Housing Matters

Sonia Hammam, Independent Researcher

November 2013

This paper is part of a collection of papers prepared for the World Bank's Sixth Urban Research and Knowledge Symposium, October 2012. Financial support for this paper was provided by the Urban Development and Resilience Department and the Research Support Budget of the World Bank. The findings, interpretations, and conclusions are the authors' own and should not be attributed to the World Bank, its Executive Directors, or the countries they represent.

Housing matters to the livability of cities and to the productivity of their economies. The failure of cities to accommodate the housing needs of growing urban populations can be seen in the proliferation of poorly serviced, high-density informal settlements. While such settlements are not new in the history of rapidly growing cities, their persistence results as much from policies as from economics and demographic transition. Slums have attracted most of the attention on urban housing in developing countries, and the Millennium Development Goals have given prominence to their reduction. However, urban housing issues transcend conditions in slums and are linked closely to economic activity. City economies influence housing demand, and in turn the flexibility of housing supply affects economic activity and city growth.

Housing strategies to deal with rapid urban growth have varied over time and at different stages of urbanization. Renaud (2004) points to the dissimilarity of East Asian strategies at the early stages of their urbanization: underinvestment in housing in Japan and the Republic of Korea,[1] large-scale public investment in Singapore and Hong Kong SAR, China, central planning in China, and a noninterventionist approach in Taiwan, China. The strategies in these countries have evolved with urbanization and economic development.

Starting in the early 1990s, housing policy advice was enshrined in the concept of "enabling markets to work." A 1993 World Bank policy paper defined this concept, elaborating on the enabling approach that had been adopted in 1988 as part of the UN Global Strategy for Shelter to the Year 2000. At its most simplistic, the policy paper emphasized limiting the role of governments to a set of policy instruments and reforms that would allow housing markets to operate effectively. This was as much a reflection of the prevailing consensus on public and private sector roles as it was a reaction to the inefficiencies of public housing production in developing countries.

The concept of an enabling role for government has its roots in the dominant policy advice of the 1970s, which argued against government programs of direct housing production and slum removal. Instead, governments were urged to take on interventions to facilitate the informal process of self-help housing by reducing development standards and providing infrastructure and tenure for low-income groups.

Unlike the earlier enabling approach to self-help housing, the market-oriented view framed the housing policy discussion in the context of the economic effects of good and bad housing outcomes, including for the poor. It drew attention to how policy and institutional arrangements affect housing outcomes by shifting the debate away from targeted low-income housing interventions and toward policy instruments that affect how housing markets function. On the demand side, it emphasized policy action in property rights, housing finance, and subsidies. On the supply side, it emphasized serviced land supply, land and housing regulations, and the organization of the sector. These areas of emphasis represent the building blocks of a housing system.

By shifting the debate toward policy instruments and away from targeted intervention, the market approach implied that interventions were not needed beyond getting the policies right. It was also largely silent on the direct problems of housing for the lowest income groups. While the approach may appear abstract and prescriptive in its reforms and views on the role of government, its focus on market processes has highlighted the importance of understanding housing market performance when designing reforms or specific interventions. The policy environment not only influences outcomes but also constrains the scaling up and sustainability of targeted interventions. The debate often appears to be over a singular focus on targeted interventions, on the one hand, and policy, regulatory, and institutional reform, on the other. Yet a mix of both is required.

The World Bank's recent urban strategy suggests that the market approach was "far too sanguine" about the difficulties of creating well-functioning housing markets with private construction and financial sectors that respond to low-income housing demand. It instead argued for a more pragmatic view that includes interventions through measures such as land readjustment, a return to sites and services, upgrading, and subsidies to the poorest.[2] There is, however, no consensus on the sequencing and content of policies and targeted interventions. One view, recently put forward by the 2009 World Development Report on economic geography, suggests that land use regulatory reforms and targeted interventions should take place at advanced stages of urbanization.[3] Addressing the causes and outcomes of poor housing sector performance at such a late stage is likely to be costly, given the durability of housing. As Martine and McGranahan (2010) warn about Brazil's poor performance during its urban transition, "the unwillingness to prepare for massive growth has not only made Brazil's urban transition unnecessarily traumatic but also left a legacy of social and environmental problems that prevent the country from benefiting from all the inherent advantages offered by urbanization."

The housing sector's performance continues to present challenges, even in middle-income countries that are well past their urban transformation. The debate on housing market performance has been limited by inconsistent data on and definitions of slums that indicate a billion slum households. While one may argue about definitions and quantities, the existing data clearly signal that urban housing markets are under pressure—not only in the least urbanized (but rapidly urbanizing) regions but also in the most urbanized developing country regions. This, however, does not imply that the main response should be to focus solely on "solving" the problem of slums without addressing the policies that influence housing system performance and give rise to slums.

This paper provides an overview of the policy and institutional building blocks that determine housing sector performance, drawing on studies from both developed and developing countries. It focuses on property rights, including tenure choice, housing finance, and subsidies. It also reviews the factors that affect supply: the availability of serviced land, as well as land and housing regulations. While these elements have been standard tools of housing policy, they are still the subject of considerable debate over their sequencing, policy content, and priority. There has been a great deal of emphasis over the last two decades on demand-side measures to improve property rights systems, develop housing finance, and even to introduce new subsidy systems. All these developments are important, but as this paper argues, less progress has been made in understanding and addressing the factors that constrain supply, which often thwart improvements on the demand side.

Property rights

Clear, enforceable, and tradable property rights, along with systems for settling disputes and determining compensation for public acquisition, are necessary for effective housing market performance. Secure property rights improve market efficiency by reducing transaction uncertainty and making it easier to transfer rights, thereby increasing the volume and value of real estate transactions. In addition, clear titles are as important as collateral for access to finance and the development of housing finance. In developing countries, these benefits are often compromised by a regulatory environment that reduces the value of legally owned property and its use as collateral. Moreover, even where property rights are well established, they have little value without institutional structures for enforcement and adjudication.

Many cities have a continuum of tenure statuses with various bundles of rights, ranging from squatting to leasehold and freehold. Property rights systems tend to be fragmented and poorly developed, causing delays in public and private land acquisition and infrastructure provision, and inefficiencies in land and housing markets. Without effective dispute settlement institutions, the lack of clarity in real property rights leaves land in legal limbo, distorting land prices and hindering private real estate transactions, finance, and development.

The ambiguities and conflicts over property rights that are commonly found in informal settlements, and that lead to various degrees of tenure insecurity for their residents, reflect the shortcomings and inefficiencies of the system for enforcing and adjudicating existing property rights or for establishing clear rights in the first place. Registries tend to be incomplete and poorly maintained, property disputes account for large caseloads in the courts, and registration processes are often lengthy and costly. While the institutional aspects of property rights (definition, enforcement, and adjudication) are the critical elements for ensuring secure rights and reducing risks for real estate investment, most of the debate has been narrowly focused on titling and tenure security for slum dwellers.

Do titles matter?

De Soto (2000) framed tenure security as a matter of property rights embodied in legal title, which converts the informally held housing and land assets of the poor to usable wealth. Titling essentially allows the poor to benefit from a flow of investment and credit and to become more integrated in the urban economy. The 2009 World Development Report on economic geography echoes the primacy of titling.[4] It identifies titling as the critical first step in building fluid land markets and defers regulatory reform to later stages of urbanization. Buckley and Kalarickal

(2006), on the other hand, draw attention to the role of regulatory and other constraints in preventing the emergence of effective land and housing markets, even where titles are well established. While not denying the importance of titles, they give precedence to reforming regulatory frameworks.

The differences in the two perspectives are more about appropriate sequencing, but Buckley and Kalarickal's views imply that titles are a necessary but insufficient condition for the development of more fluid housing markets. The experience in transition countries is instructive in this respect. The massive transfer of ownership rights to sitting tenants in the 1990s was not sufficient to unlock the value of housing assets. Ten years after the initial reforms, housing markets had begun to show some signs of recovery, and market transactions were growing; however, housing investment remained historically low, the stock had deteriorated, and homelessness had grown.[5] The transition countries had achieved a high degree of private ownership without any of the complementary institutional structures associated with real estate markets and transactions.

Regulatory factors can reduce the benefits of titles. The planning process and regulations that define what can be built, where, and to what standard mitigate property rights even in the most market-oriented housing systems. However, in developing countries where land use and building regulations are frequently thwarted, even legally acquired property might not qualify for title registration or credit. Changes in regulatory measures defining minimum lot sizes may informalize development of legally purchased property that does not meet standards, as in Brazil, where the law specifying minimal plot sizes prohibits the registration of property within nonconforming subdivisions. Property rights are compromised as a result, because title registration is the critical guarantee in most Latin American legal systems.[6]

While titling is necessary for overall housing finance development, there is little evidence that titling programs in informal areas have substantially increased access to credit for their low-income beneficiaries. Despite the implementation of a large titling program in Peru, access to credit reportedly increased 9–10 percent for households with newly titled properties and tended to be limited to public banks. This underscores that collateral security through titles is a necessary but insufficient condition for accessing finance. Lower income or informally employed borrowers must also demonstrate repayment capacity. Moreover, newly titled properties might not qualify for finance where plots are below formal minimum sizes or where the construction does not comply with building standards.

