UN-HABITAT
FOR A BETTER URBAN FUTURE

,

GLOBAL EXPERT GROUP MEETING

"WAYS FORWARD TO ACHIEVING AFFORDABLE AND INCLUSIVE HOUSING FINANCE FOR ALL"

Roles and responsibilities for UN-Habitat and partners

DRAFT REPORT

Inclusive Housing Finance – Affordable Housing

Marja C Hoek-Smit

Wharton School, University of Pennsylvania

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1. The Challenges and Opportunities

The urban housing challenge is enormous. The United Nations estimates that urban populations will increase from 3.6 billion in 2011 to 6.3 billion in 2050; an increase of 2.6 billion people, or 65 million new urban dwellers per year, predominantly in emerging economies and developing countries. The urban housing stock is grossly inadequate in most developing countries, and, even more worrisome, the number of slum dwellers has increased over the last decades rather than diminished.

Urbanization is, however, a force for innovation and growth through networks and agglomeration economies, job creation and increased labor productivity (Glaeser, 2013; Duranton, 2014). Indeed, urbanization is without a doubt one of the main drivers of development (approximately 70 percent of global GDP is produced in cities), and the way different countries will prepare for it will have a major impact on the quality of life, health and productivity of their urban populations. The housing sector and the associated services and infrastructure will be central to this process, both from an equity perspective and as a critical investment sector. Housing is the single largest form of fixed capital investment in most economies and the single largest asset owned by households. Housing is, therefore, one of the most important sectors in an economy.

Box 1: Urban Housing Needs in India

The facts: Only 30 percent urbanized, upwards from 12 million new urban dwellers every year, housing consumption 5sqm pp, low quality stock, more than 65 million people in slums (2011 census), with less than 50 percent having access to main water and sanitation.

The need: 5 percent increase in urban household formation, 5 percent increase needed to bring floor-space up to 10sqm pp in less than 20 years; and another 5 percent to improve stock quality at a more reasonable pace, resulting in~15 percent growth in stock for many years!

The benefit: Housing being 25 percent of expenditure=> simple economics implies that 10 to 15 percent growth is a 2.5 to 3.75 percent annual increase in welfare, benefiting the poor disproportionately.

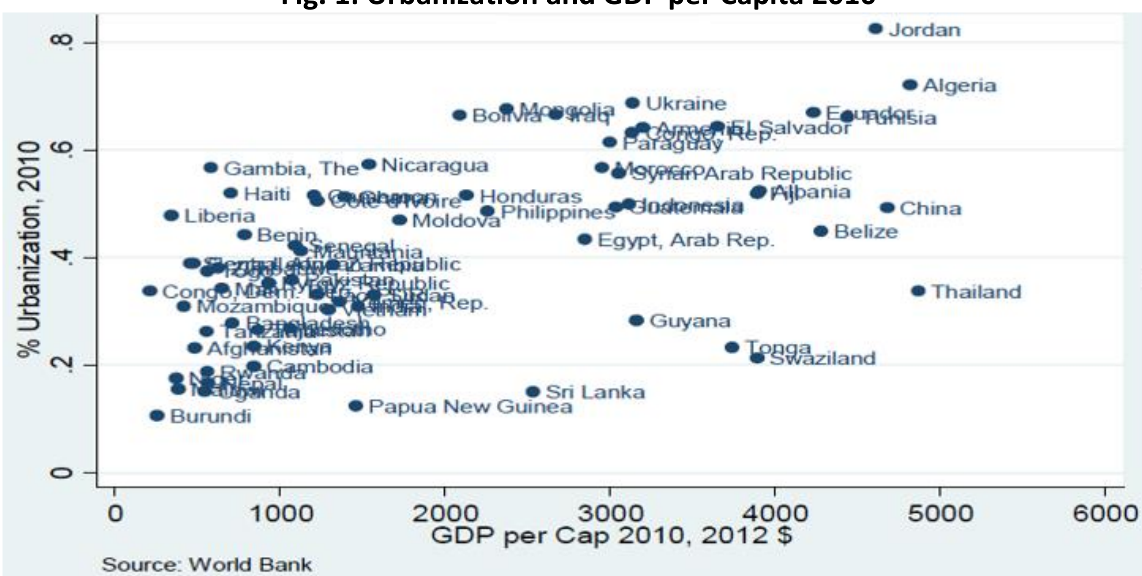
Housing investment as a share of GDP has, however, not kept pace with urbanization. A recent, preliminary, study by the World Bank confirms that housing investment as a percentage of GDP, by all sectors and in both formal and informal structures, lags behind what is needed to accommodate urbanization in low- and lower-middle income countries (Dasgupta, Lall, Lazanao-Gracia, 2014). While investment in the housing sector has increased considerably since the 1960-70 period in all but high-income (OECD[1]) countries, it only averaged 4 to 5 percent of GDP in low-income economies. Importantly, the figures for the last decade show that housing investment did not take off in most

[1] Housing investment decreased from more than 12 percent of GDP to just over 9 percent in upper-middle income economies.

countries until per capita GDP (in current dollars) reached about US$3,000 and tapered down at per capita GDP US$36,000 (US$2005), i.e., it followed an S-shaped trajectory which was earlier identified by Burns and Grebler, 1977; Mayo and Malpezzi, 1987; Renaud, 1999. Few low and lower-middle income developing countries have been able to step up investment in parallel with or preceding their period of rapid urbanization. This is particularly the case for countries in Sub-Saharan Africa, where Dasgupta et.al. 2014 find that investments lag demand for urban housing by eight to nine years. Such low levels of investment lock in poor patterns of housing development and consumption through informal, piecemeal construction that are not easily changed.

This trend is no doubt related to the fact that urbanization is happening at much lower per capita income levels than in the past (Glaeser, 2013; Fig.1). In turn, this has contributed to the chaotic process of urbanization in many countries in Africa and parts of Asia, where population density in cities is not supported by the necessary investments in urban infrastructure and housing, neither by government nor by the private sector.

Fig. 1: Urbanization and GDP per Capita 2010



From: Glaeser, E. A World of Cities, NBER 2013

Investment in housing is closely linked to the financing decisions by producers, financiers and consumers of housing. This paper will focus on the critical role of housing finance in developing countries, both construction finance and end-user finance. The mortgage sector in particular is important to provide long-term finance to develop formal housing at a scale commensurate with the rapid rate of urbanization. In the next UN Habitat Global Strategy, the expansion of and access to different types of housing finance will be an important component in addressing the persistent housing problems in developing countries.

The paper starts with a brief discussion of the assessments of the previous UN Global Shelter Strategy in order to understand what might be done differently during the new strategy to be launched in 2016. Second, we will frame the context for the financing of demand and of supply of housing broadly defined, and discuss the most prevalent problems countries may face in the expansion of different types of housing finance and offer possible solutions. We are then in a position to define the important role of governments in the development and reform of housing finance systems and in broadening access to housing credit, and the different ways UN Habitat could provide support to member governments in this area.

2. The Global Housing Strategy

Global Shelter Strategy of 2000. Several papers were commissioned, including for the Expert Group Meeting on Housing Finance, to assess what went wrong under the much maligned "Enabling Strategy" to create such poor housing sector outcomes over the last decades (in particular Tipple, 2014; Flood, 2012; Gilbert 2012 among others). The "Enabling Strategy" was the bases for the UN Global Shelter Strategy of 2000, which was prepared at a time that euphoria about the power of markets was at its peak. Housing was considered a private good that could be supplied by the private sector and was, therefore, less deserving of attention by governments or international development agencies, financially and otherwise. Upgrading and community based approaches were to address the housing problems of the poor.

While the enabling strategy emphasized the important role of policies, institutions and government support as a prerequisite for housing markets to work well and expand, this agenda was only systematically implemented by few governments and was certainly not the focus of UN Habitat's or other development institutions' work with governments. The strategy did not underscore the binding constraints that exist in many housing markets of developing countries that prevented investment in the housing sector. Nor did it emphasize that advanced economies with well-developed housing markets took many decades to put in place the property rights-, financial- and regulatory institutions to make housing markets work, and that it took high levels of subsidies to the sector and to households to make housing markets more efficient and inclusive. Well-meant advice on keeping government's involvement in the sector small, and decentralize shelter delivery to the private sector and local communities, were certainly premature for many developing countries with nascent institutions of ownership rights and property registration, inadequate urban planning laws and policies, small financial sectors and structural weaknesses in the housing finance system.

In the absence of a comprehensive housing policy agenda that encouraged governments to provide for the large-scale housing that was needed, the emphasis by the development agencies was on slum upgrading, the role of NGOs and community organizations. UN Habitat and others focused on demonstration projects that were seldom replicable because the requisite institutions for land, infrastructure and housing finance did not exist in many countries.[2] At the same time, the general economic liberalization policies of that time (whether we call it the Washington Consensus coined by John Williamson in 1989 or by another name) took away many safety nets for the poor, and income inequality increased in most of Asia and Sub-Saharan Africa (Chie Aoyagi and Giovanni Ganelli, 2015). Housing for the poor and the lower-middle class under these circumstances was surely far too big a task for NGOs and communities to handle. As a result, the housing situation of these income segments deteriorated in many countries.

The World Bank was the only international development organization to establish a dedicated unit specializing in housing finance and related policies as part of the private sector and capital markets group. Its focus is on end-user finance, leaving infrastructure and construction finance to the private sector group. This housing finance unit was not backed up, however, by a broader housing sector agenda in the bank, and only in a few countries were projects implemented that included both broad-based housing policy and housing finance reforms (e.g., Brazil, Mexico, Morocco). Both the World Bank and UN Habitat commissioned studies on rental housing and the housing finance sectors of selected countries. UN Habitat documented the housing sector in many excellent case studies. But these efforts were not linked to long-term housing policy and implementation support to governments.[3]

Some emerging market countries, mostly middle income countries with the resources to do so, implemented mass housing schemes for low-income groups with deep government subsidies through provident funds and additional government subsidies or guarantees (e.g., Brazil, Mexico, Ethiopia) or provided houses for free (e.g., South Africa since 1996, many countries in the Middle East, and more recently Columbia), and yet others had large-scale housing schemes built in lieu of payments for their commodities (e.g., Angola) without the credit institutions and systems in place to allow people to pay for the houses. While, these schemes did address the housing needs of the low- or middle-income groups, they proved unsustainable (Brazil, the first phase of Ethiopia's Integrated Housing Development Program, Egypt, Kuwait, among others), ended in large numbers of vacancies (Mexico, Angola), or burdened governments with enormous fiscal costs or hidden liabilities (South Africa, Brazil, Middle Eastern countries). Moreover, in many countries, these schemes destroyed the lower-middle and middle income market for housing, which could not compete with the subsidized sector. This outcome has caused several countries to take a more holistic look at their housing policies, both rental and ownership, and including the way lower and middle income housing is

[2] Not just the Global Shelter Strategy, but also the Millennium Development Goals gave the impression that foreign aid was driving the needed achievements in the sector, rather than emphasizing the critical role of national governments.
[3] UN Habitat is amongst the smallest of the UN agencies, while grappling with the major challenge of rapid and large-scale urbanization.

financed and subsidized (e.g., Egypt, Morocco, Kuwait, Saudi Arabia, Indonesia, Vietnam, South Africa, Nigeria, Ethiopia, Mexico).

Indeed, housing, including rental housing, and housing finance, are returning as priority areas for governments in developing and emerging market countries, and, therefore, for development organizations such as UN Habitat and World Bank.[4] The challenge with the current development orientation is that the focus of the Bretton wood organizations is narrowly on the poor – or the lowest 20 percent of the income distribution--while the dysfunction in the housing sector has left a much broader segment of urban populations not catered for.

UN-Habitat's Global Housing Strategy 2016, will set out the broad housing agenda for the UN in just over a year's time—Habitat III.[5] It endorses housing finance as a pre-requisite for a sustainable national housing sector, stating that "a variety of housing finance options should be made available for all levels of income and especially for the most poor". This concept note focuses on redefining the role of UN-Habitat in advising and assisting national governments to promote inclusive housing finance. We will set out the different types of constraints in expanding housing finance systems, differentiating between systemic national level constraints (e.g., failures in housing input markets, macro-economic and legal framework), and constraints that individual financial institutions and users face (e.g., high transaction costs, lack of risk management systems, lack of credit information).

3. Housing Markets and Housing Finance

Housing finance systems are a critical component of the overall housing market. In a well-functioning housing system producers of housing, be they individuals, developers, rental landlords, or governments, combine resources such as land, infrastructure, materials and labor to produce housing and they require financial resources to do so. On the demand side, most buyers of housing, need finance to purchase a house. Frictions or constraints on either the demand or supply side of the market have a direct impact on the development of housing finance systems and, equally, underdeveloped housing finance systems impact both housing supply and demand for housing and ultimately house-prices. The housing sector is complex precisely because all parts have to work together– input markets, availability of demand and production systems. Improvements in one component will not be effective if other parts do not work well. This complexity

[4] The IMF includes housing finance in its country assessments of the economic and financial systems. The IMF, jointly with BIS and the European Statists Bureau, also assists in the construction of house-price indexes and the accumulation of international data on house prices. The financial crisis showed the cost of ignoring such an important sector of the economy.

