Subsidizing Housing Finance for the Poor

Marja C. Hoek-Smit
Wharton School, University of Pennsylvania

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Acronyms & Abbreviations

ACP: *Acción Comunitaria del Perú*

ALM: Asset Liability Management

CBO: Community-based Organization

CCG: *Caisse Centrale de Garantie*

COBANCO: *Comite Promotor del Banco para la Microempresa*

Co-BILD: Community-based Initiatives for Housing and Local Development

EPDYME: Small business and microenterprise development institution

EU: European Union

FHA: Federal Housing Association

FSH: Housing Solidarity Fund

GDP: Gross Domestic Product

HMF: Housing microfinance

IADB: Inter-American Development Bank

IMF: International Monetary Fund

KIP: Kampung Improvement Project

LMIC: Lithuanian Mortgage Insurance Company

MF: Microfinance

NGO: Non-governmental Organization

PRODEM: *Fundacion para la Promocion y el Desarrollo de la Microempresa* (The Foundation for the Promotion and Development of Micro-enterprise

SHF: Sociedad Hipotecaria Federal

SMF: PT Sarana Multigriya Finansial

SOFOLES: *Sociedades Financieras de Objeto Limitado*

UNDP: United National Development Programme

1. Why Subsidize Housing Finance? [1]

Nearly all governments intervene in housing finance markets, primarily for social and political reasons. The availability of debt finance for housing is a critical component in housing affordability and the efficient operation of a housing system. Housing is one of the largest investments in an economy, often the most significant part of a household budget, and a key barometer of social well-being. When societies urbanize and real incomes increase, housing expectations and standards also increase. But standard housing is expensive relative to household incomes or investor resources, and the degree of access to long and medium-term financing to pay for a house over time is especially important unless the state assumes that responsibility or pays for the housing asset directly. Lack of an efficient system of housing finance that includes existing houses impedes low- and moderate-income housing markets in particular. Without access to debt finance, whether long or medium-term, households have to finance their homes from savings or family support. They must build their homes over long periods or settle for a lower quality structure, often extra-legal, which often translates to inadequate access to clean water, sanitation and community services.

In addition, the absence of ready buyers means that households will not be able to sell their homes at prices that permit them to recover their investments. This inability to sell hinders their mobility and has a negative effect on the quality of urban neighborhoods and hence the fiscal situation of cities, which limits service provision in low-income areas. This creates a vicious cycle in many countries that perpetuate informal settlements and overcrowding. As a consequence, providing access to medium-term, fairly priced debt is both privately and politically urgent. As such, housing finance is often more prone to government intervention than are other types of finance.

Unfortunately, reasons for intervention in the housing finance system are often not well analyzed, and are based on a vague notion that housing is a "merit good" and requires general government support.[2] Subsidizing finance is something that can be fairly easily achieved at a national level and is therefore often a first policy choice. However, without understanding the specific reasons underlying the housing affordability problems or the lack of access to finance, subsidy choices are all too often inappropriate and inefficient. Unfortunately, this is the case in many countries as housing subsidies are often delivered through politically appealing programs that please the "housing sector lobby", but carry little relevance to any identifiable social housing goals.

For example, governments often subsidize mortgage rates through taxes or through special financial institutions funded with labor taxes, or put caps on interest rates for housing loans simply to make them "more affordable" to the population in general. However, in most developing countries few low-income households qualify for mortgage loans and therefore such subsidies do not help those who need them. Furthermore, caps on interest rates, or other such

[1] Used here in the broad sense of paying for the housing asset, and not just debt financing.

[2] A merit good is a good more valuable to society as a whole than to individuals. Education is a frequently considered example of a merit good. Government subsidies can bring about optimal levels of merit good production which in turn will create positive externalities for society as a whole.

general "affordability" measures, often shrink rather than expand access to finance, since private lenders simply will not enter into these markets. Indeed, such broad and general housing finance subsidies that apply to large parts of society often increase housing inequities and do not expand access to finance. Yet, these types of subsidy are difficult to change, since the ultimate costs of such subsidies are often concealed (through taxation or special lines of credit, or by having the private sector bear the subsidy).

Given these frequent problems with housing finance subsidies, many experts prefer to subsidize income directly for selected households, rather than housing or housing finance. Such an argument is discussed in Santiago Levy's (2008) insightful assessment of Mexico's direct income transfer program for the poor --*Progresa-Oportunidades*-- in the context of the complex web of social programs for formal and informal sector workers, including housing programs. Levy argues that many of the existing social programs, including the mortgage subsidy program for formal workers, have contradictory objectives and have a negative impact on the welfare of the poor and on overall labor productivity. On the other hand, Mexico's direct cash transfer program, which is conditioned upon school enrollment and regular health checks of the children in beneficiary households, appears to have an unmistakable positive impact on households' well being.[3]

This, by extension, begs the question of whether a country could simply increase its cash transfers to the poor on the condition that a household use such monies to improve its housing situation. Advocates of housing vouchers would argue in favor of such an approach. They maintain that such income transfers afford maximum choice to households and that they are efficient, transparent and can be targeted to the most deserving segments of society. Moreover, they do not distort the housing or housing finance system itself.

However, the application of an *income transfer* system--earmarked or conditioned upon increased housing consumption--would require that the segment of the housing market to which such vouchers are targeted works fairly efficiently and responds to increased demand. The housing sector in most developing countries is, however, constrained by incomplete housing finance markets and inefficient land markets particularly for low and lower-middle income groups. Even if finance is available, the regulatory system often makes it unprofitable or unfeasible for private developers to operate even in the middle-income market.[4] Housing vouchers are, therefore, unlikely to improve housing conditions for the poor.

These arguments demonstrate that policymakers need to be very clear on the specific housing problems which a housing subsidy policy has to address. These problems have to be translated into specific goals and objectives for different market segments before the regulatory, legal and subsidy actions can be designed that are necessary to reach the goals. When this critical step is skipped, and government acts for example simply on the notion that housing or housing finance is "unaffordable", subsidy design and targeting are seldom effective. Three broad goals are

[3] Levy does not focus specifically on housing subsidies or improvements of housing conditions.
[4] See Hoek-Smit, 2006b.

usually involved, explicitly or implicitly, in political discussions about subsidy intervention in the housing sector:[5]

1. **Improving public health.**

2. **Improving justice and fairness in society**, i.e. redistributing income through housing.

3. **Overcoming inefficiencies or failures in the housing or mortgage market** that cannot be solved through regulation.

The first two of these goals for subsidy intervention relate to sanitation and housing conditions directly, and focus on promoting welfare in society through the housing sector. But for which households or market segments? For home-ownership or rental housing? And, if homeownership is to be stimulated, is the focus on first time home-owners only? The third goal focuses on expanding housing opportunities by pricing, and allocating costs and risks in the housing and housing finance sector more optimally, through, for example, subsidizing the provision of inputs that are underprovided by private markets and addressing externalities created by market operations. Specific market constraints that prevent lenders and/or developers from serving different segments of the population need to be identified in order to develop an effective package of regulatory and subsidy measures that can address such bottlenecks.

This paper will provide a framework for such detailing of a subsidy policy. It begins with a discussion of a fairly typical segmentation of the housing market in developing countries and the core problems faced by different segments and objectives for government support. It will give a brief explanation of how to define and design subsidies and provide criteria for sound subsidy design. The bulk of the paper then will analyze, for each market segment, the main types of housing finance subsidy incentives: i) subsidies to address constraints in the housing finance system, and ii) subsidies to assist individual households directly.

2 Who are the Housing Poor and What Are the Frontiers in the Market Where Subsidy Policy Should Focus?

2.1 Segmenting the Underserved Housing Market

It is common to find that up to two-thirds of the urban population in developing countries lives in inadequate housing. What are the reasons for these prevailing statistics? And who are the households living in poor housing? It is not simply a matter of low income although that is part of the problem. Based on several broad-scale inquiries by the author and others into the nature,

[5] Various other reasons are frequently used as a rational for the use of housing subsidies such as influencing economic and political stability (a rationale commonly used to support home-ownership), and stimulating economic growth (generally used to support various countercyclical assistance to the construction sector). These goals are featuring prominently in the current subsidy measures to support the housing sector during the present US recession. In developing countries housing markets are often too inefficient to make housing subsidies a wise choice to reach such goals.

breadth and causes of the housing problems in several developing countries, a summary of main issues ensues:

- **The level of household income, its distribution and the stability.** In many developing countries, incomes of a large proportion of households are extremely low relative to the cost of basic housing. Even in middle or higher income countries this may be the case when the income distribution is heavily skewed and a large proportion of households have unstable incomes.

- **Access to and cost of debt finance; availability of savings**. Finance dramatically expands affordability of housing, but access to finance and savings options are extremely limited. Housing finance markets, for mortgage, consumer and micro-finance for housing, are inefficient and incomplete in most developing countries. In addition, access to mortgage finance is constrained by the following factors:

  - Type of collateral. Often, only a small fraction of urban households hold a registered title to their property. Without title, access to long-term debt finance is limited.

  - Neighborhood quality and risk. Lenders do not invest long-term in neighborhoods without services, crime prevention systems, etc. that may impede the stability of housing values.

  - Type of employment and lack of savings. Informal employment remains high in many countries (e.g., over 70 percent in Indonesia; over 40 percent in Mexico), which makes long-term mortgage lending risky. Lack of savings for a down-payment further limits access to mortgage loans.

  Typically, no more than 25 percent of households in most developing countries would potentially qualify for a mortgage loan. Access to unsecured housing loans, while rapidly expanding,[6] is still extremely limited and difficult to quantify.[7] The reasons for the low utilization of alternative credit for housing are not just the limited supply,[8] but also customers' unease in taking out credit for housing, since housing does not generate income (except in the case of adding rental rooms).

- **Cost of housing and inelastic supply**. Several factors drive the price of housing, which, sadly, are related all too frequently to poorly designed policies and inadequate government management of the urban sector.[9]

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[6] Fay and Wellstein, 2005.
[7] Porteous, 2006.
[8] See, among others, various studies using the "Financial Diaries of the Poor" methodology Rutherford, undated; Collins, 2006.
[9] Hoek-Smit, 2006b.

- Land management. Land, both public and private, is often available, but its timely release to the market is constrained by poor local and central government procedures and lack of collaboration between land owning ministries, among various factors.

- Services and infrastructure. Timely provision of infrastructure, in particular opening up of new land with a rudimentary road system, is critical in guiding and facilitating new housing development.

- Subdivision, planning and building standards and permits. The costs of getting permits and development requirements are often too high relative to incomes, and the procedures to get permission to develop are fraught with uncertainty and time consuming. These factors prevent new formal sector housing from being constructed, particularly for low and middle income market segments.

- Real price increases in building materials, linked to commodity price increases or volatility are another major factor (e.g., between January and June 2008 cement and steel prices increased by 26 percent in Egypt, with an immediate effect on housing affordability).

