raises a new set of issues related to the difficulty of making small loans to low/moderate-income families profitable.

Mortgage finance is profiled in the first column of Appendix A, while its structure and practice in Latin America can be observed in Appendix B. It involves relatively large loans for long-terms – typically 15 and up to 30 years. In developing countries, most mortgage lenders extend credit for purchase of a new unit, which is typically constructed commercially. These characteristics poorly suit the needs of low/moderate-income borrowers and greatly limit the effective demand for these loans, usually to the top third of the income distribution. In contrast, housing microfinance could allow lenders to reach down as far as the twentieth to thirtieth income percentiles in many countries, greatly expanding their market to include the low/moderate-income majority.

The characteristics of traditional mortgage finance pose some other serious problems for lenders. Deeply rooted characteristics of the economies of many emerging countries such as macroeconomic instability, fluctuating inflation, and, as a result, foreign exchange risk, combine to raise real interest rates and shrink the terms of the liabilities available to financial institutions. Typically, lenders fund their loans very short term, with liabilities of a maximum of one to three years. Hence, lenders engage in serious term mismatch when they make traditional mortgage loans of 15 to 30 years. This term mismatch often goes unmonitored by financial institutions, and represents a hidden, potentially explosive problem for many.³ The uneven experience of countries with alternative mortgage instruments represents, in part, a special case of the problems associated with term risk.⁴

In contrast, housing microcredit - whether for self-help home improvement and expansion, or for new construction of basic core units - often has much shorter terms. These

BOX 1: LAND DEVELOPERS FINANCE MUCH LOW-INCOME HOUSING IN EL SALVADOR

Unique in Latin America, El Salvador has a thriving national industry of developers supplying legal low cost subdivisions. Minimized regulations make land acquisition affordable through a category of progressive subdivisions for low-income residents. These developments require the provision of demarcated lots of a minimum of 100 m², with green spaces and planned roads, without costly and time-consuming additional up-front infrastructure investment. This arrangement facilitates private sector financing, as well as diminishes the need for land invasions.

Housing developers account for between 50%-70% of the annual growth in housing for low-income households and 26% of all new housing in El Salvador. While 200 firms are reportedly active, 3 firms have been operating on a significant national scale for 20 years or more. These developers provide 8-12 year loans with affordable payments of US\$15-US\$25 per month for lot purchase. Many of these subdividers then offer additional financing for self-constructed housing or community infrastructure. At the beginning of the 1990s an estimated 50% of new urban housing and 70% of new rural housing was informally constructed by its inhabitants.

Argoz, the country's largest developer, has financed over 630 projects throughout El Salvador, earning over US\$9 million last year. The company is currently financing 250,000 lots, supplying 10-year rent-to-own contracts for families with monthly incomes of approximately US\$170. Families do not have to provide a downpayment, and pay fixed fees of US\$17 per month, which include insurance.

The company offers additional financial services, including immediate loans of up to half of the amount paid on the lot at any time in the transaction. Families can access these funds for emergencies and home improvements or expansions. In addition, all of Argoz's developments have a community-elected Board that can organize group financing for infrastructure projects, using their own property as collateral.

Despite their success at reaching low-income populations, developers have faced serious criticism. For example, the housing constructed on the lots is often precarious, due to the use of inferior materials such as adobe, and the lack of basic infrastructure. Also, the real owner may put a lien on the property without the developer's knowledge, jeopardizing future title transfer after the family has finished paying. Some families face difficulty with the final title expense at the end of the contract and fail to secure full legal tenure. Developers also do not charge explicit interest rates, masking the expense to clients, and avoiding a 13% federal tax on interest payments. To prevent these abuses, the Salvadoran government is seeking to incorporate developers into a regulated certification system.

short-term assets better fit the short-term liabilities available in developing countries and substantially reduce, although do not eliminate, the risks of term mismatch (see Section IV).⁵

More broadly, financial institutions in emerging countries often hold substantial portions of their assets in risky if temporarily profitable investments. The collapse of many banks that contributed to the Asian economic crisis of 1997-98 came mainly from problems with large commercial and corporate loans. In contrast, microfinance institutions in Asian countries – such as BRI (Bank Rakyat Indonesia) – had relatively few problems with their portfolios while other financial institutions failed.

As a result, microcredit – whether for housing or microenterprise – can help form a solid foundation for financial institutions and the financial sector, in general, in developing countries. In addition, bank superintendencies often require that a smaller fraction of loan amounts be provisioned for mortgage lending. This provides institutions with additional liquidity and profitability.⁶

The large potential loan volume of housing microlending makes this practice particularly useful as a basis for financial institutions and the financial sector. Ecuador – with a population of twelve million – has an untapped effective demand for housing microcredit conservatively estimated at US \$1.2 billion.⁷ In comparison, Ecuador's entire stock of private-sector credit totaled US\$3.8 billion in 1998.

In summary, housing microfinance has substantial potential advantages for lenders as well as borrowers. Why, then, is this practice not more widespread? The answer lies in important issues that this practice raises that must be overcome to realize its benefits. The central issue is the profitability challenge of all microcredit. Relatively small loans to low/moderate-income households require more work (i.e. higher transaction costs) and usually result in less revenue than larger loans to middle and upper-income households. The profitability challenge will be discussed in Section III.

Housing microfinance advances policy and program goals.

Low/moderate-income housing has critical importance for economic growth as well as social development, helping to solve the conundrum of social housing programs. For long periods of national economic development, the construction industry serves to jump-start economies in recession, contributes a substantial share (often around 15 percent) of GDP, and accounts for a disproportionate share of jobs for unskilled and semi-skilled workers. Better housing enhances the economic efficiency of cities, which account for the great bulk of national product. Housing also represents the main capital asset of most low/moderate-income families. Households leverage this asset in many ways - for example by renting out rooms and conducting home-based businesses – and use it to cushion the impact of job change and illness.

Microfinance of housing can become a critical component of government policy and program goals given the fiscal constraints of most developing countries. Few governments can afford to grant ample per-unit subsidies for complete homes. Nevertheless, the politics of this approach continue to beguile many. Elected officials love to cut ribbons to inaugurate new, complete housing units to the few happy families fortunate to receive them – sometimes, the political allies or friends of influential leaders.

