

# *Reforming* Latin American Housing Markets

A Guide for Policy Analysis



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# REFORMING LATIN AMERICAN HOUSING MARKETS

*A Guide for Policy Analysis*

**Inter-American Development Bank**

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## *Foreword*

This book examines the links between housing and various other sectors of the economy from a public policy perspective, and provides a framework to assess the status of the housing market in the countries in Latin American and the Caribbean. It provides a holistic view of the reforms needed and the links with other sectors of the economy that have to be considered when a reform process is started.

Housing issues should be addressed from the point of view of development and finance, the latter regarded as a part of a more general financial market development strategy. However, housing is an important economic sector. It affects, among other things, social cohesion, the family, and financial and economic variables such as the valuation of assets, property rights, wealth, and employment. As a result, housing reform policies must be comprehensive and carefully consider housing's linkages with other sectors. Moreover, responsible policymakers should be committed to implementing their part of the reforms.

This book is part of an ongoing collaboration between the Inter-American Development Bank and the U.S. Department of Housing and Urban Development (HUD). It was prepared as a policy guide by a team of professionals from both organizations.

The book is mainly directed to policymakers and other experts in the region. It provides a tool to understand the complexities and implications of housing reform and the importance of a comprehensive approach. It can also serve as a tool to facilitate dialogue between policymakers and Bank experts in identifying priority areas for Bank action. As such, it can promote and expand access to housing finance by helping to develop mortgage instruments and increase the access to financial services by low-income sectors. This in turn will help identify interventions to resolve the acute housing shortage and land problems faced by all the countries of Latin America.

The commitment of the Bank Group (the Inter-American Development Bank, the Inter-American Investment Corporation and the Multilateral Investment Fund) to solving the housing problem in the region is reflected in the active role it plays in financing various operations

and providing technical assistance. A publication such as this one is expected to prompt healthy debate, particularly among policymakers such as housing and finance ministers, that will help determine how the Bank can diversify its housing products and best address country needs.

Carlos M. Jarque, Manager  
IDB Sustainable Development Department



# 1

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## *Introduction: The Significance of the Housing Sector*

**A**cross the world, “housing” has a wide range of meanings in peoples’ daily lives. At one end of the spectrum of living standards, housing is simply a place to lay one’s head—basic shelter. At the other end, housing can be a valuable asset—and thus a basis for a person’s ability to prosper in the market for financial transactions.

This book examines the housing sector and the financial market for housing in developing countries, particularly in Latin America and the Caribbean. The book also presents the reasons and techniques for analyzing and assessing housing markets, with the goal of reforming the housing sector and thus enabling it to function more effectively as a market. With such reforms, housing represents not only social welfare in terms of providing shelter, but also becomes a source of value for more citizens.

Because housing as shelter is one of the basic commodities that societies expect to be available to all citizens, the housing sector is particularly relevant to the economic well-being of countries. Yet the significance of housing policy for meeting welfare objectives also makes it a key aspect of social policy. And given the links between housing as a valued asset to the financial sector, it is also important for fiscal and financial policies. Moreover, an effective housing market presumes the existence of a sound national institutional, legal and regulatory framework that governs housing as property—

including ownership rights and transfers—that constitutes the basis for valuation. The housing sector thus has a variety of economic, social and legal dimensions. Policymakers, primarily the executive and legislative branches and any other players with the capability to substantially influence policy, need to look at the overall picture in order to introduce welfare-enhancing policies.

### **Social Dimension: The Need for Shelter**

Across the developing world, population growth and urbanization have a major impact on housing and significantly influence the design of housing policy. The explosion of the urban population has created a sizable demand for construction and housing finance that cannot be ignored if the basic housing needs of burgeoning cities are to be satisfied. In 2000, 50 percent or more of the population in almost all emerging market countries, including Latin America, lived in urban areas. However, the need for more and better housing is not restricted to urban areas. Poor people living in rural areas have similar concerns, though they are manifested in different forms. For both the expansion of urban areas and for the rural poor, governments must develop housing sector policy to deal with these concerns.

In meeting the needs of the urban poor for shelter, housing thus is a key social factor. Yet, at the same time, countries struggling to strengthen market economies are more and more concerned with how land is taken up by housing and other uses and how property rights are regulated and distributed. The basic view—largely shared around the world—is that private ownership best serves the growth of an economy. Therefore, though housing fundamentally meets the basic human need for shelter, it also can have an economic value for individual households and the country as a whole. Yet before housing can realize its full economic value, a fully enforced system of land and property laws must function as a foundation for effective private ownership. Even in a system where private ownership prevails, the legal framework can limit the use of property in instances where there is an overriding need for the justifiable public good of shelter. In those cases, government at various levels can issue rules such as zoning, building restrictions, and other regulations that limit the full disposition of land and property.

### **Legal Dimension: The Foundation for Housing Markets**

From a legal perspective, housing generates other effects through its relationship with land as a commodity and source of wealth. Land and housing

development require a system of values and rules, based on property rights, that permits the transfer and use by various economic agents—thus creating a housing market. Property law gives homeowners the right of occupancy, use and enjoyment, the right to sell in whole or in part, the right to control the use of the property, the right to bequeath it, the right to lease any or all of the rights, and the right to the benefits derived by occupancy and from use of the property. An effective legal framework for property use, transfer rights and valuation constitutes the basis for economic activity in the housing sector. And conversely, the absence of this framework is a barrier to the development of an effective housing sector. As stated in a policy paper by the Inter-American Development Bank (IDB, 1999, p. 5): “The regulatory environment of housing markets, including land use, utilities and building regulations, often represents barriers to entry to the market or imposes restrictions that prevent supply from efficiently meeting demand.”

In relation to such market forces—which will be examined in Chapter Two—these barriers can actually lead to what is known as *market failures*. As stated by the World Bank (1993, pp. 113-14):

Housing markets, influenced as they are by economic and social factors as well as government policies, can go part of the way toward satisfying the normative goals of a well-functioning housing sector, but they do not always do so effectively. The poor may be barred from entry into the formal housing market, and they may be forced to squat illegally on vacant land, to construct housing that fails to meet basic safety and sanitary standards, or to crowd into tenements. Housing demand may languish because there are no effective institutions for protecting private property rights, no effective system for recording ownership, and no system for providing stable long-term sources of housing finance. Housing supply may be unresponsive to demand as a result of under-investment in trunk infrastructure or because monopolies control the availability of land, building materials, or residential construction. And expansion of the stock of housing may impinge on environmentally sensitive areas, use land wastefully, and create severe urban pollution and waste disposal problems. These market failures create a legitimate role, even an obligation, for governments to ensure that the housing sector functions well.

#### 4 Introduction: The Significance of the Housing Sector

In these cases, the social aspect of the housing sector takes precedence. Yet, by and large, effective and accepted property rights still enable a large proportion of the population to participate in housing-related economic activity. Chapter Four will give examples of how policymakers are seeking to reconcile social goals with market efficiency.

### **Physical and Economic Dimension**

The dimension of the housing sector most apparent on a day-to-day basis is its physical and underlying economic dominance. As reported in the IDB policy paper:

Residential activities are the largest consumers of urban land and major users of urban infrastructure and services. Housing policies have significant impact over the pace and direction of urban development. Their impact on the behavior of developers and households determines, for instance, whether cities undergo horizontal expansion or whether significant urban renewal activities take place in large cities (IDB, 1999, p. 5).

Moreover, in developing countries, investment in housing can account for from 2 to 8 percent of the gross national product (GNP), and for 10 to 30 percent of gross capital formation. If housing investment and services are combined, the housing sector accounts for from 7 to 18 percent of GNP. And when considered as an asset, housing is even more important, making up from 20 to 50 percent of the reproducible wealth of most countries. Given this economic significance of the housing sector, the World Bank (1993, pp. 10-11) further explains:

The housing sector must thus be seen and managed as a key part of the overall economy. Unfortunately, in the great majority of developing countries, this perception has yet to take hold. Governments too often perceive housing solely as a welfare issue, requiring the transfer of physical and financial resources to households unable to house themselves adequately. As a result, government housing agencies...ignore most of the population.

From an economic perspective, the housing sector includes land development, which in conjunction with other components (i.e., capital, labor and entrepreneurship) represents the key elements that directly affect the economy. Housing accounts for a considerable proportion of the productive activity of any country and constitutes an important factor for employment. Yet overall, the housing sector also is a challenge for developing countries. As was explained at a recent World Bank conference:

Policymakers in developing and [industrial] economies recognize the social and economic importance of housing investment. It accounts for between 25 and 35 percent of overall investments around the world, and is the primary investment in many households. Further, mortgage markets are a critical component of financial systems, as mortgages represent one of the largest classes of low-risk assets for domestic financial markets. Housing finance markets are closely integrated to domestic financial markets, and especially to domestic bond markets. Ensuring the availability of housing and the growth of housing finance markets is a policy priority in most countries, but the realities vary greatly. In many developing countries, housing finance systems are small, unstable and fragmented. Because of weak property titling and registration systems and other factors, an excessive proportion of these assets cannot be used as collateral for housing finance. Lack of access to housing finance in turn makes housing unaffordable for much of the population. At the same time—because of the serious difficulty in gaining access to housing finance and frequent housing supply distortions leading to high housing prices—participants in these markets perceive a greater need for subsidies, while lenders face higher exposures to risk.<sup>1</sup>

<sup>1</sup> Quoted from the description of the conference, “Housing Finance in Emerging Markets: Policy and Regulatory Challenges,” March 10-13, 2003, World Bank, Washington D.C. See <http://www.worldbank.org/wbi/banking/>. The conference program combined the country-based, operational and practical expertise of the World Bank’s Housing Finance Group, Financial Sector Operations and Policy Department, Urban Development Group, and Housing Policy Group. Conference cosponsors included International Housing Finance Services; Fannie Mae; International Housing Program, Wharton School, University of Pennsylvania; International Union of Housing Finance; Agence Nationale pour l’Information sur le Logement; International Finance Corporation; Canadian Mortgage and Housing Corporation; Freddie Mac; Countrywide International Consulting Services; Urban Institute; Su Casita, Mexico; Federal Home Loan Bank of Chicago; and Community Habitat Finance.

## The Latin American and Developing Country Context

Latin America faces a particular challenge in meeting people's housing needs and enabling the sector to function effectively as a market. As stated by the IDB (1999, pp. 2, 7):

Poverty is both cause and effect of poor housing conditions. Lack of effective demand resulting from the low income of households is the underlying cause that prevents the private provision of houses through formal channels for most of the population and presents a challenge for governments attempting to reduce the scale of national housing problems through public expenditure. Conversely, improving housing conditions can have a major influence on poverty alleviation through improvements in the living standards of low-income families, and on poverty reduction via increased employment opportunities. Furthermore, the problems of poor housing and poor environmental conditions are closely interrelated in many cities.

In each country, then, the stage of development of the social, economic and legal dimensions of the housing sector will be reflected in the valuation of land, property and construction. The housing sector thus can be regarded from the point of view of the social, economic and legal circumstances that permit the fair determination of the price of housing and related assets and their effective transfer. In other words, the functioning of exchanges between buyers and sellers establishes value.

There are fundamental differences between developing and industrial countries in both the underlying macroeconomic structures and also in housing sectors and markets. From a macroeconomic point of view, developing countries are more volatile in production (e.g., less diversified) and in overall financial stability. As was noted above, well-functioning financial markets are crucial to enabling the housing sector to function. The differences also are pronounced in the legal environment, in housing credit finance, and in the forms and approaches used to support housing development.

With respect to the legal environment, in many developing countries, the lack of protection of property rights dramatically limits the key elements of housing sales—transferability and the use of collateral. These legal restric-

tions are reflected in the highly divergent rates of development in housing finance in industrial and developing countries. In fact, in industrial economies, houses are financed in various ways (i.e., bonds, mortgage-backed securities, deposits), whereas in emerging market countries, are generally limited to savings deposits and government financing. Thus, in industrial economies, several segments of the population at different income levels can leverage their down payment and take on a loan that will be repaid with affordable debt service. But in developing countries, only a small share of the population (usually less than 20 percent) can afford the higher down payment and debt service necessary to buy the least expensive commercially built unit.

There are several main reasons for this housing finance situation in developing countries: the generally low level of income; the lack of a sound institutional, legal and regulatory environment; and underdeveloped financial and capital markets. The result has been a relatively small “formal” housing sector (i.e., a sector based on housing credit and housing development). Instead, the great bulk of households (usually more than 70 percent) build their homes informally and “progressively” over a period of five to 20 years and finance this construction from many different sources (e.g., only a minority is interested in and can qualify for a mortgage).

How can Latin American countries meet the challenges of creating the conditions for a healthy housing market? The standard view is that the key to expanding housing finance is to gradually drive down traditional market instruments (e.g., 30-year mortgages) through systemic reforms of the legal and financial system. This solution clearly mandates that the development of the financial system is fundamental to the expansion of housing and constitutes a crucial element of housing policy. At the same time, housing finance constitutes a significant part of the financial market and contributes to its expansion. These important policy considerations have to be pursued in synchrony with the reality that a large part of the population would not become active potential buyers as long as their incomes remain too low to afford to purchase a new unit.

The rest of this book will show—using lessons learned and success stories from Latin America—that it is possible for a country to make the transition to more mortgage finance and a greater role for housing developers (i.e., to formal commercial housing systems resembling those of advanced industrial countries). But this challenging transition is hardly straightforward, and

there is a continuing need for parallel systems of housing finance, housing and land development, and infrastructure provision for the low- and moderate-income majority—which will also be illustrated below.

Some existing forms of intervention have limitations and shortcomings. For example, direct demand subsidy programs do not work well for low-income households because developers and financial institutions have little interest in serving this group. Upgrading existing and mostly unhealthy and unsafe dwellings essentially fixes a broken settlement pattern at high cost, but does nothing to avoid creation of new barrios and, hence, continuation of the vicious circle of informal settlement and expensive upgrading. Upgrading and direct demand subsidy programs are not self-financing and they do not attack the key problem of housing credit finance for low/moderate-income households. That is, they both depend on a continuing stream of substantial subsidies that few governments can afford. Thus, they both must be viewed as transitions to more financially sustainable approaches to housing.

On the other hand, the market mechanisms of advanced countries are only somewhat relevant for serving most people in developing countries in the housing sector. For instance, poor people living in cities are best served by encouraging the construction of low-cost houses; subsidies should be transparent and not interfere with the functioning of financial markets; and community-based organizations and cooperatives have proven to be effective conduits for targeting housing provision.

In this context, other sorts of innovative market mechanisms can facilitate the transition to a more advanced financial system: mortgage insurance, urban property rights and tenure regularization, support of secondary mortgage markets, urban land development for low- and moderate-income households, housing microfinance and home improvement programs, private rental units and conversion of government to private housing, integrated support of progressive housing, household contract savings for housing credit, remittances from abroad, and expanded construction finance through social housing programs. The next chapter will look at each of these mechanisms.

## Overview

In keeping with the themes sketched in this chapter, the rest of this book examines the ways in which countries can pursue a strategy of analyzing, enabling and reforming their housing sector so that it can function effec-



tively, equitably and efficiently as a market. The chapters that follow seek to delineate these broad and complex themes.

Chapter Two begins by explaining the basic concepts of a housing market, including the legal, regulatory and institutional framework; equity and valuation (including accounting practices); the process of buyers and sellers coming together; formal and informal markets; and mortgage loans and alternatives. The chapter goes on to describe both the prevalent financing methods and situations in developing countries (e.g., most people do not obtain mortgages but use progressive construction techniques), as well as the innovative mechanisms mentioned earlier. Both current challenges and potential solutions are illustrated with country examples. The chapter concludes by looking at the housing market in the United States as an example of how an industrial country uses mortgage loans in the primary and secondary markets as well as other advanced mechanisms to maximize the value of housing both microeconomically and macroeconomically.

Chapter Three explains the reasons for analyzing and assessing a national housing market and introduces a comprehensive assessment tool. The tool enables researchers to collect data ranging from the influence of economic and demographic factors on housing to tax structures and risk management. The chapter seeks to answer three questions: Why analyze and assess the housing market? Why gather a broad range of data? What is the usefulness of each type of data specified?

Chapter Four looks forward to the reform of the housing market and sector. It highlights lessons and success stories from Latin America, emphasizing the breadth of variations from country to country. It also further discusses the particular legal, regulatory and institutional challenges that countries face, and then summarizes policy and program recommendations for reform.

Finally, the book contains two appendices. The first examines secondary mortgage markets and mortgage-backed securities, and the second looks at risk mitigation.

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## *How Housing Markets Function*

**T**he housing sector has complex social, legal-political and economic dimensions. Yet fundamentally, housing functions as a market. That is, even with its widely varying submarkets—ranging from squatter settlements to high-rise condominiums and mansions—a country’s housing sector can appropriately be considered to be a single market. Trends in one part of a housing market are linked to those in other parts, and policies directed to the low-, middle- or high-income submarkets will also affect the performance of other submarkets.

As a market, the housing sector involves the dynamic processes of buyers and sellers coming together to make property transactions. The property is priced as determined by its value, which in a mature housing market is estimated according to systematic criteria (e.g., prices of so-called comparable properties) by real estate appraisers in accordance with the basic market forces of the quantity of supply (i.e., what other similar properties are available) and demand (i.e., what other potential buyers are willing to pay for similar properties). Yet to function effectively as a market, the housing sector also depends on a framework of institutions (e.g., mortgage lenders) and ultimately on the undergirding strength of the overall financial system (e.g., transparent accounting practices).

## Institutional, Legal and Regulatory Framework

The basic framework for a mature, well-functioning housing sector includes the same kinds of public and private policies and programs that are needed for other aspects of the national economy. First, there must be the institutional basis for a market—respect for the rule of law, secure bank deposits and reliable monetary transaction systems, and other basic aspects of a civil society. Property rights must be established and protected. There must be stable sources of housing finance. Subsidies must be targeted to poor people to avoid market distortions, and those subsidies must be transparent, not reduce the incentives of buyers, and not interfere with the functioning of financial markets. The government can stimulate housing supply by investing in infrastructure and by devising a clear and workable regulatory framework (e.g., building codes). For most developing countries, establishing such a framework involves reforming the housing sector. (This topic is addressed in detail in Chapter Four.) Table 2.1 summarizes the various aspects of a functional housing market.

Before examining the elements of a country's housing market, it is important to note that both the functioning of housing markets and the prescriptions for their reform vary significantly depending on a country's macroeconomic condition, culture and history, land use patterns, regulatory framework, legal system, income level, and stage of development. In Latin America and the Caribbean, most countries have established housing finance and other market systems, although with varying degrees of sophistication, financial soundness, and levels of private sector involvement. Analysts thus need to consider such variations in each market element from country to country as they seek to understand and reform their country's housing sector. The key variable factors are land use patterns and laws and building regulations.