The combination of these and other factors divides housing markets in distinct segments, where demand and supply factors create different housing outcomes. For example, an analysis of the Mexican low-income housing market shows that housing affordability and products differ markedly between formally and informally employed workers (see Figure 1). Formally employed low income workers with incomes as low as two minimum wages can access subsidized mortgage loans from the special housing funds, while an informally employed worker can only access a mortgage loan from the private sector. Few informally employed workers qualify for a mortgage loan, however, which generally requires an income of approximately four to five minimum wages even with a subsidy. Housing delivered for the housing funds is also cheaper, because of scale economies. Subsidy policy has, in fact, increased the housing inequity between formal and informal employed workers. If this is an unintended outcome, new housing policy should focus on redressing this inequity between these two segments.

Fig. 1 Potential Access to Housing Finance in Mexico (2006)[10]

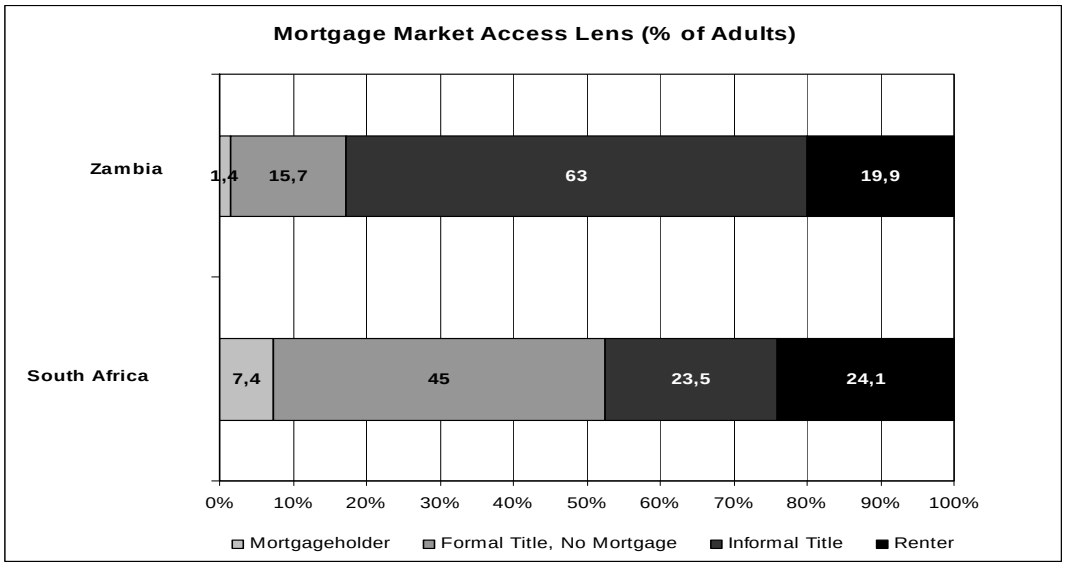
Households in the Formal Economy	6% no access to mortgage fin limited access to microfinance	16% access to subsidized mortgage finance	25% access to subsidized + market mortgage finance
Households in the Informal Economy	24% no access to mortgage fin limited access to	17% limited access to mortgage finance	12% access to market mortgage finance

[10] Source: Conavi.

	microfinance		
Monthly income	Less than $420	$420 -$840	More than $840

Another example of the importance of understanding the relevant segmentation of the market is detailed by Porteous (2006), using data from the Finscope surveys in South Africa and Zambia. He correlates tenure and access to mortgage lending and shows that Zambia, with a much larger proportion of people with informal property rights to the land, has a much lower probability of expanding access to housing for the low-income groups through the mortgage sector than would South Africa, where such a strategy may be more successful (See Fig.2).

Fig.2 Mortgage market access and property titles in Zambia and South Africa (Porteous 2006)



Source and definitions: SA: FinScope, 2004. Q refers to relevant question number in SA database; Current mortgage holder: Q49; Ownership status: Q48a,b,c.

Zambia: FinScope Zambia 2006, data extracted by Christian Keulder of FinScope.

Meltzer (2007), using a different methodology, calculated the proportion of households that would potentially have access to mortgage lending in South Africa by income, age and some other criteria. She estimates that close to 10% of low and middle income households would potentially have access to mortgages given the current credit-linked subsidy program and private sector commitment to expand its lending to this income bracket. Combined with the 20% of households that are upper income and already qualify, just under a third of South African households have access to mortgages today.

These examples reflect the need for comprehensive analysis of constraints in different housing market segments that governments have to address in the design of regulatory and legal changes and subsidy programs.

2.2 Identifying Frontiers for Market Expansion

For the purpose of outlining a subsidy policy, we can distinguish the following stylized underserved *market segments and their frontiers, i.e., the margin beyond which specific demand and supply constraints limit expansion of and access to these markets.*

1. ***The middle- and lower-middle-income market segment*** consists typically of the 75th to 50th percentile in the income distribution. Household incomes would be adequate to obtain formal moderate-income housing, but a large proportion of households in this group live in unauthorized or substandard formal housing.

   The frontier for expanding the formal housing market to include this segment is not so much constrained by low-incomes as by lack of access to finance and lack of appropriate housing products offered by the private sector. The two are related of course. Specific constraints are: a) informal employment, b) lack of wealth or savings, c) uncertain collateral due to poor property rights, registration and cadastre systems, d) neighborhood risk factors, e) inefficiencies and incompleteness of housing finance markets and, importantly, f) regulatory and procedural constraints to expand the supply of both rental and ownership housing offered in the market. In some countries, mortgage or pension-backed finance-linked subsidy programs enable households at the top of this income bracket to obtain new formal sector housing. However, upward mobility out of unauthorized or substandard formal housing remains limited.

2. ***The low-income market segment*** consists of households typically below the 50th percentile of the income distribution and/or informally or self-employed living in sub-standard housing or substandard neighborhoods with limited access to services. Few people in the rural segment of this market have any relationship with the financial sector. Formal housing markets seldom deliver new housing for this segment and are unlikely to do so for the medium term. Housing subsidies are often limited to selected upgrading programs to ensure access to water and sanitation.

   The frontier for expansion of formal, quality low-income housing is often two-dimensional:

   - the frontier for *improvement of existing housing* is confined by lack of infrastructure and formally registered property rights, while lack of access to micro-credit limits investment;
   - the frontier for *new low-income housing* is constrained mostly by a combination of regulatory issues, non-functioning land markets, low incomes, and lack of access to appropriate non-secured and micro-housing finance instruments.

Government interventions most fruitfully may be directed towards these frontiers where expansion of opportunities is most likely. The challenge of the housing and subsidy policy in most developing countries is first to move the mortgage frontier down-market and expand its scale, while addressing the land and infrastructure issues that keep developers out of the middle income market. When private resources can be leveraged successfully for the middle income section of the market, the majority of subsidy resources then can be applied to address the serious market failures in the low-income sector, particularly for new housing. Improving access to non-mortgage housing finance products will facilitate improvement of substandard housing.

3. A Word on Subsidy Design and Evaluation

Before we discuss specific subsidy programs to expand access to housing for the poor, it is useful to provide a brief overview of some important features of subsidy design.

3.1 Subsidies and other Types of Government Interventions

A subsidy is an incentive to change the behavior of lenders, producers or consumers in regards to housing in order to achieve specific goals and objectives (see Box 1). While this is an inclusive definition of a subsidy, the focus in this paper is on two broad types of subsidy interventions: (i) modifying regulatory or legal policy related to housing finance in order to shift market activity to reach social or economic goals, and (ii) expending financial resources both through budgetary allocation and fiscal policies. For example, the government may establish a liquidity facility for micro-lenders engaged in housing finance to increase the efficiency of that part of the housing finance market. It may, separately or in combination with the liquidity facility, provide a capital grant in the form of serviced land to households to set into motion progressive development of housing.

Box 1 Defining Subsidies

Subsidies are often perceived as giving or receiving something for free. Such a notion is misleading. From a broad perspective, **"a subsidy is an incentive provided by government to enable and persuade a certain class of producers or consumers to do something they would not otherwise do, by lowering the opportunity cost or otherwise increasing the potential benefit of doing so"** (adapted from the US Congress [1969]).

Subsidies can be difficult to identify because of their often hidden nature, particularly in the housing finance sector. For example, the creation of a government mortgage insurance program ostensibly run on full market principles may imbed deep subsidies either because administrative costs are not accounted for, initial capital is provided by government at no cost, or by ignoring the presence of catastrophic risk being borne by the government.

Because subsidies can be costly and distorting, they should be a policy of last resort, after, or in conjunction, with other policy steps which are low cost. Much has been written about the enabling policies required for housing markets to work well.[11]

In this connection, it is important to emphasize the negative effects of *inappropriate government regulations and institutions* on market outcomes. We have already mentioned, for example, the unnecessarily strict building, planning and subdivision standards; poor property rights and registration systems; excessive government involvement in the urban land or housing finance sectors; rent control; and other policy or regulatory bottlenecks which may frustrate the efforts of the market to serve all portions of the population. The highest priority for government action under these circumstances is to remove or adjust such institutional and regulatory bottlenecks before any subsidies are considered that compensate for poor market outcomes.

[11] Mayo, 1983; Angel 2001.

3.2 Criteria for Designing and Evaluating Subsidies

Four evaluation criteria are most frequently used to assess subsidy programs: the economic criteria of efficiency at the micro- and macro level, the market effects of subsidies, distributional issues and fairness, and the public accounting principle of transparency. A fifth important criterion in the design of subsidies is the incorporation of monitoring mechanism that can lead to adjustments of the subsidy over time or its phasing out.

- **Efficiency** is about maximizing outputs for a given measure of inputs, i.e., using subsidy resources in such a way that net benefits to both recipients and society are maximized relative to opportunity costs. Types of efficiency are:
  - *Production efficiency* measures whether the cost of the subsidy can be reduced without affecting the outcome of the subsidy, for example, by using the private sector rather than government in implementation.
  - *Administrative efficiency* measures the cost burden to implement subsidy programs, which, in some instances, is higher than the subsidy itself, especially if new organizations have to be set up.
  - *Consumption or transfer efficiency* measures how the recipient values the unit or its improvement compared to its market valuation. Another way to measure consumption efficiency is to assess whether the subsidy merely replaces the recipients' own housing investment or expenditure, i.e., whether it really serves households at the margin.

- **Market effects of subsidies** All housing subsidies alter markets to some degree in the process of changing incentives. Sometimes the subsidies are designed to explicitly improve the operation of housing markets, while other times equity or other goals are paramount. Nonetheless, even subsidy programs focused on equity concerns need to be designed with a view to the market context in which they operate. In practice this means that, where possible, subsidy programs should adhere to the following precepts:

  - Use market principles such as competition in their design and leave a portion of the risks with private entities or households;
  - Utilize market mechanisms such as auctions rather than non-transparent government allocation systems for subsidy funds;
  - Use existing, reputable market or NGO actors rather than government entities to implement programs; and
  - Avoid setting up separate circuits of publicly-owned businesses that will make it difficult for private actors to enter that part of the market in the future. If this is not a choice, subsidy programs should include an exit strategy to allow private entities to take over the specific function in future.