BOX 2: MUTUAL LA PRIMERA

With a gross portfolio of US\$112 million, La Primera is the largest housing lender in La Paz, reaching low/moderate-income borrowers with its mortgage loans. An estimated 40% of its borrowers have family income of less than US\$500 per month, while its low-income clientele earns as little as US\$250 per month. The Mutual has three mortgage rates from 12.5%-13.5%, all less than commercial banks rates of 14.5%-18.5%. Inexpensive funding sources consisting of savings and retained earnings explain this differential.

Low-income borrowers generally seek loans of approximately US\$3,000, although they can access larger amounts as long as they meet the basic 30% payment to income ratio. La Primera's loans meet the needs of low/moderate income borrowers through: 1) longer terms at a maximum of 15 years, which reduce payment amounts 2) free legal and appraisal services, and 3) loan advances of up to 70% while waiting for title processing.

To address the needs of low-income borrowers La Primera may require supervised construction. For example, its architect helps borrowers break down their plans to finish one room or construction segment at a time. This prevents the undertaking of large projects that cannot be completed within a reasonable period of time or within the project budget. It also reduces the risk of construction lending by permitting the Mutual to make progress payments - generally 40%, 40% and 20% as the work is completed.

Despite its successes, La Primera funds most of its operations from savings accounts with terms of less than one year, resulting in serious term risk on its 15-year mortgage portfolio. The market currently has no mechanism to help hedge this risk. One of the key challenges for the newly developed Bolivian National Finance Company (NAFIBO) will be to provide access to long-term funds for maturity match purposes.

Traditionally, governments have delivered these large per-unit subsidies in the form of below-market interest rates. In Latin America, the money for these programs has typically come from social security schemes that, in practice, resemble salary taxes. Examples include the Ley de Política Habitacional in Venezuela, NHT in Jamaica, FGTS in Brazil, and INFONAVIT in Mexico. With funds from these salary taxes cum social security schemes, government housing agencies have often hired large contractors to build subdivisions en masse.

This traditional mode of social housing finance has proved extraordinarily pernicious, exhibiting low coverage and transparency. Below-market interest rates make the amount of the subsidy delivered variable, and therefore unclear. They also result in a regressive system in which higher income households and larger units receive a greater benefit. In addition, below-market interest rates distort the financial sector, complicate securitization of the resulting assets, augment construction costs, and eliminate consumer choice in the location and type of unit. As the subsidy amount is generally high, salary taxes cum social security schemes typically reach only a small fraction of contributors, leading to unequal coverage and eventual decapitalization.

Hence, donors and governments in Latin America and elsewhere have shifted to direct demand subsidies – grants to low-income households that these families can join with a private-sector mortgage and their own downpayment to finance the construction or purchase of the unit of their choice. These direct demand subsidy programs represent a great advance over the traditional mode. The subsidy amount is clear and better targeted, households have choice over unit location, and construction is less expensive.

Direct demand subsidy programs, however, run up against the problem of lack of private-sector debt finance. As traditional mortgage finance ill suits the low/moderate-income clients of these programs even with the debt service and loan-to-value ratio reduced by the subsidy amount, financial institutions often refuse to lend to them. Hence, many low-income households have difficulty completing the financial package necessary for funding their units.

Hence, these programs must often use stopgap measures with many drawbacks to attempt to put the debt-finance piece in place. In Chile – where direct demand subsidy programs started – the government now lends directly to low-income households, with the predictable result that many do not pay back the loan. Sometimes, as in the IDB housing pilot program in Venezuela, the direct demand subsidy is increased to remove the need for debt finance. However, this strategy results in higher subsidies and lower coverage – the same vice of many traditional programs. Microfinance potentially adds the critical debt-finance piece that is either missing or precarious in most direct-demand housing subsidy programs

In summary, housing microfinance fits the incremental building process that largely constructs developing country cities, expands the market for and reduces the inherent term-risk of home lending, and adds a critical missing piece to housing subsidy programs. The main challenge shared by all microlending, is the profitability problem– how to make small loans profitable for financial institutions - as discussed further in the Section IV.

III. THE MICROENTERPRISE FINANCE PERSPECTIVE

Over the past three decades, a substantial network of microenterprise lenders and support organizations has spread throughout emerging and to developed countries. Microenterprise lending started with subsidized directed credit in the 1960s. By the 1980s, more modern methods emerged as microfinance institutions realized that donor funding to subsidize start-up and operational expenses would be limited, and honed their operation to lower transaction costs, expand their lending, and achieve financial sustainability.

By the early 1990s, cutting edge microfinance institutions (MFIs) had become profitable. Sophisticated microfinance NGOs increasingly became banks (as BancoSol in Bolivia), or finance companies (as Caja los Andes in Bolivia) by augmenting their capital bases and submitting to supervision by bank superintendencies. In the half of the 1990s, commercial banks, such as Banco de Desarrollo in Chile, and Scotia Bank in Guyana have started microfinance lending, while other financial institutions have come to serve both the microenterprise and traditional commercial sectors, such as Banco Ademi in the Dominican Republic. Banks now exceed other originators of microenterprise loan volume in some countries such as Chile and Bolivia. Credit unions, provide nearly US\$2 billion to microenterprises in the region and rank second to banks in lending to low-income clients (Westley, 2000). The future of the field lies increasingly with regulated financial institutions

Microfinance of housing will likely experience a similar start-up period. However, the institutional infrastructure and techniques of microenterprise finance can boost ramp-up of housing microfinance if the field gears up for this new practice.

Three fundamental arguments exist for expanding current microcredit programs to include housing. First, microenterprise lenders already extend credit de facto for housing. Fundamentally, microfinance supports the household economy of microentrepreneurs. The home typically provides the physical plant for business. Although loans are ostensibly for the enterprise, households often also spend funds also on emergencies and ongoing household needs such as housing improvements. Many microenterprise loan programs find that roughly 20 percent of their lending goes de facto for housing. A few – such as FIE in Bolivia - have explicitly recognized this reality and already started lending for housing, often by simply using the same instrument as that for microenterprise credit.

BOX 3: FINANCIERA CALPIA

Since becoming a regulated financial institution, Financiera Calpiá has disbursed more than 175,000 credits in El Salvador. The institution maintains more than 29,000 active loans of an average loan size of \$758. Calpiá initiated a housing loan program two years ago, recognizing client demand for intermediate-term financing as well as the financial system's failure to meet the national need for housing improvements. As of December 1999, housing loans were 5.4% of the total portfolio or 255 credits for US\$1.2 million.