## Equity, Valuation and Accounting Practices

A mechanism to determine the value of housing is an essential element of a housing market. This valuation needs to be based on assessment practices, recordation standards, and fair and transparent accounting practices. Housing value can best be looked at starting with the concept of *land tenure*, which is the literal underlying basis for the value of housing. Land tenure is

TABLE 2.1

## Enabling Housing Markets to Work: The Do's and Don'ts

Instruments	Do	Don't
Developing property rights	<ul style="list-style-type: none"> <li>✓ Privatize public housing stock</li> <li>✓ Institute titling systems</li> <li>✓ Establish property taxation</li> </ul>	<ul style="list-style-type: none"> <li>x Carry out mass evictions</li> <li>x Nationalize land</li> <li>x Discourage land transactions</li> </ul>
Developing mortgage finance	<ul style="list-style-type: none"> <li>✓ Allow private sector to lend</li> <li>✓ Lend at positive/market rates</li> <li>✓ Enforce foreclosure laws</li> <li>✓ Ensure prudential regulation</li> <li>✓ Introduce better loan instruments</li> </ul>	<ul style="list-style-type: none"> <li>x Allow interest rate subsidies</li> <li>x Discriminate against rental housing investment</li> <li>x Neglect resource mobilization</li> <li>x Allow high default rates</li> </ul>
Rationalizing subsidies	<ul style="list-style-type: none"> <li>✓ Make subsidies transparent</li> <li>✓ Target subsidies to the poor</li> <li>✓ Subsidize people, not houses</li> <li>✓ Subject subsidies to review</li> </ul>	<ul style="list-style-type: none"> <li>x Build subsidized public housing</li> <li>x Allow for hidden subsidies</li> <li>x Let subsidies distort prices</li> <li>x Use rent control as subsidy</li> </ul>
Providing infrastructure	<ul style="list-style-type: none"> <li>✓ Coordinate land development</li> <li>✓ Emphasize cost recovery</li> <li>✓ Base provision on demand</li> <li>✓ Improve slum infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>x Allow bias against infrastructure investments</li> <li>x Use environment to rationalize slum clearance</li> </ul>
Regulating land and housing development	<ul style="list-style-type: none"> <li>✓ Reduce regulatory complexity</li> <li>✓ Assess costs of regulation</li> <li>✓ Remove price distortions</li> <li>✓ Remove artificial shortages</li> </ul>	<ul style="list-style-type: none"> <li>x Impose unaffordable standards</li> <li>x Maintain unenforceable rules</li> <li>x Design project without link to regulatory reform</li> </ul>
Organizing the building industry	<ul style="list-style-type: none"> <li>✓ Eliminate monopoly practices</li> <li>✓ Encourage entry by small firms</li> <li>✓ Reduce import controls</li> <li>✓ Support building research</li> </ul>	<ul style="list-style-type: none"> <li>x Allow long permit delays</li> <li>x Institute regulations inhibiting competition</li> <li>x Continue public monopolies</li> </ul>
Developing a policy and institutional framework	<ul style="list-style-type: none"> <li>✓ Balance public/private sector roles</li> <li>✓ Create forum for managing entire housing sector</li> <li>✓ Develop enabling strategies</li> <li>✓ Monitor sector performance</li> </ul>	<ul style="list-style-type: none"> <li>x Engage in direct public housing delivery</li> <li>x Neglect local govt. role</li> <li>x Retain financially unsustainable institutions</li> </ul>

Source: Based on Mayo (1999, p. 46).

a problem in some countries and a significant factor in housing demand as collateral for formal housing loans. Widespread squatter settlements do not benefit secure tenure; in some cities, unauthorized housing accounts for as much as 80 to 90 percent of the housing stock.

Conversely, as residents secure tenure to the land on which their housing is built, they may be able to use the land and the housing as collateral for a loan. In accord with the concept of tenure, a country that is able to establish a system of property rights, land ownership, and protection for both borrowers and lenders (e.g., foreclosure laws) validates land and housing value, making them attractive to financial institutions. Reliable recordation standards are a crucial underlying element for the soundness of the various processes that make up the housing market.

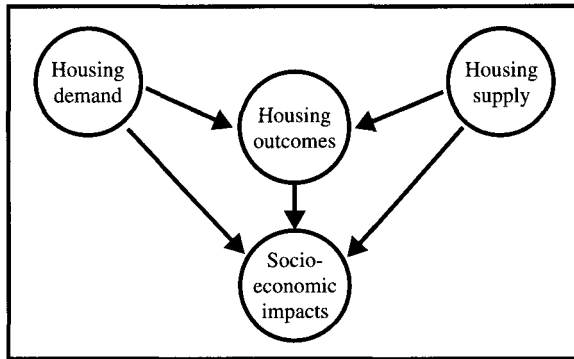
## Buyers and Sellers Coming Together

Once housing and land have an established value, there is a basis for a more efficient housing market. Of course, the essence of a market is a possible buyer and seller coming together; the first has a demand for a housing unit, and the second has the supply of a desirable unit. Housing supply and demand vary greatly from city to city and country to country, depending on factors such as those mentioned above (e.g., available land and property rights). Figure 2.1 shows the dynamic aspects of the housing sector. In the figure, “housing outcomes” represent the day-to-day shelter, monetary income and other benefits that housing provides. The importance of policy differences in shaping housing sector outcomes is supported by recent data on 52 countries collected by the Housing Indicators Program, a joint program of the United Nations Centre for Human Settlements and the World Bank (1993). Note also that the figure shows the importance of the social and economic impact of the housing sector that was outlined in Chapter One.

Financial institutions play a major role in enabling prospective buyers and sellers to come together. Stable, well-managed institutions can make loans for mortgages. The question is whether such institutions exist in sufficient numbers and on a large enough scale to meet demand.

The variations from country to country make it difficult to generalize about the details of this buying-and-selling process. Yet at least three basic principles apply across countries. First, there needs to be an adequate supply

FIGURE 2.1

**A Model of the Housing Sector**

Source: World Bank (1993, p. 15).

of sound housing stock. Second, demand must be facilitated through available finance and mortgage products for people at different income levels and with different credit situations. Third, loan and purchase transactions need to be facilitated by transparent procedures (e.g., “catastro”). These processes depend on the overall institutional framework.

### **Formal and Informal Markets: Mortgage Loans and Alternatives**

Just as the conditions for housing markets vary from country to country, so does the nature of these markets. All countries have elements of both informal and formal sectors (or markets). Formal housing markets, in which officially valued housing properties are exchanged, function through highly developed systems of mortgage finance. Informal markets, which pertain to squatter settlements and housing built progressively, function through traditional approaches such as barter, sweat-equity, and squatters’ rights. In most developing countries, informal markets tend to predominate. Less than 10 to 20 percent of annual housing investment in such countries is covered by mortgage finance.

Despite their prevalence, informal housing markets have tended to be discounted or cleared away by government agencies—the latter in the name of urban renewal, for instance. Yet the fact is that most of the new housing

built in developing countries is within the informal sector. Informal settlements, regardless of their quality, provide affordable housing for the poor at minimal public investment.

In recent years, the role of the informal sector is coming to be seen more positively. As Nordberg (2000) writes in a United Nations housing journal:

Despite the fact that the informal housing sector produces the majority of all new housing units in the cities of developing countries, it is rarely appreciated or supported. On the contrary, the houses and the economic activities in informal settlements have often been destroyed by public authorities, thus aggravating, instead of alleviating, poverty. However, governments are gradually realizing that informal housing can, indeed, become a solution because it requires minimum public investments. Informal settlements, regardless of quality, provide affordable housing for the poor. Destruction of informal settlements decreases the housing stock, increases poverty and only shifts the slums to another location. As governments are unable to build houses for all the needy, they should support the efforts of people to provide housing for themselves. This implies the acceptance of informal settlements as legitimate forms of urban housing, which should be improved rather than demolished.

These new insights into the informal sector are leading to more attempts to use innovative market tools that are workable in an informal context—especially microcredit. These tools are discussed later in the chapter.

The formal sector or market, of course, has received the most attention from analysts and policymakers because it deals with housing for which there are highly developed formal values, transactions and financing tools—mortgages in both primary and secondary markets. Yet in developing countries, the formal housing market is not necessarily a clear and true private market meeting demand with a supply of housing at appropriate prices. In Mexico, for instance, the IDB (2000) notes that the formal housing market “consists mostly of large developments undertaken by construction companies with loans from mortgage institutions. These homes tend to be expensive, even when compared with other Latin American countries with similar levels of development. Among the factors that explain that situation are the



scarcity of lots in urban areas, the exaggerated restrictions on urban development, and the limited competition among suppliers of housing.”

This analysis points to the issues involved in strengthening both the formal and informal sectors. The problems associated with this process will become apparent during the examination in the next section of the prevalent challenges and innovative methods of financing housing in developing countries.

## **Financing Challenges and Innovative Methods**

As has been noted, there are fundamental differences in the macroeconomic stability as well as in housing markets of developing and advanced industrial countries. Challenges faced by developing countries can range from the lack of income to afford a commercially built house to the lack of an efficient overall financial system. Although these issues were touched on in Chapter One, it is helpful here to briefly discuss how they are being addressed, with some country examples.

### ***Mortgage Insurance***

Mortgage insurance—that is, insurance that covers the payment of principal and interest on mortgage loans—can mitigate the risk posed by marginal borrowers, and thus make mortgages more affordable. Mortgage insurance is a key to developing a system of mortgage finance and, particularly, to enabling the public and private sectors to issue bonds and other mortgage-backed securities in secondary mortgage markets (see Chapter Three and Appendix A for more on these topics). Guatemala and Mexico have mortgage insurance for some types of loans. Other countries in Latin America have had some form of mortgage insurance at one time (e.g., Nicaragua), but now lack it.

### ***Urban Property Rights and Land Tenure***

How to develop property rights and regularize land tenure in the social context of poverty and a dominant informal housing sector are particular challenges for Latin America. Urban land and housing upgrading efforts typically encounter informal settlements where residents lack formal title.

A nuanced property rights approach recognizes that traditional formal or legal title is not the only option available to policymakers. Apart from the possibility of acknowledging existing informal or customary titles, there are a number of options within the formal title. There is the choice between individual and cooperative titles and the choice between freehold and leasehold titles. Even within leases, there is the choice of the appropriate length, in terms of years, of the lease. There is also recognition that apart from formal property rights in land, there are other property rights, formal and informal, that can be leveraged by residents as collateral for home improvement loans. In summary, there is little research that conclusively demonstrates under what conditions or what combination or bundle of property rights works best in facilitating urban upgrading.

In Mexico and most of Central America, about half of all households that believe they own their homes in fact lack full legal title. Yet establishing a system of urban property rights is important for the expansion of many types of credit (e.g., home lending, small business lending).

### ***Framework for Secondary Mortgage Markets***

As financial and housing sectors mature (e.g., in Mexico) and a “formal” primary mortgage market takes shape, the opportunity arises to develop what are known as “secondary mortgage markets.” Secondary markets pertain to the ability to sell mortgage loans and thus create additional liquidity for primary mortgage market entities. Secondary mortgage market instruments include lines of credit, mortgage-backed securities, and mortgage-backed bonds. According to Lea (2000, p. 1), “the success of the secondary market in the United States has led both private and public sector officials in many countries to recommend its creation as a way of enhancing the flow of funds to housing. However, what is often overlooked in such discussions is the readiness of the primary market. Secondary market development cannot proceed unless and until the primary market is able to produce a sufficient volume of high quality mortgages that meet the servicing and performance requirements of investors.”

Many complex factors are thus involved in enabling a developing country’s mortgage market to develop a secondary market, as will be shown in

Chapter Three and Appendix A. Box 2.1 illustrates the ways in which Mexico has enabled a secondary market to develop.

### ***Urban Land Development for Low- and Moderate-income Households***

Another strategy for developing country governments is to ease barriers that discourage the maturation of a legal low- and moderate-income housing development industry. El Salvador has substantially improved its housing markets and lowered costs by enabling and now regulating an industry of low- and moderate-income land developers (see Box 2.2). Once defined in a viable package, this intervention holds great potential for other countries. Other sorts of interventions in low- and moderate-income land development could provide benefits as part of national programs or at the municipal or state level (e.g., Metrovivienda in Bogota).

### ***Microfinance for Home Building and Improvement***

Many households in developing countries lack even the resources to buy a new low-cost housing unit. Housing microfinance potentially offers significant opportunities to provide and improve shelter for low- and moderate-income people who make up the majority population in developing countries. While donor agencies working in these countries tend to prioritize such issues as education or health care, surveys have shown that for low-income households, housing has an even higher priority. This illustrates the significance of a secure housing sector in offering huge economic and social benefits in the face of the uncertainty these households continually face. Most of these households also would rather stay in their current home and improve it rather than move to a new unit. Housing microfinance fits these priorities by offering small loans that enable people to, for instance, add a room at a time. This fits well with the incremental process that most of these households follow in building their homes (Ferguson and Haider, 2000, p. 2).

Brazil's *Casa Melhor* is a sustainable housing microfinance program that offers loans, subsidies and technical support for squatter settlement households that want to improve or enlarge their houses. The program's approach

**BOX 2.1. A Mexican Program Strengthens the Mortgage Market**

Mexico is working to improve and expand its system for financing mortgages and providing housing subsidies for middle- to low-income families through a \$1.17 billion program being carried out by the Sociedad Hipotecaria Federal (SHF), a recently-created public agency that provides second-tier mortgage finance. The government will use SHF to leverage new sources of long-term financing for the housing sector, increasing access to housing finance and reducing its cost. This program will support government efforts to strengthen and expand the mortgage market and promote a financially sustainable alternative to its other housing finance sources.

A portion of project funds will be used to cofinance SHF's mortgage origination program over a two-year period. SHF will be able to originate some \$1 billion in market-rate mortgages and grant about \$120 million in up-front subsidies, helping some 60,000 middle- to low-income families obtain affordable housing loans. Technical assistance will support SHF reforms to diversify its mortgage products, implement a new housing subsidy policy, and gain access to sustainable financing from capital markets. The balance of the resources will be used to defray financing costs of the operation.

The project is expected to have other positive impacts, such as more efficient use of public sector and family expenditure on housing, more transparency in the distribution of subsidies, greater leveraging of savings, and lower risk ratings for lower-income borrowers. Rather than subsidizing interest rates, the reform program will grant up-front subsidies to defray down payments. Only families that earn less than five years' worth of minimum salaries are eligible for the subsidies, which are granted according to borrowers' income. The subsidy never exceeds the equivalent of six years' worth of minimum salaries and is only available for buying homes priced under \$16,000. The subsidies, which will eventually be financed entirely with Mexican fiscal resources, are expected to reach half as many families as the old system of subsidized interest rates did.

The Mexican government will gradually provide more resources for SHF's program to replace current multilateral support. Subsidies will be financed through budgetary appropriations, while the credit program will draw from private capital markets. SHF will also scale down its construction financing activities, focusing on its mortgage origination program through financial intermediaries, and promoting its loans for purchasing new or used homes and improving existing houses.

The medium-term goal of the SHF is the development of a securitized mortgage market in Mexico. According to the law that created it, the SHF will only finance mortgages originated by first-tier institutions until 2008. The institution's core business will then be to provide guarantees for mortgage-backed securities. An SHF Housing Research Unit will study the feasibility of expanding activities to lower-income segments and analyze the impact of Mexico's housing policies on supply and demand.



### BOX 2.2. Land Developers Financing Low-income Housing in El Salvador

Unique in Latin America, El Salvador has a thriving national industry of developers supplying legal low-cost subdivisions. Minimized regulations make land acquisition affordable through a category of progressive subdivisions for poor residents. These developments require the provision of demarcated lots of a minimum of 100 m<sup>2</sup>, with green spaces and planned roads, without costly and time-consuming additional up-front infrastructure investment. This arrangement facilitates private sector financing and diminishes the need for land invasions.

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

Argoz, the country's largest developer, has financed more than 630 projects throughout El Salvador, earning over \$9 million last year. The company is currently financing 250,000 lots, supplying 10-year rent-to-own contracts for families with monthly incomes of approximately \$170. Families do not have to provide a down payment, and pay fixed fees of \$17 per month, which include insurance. The company offers additional financial services, including immediate loans of up to half of the amount paid on the lot at any time in the transaction. Families can access these funds for emergencies and for home improvements or expansions. In addition, all of Argoz's developments have a community-elected board that can organize group financing for infrastructure projects, using their own property as collateral.

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

Source: Ferguson and Haider (2000).

involves small, repeat loans and increasing amounts of household savings in relation to subsidies; the usually unsecured loans run for up to one year. Financing is provided by donors and charitable organizations; a non-governmental organization gives ongoing support to the borrowers (Merrill and Temkin, 2002). Chapter Four will discuss more examples of innovative and effective microfinance efforts.

### ***Private Sector Rental Units***

Large metropolitan areas require multifamily rental housing to house low- and moderate-income groups because costs are simply too high to provide new units for homeownership in these areas. Rental housing can also be provided at low cost without subsidies (i.e., through credit) by adding accessory units to existing housing.

Governments, however, typically do an unsatisfactory job as owners of multifamily rental housing projects, which often become vertical slums. Many advanced industrial countries have converted such multifamily rental units to private or nonprofit ownership. Some initial work in this area has been done in São Paulo.

### ***Integrated Support for Progressive Housing***

Government programs typically build new units (i.e., direct demand subsidy programs) or supply the infrastructure and urban services necessary to improve existing units in barrios. In many areas of Latin America, most families (roughly 70 percent) build their own homes incrementally. Integrated support for this approach to housing—including technical assistance for expansion, microfinance for upgrading and expansion, tenure upgrading, and densification through building accessory units on the same lot—offers the best way, in principle, to improve housing and urban conditions in developing country cities.

### ***Household Contract Savings Programs***

Programs in some advanced countries enable households to save for a time in order to demonstrate their capacity to pay a home loan and accrue the down payment—sometimes supplemented by a government bonus.

Contract savings for housing also raises the national savings rate, increasing competitiveness and helping to deepen the financial sector. Contract savings for housing may also be linked with the development of savings institutions whose goal is to increase national savings (e.g., the emergent BANSEFI in Mexico, and post office saving facilities in many countries).

### ***Construction Finance***

Where there is housing demand and housing programs, the biggest problem faced by small and medium-sized housing developers is to acquire construction finance. At the same time, construction finance is the riskiest type of housing lending. As long as such financing is scarce, housing supply will be dominated by the largest and most expensive developers, thereby considerably raising the cost of the end product. However, no research has been done of construction finance and the best way (least-cost, lowest risk) to expand it in the context of social housing programs.

### ***Next Steps***

All these innovative instruments and initiatives entail government intervention in the context of a housing policy, with possible support from multilateral financial institutions. To be effective, these approaches need to be tailored to specific country situations and allow for evolutionary movement toward a more efficient and sophisticated financial system. Moreover, such approaches avoid the premature wholesale application of market mechanisms for housing prevailing in advanced industrial countries to emerging market environments.

Conversely, one could argue that in advanced economies like the United States, housing finance has become too rigid to serve many low-income households. As a result, an increasing share of the population, even in Western Europe, Japan and North America, is not able to access home ownership (e.g., the middle class is unable to afford home ownership and low-income households are unable to afford to rent). The *colonias* developed on the U.S. border with Mexico exemplify this situation. Chapter Four looks at opportunities for the future in more detail.

In contrast, in order to show what *is* possible with strong institutions and

housing-market mechanisms, the next section briefly describes the U.S. housing market.

## U.S. Primary and Secondary Markets

While Chapters Three and Four will examine how to analyze and assess housing markets in developing countries as a precursor to reforming them, this section describes how the primary and secondary mortgage markets function in the United States.<sup>1</sup> By examining the U.S. mortgage system—which plays a major role in strengthening the U.S. economy—policymakers can glean ideas for improving the functioning of the housing market in their own countries.

### *The Primary Market*

The U.S. primary mortgage loan market involves agreements and transactions between borrowers and lenders to finance the purchase of residential real estate. Typically, this process involves (1) using the real estate as collateral for a loan, and (2) an agreement to repay the loan in a defined period with a certain amount of principal and interest. The market's lead actors are the borrower and lender, each of whom is supported by institutions that facilitate the transaction by providing products or services (e.g., real estate agents and credit bureaus). Typically, the primary mortgage market has five distinct phases, which together constitute a mortgage loan's life cycle: origination, underwriting, closing and funding, servicing, and disposition and problem loan management.

Underlying and permeating the primary mortgage market are determinations of risk, credit availability, interest rates, and loan terms. The mortgage loan process typically involves such steps as evaluating the creditworthiness of the prospective buyer, determining the terms of the mortgage (e.g., 15 or 30 years, variable or fixed interest rate), and setting the interest rate and payment schedule for the loan on the basis of the preceding factors (e.g., a shorter-

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<sup>1</sup> The United States has a rather homogeneous housing market. The housing markets of other countries that do not have such harmonized systems (e.g., countries belonging to the European Union) would be worth studying in relation to the Latin American situation.



term mortgage would have a higher monthly payment). Other factors include the size of the down payment, the loan-to-value ratio, and the possibility of adding a second or third mortgage to make the loan more affordable.