[5] The draft framework for the UN Sustainable Development Goals post 2015 currently includes a general urban goal without making reference to the urbanization or housing challenge: "make cities and human settlements inclusive, safe, resilient and sustainable".

also means that government policies play a critical role in the functioning of the housing system. While this paper focuses on the housing finance component of housing markets, we first discuss the broader context of the demand and supply aspects of the housing market as they relate to the financing of houses.

A. The challenges for housing provision on the demand side

The first observation during the Housing Finance EGM was that the core of the housing problem in many developing countries is that incomes are too low (Tipple, 2014; other EGM presentations) and that prices of new formal sector urban houses are too high in many countries. The discrepancy between incomes and house-prices is perceived as the core reason for the lack of formal housing production and the continuous growth of informal housing areas. The lack of finance or the cost of finance was considered less relevant. We take a closer look at the relationship between incomes, spending on housing, prices, and finance first.

Research has shown that across markets and countries demand for housing in urban areas is fairly elastic with income, i.e., household spending on housing in urban areas as a percentage of income increases with GDP per capita (Malpezzi and Mayo, 1987; Lozana-Gracia & Young, 2014 for recent data from Sub-Saharan Africa; but within low-income countries of Sub-Saharan Africa there is no correlation between spending on housing and GDP per capita). The data shows that in very low-income countries urban households only spent an average of 10 to 15 percent of the household budget on housing (including utitlities), while in advanced economies this proportion would increase to 30 to 40 percent. At low *GDP per capita levels*, households have other priorities than housing to spend their earnings on, particularly food. **Within markets, demand patterns are inelastic with income**, and lower income households spend the same or more on housing as a percentage of income than higher income households[6] (Mayo and Malpezzi, 1987; Lozana-Gracia & Young, 2014).

However, general GDP per capita figures may hide *high income inequality* (expressed in the Gini Index in Fig 2[7]) *and wealth inequality.* Both income and wealth inequality are high in large parts of the developing world, and are higher in larger urban areas than at the national level. Wealth inequality is driven to a large extend by the housing asset, and low- and middle income urban households in highly unequal cities of developing countries are typically not able to acquire a formal housing asset. In addition, with high income inequality low-income households have to pay a much larger proportion of income for housing relative to what would be expected by the per capita GDP of the country. Formal housing standards often do not reflect these affordability limitations,

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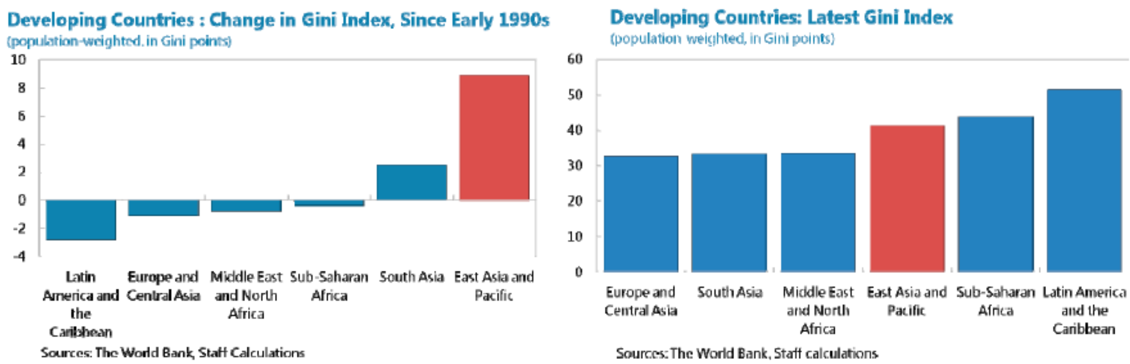
[6] From National Housing Demand Studies in Zimbabwe, Lesotho, Swaziland, Botswana, Tanzania, Sri Lanka (Marja C Hoek-Smit between 1982 to 1992; Unpublished manuscripts. World Bank, Washington DC).
[7] Results from the same study suggest that redistributive fiscal policy and monetary policy aimed at macro stability are effective in fostering inclusive growth.

making it difficult or impossible to provide formal housing that even middle income households can afford (see below).

Fig.2: Inequality as measured by the Gini Index by Region



Source: Chie Aoyagi and Giovanni Ganelli (2015) Asia's Quest for Inclusive Growth Revisited. IMF Working Paper

Prices, incomes and finance and the demand for home-ownership. The ratio of median house-price to annual median household income is one of the measures used to understand housing affordability in a housing market. The house price-to-(annual) income ratio generally ranges from four to fifteen (or even higher) depending on input prices and supply elasticity of the particular market, cyclical trends, and the level of speculative investment in housing. Given the cost of housing relative to incomes, most households who want to buy a house have to pay for it over multiple periods. *Finance is, therefore, a decisive factor in the home-purchasing decision and in housing affordability*. The house price that a given household can afford is determined by the household income and percentage of income that can be spent on housing and whether the household can access credit and at what terms -- the required down-payment, the proportion of the income that the household can or is willing to pay for housing (ranging from 20 to 50 percent of income let us say), the interest rate and loan term (which differ for different types of housing loans), possible subsidies and taxation, and other housing or finance related expenditures.

However demand for finance is constraint by several factors other than income: (i) Not all households want to obtain a housing loan for fear of not being able to repay the loan or because of a distrust towards the financial sector. This point was made by several participants in the EGM in particular for Sub-Saharan Africa. (ii) High levels of household indebtedness in some countries limit the payment capacity (e.g., South Africa, Brazil). (iii) High levels of employment in the *informal economy* in many developing countries (reaching up to 40 percent of the labor force in Mexico and as high as 70 percent in countries like Egypt and countries in Sub-Saharan Africa) limit access to finance.[8] And,

[8] Many government housing finance systems in Latin America, Asia and some Sub-Saharan African countries are based on wage tax/savings schemes for formally employed workers and are, therefore, not

importantly, (iv) *lack of clarity of property rights and title registration,* limit demand for mortgage and other types of housing finance.

In summary, while in general, housing demand rises with GDP per capita and with the availability of housing finance, there are socio-economic and property right characteristics in each country that limit housing demand (and housing investment) for a given national income level. Moreover, supply constraints limit the production of affordable stock, which is briefly discussed in the next section.

B. Challenges on the Supply-side

The housing supply picture is much more varied across countries and supply elasticities are generally low. While overall housing supply, measured here as total housing investment relative to GDP, only picks up at higher levels of economic development[9], there are many outliers that cannot be explained by GDP and other demand factors discussed above. Why would a growing demand for urban housing in some countries trigger a supply response and not in others? Why are house-price-to-income ratios high in some housing markets compared to others, irrespective of GDP per capita? The reasons are most frequently found on the supply side of the market (Saiz, 2010).

There is no reason to belief that there is a lack of developers, contractors, potential investors in rental housing, and self-builders in most countries or that the construction sector would not be competitive (with some exceptions). Growth in informal sector construction both for rental and ownership housing, bears this out. The construction sector may lack efficiency and technical capabilities, but increasingly the global real-estate industry is interested to enter regional or international markets and develop scale housing if conditions are right. Inputs such as building materials, and skilled and unskilled labor may be scarce in some countries, but these issues are increasingly being addressed by global labor markets and providers of innovative building technologies.

Instead, the main supply-side constraints in most countries are related to the inefficiencies in the governance of input markets such as land, infrastructure, and finance. Government policies, both at the national and local government levels, are critical to improve the efficient functioning of these markets:

i) *Institutions for land management, urban planning and service delivery that make investments in housing possible, and measures to prevent land speculation, through taxation and other policies*. First, making sure that land for development is available and trunk infrastructure for residential development will be provided in a timely way are perhaps the most critical government function in urban development. Expanding "urban" land is

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accessible to those with informal incomes. Commercial lenders, are often not allowed by their regulator to make mortgage loans to people whose incomes cannot be verified (e.g., Egypt just lifted this restriction in part).

[9] Of course, these figures exclude the utilization of the existing stock.

particularly challenging when existing cities are surrounded by communal or customary land, which is the case in much of Sub-Saharan Africa, and some parts of Mexico. **Second**, restrictive planning and building regulations and cumbersome permitting procedures have proven to increase local house price to income ratios (Fischel, 1995; Hilber, 2014; Glaeser and Gyourko, 2008), and are, therefore a major factor in housing affordability. While land management and planning are mostly local government responsibilities, national governments have extensive powers of taxation over land and large urban landholdings in urban areas in most developing countries. Some proven incentive schemes to alleviate speculative pressure on land are betterment taxes and property taxation.

ii) *Systems of property rights and property registration.* Without sound land title or deed registration systems (including mortgage lien registration) and an efficient cadaster that has clear and up-to-date records on the physical location of the property, its ownership, transfers and improvement values, it is hard to have efficient land-markets that can provide for large scale housing development. Developers will find it difficult to assemble land and run the risk of later contestation of land transfers. Also, without trusted property rights and registration systems neither mortgage lending nor construction lending is possible.

iii) *Legal and regulatory systems to facilitate the functioning of housing markets.* **First**, providing legal systems for *different types of tenure* and other related contractual arrangements and their enforcement is important for well-functioning housing markets. Rental markets in particular suffer from poor tenant-landlord regulations, which stifles investment in the sector. For example, restrictive rent regulations have caused massive vacancies in the housing markets of Morocco and Egypt and, despite new laws, still stifle investment in the rental sector. **Second**, *regulation (or a trusted system of self-regulation) of the main players in the market* is equally essential, i.e., the developer industry, the property appraisers and real estate brokers. For example, in **Mexico**, the government's Sociedad Hypothecaria Federal (SHF) has played an important role in the (self) regulation of appraiser and brokers; **Egypt's** Mortgage Finance Authority did the same in the early years of mortgage market development.

iv) *Regular and timely housing market information* on building applications and approvals, construction numbers and values, transactions, and house prices. Governments' guiding role is needed to coordinate data collection form private sector entities, local and national government, and offices of statistics. An increasing number of countries have initiated the development of house-price indices that take into account the different market segments. For example, the Government Bank of **Thailand** developed, through an affiliated agency, a real estate information system (including house-price information) and so did SHF in **Mexico**. But broader housing market information is needed in most countries.

v) *Systems to finance the supply of residential infrastructure and housing.* **First**, urban infrastructure investment is extremely inadequate in most developing countries, which often forces developers to provide bulk/trunk services. Developers will include these costs in the price of the house, while governments can recover the cost of infrastructure investment over long-periods through rates and other mechanisms. Governments are also in a better position to develop different types of financial instruments for infrastructure provision, through both the public and private sector. **Second**, construction finance for housing is another main constraint that often requires government support, particularly for rental housing. In Section 8 the main methods of construction finance are briefly discussed.

vi) *A legal and regulatory framework for the housing finance system that provides for long-term finance for rental and ownership housing, both single and multifamily housing.* Policies to improve the housing finance sector are the topic of the next sections.

Improvements in these areas are all interrelated. Expansion of housing finance, for example, will only have the desired effects if other supply inputs in the housing market work efficiently. And herein lies the major challenge. If the demand side is expanded through rising incomes, improved macro-economy fundamentals and financial system expansion, but land management and other supply inputs in the housing market lag behind, extreme land and house-price increases may result, inducing a negative demand shock instead. The low-income market is particularly vulnerable under these circumstances since most resources will be applied in the higher income segments. It often requires **a special government entity to improve the governance of diverse housing market inputs for low-income housing**. For example, in 2000 **Mexico** established a housing commission dedicated to improving access to low-income housing (CONAVI) and more recently improved institutional coordination between the core urban and housing agencies; **Egypt** recently set up a Social Housing Authority (2014) with wide ranging powers to expand access to moderate income housing, using various supply-side measures, and enhancing demand through finance expansion and subsidy mechanisms.

Spotlights: A case of good governance of the urban housing sector is the approach taken by the Government of **Botswana** since the late 1980s. In the 1980s squatter areas were proliferating and the government initiated a concerted effort to expand serviced urban land (The Accelerated Land Servicing Program). Government stimulated investment in housing by adjusting the urban land tenure system for low-income housing developments from a 20 year license system, which was inadequate to stimulate investment and was not accepted by housing finance institutions as collateral for a loan (Hoek-Smit and Hoek, 1995), to long-term renewable lease system. Government also played a role in improving the planning and servicing of housing investments on customary land close to the cities. Increasing incomes and access to finance through both commercial banks and the government building society supported investment in all types of housing. Botswana is currently mostly free of slum areas and the formalization of the housing sector has created valuable assets for low-income households.