- **Distributional issues and fairness** relate to concerns of whether outcomes within and across programs improve or worsen income or housing inequalities in society. Many mortgage finance-linked subsidies exacerbate housing inequities when they serve as the main housing subsidy program in a country. But even direct demand subsidies may make those who are

above an income threshold to qualify for the subsidy often worse off relative to those who receive a subsidy.

- **Transparency** of subsidies measures if the real cost of the subsidy is made explicit. Many subsidies are not accounted for in the government budget but are implicit or hidden, which hampers efficient design and adjustment. If costs cannot be shown in the budget, as is the case for fiscal subsidies (e.g., tax benefits, tax funds used for housing) and implicit government guarantees for mortgage lending, it is difficult to compare alternative subsidies, or phase them out. The budget office of the government needs to make the costs and risks of such subsidies explicit each year.[12] Such calculations entail estimating foregone tax revenues[13]; recognizing the risks of non-repayment of loans from special funds and the liability this poses for the actuarial soundness of these funds; and estimating different risk scenarios including catastrophic or systemic risk for government guarantee programs.[14]

- **Program Adjustment and Exit Strategies** need to be spelled out from the outset of a program. As the GDP, income distributions and demographic profiles of countries change, and as housing markets develop and the financial sectors deepen, housing subsidy policies need to change. Indeed, few conditions that require housing subsidies are permanent or cumulative and many are of a transitory nature. Yet, most subsidy programs lack a plan that calls for their regular evaluation and adjustment over time. Programs frequently remain in place long after they have fulfilled their objectives or are shown to be ineffective.

  Having an adjustment or exit strategy is particularly relevant for subsidies funded by international development agencies, most of which have a fixed funding period. Project design, however, seldom includes plans for the gradual take-over of the subsidy commitment or function by government. Section 5 gives some examples of project related micro lending programs.

The use of these core criteria, even if applied only conceptually or with simple measurements, can improve subsidy design and reform greatly.

4. Subsidies to Expand Mortgage Finance Down-Market

Any pro-poor housing subsidy policy in developing countries has to include measures to make sure that as many underserved households will be able to buy or rent a house in the private formal housing market as possible. Even the cheapest house in the market will require access to upfront and fairly long-term finance. In most countries, the frontier for access to mortgage finance has to be expanded down-market with some urgency. No government can solve the

[12] The International Monetary Fund (IMF) and the European Union (EU) have published transparency rules related to government subsidies. As yet, however, these are not widely implemented or enforced.
[13] Such calculations are more complex than merely compiling the total tax deductions, since the tax program itself may affect the consumers' decision to become home-owners, and may induce households to take out larger loans (see Sinai and Gyourko, 2004).
[14] For example, implicit government guarantees to the housing finance sector in Brazil have cost the government as much as 6% percent of GDP.

housing problems if the broad middle income group cannot house itself. This may, initially, require some government support. However, in the end, most government resources for housing should be utilized to benefit the truly disadvantaged for whom formal housing markets will not work for a long time to come.

What is involved? The market frontier was defined in Section 2 as *the margin beyond which specific demand and supply constraints limit expansion of and access to mortgage markets.* These margins cannot be moved by relaxing lending standards or putting caps on interest rates, since that would jeopardize the healthy development of the industry. Rather, government has to develop a package of incentives to address *the exact reasons for the lack of down-market extension of mortgage markets.*[15] Designing new subsidy incentives with the objective of improving market efficiency is complex, however, precisely because it is just as easy for such interventions to create negative future effects on markets.[16] Their design, adjustment and/or phasing out, therefore, must be undertaken with great care.

4.1 Mortgage Market Constraints and Subsidies[17]

4.1.1 Overview

Constraints to the efficient growth of housing finance systems vary widely across countries.[18] In this section we focus specifically on issues that are critical for the expansion of the *lower-middle income market*, i.e., those related to credit risk management and the cost of doing business in that segment relative to the smaller loan sizes. Additionally, the lack of long-term sources of funds makes it difficult specifically for non-bank financial institutions to enter mortgage markets, and for more stable fixed rate lending products to be used. Addressing those issues goes a long way toward opening access to lower income households. These constraints and possible ways to alleviate them are summarized in Table 1.

Table 1: Possible System Subsidies to Expand Mortgage Finance Down-Market*

System Constraints	*Possible Subsidy Measures*	*Issues*
1. Access to Longer-Term Funds*		

[15] Calomiris, 1994; Mayo, 1999

[16] For example, Calomiris, 1994, explicitly includes subsidy measures to address market failures related to the negative impact of wealth inequities, information asymmetry, etc. Other authors maintain that subsidies cannot improve market efficiency because of the unavoidable, deadweight loss they imbue (the inefficiency that a subsidy creates as people allocate resources according to the subsidy incentives rather than the true costs and benefits of the goods and services they buy and sell).

[17] The focus here is on market and household constraints impeding the opening up of markets to *middle and lower-middle income groups*, rather than on measures to improve the efficiency of the system as a whole, although the two are related. For a treatment of subsidies to address the latter see Hoek-Smit and Diamond, forthcoming 2009.

[18] Imperfections such as asymmetric information, incompleteness of markets and moral hazard are endemic in housing finance systems. This means that second best solutions to those assumed by theories of complete and competitive financial market models are all one can hope for. Allen and Gale (2001) discuss such trade offs for financial systems in general.

Limited access to funds for lending (medium term) or to liquefy the loan book	• Public guarantees for lenders to access funds (public/private partnership) • Access to partially government-sponsored liquidity facility for all or a certain class of mortgage lenders • Subsidized cash-flow guarantees for debt funds channeled to housing lenders	• Carries relatively low risk (see also below) • A liquidity window can be structured as a joint public/private venture to limit government risk exposure or political misuse
2. Lending Risks and Costs in Underserved Markets		
Credit risk / collateral risk for mortgage lending	• Subsidize information collection and research on property and credit markets • Pay private mortgage insurance premium (overlap with household subsidies) • Pay for borrower education • Shift (part of the) credit risk to a (partially) state-sponsored entity • Provide (partial) guarantees for social rental housing loans	Additional government action needed: • Credit bureaus • Regulations allowing payroll deductions • Property information systems • Improved foreclosure methods • Community negotiations in case of default • Neighborhood investment plans to mitigate neighborhood risk (see below) Requires: private lenders to invest in user-friendly servicing system
Credit risk related to construction lending	• Provide (partial) guarantees for construction loans	• May be risky; requires safeguards on quality of construction, etc.
High transaction costs for loan origination and servicing	• Subsidize lenders' transaction costs for selected borrowers through cash payment or compensation for higher interest rate (can also be structured as part of a household subsidy)	Prerequisite: • Improved underwriting and servicing methods (see also under credit risk)

* Interest rate risk, sovereign and exchange rate risk are not considered in this table.

4.1.2 Subsidies to Alleviate Funding Constraints

Even if a country has vibrant primary lending institutions, they may be limited in scale by lack of stable funding, or the system as a whole may not have appropriate markets for managing funding risks such as liquidity risk, interest rate risk, and prepayment risk. Such factors cause interest rates to be higher and more volatile, loan terms to be shorter than they otherwise would be, and appetite to be low for fixed rate mortgages. At the same time, lower-middle income households often prefer fixed rate mortgages over adjustable rates even if the rates would be higher on a fixed rate loan.[19]

[19] For example, see Struyk 2008 on Indonesia.

The government could, under these circumstances, support interventions (which are subsidies even if not usually and explicitly called that) to *improve access to capital markets and hence increase funding options and manage the risks related to long-term lending*. For example it may:

- Support a (public-private) liquidity facility
- Provide cash-flow guarantees or temporary tax incentives for mortgage securities.

Such measures are particularly important for expanding mortgage lending by finance companies where funding through a deposit base is not an option. At the same time such lenders are often more innovative in developing systems to reach informally employed borrowers and are less hesitant to underwrite and extend loans for existing properties.

Examples of government supported liquidity facilities in emerging market economies are *Cagamas* in Malaysia, *Sociedad Hipotecaria Federal* in Mexico, and, the more recently established Indonesian PT Sarana Multigriya Finansial (SMF) and the Egyptian Mortgage Refinance Company. The first two organizations are examined in Box 2 and Box 3, below. For such institutions to work, offerings and operating conditions must be attuned to local market conditions and needs. Often government or external equity investments or guarantees are used to enhance their standing in the market place. Other subsidies by way of technical assistance are common as well.

Box 2 Mexico's Liquidity Facility *Sociedad Hipotecaria Federal* (SHF)

SHF**,** a government funded entity, was tasked with stimulating the private housing finance sector through a combination of liquidity lending, financial guarantees and upfront household subsidies for those households not covered by the housing funds (see Section 2). It supported the creation and growth of private non-bank lenders called *Sociedades Financieras de Objeto Limitado* (SOFOLES) which successfully started mortgage lending when the banks dropped out of that market after the country's 1994 financial crisis. SHF provides liquidity funding for SOFOLES focused on moderate income housing loans, complemented by an upfront subsidy for qualifying borrowers. It also provides interest rate swaps indexed on minimum wage movements.

SHF was instrumental in developing the secondary market for mortgages, and larger SOFOLES began to access capital markets directly, mostly through structured finance arrangements. The institution is still the secondary lender of last resort. This function has expanded as a result of the recent upheavals in the capital markets for mortgage securities. While SHF's liquidity lending was to be phased out in 2009, it is now allowed to continue that function indefinitely. The danger with this open-ended intervention in the market by a para-statal institution is that it may crowd out private funding once the market for mortgage securities resumes. SHF still administers the mortgage linked household subsidy program and has expanded its offerings to micro-lenders for housing.

Box 3 Malaysia's *Cagamas*

The central bank of Malaysia, Bank Negara, organized the establishment of a centralized liquidity facility, *Cagamas*, in 1986. Bank Negara retains only a 20% ownership share, but is prominent in its governance.

The company does not have an explicit government guarantee, but is seen to be implicitly guaranteed by virtue of its close ties to Bank Negara.

Cagamas was created in order to address two immediate problems. Macroeconomic shocks had created a liquidity shortage for the banking sector. Moreover, the banks were mandated to hold a significant share of their portfolio in residential mortgages. In addition, the national treasury operated a subsidized mortgage lending window for civil servants and it wanted to be able to rebuild its liquidity.