### *Loan Origination*

Loan origination is the period in a loan's cycle when it passes through a lender's pipeline as a potential residential mortgage loan. During this period, the prospective borrower expresses an interest in acquiring a piece of real estate; explores financing opportunities; identifies lenders that may provide the financing; may become pre-approved for a loan; negotiates and presents an offer to the seller; inspects the property; and enters into a contract to purchase the real estate with the seller (usually contingent upon financing).

Also during this period, the lender may begin to collect a variety of information about the borrower and the property that will be needed in the underwriting process. Typically, the steps will include appraising the property; verifying the financial and employment records of the borrower; checking that the borrower, or someone tied to the transaction, has a financial stake in the property; and verifying that the seller actually owns the property and may sell it (i.e., has a clear title). The lending institution may also begin to share with the borrower certain mandatory disclosures (e.g., various fees).

### *Loan Underwriting*

Once the agreement to purchase the property is formalized (i.e., purchase price, date of occupation, and other conditions are defined—again, usually contingent upon financing), and all supporting documents are secured, the lender will formally underwrite the loan. Loan underwriting is the period in a loan's cycle when the lender evaluates the quality of the borrower and the property and makes a decision whether or not to lend money to this borrower, for this property.

The underwriting phase of the process typically involves the lender reviewing the appraisal of the property (to verify that the loan is not larger than the value of the real estate); evaluating the financial and employment records of the borrower (to determine whether the borrower will be able to pay the loan or its installments); and verifying that the borrower, or some-

one tied to the transaction, has a financial stake in the property (usually a down payment). Underwriting can be performed for a variety of scenarios: different loan maturity dates, interest rates, loan-to-value ratios, adjustment features, second loans, insurance options, and so on. The process may be standardized by a given lending organization, and it often involves the use of underwriting technology.

Underwriting may result in modifications to the original loan terms. For instance, after reviewing the appraisal, the lender may decide that the value of the property is not sufficient for the size of the loan. The loan may be declined, and the seller may choose to lower the price of the property to keep a willing buyer. Or the lender may decide that the borrower will not be able to pay the mortgage. The loan may be declined unless the borrower can find another person who is willing to cosign the loan. If the loan is approved in the underwriting process, the borrower will be informed and will have the right to accept or decline the terms offered by the lending institution. If the borrower accepts the terms of the mortgage loan, the loan will enter the closing and funding stage.

### *Loan Closing and Funding*

During the loan closing and funding period, the property transaction is settled (i.e., made final through the signing of contracts and exchanges of funds). The borrower and lender provide the agreed-upon monies to the seller of the property, title is transferred to the borrower (now the owner), the borrower formalizes the agreement with the lender to repay the loan, the lender registers a lien on the property in the event of default, and public records of landownership are modified to reflect the new ownership.

### *Loan Servicing and Loss Mitigation*

Servicing is the period in a loan's history when payments are made from the borrower to the lender. Typically, the servicer—usually a third party, such as a bank or a specialized mortgage servicing firm—processes monthly payments of principal, interest, taxes and property insurance. The servicer collects payments, remits and reports payments of principal and interest to the lender, establishes an escrow account to pay taxes and insurance on the property, sends bills, calculates payments (if the mort-

gage is adjustable), and maintains records. Once the loan balance is paid in full (through the sale of the property, refinancing, or the completion of loan payments), the servicer's and borrower's obligations to the lender are complete. As compensation for these activities, the servicer typically receives a fee.

In the United States and many other countries with mature mortgage markets, servicing is the only step in the primary market chain of transactions that is profitable to the originator or lender. The servicing fee provides a stream of income that not only pays for the cost of servicing the loan but also can offset the costs associated with originating the loan. The servicing rights can also be sold through the secondary mortgage market (see Appendix A).

#### *Asset Disposition and Problem Loan Management*

In the event that the borrower defaults on the mortgage payment, the servicer is frequently responsible for working with the borrower to repay the amount owed or to restructure the loan. The servicer must maintain records and take the appropriate legal actions. In the event that the servicer and the borrower are not successful in resolving payment issues, the lender may take legal action, which could include evicting the borrower and auctioning or selling the property. As the paragraphs above have explained, an efficiently functioning market requires a number of players, each of which needs to perform timely specialized activities.

#### ***The Secondary Market***

The “secondary mortgage market” is so named because mortgage loans are packaged, marketed and sold for a second time—the primary market transaction is between the borrower and lending institution, and the secondary market transaction is between the lending institution and the investor(s). Thus the secondary mortgage market includes all the activities carried out by the institutions and individuals involved in the process of buying and selling pre-existing (or “closed”) residential real estate loans from the institutions that have originated them.

*Objectives and Benefits*

The secondary market has several objectives, each of which has particular benefits and may vary depending upon whether one is a seller or purchaser:

- *Increased liquidity.* Mortgage-backed securities (MBS)—instruments such as bonds issued by the secondary purchasing institutions—are an efficient way to generate capital for the mortgage market. If there is excess demand for mortgages, and too few funds available within a lending institution, the institution can generate capital by selling existing loans. Typically, the lender will have first tapped other funding sources such as deposits, interbank loans, commercial paper, and warehouse lines of credit.
- *Enhanced asset-liability management.* MBS are an effective way for a lender to manage its balance sheet. If a lender has liquidity problems, MBS can be used as collateral for short-term financing or for obtaining public funds (in some countries). Selling MBS may be an easier transaction than selling whole loans. Lenders issuing or holding MBS with a government guarantee tend to receive added capital treatment benefits. The government affiliation or credit enhancement generally improves the credit rating of the security, thus helping the lender sell the MBS and maximize its return on capital. The lender may be able to decrease the amount of regulatory capital or cash and capital reserve requirements for whole loans by securitizing loans and holding them in portfolio. If the government assumes the credit risk of the loan, the bank is only exposed to interest rate risk, regulators perceive the MBS as “safer” than the whole loan, and it will require fewer cash reserves. Together, these benefits enhance a lender’s ability to raise funds in the capital markets, increasing its equity.
- *Better risk management.* MBS are an efficient way to share risk. Typically, lenders—or the government-sponsored enterprises that issue MBS (e.g., Fannie Mae)—will assume the credit risk of the loans (perhaps offset by a government guarantee, or some other credit enhancement, such as insurance), and sell the interest rate risk to investors. For this model to work, the investor needs to believe that the MBS issuer truly has the ability to make good on failed loans and that the mortgage product is structured in such a way that the cash flows will provide a decent return on investment.

- *More investor diversification.* MBS are a good way for investors to participate in the real estate market without buying or managing real estate. The investor purchases a security, which should be more liquid than real estate and does not require internal expertise in managing real estate (if the issuing institution accepts the credit risk).

### *Mechanisms*

The U.S. secondary mortgage market provides options for lenders that originate mortgage loans. Instead of retaining and servicing a mortgage loan in a portfolio, a lender may leverage it or sell it to investors or other financial institutions. There are a variety of secondary mortgage market mechanisms, with the most common including:

- *Whole loan sales.* One of the simplest secondary market transactions is a whole loan sale, whereby the lender aggregates several mortgage loans with similar characteristics and sells them as “whole loans” to investors or other financial institutions that may choose to keep the loans in a portfolio, and borrow against, sell or securitize them.
- *Collateralized borrowing.* Some lenders may not wish to sell their loans, but instead want to leverage their residential mortgage loan assets to secure financing. They may be able to hold or pledge the mortgage loans as collateral to receive a line of credit.
- *Bond issuance and securitization.* Another option may be for the lender (or another entity acting on its behalf) to also create a MBS. The lender can then sell all (or part) of the security, or retain the MBS in its portfolio, thereby taking advantage of off-balance-sheet treatment.

Often, the formation of a secondary market benefits consumers. Although borrowers tend not to play a direct role in the secondary market, the consumer benefits from the discipline, competition and added liquidity that a secondary market tends to introduce.

As has been noted, if the mortgage loans are securitized as a MBS, the security may be held in a portfolio by a mortgage lender or sold to another investor or several investors. The investor buys the right to receive a stream of income in the future (which is tied in some way to the expected mortgage payments). The payment received by the purchaser of the MBS is called a “pass-through.” The investor has no interaction with an individual bor-

### 30 How Housing Markets Function

rower (except insofar as the borrower's loan performance has an effect on the overall credit quality of a lender's and investor's portfolio).<sup>2</sup>

This chapter has summarized how housing markets function and how mature primary and secondary markets operate. The next chapter introduces the rationale for analyzing and assessing a nation's housing market and presents a tool to facilitate this challenging but crucial endeavor.

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<sup>2</sup> For more on the secondary market and mortgage-backed securities, see Chapter Three and Appendix A.

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## *Analyzing and Assessing a Country's Housing Market*

**F**or policymakers in many developing countries, it can be difficult to get a clear picture of the housing sector, much less consider how to reform it. This is because the market in these countries is largely informal, and thus there is a lack of reliable data on how it functions. However, once policymakers recognize that their country's housing sector requires reform, they can find useful techniques and resources to help them develop a more effective sector. The first step in this endeavor is to *analyze and assess* the housing market and sector as it currently exists.

### **Why Formally Analyze and Assess the Market?**

The basic rationale for analyzing and assessing the housing market is that before one can attempt to reform the market, reliable benchmarks extended over a certain time span need to be set. A country's policymakers need to have a clear picture of how the market actually functions in meeting people's housing needs before they can attempt to develop innovative policies and programs that increase the efficiency of the market. Without adequate data on a comprehensive range of topics pertaining to the market in all its complexity, policymakers will not be able to get an accurate enough picture on which to base strategies for improving it.

It is important to bear in mind that there are wide sectoral variations among countries. These depend on such obvious differences as climate, culture and national income level. The concepts and examples given here thus need to be adapted as they are applied to a particular country's situation.

## Why Gather Data?

Data gathering on a national scale is always a challenge, even in advanced industrial countries with highly developed statistical offices. Yet in spite of the challenges involved, data must be comprehensively gathered in order to reveal the key factors that affect the complex housing sector. For instance, family size is obviously a key demographic variable. But differences among families might mean that some families must support their children while providing room in a very crowded dwelling unit for them, whereas other families' children may have jobs and thus contribute to household income and enable the family to build or buy a roomy house—yet at a cost to the children's welfare.

Therefore, various types of data may have a crucial relevance that might not be apparent until data are gathered systematically and comprehensively. In designing an analysis and assessment strategy for a country, it thus is important to include data on topics (e.g., religion and culture) that might not seem to pertain to housing but could have a very basic impact on families' housing needs and preferences. These data—running the gamut from demographic to housing market techniques—allow for constructing a holistic picture of a country's housing sector. This chapter looks at the full range of such data types.

Given the prevalence of informal economic and social networks, the persistence of cultural patterns that transcend formal legal structures, and other complicating circumstances in developing countries, it can be difficult to use standard statistical survey methods. Nevertheless, forging ahead in gathering data would strengthen data-gathering skills, intuiting particular types of data that could be most significant, and devising innovative approaches to overcome obstacles to ferreting out the most useful data. Moreover, policymakers in developing countries must build the human, technical and institutional capabilities to make data gathering and analysis part of a process and a strategy.



While for the sake of feasibility partial data gathering would be sufficient, a comprehensive approach should be pursued. The priority should be to gather enough reliable data on a few aspects of the housing sector—for example, demand and supply patterns as determined by family structure and cultural preferences—to construct reliable benchmarks for the sector. For example, a policy may recommend building 1,000 housing units in a certain neighborhood. But do 1,000 households really need or want units there? A detailed housing sector assessment can give policymakers enough information on the market context of the neighborhood to help them answer this type of question.

## **An Assessment Tool for Housing Markets**

There are various resources to enable policymakers and practitioners in a developing country to gather data useful for analyzing and assessing their country's housing sector. One such resource is the Housing Market Assessment. This chapter introduces this tool by explaining the usefulness of each type of data and why a broad assessment is best.

The assessment tool provides a comprehensive framework, adaptable to individual situations, that can enable governments, policymakers and experts to gather significant amounts of key data on their country's housing market. However, as has been noted above, gathering complete data for the several parts of the tool will have varying importance and differing effects, depending on the intended application. Data gathering is a first-order function for defining problems and establishing a policy on housing. The assessment, which can be designed to fit the situation of a particular country, constitutes a first step in forming a comprehensive housing policy. The following sections provide the context to do an analysis of the housing market in a given country; offer guidelines for judging the relevance of the tool's various topics; and equip the reader with fundamental concepts for approaching analytical and assessment decisions from a balanced perspective when some types of data cannot be obtained.

The assessment tool has identified eight topics as necessary components of a housing market analysis:

1. Economic and demographic overview
2. Housing market conditions

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3. Financial and business infrastructure
4. Primary mortgage market
5. Secondary mortgage market<sup>1</sup>
6. Legal and regulatory environment
7. Tax structure
8. Risk management.

This chapter provides a brief overview of each data type and explains how the information is relevant to housing policy. The text also gives selected examples to help the reader understand the importance of context to the decision-making process. It is not enough to study the behavior of a particular mortgage policy, process, product or portfolio without being able to explain how each is a product of its environment.

As explained in previous chapters and noted above, housing markets operate when several interrelated components function together. The availability of housing finance is inextricably tied to financial markets, which are, in turn, tied to the national economic environment. Housing supply is tied to consumer demand, which relates to cost, construction, subsidies, national security, housing availability and borrower income. Information of all sorts—ranging from information on government housing policy and laws on taxation to lender soundness and technology infrastructure, and to personal savings and religious law—may determine the success or failure of a given housing program.

Ultimately, the data gathered using this type of assessment tool will enable housing practitioners and policymakers to develop an adequately comprehensive understanding of housing and housing finance in their region. The findings from a given country can then be compared to other countries, and be used by the following players:

- *Governments*, to develop comprehensive and integrated policies and laws that sustain long-term housing growth;
- *Lenders*, to better meet borrower needs, increase the efficiency and profitability of the housing sector, tailor products and services to local laws, conditions and populations, and develop the infrastructure and products

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<sup>1</sup> Because of the relative lack of secondary mortgage markets, the fourth and fifth topics are conflated in the discussion that follows.

that can achieve the level of safety and soundness expected by the capital markets;

- *Developers*, to design, construct and rehabilitate housing that will meet the needs of a given market, conform to legal and regulatory requirements, and be profitable; and
- *Primary and secondary market lenders*, to develop products and financial structures that provide liquidity to local lending institutions, meet investor needs, and are backed with real estate collateral of sound underlying value.

The following pages list and discuss the main types of data to be gathered for each topic in the assessment tool and explain the relevance of each for the analytical and assessment process.

### ***National Economic and Demographic Overview***

This section of the assessment tool involves gathering data on the following types of items:

- ***Economic overview:***
  1. Macroeconomic summary
  2. Key economic indicators
  3. GDP-related statistics (e.g., growth per capita)
  4. Monetary policy
  5. National debt (e.g., outstanding government bond issues)
  6. Inflation rate (trends)
  7. Exchange rate (trends)
  8. Sovereign rating (trends)
  9. Major economic/industrial sector trends (e.g., formal vs. informal)
  10. Unemployment (trends)
  11. National savings rate and savings patterns (e.g., per capita)
  12. Compensation (e.g., average household income)
  13. Major employers in country (e.g., private companies, informal sector)
  14. Employers paying in foreign currency
  15. Percentage of population employed outside of the country
  16. Estimate of discretionary spending coming from abroad (e.g., social security)
  17. Estimate of discretionary spending coming from non-documented labor (informal market).

**• Demographic overview:**

1. Total population (e.g., by age group)
2. Population dispersion (e.g., by region)
3. Labor force (formal and informal; e.g., number employed and under-employed)
4. Per capita income (formal and informal; by income level, etc.)
5. Education
6. Religious composition
7. Percentage of population living at or below poverty level
8. Percentage receiving social welfare
9. Access to infrastructure (e.g., banking systems).

*Why Gather These Types of Data?*

Housing markets are not closed systems. They are sensitive to unique characteristics and changing currents in the broader economy and in the society they serve. So the first step in understanding a housing market—and the first segment of the assessment tool—is to examine those forces and their influence on the housing sector.

This section lays the groundwork for the housing-related sections that follow by introducing key indicators that, taken together, form a statistical snapshot of a nation's economy and its people. The economic overview focuses particularly on the flow of capital on which housing markets depend, as it courses from public and private investment through the productive engines of the economy—regulated or mediated by monetary policies and the financial system—and is translated into individual income and wealth.

The macroeconomic data requested in the overview will provide not only a general sense of the vitality of the national economy but also important clues to structural limitations that may impede the operation and growth of the housing sector—weaknesses that policymakers may need to address and that investors and producers certainly need to understand. A particularly important point to bear in mind is the extent to which a country's economy allows for free market activity described in the chapters above. This concern cuts across the topics in the assessment tool, but it is important for research on the overall economic context of the housing sector.

If capital is the lifeblood of a nation's housing market, its people are the heart, so the assessment also includes a demographic overview that can reveal

the human and social conditions, factors and phenomena that shape housing demand. The data it requests on household composition, income, employment and other characteristics can be used in combination with market data to explain current housing conditions and trends. But perhaps even more important for policymakers, seemingly innocuous facts such as the age distribution or mobility trends of the population can help the careful analyst discern future housing needs and take appropriate measures to respond before they become serious problems.

Assessments of the relative strength and efficiency of a housing market most commonly involve comparisons with the national economy as a whole, as well as with the housing markets of other countries. The economic overview is designed to provide the fixed backdrop of uniform and consistent macro-economic data against which the state of the housing market may be gauged. The first of the key economic indicators illustrates this function; GDP is probably the most widely used shorthand measure of a nation's overall economic activity. However, this simple statistic can be misleading when viewed in isolation, so the tool suggests looking more closely at GDP to reveal economic factors—the extent to which growth in a particular country depends upon foreign capital or public deficits, for example—that may indirectly influence the development of the housing market.

But how much is housing really contributing to a country's economic growth? This is surely one of the fundamental threshold questions that analysts must ask themselves. One way to estimate the impact is to divide GDP into the return on housing. If two countries with otherwise similar economic conditions experience very different returns from housing (housing as a percentage of GDP), this may suggest an opportunity to make housing policy changes that could boost the sector's impact on the overall economy.

### *Characteristics and Relevance of Data*

One of the primary objectives for gathering economic and demographic data is to allow policymakers, lenders and investors (foreign and domestic) to understand the role housing plays in a given economy. The overview should reveal the opportunities and structural limitations of the housing system on the national economy, and it may also highlight unanticipated risks and opportunities that housing may present to the nation as a whole. For example, if a national economy is dominated by one industry (e.g., oil,

mining) whose interests are not related to housing (and whose analysts may believe that private land ownership would be detrimental to core business interests), housing programs and policy may need to be developed in coordination with that industry.

A stable economic environment promotes investor confidence and stimulates investment; this applies to housing and housing finance, as well as any other forms of investment in a country. The “ideal” environment—from an investor’s perspective—is characterized by market-oriented government policies, prudent fiscal policies, well-managed monetary and public debt, demonstrable and secure personal savings, low inflation, stable and verifiable employment, well-regulated institutions and economic activities, adequate per capita GDP rates, and other measures that promote and sustain economic growth.

In fact, even in more advanced economies, the “ideal” is not always reality, and statistics may not completely reflect reality. Data that may seem “good” or “bad” need to be put in context. Good anecdotal information can help fill the gap, and researchers using the assessment tool should be thorough in their analysis of statistical as well as nonstatistical information. For instance, if regional employment is low (bad), but a significant portion of the wage-earning population has demonstrably stable employment out of the country, transfer payments and remittances are consistent, and recipients of the income earned abroad are using the funds to pay rents, renovate houses, and so on, the employment situation may be significantly more stable than reflected in official numbers. One might be able to use this information to help establish housing products that account for cash inflows from individuals working in foreign countries in order to meet the needs of the local population.