The debate over tenure security and title regularization programs

Tenure security has long been a central tenet of upgrading programs to protect slum dwellers from eviction and to encourage greater investment. It was emphasized as a means of dealing with the nonincome aspects of urban poverty and integrating informal settlements by improving living and housing conditions, rather than as an instrument for reducing poverty overall. The way to achieve such security has, however, been a matter of fierce debate, even before De Soto's insistence on titles as the key instrument.

Informality does not always signify insecurity. Nor does it prevent property transactions and investment. De facto tenure security is often sufficient to induce investment in housing improvements in informal settlements. As Doebele (1978) remarked, "while tenure is generally considered a legal category, it is, just as fundamentally, a matter of the state of mind of the persons concerned." Housing investment and improvements are common in consolidated settlements where the fear and practice of eviction are low, where customary rights are well established and recognized, or where services have been provided. In India, notified slums, which are slated for regularization and services, tend to have a lower proportion of poor-quality housing than nonnotified slums. At times, even promises of noneviction for a sufficiently long period provide enough incentive. Where there are strong traditions of customary rights, some governments have shown flexibility by recognizing these rights and transactions. At the same time, customary practices tend to evolve in an urban setting and mimic some of the processes in the formal system.[7]

Clearly, in many instances informally acquired rights benefit individual households, allowing them to build and sell fairly easily. There is, however, some evidence that titled households are more likely to invest than nontitled households and that titled property commands a premium.[8] Moreover, as Bertaud (1989) suggests in his study of Indonesia, informal rights generally prevent small-scale developers from acquiring and developing land, thus slowing the process of secondary and tertiary infrastructure provision and the activities of small-scale developers in the housing market.

On an operational level, Gulyani and Bassett (2007) suggest that what matters for tenure security is providing services, as formalization can unnecessarily delay investment. They find that "simplified" processes for providing intermediate rights tend to be as time-consuming and difficult as titling. In a later review of informal settlements in Kenya, Gulyani and Talukdar (2008) are less categorical about infrastructure as the key to tenure security. They take note of slums' heterogeneity and suggest that the choice of interventions, such as titling and infrastructure, depends on the living conditions in slums. In practice, tenure regularization and upgrading programs have often provided less than full title. These varied intermediate tenure systems provide some of the rights embodied in titles in a permanent or time-bound manner but are usually not accepted as collateral by private financial institutions. The effectiveness and impact of intermediate tenure systems on land markets have not been evaluated, and the assumption is that such measures would or could eventually lead to more formal legalized tenure.[9]

Critics of formalization programs point to their potential for displacing low-income groups as a result of the higher values associated with titled property.[10] There has, however, been little empirical analysis of the distributional impacts of formalization programs. It is unclear how prevalent such displacement is or whether it is an outcome of titling or the accompanying provision of services, which also increases property values and is more likely to encourage landlords to raise rents. Razzaz and Galal (2001) suggest that the level of displacement as a result of titling may be more significant in local formalization programs. When programs are carried out on a broader scale, there is a greater incentive for landlords to consolidate and expand, ensuring a more elastic supply of rental housing.

An additional concern is titling's potential to displace poor households in high-value locations, leading some to suggest that such areas should not be formalized.[11] Legalization of tenure, when limited to a few informal areas in cities where the overall quantity of titled land is at a premium, would certainly encourage raiding, indicating a need for much broader citywide efforts. However, poor households in high-value locations are not less vulnerable to displacement by government or market raiding based on their informal tenure. The issue in these instances is not so much titling as it is the accompanying legal processes for the protection of rights and the provision of adequate compensation. To prevent displacement, some countries have enacted prohibitions on sales in newly formalized areas. However, this has just led to new forms of informal transactions and distortions. Brazil, on the other hand, has used such planning tools as Zones of Special Social Interest, which provide for reduced zoning standards and property rights. To ensure that the benefits of formalization remain available to lower income households, sale of property within these zones requires municipal approval. The effectiveness, feasibility, and impacts of such measures have not been evaluated and are worth reviewing.

A very different set of criticisms of formalization programs questions their effectiveness in addressing informality. Biderman and Smolka (2011) draw attention to the fact that tenure formalization and upgrading programs can increase informal settlements in Latin America—or at least not reduce them. They argue that formalization can encourage further informal development, in anticipation of future regularization of tenure and service provision. The programs mitigate some of the difficulties confronted by existing residents of informal settlements but are largely an ineffective cure for the dual land and housing development process. This can be seen in the lack of progress in tenure security despite long-standing formalization programs in many Latin American countries. Regional data indicate that the overall level of tenure informality affected 10 percent of households in 1995 and had not declined a decade later. Even Peru, which embarked on a large titling program that provided 1.5 million titles, experienced an increase in tenure informality, from 18 percent of households in 1995 to 21 percent in 2006.[12]

To sum up, the concerns expressed by critics of tenure formalization programs point to the limitations of fragmented interventions in integrating informal areas—and to their potential for introducing further distortions. Durand-Lasserve and Selod's (2007) review of formalization programs provides some insight into the critical factors that determine their effectiveness. They suggest that in successful interventions, tenure is not limited to its legal aspect; it is linked with reforms in land administration, allocation of rights, and conflict resolution. These institutional aspects take time to develop but are often overlooked in titling programs.

While many of De Soto's claims about titling's potential for reducing poverty appear exaggerated, critics' claims of the potentially harmful social effects of formalization programs raise important concerns that need to be better understood and empirically verified. Formalization is clearly not sufficient on its own, and it needs to be undertaken on a less fragmented basis within a broader context of reform of the regulatory environment for land and services. Ultimately, its success depends not on the number of titles issued but on strengthened institutions and systems for defining, enforcing, and adjudicating property rights (registry, contract enforcement, protection of rights, conflict resolution, and compensation policies).

The rental market

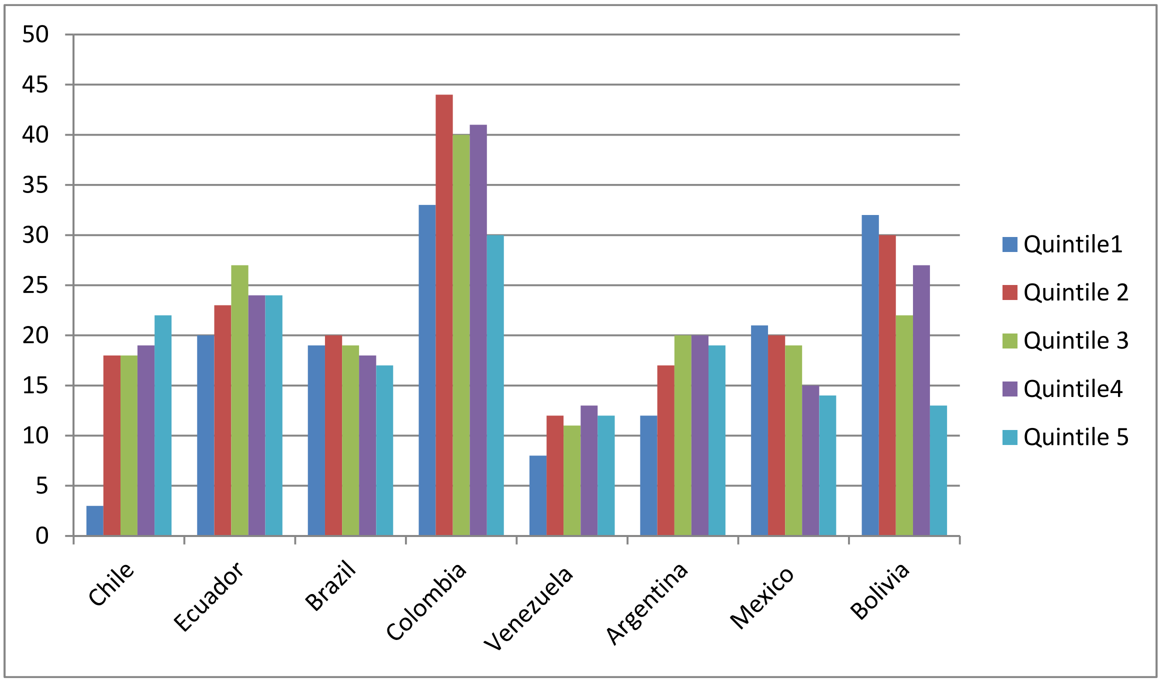
The rental market is suited to meeting housing demand particularly in rapidly growing cities and in countries undergoing substantial changes in employment structure and location. Development of the rental sector provides the following advantages:

- Enhancement of labor mobility, because tenants have less transaction and fixed costs in moving.
- An option for households that do not have the means to buy a home or do not wish to, such as young families, young adults, recent migrants, and lower income households.
- A choice for asset investment and a source of complementary income.

