THEME 1:
ATTRACTING PRIVATE CAPITAL INTO LOW-INCOME HOUSING MARKETS

MORE THAN SHELTER:
HOUSING AS AN INSTRUMENT OF ECONOMIC AND SOCIAL DEVELOPMENT
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INTRODUCTION[1]

Housing plays a special role in the social and political dialogue in most societies. It is a major component in creating stable and healthy communities and is often the largest single category of household expense. Above all, it is a very visible indicator of social conditions.

Because housing finance is both a key part of the financial sector and a key method for enabling households to expand their effective demand for housing, it has become a focus of attention among policy makers world wide. Since the late 1980s, the discussion has emphasized the development of sustainable private housing finance systems, with the government playing an enabling role in expanding their reach [World Bank, 1992].

In developed markets, the provision of housing finance has expanded greatly over the past 15 years, both in terms of the volume of credit available and the extent of the market served [International Union Sourcebook, 2000]. I large part this reflects an improved macroeconomic environment and increased financial market competition. However, housing finance remains problematic for many households in emerging markets, often reflecting the lack of an appropriate infrastructure and pre-conditions for lending.[2] And even in countries with a long-standing tradition of housing finance, the provision of funds to lower income households is limited or non-existent. The reasons are many – lower income households may not be able to afford housing at market rates of interest and house price, their incomes may not be stable or documented, or their past credit histories may be poor. The risks of providing finance to these households are often seen as too high for private sector lenders to profitably participate.

Despite these obstacles, there is increased interest in and funding for lower income housing markets in many countries. Private sector lenders have found such lending highly profitable if the increased risks can be priced and managed, as evidenced by the rapidly growing sub-prime

[1] Special thanks to Michael Lea, Cardiff Economic Consulting, for preparing this paper for the Bellagio Housing Conference.

[2] For more detail see the Bellagio companion paper, Framing the Issue [2005]

market in the US.[3] Policy makers are justifiably concerned about the housing conditions of lower income households. In an environment with limited public sector resources they are keenly interested in tapping resources mobilized by the private sector for housing and have created novel risk sharing structures to encourage private investment. Non-profit organizations in Europe and the US have long been involved in the provision of housing with key roles in the finance of affordable housing, particularly for rental housing and may have an increasing role to play in the future.

The theme of this paper is how the private, public and non-profit sectors can partner to enhance the finance of housing for lower income households. This is a broad and all-encompassing topic and this paper will attempt to provide a framework for approaching the topic along with examples of successful partnership.

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3 The sub-prime market has also spawned a host of public policy issues involving the exploitation of such borrowers, often referred to as predatory lending. Although not the topic of this paper, a key role of government is the effective regulation of the sector.

SOURCES OF FUNDS

There are essentially four entirely different ways of raising funds for housing loans, (1) private equity, (2) long-term private debt, (3) deposits, or (4) government or government-directed credit [Diamond and Lea 1995]. These are all forms of savings which are looking for a return, be it social or economic. Is there a best way to raise funds depends on the operational costs and the difficulties of risk management.

The earliest housing finance institutions were mutual organizations, pooling the funds of a small group to make loans to members of the group.[4] The funds mobilized by mutuals were equity – that is there were not guaranteed to be repaid at par by the institution but rather depending on the performance of the loans made to the group. This system works well in small group situations – the fact that the members of the group know each other improves information and enforcement. But the pure building society model involves waiting periods to accumulate sufficient funds for loans which increases the opportunity cost of housing.[5] This problem led to creation of modern depository institutions where the borrowers and savers did not necessarily belong to the same group. Depository lenders offer increased availability of funds and economies of scale in both fund raising and lending but the expansion of the group leads to reduced information advantages.

Equity capital is an extremely important component of finance of rental housing, often the most important vehicle for providing affordable housing. Sufficient equity in a project can improve the likelihood and reduce the cost of obtaining a loan. Equity capital can be scarce or non-existent in the presence of rent control or regulations on the return that can be earned by investors. In many emerging markets, such programs can have the unintended effect of diminishing the stock of affordable housing.

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4 Pollock {HFI March 2002]. The mutual savings and loans in the US were based on the UK building society concept with a commitment to the community ideals of cooperation, self-help, savings and homeownership.

5 The German Bauspar system is a modern form of this system. Specialized institutions provide fixed rate loans from the savings of members who contract to save a certain sum over a specified period of time. The system is closed meaning that loan funds are limited to the savings of the members. Loans are rationed by a waiting period that can last up to 7 years. Lea and Renaud, 1994.

Equity investors are critical suppliers of operating capital and bearers of risk in private market systems. As the residual risk takers they require higher returns on their investment than do lenders. Raising equity capital is more costly and problematic for affordable housing due to the greater perceived risk. In developed countries in Europe and North America, non-profit organizations and charitable foundations provide some of this funding. Their mission and membership allows them to accept lower returns than private for profit investors thus lowering the cost and increasing the availability of such housing.

The US has developed an innovative tax program (below) to raise equity capital for affordable rental housing from banks and large corporations.

Raising Equity through the Tax Code

The largest and by most measures the most successful federal multifamily affordable housing production program in the US is the Low Income Housing Tax Credit ("LIHTC" or the "Credit") [Smith 2004]. The LIHTC is essentially a revenue-shared block grant of a tax expenditure that is syndicated to investors to raise equity to develop or acquire property. It represents roughly $4.1 billion annual net-present-cost tax expenditure[1]; and generates 60,000-80,000 new affordable apartments a year, distributed nationwide across a variety of apartment and income types. Since its enactment nearly 15 years ago, it has stimulated production or preservation of more than 1,000,000 apartments. The tax credits are typically sold to banks (where they qualify for CRA) and large corporations. Developers are typically but not always non-profit organizations. The LIHTC is typically combined with both market rate and subsidized loans. The LIHTC is very effective in generating equity which is the major funding issue for affordable housing. However the transactions costs of syndicating the credit are significant making it a somewhat inefficient subsidy.