4. Different Types of Housing Finance to Support Demand

Box2: Global Cost Estimates for Affordable Housing

McKinsey (2014) estimates that the provision of "affordable" housing to replace substandard units and accommodate new households by 2025 on a global scale will be in the order of USD9 to USD11trillion without land. McKinsey estimates that public funding may cover 20 percent of this investment at most. But what about the rest? How can governments stimulate private investment?

Framing the issue. The delivery of large-scale urban housing by the formal sector requires both short term construction finance and longer-term finance.[10] *Mortgage finance,* in particular, is critical to expand effective demand for housing. Mortgage finance provides loans to the purchasers (or rental investors) which, together with the borrowers' down-payments, pay the developer upon completion of the house. In turn, the developer will repay his construction loans and other obligations and can repeat the cycle of construction, indefinitely. When the mortgage system is standardized and delivers loans as a regular product for the broad middle income sector, it opens up that segment for private sector residential development, both for rental housing and home-ownership. If mortgage finance is not available for the broad middle class, developers will focus on the higher income market which can pay for housing in cash or can access credit. This type of scenario is common in developing countries and has put enormous pressure on government to subsidize middle income housing, leaving the poor unattended.

Important as access to mortgage lending is for middle and lower-middle income housing markets, it will not serve the low-income segment and, particularly, those in informal employment. *Partial- or non-secured housing credit* and savings can support incremental building and home-improvement and expansions for households underserved by the formal system.

A. Mortgage loans

Mortgages are based on a lien on the property that is being purchased or financed. A mortgage-related lien can only be issued on a property with specific property rights (e.g., freehold, leasehold, but not customary rights or shorter term licenses) that is registered in a national or local registry. The lien allows the lender to acquire the property in case the owner does not fulfill payment obligations. This lien-based lending reduces the credit risks for lenders and makes it possible to make long-term loans based

[10] This paper will not include the financing of land and infrastructure although these are important components of a housing finance strategy.

on the value of the underlying property, rather than on the projected repayment capacity of the borrower alone. Mortgage lending is therefore different from other types of long-term housing loans in several aspects:

- *The security of the lien makes mortgages one of the cheapest forms of credit available to consumers*.[11]
- *The property collateral allows the loan to be large relative to the value of the property,* i.e., loan-to-value ratios (LTV) in the order of 70 to 80 percent are common. The down-payment or equity in the house that the purchaser provides is, of course, an important safeguard for the lender that the borrower will have an incentive to pay. The equity also provides an important assurance that the outstanding loan balance will be recovered in case of default, even if the sales price of the property may be lower than expected.
- *The borrower remains the legal owner of the property*, and a mortgage law or other legislation is needed to stipulate the conditions under which lenders can access the collateral in case of default.
- *Mortgages are used for both the long-term financing of ownership housing (single- or multi-family) and rental housing (mostly multi-family).* Mortgages for rental housing are, however, not available in many emerging markets and if they are, they are generally more expensive and require a higher equity payment by the landlord. The reason is that credit risk is usually higher for rental properties than for owner-occupied housing-- cash-flows from rent are less predictable and landlords are less motivated to repay when rental income decreases.
- *Mortgage finance motivates potential home-owners to save and invest.* The savings are of two types—through the monthly mortgage payments and upfront for the down-payment.
- *Lastly, the high level of security of mortgage loans (if properly underwritten) facilitates the leveraging of the future cash-flows of the mortgage portfolio, by issuing mortgage debt- or equity-securities* and, in doing so, expand the funding available for mortgage lending or other investments. Capital markets have to be fairly well developed and long-term investors must be interested in buying mortgage-backed bonds for this leveraging or gearing process to work.

In principle, a mortgage can be applied to houses of low value, and therefore serve moderate income households, since for the lender all that counts is whether the purchaser can afford the monthly payment (i.e., the maximum debt-to-Income ratio, type of employment) and is likely to pay (i.e., credit history), and whether there is a market for the type of property that is being mortgaged (i.e., a quick loan recovery in case of default). In reality, lenders in many countries set a minimum loan amount, below which they will not write a mortgage, because of the high transaction costs and risks related to originating and servicing a mortgage loan, relative to the profitability of the investment.

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[11] At least in countries with stable financial systems that allow the management of interest rate risk of long-term lending.

Some facts about the mortgage sector globally. Despite the positive aspects of mortgage lending, the mortgage finance sector, as measured relative to the size of the economy, is extremely small in most developing and emerging market countries. This is worrisome, particularly in countries that approach a 50 percent urban ratio (Fig. 3 and 4) and require large scale investment in housing to accommodate their growing urban population.

The small size is related to various macro-economic and institutional constraints such as poor economic growth, high and volatile inflation, implicit or explicit credit-rationing policies, an incomplete legal system to support mortgage lending, lack of risk-management mechanisms for long-term lending, low demand, and the lack of mortgage collateral. More structural factors within the mortgage sector itself have limited the size of the mortgage markets in many countries. For example, when the mortgage sector is not competitive, or is segmented in a subsidized and non-subsidized part, the overall scale of the sector is negatively impacted. (See Section 6).

Fig. 3: Total Outstanding Mortgage Loans Relative to GDP -2013-2014

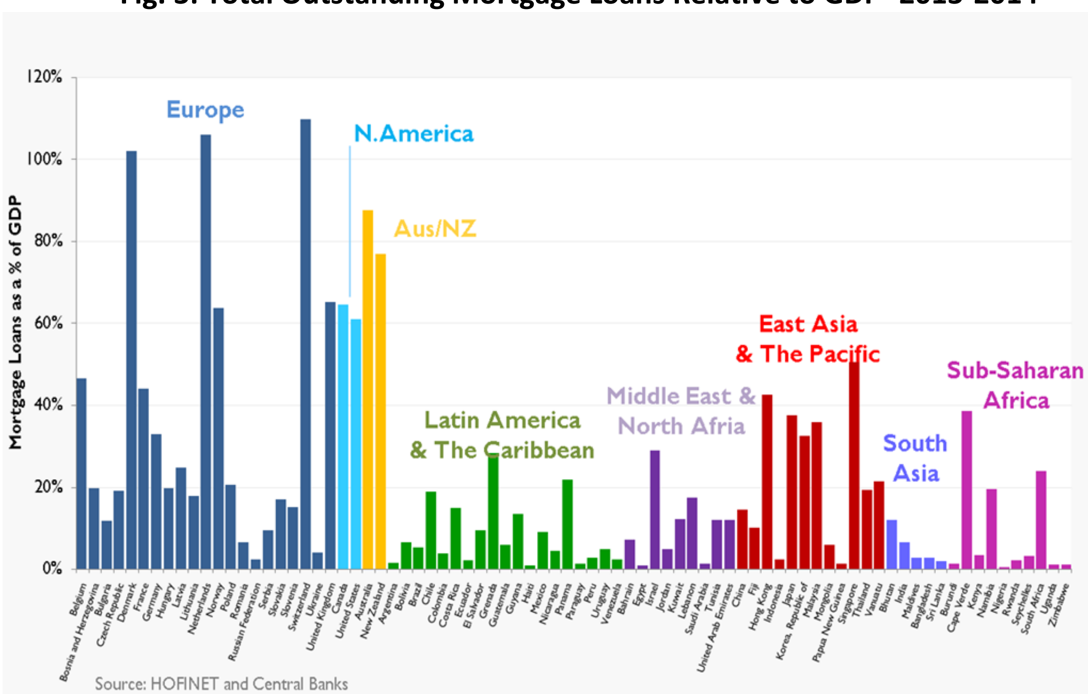
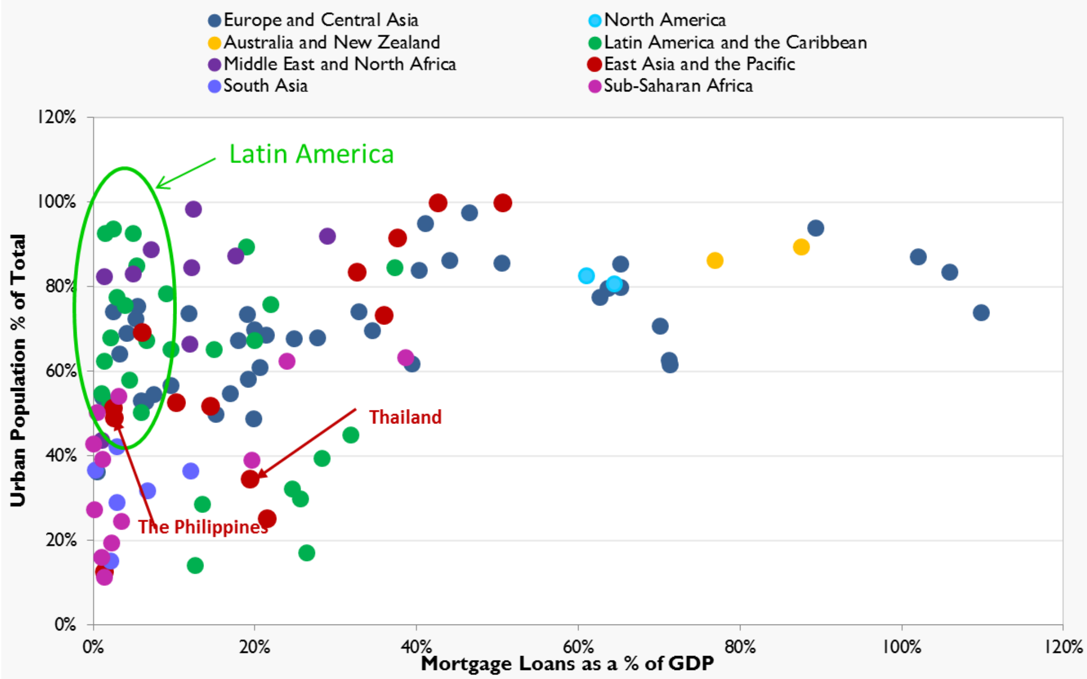


Fig. 4: Total Outstanding Mortgage Loans and Urbanization- 2013-2014



Source: HOFINET, Central Banks and World Bank's World Development Indicators

B. Other types of housing loans

Mortgage lending will never serve all market segments for the institutional and structural reasons discussed above. In many countries, alternatives to mortgages were developed that fulfill functions close to those of the mortgage instrument but carry a lower risk for the lender or have lower transaction costs. In some countries housing loans secured by other types of collateral were developed, as well as short-term non-secured loans. These loans are underwritten on the basis of the repayment capacity of the borrower only. The scale of this type of lending for housing purposes is not known, since many such loans are taken out as general production- or consumer-loans. We discuss the most frequently used non-mortgage housing loans below.

Mortgage alternatives:

- *Trust deed loans or similar types of legal instruments*, where the title to the property is kept by the lender and ownership is only transferred upon full repayment of the loan. This type of instrument provides an additional level of security for the lender and avoids the step of registering the mortgage lien. Housing finance in **Brazil** only took off after the trust-deed loan was legally approved in the late 1990s, because the judiciary seldom allowed repossession of the house. Currently, most long-term housing loans are "trust deed" loans.
- *Installment loans* provided by the developer. This type of loan is prevalent in the Middle East and in some African and Asian countries where mortgage lending is not well established. The buyer pays for the house in several installments over the course of several years. The developer/creditor keeps the legal title to the property

until the last payment by the buyer has been fulfilled. Installment payments may be extended to terms of 3 to 5 years.[12] The lender/developer can remove the buyer from the property in case payments are missed. Codification of such contracts is often weak and the debtor is not protected by the existing mortgage laws. Also, the loan conditions are typically not separated from the sales agreement of the property and it is difficult to understand the lending terms and rates. Mark-ups by the developers are generally high to cover transaction costs and credit risk.[13] Moreover, the relatively short term of the loan, limits affordability.

On the supply-side, dependence on developer financing does not build a stable housing finance system. When there are liquidity constraints for developers, financing for housing dries up. Some countries have developed refinancing mechanisms for this type of loan. In **South Africa** a new financial intermediary has initiated the use of installment loans, which it subsequently securitizes, cutting out the banking sector and eliminating the need for individual property titles, which can take many years to issue. In **Egypt**, developers sell the receivables of installment loans (backed-up by pre-dated checks by the debtor) to banks and mortgage companies which in turn can use the mortgage liquidity facility for the refinancing of those loan books.

- *Mini mortgages or mortgages based on promissory liens*. Borrowers accept liabilities in case of default in order to avoid the registration of the property or the mortgage. These instruments bear risks for the lender in case the property/mortgage lien fails to be registered or when the legal enforcement is unsure. Mini-mortgages have a major risk for the borrower as well, since the debt in most cases is small relative to the value of the property, yet in case of default they may have to sell the house to repay the debt.