Despite the rental sector's importance, it has received little policy attention. Instead, many countries have focused on homeownership, partly in the belief that this form of tenure is socially and politically more desirable. Government policy has, therefore, often favored homeownership over rental through the tax system, access to credit, and subsidies. Most low-income programs, such as upgrading, sites and services, public housing, and subsidies, have also emphasized homeownership in developing countries.

Private rental markets provide the bulk of rental housing in most developing countries. But little is known about the operations and size of this market. Part of the problem is that rental is largely informal in developing countries, without contracts in the formal or informal housing stock. While it is difficult to generalize about tenure patterns, rental housing dominates in African cities in both formal and informal sectors. By contrast, it represents barely one-fifth the urban housing overall in Latin America. At the same time, contrary to conventional wisdom, most of Latin America's poor people are not tenants, perhaps because informal housing "ownership" is so prevalent. Rental is not the dominant form of tenure for lower income groups. Even in Colombia, which has a fairly large rental sector, less than half the lowest income groups are tenants (figure 1).

Figure 1. Incidence of renters by income quintile in selected Latin American countries, 2006



Source: Rojas and Medellin 2011.

Rental housing has been neglected not only in policy discussion but also in recent analytical work on housing in developing countries, beyond reviews of rent-control regimes. An important exception is Gulyani and Talukdar's (2008) study of Nairobi's slum rental sector, which makes up 30 percent of the city's housing. The study describes the sector as "a low quality–high price trap" for tenants, with absentee landlords, poor services and housing quality, little tenure security, and few incentives for either consolidation or improvement. This may not be the norm for rental housing in informal areas, but it is not unique to Nairobi.[13] The results, nonetheless, highlight the importance of understanding the dynamics of this market, which challenges not only the conventional wisdom about informal housing and its inevitable progressive improvement but also the presumed distributional effects of traditional remedies, such as upgrading and tenure security. Fay's (2004) study of urban poverty in Latin America, on the other hand, reports that absentee slumlords are no longer the norm in informal settlements. Owners tend to be individuals living in the same informal areas as their tenants, have similar or slightly higher socioeconomic status, and own few rental properties.

Rental housing in 19th- and early 20th-century European, U.S., and many colonial cities was built by investors for the middle and upper classes. With the expansion of alternative investment opportunities, the increased access to finance for homeownership, and the enactment of rent controls in many countries, the role of investors has declined substantially. Today, small-scale individual landlords are the main suppliers of private rental housing, even in developed countries where institutional and corporate investors are more active. They account for about two-thirds of the rental supply in the United Kingdom and more than three-quarters in France.[14] Small-scale individual landlords also appear to provide much of the formal and informal rental housing in developing countries and deserve policy attention in any effort to expand this market.

Rental sector reform tends to focus on direct public interventions, such as rent and eviction controls. As important as these may be, they are not always the only binding constraints. In the United States, for example, studies have shown that restrictive zoning regulations favoring single-family housing have had a greater influence on the supply of low- and middle-income rental housing than have rent controls.[15] Among other factors that influence the supply of rental housing are differential tax and subsidy policies. In Morocco, for example, removal of rent control is unlikely to lead to a large expansion of the rental stock given prevailing fiscal policies and incentives. Not only are there tax exemptions on mortgage interest, but owner-occupied units benefit from preferential treatment on capital gains and property taxes. The fiscal exemptions afforded to homeowners represent the largest subsidies in the housing sector and discourage investment in rental housing, which is essentially taxed at a rate four times that of owner-occupied housing.

Rent control

Rent control has been widely practiced in both developed and developing countries. It has also been widely decried for the distortions it introduces in the overall housing market and for its inefficiency as a redistributive mechanism. In cities with rigid and extensive rent-control regimes, residential mobility is constrained, a large proportion of the stock is essentially frozen out of the market, and the quality of the stock is reduced through lack of maintenance.

The benefits of rent control accrue to sitting tenants when controls are introduced and tend to be regressive. In Egypt, for example, a recent survey suggests that upper income groups tend to benefit disproportionately (Technical Assistance for Policy Reform II).[16] However, even tenants of rent-controlled units generally experience a reduction in benefits through greater responsibility for various side payments and key money. A study by Mayo, Hardman, and Malpezzi (1995) found that key money in Cairo was roughly equivalent to the net present value of the difference between market rent and the frozen rent level over the duration of a long-term tenancy contract. Once additional payments were factored in, total housing costs for tenants were about twice the nominal controlled rents, though still below market rates. Benefits are also reduced by the decline in the quality of rent-controlled units. A striking example is the rent-controlled stock in Mumbai, which has yielded very low rents for such a long time that almost half the units are either condemned or beyond repair due to lack of maintenance.

Rent control can shift supply to the owner-occupied sector. The shift is often also from the formal into the informal rental sector in the form of a secondary market in controlled units, which can be found in cities from New York to Cairo. In Cairo, successive restrictive regulations contributed to the development of an active secondary market and a parallel informal rental market. More important, the combination of low rents and strong eviction controls, which give tenants quasi-ownership rights, have contributed to a high vacancy rate. Reforms introduced in 1996 decontrolled vacant and newly constructed units and increased the availability of rental units. However, almost 40 percent of the housing stock in Greater Cairo is estimated to still be subject to controls.

Rent-control regimes vary in whether they set rent levels, rent increases, or both; allow rents to be freely negotiated for new tenants; and permit changes to reflect costs or adjust for inflation. They also vary in breadth of coverage, strength of tenants' rights, and effectiveness of enforcement. Their impacts, therefore, vary by these features and market conditions. In recognition of the evolution and differences in rent-control regimes, Richard Arnott has put forward a more nuanced view on their effects, though it is hardly a consensus. Arnott (1995) distinguishes controls that freeze rents and provide strong tenant security from those that simply regulate increases in rent levels and contract terms while not controlling rents between tenancies. Some form of the second type of tenancy controls is common in Western Europe. While the first-generation restrictive controls are roundly criticized, Arnott suggests that the impacts of the second generation controls need to be empirically verified and evaluated case by case, given the variations in rent-control regimes. In a later paper on the Swedish rental market, Arnott (2003) suggests that the newer types of controls provide a basic level of tenure security and do not necessarily restrict supply. Malpezzi and Ball's (1991) review of rent control in developing countries also recognizes the variations in rent-control regimes and their impacts. The authors also emphasize the need for policy makers to carefully study the nature of rent-control regimes and evaluate their impacts before undertaking reforms.

The relationship between rental regimes and market size is not always straightforward. Oxley, Lishman, and Brown's (2010) analysis of rental markets indicates that a range of contrasting regulatory environments can be compatible with a large private rental sector. Germany and Switzerland have some controls on rental increases and strong tenure security for their tenants, but they have large private rental sectors, which account for 45 percent (Germany) and 67 percent (Switzerland) of the stock. Conversely, the United Kingdom and Spain, after decades of stringent controls that discouraged investment, have liberalized their rental regimes, but they now have fairly small private rental sectors, representing 13 percent (United Kingdom) and 15 percent (Spain) of housing.

Discrepancies between rental regimes and rental rates also exist in developing countries, indicating that rent control is not the only variable in determining rental housing supply. Morocco, which has only recently introduced reforms to its rent control laws, has a rental rate of 28 percent, compared with 16 percent in Tunisia, which removed controls in the 1970s. The lower rate in Tunisia could reflect the easier access to land and finance for homeownership and the persistence of strong tenancy rights, which make eviction difficult and lengthy even in cases of nonpayment. Similarly, Colombia has maintained the highest rental rates in Latin America, at

32 percent, comparable to the United States. Gilbert (2003) attributes Colombia's high rental rates to more stringent land controls that limited opportunities for invasion.

The decontrol process

Reform of housing systems affected by rent control requires analyzing its impacts and the underlying market distortions from taxes, subsidies, and regulatory policies. The positive influence of decontrol in stimulating rental markets is not always immediate or inevitable. Decontrol in a supply-constrained market (as a result of other distortions) is likely to raise rents without a significant increase in rental supply. Where the process involves protracted revisions and changes, the uncertainty about the permanence and nature of changes discourages investment. Successive decontrol measures in Spain and some Canadian provinces failed to significantly increase the rental stock. In the United Kingdom, the initial decontrol measures in the 1960s led to a surge in the ownership market, as landlords preferred to sell their units rather than continue to rent them. Similarly, despite the subsequent full liberalization of rental housing, the reduction in social housing production, and the privatization of a large portion of public housing, the United Kingdom private rental market has seen some increase but has become a marginal niche market with short-term leases.