For these reasons, it is important to gather data that at first glance may appear not to be directly related to housing development or lending. The economic overview should also indicate how and when the requested statistical information fails to capture the “reality” of major segments of the economy or even the economy as a whole. For example, in economies that are driven largely by informal markets, or use informal savings institutions, formal statistics (e.g., employment, wage, savings) may not reflect the true buying power of the population. There may be ways to identify housing opportunities that meet the real needs, and cash-flow abilities, of the population.

Therefore, data per se do not make a complete housing market assessment. Policymakers also need to understand the market’s macroeconomic

context (including the nature of international economic relationships). In addition, demographic and macroeconomic trends must provide a “reality check” for housing and financial markets.

### ***Housing Market Conditions***

This section of the assessment tool involves gathering data on the following types of items:

- ***Housing-related statistics:***

1. Size of formal vs. informal housing market (e.g., number of units)
2. Home ownership level (e.g., for total population vs. by region)
3. Percentage of homeowners with outstanding mortgage loans
4. Average age of the existing housing stock (e.g., average life span of house)
5. Average years of occupancy
6. Total number of units (e.g., owner-occupied vs. rental property)
7. Annual new home construction (e.g., four-year trend by type—single-family, or multifamily)
8. Sales of existing homes vs. new construction
9. Housing price (e.g., median)
10. Multifamily (e.g., total number of units, nationwide and by region)
11. Housing size
12. Methods of housing acquisition (e.g., purchase)
13. Housing payments (e.g., percentage of monthly income)
14. Description of subsidy schemes for private or social housing (direct, cash, land policy, property taxation)
15. Major landowners (e.g., state, church)
16. Source of housing for those living at poverty level (own, squatter, state-provided, employer-provided, homeless)
17. Second homes (percent of population, location, cost)
18. Foreign capital (proportion of housing investment/stimulus).

- ***Housing information on the informal sector:***

19. Reasons for an informal housing sector (e.g., lack of stable employment)
20. History of land appropriation by individuals (e.g., response by government and private landowners)

21. Public housing (e.g., history and programs)
22. Housing programs (e.g., history and programs)
23. State and national mortgage loan guarantees (e.g., total and average amounts)
24. Tax incentives or moratoriums (e.g., history).

● **Construction sector:**

25. Major residential developers (e.g., market share)
26. Sources of funding (land, construction, material; e.g., number of providers)
27. Regulation (e.g., code and construction standards)
28. Building materials (e.g., sources)
29. Trade associations (number of professionals; training, licensing and certification; oversight; e.g., architects and engineers).

● **Municipal and social services:**

30. Municipal authority (e.g., primary sources of revenue—federal, state, local)
31. Social infrastructure (by government or private sector; e.g., electricity).

*Why Gather These Types of Data?*

Housing market conditions refer to the state of a nation's housing. The information gathered through this section of the assessment tool should be both qualitative and quantitative and provide an overview of the national housing stock. It should provide a realistic summary of both the quality and quantity of housing, how it came to exist (purchase, squatting, government conveyance), how it was built, whether it adequately meets demands, its legality (including land ownership and tenure arrangements), and municipal and social services. Data of this type will provide the context for a discussion of whether the housing stock can support a primary mortgage market. If housing conditions are not sufficient to develop a formal primary mortgage market, housing issues may be addressed through other interventions.

Assuming that there is housing stock that can support a formal primary market, the assessment will attempt to determine the size and depth of this market. Because both the availability and quality of housing affect the degree of mortgage lending in a country, the assessment tool involves gathering



such data as how many residential dwellings exist, how many people live in them, and so on.

Housing conditions also reflect trends in the population and where people live. Depending upon the country, this may be largely a description of an informal market, or it may provide information that can help create or improve a formal primary or secondary market. With these types of data, the status of the housing sector can reveal realities about a country that may not be reflected in official statistics. For example, if there is a lack of bedrooms, one could infer that there is a need for housing stock, which is likely to be filled either through formal or informal construction (and if the formal means are not in place, almost certainly by informal means).

A comprehensive description of housing conditions also reflects trends in supply and demand in both the formal and informal sectors. It reflects opportunities for growth in the construction sector (where and what type of construction), and it can also indicate areas of overbuilding or inappropriate building. Gathering the same type of data for both the formal and informal housing markets makes it possible to compare markets and identify their varying needs and opportunities.

For both the formal and informal sectors, we can begin to aggregate similar sets of data for each sector:

- Housing demand by type, size and price stratification
- Average household size
- Number of existing housing units and their size
- Owner-occupied vs. rental units
- How houses are sold by sector (formal vs. informal).

#### *Characteristics and Relevance of Data*

*Formal and informal sectors.* The “formal” sector includes housing that is legally occupied; built and maintained in accordance with prevailing laws; complies with requirements for access to land; and has clear and transferable title (was purchased and can be conveyed legally).

The formal housing market is defined primarily by the “legality” of the transactions that define the development, construction, sale and purchase, occupation and transference of the housing real estate. Insofar as the property is unencumbered during each phase of its existence, it presents, at each

stage, an asset with a clear title. This enables a legally enforceable, contractually based housing market to develop, in which buyers and sellers have clear ownership of the property.

Frequently, land ownership and land tenure agreements distinguish the formal from the informal market. On one extreme, one could own a piece of property, with subservice and every other legal right associated with land ownership, and have a pristine title—this would be considered quite secure and legal. On the other extreme, one could have erected a structure on land clearly owned by another, in a country known to support an owner's right to seize the property of the trespassers and evict them. This would be considered quite insecure and illegal. In between, several land ownership and land tenure arrangements could fall into the formal or informal sector, depending upon how they have been institutionalized.

In the formal sector, there are several common legal arrangements that may seem, at first glance, to be limiting. Examples are ownership of structures on land that has been leased for a defined period (e.g., 99 years), or ownership of cooperatives or condominiums, which may involve agreements that prohibit the owner from making any modification to the structure or its exterior (even paint color) or land. In contrast, in the informal sector, there may be situations in countries that protect the rights of squatters, under which the “informal” occupant builds, enhances and possibly even trades or barter “illegal” structures on land that he or she does not even own. The assessment should make clear distinctions between legal/illegal and enforceable/unenforceable occupancy.

Legal issues are particularly important for the creation of a secondary market, which is discussed below. Secondary market institutions buy mortgage loans and place them in trusts or special purpose vehicles to be sold as securities to investors (who will probably never even see the property). The investor relies on the legal system and the issuer or guarantor of the security to successfully enforce the terms of payment described in the mortgage documents, to secure first lien on the property, and, if needed, to take title to the property in the case of default. For this reason, information about the formal sector is extremely important if the objective is to securitize mortgage or housing loans.

The assessment tool also calls for data on the informal sector. This sector refers to “extralegal” construction or occupancy of property; that is, housing

construction or occupancy that is not in conformity with prevailing law, or where the legal system may not be well developed or adequately enforced. In some countries, the informal housing may appear to residents to be legal—it may be standard, traditional or the norm. The infraction making the dwelling illegal may be significant or trivial, but even a small legal compromise may have the effect of impairing the property's resale, occupancy or conveyance. For instance, perhaps the dwelling was legal at some point, but became informal (additions without permits, extensions, subdivisions of property allowing more families to dwell than official zoning permits, environmental issues, etc.). Often, this is housing that is built outside traditional housing financing mechanisms, with fewer building restrictions and less legal compliance, and which often has a large component of “self-help” in the construction.

The assessment tool is designed to explain how the informal sector developed. For instance, did it result from rural migration, or from an established pattern of squatting in designated urban areas? How did the government respond to the growth of the informal sector? Did its action or inaction provide incentives to squat or otherwise use land in an extralegal context? Did it support or compensate the titleholders to the land?

If the policy objective is to create a formal housing market, it is also important to understand what makes a nation's housing “extralegal” or “informal.” If, for example, title is secure and the dwelling does not present any legal threats to the owner, but two families live in an area zoned for one family, it may be possible to remedy the situation through regularization.

*The construction sector.* The housing conditions section of the assessment also includes data gathering on the construction sector—all the activities that go into the creation and maintenance of housing structures. An assessment of this sector includes an overview of its regulatory, professional and business environment. A complete description of the construction sector would provide the answers to a variety of questions (e.g., the extent of consumer demand for housing in a given period, in a given location, of what sort, and at what price). Most such questions point to issues of housing supply and asset and collateral quality. It is frequently more difficult to measure demand for new construction, though it is certainly an important factor in measuring the effectiveness of the construction industry. As a rule of thumb, one can assume that demand exceeds supply, if purchasers are willing to pay a premium over asking price. It is not always true that demand drives the

construction market. If demand is high for housing, but at prices lower than those required by a developer to build profitability, construction is unlikely to meet demand.

The housing construction sector, which directly affects the quality and supply of housing, not only supplies the product that makes housing markets possible—it can also be a large employer, a potent political force, and a source of financing for mortgage loans. Frequently, developers and other companies involved in housing construction choose to finance or service housing. One could argue that this arrangement may be extremely effective, as these companies probably have the best feel for the value of the property and the demand for the housing. Conversely, these companies may be unregulated and thus distort the market.

In the formal sector, the house and property to be purchased frequently serves as the borrower's collateral. Therefore, lenders assess the value of the property to determine the appropriate amount of a loan and the level of collateralization. Typically, the lender will want to be assured that the structure:

- Will last at least as long as the outstanding loan
- Is built to withstand weather and hazards that are normal in the region (snow, hurricanes)
- Conforms (has the permits and material) with standards for the region
- Is maintainable with the incomes and materials at the owner's (or acquiring bank's) disposal.

How accurately housing values are estimated can be significant to banking and secondary market institutions. If evaluated correctly, housing can be the basis for an institution's financial strength and stability; but if evaluated incorrectly, investments in housing can result in bad loans and financial devastation. Regulations and adherence to construction standards are important considerations in evaluating housing conditions. Well-constructed, safe and affordable housing is attractive to buyers, can facilitate investment by lenders and insurers, and leads to the formation of secondary market structures (including mortgage-backed securities; see Chapter Two and Appendix A).

Competition in the construction sector also affects the availability of safe and adequate housing at competitive prices and reflects the "depth" of the

market. In a competitive market, lenders and other financiers can infer that if one construction company goes out of business, others will absorb the business, and the market won't fail. Lenders can also infer that buyers have choice, and that costs and values of housing are not artificially high or low. The assessment tool specifies that researchers should examine competition within the housing construction sector by gathering data on the number of contractors, their size, capitalization, longevity, and market share.

The tool also allows for collecting data on the supply of and demand for housing in the formal and informal sector. The cost to maintain housing is also important market information. This can be inferred, in part, by an assessment of sales and supplies of building materials and furnishings. Another way to understand this market is to gather data on craftspeople (e.g., architects, engineers, contractors, carpenters, electricians). The assessment tool includes gathering data on various aspects of their activities (e.g., training and licensing requirements, salary standards). Ultimately, the questions taken together describe the numerous components of the housing sector and may help identify possible interventions that could promote increased competition, the use of more efficient building methods, and the lowering of housing costs.

*Municipal and social systems.* These refer to the infrastructure and services that the government or other entities provide to stimulate and support housing and community development (e.g., utilities, schools, police and fire protection) in both the formal and informal housing sectors. In developing economies with large shifts in population, access to employment and municipal and social services may vary greatly from region to region.

From a lender's perspective, investing in a community with adequate infrastructure is a much better risk than investing in an area that lacks basic amenities and does not have a plan to develop them. Unquestionably, an area that provides its residents with clean drinking water, sewage systems, utilities, roads or public transportation, schools and telecommunications is more attractive than an area that does not. Most municipalities play an important role in providing these services and overseeing the quality of the housing environment.

Municipal and social services may or may not have a direct bearing on the housing market, and their importance in a given assessment effort depends on the laws, policies and culture of a given country. Some countries, for example, may require that specific infrastructure accompany new

development, so a lack of that infrastructure may render an otherwise well-constructed house extralegal.

### ***Financial and Business Infrastructure***

This section of the assessment tool involves gathering data on the following types of items:

● ***Financial system infrastructure:***

1. Ministry of Finance and central bank activities (e.g., fiscal and monetary policy, structure of financial markets)
2. Foreign bank interventions (e.g., commercial banks and international financial institutions)
3. Banking system (e.g., regulation and supervision; banking entities—commercial, business, consumer, mortgage)
4. Oversight of housing system (e.g., government and government-sponsored regulatory agencies overseeing the fiscal safety of the housing market)
5. Credit bureaus
6. Insurance companies (e.g., mortgage insurance)
7. Securities exchanges (e.g., number, location, regulation and supervision)
8. Pension funds (e.g., major pension funds)
9. Worker housing funds
10. Recordation offices (e.g., use of recording office and disincentives—high fees, high taxes, few recording offices, multiple fees to different entities)
11. Credit rating agencies for financial institutions (e.g., level of credit rating) at the national, corporate and security levels.
12. Microlending activities by domestic and foreign institutions.
13. Enforcement (e.g., administrative, judicial).

#### *Why Gather These Types of Data?*

Financial and business infrastructure refers to the infrastructure, products and services that are offered to and by the financial institutions that support the housing sector. This sector includes all banks and regulated financial institutions that may make mortgage loans, as well as nonbank mortgage lenders

(e.g., construction companies) and nonmortgage financing (e.g., incremental microfinance for progressive housing). In Latin America and other developing regions, such nonbank and nonmortgage financing plays a particularly important role (see Chapters Two and Four). Business infrastructure includes industries that provide support to the primary and secondary markets directly (e.g., insurance companies).

### *Characteristics and Relevance of Data*

The level of private sector housing lending depends on lenders' assessments of the risks and rewards of entering the sector. Lenders want to be engaged in a business that is profitable and whose risks can be managed. This, in turn, depends upon having a critical mass of business and infrastructure, as well as the legal and regulatory ability to enforce contracts and engage in business.

When analyzing financial infrastructure, there are several variables to consider. While the section above emphasized the importance of the country's political and economic stewardship on a given business proposition, this section of the assessment tool pertains to the financial sector (e.g., the number, types and size of financial institutions operating in a country).

At the level of mortgage lenders, the assessment tool tracks the different types of entities engaged in mortgage lending. However, because only about 10 percent of housing in developing countries is financed through mortgages, this section of the tool may be of more heuristic than data-gathering value.

This section of the assessment tool describes government regulations, mandates, requirements, incentives and restrictions, as well as their effects on mortgage lending and other lending businesses. Although these may promote or impede the competitiveness of the mortgage lending market, the data can help identify possible legislative interventions that can promote mortgage lending.

The assessment tool also captures data on the financial structure of the country, the adequacy of the government's established banking standards (e.g., capital adequacy and risk-based capital), and the degree of (and potential for) capital market formation. Again, given that financial and capital markets in developing countries may not be appropriately structured or adequately developed as a basis for extensive private market transactions in the housing sector, researchers working on this aspect of a housing market assessment should consider ways to devise innovative methods to gather

useful data on the informal housing sector. Chapter Four discusses the challenges of a weak formal housing sector and various reform measures being undertaken to address these challenges. (See Appendix A for a description of the role of capital markets in housing finance.)

### ***Mortgage Lending and Other Financing Processes***

The two sections of the assessment tool that deal with primary and secondary market mortgage lending involve gathering data on the following types of items:<sup>2</sup>

- ***Primary market overview:***

1. Lenders, market share and classification (e.g., bank, construction company or developer)
2. Mortgage origination volume over four years (e.g., number of loans, refinancings vs. new origination)
3. Description of mortgage products (e.g., term, amortizing, interest only, balloon, or revolving)
4. Mortgage product differentiation (e.g., by region)
5. Target borrower (e.g., upper-, middle- or lower-income)
6. Lender's source of capital by institution (e.g., deposits, sales)
7. Spread between cost of funds and mortgage rate (by institution or source of capital)
8. Factors influencing lending structure (long-term, short-term; e.g., interest rate environment)
9. Asset liability structure of organization (e.g., funding challenges)
10. Collateral (e.g., underlying real estate).

- ***Primary market infrastructure:***

1. Source of originations (e.g., realtors, construction companies)
2. Description of underwriting process (by lending institution: underwriter, committee, automated; e.g., borrower prequalification, screening, training)
3. Underwriting requirements (e.g., reserves)

<sup>2</sup> Note that because the secondary market plays a small role in most developing countries, it is discussed in detail in Appendix A.



4. Costs associated with originations and underwriting (institutional, brokerage and other fees, transfer taxes, value-added taxes)
5. Time from application to closing to funding
6. Closing and finding process (e.g., formal or informal process for loan closing)
7. Prepayment penalties
8. Role of government in funding mortgages
9. Servicing (e.g., on-location)
10. Description of payment systems (in person, cash, post, check, direct debit, deduction)
11. Description of servicing process (collections, late fees, payment of taxes and insurance, systems, reporting to credit bureau; e.g., competition among participants)
12. Cost of servicing (e.g., government subsidies)
13. Securitization (e.g., legislation, practices)

● **Secondary mortgage market:**

1. Local currency bond market (e.g., size of government and private market)
2. Investors in local bonds (e.g., banks, pension funds)
3. Private bond issuers (e.g., institutions, asset classes)
4. Mortgage capital markets (one- and four-year trends; e.g., issuers of mortgage-backed securities)
5. Description of mortgage bond structures (e.g., residential vs. commercial)
6. Rationale for mortgage bonds (e.g., liquidity)
7. Currency of mortgage bonds
8. Accounting for mortgage bonds (e.g., off-balance-sheet or securitization)
9. Regulatory capital requirements (e.g., for credit guarantor of securities)
10. Prepayment rates
11. Risk management (e.g., credit risk, currency risk)
12. Mortgage insurance (e.g., insurers, effect on bond rating and mortgage availability)
13. Reporting (level and quality of information gathered and remitted to investors)
14. Hedging

15. Losses (e.g., reserves, accounting)
16. Nature of security pass-through payments (e.g., dividend, fixed payment)
17. Infrastructure and information management (e.g., role of central bank, investment banks).

### *Why Gather These Types of Data?*

The basic rationale for the primary mortgage approach to housing finance in the United States was described in Chapter Two. As has been noted, however, mortgages are relatively rare in developing countries. And secondary mortgage markets, which depend on mature primary mortgage markets, are thus even less common. Nevertheless, for the purposes of learning and reform, it is useful to attempt to look at whatever data are available for a given country's housing sector. As a country strengthens its financial institutions, it can look forward to more and more households becoming interested in mortgage finance and generating more and more equity based on property.

What follows are selected highlights of how the mortgage process can function, which can serve as a heuristic guide for the practitioner or policymaker seeking to analyze and assess a developing country's housing sector. As was noted above, it is important to keep all these characteristics in mind even though they may not yet be prevalent in a given country.

### *Characteristics and Relevance of Data*

*Borrowers and lenders.* One of the first elements in examining a primary mortgage market is to identify the borrowers and lenders in the formal and informal sectors (e.g., who they are, whether they pay on time, whether they participate in markets for safe and affordable housing).

As was explained in Chapter Two, one of the main factors in creating a primary market is supply and demand. If a country's housing market does not function effectively, the "average" future borrower and lender may be engaging in other financial activities that make better sense to them.

*Loan origination phase.* The processes of real estate purchase and loan origination span a large field of inquiry: How do prospective buyers find homes (referral, real estate agent)? Do they pay cash, do they enter into an informal agreement with the seller, or do they borrow money to pay for the

home? If they borrow money, do they borrow as an individual, garner additional sponsorship (parent, landowner, employer)? Once the decision is made to borrow, how do they select an individual or entity from whom to borrow funds? The answers to these questions will reveal quite a bit about the transparency of the real estate sector—do market forces prevail, or is this a closed system where prices are set?

The assessment tool should be used to determine if lenders develop, market and offer mortgage products that address borrower needs and market conditions. To begin with, data need to be gathered on what products are currently as well as previously available (and if they failed, why). Many mortgage lenders have different mortgage products designed to meet the different needs of borrowers and lenders in various types of economies (e.g., fixed-rate mortgages have been very successful in stable economies with low inflation, while adjustable rate mortgages have been successful in similar economies as well as economies with higher inflation).