Since it first started operations in 1987, *Cagamas* has grown into a major source for the funding for mortgage loans in Malaysia, recently providing 15-30% of total funding. Banks and other lenders (including non-bank finance companies) are able to borrow at either fixed or floating rates for terms of three, five, or seven years. However, the bulk of the borrowing is for three years at a fixed rate, despite the fact that the standard loans terms are for 15 years or more at a floating rate. This situation reveals how *Cagamas* loans, and liquidity facility financing in general, are viewed as not so much medium-term funding for housing loans but rather as an asset-liability management (ALM) tool for the entire portfolio, that happens to use mortgages as collateral. As in the case of Mexico, the capital markets are now well developed and banks no longer require *Cagemas* to deal with portfolio risks on their mortgages. *Cagamas,* rather than being phased out, is seeking other intermediation activities.

Source: Hoek-Smit and Diamond, 2008.

The Indonesian liquidity facility SMF so far has been only modestly successful in contributing to the growth of the mortgage sector. It was only allowed to make loans for a maximum term of three years, there were issues with double taxation of its products, and it did not receive explicit government or outside guarantees. This made its offerings unattractive for lenders. Moreover, banks were liquid and did not need the products that the SMF could offer. Now that most of the constraining operating conditions of SMF have been changed, more financial institutions, including mortgage companies, are interested in refinancing their loans with SMF.

Some lessons. Some lessons drawn from the examples of Mexico, Malaysia and Indonesia are that there must be a clearly identified market or public need for such a facility, and its offerings must be attuned to those specific needs. Government regulations needed for the smooth operation of such institutions should be put in place at the time of initiation. Lastly, institutions or specific functions should be phased out when no longer needed.

Another frequent issue is that the state may seek to reduce funding constraints not just to improve markets but for the explicit purpose of *reaching social goals*. In developing countries where the primary market is very small, several governments provide subsidized equity funding, lines of credit, or other funding advantages to state-owned, primary market lenders with the explicit purpose of providing below-market loans to specific categories of borrowers or investors in *social or private moderate income rental or ownership housing*. However, *the costs and distortions imbedded in such special non-market funding systems have to be carefully assessed on their long-term impact on the sector. They often do more damage than good.* Since such subsidies were not originally designed to serve equity purposes, they often do not reach lower-middle income groups and they often carry high hidden costs to the financial systems and the economy. Therefore, policymakers need to carefully assess alternative ways to reach distributional goals, such as through transparent household subsidies

4.1.3 Subsidies to Address Mortgage Credit Risk

Credit risk is perceived to be the most critical deterrent of mortgage market expansion in developing countries. It is due to a lack of credit and property market information, high risk of loss given default because of poor foreclosure systems, and lack of mechanisms to deal effectively with credit risk. In particular, more risky borrowers, such as those informally employed or living in risky neighborhoods or multi-family housing, seldom qualify for mortgage loans. These constitute a large proportion of middle income households. Tools to assess credit risk do not exist and risk-based approval procedures are difficult to implement for political or practical reasons.

An increasingly accepted subsidy objective is to support mechanisms to alleviate or share the credit risk, which can open up mortgage markets to hitherto underserved segments of the market. The questions to be asked here are under what conditions does it make sense for a state to intervene in improving credit information or provide credit insurance or guarantees, and why does the private sector not invest in those instruments? This happens successfully in a number of countries, and the case for state intervention must include rationales for why the private sector does not address this activity currently or at an optimal price.

The *first priority for government in this connection is to improve, jointly with the private sector, the regulations, institutions and information infrastructure* that affect the workings of the mortgage sector (e.g., appropriate standards, property registration systems and cadastres, information and research on the housing sector, improved foreclosure methods, and improved underwriting and servicing methods by the industry). Only then does it make sense to subsidize credit risk mitigation. *Once the credit risks in these underserved markets are better understood and controlled and the transaction costs are reduced, government can decrease or phase out their support.* Some of the most successful subsidy interventions to control credit risk are as follows:

- **Provide incentives for the establishment of a credit information system or a credit bureau**. In most countries, the private sector sees the benefit of pooling together credit information without support from government or only with supportive regulation. In other countries, the private sector is reluctant to do so, particularly if the market is dominated by a big lender. Government may need to play the role of facilitator and subsidize the cost of establishing a comprehensive credit information system jointly with the private sector. For example, the government of Thailand has launched such an initiative through the Government Housing Bank. It reports that it has assisted banks in qualifying households that previously would have been difficult to underwrite.

- **Subsidize credit insurance.** Government can support private mortgage insurance, share some risk in a public/private insurance scheme, or even establish a government credit insurance system, though the latter presents higher moral hazard risks.

  The type of credit insurance program will differ depending on the mix of goals set by government. For example, insurance may be “market-priced” or “below-market priced”; it may be universal or applied to targeted households, such as on the informally employed. It

may cover only part of the risk or take on all of the risk; it may be designed for long-term mortgage credit or shorter-term. Government may also consider *paying for the mortgage insurance premium* for selected households rather than sharing in the credit risk directly. A major issue to consider is that, whenever the state takes on risk itself, there may be problems with moral hazard, i.e., that *participant lenders will be more likely to commit fraud or take on excessive risks.* The design of the administrative and control systems is therefore as important as the insurance system itself.

Two examples of government participation in mortgage insurance or guarantee schemes are given in Boxes 4 and 5. The government of Lithuania provided minimal and transparent support for the establishment of a private mortgage insurance system.

Box 4 Lithuania Mortgage Insurance

The government of Lithuania set up a mortgage insurance scheme, effective July 2000. The rationale was to encourage private lenders to offer loans with longer terms and higher Loan-to-Value ratios (LTV). The Lithuanian Mortgage Insurance Company (LMIC) was created as a fully government-owned company, but operating on commercial principles and in 2001 the official guarantee of the government was withdrawn.[20] A state subsidy that paid for half of the insurance premium of qualifying first-time homebuyers was set to be eliminated as well. The LMIC is a good example of a state setting up a mortgage insurance scheme where a private scheme would not arise with the intent to run it on a commercial basis and remove the explicit government guarantee within a set time but subsidize access through a subsidy to households on a targeted basis. The ultimate subsidy to this entity is, therefore, small and limited to the initial capital and was phased out within a few years.

Source: Diamond, 2002.

The government of Morocco operates a government guarantee scheme that is deeply subsidized with the specific purpose of opening the private mortgage market to informally employed borrowers.

Box 5 The Case of Morocco's FOGARIM Guarantee Program

In 2004, the Moroccan Government launched its Cities without Slums program (*Villes sans Bidonvilles* or VSB) with the intent to eliminate all slums by 2010. The nationwide VSB program aimed at providing accommodation to the approximately 212,000 households living in urban slums across the country by 2010. Initial efforts focused on physical solutions, but VSB soon discovered that most households could not pay for the new housing or serviced plots that were offered. Access to housing loans was required to make the housing solutions affordable to lower-income groups. Three main reforms were made: a) establishment of mortgage guarantee funds; b) extension of micro-finance services to housing; and c) establishment of contractual savings schemes for housing.[2]

As part of the housing reforms, the government introduced FOGARIM, a mortgage guarantee fund. Its objective is to give banks the security they require in order to lend to households with irregular or informal sources of income. For this, the banks are guaranteed 70 percent of the principal balance in

[20] An odd aspect of the situation is that insured loans, even the ones made when the LMIC was backed by a state guarantee, require the same full capital reserves as uninsured loans. This discourages use of the insurance.

case of default after a nine month period. Guarantee payments come from a fund managed by the *Caisse Centrale de Garantie* (CCG), a public agency under the purview of the Ministry of Finance and Privatization. The fund (USD 25 million) receives its allocation from the Housing Solidarity Fund (FSH) which, in turn, is replenished from a dedicated tax on cement. The FSH is controlled by the Ministry of Housing and Urban Planning and is dedicated to finance social housing programs and the eradication of slums. FOGARIM's initial capitalization amounted to USD 23 million, with a commitment from the Ministry to release two more payments of USD 23 million in 2006 and 2008.[2]

The FOGARIM program experienced a slow start, attributed to the lack of marketing of the product to banks and low-income populations. By May 2005, only 660 credits had been guaranteed.[2] However, it ultimately caught on and led to a significant increase in the number of housing loans being made by banks to this target population with considerable competition on interest rates and services. As of April 2008, the number of loans guaranteed was 34,600, with a mean size of USD 18,260 and USD 700 million guarantees committed.[3]

Partly as a result of reduced risk through the FOGARIM guarantee, banks reduced the interest rate of mortgage loans from 7% in 2004 to 5% in March 2008, and increased the maximum loan term to 25 years as compared to seven years in the past.[4] The maximum monthly household income for loan eligibility is USD 375, and the maximum loan amount is USD 25,000. Final loan payments must be made before the borrower turns 60 years old.[1]

Despite its success, there have been several issues with the implementation of the FOGARIM guarantee. The maximum monthly payment amount is low relative to the average house price under the program. Moreover, the age limitation requires every beneficiary over 35 to take out a shorter term loan with higher monthly payments. The eligibility requirements are not always enforced and there is evidence of subsidy misallocation. Also, the 70 percent guarantee seems to be a disincentive for banks to conduct adequate due diligence on potential beneficiary households. Yet another issue is the use of FOGARIM-guaranteed credits for the acquisition of parcels of land, rather than for complete housing units for which they are intended.

A credit education program will be undertaken by the MHU in collaboration with the participating banks, in order to disseminate information about the program and stimulate demand by those low-income beneficiaries of the VSB program that are supposed to acquire new housing units.[2] Adjustments to the eligibility criteria are required to minimize mis-targeting and control corruption. Also, government may consider gradual downward adjustment of the level of guarantee from the generous 70 percent now that the market has gained experience with this population group.[1]

References:

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- **Provide borrower education**. One proven method to decrease credit risk is to educate the borrower before he or she gets a loan, not just on the rights and duties of borrowing, but also

on home maintenance. Government can subsidize such education. The effectiveness of this method has been shown in the U.S.,[21] and by the Housing Loan Guarantee Company of South Africa and the SOFOLES in Mexico. These institutions have proven as well that user-friendly servicing systems that pay immediate and personal attention when a borrower misses a payment are critical to reduce losses when a default occurs.

- **Reduce collateral risk through investment in neighborhood services and infrastructure.** If the goal is to expand lending into marginal neighborhoods, a partial mitigation of the credit risk will seldom be sufficient in emerging markets. One of the most important barriers to lending in low-income markets is the uncertainty of neighborhood factors that are critical in determining house-value movements. *Much broader infrastructure and institutional support is often required to alleviate neighborhood or condominium risk effects on the value of the collateral.* Lenders may require agreements on an investment plan by local government before entering into low-income markets, certainly if they are not covered by a mortgage insurance program.[22]

4.1.4 Subsidizing Transaction Costs

The main reason for housing sub-markets being underserved by lenders, aside from credit risk, is related to costs relative to profit of certain customer segments or loan products. Household income verification may be more cumbersome because of a larger proportion of self-employed households in those markets; loans are smaller and therefore the origination fee is either inadequate for the lender or excessive for the borrower; and servicing of loans is costly relative to the size of the loan. Government may decide to compensate lenders directly for these higher transaction costs to bring financial institutions into those markets, at least for an initial period. Ecuador used this method successfully in the 1990s, and phased it out when lenders had gained experience in servicing more risky customers.