Housing improvement loans can be a maximum of US\$5,000, although terms vary with the type of guaranty. Eligibility requirements dictate that borrowers must have title to their homes or be engaged in the titling process, as well as continuous business activity for a period of one year. The average size of the homes being financed is 70 m² on lots of 100 m², with investment generally being channeled into the addition of basic services, additional rooms, reinforcement or addition of surrounding walls, and home related workspace.

While rates depend on the underlying collateral, they are less than that of the microenterprise portfolio with a maximum of 42%. Loans with a mortgage guaranty have a 5-year maximum at 21%. If other assets provide the guaranty, loans have a 3-year maximum at 27%. Monthly payments may not exceed 25% of family income, implying average family income of US\$255. Because a mortgage lien carries additional notary and registry expense of US\$45 or more, as well as transaction costs such as additional processing time, it is more appropriate for borrowers seeking larger loan sizes and longer terms.

In a study last year, the majority of housing loans were for US\$1,700 over 3 years at 27%, given their personal guaranties. Borrowers used the financing to build another room and provide additional security to their home, after which they fixed roofs or made superficial improvements such as painting. While 93% used the loans in accordance with the budget presented to the analyst, a majority faced cost overrun on their projects for reasons including materials and labor price increases. Despite these shortfalls, almost 80% of clients completed their project within three months. Borrowers tend to be married female entrepreneurs living in urban areas; over 90% had operated commercial businesses over the past 4 years.

Calpiá anticipates that profitability will come with greater outreach. For example, rural demand for housing loans has been less than anticipated due to inadequate tenure, difficult budget projections, and the cyclical demand for credit in rural areas. Arrears rates have been less than the microenterprise portfolio (0.5% > 30 days past due 12/99 vs. 4.5% as of 6/99), attesting to the relative security of the guaranty, however only a few housing loans have already reached maturity. This should be weighed against the reduced portfolio rotation involved in intermediate-term credit. Calpiá promotes increased disbursement of housing improvement loans through incentives for their credit analysts; their proportion has been and should continue to increase.

Second, housing microcredit potentially represents a huge new market for microfinance programs. In countries where the microcredit business has become crowded – such as Bolivia and El Salvador – MFIs are already diversifying into housing loans. At first, they lend mainly to their existing microenterprise borrowers. With experience, they start lending to others.

In Bolivia, Cooperativa Jesus Nazareno offers its established microenterprise a solidarity loan product for lot purchase and unit construction. Knowledge of the product has spread through word-of-mouth without advertising, and the institution has a huge waiting list of current borrowers who would like to graduate to this housing credit product. The Cooperative Housing Foundation has developed a manual for existing MFIs interested in incorporating a home improvement loan program (CHF, 1999).

This diversification, however, has only barely begun. The potential market for housing microfinance loans is massive because the client base consists of the low/moderate-income majority who house themselves through incremental construction of their units currently without access to formal-sector finance. Developing country home ownership rates are often relatively high because most households cannot afford to rent and rental markets are extremely thin. The property ownership rate, for example, is 85% in Bangladesh and Nicaragua, and 79% in Mexico, compared to 69% in the United States and Canada. The result is enormous untapped effective demand for housing microfinance credit, particularly for home improvement loans.

Thus, the microfinance of housing can be crucial to reaching the scale required for MFIs to become financially sustainable. There are interesting parallels here with developed countries. In the U.S., for example, community development lenders have built their portfolios overwhelmingly on housing loans. The most publicized example is South Shore Bank, which built its business on mortgage lending to African-American rehabbers of apartment buildings – the main housing stock of the South Shore of Chicago. The great bulk of the portfolios of most U.S. Community Development Finance Institutions (CDFIs), however, also consist of affordable housing loans (Ferguson, 1994).

IV. PROBLEMS AND SOLUTIONS

In principle, then, microfinance of housing has critical virtues. Why is this practice not better known? Why does it have yet to reach scale?

The main obstacle to housing microfinance is quite familiar to microenterprise and housing finance practitioners alike: profitability. Lenders earn more and do less work making larger loans to middle and upper-income households, than small loans to low/moderate-income households. The profitability challenge has five important aspects: cost vs. affordability; term mismatch and interest rate risk; underwriting; technical assistance; and loan security and collateral.

Cost versus affordability. Interest rates for microenterprise finance are generally set much higher than the prime rate available to larger, more established clients – see Appendix A and Appendix B. Research and practice has shown that microentrepreneurs value quick access much more than cost, and can pay high rates.

No similar consensus has developed in the housing finance field. Housing advocates, financial institutions, and governments in developing countries still often assume that low/moderate-income households must receive interest rates at or even below those extended to middle and upper-income households. The widespread use of below-market interest rates as the form of subsidy for housing reflects this perception. Rates that are substantially above those for large, long-term mortgages to upper-income households often continue to be viewed as unethical and produce bad press. For example, PROA, an NGO that developed a housing microfinance program in El Alto, Bolivia (Ferguson, 1999), had to accept margins below those necessary to break even on funds lent from financial institutions because these lenders considered these low rates suitable for “social housing.”

The rate conundrum requires some basic research to reach firmer conclusions. The insistence on low rates may represent a prejudice of the housing and housing finance community, largely inapplicable to microfinance of the incremental building process. If homes are built in stages, the smaller loan amounts may well allow more price flexibility, as with microenterprise finance. However, cost could be more important than access to credit for some portion of low/moderate-income home borrowers.

In practice, successful microfinance of housing programs have solved this problem by methods familiar to finance practitioners: raising interest rates, cutting costs with technology, and expanding scale to spread fixed costs over a wider asset base. Concerning rate, FUNHAVI - a housing microfinance project operated by an NGO in Juarez, Mexico assisted by the Cooperative Housing Foundation - charges borrowers about 30% annually for loans with terms up to 3 years. This is substantially above rates of 23% offered by commercial bank mortgage lenders

Term mismatch and interest rate risk. Unlike microenterprise finance, housing finance often carries some term risk. The challenge faced by MFIs and other providers of housing finance is twofold. First, longer-term loans contribute to credit risk, because of the increased likelihood of borrower default over time. Second, for financial intermediaries largely funded by deposits, longer-term assets result in term mismatch.