In most countries today the primary vehicle to raise funds is the deposits of individuals. Such funds are usually short-term, mostly with terms of one year or less. Funding housing in such a manner potentially increases the liquidity risk and the cash flow risk (defined below). It also is relatively expensive, as retail deposit taking involves building of branches to access customers and relatively high costs to service. Depositories in many emerging markets experience high volatility in their deposit base and also a legal obligation to have the depositors' funds available on demand increasing the risk of making long term loans.

Cash flow risks for depository lenders arise because the term of deposits is short relative to the term of housing loans. Having a variable interest rate on the loan helps the lender manage this risk. However, such loans shift the risk to the borrower, who faces uncertainty about the level of payments due. Consequently the credit risk rises. The question becomes whether the saver, borrower or intermediary is best positioned to deal with cash flow volatility and whether predictability is more desirable in nominal or real terms.

Despite these challenges, deposit based systems are the main source of funds for housing in most countries around the world.[6] As banks and other depositories grow in size and sophistication, they become more capable of managing the risks inherent in providing housing finance. Public policy directed towards affordable housing should therefore focus on ways to bring depository institutions to the market.

An alternative source of funds is long term savings held by institutional investors such as pension plans and insurance companies. There are many desirable characteristics of funding housing through such funds. The operational costs are generally lowest for raising debt funds in large amounts from long-term private institutional investors. Liquidity and cash-flow risk are also better managed in such a system. But this system is only feasible under certain narrow conditions, e.g., there are large investors with pools of long-term savings and they are allowed to invest in mortgages, the credit risks are minimal or shifted elsewhere, agency risks are minimal, the mortgage instrument is standardized, and laws are supportive of securitization. Most of these conditions do not occur naturally in most developing countries, but they can be met if there is a focused desire to do so.[7]

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[6] Even in countries with long standing specialized housing finance providers, such as mortgage banks in Germany and the US, the majority of funds are provided by depositories who also own most of the specialized lenders and invest in their bonds.

[7] Examples of partnerships to develop or expand such funding are given below. The creation of the Chilean system of lettras hypothecario and private pension investment is a good example of the results of a focused effort to fund housing through long-term private debt.

Even if available, funding through conventional depository and institutional sources many not meet the needs of many low income borrowers however. Conventional finance 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 often 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. 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. Also, a lack of competition, combined with lack of advocacy (or “moral suasion”) and little experience with the types of outreach and transactions necessary to conduct microfinance for housing successfully, greatly limits the “down market” horizons of traditional banks.

An alternative vehicle for affordable housing finance is seen with the increasing application of micro-enterprise finance to housing. In recent years, housing microcredit - whether for self-help home improvement and expansion, or for new construction of basic core units has arisen to meet this demand [Ferguson 2004]. Housing micro loans are typically small loans at market rates for short terms. As such they are well suited for funding the steps in the progressive housing process (e.g. lot purchase, improvement and expansion, construction of core unit etc.), and fit the financial and low-income property markets of most emerging countries.

These 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. Housing micro lenders have also pioneered innovative origination and servicing techniques to better manage the credit risk inherent in such lending. The results to date have been impressive both in terms of profits and loss experience.

Micro finance institutions (MFIs) take many shapes and forms [Merrill 2001]. They may be formalized from NGOs, such as the evolution of PRODEM to BancoSol in Bolivia. They may form as “sister” institutions to NGOs, such as SEWA BANK, which undertakes the lending activities for the urban NGO SEWA in India. Banco del Desarrollo, an MFI in Chile, begun as an initiative of the Catholic Church to focus on social housing, has taken advantage of the sophistication of Chile’s market and is able to fund its low income lending through issuance of bonds and securitized mortgage pools. Finally, in poor countries such as Ghana and Bangladesh, MFIs supply the only housing finance available to moderate income households. The Home Finance Corporation (HFC) in Ghana is virtually the entire housing finance system, while a new joint venture in Bangladesh between an NGO and the Delta Insurance Group—Delta BRAC—is the first housing MFI in that country.

Housing Micro Credit Case Study: MiBanco in Peru

The largest MFI in Peru (portfolio: US $120 million), MiBanco added a housing product ("MiCasa") in mid-2000 to finance improvement, expansion, subdivision, and rebuilding or replacement of existing homes (Ferguson 2004). As of May 2004, MiBanco had made 12,100 HMF loans. Their one-month arrears were 1.8% with loan losses of 0.1%. The ROA on HMF product is 7-9% per annum generating ROE in excess of 20% per annum. Their loan product characteristics are shown in the table:

MiBanco HMF product

Characteristics of MiCasa loan terms, origination, and servicing

Characteristic	Description
Eligible uses	Improvement, expansion, subdivision, rebuilding or replacement of an existing dwelling
Interest rate per annum	40% in US dollars; 55% in Peruvian soles
Funding rate per annum	8% in Peruvian soles on demand deposits
Term	Up to 5 years; average of 2 years
Collateral/security	7% of loans secured by a mortgage; the remainder join co-signers and other security
Amount	US $250 to $5,000, with an average of $1,100. Typically, borrowers get a series of these loans for their home construction, with lower interest rates and larger amounts on each sequel credit
Loans per loan officer	Each loan officer manages 350 to 400 microcredits, has the responsibility for loan approval, visits each borrower monthly, and gets paid on a commission basis largely based on loan repayment.
Loan methods and technology	Credit scoring, approval in three days for first loan, payment over the Internet

Microfinance institutions are often constrained in their sources of long-term funds. MFIs that give intermediate or long-term loans may promote fixed-term depository accounts, seek concessional funding or long-term deposits from donor or second-tier government agencies, finance the housing portfolio out of capital (equity and retained earnings), seek commercial bank loans at market rates; or securitize their portfolios. Most institutions tend to rely on the first three solutions to this problem. A major challenge for MFIs is integrating their activities with those of the banking system which has considerably greater resources. This can be possible when the MFIs demonstrate the profitability and sustainability of lending to the lower income community.