Decontrol measures provide a number of benefits by removing distortions and inequities in housing markets. They offer opportunities to better maintain, use, and redevelop the existing private rental stock, which is often on valuable, centrally located land. As complex as the effects of rent control are, the decontrol of rental markets is a challenging undertaking. Decontrol raises strong political economy concerns and is administratively complex. It involves striking a balance between landlord and tenant interests in lease termination and rent-setting rules and defining minimum default contract terms. Just as important, decontrol requires adjustments in tenants' rights, with clear rules for contract termination and remedies for contract violation. Adjustments need to be introduced gradually to ultimately converge toward market rents. While the gradual adjustments imply an often lengthy process, a blanket decontrol of rents is often both politically difficult and too much of a financial hardship for the lowest income groups, resulting in pressures to reverse the process.

Decontrol is often followed by an overshooting of rent levels, which should eventually stabilize provided more units come on the market. Providing allowances to ease the rental burden on the poor is often necessary, but it might not be fiscally feasible in countries with large controlled sectors where rents have fallen far below market levels. In Spain, for example, administrative delays in designing allowances led to the maintenance of control for low-income tenants, with tax support to compensate landlords.

Finally, decontrol is unlikely to influence rental in informal settlements, where most low-income rental occurs. Upgrading services and tenure security for the subsistence landlord will more effectively encourage a greater supply of rental housing in this sector. But decontrol, along with appropriate tenure-neutral regulation and taxation, is needed to stimulate supply in the formal private rental sector, especially by small-scale individual investors. The extent to which more organized formal investors might enter this sector depends on a number of factors, including tax policies and the availability of financing.

Subsidies

The chief rationales for government intervention through subsidies include negative externalities affecting public safety and social stability; equity concerns, whereby low-income groups are deemed to need housing assistance; and market failures. In practice, the three rationales are not always mutually exclusive or explicitly stated. In fact, Hong Kong SAR, China's, massive public housing programs grew initially out of concerns for public safety and the needs of low-income groups after a disastrous fire in a large squatter settlement. The initial programs aimed to resettle slum dwellers, but out of a desire to maintain social stability by improving housing conditions, they grew to cover a much broader segment of the population.[17] Similarly, Chile's housing reforms and policies intended to correct perceived market failures were also motivated by a desire to improve social stability. However, rather than rely on public production, Chile chose to address both these concerns through a combination of regulatory reform and demand-side subsidies to stimulate private sector production and finance.

Subsidies, regulations, and taxation are among the most important interventions by which governments influence housing market outcomes. In principle, the three forms of intervention can be seen as substitutes, but the relative efficacy of the measures depends on their interactions with one another and on specific market conditions. Of the three forms of intervention, subsidies have caused the most intense debate and controversy, reflecting the difficulties and inefficiencies in their design and implementation. The early housing literature on developing countries generally critiqued existing subsidy programs, emphasizing the need to reduce most of them. With growing interest in affordability and social housing policy in middle-income countries, there has been a broader discussion of subsidies' role in housing policy in developing countries and a greater focus on policies to improve their efficiency, transparency, and targeting.[18]

The case for demand-side subsidies

Most of the economic literature on housing subsidies favors market-friendly, demand-side subsidies. These are considered more cost-effective and equitable than project-based, supply-side subsidies. They enable low-income beneficiaries to rely on competitive markets to access a range of affordable choices. Unlike public housing programs, they generate fewer distortions and are simpler to phase out when beneficiary incomes rise. The empirical case for the superiority of demand-side subsidies in cost-effectiveness and equity has relied primarily on extensive studies comparing public housing production programs with rental allowance programs in the United States. These studies found substantial differences between the costs of public housing rental programs and direct subsidies to households through rental allowances. They also indicated that the direct subsidies were better at targeting low-income households.

The shift to demand-side subsidies has usually occurred in countries well into or past their urban transition, where the housing problem concerns affordability rather than overall supply shortages due to market or regulatory constraints. Therefore, it is not surprising to find an increased use of demand-side subsidies through rental allowances in the United States and many European countries. In the United Kingdom, for example, more than 80 percent of housing subsidies in 1975 supported the direct production of social rental housing. By 2004, 67 percent of subsidies were on the demand side, with housing allowances as the main subsidy instrument.[19] Supply-side subsidies have been reduced but not eliminated as a means of supporting affordable housing in developed countries—even in the United States, where the Low-Income Housing Tax Credit supports developers producing low-income housing. The debate on whether supply- or demand-side housing subsidy programs represent better policy is not fully settled in Europe, despite a marked shift away from public production. Public assistance depends increasingly on a combination of rental allowances to households and direct fiscal and financial support to the municipal or nonprofit sector to provide, manage, and maintain the stock of social housing.

In principle, demand-side subsidies through allowances or upfront capital grants allow greater consumer choice at the lowest cost to government. But in practice, they perform best in markets where they can trigger a supply response. If markets are tight, as they often are in developing countries, demand-side subsidies might, in fact, exacerbate the affordability problem for nonsubsidized low-income households as rents or prices increase. Their benefits will then accrue to landlords or developers, with little impact on the overall housing supply.

Demand-side subsidies through capital grants have been introduced in a number of Latin American countries and in South Africa, based on a model pioneered in Chile. The Chilean experience illustrates the challenges of shifting to a market-friendly housing assistance system. The transition was not a simple textbook process of relaxing supply and demand constraints. Starting in 1977, Chile undertook a comprehensive reform of the sector to promote private sector production and financing of housing—with the government as enabler. The market's failure to serve the needs of lower income groups was attributed to weak demand. To address this constraint, the government provided demand-side subsidies through vouchers to enhance access to private bank financing. In addition, traditional supply constraints were reduced through changes in the regulatory framework governing urban land use and conversion.

These broad, sweeping reforms did not elicit the anticipated response from either private developers or banks. Both failed to show any interest in moving down-market, confining their activities to the middle-income beneficiaries of the capital grants and mortgage programs. As a result, the government had to become more active in contracting with private developers for building low-income housing and allocating units to beneficiaries, effectively adopting a supply-driven approach in the programs targeted to the lowest income households. Moreover, the government had to assume the role of lender, incurring large arrears in the process.

The overall program stimulated both private supply and financing for middle-income beneficiaries. However, it failed to do so for beneficiaries in the bottom two income quintiles. Chile continued to refine the programs over several decades, expanding their size and purpose to include the purchase or renovation of existing units. It wound down the supply-driven program for the lowest income groups in 2002, replacing it with a program that eliminated the loan component and instead provided a capital grant for the purchase of new or existing units, to which beneficiaries were required to contribute a small amount of savings. It also substantially reduced public loans and assistance to middle-income groups.

While the Chilean model is often considered a successful market-based model, it has been marked by heavy public sector intervention. The mix of programs resulted in a massive surge in housing production, significantly reducing housing shortages. While certain aspects of the Chilean program are debatable, its main lessons are that one size does not fit all and that there are no quick fixes. The program owes its success to its flexibility, offering a range of options for various segments of the population rather than focusing exclusively on the lowest income groups. The deeply subsidized programs were accompanied by a host of regulatory land use reforms to ensure a more flexible market response and to reduce and improve the targeting of subsidies over time. Instead of being a one-off approach, the program was allowed to evolve and adjust. It benefited from this continual process of review and adjustments over several decades, phasing in different approaches, such as coverage of existing units, and phasing out programs that did not work or were no longer needed.

Targeting efficiency of demand-side subsidies

The rationale for demand-side subsidies is based partially on the idea that they are easier to target to the poor and are therefore more equitable. The evidence from programs modeled after the Chilean system is, however, not compelling on that score. The results of a comprehensive evaluation by the Inter-American Development Bank of nine Latin American programs that provide upfront capital grants linked to mortgages indicate that they violate both horizontal and vertical equity. The evaluation found both high leakage and low coverage rates of the target populations (both poor and nonpoor).[20]

On average, only 2 percent of eligible households actually benefited from these programs, partly because the target groups covered a broad segment of the population. In Chile, for example, the target group extended to households in the 60th percentile of the income distribution, so it is not surprising that coverage was limited. The lowest quintile initially received about 25 percent of the subsidies; however, with the program’s recent evolution, there was a shift to substantially increase their share of resources and improve their housing conditions. The high rate of leakage, averaging about 44 percent for all nine programs, highlights the challenges of enforcing strict eligibility criteria, even in countries with fairly sophisticated means of testing for income.