*Underwriting (credit and property valuation) phase.* Lenders must manage the risk of their lending activities. The underwriting process is the first step in the risk management process—it provides the lender with the opportunity to assess the credit risks associated with the borrower and property before issuing a mortgage. This process includes:

- *Valuation of the property.* Often the residential property being purchased is the underlying collateral—which the lender will have as an asset, if the borrower defaults. In more developed markets, a trained and certified appraiser will assess and estimate the property's market value. The comparable sales method is commonly used; the property's value is determined by comparing it to recent sales of similar properties in the area.
- *Borrower evaluation.* Just as important, if not more so, is an evaluation of the borrower's credit history and financial stability. Frequently, this is done by evaluating a variety of behaviors and documents: the borrower's history of paying debts in a timely fashion, past income tax returns, verification of current income and debts outstanding, savings, and other factors that would indicate the borrower's ability to pay. The use of accurate credit data reduces subjective biases in evaluating creditworthiness and is crucial to the lender's credit risk assessment. In informal markets, many of which lack credit data repositories, lenders may use non-

traditional methods of evaluation, or the lender and borrower may simply “know” one another.<sup>3</sup>

- *Standardization and underwriting technology.* Most lenders in developed mortgage markets have standard methods, or guidelines, for underwriting the property and the borrower. This facilitates the sale of mortgages into the secondary market (covered in the next section), as investors in the secondary market tend to pay a premium for standardized mortgage products. Developing countries that lack data or databases about property sales and borrowers' credit histories are also less likely to have underwriting standardization. In such situations, the underwriting process generally takes longer and is costlier.

*Loan closing and funding phase.* After underwriting and upon approving a mortgage loan, the lender proceeds to fund and close the loan. This phase involves the transfer of funds for the property, and a transfer of title and the creation of legal documents reflecting ownership, liens, and financial obligation to the lender.

At this stage, lenders should have a formal due diligence process. Such a process provides quality control in the post-origination and closing process and ensures that the data used are consistent with that provided during the underwriting phase, and that all the necessary documentation has been executed and filed with authorities in compliance with local laws. Items to be verified include borrower loan data, property data, closing documentation, disbursement of funds, and title and lien registry related to the transaction.

Funding closed loans should be straightforward, consistent and transparent. Laws should protect the interests of all the parties in the transaction, particularly the lender and borrower (e.g., laws requiring lenders to disclose to the borrower all costs incurred in obtaining the loan). Although disclosure requirements vary among developing countries, their existence enhances confidence in the home finance sector, and tends to reduce perceived risk, and therefore ultimately, interest rates. An evaluation of this phase using the assessment tool should include a description of how the closing process works, the parties involved, their role, how long the process takes, the technology used, and the degree of standardization in the industry.

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<sup>3</sup> The lack of transparent evaluation of the creditworthiness of the borrower is one of the most important factors limiting the potential growth of formal housing markets.

*Loan servicing phase.* Servicing is the operational function that lasts the life of the mortgage, and as such it plays a pivotal role in loan performance. In mortgage banking, servicing involves collecting payments of interest, principal and other trust items, such as insurance and taxes. It also involves operational procedures, such as managing all bookkeeping and expenses for the loan. Done correctly, payments from the borrower are remitted and reported to the lender, and everyone is happy. Done incorrectly, servicing can jeopardize an otherwise well-performing loan. For instance, the servicer may incorrectly calculate payments, use unethical collection techniques, compromise the privacy of the borrower, or in some other way violate legal requirements and compromise the loan.

In many countries, the originator of the mortgage loan is responsible for servicing the loan. In others, servicing can be contracted out to specialized servicing firms. Although servicing is one of the most important phases of a loan's lifecycle, it is among the least standardized—even in markets with well-developed mortgage markets. An assessment of the servicing process should note the steps and processes involved in servicing the mortgage. These can vary from lender to lender, specially if efficient and cost-effective standardization and quality control methods are not utilized by the industry. If automation is not used, servicing can be extremely labor-intensive (particularly with adjustable rate products).

In some cases, the income generated from servicing a loan is the only profitable aspect of the primary market. Thus, servicing portfolios are often treated as separate business entities and transferred or sold for profit. An evaluation of the servicing practices using the assessment tool should describe the costs to staff and manage the process, the efficiencies gained through automation, and the profits from servicing operations. If servicing is losing money, and the customers are not well served, this could be a signal that the primary market is unstable and that secondary market development may be compromised.

*Asset management and disposition phase.* Minimizing mortgage defaults, and thereby maximizing portfolio profits, should be the primary objective of an asset management and disposition group. As soon as a mortgagor misses a payment—defaulting on the loan—the asset manager should take quick and appropriate action. Upon determining the causes for the missed payment(s), the asset manager must determine whether to treat the event as

a default (and find a way to remedy the situation, or “work out” the loan), or to proceed with foreclosure proceedings. Lenders and servicers should have established procedures describing when to initiate communication with the mortgagor to pursue a resolution, and when to repossess the mortgaged property and resell it. Upon the sale of the property, the lender or servicer should use the proceeds from the property sale to repay the mortgage loan, and any costs incurred as a result of the default. Usually, the sooner that the lender or servicer completes the resale of a defaulted property, the smaller the potential loss on the loan. A failure in these processes can be expensive to the servicer, lender and investor. If the asset manager violates some law in the process, the borrower may be protected.

*Secondary mortgage markets.* The “secondary mortgage market” is so named (as explained above) because the mortgage loan may be marketed and sold by the primary lender. That is, the secondary market emerges when a primary market transaction between the borrower and lending institution is followed by a secondary market transaction between the lending institution and the investor(s). Thus the secondary mortgage market refers to all activities carried out by the institutions and individuals involved in the process of buying and selling preexisting or “closed” residential real estate loans from the institutions that have originated them.

Secondary markets tend to emerge when:

- Originators of a mortgage are unwilling or unable to hold whole mortgage loans in portfolio
- Primary lenders' deposit bases are not sufficient to provide the funds necessary to meet the demand for mortgage financing
- Lenders need a way to share or remove credit or interest rate risk
- Lenders require greater liquidity
- Lenders need to reduce the regulatory capital that they must hold against their portfolio.

Ultimately, secondary markets develop as a response to a growing housing market, allowing financial institutions to create “roots” for financing a growing activity. Because vibrant secondary markets depend on well-developed primary mortgage markets and strong financial systems, they are rare in developing countries (see Appendix A).

## ***Legal and Regulatory Environment for Housing***

This section of the assessment tool involves gathering data on the following types of items:

1. Supervision of mortgage lenders (supervisory responsibilities by category and recent activity)
2. Licensing requirements (for originators, lenders and servicers)
3. Regulatory, reporting, audit, capital requirements (for mortgage originators, lenders and servicers)
4. Property laws (e.g., description of rights, duties and restrictions)
5. Mortgage and contract laws (e.g., laws regulating loan terms—interest rates, maturity, etc.)
6. Laws regulating collections and servicing
7. Laws on privacy (national and across borders)
8. Laws on foreclosure and eviction (borrower and lender perspective—practicality, usability, precedent; e.g., foreclosure laws and regulations)
9. Laws on nonjudicial foreclosure (precedent in law, religion, custom for deed in lieu or sale)
10. Laws and regulations on personal bankruptcy or debtor relief (impact on ability to enforce a real estate loan)
11. Consumer protection laws
12. Securities law (e.g., laws on the sale and transfer of asset-backed securities)
13. Cadastre laws and regulations (e.g., mapping of property).

### *Why Gather These Types of Data?*

The legal and regulatory environment refers to formal government-sponsored legislation, enforcement or regulation of housing purchase and finance products and services, including any related activity, procedure or charter that is in some way proscribed or codified in law. The procedures may be enforceable, and violations may be adjudicated in a court of law or by some regulated, government-supported agency or state-run organization. The legal and regulatory environment is, in part, defined by the jurisdictions that govern property laws, court rulings on property rights cases, enforcement of court rulings, and mechanisms for alternate dispute resolution.

This section of the tool assesses laws that fall into five broad categories:

- *Property law* refers to the legal rights pertaining to the ownership and use of and restrictions on real property (e.g., laws on ownership, inheritability, leasing land and renting, and title registry and buyer protection against fraud).
- *Mortgage contract law* encompasses those rights and obligations of a lender and a borrower from the period when a borrower and a lender enter into contract negotiations to provide mortgage financing, to the point that a loan is paid in full and/or the property no longer serves as collateral (e.g., contractual language and procedures, disclosure of fees and closing costs, underwriting criteria, prohibitions against collusion or setting market prices, and processes for recording title and liens).
- *Banking law and regulation* pertains to those conditions under which a bank operates and makes financial decisions. The legal and regulatory environment includes elements that may encourage or discourage mortgage lending (e.g., reserve or regulatory capital requirements for or against mortgage loans).
- *Securities law* refers to all the laws that relate to financing of mortgages through sales of securities (bonds, mortgage-backed securities, corporate debt, other collateralized obligations). These laws govern the actions and representations made by both the institution and/or individual offering the security for sale and the investor in the security (e.g., trust and special purpose vehicle laws and documentation; disclosure and reporting requirements).
- *Privacy and bankruptcy laws* include provisions for the circumstances under which personal borrower information may be used and disclosed, the legal protections offered to an individual in bankruptcy, and the actions that a lending institution may take against that individual and/or the real estate collateral.

### *Characteristics and Relevance of Data*

The legal and enforceable nature of the real estate transaction is the cornerstone of a liquid primary and secondary market. Because legal representations provide structure and enforceability to a contract, property law is the foundation for housing market transactions and capital market development. Ultimately, the rule of law is what distinguishes the formal from the informal sector of the economy.



*Property law.* Property laws describe the legal rights of ownership, and the use and transfer of personal and real property. For this reason, these laws provide the foundation for real estate transactions and housing market development. To the extent that they exist, and are enforceable, property laws provide the framework and precedent needed to create standard procedures for housing mortgage transactions. Borrowers, lending institutions and investors all benefit from having established procedures and legal requirements for managing certain defined issues.

The various aspects of property law provide some protection or underscore areas of weakness in the mortgage supply chain. For example, the laws pertaining to the ownership, use and transfer of personal and real property form the basis for valuation and real estate transactions. Anything that violates these laws, along with existing gaps in legal protection, compromises the validity of the entire transaction.

In using the assessment tool to describe the informal sector, it should be noted how laws or the absence of laws affect property rights and related considerations. Such an analysis can facilitate the development of more formal legalization and enforcement of property rights in accepted and established squatter settlements. Though this task may be an arduous undertaking, providing the informal sector with property rights can have progressive and stabilizing economic, social and civic effects.

*Mortgage contract law.* Mortgage contract law encompasses the rights and obligations of a lender and a borrower from the period when a borrower and a lender enter into contract negotiations to provide mortgage financing, to that point that a loan is paid in full and/or the property no longer serves as collateral. These laws cover the procedural aspects of originating, underwriting, funding and servicing a mortgage loan. They are important not only because they provide the roadmap to a primary market process, but also because in some counties they may be so onerous as to discourage “legal” or formal borrowing.

In some countries, violation of any of these laws may make the sale, collateral or lien null and void. For example, in some situations, laws on contract language (what constitutes a binding contract, or the terms of sale) may be extremely clear and enforceable; in other situations, the laws may not exist or be unclear. In formal economies, such laws are more likely to exist, and a secondary market more likely to develop.

*Privacy and bankruptcy law.* For the lender and investor, the more information the better. Information allows for informed decision-making and

for the development of statistical models. However, privacy laws may limit the amount of personal information that an institution may gather on a borrower or how it may be used.

Laws and procedures that defend the individual borrower in the event of bankruptcy may or may not have an impact on the ability of the lending institution to foreclose upon a property in the case of default. A borrower in bankruptcy may be able to prevent a foreclosure by going into default.

*Banking law and regulations.* Banking law and regulations create the conditions under which a bank operates and makes decisions. Laws and regulations may encourage or discourage mortgage lending by financial institutions, and determine the criteria for “safety and soundness” that investors need to purchase securities with confidence. For example, reserve or regulatory capital requirements tie up a bank's capital. If regulators perceive mortgage loans as risky (because property laws are not in place, employment is low, real estate is overvalued, or for other reasons), and require large reserves, banks will be less likely to finance housing. Alternatively, if mortgages are an attractive investment and the cost of reserves is offset by income from the mortgage investment, banks will be more likely to invest in this sector.

*Securities law.* Laws governing a country's real estate transactions establish the basis for a primary market. Once these are in place, it becomes possible to finance additional mortgages by raising debt in the capital markets, or by securitizing the mortgages themselves. In either event, securities law dictates the terms of the relationship between the issuer of a security and its investor(s). For more information on mortgage-backed bonds and securities, see Appendix A.

### **Tax Structure**

This section of the assessment tool involves gathering data on the following types of items:

1. Taxes collected by government (by category; e.g., on personal and corporate income, on property)
2. Government ability to collect (e.g., oversight, enforcement and uncollected revenue authorities)
3. Description of tax on residential real estate (methods/timing of collection; e.g., for property transfers)
4. Borrower income tax deductions for mortgage interest

5. Investor tax relief for investment in mortgage bonds
6. Depositor tax on interest paid on time deposits
7. Taxes on securities (e.g., tax treatment of security structures).

### *Why Gather These Types of Data?*

Taxes as analyzed here refer to revenues levied by federal, provincial or state, and local authorities. The assessment tool includes all taxes or tax incentives related to property ownership and sale that may apply to any individual or institution. These taxes may be levied on the land or property owner, tenant or lessee, purchaser or individual to whom title is transferred, lending and borrowing institutions involved in the transaction, and the investor community that provides financing for the transaction.

The taxes analyzed here also include those levies that may not apply to real estate or property, but that may directly or indirectly influence a decision to buy, sell or otherwise engage in a real estate transaction. Such taxes may be based on land ownership, purchase or sale, use, value, transfer costs, rents, gains or losses in investments, or other factors. The purpose of the assessment is to be as comprehensive as possible to fully explain the nature, timing and amount of all of the taxes that may be levied by the government on an individual or institution that may affect the mortgage market. It is also important to try to explain the tax implications (incentives, disincentives) that may have an influence on foreign investment in real estate.

### *Characteristics and Relevance of Data*

Governments use tax revenues (and/or fees) to finance their activities—whether the activity is to promote and oversee private market activities, or to provide public sector services. With respect to the assessment, it is important to remember that a government needs to raise adequate revenues to provide services to and oversight of all the housing and housing finance initiatives that it commits to. To the extent that it might build a case for more or better housing policy, the assessment should detail how tax revenues are used by the taxing-authority.

*Primary market tax structure.* Governments are more likely to support housing initiatives if they believe that the housing sector adds more value to the economy, social stability, and the national tax coffers than the subsidies and support that the government is obligated to pay out. Therefore, it is important to examine the tax structure to determine if real estate is a money-

maker or a money-loser for the government. Relevant questions could include: What is the total tax burden on real estate transactions? Are there inefficiencies or untapped sources of tax revenues? Are taxes levied on real estate returned in services that support the real estate market (e.g., infrastructure that promotes community development, regulation of financial or other lending institutions, guarantees of loans, enforcement of property rights), or are these tax monies absorbed and redistributed in the economy?

An analysis of such issues using the assessment tool will help to identify whether the tax structure encourages or discourages the development of a housing market. It will also determine the point at which the tax structure assists in the mortgage supply chain—at the borrower or primary or secondary market level.

Although taxation is an extremely sensitive political issue, it can be a deciding factor in whether buyers and sellers are willing to enter into sales agreements that reflect market values and demand. In some countries, transfer taxes can cause significant distortions in market value, and make the development of a formal primary market difficult. For example, if transfer taxes are extremely high, buyers and sellers who wish to avoid paying the transfer tax may agree to “officially” record a sales price that is only a fraction of the true sales price. The purchaser may choose to make up the difference between the true purchase price and the “official” price as a cash payment (under the table) to the seller, or in other goods and services.

This type of behavior has a distorting effect on the market in several ways:

- The government loses its ability to estimate the true value of real estate (resulting in an annual property tax assessed at a fraction of its true value)
- The legal system loses its ability to administer justice (people will not be able to get fair compensation through official court action, and will use informal methods to reach resolution to claims)
- A mortgage market is unlikely to develop (because the borrower cannot get a mortgage in excess of the “official” value, and borrowers will not want to allow a lender to have first lien on a property worth significantly more than the declared value).

A careful analysis of cause and effect with respect to taxation—similar to that described above—may show authorities where opportunities lie to

amend tax policy. Appropriate restructuring might help create an environment that could support a more robust formal housing sector. Such an analysis—which transcends data collection and enters the realm of expert analysis—could also point the way to reforms that would increase the availability of resources to promote home building, public infrastructure, services and amenities.

*Secondary market tax and structure.* As has been noted, secondary mortgage markets tend to be only a minor factor in developing countries. However, for countries moving ahead with reform of their housing sector, as a secondary market takes shape, the tool can be used to assess it. See Appendix A for how the secondary market tax structure can be structured.

### ***Risk Management in Mortgage Finance***

This section of the assessment tool involves gathering data on the following types of items:

1. Investment risk (lending to entire sectors; e.g., savings and debt practices across market—current and historical)
2. Product risk (creation of mortgage products; e.g., mortgage insurance)
3. Transaction risk (interactions with a borrower)
4. Counterparty risk (organizations with which one does business)
5. Portfolio risk (content, funding gap, guarantees; e.g., inherent interest rate risk in mortgage products)
6. Securities risk (product risk for securities; e.g., insurance provisions, requirements and issuers)
7. Hedging risk
8. Operational risk (e.g., on technology)
9. Political risk (franchise or charter exposure)
10. Legal and regulatory risk (nature of oversight, conformity with law; e.g., current risk capital requirements for lenders of mortgage assets/securities).

#### *Why Gather These Types of Data?*

Risk management in a country's housing sector refers to those activities that a lender undertakes to mitigate perceived business risks. The assessment tool uses a broad definition for risk, spanning the entire mortgage transaction

from construction lending to sale of the asset to the secondary market. The main types of risk are categorized below.

*Investment risk* is associated with investment in housing properties or financing instruments. Evaluating this risk involves analysis of current housing market conditions and trends, housing prices compared to incomes, the economy, and the enforceability of mortgage contracts relative to other forms of lending. Is the sector over or undervalued? Do other investments provide greater or lesser returns? Is the allocation of capital to housing appropriate?

*Product risk* is associated with the structure and terms of financial products—including interest rate and credit risk. Will the interest rates cover the cost of funds over the life of the mortgage or mortgage-backed security? Can borrowers realistically be expected to pay in a variety of economic scenarios (e.g., indexed or adjustable rate mortgages that are appropriately capped)? If the property is collateral, can it be acquired in the case of default?

*Transaction risk*—or business risk—is associated with the processes and procedures associated with conducting business. Are originators and underwriters appropriately trained to evaluate potential borrowers? Do processes and procedures conform to all legal requirements? If employees violate procedures or laws, what is the liability to the lending institution? Is loan servicing conducted in accordance with laws and procedure?

*Counterparty risk* is associated with relying on another organization to conduct or manage part of the business (outsourcing, purchasing goods or services). Are the contracts and commitments intact and enforceable? Does this organization have the capacity to follow through on its commitments? If, for example, all the housing is insured by one company, does that company have the capacity to pay losses on all its policies? If one originator provides all of the mortgage product, and then begins to sell to another investor, can the business withstand the impact? If the counterparty holds third-party cash or assets, is the management and employees insured or bonded (by whom)?

*Portfolio risk* is the risk associated with holding and managing a portfolio of loans or other assets. It includes all the risks described above as they are related to the mortgage portfolio. Is the portfolio overexposed to a sector or region, and in jeopardy in the event of a catastrophe?

*Securities risk* is associated with the structure and terms of a security. If there are credit enhancements, is the institution guaranteeing the credit credible and

have the guarantees been appropriately priced? If the investor does not truly understand the underlying real estate, have the credit agencies appropriately rated the security? If there is prepayment risk, does the investor know how to price and analyze it? Are the legal and disclosure documents intact?