South African Banks Join Forces with Micro-lenders

In March 2000, Standard Bank and African Bank announced a joint venture whereby they have established a mass market transaction and micro-loan partnership lMerrill 2001]. Standard promotes and originates African Bank products in its AutoBank E centers and branch network; African Bank is primarily responsible for credit approval, collections, and arrears management. Saambou Bank has a stake in the Thuthukani formal micro-lending and credit services business, while ABSA has bought 51 percent of Unibank another formal sector micro-lender. The trend is for formal banks to find ways to deepen their relationship with the mass market, through an experienced micro-lender. The news is not all good. However, FBC Fidelity Bank, one of the major LMI lenders, and NGO partners, was placed in receivership. Cashbank, a pioneer in the area ran into liquidity problems and was forced to sell to BoE Bank Ltd. A major problem for the micro lenders has been the loss of better customers to the banks as they have moved somewhat down market.

An important lesson of housing micro-finance is that the poor can afford small amounts of market-rate credit. A recent publication by the Cities Alliance [April 2003] documents the experience of four MFIs that are providing shelter finance: Mibanco in Peru, SEWA in India, FUNHAVI in Mexico; and a wholesale fund facility in Ecuador. In all cases, the MFIs make market rate loans and have or are approaching financial sustainability. This does not mean that rates could not be lower. Improved information on borrowers and achieving scale in processing will lower risk and cost leading to lower rates.

In the U.S. the major portion of low-moderate income lending is carried out by mortgage companies and depository lenders [Merrill 2001]. The Community Reinvestment Act (CRA) and other legislation may have launched further down-market activity on the part of federally regulated depository institutions, which are subject to the Act.[8] However, as it proved to be good business, it is now a market-driven phenomenon. The U.S. examples include Countrywide Home Loans' "We House America" program and BankAmerica Mortgage's low and medium income program.

[8] CRA requires depository institutions to provide loans in areas where they acquire deposits. Their performance is reviewed annually and made available to the public. The sanctions for poor CRA lending performance are bad public relations and delays or denials of regulatory requests.

Countrywide's program features community-targeted outreach, including community branches, partnerships with local NGOs, and community fairs; flexible underwriting, including high LTV loans, more liberal credit underwriting, and higher front-and back-end ratios; home buyer counseling, and aggressive servicing. In January 2005, Countrywide expanded its original $600 billion commitment for home loans to minorities and lower income borrowers to $1 trillion by 2010. As a mortgage bank, Countrywide primarily raises funds by selling loans into the secondary market. They sold loans to the housing GSEs, Fannie Mae and Freddie Mac, as well as securitizing them directly.[9]

BankAmerica, the largest commercial bank in the U.S., in 1998 committed $350 billion over 10 years to community development lending, including $115 billion for affordable housing. The unique features of its LMI program include bank staff training for LMI lending, establishment of NGO partners to help conduct outreach and counseling, and underwriting which includes 100 percent LTV loans and use of rental receipts in lieu of credit scores.

ShoreBank**,** the nation's first community development financial institution, was developed by the Illinois Neighborhood Development Corporation, which bought the bank in 1971. It is a depository institution targeting inner city neighborhoods. ShoreBank specializes in financing the purchase and rehabilitation of multi-family residential properties.

[9] CRA pools have been shown to be more valuable than generic mortgage pools due to a greater stability in repayment.

BARRIERS TO THE PROVISION OF AFFORDABLE HOUSING FINANCE

Like all lending, housing finance is exposed to a number of risks. These risks can be generally classified into six categories [Diamond and Lea, 1995]:

1. ***Credit risk:*** the risk that the money will not be returned, with whatever interest or other charges are due, on a timely basis;

2. ***Liquidity risk:*** the risk that the money will be needed before it is due;

3. ***Cash flow risk:*** the risk that changes in market conditions will alter the scheduled cash flows (real or nominal) among the parties involved in intermediation. This includes interest rate risk, prepayment risk, inflation risk, and exchange rate risk;

4. ***Agency risk:*** the risk that a divergence of interests will cause an intermediary to behave in a manner other than that expected;

5. ***Systemic risk*:** the risk that a crisis at one institution or in one part of the system will spread to the rest of the system;

6. ***Political risk:*** the risk that the legal and political framework within which the lending takes place will change.

The ability to manage and price these risks is a major determinant of the availability and cost of housing finance as well as the provision of credit for affordable housing. The ability to do so in turn depends on the economic and primary infrastructure. *The two most important pre-requisites for attracting private capital for housing are macroeconomic stability and an effective legal framework for property ownership and mortgage lending.*

Macroeconomic stability is very important for several reasons. First it has a major effect on the demand for mortgages. High rates of inflation and nominal interest rates are typical features of volatile economies. These features have the effect of reducing the affordability of conventional mortgages. The use of fixed rate mortgages in an inflationary environment creates a tilt effect in which the real payments on the mortgage are much greater in the early years of the mortgage. Variable rate mortgages can reduce the tilt effect but subject borrowers to potential shock and affordability. Indexed mortgages can improve affordability but are complex for both borrowers and lenders. The affordability improvement of any instrument may not be sufficient to stimulate demand if volatility creates uncertainty and short-term investment horizon for borrowers.