The targeting challenge in these programs lies in balancing coverage of the poor through subsidies with the risk of default on the complementary mortgage loans. Full coverage of the poor would require generous capital grants to mitigate the risks of mortgage delinquency. The evaluation estimates that the programs would have had to triple in size to fully cover the poor.[21]

Supply-side subsidies

The choice of subsidy instrument depends largely on the perception of the housing problem, the policy goals, and the market and institutional context. Apgar (1990) cautioned against the consensus among housing economists on the superiority of demand-side subsidies and argued for flexibility in the choice of instruments, taking into account specific market conditions and the potential adverse effects of subsidy choices on nonsubsidized low-income households. He suggested that in markets where supply is inelastic, demand-side subsidies are likely to increase rents for nonrecipient low-income households. In these markets, supply-side programs are more likely to result in a net addition to the stock and a price decrease in response to demand. Apgar's views underscore that there is no best policy in what are often second-best situations.

Glaeser and Gyourko (2008) refine Apgar's conclusions about the appropriate use of supply-side subsidies in their discussion of federal housing policy reform in the United States. They criticize such supply programs as the Low-Income Housing Tax Credit, noting that a large part of the benefits is absorbed by developers. For Glaeser and Gyourko, demand-side subsidies have performed better, but they take into account concerns about the impact on nonsubsidized households in supply-restricted markets. In this context, they suggest that "the best case for subsidizing new construction occurs in constrained markets where demand is high and local economies are strong". This may describe the situation in many developing country cities experiencing rapid growth; however, the scale of housing requirements for low-income groups and the scarcity of resources have usually resulted in limited, costly, poorly targeted programs operating on a national scale across different market conditions. Even where supply-side subsidies for new construction may be justified, improvements in housing sector performance still require the more difficult task of addressing supply constraints.

Public construction of rental housing in developing countries has not been extensive, with a few notable exceptions (for example, China, Singapore, and Hong Kong SAR, China). Even less common is the provision of rental allowances, which are administratively more complex and require a supply-responsive private rental system.[22] Instead, assistance has tended to be supply-driven, with a focus on new construction and financing of units for sale at discounted prices and with subsidized financing. Public housing models have generally been limited in scale in most countries due to resource constraints. While smaller in scale, they have generally suffered from being costly, inappropriately located, and poorly targeted.

Singapore's and Hong Kong SAR, China's, experiences eliminating slums through massive public housing interventions are not easy to replicate in developing countries. These programs benefited from a robust financing system, total control of land supply, and healthy growth of their economies and incomes. However, no country has resolved the slum issue without some form of public intervention on the supply side. While upgrading is generally accepted as an appropriate and less costly supply-side intervention than direct provision of housing, it remains a largely remedial solution to the immediate problems confronting informal development. For this reason, policy makers often see upgrading as an endless process of catching up with informal housing development. It is more costly than servicing land prior to development and an insufficient response on its own. Interventions need to be upgraded within the context of an overall effort to address property rights, land regulation, and infrastructure deficiencies.

With growing emphasis on privatization and deregulation, there has been a general reduction in the scope and funding of public housing programs. At the same time, fiscal constraints have encouraged both developed and developing countries to use the planning process to require that private developers incorporate affordable housing under certain conditions. In Europe, these requirements are justified as a means of recapturing the increment in land value created by the planning approval process. The programs are often complemented by a number of incentives, such as density bonuses and faster approval processes, or they can allow buyouts in cash or in kind to be used for low-income housing. Variants of such programs include "inclusionary zoning" in the United States, Section 106 housing in the United Kingdom, and the imposition of quotas for low-income housing in privately developed sites in China and India. The programs are attractive to policy makers as a means of providing housing with minimal public investment. An additional advantage is that, unlike traditional public housing programs, they allow a greater mix of incomes in different neighborhoods. They are seen as an alternative model to traditional public housing, which generally traps the poor in their own neighborhoods.

Evidence of the success of these programs in meeting affordable housing demand is limited. Even though inclusionary zoning programs have operated in the United States since the 1970s, their performance is difficult to evaluate given their variability across jurisdictions. A study by Schuetz, Meltzer, and Been (2007) indicates that affordable housing through inclusionary zoning accounted for about 2.3 percent of total production in the San Francisco Bay Area over a 28-year period. It represented a small fraction of total housing produced by other supply-driven programs, such as the Low-Income Housing Tax Credit. In short, it is not, nor does it intend to be, a substitute for other public subsidies to achieve affordable housing objectives.

In the United Kingdom, Section 106 of the Town and Planning Act of 1990 allows localities to negotiate the incorporation of affordable housing as a condition of the planning approval process. These are site-by-site agreements based on general guidelines, not blanket requirements across all private residential development projects. The planning obligations under Section 106 have produced less than half of annual affordable housing requirements.[23] However, a government report indicates that the vast majority of Section 106 housing entails additional subsidies and has not resolved the shortfall in public resources.[24] Moreover, some analysts have suggested that the protracted negotiations and requirements of planning obligations might have contributed to the slowdown in overall housing supply.[25]

In India, mandatory requirements to set aside 25 percent of all new development projects for affordable housing production are considered not only a less costly alternative to direct public provision but also a means of accommodating existing slum dwellers and stemming the flow of informal housing. The incentives to developers include access to land and greater density allowances. However, their potential to alleviate or prevent slum conditions is hampered by limited formal production and the inherent weaknesses of mandatory cross-subsidy schemes that tax higher income housing or landowners in already restricted markets.

These public-private arrangements are not a panacea and are less effective when market conditions are poor. They present opportunities to capture surpluses that arise from government action in planning for the benefit of the community, but their potential for delivering affordable housing should not be overstated.

Housing finance

With financial liberalization, the availability of mortgage finance has grown in developing countries. China and India have seen their housing finance systems expand at impressive rates, starting from a low base. A few middle-income countries have seen mortgage debt rise to 20–35 percent of GDP. As notable as the growth has been in a few countries, housing finance is still limited in size and reach, accounting for barely 10 percent of GDP on average. In most developing countries, a significant majority of households still do not qualify for market rate mortgages to purchase formal sector housing.

Expansion of finance has improved housing affordability in a number of countries, particularly for middle-income groups. The Chilean case and similar programs in Costa Rica highlight the importance of finance in stimulating private housing supply for middle- and lower middle-income groups. Bertaud (2010) credits Thailand's housing finance system with facilitating a rapid increase in affordable housing production by the private sector in the 1980s. He emphasizes that Bangkok's more flexible land and housing development standards would not have been sufficient to increase the supply of affordable housing without the availability of finance through the National Housing Bank.

Governments have attempted to make housing loans more affordable through a variety of on- and off-budget instruments, such as subsidized loans; lump-sum grants to buy down the interest rate or toward down payments on the price of the house; and preferential tax treatment for mortgages.[26] Governments also tend to focus their support to mortgage lending for new housing, ignoring the existing stock, which normally accounts for the majority of transactions. Despite many of the government measures to expand access to finance, the informality of housing and employment in many developing countries necessarily limits the reach of mortgage finance systems. Guarantee programs to encourage banks to lend to low-income groups have been introduced in some countries and are being considered in India. Morocco has established such a program, FOGARIM, as part of its sector reform to encourage access to market finance for lower income households, including beneficiaries of its national slum-upgrading program. FOGARIM awarded guarantees for 34,600 market rate mortgages over 2003–08. However, by 2010 participating banks began to reduce their lending as arrears were mounting, reaching 27 percent in some of the country's poorer regions. While the arrears may be attributed to lax underwriting practices, the significant 50 percent increase in the prices of eligible units due to real sector constraints also contributed to the decline in lending.

While reforms to expand housing finance are critical as urbanization progresses, they must be placed in the appropriate sequence and housing market context. In the absence of measures to address the real sector issues that shape the responsiveness of the housing supply system, the expansion of finance and subsidies may exacerbate existing imbalances. As Buckley and Mathema (2007) note in their study of Accra's highly distorted housing market, "just improving access to formal housing finance without making housing supply more elastic will fuel further price increases in the already expensive and inelastic housing market." Moreover, reforms to expand access are usually not sufficient for the mortgage market to function at scale, simply because real sector supply-side constraints result in fewer eligible houses to finance. Thus, despite East Asia's more developed housing finance systems and favorable credit conditions, the expansion of finance is constrained by land supply rigidities and urban development regulations, which cause housing prices to rise faster than household incomes.[27]

As mortgage finance systems in most developing countries still fund a small share of overall housing transactions and have limited coverage of middle-income groups, it is unrealistic and unwise to expect them to begin lending on a broad scale to the lowest income groups. The more critical priorities in this context are to address the land and infrastructure issues that limit housing supply while ensuring that private resources can be leveraged to expand access to mortgage finance for middle-income groups.