*Hedging risk* is associated with purchasing, using and relying on contingency considerations (caps, floors, strips) for financial options. If part of the business has been hedged (e.g., the portfolio, servicing, future originations), have all the options been analyzed? Has the appropriate hedging instrument been purchased? What percentage of the portfolio has been hedged? Has the hedging instrument been appropriately matched for accounting purposes?

*Operational risk* is associated with failures in the day-to-day operations of a business—technology, personnel, processes and procedures, or patents. Is the technology appropriate to manage business operations? Is it appropriately backed up? Are personnel trained, loyal and acting within legal bounds? Are processes and procedures in place? If any activities are under patent, are the patents in good standing?

*Political risk* is associated with performing (or not performing) in a manner that exposes the organization to adverse political pressure. If the organization has a political charter, or social mandate, is the organization performing to expectations? Are there any outstanding issues that may expose the organization to political action that could undermine its ability to conduct its core business?

*Legal and regulatory risk* is associated—knowingly or unknowingly—with engaging in inappropriate, illegal business activities. Are all lending and securities documents appropriate? Have employees or the organization made any material misrepresentations? Is the organization abiding by its charter? Has fraud or other misconduct occurred?

### *Characteristics and Relevance of Data*

Because the ability to manage risk enables a business to remain a going concern, it is important for researchers using the assessment tool to gather data on risks that affect the mortgage market. It is particularly important to pay attention if a lender is engaging in activities that will most likely cause it to lose money, such as:

- Generating bad loans
- Creating products that do not produce a return on capital

- Violating a borrower's rights
- Accepting flawed products or services from unreliable sources
- Holding portfolios in which funding costs are not offset by revenues
- Holding or creating securities with unstable payment or credit characteristics
- Not hedging or improperly hedging a portfolio
- Using inefficient or inaccurate technology or personnel
- Not being sensitive to the political ramifications of certain lending practices
- Violating its mission or laws.

To effectively manage and mitigate risk, a business must be aware of the environment in which it functions. Many types of risk can be managed with good business practices, including well-documented underwriting procedures, a well-trained workforce, reliable business partners, awareness of trends in lending, responsiveness to local needs, and adherence to laws and regulations. For more information on risk mitigation, see Appendix B.

In conclusion, risk management is an important if time-consuming process. Some insurance products to hedge risk may be purchased from the market, but a large component of successful risk management results from maintaining professional standards internal to the lending organization.

This chapter has discussed a tool for analyzing and assessing a country's housing market, and it has explained the reasons for collecting a broad spectrum of data. Policymakers should direct such an assessment to lay a solid foundation for new policies to enable a country to transform a subsidized, immature housing sector into an economic engine that bolsters the whole economy. Chapter Four will describe some of the efforts being made in this direction.



# 4

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## *Toward Reforming the Housing Sector in Latin America*

**T**hus far, this book has given an overview of the reasons why countries need to pay more attention to the potential of the housing sector to function as a market. And it has shown how a careful and comprehensive effort to analyze and assess the housing market can provide the foundation for reform. But the crucial prerequisite for reform is that a country find the political will to tackle the challenges and seize the opportunities of the housing sector.

How can a country's policymakers and private citizens alike find this will? The full spectrum of answers to this complex question go well beyond the scope of this introductory book. Yet the key point in beginning to answer the question is the realization that it is possible to transform housing into a productive sector—for both the good of society and the economy. Recent events offer encouraging signs that the political will for reform is emerging in Latin America and the Caribbean. Three kinds of efforts illustrate this reality.

First, governments are taking the initiative. For example, during the past ten years, Peru has issued property titles to over 1.2 million urban households, the largest government titling program targeted to urban squatters in the developing world. A recent study of this effort by Field (2002) finds that titling results in a substantial increase in labor hours, a shift in labor supply away from work at home to work in the outside market, and substitution of

adult for child labor. For the average squatter family, granting of a property title is associated with a 17 percent increase in total household work hours, a 47 percent decrease in the probability of working inside the home, and a 28 percent reduction in the probability of child labor. These dramatic improvements point to the tremendous social, economic and political benefits of reforming the underlying land tenure problem discussed in earlier chapters. And they are occurring in Peru, which has suffered severe instability in recent years, but nevertheless is finding the political will to move forward with hope.

Second, the private sector is making innovative efforts. For example, Mexico's Banco Azteca—the country's first new bank in nearly ten years—is targeting a large but underserved segment of the market: the 16 million households that earn \$250 to \$1,300 a month (Smith, 2003). These small, lower middle-class depositors are not welcome at most banks. But Banco Azteca is starting to offer them an ambitious variety of services and loans—including mortgages. As one analyst explained: "This is something a lot of emerging-market countries need: a new source of domestic borrowing for credit-based growth."<sup>1</sup> And this forward-looking private sector initiative—which includes, among other innovations, heavy investment by Banco Azteca in information technology—is happening in Mexico, which a recent World Bank study noted has had virtually no previous lending for mortgages (Giugale, Lafourcade and Nguyen, 2001, p. 281). Similar efforts are evident in the secondary mortgage markets of Chile, Colombia, Ecuador and Peru.

Third, policy analysis and research organizations are undertaking initiatives to encourage the cross-fertilization of ideas and techniques for reform. One recent example is a 2001 microfinance conference—and resulting book—sponsored by the Fannie Mae Foundation, the Woodrow Wilson International Center for Scholars, and the United Nations Development Program.<sup>2</sup> The conference included detailed discussions of findings on market-friendly microfinance techniques for housing (which are further

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<sup>1</sup> Philip J. Guarco of Moody's Investor Services, quoted in Smith (2003, p. 54).

<sup>2</sup> The conference was entitled "The Future of Microfinance in the United States: Research, Practice, and Policy Perspectives." The resulting book containing the conference papers and discussion was edited by Carr and Zhong (2002).

described below). Another example is the conference on the policy and regulatory changes needed in emerging market housing finance held at the World Bank—with cosponsorship from a wide variety of organizations from various countries—in March 2003.<sup>3</sup> The Inter-American Development Bank convened a similar conference in November 1998 that focused on the increase in mortgage securitization in Latin America.

The very fact that these conferences have been sponsored by such a range of organizations and have focused on such crucial needs as adapting techniques for microfinance and the specific reforms needed for housing market finance suggests that the cross-fertilization of tools for reform honed both by people in the developing world and those in industrial countries are gaining respect in the global marketplace. Moreover, country-specific forums on housing reform in Latin America are being organized more frequently by the Aspen Forum.

These three examples are just a hint of the groundswell of innovative efforts being made by those concerned with reforming housing sectors in Latin American countries.

## **Housing Development in Latin America: Challenges and Opportunities**

Housing development is a critical priority for the countries of Latin America, where urban populations are burgeoning and where a substantial portion of the population is characterized by low levels of income, high rates of unemployment or underemployment, and inadequate living conditions. For many of these urban areas, economic growth is slow, land tenure unclear, and financial and capital markets shallow. In this context, a widespread informal housing sector has come to exist—that is, housing that people acquire, develop and build outside the law (De Soto, 1989).

Latin America's economic, legal and social situation calls for a sustained effort by the region's countries to put in motion a powerful initiative for growth. With regard to housing finance, countries' underdeveloped capital and financial markets have difficulty enabling the housing sector to grow.

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<sup>3</sup> Footnote 1 in Chapter One provides more information on the conference, "Housing Finance in Emerging Markets: Policy and Regulatory Challenges."

Indicators on the status of housing finance reported in the *Global Competitiveness Report 2001-2002* (Porter, Sachs and Schwab, 2002) reflect the difficulties faced by many Latin American countries. On the effective protection of property rights, which constitutes the basis for an effective legal and regulatory system, all Latin American countries score well below the world average. With respect to financial market indicators for housing finance (e.g., access to credit and loans), with the notable exception of Brazil, countries in the region are also well below the world average. The same situation obtains with respect to indicators that show financial market sophistication. The interest gap, which measures the efficiency of the banking system, constitutes another item where the region's countries are far below the global average.

Yet there are encouraging signals. Inflation-indexed bonds (*letras hipotecarias*) are constantly purchased by local Latin American investors; in Chile, the mortgage markets moved from being about 7 percent of GDP in the early 1990s to about 17 percent in 2000.

Beyond the politically motivated interventions aimed at protecting a tenant's occupation by automatic renewal of leases and the freezing of rents, the legal and regulatory system remains a priority. Latin American countries could greatly benefit from the lesson deriving from the concept that housing development is an ongoing, holistic and synergistic process that requires government action in various complementary fields. Moreover, public sector policymakers need to undergird their actions with an understanding of each community's situation.<sup>4</sup> Given the challenges of applying techniques and recipes available to advanced industrial economies to emerging market countries, the region's policymakers should look to the parallel development of alternative systems (e.g., microfinance) that allow evolutionary steps to be taken that are consistent with their country's and community's cultural, social and legal conditions.

### ***The Role of Government***

The operations of the housing sector rely on the efficiencies of a country's housing market. Yet market forces unto themselves will not necessarily create an efficient housing system or produce a supply of adequate and safe

<sup>4</sup> On experiences with housing for the urban poor in Peru, see Panfich (2002, pp. 20-25).

housing for people across a broad range of income levels. The experience in advanced industrial countries confirms, in the context of quite different social and political conditions, the critical role that the public sector has to play in the development of housing. A review of the experience reveals significant involvement in providing an effective housing strategy; enhancing the legal and regulatory framework for housing; shaping institutions so that incentives are in place to make the markets operate efficiently; and selectively and prudently providing credit to sectors in need.

Policymakers thus need to serve as leaders in developing the housing sector, but their leadership needs to involve facilitating, providing a vision, introducing appropriate legislation and regulation that let the market play its role, and exercising oversight. Of all the players in the housing market, policymakers alone have the responsibility to improve housing as an aspect of social welfare, and are in a position to view the linkages between the housing sector and the economy as a whole. Government can act—through laws, regulations, administrative practices, taxes, and efficient and transparent subsidies—and adopt policies that define the fundamentals of the housing market. Remedies vary with the stage of development of a country's housing sector, its social and political conditions, and its policy goals.

Reaching the point at which the housing sector produces positive social and economic externalities is an evolutionary process. During this process, policymakers can best view the role of government as that of a facilitator. Measures most likely to add value and create positive externalities might include enhancing the legal framework, streamlining administrative practices, and facilitating private sector investments. To fulfill this fundamental role, policymakers must also strive to minimize short-term political calculations and pursue a long-term view.

Laws and regulations, and their enforcement, create conditions for an efficient, accurate and fair valuation of housing assets, and therefore create a market and liquidity that allows private sector activity to prosper and generate wealth. Governments can thus direct the political engineering of change, providing direction for the legal system so that it improves social and economic welfare while mediating equitably among the give-and-take of various interest groups.

Different levels of government play complementary roles. The national government is usually responsible for setting the overall program framework for housing assistance, although the state (or provincial) level and

municipal level administration may also play a part. The national government generally bears the major funding cost of housing assistance programs, perhaps in line with its major responsibility for setting the program framework, often requiring some funding contribution from state or local government.

### ***Public-Private Partnerships***

For several persuasive reasons, policymakers should consider designing public-private partnerships in the housing sector. Such arrangements differ in details, but essentially the fundamental feature of public-private partnerships is to introduce private sector capital and expertise to provide and deliver public services, construct facilities to advance public policies, or otherwise meet policy objectives. Both public and private parties in these partnerships share resources, risks and rewards. Within the framework of public-private partnerships, policy-makers undertake the leadership of advancing the housing sector, while tapping the capacities and human skills of the private sector to deliver goods and services.

To be considered effective, public-private partnerships must deliver significant performance improvements and efficiency savings over purely public projects. Five critical factors are typically mentioned for the success of a public-private partnership: political leadership, public sector involvement, a well thought-out plan, communications with stakeholders, and selection of the right partner.

There is also the potential for cross-border, private-private partnerships involving mortgage market players from industrial countries that provide technical assistance and funding for project in developing countries. Table 4.1 gives examples of such private sector opportunities. However, specific actions undertaken through these partnerships should not provide undue advantages to particular players.

Public-private partnerships and other similar efforts could help developing country governments respond to the challenges of the housing sector, because the need for capital investment greatly exceeds the likely level of capital resources financed through traditional means. Governments can take advantage of private sector expertise to manage complex investment programs. By including private investors, who put their own skills and own capital into the project, the public sector gains the benefits of commercial

TABLE 4.1

**Private Sector Opportunities in Housing Finance in Developing Economies**

Level	Preconditions	Transactions and products
First tier	<ul style="list-style-type: none"> <li>• Relatively high savings rate (private funds from pensions and insurance companies)</li> <li>• Viable financial and capital markets</li> <li>• Active private sector in housing finance</li> </ul>	Secondary: <ul style="list-style-type: none"> <li>• Secondary conduits (consortiums)</li> <li>• Mortgage-backed securities (single and multiple)</li> <li>• Master servicers</li> </ul> Primary: <ul style="list-style-type: none"> <li>• Servicing companies</li> <li>• Underwriting specialists and automation</li> </ul>
Second tier	<ul style="list-style-type: none"> <li>• High local savings rate (institutional and individual)</li> <li>• Stable macroeconomic conditions</li> <li>• Some private sector participation in housing activity</li> <li>• Good legal framework for capital markets and ownership</li> </ul>	Secondary: <ul style="list-style-type: none"> <li>• Mortgage-backed securities for one-off pools</li> <li>• Partial credit guarantees for domestic market bonds</li> </ul> Primary: <ul style="list-style-type: none"> <li>• Mortgage funds (expand product off)</li> <li>• Mortgage conduits</li> <li>• Servicing companies</li> <li>• Property appraisal companies</li> <li>• Renovated properties and home equity credit lines</li> </ul> Infrastructure: <ul style="list-style-type: none"> <li>• Technology</li> <li>• Mortgage insurance</li> </ul>
Third tier	<ul style="list-style-type: none"> <li>• Government is main player in housing finance</li> <li>• Mortgages are denominated in hard currency</li> <li>• Incipient capital market (with some prior bond issues)</li> </ul>	Secondary: <ul style="list-style-type: none"> <li>• Liquidity funds</li> </ul> Primary: <ul style="list-style-type: none"> <li>• Mortgage funds</li> <li>• Mortgage lines to local banks</li> <li>• Lease-to-buy programs</li> <li>• Housing improvement programs and starter homes</li> <li>• Property rights and titling programs</li> <li>• Privatization and post-privatization for public housing banks</li> </ul>
Fourth tier	<ul style="list-style-type: none"> <li>• Large informal sector</li> <li>• Nonexistent capital market</li> <li>• Microfinance and microenterprise players</li> <li>• “Small-country effect”</li> </ul>	Primary: <ul style="list-style-type: none"> <li>• Microenterprise and microfinance for housing</li> </ul> Technical assistance for infrastructure development: <ul style="list-style-type: none"> <li>• Centralized real estate registries</li> <li>• National credit bureaus</li> </ul>

efficiencies and innovations—as the example of Mexico’s Banco Azteca, discussed earlier in this chapter, illustrates.

Colombia also is pursuing interesting public-private efforts. As reported by the United Nations Centre for Human Settlements (1993, Chapter 4):

Capital from the UPAC (indexed savings) system...has been made available to private developers through State housing agencies, on condition that the units built were committed for low-income groups...Colombia also has a well-developed cooperative movement backed by State financial institutions, with the primary societies making it much easier for their members to apply for credit without having to supply collateral individually...Credit is provided to the cooperatives at below-market interest rates...The FUNDEMOS housing cooperative in Manizales...was able to achieve a 50 percent reduction in construction costs (over the State housing agency) by pooling resources from the community and from government. Half the required finance came from the cooperative members, and the other half was provided by the State housing agency.

Such success stories can both motivate and inspire public and private practitioners and policymakers alike. The next section tells more such stories regarding the challenges of developing housing markets.

### ***Latin American Lessons and Success Stories***

The Latin American countries are making significant steps to meet the challenges of the housing sector and seize opportunities to undertake market-friendly macroeconomic and microeconomic reforms. One particularly encouraging success story at the national and macroeconomic level is that of Chile (Box 4.1), which over a period of years has made significant strides toward a more efficient and effective housing market.

Two encouraging examples at the microeconomic level are found in Bolivia (Box 4.2) and El Salvador, as reported in the volume from the Fannie Mae Foundation/Wilson Center/UNDP conference (Carr and Zhong, 2002, p. 318): “PROA, in El Alto, Bolivia, dealt with technical assistance by requiring that borrowers contract local building contractors and architects, and pay for these services, as well as provide information to the lender...In a program for lot purchase and new housing construction in El



Salvador, *Financiera Calpiá* [has] FUNDASAL, a housing NGO, undertake the promotion, preselection and community organization of clients for the mutual-help construction of 1,600 units.”

Another promising endeavor is a land administration and regularization project being carried out in five Panamanian provinces (IDB, 2002). As noted by Jacobs and Savedoff (1999, p. 1), “the results suggest that in countries like Panama that have relatively unfettered land markets, low income households are readily able to become owners because of the alternative strategy of progressive building, and this has a positive impact for accommodating growth.”

The Panama project fosters land tenure security in order to facilitate access to credit and provide greater incentives for long-term investment in both rural and urban areas. It also is helping expand and modernize Panama’s National Land Administration Program and strengthen the agencies responsible for land titling and administration at the national, provincial and municipal levels.

The project entails a massive land tenure regularization process in an area covering nearly 750,000 hectares in the provinces of Herrera, Los Santos, Veraguas, Coclé and Colón. Regularization services include the legal cadastre, land titling, registry of properties and conflict resolution. Currently, there are some 69,000 titles existing in the target area. Under the project, around 120,000 new titles will be issued. The project also is promoting measures to improve access to information, services and complementary infrastructure that can boost the economic impact of land regularization, including greater access to credit by using land as collateral, increased investment in rural and urban properties, and higher levels of productivity.

The lessons from these types of country experiences and successes are incisively summed up in the Fannie Mae Foundation/Wilson Center/UNDP conference volume:

*Microfinance of housing often fits the mission and business needs of microenterprise lenders as well as home lenders. The central challenge, achieving profitability, is a highly familiar one to practitioners of housing finance and microenterprise finance alike...Microfinance holds promise from a housing perspective for three central reasons. First, it suits the incremental building process used by the low- and moderate-income majority. It also provides a potential solution to the conundrum of social housing programs: how to simultaneously reduce subsidies and*

#### BOX 4.1. Reforming the Housing Sector in Chile

Starting in 1977, the Chilean government reformed the housing sector based on the neoliberal ideas used to reform other sectors of the economy. Housing production and financing were to be left to the private sector, with the government acting as a facilitator. The historical difficulties encountered by the market in satisfying the needs of the poor were considered to be the result mostly of the insufficient purchasing power of these households. Therefore, the State, playing a subsidiary role, was to help households in need, supplementing their purchasing power with up-front subsidies, while private banks would provide complementary financing. Middle- and upper-income households were to find financing in private banks. The securitization of mortgages was envisaged as part of the development of private long-term housing financing, as capital markets gained in depth. In 1978, the government introduced complementary changes in urban planning that significantly deregulated urban development. Rules for incorporating land into urban uses were simplified and land use regulation made more flexible to allow urban growth to proceed according to market trends.

The original concept was modified repeatedly to accommodate the needs of the transition. A few examples illustrate the point. Initially, subsidies were granted to a wide range of households maintaining the support accorded previously to middle-income households in order to ensure a minimum level of demand for privately produced houses. This distorted the original objective, which was focusing public resources only on the poorest households (these distortions were largely removed in later years).

The government also had to assume a more active role than originally envisaged because of the lack of interest of developers and banks in building and financing low-income housing. For almost 20 years, the Ministry for Housing and Urban Affairs (MINVU) directly contracted the construction of low-income housing with private companies and assigned the houses to beneficiaries registered on a national list of applicants. Further, and in what was a significant departure from the original objective of transferring to the private sector the full responsibility of mortgage financing, the government provided the supplementary loans required by low-income beneficiaries to pay for the homes, as no banks were interested in financing them. In 2001, the government changed these policies and concentrated its direct housing contracting activities on supplying only the lower end of demand. Households earning less than \$200 a month are provided with a fully subsidized and expandable core unit. Private banks attracted to this market by government subsidies and guarantees now serve most of the households formerly receiving government loans. For households with income below \$500 per month, the government covers mortgage origination costs and guarantees the full recovery of the loans in case of default.