A volatile economy also affects the supply of funds and the characteristics of mortgages offered by lenders. In a volatile environment, lenders are concerned about liquidity risk and reluctant to offer long term loans. This may lead them to not offer mortgages or only offer short maturity loans that in turn are less affordable for consumers. Lenders and investors may prefer short term assets, in part because of the difficulties of forecasting inflation and interest rates. Investors must be able to forecast cash flows with a tolerable level of variance in order to price and evaluate the risk of their investments. Variable rate mortgages are riskier for borrowers in a volatile environment as interest rate change causes payment shock. In turn this increases the credit risk of mortgage lending.

A distinguishing characteristic of housing finance is the ability to mortgage the property to secure the loan. For the lender, credit risk primarily depends on (1) the risk that the collateral can not be disposed of for the outstanding balance on the loan (plus costs of foreclosure) and (2) the collateral cannot be accessed in a reasonable manner.   In many developing countries, issues related to land title remain a major barrier to housing finance. In addition, in both developed and developing countries, there are often legal impediments to the ability of a property owner to pledge residential property as collateral (i.e., to consent to loss of the collateral in case of default). An accurate and comprehensive land registration system is a necessary condition for effective property rights. The lack of an effective title registration system is a major barrier to the development of second hand housing markets which are often more affordable than new construction.

Not all housing lending is mortgage-based. In some societies, there are other tangible or intangible assets that may be attached in an effort to either recover the amount of the loan or to discourage default. For example, in most of the formerly socialist societies, all employment was under the control of the state. Thus, garnishment of wages was a direct and effective form of collateral for housing loans; given legal restrictions on foreclosure and eviction, garnishment was in fact relied upon. Another approach is possible in those societies in which non-payment of debt are considered to be a social embarrassment. If there are guarantors on the loan, communication with those guarantors or threats of court-proceedings may be effective in producing repayment. This is especially true for loans made by small-scale mutual or cooperative organizations.

An important aspect of credit risk that is sometimes overlooked is the benefits of geographic diversification in lending. Many economic, political and social shocks that depress house values and incomes are geographically focused; a portfolio of loans over an array of areas is less likely to show extremes of default experience than one based exclusively on one area.

Information on borrower credit history is an important component to mortgage underwriting and credit risk management. Mortgage lenders rely on credit information compiled by national credit bureaus to ascertain a borrower's track record of handling credit. Credit bureaus can provide lenders with detailed credit files; they also can provide a credit score, which summarizes the information into one number reflecting an individual's expected credit performance. The lack of credit information is a significant barrier in the affordable housing market as borrowers often do not have a credit history or ability to prove their income. Lenders interested in this market have begun to use non-standard ways to underwrite or qualify borrowers. The experience of Thailand is instructive.

Innovative Underwriting in Thailand

The Government Housing Bank of Thailand (GHB) has developed a number of innovative ways to underwrite loans to lower income households. These include:

I. Hire purchase prior to mortgage: House purchasers lease for 3- 5 years
II. after which they can become mortgagors upon record of regular monthly installment payments;
III. Regular payment incentives: borrowers that save regularly prior to obtaining a mortgage benefit from a lower interest rate;
IV. GHB's pilot programme "Baan Uur Ah-torn on State's Land for Government Employees" introduced long- term land leases were used as collateral for government employees to facilitate home financing
V. GHB spearheaded the creation of a credit bureau to share the credit histories of their 700,000 borrowers, 90% of which are low to moderate income (loans below $25,000)

Liquidity risk refers to the risk that money will be needed before it is due. A lender faced with short-term and unstable sources of funds (e.g., deposits, short term bank loans) may not make mortgages due to the risk that it cannot meet its cash outflow needs. Assets that cannot be pledged as collateral for short term borrowing also increase liquidity risk.

Liquidity risk is not unique to housing finance but rather a broader financial sector stability issue. In modern financial markets, central banks provide the ultimate back-stop for liquidity. In addition, deposit insurance reduces the likelihood of massive withdrawals from depository institutions. However, the long term nature of mortgages suggests that the risk is greater than for other types of finance and is frequently cited as a reason why banks won't provide housing finance in emerging markets. A relatively easy way for government to improve the liquidity of mortgage assets is to accept mortgage securities as collateral at the discount window. But independent central banks may not wish to provide specific sector support or may be uncomfortable with the credit quality of the securities. A targeted role for government to reduce the liquidity risk for primary lenders is a liquidity facility (below).

Cash flow risk is related to uncertainty with respect to expected inflation, actual inflation, real interest rates, and exchange rates. It encompasses what is usually called interest rate risk and prepayment risk. Lending for a longer term, as for housing, greatly increases these risks. The macroeconomic environment and the characteristics of the mortgage instrument are the principal determinants of cash flow risk. For example, a low cost prepayment option may be a desirable feature of mortgage instrument for the consumer but it significantly increases the cash flow risk to the lender. More volatile environments generate greater risk which reduces the affordability and availability of funds. Foreign exchange denominated mortgages may have attractive rates at a particular point in time but exchange rate fluctuation can lead to significant cash flow risk for mis-matched lenders and borrowers. In Mexico, the government has created an innovative risk management program to cushion the risk of macroeconomic shock for borrowers and investors.

Managing Cash Flow Risk

Since 1999 in Mexico, mortgages have been originated with a market risk hedge that is intended to cope with extraordinary or permanent decreases in real minimum wages so as to allow borrowers to pay minimum wage-indexed mortgages while lenders extend inflation-indexed mortgages [Babatz 2004]. The swap is implemented under the administration of Sociedad Hipotecaria Federal (SHF), a government-owned mortgage development bank. The cost of the swap is shared by the borrower and the government. The former currently pays a 71 basis point fee which, in conjunction with a credit line backed by the government creates a fund intended to meet either a temporary lack of payment flows to securities issued by lender. The fund is arranged so as to be able to support a 25% deterioration in real wages over a 30 year period. If the fall is higher (lower) the SHF would incur losses (gains). The swap allows borrowers, particularly lower income, to have a loan whose payments are more matched to their incomes while lenders get payments that more closely conform to investor requirements.