Factors affecting supply

Ensuring adequate supply is the main housing challenge in developing countries undergoing rapid urbanization. At the same time, most distortions in the housing systems of developing countries are found on the supply side. Even where there are few market distortions, housing supply is not like the production of cars or washing machines. At a minimum, it requires a longer lead time and tends to respond more slowly to increased demand in the short term. It also depends on the availability of serviced land, which in itself is not elastically supplied, and requires planning, organization, and funding. Land market distortions, inappropriate standards, a lack of infrastructure, and cumbersome and costly permitting processes can further slow the availability of developable land and the pace of housing construction. Filtering the existing stock of units from higher to lower income households is a long-term process that cannot be counted on to provide an adequate supply during periods of high demand and increased prices.[28] At the same time, the filtering process in the existing stock is often slowed by such regulations as rent and eviction control, which limit the mobility of households.

Many countries have focused their support for improving housing affordability through demand-side policy interventions in the form of improvements in property rights, direct subsidies, tax exemptions, and support to increase housing finance affordability. There has been less emphasis on supply-side processes to encourage a more flexible response that adjusts to changing economic demands in cities. Interestingly, the UK Treasury commissioned a study to explore the causes of sluggish housing supply, which had fallen below the rate of new household formation in the 1990s. The report identified the need for better informed and more flexible land use planning and regulations to ensure a more responsive supply system. It also highlighted how the lack or inadequacy of infrastructure was preventing or delaying construction even in the country's most affluent regions, adding to the affordability and supply problem.[29] While the context and policy environment are different, the supply constraints are very similar to those faced by rapidly growing cities in developing countries.

The supply of serviced developable land

The shortage of serviced developable land is perhaps the most important obstacle to increased formal housing supply. The limited supply of serviced land tends to drive up urban land prices and encourage developers to serve the high-end market, where profits can be maximized. At the same time, remedial action to deliver services to informally built-up areas is estimated to be three to seven times more costly than providing infrastructure for new development, draining public resources that could otherwise be spent more efficiently on increasing the overall supply of services.[30]

Many cities, when confronted with the costs or pressures of additional development, have imposed restrictions. Faced with inadequate infrastructure, Indian cities have maintained uniformly low floor-area ratios (FARs) to limit building heights in central locations—rather than increase investment in services—and to mobilize resources either through property taxes or impact fees to pay for them. Bertaud and Brueckner's (2003) study of the impact of uniform FARs in central Bangalore indicates that the city is about 32 square kilometers larger in area because of the FAR restriction, an amount equal to 17 percent of the built-up areas. So it is not clear how much real savings in infrastructure investment this policy has achieved. As they emphasize, "in major Indian cities like Mumbai, Delhi, or Bangalore, consuming more land to save on infrastructure investment is a bad bargain".

Infrastructure shortcomings translate into higher rates of informal housing in developing countries. Few cities take on the task of preparing for growth by securing public rights of way and making the necessary infrastructure investments. This can be seen not only in the rapidly growing cities of Africa and South Asia but also in middle-income, highly urbanized countries with growing economies, like Brazil, where housing production has continued to outpace the infrastructure supply. Dowall (2006) suggests that Brazil's informal housing (defined as housing lacking in infrastructure) can be expected to rise from 23 percent in 2000 to 35 percent by 2030, if infrastructure and housing production trends continue.

International experience indicates that cities' productivity and livability is enhanced by infrastructure investments that can accommodate population growth. Bertaud's (2010) review of Korean urban development policy describes the massive government investment in infrastructure and intervention in urban land development. The initial objective was to ensure an adequate supply of serviced land to support industrial productivity, not to deal with the shantytowns that made up more than a third of Seoul's housing stock in the 1960s. The Republic of Korea's interventions to provide high-quality servicing of large quantities of land early in its urban transition allowed it to rapidly absorb a large influx of households with increasingly better living conditions.

In their study of Indian housing markets, Annez and others (2010) point to the experiences of Bangkok, Seoul, and Hong Kong SAR, China, noting that they significantly improved housing conditions and reduced the percentage of slum households by focusing on developing infrastructure to increase effective land supply and allow more intensive use of urban land. Tunisia is another interesting example in this regard. Its national upgrading program has been justifiably praised for its contribution to the dramatic decline in slum housing from 23 percent in 1975 to 2 percent in 1995. The program's success, however, would not have been possible without the simultaneous massive investment in water and sewer trunk infrastructure by the national utilities. As a result, coverage of existing informal settlements through upgrading was made possible, and additional land was opened up for further development. This contrasts with the situation in most Indian cities, where the inadequacy of existing infrastructure systems limits reform of land use regulations to allow more appropriate and less costly development and reduces their capacity to scale up service delivery in slum areas.

Government intervention to increase the supply of serviced land has varied, and there does not appear to be a single model for success. Bertaud's (2010) case studies of Asian cities provide examples of contrasting strategies, none of which is perfect but all of which contributed to ensuring an adequate supply of serviced land for housing development for a range of income groups. The Republic of Korea exemplifies strong state intervention, carrying out land readjustment schemes that initially allowed it to service land on a self-financing basis and that affected about 35 percent of the land in Seoul. Bangkok's more laissez-faire approach of extremely flexible development standards attracted private investment in affordable housing in centrally located areas.

Among the many reasons for the inadequacy of serviced land supply are weak fiscal and financial performance, inappropriate regulatory norms, and poor planning practices that distort requirements for the planning and provision of infrastructure. Compounding the problem are the weak incentives and diffuse accountabilities for service provision and financing across levels of government, land, and infrastructure institutions. In many instances, city governments bear the costs of development without the capacity to capture the benefits or much authority to guide development or service provision. While these constraints require longer term institutional changes, there is a renewed interest in tapping various land-based instruments to finance infrastructure.

Infrastructure provision significantly influences land values, indicating that cities could capitalize on the increased value through effective property taxation, development impact charges, development exactions, and other land-based instruments to finance service delivery. If, in the past, responsibility for infrastructure provision by developers was limited to on-site services, fiscal pressures have encouraged cities in the United States and Europe to look for ways to require developers to pay for all or part of the costs of infrastructure for new development through impact fees. A number of countries have successfully used variants of land-based financing instruments to expand service delivery: land readjustment in the Republic of Korea, valorization charges in Colombia, land leasing in Hong Kong SAR, China, and tradable development rights in São Paulo. With the exception of property taxes, these instruments do not provide a steady stream of income, but they nonetheless have allowed many cities to fund large investments in infrastructure in the absence of other sources of finance.

Land and housing regulations

Regulations, in principle, deal with externalities and correct for market failures. Henderson (2007) provides a useful description of the types and purposes of regulations, which can be summarized as follows:

- Land use planning, which segments land uses to ensure that incompatible activities are kept separate.
- Density and open-space regulations, (including minimum lot size, set-back and frontage standards, height restrictions, and land set-aside standards), which deal with neighborhood crowding or congestion, ensure sufficient open space, and regulate how buildings impede each other's view and access to sunlight.
- Developer requirements to ensure adequate services so developers do not "free-ride" off public services, such as in strip development.
- Construction regulations to set minimum quality and safety standards to help with asymmetric information problems.
- Environmental and health standards.

Given these broad objectives and powers of enforcement, government interventions through the regulatory process exert a significant influence on housing costs and housing market performance. Regulations tend to be easier to impose, without much attention paid to their consequences, and difficult to reverse. In most developing countries, these interventions are likely to have a greater impact on housing outcomes for a significantly larger share of the population than is direct public investment in housing or upgrading of slums. Also, almost any system of land use planning is likely to restrict supply and affect low-income groups more than other segments of the population. By the same token, a totally unregulated system also disadvantages lower income groups, as they have to compete for land in the same locations as more affluent groups. The issue in practice is not to do away with regulation and planning, as unplanned development implies large costs borne by both the city and its inhabitants. Instead, there is a need to review the extent to which supply is restricted and whether these restrictions cause significant price distortions or welfare effects.

The overall net welfare effects of regulations can be either positive or negative. Angel's (2011) study of urban expansion emphasizes the cost of minimal regulation and not planning for growth in developing country cities. He describes how Bangkok was once considered a model of efficient land and housing markets, with its flexible and minimal regulations that allowed the private sector to build affordable housing for a large segment of the low-income population. The city's failure to keep up with private building activity by ensuring space for an adequate system of secondary roads and securing public rights of way resulted in high welfare costs from severe congestion and pollution.