Most financial institutions in developing countries cannot enter into derivatives contracts to offset interest-rate risk, particularly the smaller institutions more apt to serve low-income borrowers. MFIs can deal with this problem by lending at variable rates. However, variable rates allocate much of the interest rate risk to borrowers, whose income may fail to keep up with inflation-adjusted housing payments. An interest rate spike increases borrower default, shifting some of the risk back onto the financial institution.

Microfinance institutions are also often severely constrained in their sources of funding for long-term liabilities. MFIs that give intermediate or long-term loans have only a few options: 1) promote fixed-term depository accounts such as certificates of deposit; 2) seek concessional funding or long-term deposits from donor or second-tier government agencies; 3) finance the housing portfolio out of other capital (equity and retained earnings); 4) seek commercial bank loans at market rates; 5) bear the risk of a bank run and consequent liquidity crisis or institutional failure; and 6) securitize their portfolios. Most institutions tend to rely on the first three solutions to this problem. Commercial bank financing is generally prohibitively expensive for funding a profitable and competitive housing product.

Based on 40 cases, housing microcredit frequently exhibits loans with terms from two to ten years. Intermediate-term liabilities may or may not be available on local markets for the bottom part of this range. Genesis Empresarial in Guatemala has a small portfolio of home improvement loans with average terms of two years. Despite strong local demand for this product, the lack of availability of long-term funds constrains the organization's ability to meet that demand. Some institutions, such as the NGO Fundación Pro Vivienda Social in Argentina, simply avoid term risk by match funding loans with very short-term liabilities, thus closely mirroring the terms of traditional MFIs. The average loan term of Fundación Pro Vivienda Social is 8.5 months, which is appropriate given very low average loan balances of US\$484.

Fixed-term liabilities are generally unavailable at the high end of this range, from seven to ten years. The ability to provide longer-term financing depends on country context. For example, El Salvador has a relatively stable macroeconomic and financial environment resulting from the economic restructuring and stabilization reforms enacted over the past five years. Low inflation reduces risk for financial institutions with fixed rate contracts, and both borrowers and financial institutions engage in variable rate contracts. Thus, Financiera Calpiá – a Salvadoran microfinance lender - is able to provide fixed-rate housing improvement loan with terms of up to five years, and is in the process of developing a program with FUNDASAL involving loans amortized over 12 years (see Box 4).

The growing pool of long-term liabilities in emerging countries holds potential to diminish the term mismatch problem. Booming formal financial markets mean that pension funds within developing countries are amassing large sums. In Chile, for example, private pension funds now manage US \$30 billion. However, the managers of these pension funds are, appropriately, more risk averse than their counterparts in advanced countries. Hence, they require solid proof from housing and microlenders that their assets are, indeed, secure.

Rather than reducing the average weighted term of assets through housing microfinance, some countries seek to reduce the cost of primary market mortgages or extend financial sector liabilities through secondary market development. Secondary markets institutions in the U.S. such as Fannie Mae and Freddie Mac represent an alluring model that channels immense sums into housing. The history of U.S. secondary markets and a sense of their developmental impact, however, are often forgotten. Most fundamental, an immense, healthy primary market existed in the U.S. before the secondary market began to take off in the 1970s. The secondary mortgage market's impact on interest rates for conventional loans ranges results in savings from 0.25% to 0.50% (25 to 50 basis points). Although this slight rate advantage helps the secondary market out-compete many portfolio lenders in the U.S., it does not represent a large developmental impact.⁸ Greatly expanding the primary market through housing microfinance to the low/moderate-income majority has enormous benefits in countries with or without a secondary market.

More importantly, the secondary market better allocates the risk of mortgage lending to investors. Thus, countries that have developed large pools of long-term savings without other important conduits for placing these funds in housing may be able to benefit greatly from secondary markets in housing. In addition, secondary markets may prove vital in the resolution of liquidity and term mismatch problems. Models that are simpler than Fannie Mae or Freddie Mac – such as the Federal Home Loan Bank System – may prove more applicable to developing countries that can benefit from secondary market development.⁹ For example, the Dominican Republic maintained a successful secondary mortgage market until the mid-80s. By placing Savings and Loan portfolios on the secondary market, primary lenders transferred the term risk to investors that could better bear it. This context facilitated affordable housing finance, as borrowers could reduce their payments by extending loan term.¹⁰

Credit analysis. Like microenterprise lending, microfinance of housing requires that lenders cut costs to a minimum and reach scale to achieve financial sustainability. In particular, efficient underwriting methods can help loan officers maximize their customer portfolios. The most successful microfinance institutions have achieved dramatic success in boosting their ratios of loans per credit officer. Financiera Calpiá increased this ratio by 22% over just three years. Many mortgage lenders in developing countries still have loan processors and officers who underwrite credits manually. However, the better housing microfinance originators have automated this process by entering information into computer models that assess households' ability and willingness to pay.

Ability to pay is generally measured using a maximum loan payment-to-income ratio based on household earnings. Willingness to pay is often measured using credit or depository history with the financial institution, augmented by other sources including judicial records, credit bureaus and collateral. In many emerging countries, real property guarantees for small loans often serve as more of a psychological tool than an enforceable contract to repay, given the expensive and time-consuming process of foreclosure. For example, in Bolivia, both Mutual La Primera and Cooperativa Jesus Nazareno indicated an unwillingness to foreclose on property for loans under US\$1,000, given the legal expenses involved. In addition, the assumption of a home as an appreciating asset does not always hold true for low-income borrowers, who may face property devaluation in deteriorating neighborhoods (Scanlon, 1996). Finally, the market for low-income housing is often thin, particularly during times of economic shock when foreclosure becomes more likely.