The resistance of mainstream mortgage finance institutions to incur set-up costs to reach lower-income and higher-risk customers, even with subsidies, has led to the conclusion that *it may be more cost effective to target this type of government support towards community-based or smaller mutual housing finance institutions.* These lenders already have better information systems in place to deal with less conventional customers since they work at the community level. In addition, their package of housing loan products is often more suitable for this type of customer, i.e., it frequently includes non-collateralized shorter term loans for home-improvement purposes.

4.1.5 Investing in Information and Research

Information collection and research is needed for the efficient functioning of the housing market, but is often not gathered if any one private entity cannot capture the benefits. Examples of such useful "public good" data and research topics include comprehensive property information, trends in house prices, consolidated credit information across financial institutions (for use in credit scoring or development of mortgage default insurance or securitization markets), research

[21] Hirad and Zorn, 2001.
[22] In the U.S., the FHA insurance program was effective in stimulating investments in underserved neighborhoods.

in standardization of mortgage procedures, new credit instruments, reasons for default, default trends and the scale of and reasons for losses after default occurs, and so on. The rewards from developing expertise within the industry on housing and housing finance issues are extremely high, given the huge amount of resources that most governments and societies invest in the housing sector.

4.1.6 Guaranteeing Development and Construction Finance

A special type of credit risk is related to *development and construction lending for lower-middle-income housing*. This type of short-term lending is relatively risky because of the frequent construction delays, difficulty in enforcing quality controls, uncertain collateral value of unfinished construction projects, and sensitivity to macroeconomic cycles or risks in the sale and transfer process to end users. Lenders are often reluctant to make such loans and will only do so with special guarantees. Government may develop special measures to overcome this constraint for socially-important housing, perhaps by paying for *guarantees* offered through private or non-profit insurers (Egypt), by establishing institutions that *guarantee construction quality* (South Africa), or by *taking on part of the risk* by itself or jointly with international development institutions, with the necessary safeguards to protect against moral hazard.

4.2 Household Subsidies to Expand Access to Mortgages

Incentives to the mortgage system may be necessary but not sufficient for these markets to expand. Often a complementary subsidy to households on the margin of the mortgage market is necessary to include underserved households. The use of mortgages leverages households' own contributions by requiring that the household takes out a maximum affordable mortgage loan and saves for a down-payment they can afford. Lower subsidy amounts are required than would otherwise be the case. If such subsidies are applied not just to potential owners of new houses but also of existing houses (which are generally lower priced), an even lower income group will be reached and greater mobility will result in the broad middle income market. Such household subsidies should be adjusted over time to reach increasingly lower income groups and larger numbers of informally employed.

4.2.1 Types of household constraints

When there is a possibility that lenders will expand their lending to moderate income households, the key question becomes what type(s) of subsidy will be most effective in making households with acceptable credit records good borrowers. This choice depends critically on the analysis of specific constraints faced by moderate income households in acquiring a loan:

i) Income constraints relative to the house prices in the formal market
ii) Savings constraints
iii) Volatility or informality of income or employment.

These constraints will vary in different developing, emerging or transition economies and for different sub-markets within countries. For example, in Egypt, households are typically aided by family members to collect the large down-payment and upfront cost of obtaining a mortgage, but

may require support for the monthly payments on a loan because of the discrepancy between incomes, house prices and prevailing interest rates. In countries in Latin America where family savings are not so easily available, the hardest part of becoming a homeowner is saving for a down-payment while still paying for rental accommodation. The design of subsidies to support households at the margin of the mortgage market should reflect such varied household conditions.

- **Subsidies to alleviate income constraints.** Several types of subsidies address the discrepancy between required monthly payments and income levels of potential beneficiaries.

  - **Interest rate subsidy.** In the past, the most common mortgage-linked subsidy provided a below market interest rate on the loan. However, such subsidies were nearly always provided by government lenders or by closed lending institutions with non-market based sources of funds. It is difficult to predict the actual value of an interest subsidy since market rates will shift and, with them, the depth of the subsidy. Subsidy systems based on subsidized interest rates often remain small because of limited funding and the costliness to access capital markets. Interest rate subsidies are quite inefficient in other ways as well. They are provided for the entire life of the loan, while few households require a subsidy for that long; they are therefore expensive in present value (PV) terms relative to other subsidies and hinder prepayment.

  - **Transparent buy-downs of interest payments or monthly payments.** As an alternative to interest rate subsidies, the state can offer private sector lenders assistance that directly reduces the interest payment or total monthly payment on a market-rate housing loan. Such a subsidy is sometimes called a "buy down", reflecting the fact that the state is paying the lender to reduce the cost of the loan. An example would be the following: if the market rate charged by private lenders is, say, 15%, the state offers to pay 5% towards this amount, thus reducing the effective rate paid by beneficiaries to 10%. A key factor determining the cost to the state of such a subsidy is that most such buy-downs are phased out over the initial years of the loan, under the assumption that inflation or normal growth in incomes will permit the borrower to bear a greater burden. When the present value of the total buy-down value is calculated and the money deposited in an escrow account in the bank, such subsidies are completely transparent as well.

    Borrowers appreciate such subsidies because they can fully understand the impact on their housing options. Lenders like them because they expand the size of their average loan and the number of borrowers, although the administrative complexity of certain schemes can be a deterrent to use by some private lenders. Finance ministries like them because the cost of the subsidy can be calculated transparently and put on the budget for the full commitment or on a yearly basis. See Box 6 for an example.

Box 6 Jordan's Interest Buy down Subsidy

The Hashemite Kingdom of Jordan had used a number of programs for housing production or government-sponsored lending prior to 2000, but all involved non-transparent budgeting and relatively ineffective targeting. In 2000, the government decided to replace these with a new

interest rate subsidy that would be transparently funded and allocated and utilize private sector distribution channels.

The subsidy that the government opted to utilize is a 5% reduction from the market rate set by a private lender, applicable for the entire term of the loan (typically 20 years, but with high rates of prepayment). Initially, market interest rates were about 15% but have drifted down since 2000, leaving the net effective mortgage rate at about 10%. This was still above the rate of return on investment options for cash savings, and thus did not elicit negative arbitrage in the financial sector. The subsidy could have been more efficient if it were phased out over, for example, the first five years of the loan.

The full present value of the future payments is budgeted out of the corpus of a special fund. The number of subsidies allocated each year is designed to permit the fund to sustain itself indefinitely (depending on the course of real interest rates). In addition, there are binding limitations on income and house prices, and a transparent point system for allocating access to the limited number of subsidy contracts funded each year. The loan can be used for the acquisition of a house or flat, improvements, or the acquisition of a plot for self-construction. The actual average size loan under the program has been only JD 6,000 (about USD 8,400).

Source: Updates from Diamond et.al, 1999.

- **Grants towards the loan amount or house price.** These subsidies lower the total loan burden and decrease monthly payments. Also, lowering the loan amount rather than the monthly payments is preferred in high interest environments. Such grants can also be provided in the form of a capital subsidy on serviced land or the cost of the house in general, which will lower the debt burden of households, and increase the equity in the house, and therefore lender confidence. Down-payment requirements, i.e., savings requirements, generally stay in place.

  For example, Egypt is working towards a combination of monthly payment buy-downs and a (declining) subsidy on the land to developers. Land markets are too volatile for the cost of land to be priced into the housing package for the lower-middle income groups. At the same time, by linking the package of subsidies to the maximum loan amount that households can afford, household contributions are leveraged and overall subsidies per household are lower than would be the case without tapping into mortgage markets.

- **Subsidies to alleviate savings constraint**. Studies in several countries have shown that the main hurdle for expanding moderate income homeownership is for households to save enough money to pay for the *down-payment, title and closing costs and /or an upfront premium for mortgage insurance*. Upfront grants can be applied differently:

  - **Grants towards the down-payment** assist in the payment for any or all of those expenses and may be an effective way to expand the formal housing sector for households at the margin. Such a down-payment subsidy should never substitute for all household savings as households should always hold some equity in the house.

  - **Payments for mortgage insurance** have several additional benefits: they generally lower the down-payment requirement and make the loan more attractive to the lender.

- **Upfront grants complemented by a required savings program** assist households to save for some of the equity in the house. Savings programs can assist the lender to assess whether the borrower can handle a regular payment schedule. They should preferably be for a set number of months and for a certain amount. These programs are most efficient if they do not lock the borrower and lender into a closed system whereby interest rates for savings and lending are set administratively or whereby loans are issued based on the availability of funds in the system. An example of this latter type of subsidy is the German Bauspar system which has been imported in several transition economies, often with less than satisfactory results. For another example of an upfront grant subsidy, see Box 7.

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- **Soft-second mortgages** are another, more complex way to lower the savings requirement. A second mortgage loan is provided by government that may be interest free and will need to be paid back after the first loan is paid off and only if the house has appreciated in value. While potentially a more efficient subsidy than an outright grant, the conditionality of paying back such loans has been fraught with misunderstandings in the context of low-income housing markets in emerging market economies.[23]

Box 7 Chile's Upfront Grant Subsidy

In 1978, Chile had a fairly developed commercial banking system, social security and pension fund systems, and capital market. The government believed that given the proper regulatory and macroeconomic environment, the housing sector could function as a tool to stimulate economic development, alleviate economic recession, and improve poor and equitable housing conditions. Thus, it created a transparent national housing cash grant / voucher program for first-time homeowners to use for partial down payments on loans from private lenders for new homes built by the private sector. A maximum house value was set as well as a progressive subsidy amount based on a point system. This ensured that of the 20% of eligible applicants selected each year, low-income households received the largest grants in proportion to their loan size and that more needy households and those who had saved more would be given priority. In 1990, new construction rose above the rate of new household formation and the program was revised to include existing houses.

While the program worked well for the lower-middle income market and above, demand-side incentives were insufficient to compel private lenders and developers to move into the low-income segment. Even for the lower middle income segment, the *Banco del Estado,* the largest state bank, continued to hold the largest market share. In 1980, government began contracting out construction of low-income unfinished units on cheap land far from city centers, providing loans directly to beneficiaries. Beneficiaries disliked both the housing products and the locations which resulted in high levels of abandonment, and poor loan repayment.