Most studies of regulations have focused on their negative impacts. Cheshire and Sheppard's (2002) study of the welfare impacts of planning regulations indicates that the supply restrictions imposed by both the greenbelt boundary and the amount of land zoned for residential development in Reading, UK, are equivalent to a 4 percent income tax. While they do not argue for a removal of regulations, they suggest that relaxing the restrictions, particularly pushing out the greenbelt boundary, would have a positive welfare effect. Similarly, analysis by Bertaud and Brueckner (2003) indicates that restrictions imposed by a low uniform FAR in central areas of Bangalore result in a welfare loss of 3–6 percent of income in additional commuting costs from suburban areas. At the same time, the draconian FAR regulations limit the financial viability of redeveloping accessible central city locations where older structures were built to much higher FAR values. FAR limits, while not inherently problematic, should fit the market context and the locations where they are applied and serve as a guide rather than as a binding constraint. Moreover, once values are set, they must be periodically reviewed and adjusted to reflect changing demand in different locations, and infrastructure adjustments can then be made accordingly.

Regulations can affect the pace and affordability of housing supply through a variety of means. They can exclude low-income groups if consumption standards (minimum lot sizes, height restrictions, and so on) are set at levels significantly beyond what this population can afford. Often not recognized in setting minimum standards at such levels is that, in the absence of subsidies, low-income groups will be forced to double up or find informal housing. At the same time, restrictive standards that limit supply and increase prices drive up the number and size of households requiring subsidies, which makes it difficult for governments to develop sustainable or equitable subsidy policies.

Regulations also affect construction costs by creating lengthy approval processes, driving formal developers to focus on the high-end market, where profits are more certain, or to the informal sector, where approvals and authorizations are ignored. The time required to obtain permits and the associated uncertainty of the process result in higher transaction costs and fewer transactions. Mayer and Somerville's (2000) study of U.S. regulations estimates that a metropolitan area with a 4.5-month delay in approval and two different types of growth-control restrictions would have about 45 percent less construction than a metropolitan area with a 1.5-month delay and no growth management policy. Similar studies on the impact of approval delays have not been undertaken for developing countries, but the average time for approval of construction permits, according to Doing Business surveys, is about 7 months, ranging from 5 months in the Middle East and North Africa to 8 months in South Asia. These averages measure the time required to go through the processes, so they probably understate the actual time it takes to obtain approvals.

The impact of regulations on supply

The impact of regulatory standards on affordable housing supply is a widely recognized, if rarely acted on, constraint in developing countries. Analysis of housing programs in Malaysia in the 1990s demonstrated that regulations discourage private developers from serving the low-income market. Even where developers received substantial subsidies through low-cost land and reduced infrastructure standards, the subsidies were outweighed by the costs of subdivision regulations and pricing restrictions imposed by the program. Under these circumstances, developers were willing to participate in programs for low-income housing only in exchange for easing of planning approvals on other sites.[31] Yet, Bertaud and Malpezzi's (2001) analysis of site development standards (FAR and percentage of developable land) in Malaysia suggests that if restrictions on construction and roads were eased to increase salable land to 55 percent of the developable land, this would double developers' profitability ratio and provide sufficient incentives to shift their activities to the lower income market. Similar analysis of the impacts of restrictive density standards in Brazil also indicates that relaxing standards would reduce costs for informal land developers. However, attracting these developers to the formal housing market in Brazilian cities requires further reductions in titling and infrastructure development costs.

The impact of land use regulations on housing supply and prices in developed countries has been studied extensively in the economic literature. Glaeser and Gyourko's (2003) review of the relationship between zoning regulations and housing supply in many U.S. cities suggests that heavily regulated cities have both lower levels of construction and higher prices. Similarly, their study of New York City attributes the high cost of housing to regulatory restrictions on building heights, which resulted in lower construction levels. Glaeser, Gyourko, and Saks (2005a) take the arguments on regulation further in their study of housing and urban growth. They suggest that cities with restrictive regulatory regimes are less able to absorb demand arising from increased productivity. In such cities, growing demand as a result of productivity increases translates into higher prices and less output. This implies that severe restrictions on housing production in cities experiencing high demand may ultimately push growth out to other areas, which may not be as productive.

Although the literature may overstate the impacts of regulations on prices in cities experiencing high demand, or productivity increases, it nonetheless persuasively argues that restrictive regulations contribute to high housing prices and less supply. The main weakness is that it does not identify the impact of specific regulations in specific contexts. Bertaud (2010) notes that "the problem is not so much whether cities are overregulated or underregulated but rather what the regulated value of specific parameters is and how distorting these values are in the economic context of a specific city." The differential impacts of restrictive uniform FAR regulations, for example, are evident in studies of Mumbai and Chennai. In Mumbai, FAR restrictions have contributed to very high real estate prices. However, Dowall and Monkkonen's (2007) analysis of Chennai's land markets indicates that despite having similar restrictions on the books, construction and land prices reflect patterns found in less regulated cities.

Regulations and informality

Studies on the impact of regulations on informality highlight the dynamics between formal and informal sectors. The fact that the informal sector largely ignores regulations does not mean that it is not affected by them. To a large extent, it owes its creation to the restrictions imposed but not universally enforced by the formal sector. As Bertaud (2010) notes, "the boundary between the formal and informal systems is set entirely by regulations and the level of transactions costs required to pass from the informal to the formal system." The link between the two sectors argues against designing policies and interventions that focus exclusively on the informal sector.

Several studies have been undertaken in Latin America analyzing the relationship between regulations and the growth of the informal sector. Most of the studies confirm the regulatory link between formal and informal sectors described by Bertaud. The assumption is that regulatory restrictions that limit formal supply result in higher rates of informality. Rather than paying the higher price in the formal sector, lower income groups resort to the informal sector where supply is more elastic but where services and secure tenure might be lacking. However, informality is not synonymous with poverty, particularly in middle- and lower middle-income countries, where informally developed settlements are often undertaken on the outskirts of cities by private land and housing developers. While these settlements may be unauthorized and lacking in services, they differ from squatter areas where land is illegally occupied.

Goytia, de Mendoza, and Pasquini (2010) analyze the impacts of regulation (using different indexes for regulation) on the informality of tenure in Argentina's major cities. Their study analyzes ways that regulations affect formal supply, but their most robust results are for regulations that specify minimum consumption levels (that is, the amount of housing that can be built and other quantitative regulations, such as minimum lot sizes, building heights, and open-space requirements). Not surprisingly, they find that the more regulated cities have higher rates of informality. And more specifically, their analysis suggests that cities that have incorporated land use plans into their regulatory or legal frameworks are more likely to have larger informal sectors. This finding seems to argue against planning regulations in general, but the authors suggest that it may simply reflect the effect of "minimum consumption" standards, enforced through legally binding land use plans. The enforcement of these plans presumably results in higher levels of informality for households that cannot afford to comply with formal standards. The authors also find that long, expensive approval processes reduce tenure formality, underscoring the need for their simplification.

Souza (2009) looks at regulation's impact on prices in the formal sector and the development of the informal sector in Curitiba. Her study is one of the few that takes into account spatial factors in analyzing informal development. The results of her analysis suggest that more restrictive land use regulations, which increase formal housing prices in one area, push households into the informal sector but in more distant peripheral locations.

Henderson (2007) takes a somewhat different view of regulatory impacts. He argues that because direct regulations are largely ignored by the informal sector, Brazilian cities attempted to control informality in the 1980s by denying services to informal settlements—a practice not unique to Brazilian cities. The Brazilian law establishing minimum plot sizes made it illegal for cities to provide services to areas that did not comply with these requirements. His analysis suggests that wealthier cities experiencing high migration rates had a greater tendency to deny services in an effort to control migration and informal development. Interestingly, this analysis does not isolate the increase in informality from the larger context of urban growth and the political economy of managing growth.

Concluding remarks

This paper has examined the building blocks of housing systems and the debates around these instruments. It has noted the efforts to improve demand-side policies and the challenges on the supply side, which have received less emphasis in practice. The search for the right enabling policies, the correct sequencing and emphasis on a universal set of dos and don'ts to enabling markets, overlooks the fact that housing markets are fundamentally local. There is no one-size-fits-all workable solution or set of optimal policy prescriptions and interventions. Rather than models for how markets should perform, cities need to better understand and monitor local market dynamics, processes of supply and demand, the formal and informal markets, and the stock and flow of housing if they are to formulate adequate policies and design appropriate interventions.

The recognition of the impacts of land regulations and policy on housing supply is not new. However, the debate on how to move forward has not advanced much in practical terms. In some cities, we are a long way from understanding the impacts of different regulations and the tradeoffs involved. Evidence that regulations tend to affect the choices of the poor more adversely, or that they result in greater informality, should not detract from their wider impacts on housing supply across broad segments of the market. In some ways, we have come full circle to the early concerns of urban projects, which focused on servicing land, planning processes to improve housing affordability and supply, and revision (not removal) of land regulations. These concerns were fragmented and limited to specific sites. They tended to ignore city-level outcomes and policies. However, they are now echoed more widely at the city level as issues deserving greater policy attention and intervention to improve overall housing and land market performance.