Loans secured by other assets or guarantees:

- *Loans based on alternative collateral sources such as a lien on pension savings or other types of savings accounts.* First, pension funds can allow part or all of the pension savings to be used for housing under specific conditions. This type of use of obligatory savings is most common for housing related provident funds that are separate from pension funds. Second, pension-funds can also allow the savings to be used as collateral to a loan made by another financial institution. This type of pension-backed lending works in countries with fully funded pension systems that have a legal provision in place to allow individual accounts to be pledged as collateral to a specified maximum proportion. These systems only work for formally employment people who are enrolled in a pension system, and require agreements

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[12] Installment sales in Egypt during the transition period after the revolution of 2011 were made for increasingly long terms --up to 7 years.

[13] A similar type of loan contracts existed in the USA, called land installment contracts, which were used in sections of the city where no lender, neither private nor government, would make loans. Markups by the developer were often as high as 80 percent over construction loan rates, yet much of the risk remained with the borrower. Some reforms to protect borrowers were legislated, but such contracts are no longer used.

between the lender, employer and pension fund. LTVs are typically low and these loans often complement a mortgage loan. **South Africa** has the largest portfolio of this type of pension-backed loans, which appear to perform well (Sing, 2009). Pension-backed loans are often combined with automatic payroll deduction for additional security (see below).

- *Housing loans made on the basis of automatic payroll deduction* for the monthly payments with or without employer guarantees. Such loans require a legal agreement with the employer and employee for deduction at source.[14] Defaults under pay-roll deduction schemes are typically low, but show dramatic increases when the employee changes employment. This jump in defaults also occurs in provident fund mortgage schemes when employees change jobs, and particularly when they move to informal employment. Few commercial lenders make long-term loans based on an employer guarantee alone without additional collateral.
- *Housing loans secured by a third party guarantor.* In some countries loans can be guaranteed by third parties other than employers, or by a lien on the property of a third party. However, third party guarantees are mostly applied in addition to the mortgage-lien on the owner's property rather than as a substitute, because of the legal difficulties of recovering payments from guarantors.

Unsecured loans:

- *Lending with informal or no collateral or surety* such as consumer lending or micro-credit for housing. The underwriting is based purely on the repayment capacity of the borrower, sometimes complemented by a guarantor. Micro-loans for housing are for that reason mostly granted to known customers of the financial institution that have successfully repaid loans in the past. Informal collateral, in the form of a business license or land, is sometimes used as an additional incentive to repay. Since the credit risk on non-secured loans is high, these loans are more expansive (frequently double the interest rate of a mortgage) and of much shorter duration. The total interest payments on a sequence of small loans may, however, be lower than on a mortgage loan. Loan amounts are typically small relative to house prices. Few financial institutions involved in micro-finance have developed special loan instruments for housing (i.e., loans of a somewhat larger amount and with a longer loan term than conventional micro-loans). However, there appears to be a consensus that approximately 30 percent of the micro-loans made for productive purposes are being used for housing. BancoSol in **Bolivia** is an example of a bank that has successfully developed small non-secured lending programs for housing. Its maximum loan term for a housing loan is 120 months (see Box 3 below).
- *Unsecured loans for low-cost rental housing expansions in both formal and informal housing, i.e., loans to build additional rooms for rent.* Such loans are more secure than other housing loans, since they create a rental income stream that can be used for loan-repayment. Room-rentals are the dominant form of tenure in much of urban Sub-Saharan Africa.

[14] Automatic payroll deduction is illegal in some countries.

Community based loans:

- *Common and Community Mortgage* are used for the acquisition of a land lot by a group of people for residential development (common in **Trinidad &Tobago** and other Caribbean countries - *Sou Sou loans*) or to formalize informal areas (The Philippines). The loan pays for the entire land parcel. Individual titles can only be provided when the entire mortgage on the land has been paid for. The community must take joint liability for the debt and non-payment by individual members of the group is dealt with by the group. While in principle the loan is guaranteed by the property (joint collateral), in reality enforcement of such contracts is weak. The Community Mortgage in **The Philippines** is for that reason only issued by a government lender. In all cases, individual households have to obtain their own financing for the construction or improvement of their homes.

There are several variants for each of these types of loan in different countries and under different legal systems (civil and common law, sharia-compliant systems). The main features of these non-mortgage housing loans can be summarized as follows:

Mortgage alternatives:

- Require property registration, but not lien registration.
- The creditor keeps the legal title which lowers credit risk for the lender but decreases protection for the debtor.
- Trust deed requires a special law. Installment lending is often not regulated.
- Less liquid than mortgages with some exceptions.
- Finances a large proportion of the house value (except mini-mortgage).
- Useful mostly if there is no good mortgage law or the law is not enforced.

Loans secured by other than property collateral:

- Limited mostly to pension or provident savings' collateral.
- Legal and regulatory provisions needed for alternative collateral.
- Only for formally employed with pension /provident scheme.
- Small loan relative to house price; often a second loan.
- In case of default, loss of pension income.

Non-secured micro loan

- No property or other collateral required.
- Higher interest rate than the other alternatives; shorter term.
- Small loans relative to the price of a house; mostly used for progressive construction or home-improvement.

These different types of housing finance instruments each have a different function in housing delivery systems. Mortgage, trust deed loans and installment loans are necessary for the financing of new housing developments and sale of existing houses in the formal market. Partially secured or non-secured housing loans are used mostly as second housing loans and for home-improvements or the gradual construction of houses, including in the informal sector.

C. Savings for housing schemes

In countries where large numbers of *first-time homebuyers* are entering the market and need to access housing finance, a considerable challenge is the accumulation of the down-payment. Savings for housing programs can assist to overcome that hurdle. These programs come in many forms, they can be voluntary or required, and can be linked to mortgage loans and non-mortgage loans. A basic requirement for voluntary schemes is low inflation, since people rather save in building materials when inflation is high. The most prevalent savings-for-housing-schemes are summarized below:

- *Required savings in housing provident funds. These are fixed contribution systems,* most often in the form of a labor tax deducted automatically from the formal payroll through employers. The provident fund can make housing loans directly to contributing members or through other lenders (frequently state housing banks). These loans are secured by the property collateral and the savings in the scheme. Loans are typically subsidized through the interest rate and, if the scale of interest rates is not adjusted for loan-size or level of income, such systems are often extremely regressive. **First**, low-income contributors to the scheme are much less likely to receive a loan because they cannot afford a formal sector house that qualifies for a loan, and, therefore, their low-interest bearing savings accounts benefit the higher income savers who do qualify. **Second**, loan amounts for lower-income borrowers are smaller than for higher income contributors and, hence the implicit subsidy they receive is smaller. In the past decade many provident funds have reformed their operations, e.g., set income limits for recipients of subsidized loans, create a progressive scale of interest rates that is close to the market rate at the top end of the income distribution, and allow the savings accounts to be used for down-payments on commercial loans (e.g., **Mexico, Brazil, Peru, Argentina, Nigeria**). Nevertheless, these programs are only for formally employed contributors, with few exceptions (e.g., **Columbia** has allowed enrollment of informally employed persons) and exclude a large segment of the population. At the same time, in countries where housing funds dominate, the private mortgage sector typically remains small as it cannot compete with the subsidized lending systems, leaving those outside of the system with few options to borrow for housing.
- *Voluntary savings schemes as part of a closed mortgage lending circuit.* The most prominent of such schemes are the continental **European Bauspar systems** in which the saver commits to make regular savings contributions, receiving below market rates and, in return, will receive a loan at a below market interest rate at the end of the savings period. Often there is a subsidy bonus at the point of loan issuance, a feature that has to be extremely well managed when the subsidy induces a large number of savers to join these schemes (for example Hungary faced large fiscal liabilities when the Bauspar system was introduced). The savings discipline constitutes a positive aspect of such programs. The disadvantage of a closed system is that loans have to be rationed and the waiting period to receive a loan is often long and not precisely predictable. In addition, loans are small relative to the house value and most such loans are second mortgages. The voluntary savings for housing

schemes have become less attractive, with the current low-interest rate environment in advanced economies.

- *Open savings schemes linked to a mortgage loan*. Lenders require that future borrowers save for a defined period for the down-payment for the loan. They can set the conditions for the loan in advance or commit to make a loan at the prevailing market rate at the end of the savings period. The details matter. For example, in **India** in the 1990s, the National Housing Bank committed to refinance savings-for-mortgage loans that had a predetermined rate and term for savings and lending. The scheme failed to attract sufficient customers, mostly because the savings and loan requirements were too prescriptive and loan limits to narrow. Rather than adjusting the scheme, it was abandoned. More flexible savings for housing instruments, have been successful in other countries, both advanced and developing, and are often linked to subsidy programs. For example, the **Chilean** mortgage-linked subsidy scheme requires savings and uses the savings period as one of the prioritization criteria to receive a subsidy; similarly, the large-scale housing scheme in **Ethiopia** requires a savings period and amount to qualify beneficiaries.
- *Savings programs for housing linked to a non-secured loan.* Savings for housing loans are an excellent way to understand the payment potential of the future borrower and are for that reason potentially important in the case of unsecured lending. **Habitat for Humanities** has initiated a savings for housing loan scheme for the low-income segment. The uptake of the program was, however, very low. The reasons are being analyzed.

5. Expanding Housing Finance Systems

A. Analyzing the Housing Problems

In most countries there is an acute awareness of the housing problems in the country. The way these problems are expressed, however, is typically vague – e.g., number and size of slum areas, size of housing backlog (often measured in "qualitative" and "quantitative" terms), small size of the mortgage market. This vagueness inevitably weakens the effective design of housing policy, because it is unclear what the precise causes are for the identified problems and, therefore, what the ultimate goals of the housing policy should be. As a result, housing policies and programmatic actions are often developed primarily on the basis of short-term political considerations rather than in the context of a longer-term policy framework that addresses fundamental housing market issues systematically and over a longer time period.

Such approach is particularly detrimental in the development of a housing finance policy. As we have shown, the stakes to establish a well-functioning housing finance system in rapidly urbanizing countries are high. The lack of access to various types of housing and construction credit products for potential home-buyers, rental housing investors, self-builders, and developers constraints housing production, even if demand is high, and therefore makes the housing problems worse than they should be. Understanding the specific reasons for the constraints in expanding the housing finance system in a country will allow for the development of an effective housing finance policy agenda. Short-term stop-gap measures to expand finance that do not tackle the fundamental problems in the sector often do more harm than good.

The first task of government would, therefore, be to conduct a thorough technical diagnostic analysis of the housing and housing finance sector, including the following tasks:

i) Refine the analysis of the country's housing problems and the reasons or causes of the problems for different housing market segments.

ii) Determine which of the reasons for poor housing conditions are related to an underdeveloped housing finance sector, for both ownership and rental housing.

iii) Determine the specific causes of the small reach of the housing finance sector, *on the demand side*, e.g.:

   a. income and expenditure levels, income inequality
   b. informality of employment
   c. mistrust to financial institutions
   d. low penetration of title and property registration

   and on the supply side, e.g.,

   e. macro-economic factors (volatility of inflation)
   f. structural factors in the industry (lack of competition, or competition unfair)
   g. lack of an effective legal and regulatory framework or lack of enforcement of laws
   h. lack of long-term funding or mismatches between short-term deposit funding and long-term mortgage lending
   i. lack of credit risk mitigation instruments, or instruments to deal with interest rate risk, liquidity risk
   j. high transaction costs related to housing finance

iv) Clarify which supply-side problems should be addressed by the public sector and which by the private sector or a combination of the two.

v) Decide which problems can be solved by regulatory and legal changes or institutional reforms and which problems require guarantees or other subsidy support by the government.

vi) Create a deeper understanding of how much households in different geographic, demographic and income groups can and are willing to contribute themselves to upgrade their housing situation through *income allocations, savings, sweat equity, or debt finance.*

vii) Assess whether access to finance requires further household subsidies linked to credit, and other types of support that would complement households' own efforts, for different segments of the housing market.

viii) Determine which agents would be best positioned to provide subsidies and other support. Generally, subsidies are best provided by government agencies and paid for from the government budget, local or national, while other technical support may be provided by NGOs and private entities.

B. Prioritizing the Causes for the Underdevelopment of Housing Finance Systems

Mortgage and alternative housing finance systems differ markedly across countries. The constraints to growth and deepening are, therefore, different in each type of system and country. Despite these differences, there are general requirements for the functioning of a mortgage- and alternative housing finance systems that set them apart from other types of credit. These specific requirements are a good starting point for the identification of the fundamental causes for the sub-optimal functioning of mortgage systems from a policy perspective. We distinguish below between these binding first order constraints which, if not fulfilled, will prevent lenders from establishing mortgage lending as an important line of business, and second order problems, which increase the transaction costs and risks related to mortgage lending. The focus here is on the role of government.