Agency risk occurs when there is a separation in the functions of lending, for example through the securitization process when investors depend on third party originators and servicers to underwrite, collect and remit payments. It is also a major concern in government guarantee programs as the government is exposed to a moral hazard (use of guarantees leading to more risky behavior). The presence of agency risk increases the cost of lending and securitization.

Systemic credit risk can arise if there is a sudden and sharp decline in property values. The decline may be local in nature (e.g., a large firm leaves the area or goes bankrupt) or national (e.g., due to a large, unanticipated change in the inflation rate). A market failure may exist if lenders cannot diversify mortgage credit risk. For example, U.S. savings and loan associations were forced by regulation to operate on a narrowly defined geographic basis until the 1980s and were exposed to significant concentration risk (e.g., the oil producing states in the Southwest). Mortgage insurance can diversify risk and increase the supply of mortgage credit (below).

Nationwide volatility in house prices has been a common occurrence in recent years, arising as the result of unstable exchange rate or monetary policy (e.g., Mexico in the mid-1990s). Past macroeconomic shocks may undermine the confidence of investors in the underlying collateral and/or the credibility of the issuer (e.g., de-capitalized banks). Such shocks can only be diversified internationally, a solution which is unlikely for most domestic lenders. State guarantees of mortgage-backed securities may be necessary to overcome this source of systemic risk (below) if a mortgage capital market is to develop.

The political risks of mortgage lending relate to events that reduce earnings from mortgage lending due to political intervention in the selection of borrowers, the rate adjustment process, the mortgage terms and conditions, and/or the foreclosure and eviction process. A number of Latin American countries have reformed their legal process to make foreclosure and eviction more streamlined and certain. Even when reforms to the legal process have been made, a lack of experience with new procedures may cause lenders to shy away from mortgage lending and necessitate guarantees or other forms of risk sharing.

Lending to lower income households generally involves greater risks for lenders than higher income loans. These households have less stable and more difficult to document incomes, little or negative credit histories and less ability to withstand shocks. In addition, the transactions costs of making housing loans, particularly smaller affordable loans, often make them unattractive for lenders. 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.

In Mexico, specialist lenders (SOFOLES) arose after the banking crisis of the mid-1990s to provide affordable housing finance. They have been highly successful in managing the risks and costs of servicing this market.

Affordable Housing Finance in Mexico

Since 1996, the SOFOLES have been providing mortgage loans to low and moderate income households (incomes 2 to 8 times minimum wage) in Mexico. The SOFOLES are non-depository lenders that receive most of their funds through government wholesale lending institutions (FOVI and SHF). As of mid 2004, they had an outstanding portfolio of approximately USD 4,500 million [Babatz, 2004]. Their delinquency rates are below 2.5%. They have pioneered innovative underwriting and servicing techniques for the affordable housing market in Mexico including point of sale servicing and use of non-traditional measures such as rent for borrower credit histories. More recently they have started to lend to the middle class and turned to securitization as an additional funding source.

Despite their success, the SOFOLES face significant challenges. As shown in a case study of Su Casita's affordable housing lending in Mexico, creating the loan application is a time consuming process, increasing costs, as customers many times do not understand the application, their documentation is not readily available and the verification of income and credit is more difficult [Campos 2004]. All these costs reduce the profitability of the loan.

Origination Costs and Profitability of Mortgage Loans

	Affordable Home	Middle Income	Upper affordable
Value of home (USCY)	$15,000	$75,000	$30,000
Origination Commission	2.0%	2.0%	2.5%
Total Income	$300	$1,500	$750
Number of hours covered by origination fee	24	120	60
Profit	(36)	60	0

As Campos points out, the systems to evaluate the credit risk of a debtor have been developed with information from debtors in the formal sector and need to be adapted to informal borrowers. The behavioral patterns of the low income housing client are not well understood. Substitute measurements to evaluate credit risk (ie. saving programs or previous housing investigation) are expensive both for the costumer and the financial intermediary. Servicing costs are also higher often involving point of sale efforts to collect.

Campos proposes a number of measures to reduce the transactions of low income lending. Origination costs can be reduced through simplification of loan application and standardization of the process. Creating support groups for homebuyer (ie. developer sales force or NGOs) to help create the loan file and educate the consumer. Servicing costs can be reduced through simplification of the process, concentration of loans in one location (e.g., placing a collection center on a development site) and support of government programs or company's initiatives for payroll deductions. Campos also points to the importance of savings in establishing bankable clients and collection and dissemination of data on the performance of affordable housing loans.

ROLE OF GOVERNMENT

All formal sector financial intermediation exists with the support of some government intervention. At one extreme, the government may intervene only through the maintenance of a legal system capable of enforcing private contracts. At the other extreme, the government may own and operate the housing finance system or even the entire financial system. Most countries operate in between these two extremes, usually with a blend of policies that reflects the traditions and circumstances of that country.

Government plays a critical role in creating the legal infrastructure for mortgage lending and security market development. It is no accident that those countries enjoying the highest level of development of their housing finance systems, as defined in terms of the relative availability of mortgage credit and its relative cost are those countries with the legal systems in which property rights are strongly enforced.

Government can enable mortgage capital markets in other ways as well. Government can and should act to remove onerous laws, taxes and regulations that preclude or disadvantage mortgage securities, and reflect in regulatory regimes the safety that mortgage securities can provide reflecting their collateralization. For example, stamp duties on securities registration can inhibit issuance (e.g., in India where in some states they are as high as 12 percent). The requirement that borrowers consent to a transfer of ownership adds to the cost and disadvantages mortgage securitization.