The next large step in streamlining the underwriting process may be credit scoring, a practice that has revolutionized home lending and small business lending in industrialized

countries in the last half decade. Essentially, credit scoring means that the lender uses a statistical model (that incorporates significant characteristics of the borrower and the loan) of the lending experience to a large group of borrowers in order to rate the risk of lending to a particular borrower. The resulting credit score is a number on a scale that quantifies this risk.¹¹

Credit scoring depends heavily on credit information provided by centralized credit bureaus. Although still relatively scarce in many emerging countries, credit bureaus are a fast growing business. MFIs such as FAEP in Juiz de Fora and CEAPE in Pernambuco are able to run credit checks on even informal sector borrowers, giving them an important indicator of willingness to repay and past repayment history. Credit scoring is still impractical in most contexts, due to access costs and the lack of centralized information about all sources of debt.¹² However, as in developed countries, it holds great potential to cut costs, more accurately assess and price risk, and eventually move downmarket - thereby making microfinance easier to sustain and, ultimately, securitize.

Technical assistance. Traditional mortgage finance in developing countries funds the purchase of complete, newly built standard units. These loans are easy to process and require little hands-on technical assistance. Because housing microcredit funds self-help home improvement and expansion as well as new or progressive construction of basic core units, it may require additional technical assistance. This technical assistance includes review and evaluation of home improvement plans and costs, title verification, construction monitoring, and the use of progressive payments based on construction inspections. Without this support, borrowers may exacerbate already precarious living conditions by failing to meet technical specifications or finish their project.

Thus, housing microfinance lenders may require supervision or technical assistance to diminish the project risk. In addition, housing microlenders must often orient borrowers in selecting contractors and developing construction plans. This technical assistance risks imposing substantial costs on the financial institution that cannot be borne by the margins expected of home lending

PROA in El Alto, Bolivia dealt with technical assistance by requiring that borrowers contract competent local building contractors and architect, and paying for and these services as well as for providing information to the lender. Alternatively, financial institutions sometimes use NGOs to provide this construction-related technical assistance as well as package loans at much lower cost. In a program for lot purchase and new housing construction, Financiera Calpiá will have FUNDASAL, a housing NGO, undertake the promotion, pre-selection and community organization of clients for the mutual-help construction of 1,600 units (see Box 4).

Many MFIs diversifying their portfolios through housing loans manage the additional technical assistance in a similar fashion. Institutions contract out a construction or architectural firm to train credit analysts over a period of a week. This training involves estimating construction and labor costs and some project evaluation. When borrowers bring in their self or contractor-prepared project budget, analysts have ready comparative data. In contrast, other financial institutions that work with low-income housing borrowers keep a specialized architect on staff to make site visits and review construction plans. BancoSol in Bolivia will use this second model with its new housing product.

However, the microenterprise finance field has evolved in a minimalist direction because of the drive for financial sustainability and because microentrepreneurs typically need credit much more than counseling. When training is offered, it is generally through expensive state or

private training institutes, but sometimes through voucher or cost-sharing programs that assume the borrower can best assess his or her own needs. As a result, some microenterprise programs that also lend for housing solve this problem by using the same underwriting procedures and loan instrument – that is, they treat housing microcredit as just another aspect of lending to the household economy, and leave the borrower to deal with the technical aspects. Caja los Andes, in Bolivia, originally planned to offer housing microfinance on exactly the same terms as its microenterprise finance in order to maintain the volume that has driven its success. Subsequently the institution has made the decision that housing product differentiation with supervision can be more profitable than microcredit volume without supervision.¹³

Raising interest-rate margins and, with them, revenues offers another option for dealing with technical assistance costs.

Loan collateral and security. Many microenterprise programs still use solidarity groups to enhance credit. However, the trend is toward making individuals rather than groups responsible for repayment. Home loans represent a particularly secure variety of microcredit. Households (in particular, low-income households) place an extremely high value on their homes, while mortgage liens and para-legal rights to the property secure lenders. As a result, single-family home lending has had very low rates of default and has proved a highly stable asset in most contexts. For example, during the economic contraction in Bolivia, Cooperativa Jesus Nazareno has seen arrears rates on its microenterprise credit portfolio increase to double those of its housing loan portfolio, secured by mortgage liens (see Box 5). Arrears rates on commercial and corporate loans of other financial institutions greatly exceed both.

Microfinance of housing programs rarely use collective guarantees for two reasons.¹⁴ First, housing lenders work in many communities. Thus, the peer pressure created by programs that focus intensively in one neighborhood or village are largely absent. Second, the larger loan amounts and longer terms of a housing loan impose greater risk on other members.

Traditional mortgage loans require a lien on full legal title of the property. Many low/moderate-income households are unable to provide this security. Many lots come originally from land invasions and are then passed down through a series of owners who transferred their right to the property with bills of sale. Depending on the country context, these owners may enjoy de facto or para-legal security virtually as great as those with full legal title.¹⁵ Frequently, although households have perfectable rights to their land, the title regularization process requires amounts of time, sophistication, and money that low-income households lack. Some housing micro-lenders work quite successfully with para-legal title and other forms of ownership. For one of its housing products, Cooperativa Jesus Nazareno holds property titles in its safe (see Box 5). Although this has no legal value, it has the psychological value of a lien. In South Africa land tenure is such a problem that housing microfinance uses the only available collateral of low-income households, their pension funds, as security.

Others institutions avoid seeking a mortgage lien due to the problems, time, and costs involved. For example, Fundación para la Vivienda Cooperativa in Honduras uses a personal guaranty and a contract called a pagaré, enabling the creditor the legal right to garnish wages or seize personal assets when loans are delinquent. SEWA Bank in India does not require that its clients have land tenure, but does require that the asset be put in the name of the female borrower due to their higher repayment rates. Mutual La Primera in Bolivia will disburse up to 70% of the total loan amount before completion of the lengthy process of inscription in the property rights registry. Other institutions differentiate rates by security interest, charging lower rates for borrowers with a mortgage lien.

BOX 4: FUNDASAL AND CALPIA JOIN TO FINANCE HOUSING IN EL SALVADOR

FUNDASAL provides financing for microenterprise, women's collectives and agricultural assistance, while running a construction materials production center, and financing mutual-help construction projects. The organization generally implements projects specific to donor funding requirements, delivering 25,000 housing solutions in the country for the World Bank, KfW, GTZ and the IDB.

El Sauce is one such donor project, channeling KfW resources through a regulated financial institution. El Sauce seeks to develop and finance housing for 1,600 low-income households in Sonsonate, where Financiera Calpiá maintains a branch office. By allowing FUNDASAL to focus on promotion and community organization and Calpiá to administer the portfolio, the project leverages the strengths of both institutions. FUNDASAL will promote and preliminarily qualify 2,100 low-income families that earn US\$200-US\$400 monthly. Calpiá will select borrowers from this group in accordance with its own financial and risk criteria.