Binding constraints for the development of mortgage systems:

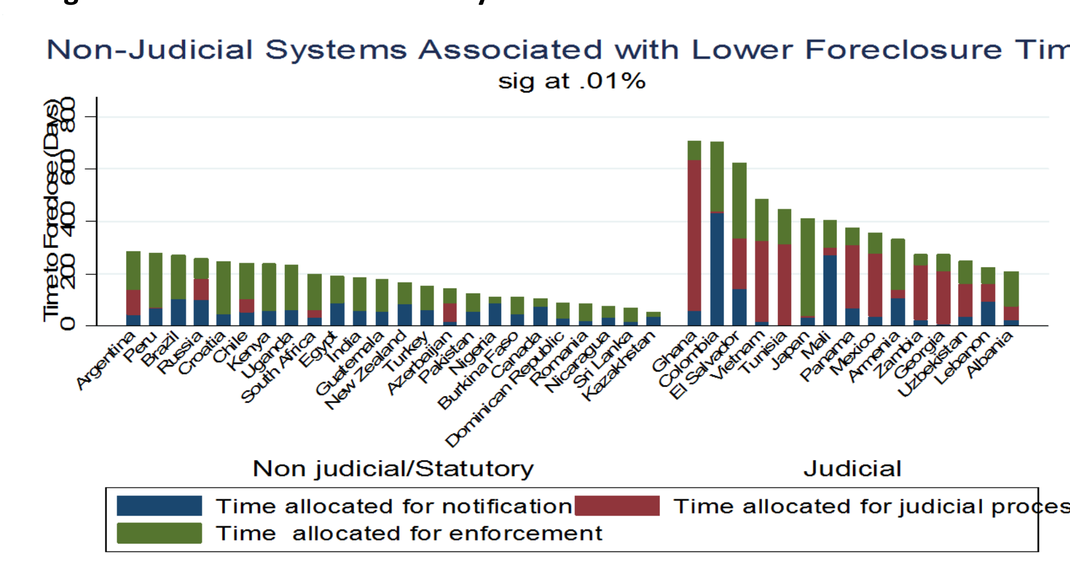
- *Lack of an effective system of property rights and registration (including lien registration), and a register of the geographical identification of properties and their improvements (cadaster), transfers etc.* The small reach of formal property right and registration systems in developing countries, is one of the main reasons why many experts question the viability of developing mortgage systems (Gilbert 2012; Tipple 2015). This is particularly the case in countries of Sub-Saharan Africa where customary law systems prevail even in peripheral urban areas and the cost and time needed for title registration is forbidding. However, property registration systems and cadasters can be established to different levels of technical specification, and their development is facilitated by new technologies that make the geographical identification process of properties much less onerous and costly than before. Several countries have introduced a phased process of property registration. The initial effort to expand property registration can focus on establishing systems for "new" developments. For example, **Egypt** facilitated registration of property rights for new urban developments on desert land through a tripartite agreement between the Ministry of Housing, Ministry of Justice, and the agency in charge of new developments on desert land (NUCA), making mortgage lending possible for most new housing. The expansion of registration systems for the older existing housing stock is done more gradually and on demand.[15] Registration fees have been lowered drastically to induce households to register properties and their transfers. Also, the

[15] A 2006 study found that only 25 percent of properties in Greater Cairo were registered.

newly established property tax system (linked to the cadaster) makes no difference between titled and non-titled properties.

- *Macro-economic instability, that causes inflation and interest rate movements to be unpredictable and interest rates to be excessively high.* Many developing countries have made major macro-economic improvements in the past decades and macro-economic volatility is no longer the primary barrier to developing mortgage systems. When inflation is modest, adjustable rate mortgages and indexed instruments can be applied to deal with interest rate risk. When inflation is high and volatile, adjustable and indexed instruments break down. They may take care of the interest rate risk for lenders, but increase the credit risk through payment shocks for borrowers. Indexation linked to incomes or dual index instruments have similar limitations as they extend the loan term to deal with increasing loan balances when incomes lag behind inflation in order to keep the payment-to-income ratios stable. When peoples' loan balances continue to rise, loan terms become unrealistically long in order to pay off the loan and ultimately governments have had to bail out lenders. This happened in several Latin American countries such as **Mexico** and **Brazil**.
- *Ineffective legal systems detailing rights and obligations of different parties to the mortgage loan or lack of enforcement of the laws by the judiciary.* Often a special mortgage law has to be created to consolidate rules pertaining to mortgage lending and thereby reduce uncertainty and judicial discretion. Apart from the laws, the execution of the judicial procedures have to be efficient and, allow foreclosure and the eviction of non-paying households. When this process is politicized, or takes many years to implement, the collateral is not worth much from the lender's

Fig. 5: Judicial and Non-Judicial Systems of Foreclosure and Foreclosure Time



Source: Safavian, Mehnaz, Maximilien Heimann and Mariya Kravkova. (2008) Financing Homes: Comparing Regulation in 42 Countries. World Bank perspective. International studies have shown that with an increase in the length of trials, there is an increase in interest rates and a decrease in the amount of credit granted in a country (Chiuri, Japelli, 2003; Japelli, Marco Pagano and Magda Bianco, 2005). Educating the judiciary in the consequences their actions have on the availability of mortgage credit has alleviated these problems in some countries. Other countries have established non-judiciary systems of foreclosure which have shortened the time to foreclose (Safavian, et.all, 2008; see Fig.5). Nevertheless, contestation in court always remains an option. *Lack of an* ***innovative and competitive financial industry,*** *able and willing to make and administer long-term mortgage loans.*

- *Lack of participation by private banks in segmented mortgage markets with dominant government lenders*. Many countries established government housing finance institutions during past periods of macro-economic volatility when it was impossible for private banks to make long-term loans. In nearly all cases, such state lending operations were subsidizing lending in order to make housing affordable, using mostly fixed rate mortgages at highly subsidized rates. In addition, loan repayments were low in most government banks, with some notable exceptions. These government systems and implicit subsidies remained in place in most countries even after inflation abated and macro-economic stability returned. In the presence of a dominant and subsidized, government mortgage system, the growth of the private mortgage market remains small. This type of mortgage market structure prevails in many Latin American, African and Asian countries. The outcome has been a segmented market where private lenders serve only the top end of the market, while government lenders focus mostly on a middle income segment of predominantly public servants and other formally employed households. Informally employed and lower-middle and low-income households are mostly excluded from access to housing finance.
- *Lack of competition within the private sector*, when there are a few dominant lenders for example, is a major obstacle to the expansion of the sector. Colluding lenders are often the reason that large segments of the market are excluded from mortgage lending. Non-competitiveness also results in high margins and unaffordable mortgage rates. These are major problems in Sub-Saharan Africa where margins on mortgage loans are extremely high relative to the cost of funds and risks of lending.

  What are some of the government options to address these structural market issues? First, government must make sure that entry by new financial institutions is facilitated, including non-bank financial institutions, and that smaller cooperative or community banks are supported. In some countries liquidity facilities were established, backed by government and international development agencies, to make it easier for non-bank financial institutions to come into the mortgage market (e.g., Mexico, Egypt), or to support small cooperative or mutual lenders (e.g., South Africa, Kenya, India). These have

had varied success, depending on other structural issues in the mortgage sector and the effectiveness of the institutions.
In the **USA**, where banks were "redlining" (i.e., geographically marking neighborhoods for exclusion from housing lending) poor neighborhoods, the government put in place a law (the Community Reinvestment Act- CRA) that requires banks to make mortgage loans in the areas in which they do other business. There is no set ratio for the amount of lending, but banks have to show that they maintain a substantial mortgage portfolio in these communities. In **South Africa,** bankers, under the threat of having a similar law enacted as the CRA in the USA, implemented a voluntary agreement - the Financial Sector Charter- in 2005 to extend housing loans (mortgages, pension-backed loans and micro-loans) and other financial products to lower-income persons. A specific target amount was set that had to be achieved within five year. The banks exceeded the agreed upon amount of credit easily within that period. Importantly, mortgage loans made under the charter, performed not much worse than the conventional loan portfolio, refuting the notion of low-income borrowers as extremely risky borrowers that cannot be served. The FSC has been replaced by a codified agreement between bankers and government.

- *Lack of innovative business practices because of inertia.* The private sector is not a natural innovator. It often takes government to initiate a process that takes a fresh look at the sector and starts a dialogue on how to address some of the problems that stifle growth. For example, **Egypt's** government implemented a tripartite mortgage agreement between lender, developer and government to accommodate misgivings about mortgage lending by politicians*,* **Brazil**'s trust deed legislation was initiated by government and opened up the mortgage market, **Mexico's** innovative ways to combine provident fund savings or loans with commercial loans and move provident fund lending to greater efficiency was started by government after the political transition of 2000, **Morocco's** credit insurance for informally employed borrowers was initiated by government (see below), **Costa Rica's** use of NGO intermediaries to assist low-income housing borrowers to acquire housing was initiated by government to entice private sector participation in low-income lending. Most of these innovations addressed private sector needs, but required government initiatives, legislation or other support.

Second order constraints that increase lending and funding risks and increase transaction costs:

- *Lack of mechanisms to alleviate credit risk will limit expansion of loans to more risky customers.* Credit risk is the most important risk a lender faces. Accurate and up-to-date credit information assists in the assessment of the creditworthiness of the borrower. Establishing credit bureaus that provide detailed credit profiles of potential borrowers and show both negative and positive credit information is crucial to the expansion of mortgage lending and requires government support to ensure the sharing of credit information by all financial institutions. A second mechanism to consider is m*ortgage insurance* that provides partial coverage against credit risk. While not a requirement, mortgage insurance may help in expanding mortgage lending in general or for some select market segments, such as the informally employed or lower-income households. For example, the Government of **Morocco** instituted a generous mortgage insurance scheme targeted to informally employed borrowers at private commercial banks (Fogarim). It has been successful in expand the proportion of informally employed mortgage borrowers. Mortgage insurance can be offered by the private sector (e.g., the new mortgage insurance program in **Egypt**) but more frequently a public-private partnership is required initially (e.g., Mexico). In the USA mortgage insurance is provided by both the private and government sector and is required for mortgages above 80 percent LTV that are to be securitized by government conduits.

- *Lack of standardized information for the assessment of the market value of the property will increase origination costs and credit risk.* The lender needs to be assured that when a default occurs, the property can be sold in the market within a short period of time and at a price close to the assessed value. This in turn requires the existence of a housing market for the type of property that is mortgaged and reliable price information for different market segments. Establishing a sound appraisal industry and reliable house-price information will, initially, require government support in many countries as was detailed in Section 3.[16]
- *Lack of reasonably well- developed capital markets limits* access to long-term funds for housing through debt (refinancing, mortgage bonds) or equity (securitization) instruments. Bond markets are poorly developed in many developing countries, particularly in Sub-Saharan Africa (less than 10percent of GDP in most countries, World Bank), and are often dominated by government paper. Capital market funding can reduce lending and funding risks such as liquidity and interest rate risk. Capital market funding can assist in expanding mortgage lending beyond what is feasible under a financial system that funds long-term mortgages with deposits or short-term loans from other financial institutions. Refinancing institutions or secondary mortgage markets are, however, ineffective to expand mortgage lending on their own without a well-functioning primary market.
- *High government fees and taxation levied on financial products, as well as high costs of regulatory requirements can be a powerful disincentive to grow the mortgage business.* Administrative costs for property and mortgage registration, stamp-duty, VAT on mortgage transactions, reserve requirements for *the mortgage portfolio by* the Central Bank, all add to the cost of mortgage lending or funding. These costs are transferred to the customer and can make lending too expensive for a large segment

[16] The BIS, EU Statistical Bureau and the IMF have provided information on the different methods that can be used and, although still small, an increasing number of countries are collecting such standardized information. See Hofinet: http://hofinet.com/themes/theme.aspx?tid=90&id=92Hofinet page on

of otherwise creditworthy customers. Before subsidies are considered, government imposed costs, and regulatory requirements should be assessed.

- *Inadequate legal or regulatory provisions* related to the mortgage product, including prudential regulation. Legal or regulatory provisions related to the mortgage product and lending standards should protect the safety of the financial institution (e.g., provisioning rules, maximum LTV and DTI ratio requirements), level the playing field while allowing enough flexibility for lenders to make credit decisions based on the merits of the borrower and develop innovative instruments.
- *Lack of consumer education and awareness, and disclosure requirements often limit the demand for mortgages, particularly in developing countries, where mortgage lending is not well established.* The mortgage instrument is new for most people and worries about making such long-term commitment with the possibility of losing the house to the bank need to be addressed using easy to understand, non-technical materials. Government's role is important in the development of such materials and in setting the requirements for education and disclosure by financial institutions. Government also has to establish a trusted mechanism for customers to file grievances. In the US, South Africa, Ghana, Costa Rica, Chile among other countries, NGOs play an important role in this area, both for mortgage lending and micro-credit programs for housing.