In 2002, major revisions were made and moderate-income lending was left to the banking sector (mostly the *Banco del Estado,* now renamed *BancoEstado*). The government provided a maximum USD 3800 upfront cash grant and incentives to lenders in the form of loan servicing compensation and partial credit risk guarantees to serve households that could afford a loan for a maximum house price of USD 15,000. The lowest income brackets that could not save or carry debt were provided with a very basic house worth less than USD 7500 which they had to finish themselves. While

[23] For example, Costa Rica was forced to abandon the soft-second loan structure of their upfront subsidy.

middle-income beneficiaries were allowed to select from new and used houses, low-income households' choices were limited to these new government houses.

In summary, repeated efforts to make the program work for low-income groups have yielded poor results and have moved the program to a supply-side approach. The low-income bracket still does not have access to appropriate credit mechanisms and because the subsidy cannot be applied to existing housing which is more affordable, the top of this income bracket cannot begin to filter upwards.

Source: Ruprah and Marcano, 2007; Hoek-Smit and Diamond, 2008; Pardo 2001; Rojas, 1999.

- **Subsidies to deal with employment and earnings uncertainty**. In general, self-employed or informally employed borrowers carry a higher credit risk even if they would qualify for a mortgage or consumer loan on the basis of their expected cash flow from income. In many developing countries, the majority of actively employed people work in the informal sector (see Section 2). It is important for formal housing market expansion that mechanisms are found to facilitate mortgage lending to the most credit worthy households in this group.

  The private market can introduce innovations to profitably serve this customer base. Lenders may use flexible mortgage instruments, require upfront savings periods and higher down-payments and develop borrower friendly servicing systems. They may do research on their portfolios to gain a better understanding of the risk profile of the informally employed and price loans differentially.

  Examples of subsidies that can further encourage such private sector innovations are:

  - **Contribution to a blocked escrow account** that can be accessed when payments are missed. It is a transparent and upfront subsidy that can be handed over to the borrower if money is left in the account after a set period of time. Such a "payment insurance" scheme may also be usefully applied to consumer lending for housing which may be more appropriate for the low-income part of this group.

  - **Payment for a specialized mortgage insurance program** (see Box 5 on FOGARIM).

  - **Borrower education** has proven particularly effective for this type of client.

4.2.2 Evaluation and adjustment

Most recommended types of subsidy use an upfront budgetary allocation disbursed in full in the initial budget year, including the monthly payment buy-down. These upfront subsidies use *more equitable* targeting mechanisms than tax subsidies or broad interest rate subsidies discussed in Section 1. The *consumer or transfer efficiency* – the effects of the subsidy on the actual production and consumption of houses – is generally considered to be much higher for upfront grant programs. However, *expenses per household* for cash grant programs are relatively high if a fairly high minimum housing standard is set and the use of complementary debt finance is low. For example, the budget expense of the Chilean upfront grant subsidy was approximately four to five percent in 2002/2003. Also, these subsidies may require additional support to expand

housing finance systems (see examples above). Lastly, these programs may be *expensive to administer*.

Because the costs of upfront grants are known and on the budget, they are often less favored politically than are off-budget tax subsidies for example. This transparency allows more frequent evaluation and adjustments to changing conditions. The flip side is that they are more readily phased out, for example, when donor funding is stopped or the budget needs tightening. Such was the fate of upfront grants in Costa Rica which were stopped when the country ran a budget deficit. It takes a long time to regain private sector confidence in a program when it is prone to a stop-and-go policy.

Another issue with upfront grants is that when housing supply for the targeted market is dependent on the subsidy -- i.e., when there is no market yet -- upfront grants are often provided to developers directly rather than to households to find their own house in the marketplace, i.e., they are used as production grants. Grants to developers are, however, hardly ever fully transferred to the customer by way of lower prices. Recent analyses done by the author in Mexico and Egypt proved this fact yet again.

5. Subsidies to Improve Housing Quality through Increased Access to Non-Secured Loans and Micro-Loans for Housing

5.1 A Closer Look at Market Segments

While mortgage markets are critical in solving the housing problems of the broad middle and lower-middle income groups, they will not solve the housing problems of the poor in low income countries, or lower-middle income countries with highly skewed income distributions, for some time to come. A large proportion of households (often at least fifty percent of newly formed households) cannot aspire to solve their housing problems through formal housing markets. Incomes are simply too low relative to prices of serviced land and standard formal housing. Incremental construction is often not permitted and it is not considered profitable for private developers to produce core housing. In addition, appropriate types of debt finance are not available. Informal housing and crowding in the existing stock are the only solutions.

Government must play a more direct role to increase general housing consumption for this low-income segment in order to address concerns of public health and inequity in society. The question many policy makers are grappling with is what that support should be:

- **From a public health perspective**, government ought to spread its support to as many households living in unhealthful conditions as it possibly can. Slum upgrading should, therefore, feature prominently in any government's subsidy package. The cost of infrastructure improvements can at most be recovered through user fees on services and, ultimately, on the expansion of taxes if property registration is streamlined. The improvement of the houses in upgrading areas can be paid for mostly by the residents themselves from savings, micro-credit and informal credit channels (see below).

- **From the perspective of expanding new low income formal housing solutions,** at least for the top income group of this market segment, government's role is critical mostly in the many different aspects of land management and improving the functioning of land markets. Making rural land available for urban development in a timely manner, improving land registration systems, adjusting regulations for subdivision, planning and construction, and facilitating permitting procedures are the first things government, in particular local government, must do to expand formal construction and attract private developers to this market. Additional subsidies are nearly always necessary though, whether to persuade local government to open up land for low-income housing, expand access to finance or to increase the poor's purchasing power. Such support is most effective if it can leverage the resources of the private financial sector and low-income households.[24]

5.2. Housing Micro-Finance Systems and the Role of Government

Fay and Wellenstein (2005) contend that the scale of micro-credit for housing (HMF) is growing as a percentage of total micro-credit, but that it is still extremely small. It is difficult to quantify micro-finance for housing since specific housing micro-finance products are often not distinguished from other consumer or micro-enterprise loans. Several studies indicate that roughly 25 to 30 percent of micro-enterprise credit ends up being used for housing improvements.[25] The fact that housing expenditures by the poor in low income countries are substantial (six to ten percent of total household expenditures[26]) demonstrates that poor people can and do spend on housing.

The types of products offered under the general rubric of "alternative housing finance" vary widely as do the financial institutions that make housing micro-finance loans. Some products are suitable for the financing of new incremental low-income housing, while the bulk of the products can only finance home-improvement. Some are subsidized while others are priced at market rates. Examples of products and lenders include:

- **Non-mortgage housing loans secured by pension or life insurance savings and pay-roll deductions** can be medium to long-term and of sufficient scale to finance new housing or substantial improvement of existing housing. In South Africa, such products account for roughly 25 to 30 percent of the housing loans made by commercial banks to low-middle income groups.[27] These loans are approximately double the size of unsecured housing loans, but only one-sixth the size of mortgage loans to the same broad income group.
- **Consumer loans for house improvement, incremental home construction or individual service connections to the house** made by banks or commercial non-bank micro-finance lenders are smaller and with a shorter term than the secured loans. Unlike microfinance loans for entrepreneurial activities, housing microfinance loans are not "secured" by future income

[24] This article does not discuss the role of central government in financing multi-family houses for rental or tenant-purchase schemes for the low-income segment or to assist local governments in expanding low-income housing. It focuses on subsidies to finance new single family homes for households that cannot obtain a mortgage.
[25] Hoek-Smit, 2006.
[26] Surveys conducted by the author.
[27] Access Housing, FinMark Trust, June 2008.

from the investment. HMF lenders often limit such housing lending to customers that have successfully completed repayments on a micro-enterprise or other consumer loan. In markets that are not yet competitive, consumer loans command very high interest rates, which make them less feasible for housing investments. For example, Mexico's commercial micro-lenders charge well over 50 percent for such loans, while in competitive markets such as Indonesia, interest rates on similar loans can be half that.

- **Micro-loans made by NGO lenders, including for home-improvement,** are typically small and short term and more often "secured" by community-based support systems or third party guarantees.[28] The limited funding base of many of the NGO-type institutions restricts the expansion into housing lending.
- **Home loans made by project-based NGO or government sponsored credit schemes** are yet another category. These loans are often heavily subsidized, generally perform poorly, and frequently the institutions fold when physical project implementation (whether for new housing or upgrading) is complete. In many cases, such institutions have proven more costly in administrative outlays than an outright household grant.
- **Loans made by community (rotating) savings and loan schemes** are small and unpredictable in the timing of issuance. These schemes are often not dependent on subsidies and are rather sustainable for that reason. They can only be used, though, for limited home-improvement purposes.

The third and fourth category of lenders are typically funded by soft money, at least in the start-up phase, and receive various other types of support from international development institutions. Unfortunately, no comprehensive study of such subsidy interventions has been conducted. Only sporadic assessments are available.[29] Murray and Rosenberg reviewed *donor funded community-managed loan funds* for housing over the last 15 years.[30] They assessed which type of institutions worked and proved sustainable and found that only two forms appear viable. The first are savings-based groups not supported by external loan funding, though these have a limited application for scaled up housing lending. The second are self-help groups that start with savings and then leverage bank funding (as CBO or NGO clients do). They conclude that, "where loans are financed by early injection of external funds from donors or governments, community-managed loan funds (CMLF) appear to fail so consistently that this model of microfinance support is never a prudent gamble".[31] Porteous (2006) comes to a similar conclusion: "Rapid scaling up of community shelter loans funds through external funding is not an easy answer to the challenge of extending the reach of housing finance." The example of Co-Bild in Indonesia (Box 8) is an example of a well run but not sustainable community-based housing micro-finance scheme.

Box 8 The Co-BILD Program, Indonesia

[28] In some countries pawn shops or financial institutions using personal belongings as collateral are prominent. Little is known about their role in lending for housing.

[29] Robinson's (2000) seminal work on micro-enterprise credit shows excellent general insights on poor government interference in that sector. There are several assessments of direct government lending schemes linked to housing projects which nearly universally show poor performance and lack of sustainability.

30 CGAP, 2006.

31 CGAP, 2006, p.1.

In 1969, the Government of Indonesia (GOI) set up the Kampung Improvement Project (KIP) as a measure to provide in-situ improvements to infrastructure and housing. KIP was supported entirely by funds from local governments in Indonesia until 1974, when it came under the support of the World Bank. In 1979, KIP was established by the government as a national policy. By 1982, when the World Bank support ended, close to five million people had been helped. KIP continued to evolve as part of the government's efforts to create more sustainable projects, with the latest KIP introduced in 2000. Despite these efforts, Indonesia's low-income sector continued to face housing problems due to the lack of economic incentives to sustain projects. A 2001 UNCHS report identified the need to improve two key areas of market failure in the sector: (i) finance of supply-side interventions (project finance) to provide shelter products appropriate to the poor, and (ii) finance of demand-side interventions (end finance) to enable the poor to save for and buy improved shelter.[1]

Learning from this, in 2001, GOI introduced Co-BILD (Community-Based Initiatives for Housing and Local Development), a UNCHS-executed project funded by the Netherlands Government through UNDP. Co-BILD aimed to lower the costs of housing provision through incrementally built, sequentially financed housing and community-based initiatives (collective acquisition and development of land and infrastructure).