Beneficiaries selected by Calpiá must save. Over 18 months, clients deposit a monthly amount in a term savings account equivalent to their payment under the loan. The period of client payment observation mitigates credit risk for Calpiá, giving it a strong indicator of willingness and ability to repay the loan, upon which to base an ultimate credit decision. Real property guaranties provide additional security, further mitigating credit risk. Borrowers will also receive a one-time progressive subsidy to assist in the overall financing of three basic housing units, which vary in size and cost. Lots will be 78 m², permitting the borrower to expand a basic unit to up to 32 m² using mutual-help construction techniques.

The program benefits both institutions. The longer terms of the project will offer Calpiá portfolio diversification, mortgage guarantees, new clientele, and access to intermediate-term savings during the period of required savings. Because the most costly transaction when dealing with the microenterprise sector is the initial application and credit analysis, El Sauce will effectively allow Calpiá to pursue future business with borrowers whose reliability has been established. Advantages for FUNDASAL include improved portfolio administration and collections in the face of growing delinquency rates in its other projects. Enforcement is important for institutional sustainability and to ensure ongoing respect for the rule of law within the developments.

In many contexts, however, perfecting title continues to be critical to giving households the security to invest in their homes. In these environments, housing microcredit programs typically include the cost of the process within the loan and, sometimes, assist households in the process. In El Salvador, FUNDASAL offers land regularization loans to communities in which the NGO negotiates the purchase price from the original owner, acting as an intermediary between property owners and long-term occupants.

If limited government subsidies for housing are available, they are often best targeted to the widespread regularization of title necessary to expand the market for microfinance and to stimulate the incremental building process.

The overall experience of housing microfinance with repayment varies. Many programs have achieved rates comparable to best practice in microenterprise finance and equal or above those of lending to middle and upper-income borrowers. In Costa Rica, for example, Mutual Alajuela has experienced lower arrears rates for low-income families participating in the national Family Voucher Program (*bono familiar de vivienda*), than in the rest of its housing portfolio.

Other microfinance of housing projects have been conceived largely as social programs for the poorest. The institutions that run these programs, characterized as shelter advocacy groups, have omitted the mechanisms for high cost recovery and, not surprisingly, recovered modest amounts.¹⁶ Many of these programs target a poorer population than that served by MFIs, a group with lower debt service capacity that must be served by a higher portion of subsidy.

BOX 5: COOPERATIVA JESUS NAZARENO

Cooperativa Jesus Nazareno represents 30% of the total capital of the cooperative system in Bolivia. Housing loans including land purchase, home construction, additions and improvements make up of 65% of its US\$47 million portfolio. Of these, approximately 9% of the institution’s portfolio are housing loans for low-income borrowers, financing units of roughly 70 m².

The institution is capitalized by mandatory savings of a percentage of loan value, which may be financed out of loan proceeds, as well as annual membership deposits. While lower arrears rates and reduced provisioning expense make longer-term housing loans attractive, management cannot extend loan terms due to maturity mismatch regulations of the Bank Superintendency. Lengthening loan maturities is a key to reaching lower income populations with the individual housing credit product, although the individual microcredit product functions well for some home improvements and expansion.

One of Jesus Nazareno’s most interesting products is a pilot project of housing microcredit with a solidarity group guaranty. Minimal paperwork requirements avoid the costly process of creating a mortgage lien; instead, clients deposit their titles at the Cooperative until they have repaid the loan. Clients purchase an unserviced lot of 360 m², and begin construction of the first segment of their progressive housing (9-12 m²) to avoid land invasions on the empty plot. To expedite this construction, Jesus Nazareno provides a US\$1,000 loan, disbursed directly to a construction company, for one of three basic model units.

Although this product is in its pilot stage, word of mouth advertising has led to a surge in demand and long waiting lists of interested borrowers. The Cooperative has envisioned using this as an incentive for repayment of microenterprise loans, rewarding commercial borrowers with access to intermediate-term housing finance. If clients fall into arrears, they can transfer payment responsibility to another household, negotiating reimbursement for past payments. See the product description below.

BOX 5: COOPERATIVA JESUS NAZARENO

Housing Products & Rates

Product	Definition	Max. Amount	Rate US\$	Rate Bolivianos	Max term
Housing	1-Traditional mortgage lending as defined by the Superintendency of Banks, secured by a lien on the property being financed. Required for loans over US\$4,500	US\$30,000	18%	25%	5 yrs
Microcredit (individual)	2- Personal guaranty, acceptable for amounts up to US\$4,500	US\$4,500	18-23%	25-28%	2 yrs
Microcredit (solidarity)	3-Guaranteed by a solidarity group, through which the borrower diverts resources to home improvements; as much as 50% of these loans go to home improvements.	US\$3,000	34%	N/A	1-2 yrs
Microcredit (housing)	4-Microcredit with a solidarity group guaranty for land purchase and housing finance.	Pilot 1:US\$3,200 Pilot 2: US\$1,780	30% 20%	N/A	2 yrs 5 yrs

Examples of these institutions include Casa Melhor in Fortaleza, Brazil and Fundación de la Vivienda Popular in Venezuela (Serageldin et. al., 2000).

In summary, microfinance of housing often fits the mission and business needs of microenterprise lenders. The central challenge – achieving profitability – is a highly familiar one to practitioners of housing finance and microenterprise finance alike. Nevertheless, the technical, institutional, and funding base for microfinance of housing displays differences from

both and requires strengthening for this practice to realize its potential. The final section of this paper deals with this theme.

V. AN AGENDA FOR DEVELOPING THE FIELD OF HOUSING MICROFINANCE

The development of housing microfinance is likely to bear some resemblance to that of microenterprise finance. It may take substantial time to reach consensus on best practice and expand to achieve a sustainable scale. An institutional infrastructure of microfinance institutions and macroeconomic stabilization (that has reduced inflation and made housing finance, in general, possible) in many countries, however, may telescope this process. The process will require further research and pilot projects, as well as full-blown programs.