Risk Mitigator: Systemic Risk Insurance (Liquidity, Credit, Political)

Governments can play an important role in reducing the risk of housing lending in general, and low income finance in particular. A good example is in the reduction of liquidity risk. As noted above, the maturity mismatch is a frequently cited reason for banks and depository institution to not make housing loans. A liquidity facility is a second tier institution that provides loans to lenders and funds itself through bond issuance. These institutions can reduce liquidity risk inherent in depository lending by allowing lenders to access funds using their housing loans as collateral, tap alternative sources of funds through the capital markets, and create efficiencies in the bond issuance.

There are numerous examples of liquidity facilities in developed and emerging markets. The Switzerland Pfandbrief Bank and the US Federal Home Loan Banks are the oldest examples. In emerging markets, liquidity facilities have been created in India, Trinidad, Malaysia, Jordan and South Africa. Perhaps the most successful example for affordable housing in emerging markets is Cagamas in Malaysia.

Cagamas Berhad was created in 1987 following a recession and liquidity crunch that restricted credit for housing, particularly for moderate income households [Chiquier et. al., 2004]. The purpose of Cagamas was to provide more liquidity to mortgage lenders, reduce market risks, assist social housing finance, sustain construction sector, and develop private fixed-income markets. Cagamas finances over 20% of the housing market and is the largest bond issuer after the government.

Cagamas supports affordable housing by refinancing loans on low cost housing. Banks are required to originate a fixed quota of loans for low cost housing at rates not more than 9% pa.

Cagamas purchases mortgage loans (the principal balance outstanding) from mortgage originators, with full recourse to the primary lenders, at a fixed or floating rate for 3 to 7 years. This is in effect a secured financing with Cagamas looking first to the credit of the financial institutions when mortgage loans default. Cagamas issues debt securities to investors, in the form of fixed or floating rate bonds, notes, or Cagamas Mudharabah (Islamic) Bonds.

There is a strong government role in Cagamas – a prototype public private partnership. Central Bank owns 20% and Deputy Governor serves as Chairman. Cagamas loans and bonds receives a number of significant privileges from the Malaysian government, without which its refinancing activities would not have been perceived as sufficiently attractive for primary lenders.

Mortgage insurance can diversify risk, improve affordability and increase the supply of mortgage credit. The Federal Housing Administration (FHA) in the US is an important example of a public private partnership. The FHA is a mutual fund implicitly backed by the government. It is responsible for popularizing the long term fixed rate mortgage, diversifying credit risk geographically, and facilitating the introduction of new mortgage instruments such as the adjustable rate and reverse annuity loans. There is also a vibrant private mortgage insurance industry covering the top 20% of high LTV loans.

Private mortgage insurance is typically not offered in emerging markets, however, due to perceived weaknesses in the legal infrastructure for mortgage lending and the lack of history in mortgage default. Government provision of mortgage insurance has been problematic due to the difficulties in managing the agency risk. More recently, public-private partnerships between government and private insurers have been formed. In Hong Kong the government owned Hong Kong Mortgage Corporation (HKMC) created a mortgage insurance program to stimulate higher LTV lending. The HKMC obtains reinsurance from several private insurers which themselves reinsure on the global market. A similar program is envisioned in Mexico between the SHF and United Guaranty Insurance, a subsidiary of AIG. In South Africa, the Home Loan Guaranty Corporation was created as a joint venture between an NGO and private investors and has provided innovative risk sharing solutions for the low income market.

Home Loan Guarantee Corp (HLGC) is a South African non-profit company, created in 1989 under Section 21 of the Companies Act. HLGC was created in response to the reluctance of the financial sector to lend to a high risk housing market.

HLGC was set up as a non-profit company (a NGO). Its capital base as of today was funded primarily by earnings from an interest free loan (since repaid) from the Independent Development Trust, a government-related entity. All operating expenses are financed by earnings on capital, and all premiums go into reserves (70%) and payments to a European reinsurer (30%) which will absorb any losses in excess of reserves. The reinsurance situation gives the company an AA+ rating.

HLGC facilitates access to housing finance for lower income people through mobilisation and management of guarantees to organisations and institutions that fund affordable housing. HLGC provides guarantees where the risk cover is not ordinarily or affordably available from the commercial market usually because there is insufficient data to empirically determine the risk. We manage our risk through active participation and intervention with borrowers and lenders.

All HLGC's services and guarantees are provided at a fee. The guarantee premiums are used only to create a provision from which claims are paid. Overheads and operational costs are funded through income from investments and fees from non-guarantee business.

HLGC limits its exposure by giving lenders significant incentives to avoid moral hazard. Their coverage is in the form of a "collateral replacement indemnity" (CRI), i.e., the top 10-20% of the principal that is needed to bring the LTV down to normal acceptable levels (80%), plus 3 months of overdue interest (similar to what is offered by US private insurers). This buffers the lender from the extra risk of dealing with a borrower who does not have the cash (or other collateral such as pension accumulations) to make a full 20% downpayment.

The Overseas Private Investment Corporation (OPIC) in the US has recently approved a groundbreaking project that will provide treatment for HIV-positive homeowners in South Africa, enabling them to keep their homes by guarantying banks against the risk of defaulted mortgage payments. OPIC will provide a $250 million loan to Housing for HIV Inc., a newly formed nonprofit organization set up as a joint venture between New York based Shared Interest, Inc. and South African-based Home Loan Guaranty Company (HLGC). Housing for HIV Inc. will raise an additional $50 million from U.S. foundations to form a $300 million pool of funds.

Subsidy Provider

There are a number of reasons to subsidize housing including [Diamond and Hoek, 2003]:

(i) Improving public health.
(ii) Improving fairness and justice and societal stability.
(iii) Overcoming market inefficiencies that yield monopoly profits or poor housing quality or insufficient volume of new construction, particularly in the low-income sector.
(iv) Stimulating economic growth.