The project mechanism consisted of decentralized revolving funds loaned to low-income groups based on market rates in 12 participating cities. Loan funds were disbursed to local boards comprised of representatives from civic society, including NGOs, CBOs, academics, professionals and local government. The boards, in turn, disbursed the loans to neighborhood groups who would then implement their housing projects.[4] The loans used a commercial interest rate, were short term (up to two year), and were used to purchase land and build new or improve existing houses. Upon successful repayment of the loan (USD 250 average, over a two-year period), the household was guaranteed a series of up to three subsequent loans. The loan repayments were used by the city institution to advance loans to other community members, and subsequently to other community groups. [3]

Almost 70 percent of the USD 5 million in project funds were disbursed as loans for the improvement of almost 5,000 houses, construction of 215 new houses and the purchase of more than 2,800 plots of land. The revolving funds grew by USD 554,120 in the two years of operation and issued **9,600 community-managed loans** (a small scale relative to need).

Although it was successful, Co-BILD lasted for less than three years. It ended in July 2003 when project funding ceased and the technical support for the project was eliminated. Had it been integrated in one or several of Indonesia's experienced micro-finance banks, it might have continued to thrive and expand.

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5. Hoek-Smit, Marja; *Implementing Indonesia's New Housing Policy: The Way Forward*, June 2002.

The main lesson from these various reviews is that housing project-linked subsidized lending schemes are typically not run on commercial terms, depend overly on volunteers or government staff rather than on finance professionals and frequently fold when project finance ceases. Yet, subsidies to HMF are often focused on these institutions. A much stronger model is to integrate commercially-based, possibly competing housing finance institutions into housing programs that can continue operating the loan portfolios after individual projects end.[32] Such an approach often requires the strengthening of existing micro-finance institutions, which will be discussed in the next section.

5.3 Subsidies to Housing Micro-finance Systems

5.3.1 Which Constraints do Housing Micro-Finance Systems Face?

The main constraints from an initial review of experiences with HMF lenders appear, not surprisingly, to be related to:

- their limited funding base and difficulty to access funds;
- increased credit risk in moving towards an unsecured but medium-term housing lending product;
- high transaction costs that increase interest rates; and
- lack of information on their potential market and client base.

We look at how subsidy support from government or development institutions can address these constraints.

5.3.2 Expanding access to loan funds: transformations from MHF NGO into banks

The non-bank model of many NGO-type MF institutions does not allow these institutions to accept deposits from the public. Their funding base remains, therefore, weak and small in scale. There is continuous need to find soft loans or loan guarantees to access commercial loans. In turn, such soft loans come with donor demands to "subsidize" lending to the poor. This is a vicious circle. These institutions are also limited in the type of financial services they can offer. The lack of a sustainable funding base has caused many non-bank and NGO-type micro-finance institutions to transform into banks. These transformations are specifically relevant for the expansion of the housing loan portfolio which requires longer term and larger loans. They open up the lending portfolio not just to scale delivery of micro-loans for housing, but also to allow for expansion into small mortgage loans and housing loans secured by other types of collateral, as evidenced by the cases of MiBanco in Peru (Box 9), and Bancosol in Columbia (Box 10).

This process requires, however, strong technical assistance from banking experts, which is expensive. The new institutions also require equity investment and initial funding for lending operations, as well as investments in operational systems. Subsidies are nearly always required to make such transformations successful.

32 Hoek-Smit, 2002.

Such subsidies are seldom provided by the government. Rather, governments typically play a supportive role by providing the necessary regulations. Most subsidies are provided by international development institutions and intermediary finance institutions like ACCION International which, in turn, receive some support from a variety of international donors, or cross-subsidize their technical assistance activities. The type of support required is detailed in the cases of MiBanco and Bancosol below.

Box 9 The Case of Mibanco, Peru: converting NGO's to commercial lending institutions

MiBanco is Peru's leading microfinance bank; it began as *Acción Comunitaria del Perú* (ACP), a non-profit organization. ACP was started by a group of Peruvian business people along with ACCION International to provide development opportunities for low income Peruvians. It grew rapidly after the reestablishment of macroeconomic stability in the mid-1990s, and effective technical assistance provided by ACCION International. By 1997, it needed more funds to sustain its growth but, as an NGO, it did not have access to deposits or capital markets. To remove these hurdles, ACP sought to transform its legal status. Its first option was to become a *financiera*, a regulated finance company which required a minimum capital of USD 3.0 million. Another option was to become a type of regulated financial institution known as a small business and microenterprise development institution (EPDYME), using a new law created in 1994 to encourage the transformation of NGOs into EDPYMEs. ACP explored this possibility further, and in 1996 its proposal to become an EDPYME was approved by the Office of the Banking Superintendent.

In 1996, the Peruvian government set up a committee of microfinance experts (with technical assistance from IADB) to explore the possibility of setting up a bank to serve micro-entrepreneurs and in 1997, ACCION International was enlisted to set up such a bank. ACCION required that the new bank would not be publicly owned but wholly owned by the private sector, and chose ACP to be transformed into this bank. ACCION International and ACP jointly submitted a concept paper to the presidential committee. In addition, ACP prepared a feasibility study on its intended transformation into a commercial bank which the Office of the Banking Superintendent approved in November 1997. On May 4, 1998, Mibanco opened its doors to the public as a microfinance commercial bank.

ACP´s entire portfolio (more than USD12 million) was transferred to Mibanco. Mibanco paid USD 1 million to ACP for access to its client base, and took over the administration for all ACP client loans. Most ACP loans were repaid within five months because of their short terms. All new loans were approved under Mibanco.[3] ACP became the majority owner of Mibanco (60% equity stake) in addition to ProFund (19.68%), the ACCION Gateway Fund (7%), and two commercial banks: Banco Wiese Sudameris, and Banco de Credito del Perú. The total initial equity capital added up to of USD 14 million. (Mibanco is still a bank owned largely by social investors. As of February 2008, when Mibanco announced its plans for an IPO, ACP remained the majority shareholder.)

In 2000, Mibanco launched Micasa, a low-income housing finance program. Micasa's primarily borrowers are Mibanco's base of microenterprise clients whose credit profile is known. Borrowers use household assets to secure loans. Micasa developed an innovative housing product for occupants of informal housing areas who received a title to their property as part of a GOP upgrading program. Households can obtain a five year loan for USD 1,000 to connect their homes to the main infrastructure services provided as part of the upgrading efforts. The program is in high demand. Mibanco is looking at opportunities to add to its value chain by partnering with building material suppliers to offer better prices to Micasa clients making improvements to their homes.(4) In 2006, Mibanco had more than 300,000 clients with a loan portfolio of over USD1,630 million.

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4. Author's interviews with Mibanco in 2007.

Box 10 The Case of BancoSol, Bolivia

BancoSol, Bolivia's largest commercial bank and successful microcredit institution, was created out of the *Fundación para la Promoción y el Desarrollo de la Microempresa* (PRODEM or, in English, the Foundation for the Promotion and Development of Micro-enterprise). PRODEM was a successful NGO set up in 1984 to provide capital to small-scale commercial activities. PRODEM was started with the seed capital and leadership of a group of Bolivian entrepreneurs, with technical support from ACCION International. In 1984, with additional capital from USAID, the Calmeadow Foundation, the Bolivian Emergency Social Fund and the private sector, PRODEM began operations. Although successful, PRODEM could not expand enough to cope with the demand for financial services because, as an NGO, it had limited capital available and regulations prevented access to local savings. As a result, it transformed into a commercial bank in 1992, Banco Solidario S.A.

The conversion process involved four phases, covering more than two years from 1989 into 1991. It was supported by ACCION in partnership with Calmeadow and PRODEM's board. The primary conversion challenges included raising capital for the high loan reserve requirements established after the banking crisis, creating awareness that the poor could benefit from market interest rates, and developing a savings program.[2] The first phase involved the creation of COBANCO (*Comité Promotor del Banco para la Microempresa*), a planning entity to obtain local commitment and initiate discussions with the government. In the second and third phases, a feasibility study was conducted, equity was raised and the legal and technical requirements for chartering the bank were fulfilled. The fourth phase involved the transfer of staff and portfolio from PRODEM to the bank.[1]

PRODEM transferred its loan portfolio to BancoSol in exchange for ownership shares in the bank. As a result, Bancosol began with a large start-up subsidy (nearly half of its paid-in equity capital to be used for its lending portfolio) and a pre-existing client-base of almost 15,000. BancoSol assumed the liability for a USAID loan to PRODEM worth USD 850,000, and another from the Bolivian Social Emergency Fund. PRODEM used its portfolio to actually purchase over 41 percent of the bank's stock. Private Bolivian businesses bought 30 percent of the equity shares, while international donors and NGOs acquired the remaining shares.[2]

In 1992, BancoSol, the country's first fully commercial microfinance institution, opened its doors. Calmeadow had a position on the board of the bank along with the other investors. PRODEM became the largest shareholder in the bank it created and worked as an arm of BancoSol, providing technical assistance and support. It developed credit programs in rural areas, leaving the urban sites to BancoSol. PRODEM continued to operate in the non-profit sector of the bank, developing new business lines that are sold to Bancosol when they reach financial stability. Currently, PRODEM owns only 30 percent of BancoSol's shares; the balance is held by Profund, the Inter-American Investment Corporation, and several local investors.

In its initial stage, BancoSol had to deal with management issues, its lack of experience in capturing savings and defining an appropriate governance structure. The technical support it received from ACCION and others was critical. Its loan sizes have now increased to offset increasing costs of funds. By reducing operating expenses as a proportion of productive assets, BancoSol's portfolio efficiency has increased. BancoSol currently has 120,000 borrowers of which 55% are microcredit clients and 13% are *mortgage* borrowers; it has 170,000 depositors, 29% of which belong to the microfinance market. It is one of Bolivia's most successful banks, leading the way for other institutions to begin serving the microfinance sector. [3]

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5.3.3 Supporting Access to Loan Funds for Non-Bank MFH Institutions

For HMF institutions without the option of transforming into a public bank, the scale of operations is often limited by lack of access to medium-term funds. The establishment of a liquidity facility or fund can assist such institutions to move into medium-term lending for housing, as discussed above in regards to the mortgage market.

One such example is the liquidity facility established by the Government of Mexico's *Sociedad Hipotecaria Federal* (SHF), which provides funds to MF institutions to make loans for home-improvements. The rate is risk-priced, but is well below what such institutions would pay in the market. Through such funding, non-bank HMF lenders can expand the term of their micro-loans for housing and in some cases can make small mortgage loans for new housing. International funding agencies are another frequent source for subsidies to the funding base of HMF lenders, either through provision of soft loans directly or low cost loan guarantees (or as equity investors). When done prudently, these types of subsidies can be effective. However, in the long run, HMF lenders need to become independent of such subsidies in order to be sustainable.