Research. Housing microfinance practice is still in the stage of “letting 1,000 flowers bloom.” Various papers compile and describe profiles of the many varieties that exist (Mitlin; Serageldin; USAID, 2000). Analysis has yet to define best practice. Indeed, best practice may differ depending on the income group and institutional context. At this point, more profiles of experience continue to have some usefulness. However, much more important are in-depth analyses of cases that display the crucial virtue of financial sustainability. It is critical to document and analyze how cutting edge practitioners make their operations profitable.

For example, the larger loans (relative to microenterprise finance) required for housing microfinance may result in debt service payments that a substantial portion of the target clientele of low/moderate-income households cannot afford. The market for housing microfinance loans is an empirical question that will vary among countries and regions within countries with the cost of building materials, the extent of distortions in housing and land markets, household income levels and distribution, and loan terms. Hence, a simple study, such as that outlined by the Cooperative Housing Foundation, is essential to determine this market in a particular context prior to structuring a housing microfinance initiative (CHF, 1999).¹⁷

The range of existing practitioners goes substantially beyond those represented by the current literature. Current studies deal mainly with NGOs and, to some extent, financial institutions, particularly MFIs, credit unions, and cooperatives. However, some of the largest scale, and most sustainable housing microfinance are likely to come from low/moderate-income land subdividers and from building materials suppliers. In some circumstances, consumer credit from such firms may work as well or better than that typical of microcredit originated by NGOs or financial institutions.

Such detailed financial studies are the prerequisite to pilot projects in contexts with no existing practice of housing microcredit. Such studies can demonstrate to the managers of financial institutions, NGOs, subdividers, and building materials supplier firms that housing microfinance can work.

Policy changes. Many of the policy changes that facilitate microenterprise finance are similar or identical to those of housing microfinance. These include programs making it easier for financial institutions to take a mortgage lien as collateral on a small loan, as well as better informational infrastructure making risk assessment and pricing more accurate. Centralized real estate registries, national credit bureaus and title regularization subsidy programs would all contribute to these efforts.

Other regulatory changes are specific to housing. These include reform of planning and construction standards that facilitate low-cost land development similar to those found in El Salvador. In addition, secondary market mechanisms can provide financial institutions with valuable liquidity and help them manage term risk.

Pilot Projects. Experimentation with a range of institutions and support in pilot projects is essential at this early stage in the development of housing microfinance. These mechanisms could include many of those used in microenterprise finance, such as technical assistance for institution building, capitalization of proven microfinance entities to expand their programs, bank/NGO partnerships, and windows within central institutions – such as Central Banks – to discount microenterprise loans by qualified originators. Support for building materials suppliers and low-income subdividers should be explored among these pilot projects. Assistance specific to housing finance, such as reduced provisioning requirements for home lending to low-income populations, may help jump-start the sector.

A particularly promising avenue is the incorporation of housing micro-loans into the programs of successful microenterprise lenders. As noted, roughly 15-20% of their loans typically go for housing de facto. These lenders could formalize a housing credit product, make it available first to their microenterprise customer base, and then extend it to other qualified households. Advantages for MFIs include portfolio diversification, mortgage liens, real collateral guarantees, and a new clientele. In general, bank clients prefer to undertake all their transactions within a single institution. Providing a product with such clear demand gives MFIs an advantage in newly competitive microcredit markets, while rewarding clients who have successfully repaid microenterprise loans. On a systemic level, portfolio diversification helps avoid the concentration of housing lending in large specialized financial institutions with term mismatch problems.

Pilot projects could also provide assistance for mortgage lenders to go downmarket, partly through adopting the practices of NGOs specialized in microfinance. With the profitability of housing microfinance demonstrated, commercial banks and others may find this lending attractive. In El Alto, Bolivia, for example, Mutual La Primera originally worked with an NGO, PROA, and learned the techniques of housing microfinance. When PROA failed to bring in creditworthy customers, La Primera expanded its outreach, opening branches in several low-income neighborhoods including El Alto. In addition, the Mutual realized the special needs of these customers, offering loans for housing improvements and providing supervised construction to ensure project completion.

Programs and widespread dissemination to the private sector. The best practices that emerge from pilot projects can serve to develop programs and disseminate housing microfinance widely. The first programs best occur in countries with a rich institutional infrastructure of microlending, and a relatively stable financial sector and macro-financial environment. Candidates include Bolivia, India, the Dominican Republic, and parts of Central America.

As microenterprise lending, housing microfinance is likely to graduate from NGOs to regulated financial institutions in order to achieve sustainable scale. In turn, strengthening subdividers and building materials suppliers ability to provide such credits may, at times, work better than starting microfinance programs in either.

BIBLIOGRAPHY

Cooperative Housing Foundation (CHF). *Incorporating a Home Improvement Loan Program; A Feasibility Assessment Guide for Micro-Finance Institutions*. Silver Spring, MD. Undated.

ESCAP. *Guidelines on Community Based Housing Finance and Innovative Credit systems for Low-Income households*, United Nations, ST/ESCAP.1003. 1991.

Ferguson, Bruce “Micro-finance of housing; a key to housing the low or moderate-income majority” in *Environment and Urbanization*. London. 1999.

Ferguson, Bruce. “The environmental impacts and public costs of unguided informal settlement; the case of Montego Bay” in *Environment and Urbanization* vol. 8, No. 2, October 1996.

Ferguson, Bruce. “The Community Development Financial Institutions Initiative” in *Economic Development Commentary*. Journal of the National Council for Urban Economic Development. Washington, D.C., Summer 1994.

Fleisig, Heywood. *Secured Transactions: the Power of Collateral*. Center for the Economic Analysis of Law (CEAL). Washington, DC: 1997.

Hardoy, Jorge E. and David Satterthwaite. *Squatter Citizen: Life in the Urban Third World*. Earthscan Publications, London: 1989.

Hoek-Smit, Marja, Douglas Smit and Claude Bovet. *Housing Finance and Housing Subsidies in Barbados*. Prepared under contract with the Government of Barbados for a contract of the IDB. May 1998.

Inter-American Development Bank. *El Salvador Housing Program: Profile II*. January 2000.

Mitlin, Diana. *Reaching low income groups with housing finance*. International Institute for Environment and Development. London: Undated.

Scanlon, Edward. *Homeownership and its Impacts: Implications for Housing Policy for Low-Income Families*. Washington University, Center for Social Development. Working Paper No. 96-2. St. Louis: 1996.