Designing subsidy programs to deal with these issues is complex. Policymakers must understand the causes of the supply or demand constraints in some depth, before they can design an efficient program.

The clear trend in housing finance subsidies in recent years has been to provide up-front grants for downpayments, typically conditioned on an acceptable period/amount of savings by the recipient household. These demand side subsidies can leverage private capital by lenders through demonstration of the repayment discipline required for loans and through the downpayment that lowers the credit risk. Perhaps the best known up-front cash grant program has been that of Chile (box).

Chilean Up-Front Grant

In 1978, the government designed a national housing cash grant/voucher program focused on first time home-owners to stimulate economic development and alleviate the economic recession [Diamond and Hoek, 2004]. It combined an upfront cash grant with long-term measures to facilitate access to finance and other market improvements to increase the supply of housing.

The major impetus to create the housing voucher scheme was to provide incentives for increased activity in the private residential construction sector in order to boost the economy. For that reason the grants were only given for new housing, at least initially.

The second objective was a social redistributive one. The cash grant scheme eliminated the regressive bias of the previous subsidies, and required that households contribute their own savings and take out a maximum affordable loan. It included options for those who do not qualify for a loan to benefit from an investment grant towards the house.

The third aim was to improve the efficiency of the private housing and housing finance market. The cash grant subsidy was chosen to avoid distortions in the broad middle income market which were prevalent under the old system of interest rate subsidies and direct government construction. It was accompanied by a long-term strategy of improving the regulatory environment in the urban planning and financial sectors.

While the subsidy scheme for moderate income households worked well relying on the private sector, the government construction and loan program for the lowest income households performed poorly. From the outset the government loan program was plagued by high defaults on the loans. Numerous attempts were made to restructure household debt and forgive outstanding payments, but none were successful (beneficiaries quickly learned that default was rewarded, not penalized). Estimates that nearly 70 percent of the 300,000 outstanding government loans were more than 30 days in arrears [Navarro 2005].

An upfront cash grant can be applied to pay the premium for private (or public/private) mortgage insurance. This would lower the upfront costs for the borrower, and would at the same time decrease the risk of the loan to the lender.[10] An alternative category of cash grants is applied towards the investment in the house directly and is not linked to a mortgage or other financing package. As described in the accompanying South Africa country paper [Porteous 2005], first-time home buyers with a household income of less than $500 per month and with dependents can obtain one off capital sum of a maximum $3000. In 2004 the government broadened the program. Introducing a higher income band subsidy for those earning between approx $500 and $1000 per month) effectively turns the grant into a down payment on a mortgage loan.

Seed Capital Provider: Primary and Secondary Institutions

The government can create or sponsor an intermediary or insurer as a way to jump-start the market. In theory, a fully owned government institution is controllable with a known cost that should be budgeted.[11] A disadvantage to government ownership, however, is the difficulty in many markets of finding the talent necessary to create and run the institution, particularly if government salaries are significantly below those of the private sector. Government-owned institutions may be more susceptible to political pressures that increase risk or cost. An alternative is sponsorship of a privately owned institution. An advantage to government sponsorship is the ability to attract and pay for people with the skills to create the institution, manage risk and run it efficiently. The disadvantage of government sponsorship is the inherent conflict of interest between the profit maximizing motives of management and owners and the social mission of the institution. These types of institutions can socialize the risk while privatizing the profit.

Government can provide equity seed capital to create institutions that enhance the flow of funds to housing. In the liquidity facility examples noted above (Cagamas, JMRC, Trinidad) the government through the Central Bank was a minority shareholder. This involvement provides the assurance for private investors that government will stand behind the effort. The government

[10] This subsidy mechanism program has been proposed for Indonesia and Fiji [Guttentag 1998].

[11] The government can reduce its credit risk exposure and create proper incentives for lenders by requiring credit enhancement through subordination, recourse, joint and several liability, etc.

involvement improves the access to finance and the cost of funds. Although government involvement can be a barrier to entry for purely private sector competitors, liquidity institutions are best run as monopolies (a principal advantage is the economies of scale in bond issuance) and therefore create little distortion. With all government institutional involvement, a sunset provision requiring review of the need is merited.

Guarantees

Governments can also provide guarantees on securities issued by private lenders. In so doing they can facilitate the access to the capital markets by untested institutions or for loans without an adequate performance history. A good example is Colombia where the government provides guarantees for securities backed by social interest housing loans.

Titularizadora Colombiana (TC) was created in July 2001 as a securitization company [Chiquier et. al. 2004]. According to the December 1999 law that reformed the overall housing finance system in crisis, such companies may be created as non-credit institutions to securitize housing loans. Their main purpose is to raise long-term funds from the capital markets, manage the significant cash flow risks of mortgages and provide equity relief to the primary mortgage lenders.

TC was created in response to the severe crisis to which the mortgage markets have been exposed since 1998. Specialized savings and loans and borrowers were hit by interest rate shocks, rising unemployment and depressed housing prices. The situation was worsened by a risky system of indexed credit products, and a culture of non-payment fueled by a judiciary reaction against lenders. Despite several policy and regulatory measures, the industry has not been fully restored to soundness. In that context, the issuance of mortgage securities has been an immediate operational priority to improve this distressed sector. Within its first two years, the company issued four securities ("TIPs") for a total of Peso 1.82 trillion ($ 650 million) or 13% of the outstanding residential mortgage debt. TC aims to reach a 38% market share by the end of 2006.