Other institutions and systems that greatly facilitate the development of efficient and inclusive mortgage markets:

- *Savings schemes for the down-payment are important, particularly for first time homebuyers.* Such schemes create a savings discipline for the buyer, and will provide lenders with a payment history of the customer. Savings programs do not work in a high inflation environment and are best linked to flexible lending programs. **Ethiopia** included a savings component in its large scale Integrated Housing Development Program (IHDP). Beneficiaries have to enroll in an early savings scheme to show their interest and capacity to pay. When selected, they have to save for a minimum 10 percent down-payment.
- *Programs to provide households with a subsidy linked to housing finance or guarantees* to expand the frontiers of the mortgage finance markets to underserved categories of households (see section 6).
- *Technological applications such as the use of payment systems through mobiles.*
- *Research on lending instruments, loan performance, prepayment, etc.* Limited data has prevented research on housing finance markets in developing countries. However, research is important for policy development and private sector decision-making alike.

Binding constraints to mortgage lending exist in many developing countries, which has led many housing experts, including some experts present at the EGM in Barcelona, to state that mortgage lending at scale is not feasible in most Sub-Saharan African and South Asian countries. However, a close look at the problems reveals that many can be addressed through government actions to improve the legal, regulatory and policy environment for the housing finance sector. Moreover, o*ne of the major binding impediments in the past -- a volatile macro-economy with high inflation and interest rates shifts and lagging economic growth -- is no longer the main concern in most developing countries*. [17]. There is, therefore, scope to implement a long-term policy reform agenda that could gradually address the specific problems faced by each country's housing finance system. In most countries this is a multi –year or even decade long involvement. **Chile** and **Thailand** reformed their housing finance systems during the 1980s and 1990s; **Korea** began reforms before the Asian crisis and continued through the early 2000s. **Morocco** began major reforms in 2005 and is now focusing on policies to expand mortgage lending for rental housing. Development institutions can play a critical role in assisting governments to follow through with such reform agenda for the different segments of the housing finance market (see Section 8).

Rental Sector Mortgage Finance. The mortgage market for rental properties is even more constraint in most countries than that for ownership housing. Rental properties are considered more risky, since the rental cash-flow is the basis for loan underwriting and non-payment and vacancies in rental properties can be unpredictable. Also, foreclosure is more complex and costly. Additional requirements for rental sector mortgage lending may include:

- *Guarantees or other types of debt or equity support*. LTV's are typically lower for rental mortgages because of the higher credit risk. This means that the investor has to provide more equity, which is expensive. For affordable rental housing some form of guarantee may reduce the need for a low LTV. Many countries also extend some form of equity or other debt support.
- *Legal, regulatory and taxation reforms*. A broader technical analysis has to accompany policy work on expanding rental housing finance in each country. Rent control or strict tenant regulations are often the most binding constraint to the expansion of the rental sector and so are issues related to the taxation of rental income (Pfeffercorn and Taffin, 2013).

C. Some Principles for Mortgage Sector Reform

Before outlining a possible reform process for the housing finance sector, it is important to set out a few fundamental principles that have proven to be of great importance in the reform process of countries' mortgage sectors.

1. Distinguish the social agenda of improving access to finance from the reforms needed to improve the efficiency and scale of the housing finance system. Because housing finance is both a key part of the financial sector and a method for enabling households to expand their effective demand for housing, it has become a focus of

[17] Notwithstanding volatilities related to the phasing out of Quantitative Easing programs in the USA, the introduction of QE programs in Japan and the European Union, drops in oil prices and other global uncertainties.

attention of governments and development agencies. Since the 1990s, development agencies have emphasized the gradual development of sustainable private housing finance systems, built up as an integral part of the overall financial system in a market-oriented economy. This view made for difficult policy discussions in the area of housing finance, where the social and political concerns over housing seem to conflict with the desire for an efficient financial system. However, the perspective of this paper is that good social policy is not in conflict with good financial policy. **The only truly effective housing finance system is one that is efficient, sustainable and appropriately manages the many risks involved.**

In developing economies, it is, however, not realistic to rely on market players to promptly respond to shifts in demand and regulatory and institutional incentives. A rather complete understanding is needed of the risks and costs the private sector and NGOs are willing and able to handle, in particular in the low income sector. It often turns out that significant government incentives and a learning process are needed to move the private sector towards underserved market segments. Also, the assumption that NGOs are willing and able to subsidize risk taking in that sector needs to be carefully assessed and will turn out to be unrealistic in many cases. At the same time, there is overwhelming experience showing that when government takes over construction or lending functions to speed up housing delivery, using various implicit subsidies, the results are often poor and the hidden costs to government and the financial sector may be very high. Instead , reforming or phasing out subsidized lending by state systems, and stimulating private sector participation through incentives and a transparent subsidy system available to both private and public lenders may ultimately deepen access to mortgage loans to a much larger extend than a government bank alone could achieve (Hoek-Smit and Diamond (2003); Hoek-Smit (2009). Where does that leave us?

Some principles to balance the efficiency and social considerations in expanding housing finance can be summarized as follows:

- *A housing finance system must first make good sense as finance*. This is true for both mortgage finance and non-collateralized housing finance. Reducing institutional frictions related to property rights, lowering transaction costs, improving information and solving other inefficiencies in the system will lower the cost of lending. In turn this will expand mortgage lending and increase access to mortgage credit by underserved households and, therefore, serve the social housing agenda.
- *Expanding housing finance to serve lower income or more risky households should not compromise lending standards and household abilities.* **First**, maintaining prudent LTV and DTI levels and requiring households to save up for the down-payment. **Second**, sound underwriting of the customer as the basis for a loan (e.g., Egypt's mortgage-linked subsidy system uses two independent verification companies to check on income, addresses, and employment). **Third**, understand the housing preferences and needs of the borrowing household. The subprime crisis in the USA and the vacancy crisis in Mexico where low-income households were

provided with houses in locations far away from transport, employment and services, are illustrations of the dangers of ignoring customers' requirements.

- *Subsidies and other forms of assistance to the housing finance sector can be overlaid such a system*, but only if they respect the efficient functioning of the system and moral hazard can be kept in check.
- *If government subsidies or guarantees are introduced to expand commercial mortgage (or non-mortgage) lending, these inputs should be (i) costed out --particularly if there are hidden costs and risks involved--, (ii) budgeted for and regularly evaluated, and (iii) phased out as soon as they are no longer needed. These principles need to be embedded in the design and codification of such programs.*
- *Entirely non-commercial systems need to be kept separate from commercial operations and should be separately funded*.

Spotlights: **Thailand's Government Housing Bank** (GHB) in the 1990s made extraordinary progress in bringing mortgage lending down-market and including creditworthy informally employed workers in their mortgage operations. They did so with the use of minor cross-subsidies within their lending portfolio and by teasing mortgage rates down through competition with private commercial banks. However, when the National Housing Corporation planned to extend homeownership to the very lowest income deciles by providing low-cost ownership housing, and asked GHB to extend credit to the beneficiaries of the program, GHB considered the credit risk of this type of borrowers and of the type of collateral too high for inclusion in their normal portfolio. Instead, GHB agreed to manage the NHB fund and the loan portfolio on behalf of NHB for an administrative fee. For NHB this arrangement was advantageous since the bank has a better loan servicing record than NHB. For GHB this arrangement carries low risk since it does not take the default related losses and does not have to provision for non-performing loans.[18]

2. **Historical development paths of the housing finance system in a country or region matter, and reforms need to respect the great diversity in systems.** The way housing finance systems have developed usually reflects the specifics of the economics, politics, culture, and history of the particular country and region, e.g., past experience with inflation and the related establishment of government housing finance systems; the tradition of a judiciary that has taken the responsibility for underprivileged classes in society under repressive regimes; historical necessities that led countries to establish different second tier funding systems for mortgage lending.[19] Indeed, in most cases,

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[18] Chile, after many trials and errors, reformed its system in a similar way. It separated low-income housing programs from commercial mortgage lending. See description below. Also, Brazil's Mina Casa Mina Vida program (a 3 million houses subsidy program) does not provide mortgage loans to the lowest income segment.

[19] During the depression of the 1930s, the USA established the precursor to the current FNMA, an agency that bought mortgages from lenders in order to expand mortgage lending and stimulate economic growth through the housing sector. This later led to the securitization of the mortgage portfolios held by this government entity. To this day mortgage securitization is the main funding source for mortgages in the

past and current interventions of the government in housing finance, together with local historical quirks in the way private financial markets have developed, determine most of the major institutional aspects of the housing finance market. Reforms have to build on this diversity of systems. Simply adopting housing finance practices and institutions from other countries to solve the housing problems has been problematic. Moreover, in relatively poor developing countries, the role of the state in the development of housing finance systems is of much greater importance than in countries with well-developed and efficient markets. A different institutional and regulatory infrastructure is needed at each phase of development.

Nevertheless, *globalization and the forces behind globalization (such as technological innovations) are causing an increasing degree of convergence in housing finance* more recently and certainly after the global financial crises. For example, the motivation for standardizing, improving and computerizing information, is driven in many countries by their need to tap international capital market funding to support the growing need for housing finance. Similarly, the development of the legal provisions for different financial institutions and instruments such as Real Estate Trusts (REITs), securitization vehicles and mortgage bonds is driven by the need to attract international investors to domestic mortgage markets, including in developing countries.

Spotlights: **Many Latin American countries which established Housing Provident Funds** in the past have seen these systems grow to become the dominant housing lenders in their economy with limited down-market expansion by the private sector and limited reach of the entire mortgage sector. While such provident funds are no longer needed in many countries, and the way they subsidize mortgage lending is often inefficient, non-transparent and regressive, phasing out of such systems is difficult for political and social reasons. Instead, reforms in several countries have focused on improving the financial management of these systems, making the interest rates progressive (Brazil, Mexico), capping the income limit to qualify for a loan, initiating joint programs with private sector lenders (Mexico), allowing informally employed households to participate (Columbia) and seeking ways to include rental sector lending (Mexico). In addition, the globalization of financial markets has driven improvements in IT systems for loan administration, loan performance and in the reduction of internal subsidy levels in order for the provident funds to be able to access international capital markets and offer an attractive rate to investors.

D. Applications to other Types of Housing Finance

Non-collateralized Housing Finance.

US. Equally, a major fire in Copenhagen in the 18th century required the rebuilding of a large part of the housing stock. This led to the establishment of a legal framework for mortgage debt instruments (mortgage bonds) to raise funds in the nascent capital market, which is still the single most important funding system in Denmark (and other Scandinavian and continental European countries).

A similar analysis as detailed for the mortgage sector would have to be conducted for non-secured housing finance, but the requirements are less demanding than for the mortgage sector because the loans are for a shorter term and are not based on property collateral. Nevertheless, the constraints faced by the housing micro-finance industry in many countries requires careful attention:

- *Lack of a sound legal and regulatory framework for micro-finance in general*. As an example, the recent Central Bank regulations for micro-lenders in **The Philippines** has had a positive impact on the development of the micro-finance sector. Placing micro-lenders under supervision of the Central Bank improves the quality of the institutions. India and Brazil have improved their supervision of the sector in recent years. The regulations should include the requirement for micro-lenders to share credit information with the credit regulator or credit bureau.
- *Lack of access to medium term funding.* For the micro-lenders moving into the housing finance space, a major issue in the growth of the sector is to increase access to stable medium term funding sources. Many institutions operating in this space are not deposit taking and may need access to a liquidity facility for housing micro-finance or mini-mortgages. **India, Indonesia, Mexico, Tanzania** are among the countries that have established such liquidity facilities for housing micro-finance. These facilities have had very mixed results, however. Most were structured to subsidize funding of housing micro-finance institutions (HMFI), rather than as risk management mechanisms. Subsidized lending often has negative results for the development of the sector as a whole.

  Another, arguably more promising, line of government support is the transformation of strong NGO lenders into regulated banks in order to expand access to funds and strengthen the sustainability of the institutions. BancoSol in **Bolivia** is a successful example of this approach (See Box 3). Alternatively, linking HMFIs to commercial banks or micro-finance banks can improve their access to longer-term funds. Some banks have established their own affiliated MFIs some of which extend housing loans.