As the program has continued, a three-tier housing financing and production system has emerged. The Progressive Housing Program supports *government-produced housing* that provides beneficiaries with a fully serviced housing lot and an expandable core house. Construction is contracted

out to private firms. This program caters to very low-income households (earning below \$200 per month) unable to qualify for private mortgage financing. Houses are transferred to beneficiaries who contribute with personal savings of approximately 10 percent of the cost. They are not required to make payments after the lot is assigned. The program also allows organized groups of beneficiaries to apply for the subsidy.

*Government-assisted* programs provide partial financial support for privately produced houses. The most important line of action is the Unified Subsidies Program, which issues cash vouchers that enhance the ability of households to acquire debt. In so doing, the program helps middle- and lower-middle-income households buy dwellings built by private developers. This mixed system also includes the Special Workers Program, the Rural Housing Subsidy Program, and the Urban Renewal Subsidy. There is also a subsidy scheme to assist households interested in leasing. Banks lending to households in the lower income brackets get government support in the form of subsidies covering mortgage origination fees and guarantees on the full recovery of loans in the case of default.

*Private financing* for housing, which enables upper-middle-income and high-income families to buy houses built by private developers, is part of a broader set of reforms of financial intermediation and social security. The universal banking system is the main originator of housing loans securitized and sold in the capital markets. Two instruments exist. The first to be implemented (1976) was the indexed mortgage-backed bonds that are issued as an obligation of the originating bank and sold to investors in the Stock Exchange. Endorsable mortgage credits were introduced later (1996) to be issued by banks and mortgage credit companies. These are financial assets backed by first mortgages endorsed by the mortgage originator that transfers to investors the principal and interest risk of the loan with the property pledged as collateral.

One of the most impressive accomplishments of Chilean housing policy is the sustained increase in the number of dwellings built, which grew from 79,000 in 1990 to 138,000 in 1997. Production levels have remained at 120,000 a year ever since. This is due to the resolve of the Aylwin administration (1990-94) to control land invasions by accelerating the solution of the housing problems of low-income households. It is notable that this increment in production was attained without expanding MINVU. From 1993 to 1995 privately financed housing construction increased almost three-fold, accounting for most of the sector's growth. The volume of government-assisted housing showed little change during the period (fluctuating between 40,000 and 44,000), reflecting the stable volume of resources allocated by the government to assist middle- and lower middle-income households. Private financing plays a significant role in financing government-assisted housing, since the Unified Subsidy Program covers less than 25 percent of the total cost of the dwelling. High housing production levels in an economy that for over 20 years has devoted around 2 percent of GDP to housing is a significant accomplishment that has dramatically improved housing for the poor.



#### BOX 4.2. Microfinance for Housing in Bolivia: Cooperativa Jesús Nazareno

The *Cooperativa Jesús Nazareno* represents 30 percent of the total capital of the cooperative system in Bolivia. Housing loans including land purchase, home construction, additions and improvements make up 65 percent of its \$47 million portfolio. Approximately 9 percent of the institution's portfolio is housing loans for low-income borrowers, financing units of roughly 70 m<sup>2</sup>. The institution is capitalized by mandatory savings of a percentage of loan value, which may be financed out of loan proceeds, as well as annual membership deposits. While lower arrears rates and reduced provisioning expense make longer-term housing loans attractive, management cannot extend loan terms due to maturity mismatch regulations of the Banking Superintendency. Lengthening loan maturities is a key to reaching lower-income populations with the individual housing credit product, although the individual microcredit product functions well for some home improvements and expansions.

One of the cooperative's most interesting products is a pilot project of housing microcredit with a solidarity group guaranty. Minimal paperwork requirements avoid the costly process of creating a mortgage lien; instead, clients deposit their titles at the cooperative until they have repaid the loan. Clients purchase an unserviced lot of 360 m<sup>2</sup>, and begin construction of the first segment of their progressive housing (9-12 m<sup>2</sup>) to avoid land invasions on the empty plot. To expedite this construction, the cooperative provides a \$1,000 loan, disbursed directly to a construction company, for one of three basic model units. Although this product is in its pilot stage, word of mouth advertising has led to a surge in demand and long waiting lists of interested borrowers. The cooperative has envisioned using this as an incentive for repayment of microenterprise loans, rewarding commercial borrowers with access to intermediate-term housing finance. If clients fall into arrears, they can transfer payment responsibility to another household, negotiating reimbursement for past payments.

Source: Ferguson and Haider (2000).

achieve scope. Finally, microfinance resolves some of the difficulties encountered by mortgage finance in developing countries. However, it raises a central challenge of all finance that seeks to go downmarket: how to make small loans financially attractive to commercial institutions.

The incremental building process is used to construct much of the physical plant of cities in developing countries. An estimated 75 to 90 percent of all new housing is built outside the official land development and housing construction process, much of it incrementally... Microfinance fits the incremental building process in critical ways.

Microfinance as applied to housing means small loans (\$250 to \$5,000), at market interest rates, amortized over short terms (relative to mortgage finance) of 2 to 10 years. Most microlending occurs for home improvement and expansion—in effect, for the major phases of the incremental building process...

The shorter terms of microfinance also meet the needs of these households. Low- and moderate-income families resist incurring financial obligations for the long periods typical of traditional mortgage finance (15-30 years) because of the instability of their income. Many low- and moderate-income households do not want the burden of long-term payments, even if they can qualify for a loan...In summary, the low-income settlement and incremental building process works, but at great cost and risk, and without much support from formal sector institutions (Carr and Zhong, 2002, pp. 304-06; 320-21).<sup>5</sup>

Table 4.2 shows the many microfinance approaches being used in developing countries (and increasingly in industrial ones as well). The table clearly portrays the two-way, cross-fertilization between developing and industrial countries—the approaches hammered out by developing country practitioners are increasingly appreciated in the industrial world.

### ***Strategic Considerations and Barriers to Reform***

For a comprehensive perspective on considerations for a reform strategy, it is useful to refer to the research and policy work that has been cited throughout this book. As stated by the World Bank (1993, pp. 4-5), the basics for a reform strategy are as follows:

Governments should be encouraged to adopt policies that enable housing markets to work. Governments have at their disposal seven major enabling instruments: three that address demand-side constraints, three that address supply-side constraints, and one that improves the management of the housing sector as a whole. The three demand-side instruments are: (i) developing property rights by ensuring that rights to own and freely exchange housing are established by law and enforced,

<sup>5</sup> Carr and Zhong make a final interesting point: "Ironically, formal financial markets are booming. Pension funds within developing countries are amassing large sums. In Chile, for example, private pension funds now manage \$30 billion. International capital flows to developing countries have expanded fivefold since 1990 to more than \$250 billion a year."

TABLE 4.2

**Methodologies of Low- and Moderate-income Lending and Microlending for Housing**

Lending or microlending approach	Low- and moderate-income lending or microlending in the United States		Low- and moderate-income lending or microlending in emerging markets	
	Approach used?	Transfer abroad?	Approach used?	Transfer to United States?
Downmarket incentives:				
Competition	Yes	Yes	No	na
Downmarket incentives: CRA	Yes	No	No	na
Encourage CDFIs and community lenders	Yes	Yes	Yes	Yes
Encourage partnerships: NGOs, banks, CDFIs, CDCs, CBOs	Yes	Yes	Yes	Yes
Flexible underwriting	Yes	Yes	Yes	Yes
Loans with high ratio of loan to value	Yes	Not yet?	No	na
Short-term or repeat loans	Yes	No	Yes	na
Savings as creditworthiness	?	Yes	Yes	Yes
Savings as collateral	?	Yes	Yes	Yes
Counseling and outreach	Yes	Yes	Yes	Yes
Risk-based pricing	Yes	Yes	Yes	Yes
Combining savings, credit and subsidy	Yes	Yes	Yes	Yes
Secondary mortgage market funding	Yes	Not yet?	No	na
Credit enhancement in secondary markets	Yes	Not yet?	No	na
Credit enhancement in primary market	Yes	Yes	Yes	na
Lease to buy	No	na	Yes	Yes

Note: CBOs are community-based organizations; CDCs are community development corporations; CRA is the Community Reinvestment Act; CDFIs are community development finance institutions. na = not applicable.

Source: Carr and Zhong (2002, Table 9.3).

and by administering land and housing registration programs and regularization of insecure tenure;<sup>6</sup> (ii) developing mortgage finance by creating healthy and competitive mortgage lending institutions, and by fostering innovative arrangements to provide greater access to housing finance by the poor; and (iii) rationalizing subsidies by ensuring that subsidy programs are of an appropriate and affordable scale, well-targeted, measurable and transparent, and by avoid distorting housing markets.

The three supply-side instruments are: (i) providing infrastructure for residential land development by coordinating the agencies responsible for provision of residential infrastructure (roads, drainage, water, sewerage, and electricity) to focus on servicing existing and undeveloped urban land for efficient residential development; (ii) regulating land and housing development by balancing the costs and the benefits of regulations that influence urban land and housing markets, especially land use and building, and by removing regulations that unnecessarily hinder housing supply; and (iii) organizing the building industry by creating greater competition in the building industry, removing constraints to the development and use of local building materials, and reducing trade barriers that apply to housing inputs.

Finally, the barriers to developing such an ambitious strategy need to be kept in mind. Carr and Zhong (2002, Table 9.2) identify the main barriers to low- and moderate-income lending and microlending for housing:

- No sustainable funding source
- Poor legal framework
- Eviction of the poor and foreclosure
- Noncompetitive primary market
- High costs of risk and transactions
- Lack of credit enhancement
- No credit bureau or income data

<sup>6</sup> This would enable the development of so-called security transactions, i.e., the creation and enforcement of a set of rule and institutions that allows for security interest. According to Galindo and Studart (2003), security transaction involves “i) creating well-functioning property registries that allow creditors to track the ownership of assets to determine if they are being used to secure other loans; ii) setting rules and regulations that clearly define property rights over several sorts of assets that could be pledged as collateral in credit contracts; and iii) establishing rules and institutions that allow creditors to take over collateral in an efficient and timely manner if the debtor defaults.”

- Mortgage collateral not realizable
- Racial discrimination
- Geographic discrimination
- High and variable inflation
- Poor or no credit history
- Lack of borrower knowledge (e.g., informal and/or variable income).

## Policy and Program Guidelines for Reform

The Inter-American Development Bank has identified several best practices that have been translated into operational guidelines for reforming the housing sector. Two basic concerns underlie these guidelines. First, countries' policymakers need to recognize that the reform of their overall financial sector is a prerequisite for reforming the housing sector. Second, reformers need to recognize that policies and programs must be adapted to fit their country's particular housing situation. Selected highlights from the guidelines (IDB, 1999, p. 5-11)—which cover and even go beyond the concepts and techniques that this book has sought to delineate—are offered in closing:

- *Residential activities are the largest consumers of urban land and major users of urban infrastructure and services.* Housing policies have a significant impact on the pace and direction of urban development. Their effect on the behavior of developers and households determines, for instance, whether cities undergo horizontal expansion or whether significant urban renewal activities take place in large cities. The regulatory environment of housing markets, including land use, utilities and building regulations, often represent barriers to entry to the market or impose restrictions that prevent supply from efficiently meeting demand.
- *Highly indebted middle-income countries place particular emphasis on macroeconomic stabilization and give priority to fiscal and financial policy.* In these cases, housing sector reform may emphasize improving the financial soundness of institutions that provide housing finance. In cases of severe macroeconomic instability, housing sector priorities may have to be restricted to improving the efficiency and equity of transfers made to households that help solve their housing problems, even if this means postponing other housing sector objectives such as more efficient housing finance mechanisms.



- *To design an effective housing program, many or all of the following aspects need to be evaluated:* (a) housing finance systems, both formal and informal; (b) a wide variety of government regulations and policies at both the national and local levels; (c) land markets; (d) the organization of the building materials and real estate development industries; (e) the supply of infrastructure services, including water supply, sewerage, electricity and telephones; (f) transport issues; (g) the legal aspects of urban land, particularly title registration, mortgage collateral, sale and purchase procedures; (h) public subsidy schemes; and (i) location of employment opportunities.
- *Governments can influence the efficiency of urban land markets through a number of ways.* They can establish efficient and low-cost mechanisms for handling land and property titles, thus reducing legal entry barriers to the market. Governments may increase the transparency of urban land markets providing unbiased and freely accessible information about land and housing transactions. In some cases, taxation mechanisms may limit the speculative withdrawal of lands from the markets. Flexible land use and building regulations can improve the private provision of serviced land and houses, making them accessible to households in all income brackets. Land market audits help identify the distortions affecting the operation of land markets and the measures required to improve functioning.
- *Trunk infrastructure is the most important determinant of urban growth,* affecting the price at which land is incorporated into urban uses. Ensuring the efficient provision of trunk sanitation and transportation infrastructure helps the private sector subdivide land for housing use. By reducing the premium on serviced land, such measures help make housing more affordable. Since this could become a major impediment for the effective operation of the housing sector, housing operations need to review the capacity of existing mechanisms to ensure the adequate supply of infrastructure on a sustainable basis. Governments can set up special programs for the provision of low-cost serviced lots to facilitate access to serviced land by low-income households when it is demonstrated that the private sector cannot be persuaded to supply this market.
- *Rent controls have had a negative effect on rental markets in many countries.* Rental housing serves several purposes in efficient housing markets. It provides housing for families not interested in buying homes or for those undergoing a transition in the family cycle. In some circumstances, rental

housing is the most affordable solution for low-income households. Rental housing also provides a venue for investors interested in long-term investments that provide a steady cash flow (typically institutional investors). Rental market deregulation can be accompanied by other measures to boost supply. Rental market audits should be conducted to identify constraints on supply and the most efficient mechanisms to overcome them.

- *Home-based microenterprises are an important source of income for low-income households.* Land use and sanitary regulations often impede development of these activities. Selective elimination of these regulations and well targeted technical cooperation programs can go a long way in fostering these activities that make a significant contribution to the provision of goods and services in the urban economy and to job creation.
- *Subsidies are a policy tool of last resort whose use must be considered only after other means of attaining the objectives have been explored.* To this end, the studies should demonstrate that subsidies are a cost-effective tool to attain the objectives. Subsidies are best used as a policy tool to facilitate the transition from the existing situation to one in which housing markets function effectively to fulfill social goals. In this regard, they should not be conceived as permanent.
- *The use of most of the instruments listed above requires the establishment of efficient institutional mechanisms* to (i) collect, analyze, interpret and publish data on the performance of the housing sector; (ii) provide institutional linkages between housing and macroeconomic policies; (iii) manage subsidies; (iv) bring together infrastructure agencies so as to coordinate infrastructure provision and create an adequate supply of serviced land; (v) generate long-term plans for the development of the sector and coordinate the involvement of private and public actors; (vi) provide a forum for the involvement of the private sector, nongovernmental organizations, and the public in the formulation of housing policy; (vii) initiate regulatory reforms and evaluate their impact; and (viii) promote housing research and technological development. Institutional reform, or at least reorganizing roles and institutional relationships, may help in making efficient use of the other instruments.

## Concluding Comments

This book has been based on the assumption that housing market development is a complex public policy issue that is crucially important for emerging market countries. As with many other policy issues, the methodology needed

to approach housing market development is to define the problem and its causes, establish criteria for evaluating various alternative actions, define and evaluate policy alternatives, and select an appropriate policy. However, in practice, the process is not so clean and logical. It is a political process, distinct for each country, and it does not necessarily flow from step one to step two.

This book has provided a tool to analyze data to help define the problem and policy alternatives, and it has also presented best practices to help define appropriate alternatives. All the rest of the effort is left to the will and commitment of policy analysts and policymakers in each country.

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## *Secondary Mortgage Markets and Mortgage-backed Securities*

As is explained in the main text, a secondary mortgage market provides options for lenders that originate mortgage loans. Chapter Two describes these instruments and how they function in the United States.

### **Lenders, Purchasers and Investors**

The “lead actors” in the secondary mortgage market are the lender and purchaser of the mortgage loans, or the investor in the security. The “supporting cast” includes the institutions that facilitate the transaction by providing products or services (legal and regulatory entities, clearinghouses, bond rating agencies, insurance companies, servicers). Secondary mortgage markets exist almost exclusively in economies with a strong, well-regulated formal housing sector. This is because the secondary market is information-intensive and dependent upon law. Except in defined situations, the investor does not interact with the real estate asset; instead, the investor simply is guaranteed a legally defined stream of income, and must rely on another financial institution for payments and reporting. Informal markets, which tend to be extralegal, do not provide the investor with the legal comfort needed to invest large sums of money.

Although it is common to point to the Fannie Mae model as the objective for secondary mortgage markets, Fannie Mae is not the only model.

European experience (e.g., Denmark and Germany) offers alternatives. Moreover, in thinking of the development of secondary mortgage markets for developing countries, an approach involving several stages is more appropriate. As Appendix Figure A1 demonstrates, as the primary mortgage market, capital market, and legal and regulatory framework develop, the degree of sophistication of the secondary mortgage market increases. Further, this increase is accompanied by increasing per capita income and a reduction in direct government intervention.

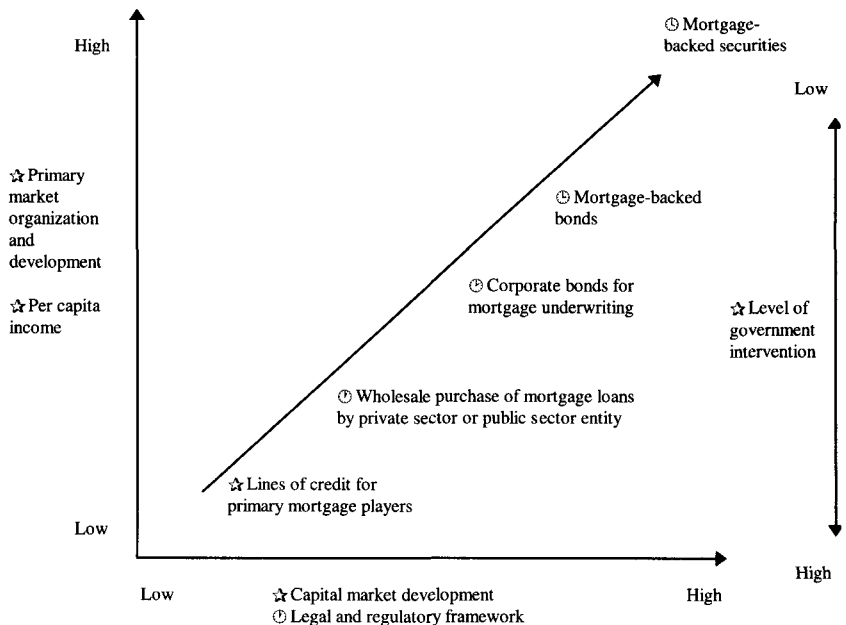
### Requirements

The development of a viable secondary mortgage market in a country or region requires the following:

- The existence of an effective primary mortgage market that generates adequate volumes of (standardized) mortgage loans

**FIGURE A1**

**Stages in the Development of a Secondary Mortgage Market**



- Servicers with the infrastructure to manage the loans
- Legal and operational safeguards
- Other supporting institutions (technology, rating agencies, insurers)
- Efficiency and market liquidity
- Regulation and incentives that reduce investor risk
- Access to capital markets (for securitization).

These conditions are associated with more advanced markets, but, with good information and investors, smaller markets can pursue private placements of mortgage investment vehicles.

## Supply of Mortgage Loans

As with all markets, the secondary mortgage market is governed by principles of supply and demand. If borrowers have an appetite for mortgage loans but are not able to get financing because banks do not have the cash to lend, the creation of a secondary market may significantly stimulate lending and housing production. The creation of a secondary market will actually create more funding; more funding creates more demand by borrowers; and more demand creates more supply of mortgage loans for sale on the secondary market.