Schor, Gabriel and Tschach. *Estrategia para mejorar la situacion habitacional de la poblacion de bajos ingresos en El Salvador*. IPC, October 1999.

Serageldin, Mona and John Driscoll et al. *Housing Microfinance Initiatives, Regional Summary: Asia, Latin America and Sub-Saharan Africa with Selected Case Studies*. Center for Urban Development Studies Harvard University Graduate School of Design for USAID Best Practices. January 2000.

Westley, Glenn and Brian Branch, eds. *Safe Money: Building Effective Credit Unions in Latin America*. Johns Hopkins University Press. Washington, DC: 2000.

ENDNOTES

¹ This number varies dramatically depending on the country in question. In El Salvador approximately 23% of households have access to commercial financing, whereas this proportion is significantly smaller for Mexico (10%) and Guatemala (12%).

² For example, squatter upgrading schemes typically must re-arrange around a fifth of the lots and houses in an informal settlement order to build roads, lay water lines, and locate essential community facilities. Some squatters end up siting their settlements on physically or environmentally hazardous sites - on hills subjects to mudslides, over aquifers or along canals that provide the city water, in earthquake prone zones etc. If they are not relocated – a difficult, costly, and traumatic process – natural disasters such as those in Colombia 1986, Central America in 1998-99, and Venezuela this year, wreak immense and costly damage on these settlements.

³ The regulatory authorities of financial institutions in many countries are only beginning to require GAP analysis of this mismatch. The difficulty here is that norms that restrict maturity transformation also confine the provision of long-term credit, affecting business investment.

⁴ Financial institutions in some countries have sought to expand their market through using alternative mortgage instruments – such as double-indexed (to a salary and an inflation index) mortgages and price-level adjusted mortgages. Although these instruments often function for a time, fluctuating macroeconomic conditions can disrupt them and explode the balance sheets of financial institutions. Colombia developed an impressive mortgage market through using a price-level adjusted mortgage while inflation was relatively stable (20-25% per annum from 1978 to 1998). A recent spike in inflation and macro-economic crisis has contributed to destroying the balance sheets of many of these Savings and Loans (Corporaciones de Ahorro y Prestamo), and greatly shrunk the mortgage market.

Mexico has used a double-indexed mortgage that, in principle, indexes payments to household income, the principal owed to inflation, and adjusts the term of the loan to reconcile the two (with any remaining principal forgiven after a maximum term of 30 years). With the crisis of 1994 resulting in the radical devaluation of the peso, borrowers ended up having a substantial amount of their principal forgiven, causing great problems for financial institutions. Commercial Banks, which had come to dominate home lending, experienced arrears rates of 30% in the mid 1990s, and retreated from this type of lending.

In contrast, the shorter term of microfinance of housing reduces the damage to an institution's net worth from abrupt changes in inflation and interest rates.

⁵ For example, the weighted average term of the Banking system's liabilities in El Salvador is less than 180 days. As a result, 71.1% of the system's loans consist of long-term credit, while only 12.4% of its deposits are long-term (Schor 1999).

⁶ This is one reason that BancoSol – a leading microenterprise lending in Bolivia – has recently entered the home lending market.

⁷ If half of the households for which micro-lending is most useful – the middle third of the income range – (a total of 403,000 households representing one-sixth of total households) in a country with a population of twelve million (such as Ecuador) received a micro-loan of US \$3,000 (the cost of a large extension or a small self-help built starter unit in Ecuador), loan volume would total US \$1.2 billion. Microlending is also appropriate and the only alternative

for most households in the bottom third of the income distribution, although a smaller share of these poorer households could be expected to be in a position to borrow.

⁸ As of 5/00, homebuyers save up to an estimated US\$18,7000 over the life of their Fannie Mae 30-year mortgage (Fannie Mae).

⁹ The FHLB system was established initially to provide liquidity to Savings and Loans, although commercial banks can now be members and have come to represent the bulk of member institutions. The Federal Home Loan Banks raise funds by issuing debt instruments in the capital markets. With consolidated debt rated triple A, rates are only slightly higher than U.S. Treasuries. The FHLBs are then able to provide loans, called advances, to members at costs that are generally lower than other wholesale funding sources. Fannie Mae raises funds in a similar fashion, using debt proceeds to purchase mortgages and mortgage-backed securities, supplying lenders with the liquidity to make additional mortgage loans. In 1999, secondary market investors purchased about 62% of all mortgage loans made in the U.S.

¹⁰ Importantly for this structure, investors were given fiscal incentives to buy secondary mortgage debt instruments. For example, mortgage investments were tax exempt, could be used as part of the legal reserve of commercial banks, and were compulsory as assets in insurance companies, all of which helped create a large institutional investment market.

¹¹ Managers can set the cut-off credit score higher to increase loan volume or lower to decrease the overall credit-risk of the portfolio, and to determine the intermediate area between clearly approving and rejecting the loan application where expert human underwriting is necessary.

¹² Often credit bureaus do not include outstanding debt from non-financial institutions such as NGOs or store finance.

¹³ Caja los Andes recognizes that demand for small housing loans already exists, due to the high percentage of microentrepreneurs using microcredit for home improvements. However, a differentiated housing product at lower rates requires monitoring to prevent clients from borrowing for housing and diverting loans back to their businesses.

¹⁴ One notable exception is Cooperativa Jesus Nazareno's pilot program. Although this has only involved 64 borrowers in 16 solidarity groups, demand for the product is high and delinquency has been nonexistent. Several keys ensure product success: real property guaranties without a costly mortgage lien, experienced solidarity groups that are graduated into the product, and the ability to easily transfer the deed to another group member in the event the borrower falls into arrears. In general, if solidarity groups are used, they are experienced clients.

¹⁵ Sixty percent of housing in Caracas is informal (*barrios*). Although most of the property in barrios came originally from invasions, governments no longer eradicate informal settlements. A para-legal system of property registration system has also developed in this city that produces security of tenure virtually as strong as full legal title. An indication is that no difference in price exists between comparable lots with para-legal title and those with full legal title.

¹⁶ Serageldin et al. in their study categorize housing microfinance providers in two groups: microfinance institutions (MCHF) and shelter advocacy groups (SAHF).

¹⁷ CHF, 1999 outlines how such a market study can be done.