Box 3: The Case of BancoSol, Bolivia

BancoSol, Bolivia's largest commercial bank and successful microcredit institution, was created out of the *Fundacion para la Promocion y el Desarrollo de la Microempresa* (PRODEM or, in English, the Foundation for the Promotion and Development of Micro-enterprise), a successful NGO set up in 1984 to provide capital to small-scale commercial activities. 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 donor 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 1990. It was supported by ACCION in partnership with Calmeadow and PRODEM's board. The primary conversion challenges included raising capital for the high loan 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 (*Comite 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 PRODEM to the bank.[1]

In 1992, BancoSol, the country's first fully commercial microfinance institution, opened its doors. PRODEM became the largest shareholder in the bank it created and worked as an arm of BancoSol, providing technical assistance and support. 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 (an average of USD4,000) to offset increasing costs of funds. BancoSol currently has 630,000 depositors and 230,000 borrowers of which roughly half are microcredit clients and one fourth are *mortgage* borrowers. [3]

References:

1. Drake, Deborah; Otero, Maria (1992) "*Alchemists for the Poor: NGOs as financial institutions*", October, ACCION International, Boston.
2. Fidler, Peter and Mohini, Malhotra (1998) *"Case Studies in Microfinance: Sustainable Banking with the Poor*", The World Bank, Washington DC.
3. Koenigsfest, Kurt (2008) *"Banco Sol: The Development of Housing Microfinance Lending"*, World Bank Conference Presentation, May, Washington DC.; 2014 data from MIK

6. The Role of Household Subsidies in Expanding Access to Housing Finance and Improving Housing Affordability

A. Segmenting the Market

It is not uncommon that even in middle-income countries, more than two-thirds of households who enter the housing market each year would not be able to acquire a house in the formal housing market and cannot obtain a loan. Improvements to the mortgage system, as discussed in section 5 above, may be necessary but not sufficient for these systems to expand down-market substantially, because of income, savings or employment constraints or people's preferences.

Often a complementary subsidy to households on the margin of the mortgage market is necessary to gradually include underserved households, complemented by consumer awareness and education programs. Such subsidies can remain relatively small. 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. If such subsidies are provided not just for new houses (which often is the sole target of mortgage-linked subsidy programs) but can be applied to existing houses - which are generally cheaper and offer ownership options in familiar neighborhoods preferred by moderate-income households- 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. The prerequisite is, of course, that affordable housing is being produced (see Section 3) and that the mortgage supply constraints are not hindering the implementation of such programs.

Subsidies to this middle segment of the market have traditionally been inefficient, inequitable and mostly non-transparent (see below). The highest priority in most countries is, therefore, the reform of poorly designed household subsidies linked to mortgage lending.

At the lower-income levels, the expansion of partially secured and non-secured lending for housing can contribute to housing affordability. However, since housing markets for the lowest-income segment do not work without extensive government support, subsidies through housing finance systems will not be effective for this segment and rental subsidies and supply-side subsidies may be more appropriate. Leaving the subsidization of low-income housing finance to NGOs or development institutions will constrain the role these institutions can and will play in the larger housing finance market and ultimately limit the number of people that can be assisted. Governments have to take the lead in subsidizing this segment of the market.

It is useful, therefore, to segment the market to make sure that complementary supply and demand support is provided for each segment:

- *Households that could qualify for a market rate mortgage if mortgage systems and products are improved and expanded* -- let us say from the 80^{th} to the 65 percentile of the income distribution.
- *Households that could qualify for a mortgage, according to their level of income but are self-employed or informally employed and therefore excluded*. Lenders may make loans to this group if mechanisms exist to curb the credit risk, e.g., credit information and bureaus, or a targeted mortgage insurance to cover lenders for potential higher credit risk for informally employed clients (e.g., **Morocco's** Fogarim discussed in section 5). *Another category of households that could afford formal housing but cannot obtain loans is made up of those who lack a quality title to the land.* Improvement of registration procedures and cost reduction would increase the number of households with access to mortgages and formal housing. Institutional improvements rather than subsidies are needed to expand access to finance for these groups. Support to private rental or lease-to-own schemes is an alternative route to provide formal housing for these segments of the housing market.
- *Households at the margin of the mortgage market that could afford a house and mortgage loan if they received a relatively small subsidy to help them overcome savings constraint or monthly payment constraints* – let us say the 65^{th} to 40^{th} percentile of the income distribution. Similarly, rental demand subsidies may make access to formal private sector rental housing accessible to this group and bring private rental investors into the lower income bracket.

- *The lowest income segment and particularly the informally employed, who will not be served by the mortgage market and private rental sector, require other types of housing and finance solutions, e.g., public-private rental housing, self-construction options with access to non-secured housing loans.* Because of the small size and frequent inefficiency of non-secured lending systems for housing, linking *household subsidies* to this type of lending is not advisable and subsidies will often be captured by the lender. Subsidies in the form serviced land or other amenities is often more effective to improve housing consumption of this segment.

B. Types of household constraint in accessing mortgage finance

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 and emerging economies and for different sub-markets within countries. For example, in Middle Eastern countries, 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 Sub-Saharan Africa and 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. Subsidizing interest rates has major draw-backs: [20]

[20] A tax subsidy on mortgage interest payments is another form of interest subsidy. It has all of the negative aspects of the interest rate subsidy, but is even more regressive since many low-income

  - Programs remain small because of costliness, limited funds, and lack of transparency.
  - Access to capital markets is difficult (depending on the depth of the subsidy) because the below market interest rates do not provide attractive cash-flows for investors.
  - They are inefficient as they apply to the entire life of the loan, while few households require a subsidy for that long; they are therefore expensive in net present value (NPV) terms relative to other subsidies and hinder prepayment.
  - They are inequitable, since the subsidy increases with higher loan amounts.
- **Transparent Monthly Payment Buy-downs.** As an alternative to interest rate subsidies, the state can offer households 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 part of the monthly payment. 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 of such a subsidy is that most such buy-downs are phased out over the initial years of the loan (e.g., after 5 years), 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. Moreover, lenders require the disbursement of the full subsidy at the time of loan closure. They will not trust yearly or monthly disbursement (a reason for the lack of take up of such subsidies in **Indonesia**), since they will be exposed to increased credit risk if government changes the program.
  Generally, lenders like these subsidies because they expand the size of their average loan and the number of borrowers. Administrative systems must be highly efficient. Finance ministries like them because the cost of the subsidy can be calculated transparently and put on the budget for the full commitment – i.e., there are no skeletons in the closet.
- **Grants towards the loan amount or house price.** These subsidies lower the total loan burden and decrease, therefore, the monthly payments. 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.

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households do not file taxes or cannot become homeowners, and are therefore excluded from this subsidy benefit.

Spotlight: Egypt's Mortgage-linked Subsidy. Egypt's household incomes are low relative to house-prices and 60 percent of new urban households cannot afford a house in the formal market. Past interest rate subsidies and other supply-side subsidies were unsustainable. Egypt developed a package of transparent subsidies (monthly payment buy-downs, for 5 to 7 years, and down-payment subsidies, progressive with income levels), linked to a market priced mortgage that is issued by both public and private lenders using their own underwriting criteria. The total NPV of the subsidy is provided to the financial institution at the time of loan disbursement. In addition Government provides subsidies on the land to developers of low-income housing. Land markets are too volatile for the cost of land to be priced into the housing package for the lower-middle income segments. By linking the package of subsidies to the maximum loan amount that households can afford, household contributions are leveraged and overall subsidies per unit are substantially lower than the previous supply-side subsidies (Hoek-Smit, 2009).

S**ubsidies to alleviate savings constraints**. 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 registration costs, closing costs and /or an upfront premium for mortgage insurance*. [21] Upfront grants can be applied in different ways:

- **Grants towards the down-payment.** This type of subsidy assists in the payment for any or all of those upfront expenses and part of the down-payment. Such a down-payment subsidy should never substitute for the entire down-payment and 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. This subsidy can also be targeted to households with informal incomes, and by lowering the credit risk to lenders increase access to mortgage loans by this segment of the population.
- **Upfront grants complemented by a required savings program**. Households are assisted 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 and are particular important when households have informal incomes.
- **Soft-second mortgages.** These subsidies are another, more complex way to lower the savings requirement. A second mortgage loan is provided by government that typically is interest free and will need to be paid back after the first loan is paid off. The payment of the second mortgage can be linked to the appreciation of the property. While potentially a more efficient subsidy than an outright grant, the

[21] Research has shown that the savings constraint is one of the most important deterrents to moderate income households becoming home-owners (Linneman and Wachter 1989 for the USA). However, this may not apply in all markets. Also, if households have difficulty saving, the best way for government to be of assistance may not necessarily be to replace down-payments with subsidies, but to provide better incentives for households to save.

conditionality of paying back such loans has been fraught with misunderstandings in the context of low-income housing markets in emerging market economies.[22]

Box 4: 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 or public 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, lower-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 of subsidized mortgages. 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.
Since 2002, major revisions were made in the low-income subsidy package. Currently, the lowest income brackets that cannot save or carry debt are provided with a basic house which they have to finish themselves. Care is taken to build such houses in appropriate locations. The program is implemented through NGOs.
Source: Ruprah and Marcano, 2007; Hoek-Smit and Diamond, 2008; Pardo 2001; Rojas, 1999; Minvu 2014.

C. Guidelines for Mortgage-linked Subsidy Design

The general advantages of mortgage linked subsidies are that they leverage household savings and credit capacities, they can be made transparent and they provide an additional incentive for lenders to move down-market. *However, these advantages assume that the housing market and the housing finance system are reasonably efficient. If this is not the case such subsidies are merely compensating for the short-comings of these systems (see Section 3). Interventions to make the housing finance system more efficient should precede or complement household subsidy programs that*

[22] For example, Costa Rica was forced to abandon the soft-second loan structure of their upfront subsidy, since beneficiaries did not understand that the soft-second was not a grant.

use the housing finance system.[23] Finding the right combination of subsidizing households at the margin and supporting measures to improve the housing finance system is challenging in many lower and middle income countries. Some guidelines for the use and design of mortgage-linked subsidies are:

- Require fairly efficient mortgage markets.
- Should not interfere with prudent lending practices (see section 5; guidelines).
- Should focus explicitly on households "at the margin" of the mortgage market who cannot become home-owners or qualify for a loan without the subsidy.
- Stimulate financial institutions to reach a successively lower income group or more risky households over time, i.e., not force lenders to serve households too far out of their range of current operation, and be easily adjustable when house-prices, incomes or interest rates change.
- Be attractive for both public and private lenders to use, i.e., be administratively easy to implement and have an efficient interface with the subsidy granting institution.
- Not prevent the use of mortgage loans to access capital market funding, i.e. not subsidize interest rates that make the return on the loan unattractive for investors.

The Monitoring and Evaluation of subsidy programs should be built into the design of the programs, and reporting of M&E results and follow-up adjustments of programs should be standard practice. Particular attention has to be paid to process evaluation (since mortgage-liked subsidies are implemented by commercial lenders), and assessing the costs of subsidies and guarantees including implicit costs.

7. Financing Housing Supply

The financing of the housing supply includes different components--land acquisition, off site/bulk and on-site infrastructure costs, and the construction costs of houses. Financing needs for residential infrastructure are enormous in many emerging market and developing countries, particularly in Sub-Saharan Africa, the Middle East, and South Asia. Government funds in the form of long-term debt issuance for infrastructure (bonds of upto 40 years), and public-private-partnership arrangements are widely used. Some countries have set up special government banks for the funding of infrastructure, e.g., Brazil's BNDES, South Africa's DBSA) and use innovative bond market instruments to source funds. This topic is not within the scope of this paper and is discussed in Bailey, 2013.[24] We will only briefly frame the issues around land and construction finance.

A. Financing Land

[23] Many governments are tempted to do the lending for this "non-qualifying" group, taking all the credit risk themselves. This leads nearly invariably to large loan losses, since governments are poor at collecting on defaulted loans.

[24] Guide to Finance Infrastructure and Basic Services, UN Habitat 2013

The financing of land is risky for several reasons. The price a developer – whether private or public-- will pay for land is determined by its ultimate use, i.e., the type of residential development the developer thinks is suitable for the specific location and the estimated price of units. However, at the time of land acquisition, permits are still to be obtained, and changes in government policies and market cycles are unpredictable. When permits are delayed and/or the prices of houses to be built on the site go down, the land loses value and poses a credit risk for lenders. For that reason, land is nearly always bought with developer's own funds and is the equity required to obtain construction or project finance. If debt finance is obtained for land, it is in most cases for less than 50 percent of the land price.

In case of affordable housing, the price of land becomes the most critical component of the housing package. Compromises are often made with the location of the land in order to keep the total cost of the house within bounds. Examples were mentioned above of locational issues with subsidized housing in Chile and Mexico, resulting in high vacancies. Many other countries have had experienced similar issues, or have witnessed excessive transport costs that drain household budgets of the poor (e.g., in South Africa's low-income housing areas transport costs from close to 20 percent of the household budget of lower middle income groups). Improved planning (zoning and density) requirements are critical in this respect. **Government partnerships or guarantees** may help in accessing well located land and finance for land and expand residential land supply.

B. Construction Finance

Construction or project finance comes in several different forms and is easier to obtain for larger-scale well established developers than for the majority of medium and small size firms in both advanced and developing countries. In most developing countries the latter dominate. The most frequent types of construction finance are discussed below:

- *Senior debt, short-term, commercial bank loans, secured with a lien on the project.* Banks have to establish special units with the ability to underwrite construction projects, including tracking real estate cycles, and assessing the construction progress against disbursement of the loan. Common lender measures for issuing project debt are the loan-to-cost ratio, loan-to-appraised-value ratio, loan-to-gross development value (GDV), the debt-serve ratio and loan to equity invested ratio. These loans can be very profitable since the banks charge a risk premium over the normal interest rate. However, because of frequent project failures or developer problems in some countries, banks are often reluctant to issue construction loans. And if they do, they use low LTV ratios – e.g., a maximum of 80 percent of hard costs and 50 to 60 percent of project value. The rest is land equity, marketing costs and profit. In some countries, like **Egypt**, banks are forbidden by their regulator to issue loans for unfinished houses. In other countries regulators limit banks' exposure to construction loans.