If, however, the underlying fundamentals are not intact—willing, interested and qualifiable borrowers do not exist; there is limited housing stock for sale; or the creation of a secondary market actually increases costs to borrowers (rather than lowering them)—then discussions about creating a secondary market are probably premature.

Another fundamental issue is the role of the government in secondary mortgage market development. In the United States, the government itself financed and guaranteed (with the full faith and credit of the U.S. government) mortgage lending in the conventional market. Between 1938 and 1968, Fannie Mae was part of the government, and known as the Federal National Mortgage Association. Even since Fannie Mae became a publicly traded company in 1968, the government still retains oversight of it. While fully private, some still refer to Fannie Mae and Freddie Mac as having an “implicit guarantee of the U.S. government.” Ginnie Mae, which purchases fully-insured Federal Housing Administration and Veterans Affairs Department loans, serves low-income American borrowers, and issues debt that is guaranteed by the U.S. government. The U.S. government also guarantees full and timely

payment on Ginnie Mae-guaranteed loans. The U.S. government has made a significant commitment to housing, and this focus is supported by the U.S. economy. There is little question that demonstrated government commitment to housing significantly stimulates the sector and provides significant assurances to investors.

## Secondary Market Tax Structure

Depending upon how well developed the secondary market is in a given country, tax and accounting structures for secondary market activities may or may not be in place. If they exist, it is important to compare them to tax and accounting structures for the primary market. From the perspective of housing finance, the ideal situation is one in which the tax and accounting requirements for the primary market seamlessly support—and actually provide incentives to—the secondary market. Investors in mortgages and mortgage-backed securities (MBS) and mortgage-backed bonds (MBB) will evaluate the tax consequences of their decision to buy, hold or sell a MBB or MBS.<sup>1</sup>

Generally, the secondary market tax and accounting issues apply to sales of mortgage assets, asset-backed securities, and debt instruments; creating and holding securities and reserves (held-for-sale, marked-to-market); and off-balance-sheet treatment of securities, servicing, hedges, recourse and credit enhancements.

In most markets, regulations are developed as new investment instruments are introduced to the markets. Or changes in the regulatory framework can spur the development of new instruments. This said, the trust or special-purpose vehicle (SPV) should be a financially attractive option compared with other investment opportunities, and there are some basic features that are important for all markets. With respect to taxes:

- The analysis should discuss whether the trust or SPV is tax neutral. If taxes are levied, they should not be so prohibitive as to make investing in the MBS or MBB undesirable. If, for example, the assets are taxed when the loans are passed to the trust and also when the security is sold to investors,

<sup>1</sup> MBB are similar to MBS except that MBB are issued by the mortgage originator and stay on the originator's books. MBS are issued by a special-purpose vehicle as off-balance-sheet instruments.



the “double taxation” is likely to make the transaction unprofitable. This occurs in some countries, and creating a tax neutral trust or SPV could help develop these markets. An assessment should also examine the taxes levied on borrower payments as they pass through the security. If the payments are taxed, are they taxed when the servicer receives the borrower’s payment of principal and interest, or when it is passed through to the investor?

- Tax law regarding trading of MBS and MBB should be clear. Many investors evaluate tax implications when making a decision to buy, hold, or sell a security (i.e., tax on gain on sale, losses, transaction costs, etc.). The tax structure and associated transaction costs may have imbedded incentives or disincentives for secondary market trading. If the tax structure makes trading an unattractive option, the security may be less liquid. This lowers its value to an investor, because it is a less flexible instrument and is more risky because it is likely to sit on the books longer.
- The analysis should note whether an MBB or MBS “held for investment” has a different tax status than one “held for sale.” A lender’s decision to sell an asset might be affected by the tax implications (this applies to capital reserves held against each security, as well).
- The tax and accounting events triggered by a default of, or foreclosure on, one of the mortgages in the MBB or MBS are important in balance sheet management. Tax law needs to have clear and reasonable definitions of when a loan goes into default, when it becomes non-performing, and when it may be foreclosed upon. The definition, and timing, of each event will have tax and accounting implications. The tax implications may also influence the nature of the guarantee that an issuer may be willing to make.
- The tax consequences on the sale of whole loans, versus the creation of a mortgage-backed security to hold or sell to a third party investor, will also affect a lender’s decision to pursue a secondary mortgage market securities transaction. If the lender incurs a tax penalty on the sale of the loans, this may deter the sale. If, however, the lender can swap loans and hold an MBB or MBS without incurring a taxable event, this might facilitate the transaction, especially if there are added risk-based capital advantages.

Thus, a complete analysis of the prospects to develop a secondary mortgage market requires an assessment of the current tax implications for lenders pursuing secondary market options.

In countries where taxes on sales of assets or investment securities are high, or where investors cannot use losses to offset gains or domestic or foreign investors are taxed twice, the secondary market may not be attractive. Investors may be unwilling to sell loans or purchase MBS, thereby depriving the market of liquidity that may otherwise be available. Tax law directly affects the development of an investor base that will purchase MBB or MBS, and the introduction of accounting regulations that are friendly to MBB and MBS can provide incentives that will promote secondary market activities.

## Mortgage-backed Securities

The capital markets allow public and private entities to raise money by selling stocks, bonds, and other kinds of financial instruments, mostly to long-term investors. Participating institutions that buy the financial instruments include governments, private and commercial banks, pension funds, insurance companies, mutual funds, hedge funds, institutional investors, trusts and wealthy individuals.

In the context of capital markets, the following types of institutions may play a role, and the assessment should describe their activities and interventions:

- Government regulatory agencies, such as a country's central bank, securities regulators, or ministry of finance, promote the fiscal safety of a country's capital market and set standards for capital requirements, reporting requirements, securitization, and other functions in a capital market. These institutions may also require representations of safety and soundness from other government agencies, or government-appointed regulators, which oversee housing institutions.
- Financial service providers (FSPs) offer reports and analyses of companies, the prices of individual stocks and bonds, and general macroeconomic information about a country and its capital markets. FSPs provide current information that may affect the value of the securities, such as inflation rates and government interest rates. For mortgage securities, FSPs may provide the amount of unpaid principal in a given bond debt, bid-ask prices, and the amount of MBS issued by a given issuer. Access to information affects the value and price of a security, and is critical for investors

who rely on such information to buy or sell a security. Lack of FSPs makes a market inefficient and leaves investors without the information needed to make timely investment decisions.

- Broker-dealer networks and institutions make a market in a security. Private sector broker-dealer networks support the debt market by underwriting debt and distributing it to investors—they provide a vehicle to issue debt securities and to recycle securities that fund the purchase of mortgages. These broker-dealers provide liquidity to the market by allowing investors to buy and sell their securities to other investors, thus allowing investors to have liquid investments.
- A clearinghouse is responsible for recording the sale of securities to investors and for maintaining the ownership record for the security. The security issuer uses this ownership record to make payments to the investors. The clearinghouse is also responsible for assuring that the issuer of the security, or the seller in the case of re-sale, receives the proceeds from the sale of the security to investors. A clearinghouse is useful for consolidating records of payment and settlement, but, if a clearinghouse is not used, the issuer of an MBS or MBB can maintain the records.
- A bond administrator is responsible for paying investors the correct MBS “pass-through” payment on the designated dates. Bond administration entails managing data, and requires customized technology to handle payments from the mortgagors to the MBB and MBS investors. The bond administrator is also responsible for reporting the performance of the MBB and MBS to FSPs and broker-dealers. Bond administration can be managed by the issuer of the security, or a third party (investment banks, trust companies, and government-sponsored organizations are among the entities that have administered bonds in developed markets).
- Rating agencies perform credit ratings on governments, companies and securities. They evaluate the issuer’s credit history, the underlying collateral and other factors to assign a rating. The rating reflects the security’s risk of repayment, and/or the ability of an organization to repay its obligations. It is frequently in the issuer’s best interest to promote the security by obtaining a credit rating for the institution or the security, as many investors rely on credit ratings to make investment decisions. Rating agencies such as Standard & Poor’s and Moody’s perform credit ratings for corporations or individual securities.

## Special-purpose Vehicles

One of the prerequisites for the creation of mortgage-based securities is legislation allowing the mortgage originators to sell or assign the mortgage loan to an investor, special-purpose vehicle, or a trust:

- The legal code will need to have a legal definition of a trust, a special-purpose vehicle, and an investor.
- The legal code must allow an issuer to transfer a mortgage (or pool of mortgages) from the legal control of the issuer to the legal control of a trust or SPV. The law must also allow the trust or SPV to hold and administer the pools of securitized mortgages for the benefit of the investors in the MBB and MBS. The laws on trusts or SPVs need to identify the types of institutions or corporations that may serve as trustees and their capital requirements (if any).
- In the event that laws allowing a loan to be assigned to a trust exist, there may be laws that require the mortgage lenders to notify the borrowers (mortgagors) when their mortgage is sold to an investor. If notification laws exist, one must ensure that nothing prohibits the lender from selling a loan to the secondary mortgage market. If consent laws exist, they may block or delay the sale of mortgages to investors, and impede the development of a secondary mortgage market.
- Lien recordation laws must allow the loan originators and subsequent investors in loans to know their lien position status on the loan (e.g., first or second lien), and any other liens, such as mechanics liens or tax liens, that may change their lien position. Such liens may affect the originator's or investor's likelihood of being paid if there is a default on the loan or if there is a claim by a lien-holder. This is one reason that it is so important that servicers ensure that the property taxes are paid.
- Standard securities registration requirements require an issuer to file information on the security with a country's securities regulatory agency. In addition, the issuer may be required to report on the performance of the securities. Such reporting requirements benefit the investors by providing information to analyze investment decisions and value the securities purchased. Usually, laws and a government oversight authority exist to provide reliable judiciary enforcement of and compliance with the laws governing the secondary market.

- Other mandatory or nonmandatory disclosure laws may require different levels of reporting to the investor. The investor may require the issuer to disclose the loan characteristics of the mortgage collateral included in the MBB and MBS pool. Investors value disclosure of material information that may affect the performance and value of a security, and may not invest in securities without such information; so, while disclosure laws are not necessary for development of a well-functioning secondary mortgage market, they greatly enhance it by offering information and transparency to investors. They provide more liquidity and “depth” to the market.
- Frequently, MBS—particularly those that trade in international markets—are guaranteed or credit-enhanced, either by the issuer, a government entity, or a third party. These guarantees or credit enhancements are incentives to protect investors from losing the principal invested in the MBB or MBS. The guarantees are often based upon the credit of the institution or government, thus the level of assurance depends upon the financial capacity of the issuer. In some cases, there are laws prohibiting such guarantees or credit enhancements by a given institution because they create a contingent liability for the institution. In some cases, laws or regulations require that the institution hold assets or capital against the guarantee. Such provisions assure that the guarantor or insurer has assets or capital to cover the losses of the investor and remain solvent if there is a default on the guaranteed or insured security.
- In most cases, laws protect the investor’s stake in the mortgage assets of the trust or SPV in the event that the issuer enters bankruptcy. In the event that these laws are not in place, the investors risk losing their investment. In bankruptcy laws, a “stay” provision will ensure the investor that the assets of the MBB and MBS are not encumbered in the event that the issuer goes bankrupt.
- Often, too, investors have legal and regulatory restraints that limit the level of their investment in MBS. On one extreme, some pension funds may only be allowed to use their funds to invest in housing, while others may be allowed only a limited exposure to MBS and other classes of assets, while still others may be prohibited from investing in MBS.

## **Demand for Mortgage-backed Securities**

When analyzing whether the conditions in a country are suitable for the formation of a secondary mortgage market, it is important to first determine

whether there is a history of purchasing loans (mortgage or otherwise), and if there are any existing investment vehicles in the country. It is also important to identify investors (or potential investors) in the market; investors may include the government, pension funds, insurance companies, mutual funds, credit unions, and other investor institutions and individuals.

However, it is important not to overlook demand from the same institutions that supply the mortgages or securitize them. In the United States, for example, the largest purchasers of MBS include Fannie Mae and Freddie Mac, the very secondary market institutions that issue the MBS and assume the credit risk for the underlying loans.

Other large holders of MBS are the institutions that originated the mortgages. Frequently, lending institutions securitize their own loans for capital and balance sheet reasons, and to gain more liquidity. In fact, by converting the loans to MBS, the lending institutions retain the very loans that they originated. By securitizing the loans, the lending institution “pools” the mortgages into a security that is more liquid and easier to sell than a whole loan (a lender can more easily sell an MBS than a group of loans when it needs cash).

## Other Considerations and Infrastructure

A secondary market requires more than the existence of a supply of mortgages and a demand for securities. It requires an entire supporting infrastructure—including information technology providers, credit enhancement agencies, insurers, and the like. It also requires governing laws and legal regulations, regulation and oversight, and established tax and accounting treatments for secondary market investment vehicles.

First and foremost, a secondary mortgage market requires an investor or purchaser of closed mortgages. On the simplest level, lenders can simply sell mortgages through “whole loan sales” or “participation sales.” A whole loan sale allows the lender to simply sell mortgages, thereby removing them from the balance sheet. A participation sale, whereby a purchaser acquires some piece of a mortgage portfolio, may have the benefit of helping a lender balance its portfolio risk exposure by balancing the term of the mortgage assets to the term of the debt instruments (if the lender has issued debt to finance the mortgages and prepayments are predictable).

If loans are securitized, however, one generally expects the securities to be traded on the capital markets. The capital markets are financial markets

where corporations and governments raise money by selling stocks, bonds and other kinds of financial instruments, mostly to long-term savers and investors. Participating institutions that buy the financial instruments include governments, private and commercial banks, pension funds, insurance companies, mutual funds, hedge funds, institutional investors, trusts, and wealthy individuals.

Investors generally need to have experience in bond investments before they will invest in MBB and MBS. Over time, purchasers of bonds may choose to invest in MBS for the higher yield, but there are some limitations that are important to recognize:

- Generally, the market for MBB and MBS needs to be sufficiently liquid to allow investors to resell MBB and MBS they have purchased to other investors. In countries where institutions such as pension funds desire long-term securities, however, this may not be as important.
- The investment returns offered on MBB and MBS generally must be higher than on less complex investment options.
- Capital adequacy laws and regulations cannot restrict pension funds or other investors from purchasing and holding MBB and MBS.
- Investors need to be adequately capitalized to consider investing in MBB and MBS; if the securities are poorly capitalized, they are not likely to invest.

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## *Methods of Mitigating Risk in Mortgage Finance*

Some standard forms of risk mitigation can be purchased, including insurance options that lenders can use to mitigate loan-level risk in the primary market.

*Title insurance.* Lenders frequently require the borrower to purchase title insurance on the mortgaged property. Title insurance companies sell insurance to protect the property owner from loss of ownership or claims on the property resulting from preexistent ownership claims on the title. In the United States, a title insurance company checks the recordation records to determine whether there is any cloud on the title to the property, which may hamper its marketability. Claims may include liens against the property for the supply of materials or labor provided to build a house; an easement for a power line; or an aboriginal land claim.

Title insurance provides the lender with the guarantee that, in the event of default, the lender may take ownership of the property and that no other entity may lay claim to the title. Title insurance lowers the risk to lenders and enables them to extend cheaper credit to borrowers, lowers the costs associated with mortgage lending, and ultimately increases the availability of funds for borrowers.

Title insurance is particularly attractive to lenders in developing countries, where systems for property transfer are still new. Yet title insurance is only as good as the lender's ability to receive payment on a claim, so it is important to do due diligence on the property as well as the title insurance company.

*Hazard insurance.* Lenders may also require that borrowers pay for hazard insurance. Hazard insurance (property, casualty and flood insurance) protects the collateral value of the loan in the event that the property experiences some loss from damage or a catastrophic event. This may or may not be part of mandatory home ownership coverage. Typically, a borrower who is current in his or her payments can rely on the insurance to cover the cost to repair or replace whatever is damaged.

*Life insurance.* Lenders may request that the borrower to acquire a life insurance policy for the amount of the mortgage, and the policy must name the lender the beneficiary. By requiring the borrower to purchase such a policy, the lender hopes to protect both the borrower and the lender in the event that the borrower dies. The policy would provide sufficient funds to cover the mortgage payments or prepay the mortgage in full. The availability of these funds helps the estate pay the mortgage and prevents the mortgage from going into default and the lender from entering foreclosure proceedings upon the death of the borrower.

*Mortgage insurance.* Another type of insurance that lenders may require (particularly in situations where there is a low down payment) is mortgage insurance. Mortgage insurance protects the lender if the borrower defaults on the loan; upon default, the insurance will generally cover a part of the losses that the lender incurs from the loss of payments on the loan.

Typically, the borrower pays the mortgage insurance premium on a monthly basis, and it is typically included in the regular mortgage payment. Usually, at the point that the principal outstanding falls below 80 percent of the loan-to-value ratio, the mortgage insurance premium requirement is dropped. However, mortgage insurance may also be paid as a single, up-front premium that is made at the time of purchase.

*Counterparty risk.* Lenders should also be aware of their exposure to insurance companies. Though it is comforting to assume that having a policy protects the organization from certain risks, it is important to monitor the reserves and management of the insurance companies themselves. If a particular insurer is overexposed in an area where there is a large natural disaster, the insurer may not be in a financial position to pay all claims. This is one example of counterparty risk management; this type of risk may be mitigated by working with several insurers and/or rebalancing the risk profile of the portfolio.

*Portfolio risk.* The way a lender manages its portfolio of mortgage loans can have a direct effect on its ability to raise capital, carry more loans, and reduce its overall risk. If a lender chooses to hold whole loans, the lender assumes both the interest rate risk and the credit risk associated with the loan. Interest rate risk results from a mismatch between the rate at which a lender lends and the rate it earns on the mortgage; this type of risk can be amplified if borrowers have the option to prepay loans (allowing the borrower to take advantage of lower rates, whereas the lender may have paid for the original loan with higher-rate, longer-term debt). Credit risk results when a mortgagor defaults, or a geographic concentration of the mortgagors default (for any regional or local reason).

To reduce these risks and raise additional capital for mortgage lending, lenders should engage in active portfolio management. Depending upon the options available to them, they may choose to:

- Sell a portion, or all, of the whole loans in portfolio; by selling whole loans a lender can relinquish both the credit and the interest rate risk associated with holding mortgage loans.
- Sell a defined portion of a loan and retain the balance in a “participation sale;” this option allows a lender to tailor the risk profile of its mortgage loans.
- Purchase or swap different products for the portfolio; this involves adding loans with different characteristics to the portfolio to “blend” the overall risk characteristic (e.g., adjustable rate loans, loans of different maturity or geographic distribution).
- Issue debt with different option structures; if fixed rate debt is used to fund fixed rate mortgages, begin to issue callable or adjustable rate debt to reduce the interest rate risk.
- Issue MBB or securitize the loans to create MBS or other MBS derivations; creating a MBB or MBS allows the issuer to customize and price a variety of risk options. Typically, the investor assumes the interest rate and counterparty risk and the issuer (or a third-party guarantor) assumes the credit risk.
- Hedge the portfolio—that is, purchase assets and options, or create securities that are designed to perform in ways opposite to that of the asset (e.g., if rising interest rates lower the value of an asset, they should increase the value of the hedge; in a perfect world, the gains in the value of the hedge should offset the loss in value of the asset). Hedging is an inexact science and is generally too costly and risky for small or inexperienced lenders.

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Housing is more than just basic shelter—it can be a valuable monetary asset, both to households and nations. This book draws on research by experts at the Inter-American Development Bank and the U.S. Department of Housing and Urban Development to examine the economic, social and legal dimensions of housing markets in Latin America. Using lessons learned from the region, the book shows how a developing country can move its housing sector to function more effectively as a market, with more available financing and a greater role for private developers. An assessment tool is presented to help researchers analyze the effect on national housing markets of economic and demographic variables, tax structures, risk management, and other factors.

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