5.3.4 Addressing Credit Risk

Guarantees or insurance. When HMF lenders consider moving into medium-term lending for housing, they may be exposed to greater credit risk than they are comfortable taking on. Similar credit guarantee or insurance schemes to the ones discussed above for mortgage lending may provide a possible incentive. However, when HMF loans are non-secured, it may be difficult to find an insurer, apart from government or development agencies, to take on such a guarantee product (see FOGARIM example in Box 5).

Missed payment account. An alternative subsidy product that has been used by some NGOs is a grant for an amount equivalent to a certain number of monthly payments (for example: six)

which is placed in an escrow account, possibly in addition to a household's own savings. The lender can access the account if a payment is missed. After a number of years of good payment, the remainder of the subsidy can be "returned" to the borrower who may use it for home-improvement. Such a subsidy is a hybrid between a household and lender subsidy, and has been successfully applied in some countries (e.g., Indonesia, although it was not sustained after a donor sponsored project came to an end).

Consumer education and assistance. As for mortgage lending, educating the consumer/borrower in payment obligations and procedures goes a long way toward improving credit quality. It is the bread and butter of micro-finance institutions. Such expenditures can be and often are covered by donor subsidies. There is no evidence, however, that technical support for incremental house construction provides better housing outcomes or repayments and would, therefore, generally not be worthy of internal subsidization by HMF lenders or donor support.[33]

5.3.5 Alleviating High Transaction Costs

Another constraint faced by HMF lenders is the often high expenses in originating and servicing small loans. While electronic payments are used increasingly, most payments are still made through human intermediaries. Governments may subsidize the creation of common payment platforms to be used by a broad group of micro-lenders. The facilitation of such a platform is under consideration by the government of Mexico.

In the same context, government support for research of the sector will help the industry to fine-tune its offerings and systems.

Taken together, such subsidy incentives would go a long way to strengthen the institutional base of alternative housing finance lending operations, whether private commercial banks or non-profit institutions. More importantly, they may expand the scale of alternative housing lending to be more compatible with the enormous need for housing loans, and can do so in a prudent way. Of course, the package of incentives has to be assessed in the specific context in each country and be phased out when no longer necessary.

5.4 Household Subsidies for the Poor

Well functioning MFH systems, while necessary to help finance both home-improvements and new construction for low-income groups, may not be sufficient to trigger the desired housing improvements for this market segment. Direct household subsidies that help finance the house may be necessary to overcome market failures and affordability constraints.[34]

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[33] Porteous, 2006.

[34] In the past, household subsidies linked to micro-credit were provided mostly through below-market interest rates where non-profit lenders had access to cheap funds from government or international agencies or government or parastatals did the lending themselves. Such interest rate subsidies create distortions in the marketplace and are generally not advisable (see Section 5). They ultimately limit the expansion of private funds flowing to the housing sector. Recent programs to subsidize low-income households have increasingly used market based approaches.

Home-improvement grants tied to micro-credit. Some countries have started to experiment with grants for home-improvement that require that households take out a market rate loan of equal or larger size than the subsidy amount to complete a proposed improvement project. The schemes are administered through HMF lenders who carry out the due diligence on the borrowers/beneficiaries and have to make sure that the house is in an area that is potentially upgradable or registerable. For example, SHF in Mexico has started to provide small grants attached to home-improvement loans to borrowers made by a variety of non-profit HMF providers.[35] The program does not have income criteria, nor does it cap the interest rates that lenders can charge. While it has disbursed more than 80,000 such subsidies since it started in 2007, the program has only been accessed by two micro-finance lenders: they utilize the program mostly to soften the very high interest rates charges in the micro-finance market in Mexico (approximately seventy percent flat in August 2008). Most well-established HMF lenders do not want to be associated with the subsidy program because it would create distortions in their portfolio, and for fear of political and social backlash or government interference given the high interest rates. The program gives the two lenders, therefore, a temporary advantage, and eventually may attract some new lenders into the housing microfinance business. Nonetheless, its impact on increasing competition, and hence lower interest rates, is entirely unclear. The program has not been evaluated yet on its impacts on beneficiary households and housing conditions.

Similarly, in 2006 the government of Indonesia initiated an upfront grant program linked to micro-credit for home-improvement and progressive house construction on land owned by the beneficiary. It serves households with incomes below USD 100 per month, and provides upfront grants of USD 500 to USD 900. The micro-loan to the household has to be larger than the grant amount. In contrast to the Mexican scheme, it caps the interest rate that the lender can charge to 26 percent. It proved tremendously popular and has issued more than 28,000 subsidies in 2008. However, like in Mexico, the established micro lenders in Indonesia do not want to participate in the program because of loan and interest rate limits, and for fear of contamination of their commercial operations by a government subsidized scheme.

These new programs should be carefully monitored and evaluated to understand their impacts on the expansion of the HMF sector and the housing situation of the low-income groups or the informally employed. They should be compared to programs that provide home-improvement grants without the requirement to take out a loan.

Home-improvement grants not tied to credit. In cases where HMF lenders do not exist or there is reason to believe that many deserving households will not qualify or participate because of fear of credit, untied improvement grants may be more appropriate. They may finance general home improvements, rental extensions,[36] or individual connections to services, for example if applied to complement infrastructure upgrading schemes. An example of a successful grant program for home-improvement that does not require the household to take out a micro loan is

[35] The subsidy program is separately offered from the liquidity support offered by SHF to HMF lenders.

[36] Rental housing for low-income households in low-income countries is best delivered through private, small scale investors who build additional rooms or floors. Formal sector built rental housing requires deep subsidies linked to finance, land and construction and can be forbiddingly expensive.

the Piso Firma Program in Mexico (See Box 12). On the other hand they do not leverage households' own contributions to home-improvement, at least not directly.

Box 12 Mexico's Piso Firma Program

Mexico implemented a small but successful grant program over several years that allowed beneficiaries to build a cement floor in their houses, irrespective of where the house was located. An evaluation, using an experimental design with control groups, showed the positive impact of the program on households' wellbeing.[37] Unfortunately, the implementation procedures were not included in the study, and it is therefore not possible to compare administrative costs to government relative to programs administered mostly through HMF institutions.

Grants for new low-income housing construction. Subsidies for new housing should address the main market failure that plagues this part of the housing sector: namely, that land markets do not work for the poor, and developers are unable to develop low-cost housing profitably. A grant in the form of a serviced lot is still one of the most effective ways to allow low-income households to pay for housing. Households can then use their own resources, including debt finance, to complete the house over time. Complementary household grants may be necessary to speed up initial construction, as may support to expand lending by HMF institutions. For reasons of transparency the market value of the serviced plot has to be included in the total subsidy amount.

Often governments subsidize the entire new house package for this income segment, since savings and incomes are too low to pay for the house, and credit options are not available to this segment of the population (e.g., South Africa, Mexico, Brazil, Egypt and Chile all subsidize between seventy to ninety percent of the total low-income housing costs). Such deep subsidies limit the scale of government programs, and create inequities since only a fraction of deserving households will receive a subsidy. "Give away" houses are also often undervalued by the beneficiaries and are often "sold" for a fraction of the replacement costs. In addition, since the subsidy is so deep, it will often make beneficiary households better off than those who have higher incomes but who do not qualify.[38]

Allowing incremental construction and supporting mechanisms to increase access to housing finance will leverage households' own contributions, and will alleviate the burden on government somewhat.

Grants to NGOs to establish community-based support systems. CBOs or NGOs can play an important role in lowering construction costs by buying building materials in bulk, providing quality control to house construction, and lobbying local authorities for services and their maintenance. Community support systems can help in the development of community savings programs and counseling programs to assist households that are currently not good credit risks to improve; in other words these entities can be effective intermediaries between communities and financial institutions. Government support to select intermediary institutions with proven track

[37] Gertler, et.al. for the World Bank, 2006.
[38] See Rust for South Africa, 2008.

records may assist in bringing these community-based programs to scale and improving their efficiency.

Vouchers or direct income transfers. The above types of household subsidies for the lowest income segment assumes that supply markets for new low income ownership or rental housing in most developing countries do not yet work, and would not respond to direct income transfers to low-income households. Regulatory constraints and land market failures prevent such a response by private developers and lenders (see the example of Chile in Box 7). There are exceptions of course. In some countries and in some municipalities, where local government can be convinced (or supported with subsidies) to introduce regulatory and procedural changes to facilitate the construction of low-income housing, and investors/developers can profitably deliver such housing, general income vouchers to well targeted low-income households may trigger the desired market response. Vouchers may work best to stimulate the construction of low-income rental units, because of the difficulty of low-income households to obtain mortgage finance. Moreover, rental housing may be a preferred housing option for many in this income group.

6. Conclusions

A growing demand for urban middle- and lower-income housing has fueled the urgency to expand housing finance systems. One area of critical rethinking, and a frequent bottleneck in system expansion, is housing finance subsidies. These are by far the most prevalent housing subsidies in all countries, although they are not generally recognized as such. Many financial subsidies have had a negative impact on the development of housing finance markets, and their impact on social goals is mixed.

Policy makers need to develop a strategic plan to develop a winning combination of incentives to increase access to mortgage credit, and to expand access to savings and non-collateralized credit options for those who would not qualify for mortgage loans.

However, even if finance is potentially available, it is often the case that the land regulatory system makes it unprofitable or unfeasible for private developers to serve middle- and low-income markets. So while this paper has focused on access to finance, it acknowledges that the housing problem cannot be solved without expanded access to registered and serviced land.

This paper has provided a framework for the development of housing finance subsidies, but is not meant to be complete. It intends to assist policymakers in the difficult task of diagnosing the most serious problems in the housing sector, translating these problems into clear policy objectives for different market segments and developing a plan of action for the gradual implementation of regulatory reform and subsidy actions to reach those objectives.

Ironically, part of this process, and sometimes the most difficult task of all, is the elimination or reform of *existing* housing finance subsidies, due to the number of vested interests. However, existing subsidies often act to increase housing (and even *income*) inequality, while doing little to increase overall housing consumption or production. They may further strongly undermine the maximum unsubsidized development of the housing finance market. This is the reason why any

subsidy policy or program, no matter how seemingly well designed, needs to be subject to research and review on a regular basis.

The second major challenge for national governments is how to induce local governments to implement policies to expand housing development suitable for lower-income households. Few countries have been successful in doing so. National governments may make access to housing subsidies conditional upon regulatory changes and improvements in land right and registration systems. Another approach may be the training of local governments in housing and land market analyses to improve their understanding of the consequences of poor regulatory systems and the lack of new legal low-income housing construction.

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