The lack of construction funding can, however, limit residential construction output and can be a cause of price increases. **Government can assist** by providing the appropriate legal structures for banks to enforce contracts, and allow for speedy take-over and transfer of projects to new developers in case of project or developer failure. Another option is to provide guarantees for construction loans, particularly in the case of low-income housing.

- *Revolving bank line of credit* to the developer with recourse to the developer balance sheet.
- *Capital markets funding* through corporate bonds, and securities backed by cash-flows from construction projects, i.e., unit sales. But this is still rare in most developing countries.
- *Equity investment by private equity firms, impact investors (for low-income housing particularly) or government.* Because of the difficulty of obtaining construction debt from banks and limited corporate debt markets, the role of equity investors has become increasingly important. Equity investors are focused on the overall project returns over cost, both leveraged and unleveraged returns and, specifically, the internal rate of return (IRR) and multiple of capital invested. They get paid when the project sells -- often ahead of the developer. The advantage of having an equity investor as partner in a residential development project is that it mitigates market risk, allows the developer to obtain larger construction loans, and brings additional expertise. In addition, equity capital does not charge interest but shares in profits at the point of project completion, i.e. patient capital. **Government can facilitate the expansion of equity funds** by allowing potential domestic investors such as insurance companies and pension funds to invest in such funds.
- *Pre-sale (off-plan) by future buyers is an important source of funds, not just to finance part of the construction, but proof of sufficient levels of presales are often a requirement for bank loans for construction and an important indicator for equity investors to join the project*. Pre-sale funding is particularly important when debt finance from banks is difficult to obtain or expensive. In developing countries these payments are often not put in an escrow or trust account and restitution protection for customers when the developer cannot finish the project, is low, and is often not codified. The weakness of this type of pre-sale funding is that the risk is left with the consumer, the party that can least manage that risk. T**he role of government** is to establish and enforce escrow or trust arrangements and improve the protection of the consumer under pre-sale arrangements.

8. The Role of Governments and Development Partners to Support Housing Finance Sector Development

A. Guidelines for a Housing Finance Reform Process

Formulating a long-term and comprehensive reform agenda for the housing finance system is a complex task that may span across government and private sector entities and, critically, across election cycles. Such process typically has to be initiated by government and may start from the Ministry of Finance or Investment, the Central Bank or the Ministry of Housing. The discussions of such agenda will be influenced by conflicting political priorities and requires a concerted effort to align actions by many different parts of government, both housing and non-housing entities, and public and private housing finance institutions. Such process requires as much thought as the design of policy and programmatic actions themselves.

Some countries have established an inter-ministerial working group or committee, but these have mostly been useful only in the formulation of a broad agenda. The commitment to keep the reform agenda on track often has to come from a higher political level, e.g., the prime-minister's office. Trusted external expertise (and funding) may be called upon to assists with the technical analysis, scenario development and the execution of the various legal and technical tasks. The challenge is to coordinate, even loosely, the different efforts involved across the different public sector agencies and the private sector, using shared principles. We set out some guidelines for a possible reform process.

- *Conducting a Technical Analysis.* In section 3, 5 and 6 we set out a framework and guidelines for the technical analysis of a housing and housing finance system and ways to expand access to finance by improving efficiency and the use of household subsidies. The outcome of the detailed technical analysis of the housing finance sector and the demand side constraints faced by households would create, within a short time, the basis for policy analysis and discussions of an agenda for possible policy actions. This analysis can be commissioned by any of the government entities mentioned above.
- *Creation of a Shared vision*. The most important role for the core government entity is then to prepare a common platform and process for the development of a reform agenda for the housing finance sector (including Central Bank, Ministry of Finance, Ministry of Housing, public and private housing finance institutions, NGOs, others). This process must start with the creation of a vision for the sector by the core Ministries followed by an open and ongoing dialogue with core partners.
- *Segmentation of the Housing Finance System*. Next is the identification of issues that hinder growth for the commercial and non-commercial mortgage sector, rental mortgage lending, construction lending and non-collateralized lending. Parallel but coordinated processes would need to be created to guide reform agendas for each.
- *Establishing Principles for Reform or Development of Housing Finance Systems and related Subsidies*. It will be important to have some common principles or guidelines for reforms across segments. This is particularly important in relation to the social function of the housing finance system and the reform and design of subsidy programs.
- *Defining Public-, Private- and NGO-Sector Roles and Functions in the Reform Process.* Identifying complementary roles in the reform process for government and industry actors and for NGO partners in housing finance is helpful. The private sector is not a spontaneous innovator. It requires incentives and sometimes regulations to expand

its participation in the housing finance sector for both mortgage and non-collateralized lending. NGOs are often more innovative but are all too often assumed to subsidize their lending and other housing activities which ultimately limits their output. Also, it prevents the development of a coordinated approach to low-income housing finance. The task of subsidizing housing or lending to low-income households is ultimately a task for government. Identifying what problems can be solved by improved regulations, legal structures and what problems require government subsidies/guarantees is a good point of departure.

- *Costing-out and Budgeting of Incentives*. Once alternative proposals for interventions by government are being considered, whether these are subsidies and guarantees to the housing finance system or subsidies to households, the potential costs need to be calculated in NPV terms for comparability.
- *Monitoring and Evaluation of Reforms.* Even the best designed reforms and subsidies can fail to be efficient and effective if these are not implemented properly. Reforms or programs should be evaluated over time and procedures for policy adjustments needs to be put in place within each competent government- or private sector entity.

Countries that went through a comprehensive reform process include, Chile, Thailand, Korea, South Africa, Mexico, Morocco, Lithuania, and Egypt, a process that survived the revolution and government transitions.

B. The Role of Development Agencies

Most governments need considerable support to frame and implement such a reform agenda. Development agencies can provide both technical support and assist with the coordination of the process. Because of their international experiences, they can help with **the development of the long-term vision and the establishment of common principles and guidelines. Most of all, they can "keep the train on the rails" and support the gradual and long-term implementation of successive reforms**. More specifically, development agencies can provide:

- Education and training of government officials, NGOs and others.
- Facilitation of the common government platform for housing finance and the process of development of a common vision.
- Support to the gradual implementation of the different parts of the housing finance strategy by providing experts, facilitating workshops and high level policy meetings.
- Research inputs to analyze the overall housing finance system in a country, and the development of reform scenarios.
- Support to the establishment of monitoring and evaluation systems within different ministries related to housing finance sector interventions.
- Support to data collection efforts on the sector both globally and country specific, jointly with other partners working in this area.

However, these important functions require that development agencies coordinate their support and acknowledge their specific expertise in this complex and multifaceted field of housing finance. Because of past orientations on community based approaches, expertise in framing the major issues that might be needed to lift constraints in the larger housing finance system is lacking in many agencies. Critically, the fragmentation of development aid in general is a serious problem with an increasing number of bilateral and multilateral donors, NGOs and private agencies all pursuing their own agenda. Part of the challenge for governments is, therefore, to coordinate development inputs across needed expertise and types of input, i.e., loans, technical assistance, training and education, data collection and research.

Most importantly, government should set out a common framework for reform of the housing finance sector and shared principles and guidelines for action in order to coordinate support strategies. This report is meant to assist in that process.

References

Bailey, Stephen J (2013) *Guide to Finance Infrastructure and Basic Services*. UN Habitat.

Chie, Aoyagi and Giovanni Ganelli (2015) *Asia's Quest for Inclusive Growth Revisited*. IMF Working Paper.

Chiuri, Maria Concetta & Jappelli, Tullio (2003) Financial Market Imperfections and Home Ownership: A comparative study, in *European Economic Review*, Elsevier, vol. 47(5), pages 857-875, October.

Dasgupta, Basab, Somik V. Lall, Nancy Lozano-Gracia (2014) *Urbanization and Housing Investment.* Social. Urban, Rural and Resilience Global Practice Group, World Bank WPS7110, Washington DC.

Duranton, Gilles (2014) *Growing through Cities in Developing Countries*. World Bank Policy Research Paper 6818, Washington DC.

Fischel, William A (1995) *Regulatory Takings: Law, Economics and Politics*. Harvard University Press, Boston.

Flood, Joe (2012) *Global Shelter Strategy 2000: Reform to Replicate*. UN Habitat presentation.

Gilbert, Alan (2012) *Latin American Regional Report: Global Housing Strategy 2025*. UN Habitat.

Glaeser, E. (2013) *A World of Cities.* NBER, Washington DC.

Glaeser, E and Joe Gyourko (2008) *Rethinking Federal Housing Policy*. AEI Press, Washington DC.

Grebler, Leo and Leland Smith Burns (1977) *The Housing of Nations: Analysis and Policy in a Comparative Framework*. Palgrave Macmillan.

Hilber, Christian (2014) *Housing markets and policies in the UK, Switzerland and the US – lessons to be learnt?* In: ADB-ADBI Brainstorming Workshop: Housing Policies for Emerging Asia, 17 Sep 2014, Tokyo, Japan

Hoek-Smit, Marja C (1982 to 1992) National Housing Demand Studies in Zimbabwe, Lesotho, Swaziland, Botswana, Tanzania, Sri Lanka. Unpublished manuscripts. World Bank, Washington DC.

Hoek-Smit, Marja C. and Jasper J. Hoek (1998) *Property Rights and Investment in Housing in Botswana, Tanzania and Swaziland.* Unpublished manuscript.

Hoek-Smit, Marja C and Douglas Diamond (2003) Subsidizing Housing Finance, in *Housing Finance International*, June 2003. London, UK

Hoek-Smit Marja C. and Douglas B Diamond (2008) *An Illustrated Guide to Housing Finance Subsidies*. Wharton School, International Housing Finance Program.

Hoek-Smit, Marja C. (2009) Housing Finance Subsidies, in *Housing Finance in Emerging Market Economies*, Loic Chiquier and Michael Lea eds. Oxford University Press and Web edition, forthcoming , World Bank, Washington DC

Jappelli, Tullio & Pagano, Marco & Bianco, Magda (2005) Courts and Banks: Effects of Judicial Enforcement on Credit Markets, in *Journal of Money, Credit and Banking*. Blackwell Publishing, vol. 37(2), pages 223-44, April.

Linneman, Peter and Susan Wachter (1989) The Impacts of Borrower Constraints on Homeownership. In *Journal of the American Real Estate an Urban Economics Association, Volume 17 Issue 4.*

Martin, Richard and Ashna Mathema (2008) *Housing Finance for the Poor in Morocco.* DAI prepared microREPORT #96, USAID.

Malpezzi, Stephen and Stephen K Mayo (1987) The Demand for Housing in Developing Countries: Empirical Estimates from Housing, in *Economic Development and Cultural Change;* July 1987; 35, 4; ABI/INFORM Global pg. 687.

Malpezzi, Stephen (1990) Urban Housing and Financial Markets: Some International Comparisons. *In Urban Studies*, Vol. 27, No. 6, 1990 971-1022

McKinsey Global Institute (2014) *A Blueprint for Addressing the Global Affordable Housing Challenge*.

Olsen, Edgar O. (2008) *Getting More from Low-Income Housing Assistance*. Brookings Institution, The Hamilton Project, Washington, DC.

Peppercorn, Ira Gary, and Claude Taffin (2013) *Rental Housing: Lessons from International Experience and Policies for Emerging Markets.* World Bank Publications, Washington DC.

Renaud, Bertrand (1984) *Housing and Financial Institutions in Developing Countries*. World Bank Staff Working Paper No. 658. Washington DC.

Renaud, Bertrand (1999) The Financing of Social Housing in Integrating Financial Markets: A View from Developing Countries, in *Urban Studies* 36, no. 4 (1999): 755.

Safavian, Mehnaz, Maximilien Heimann and Mariya Kravkova. (2008) *Financing Homes: Comparing Regulation in 42 Countries*. World Bank, Washington DC.

Saiz, Albert (2010) The Geographic Determinants of Housing Supply, in *The Quarterly Journal of Economics* 125, no. 3: 1253-96.

Sing, Linda (2008) *Pension-backed Home Loans*. FinMark Trust, South Africa.

Tipple, Graham (2015) *Beyond the Enabling Approach; Rebuilding the Capacity of the State to Promote Housing for All. Draft paper* UN Habitat Expert Group Meeting.

World Bank. (1993) *Housing: Enabling Markets to Work*. World Bank Policy Paper, Washington DC

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