Government does not own shares in or guarantee the securities issued by TC. It does however, provide a large income tax exemption granted to all MBS investors (for securities issued until 2006). This regressive subsidy artificially reduces the cost of funds through securitization. More importantly a public agency - Fogafin - has been managing since 2002 a fund that sells to issuers a guarantee for the full timely payment of eligible mortgage securities (both MBS and mortgage bonds) issued by banks, fiduciaries, and securitization companies, provided that they fund only social housing credits (VIS loans). The quality of securities is then enhanced to the level of public debt thus reducing the funding cost of VIS loans

In Mexico, the SHF provides timely payment guarantees on securities issued by private sector lenders. These securities are mainly backed by affordable housing loans for which the SHF is also providing top slice mortgage insurance. The danger of guarantees is moral hazard – the inability of government to adequately monitor and control risk. The SHF model takes this into account by requiring issuers to retain a first loss position in the capital market financing.

In the US, the Overseas Private Corporation, an agency of the federal government, has provided guarantees on securities backed by affordable housing loans in several countries. A recent innovative transaction, Blue Orchard Microfinance Securities I, is the world's first securitization of cross-border loans to microfinance institutions. Developing World Markets, a boutique investment banking firm, and BlueOrchard Finance of Geneva, Switzerland, a leading advisor for microfinance debt funds structured the securitization, and BlueOrchard is servicing the investments made with the proceeds.[12] Several charitable foundations invested in the equity of the fund and the Overseas Private Investment Corp., an agency of the federal government, guaranteed the senior notes.

[12] For more information see http://www.blueorchard.ch and www.dwmarkets.com

ROLE OF NON-PROFITS AND FOUNDATIONS

Equity and Credit Enhancement

Non-profit institutions and charitable foundations can play a role in providing affordable housing finance through equity investment and credit enhancement of securitization transactions. A recent example of charitable foundation involvement in affordable lending in the U.S. is the Self Help initiative.

Self Help: Innovate Foundation, Government and Private Sector Initiative

Self-Help, a leading community development lender, started its initiative in 1994 to provide an alternative source of capital for banks and borrowers in North Carolina. The Ford Foundation provided a $50 million grant to Self-Help in 1998 [Ford Foundation 2004].

Self-Help expands homeownership opportunities for minorities and low- to moderate-income households by purchasing loans from lenders such as Bank of America and Chevy Chase Bank. In return, the lenders use their freed up cash to lend to an equivalent number of underserved borrowers in the future. Self-Help provides these lenders with flexible, targeted mortgage products designed for people who require lower down payments and more flexible underwriting standards, and have difficulty meeting conventional lending standards because of small savings or blemished credit.

Using the Ford Foundation grant, Self-Help credit enhances the mortgages and sells them to Fannie Mae. Fannie Mae will build upon its original commitment and purchase $2.5 billion in eligible loans from Self-Help. The combined effort will help lenders such as Bank of America and Chevy Chase Bank expand their outreach and provide more innovative mortgage products to better serve minorities and low- to moderate-income borrowers.

Technical Assistance

Charitable foundations can be an important source of technical assistance for community based lending initiatives. Publicizing international best practices and providing training for start up initiatives can be an important source of value. A recent US example is the MacArthur Foundation Window of Opportunity program.

Window of Opportunity: Preserving Affordable Rental Housing is a $50 million initiative to preserve and improve affordable rental housing across the country by the MacArthur Foundation. The initiative's immediate goal is to help large nonprofit housing organizations purchase and maintain 100,000 units of existing, affordable rental housing that might otherwise deteriorate or become too expensive for low- and moderate-income households. Its larger objectives are to:

- demonstrate that preserving affordable rental housing offers cost-effective benefits for families, communities, and regional economies;
- encourage additional public and private investment to preserve affordable rental housing; and
- stimulate public policies that enable a new generation of owners to preserve at least one million units of affordable rental housing in the decade ahead.

Strategies

Through the initiative, national and regional nonprofit organizations that own and operate large rental housing portfolios across the country will receive $35 million in grants and low-cost loans to strengthen their operations and provide risk capital for preservation transactions. Another $10 million in low-cost loans will help specialized lending intermediaries finance transactions for these and other nonprofit owners across the country. An additional $5 million in grants will support research, policy analysis, and public education to improve understanding of the pressures on the supply of affordable rental housing and strategies to address them.

CONCLUSIONS

Attracting private capital for low income housing is becoming more viable all the time. Many emerging markets have made great progress in stabilizing their economies and improving the legal and regulatory infrastructure for mortgage lending. The short-term gains are for middle and upper income households working in the formal sector, however, as they are more bankable in terms of income and credit experience. With the private sector beginning to serve this market, policy makers can turn their attention to the vastly larger and politically more important low and moderate income market.

In this paper, we have attempted to lay out a framework for attracting private capital to low income markets. There are two themes – improving the infrastructure for mortgage lending including the underwriting, servicing and risk management capabilities of lenders and partnerships between the public, private and non-profit sectors to better allocate the fundamental risks of mortgage lending. There are a number of promising initiatives in both areas.

A particularly interesting new area of activity is housing microfinance. The success of microfinance institutions generally has led to an increased volume of resources flowing to the low income market. The supply of funds is admittedly small relative to the need but MFIs are demonstrating that the risks of lending to this sector can be profitably managed. This demonstrates the viability of finance to formal financial sector institutions, mainly banks and other depository institutions that control most of the savings in emerging markets. At the same time, public-private partnerships to access the capital markets (e.g., through liquidity facilities or security guarantors) are bearing fruit in middle income emerging markets such as Colombia, Malaysia and Mexico.

An important objective of the Bellagio conference is to identify a role for non-profit and charitable organizations. The recent initiatives of the Ford Foundation and the MacArthur Foundation in the US point to possible roles they could play as sources of credit enhancement for lenders and providers of training and technical assistance to affordable housing lenders. Supporting initiatives like CGAP and the Cities Alliance are a way to leverage an existing infrastructure for technical assistance provision.

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