Finally, there is a need to develop a much longer term and wider perspective when assessing housing policies and interventions. There has been a frequent tendency to write off different interventions and expect high paybacks in a short period of time. Yet developing countries that have dealt with housing successfully have done so through a sustained commitment over a long time. Two vastly different approaches in Chile and Singapore underscore the need for a comprehensive framework focused on improving housing affordability across a broad spectrum of the population. The Chilean experience had a fairly lengthy process of public intervention, adjustments, and revisions to achieve a policy aimed at ensuring better housing outcomes for a large segment of the population. Similarly, Singapore's very different housing strategy, which relied on significant public investment and control, also underwent adjustments and revisions in programs and policy over many years.

Notes

[1] While the Republic of Korea viewed housing as a nonproductive sector and did not intervene directly in building housing in the early period of urbanization in the 1960s, it intervened quite heavily in land development. In the late 1970s, it began to intervene in the housing sector and had one of the more regulated housing development and finance systems.
[2] World Bank 2010.
[3] World Bank 2009.
[4] World Bank 2009.
[5] Tsenkova and Turner 2005.
[6] Biderman 2008.
[7] Razzaz 1992.
[8] Payne, Durand-Lasserve, and Rakodi 2008; Lanjouw and Levy 2004.
[9] Evidence from Brazil suggests that municipalities have a difficult time reconciling and keeping track of the multiple layers of rights through regularization programs and of historical systems of allocation, making for an opaque and even more cumbersome system of land administration.
[10] Payne, Durand-Lasserve, and Rakodi 2008.
[11] Payne, Durand-Lasserve, and Rakodi 2008.
[12] Rojas and Medellin 2011.
[13] The authors suggest that such arrangements may also be common in South Asian cities. There is evidence that similar arrangements existed in the bustees of Calcutta.
[14] Oxley, Lishman, and Brown 2010.
[15] Schuetz 2007.
[16] USAID 2008.
[17] Renaud 2004.
[18] Buckley and Mathema 2007.
[19] Whitehead, Stephens, and Munro 2005.
[20] Ruprah 2010.
[21] The program in Costa Rica that allowed much broader uses of the subsidy to purchase or improve existing units or build new housing had better results in both coverage and leakage. It initially managed to attract private developers, but it functions primarily through the nonprofit sector. However, budget constraints resulted in a reduction in resources available to support the program.
[22] Rent subsidies (*Bolsa Aluguel*) through rental allowances were created to allow a limited number of low-income families to access the private rental market in São Paulo. However, rental ceilings were set below available market rental rates, and the subsidy levels required were significant.
[23] Whitehead 2011.
[24] Whitehead, Stephens, and Munro 2005.
[25] ODPM 2005.
[26] For a comprehensive review of housing finance, including subsidies related to housing finance, see Chiquier and Lea (2009).
[27] Chiquier 2006.
[28] Filtering has not been studied in developing countries. An early study by Ferchiou (1988) of Mexico and Tunisia indicated that filtering was limited, with very short moving chains.
[29] Barker 2004.
[30] Biderman and Smolka 2011.
[31] Hannah 1989.

References

Angel, Shlomo. 2011. "Making Room for a Planet of Cities." Policy Focus Report PF027. Lincoln Institute of Land Policy, Cambridge, MA.

Annez, Patricia, Alain Bertaud, Bimal Patel, and V.K. Phatak. 2010. "Working with the Market: Approach to Reducing Urban Slums in India." Policy Research Working Paper 5475. World Bank, Washington, DC.

Apgar, William C., Jr. 1990. "Which Housing Policy Is Best?" *Housing Policy Debate* 1 (1): 1–32.

Arnott, Richard. 1995. "Time for Revisionism on Rent Control?" *Journal of Economic Perspectives* 9 (1): 99–120.

Barker, Kate. 2004. "Review of Housing Supply." Final Report. HMSO, London.

Bertaud, Alain. 1989. *The Regulatory Environment of Urban Land in Indonesia: Constraints Imposed on The Poor and Impact of World Bank's Urban Projects*. Washington, DC: World Bank.

———. 2010. "Land Markets, Government Intervention and Housing Affordability." Working Paper 18. Brookings Institute, Washington, DC.

Bertaud, Alain, and Jan Brueckner. 2003. "Analyzing Building Height Restrictions: Predicted Impacts, Welfare Costs, and a Case Study of Bangalore, India." Policy Research Working Paper 3290. World Bank, Washington, DC.

Bertaud, Alain, and Stephen Malpezzi. 2001. "Measuring the Costs and Benefits of Urban Land Use Regulation: A Simple Model with an Application to Malaysia." *Journal of Housing Economics* 10 (3): 393–418.

Biderman, Ciro, and Martim Smolka. 2011. "Housing Informality: An Economist's Perspective on Urban Planning." Working Paper WP11MS2. Lincoln Institute of Land Policy, Cambridge, MA.

Buckley, Robert, and Jerry Kalarickal. 2005. "Housing Policy in Developing Countries: Conjectures and Refutations." *The World Bank Research Observer* 20 (2): 233–57.

Buckley, Robert, and Jerry Kalarikcal, eds. 2006. *Thirty Years of World Bank Shelter Lending: What Have We Learned?* Washington, DC: World Bank.

Buckley, Robert, and Ashna S. Mathema. 2007. "Is Accra a Superstar City?" Policy Research Working Paper 4453. World Bank, Washington DC.

Cheshire, Paul, and Stephen Sheppard. 2002. "Welfare Economics of Land Use Regulation." *Journal of Urban Economics* 52: 242–69.

Chiquier, Loic. 2006. *Housing Finance in East Asia*. Washington, DC: World Bank.

Chiquier, Loic, and Michael Lea, eds. 2009. *Housing Finance in Emerging Markets*. Washington, DC: World Bank.

De Soto, Hernando. 2000. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. New York: Basic Books.

Doebele, William. 1978. “Selected Issues in Urban Land Tenure.” In *Urban Land Policies: Issues and Opportunities, vol. I.* Washington, DC: World Bank.

Dowall, David. 2006. “Brazil’s Urban Land and Housing Markets: How Well Are They Working?” In *Brazil Inputs for an Urban Strategy, vol. II.* Washington, DC: World Bank,

Dowall, David, and Paavo Monkkonen. 2007. “Chennai Urban Land Market Assessment.” Working Paper 2007-02. South Asia Urban Development, World Bank, Washington, DC.

Duebel, Hans-Joachim. 2007. “Impact of Rent Control and Rental Housing Reforms.” In *A Roadmap for Housing Policy Reform in Egypt*, prepared by Sameh Wahba, Marja Hoek-Smit, Catherine Lynch, Sally Merrill, Hans-Joachim Duebel, and David Sims. Washington, DC: World Bank.

Durand-Lasserve, Alain, and Harris Selod. 2007. “The Formalisation of Urban Land Tenure in Developing Countries.” Paper presented at the World Bank Urban Research Symposium, Washington, DC, May 14–16.

Fay, Marianne. 2004. *The Urban Poor in Latin America*. Washington, DC: World Bank.

Ferchiou, Ridha. 1982. “The Indirect Effects of New Housing Construction in Developing Countries.” *Urban Studies* 19 (2): 167–76

Gilbert, Alan. 2003. *Rental Housing: An Essential Option for the Urban Poor in Developing Countries*. Nairobi: United Nations Human Settlements Programme.

Glaeser, Edward L., and Joseph Gyourko. 2003. “The Impact of Building Restrictions on Housing Affordability, Policies to Promote Affordable Housing.” *Economic Policy Review* 9 (2): 21–39.

———. 2008. *Rethinking Federal Housing Policy How to Make Housing Plentiful and Affordable.* Washington, DC: American Enterprise Institute for Public Policy.

Glaeser, Edward L., Joseph Gyourko, and Raven Saks. 2005a. “Urban Growth and Housing Supply.” Discussion Paper 2062. Harvard Institute of Economic Research, Cambridge, MA.

———. 2005b. “Why is Manhattan so Expensive? Regulation and the Rise in Housing Prices.” *Journal of Law and Economics* 48 (2): 331–69.

Goytia, Cynthia, Cecilia de Mendoza, and Ricardo Pasquini. 2010. “Land Regulation in the Urban Agglomerates of Argentina and its Relationship with Households’ Residential Tenure Condition.” Working Paper WP10CC1. Lincoln Institute of Land Policy, Cambridge, MA.

Gulyani, Sumila, and Ellen M. Bassett. 2007. “Retrieving the Baby from the Bathwater: Slum Upgrading in Sub-Saharan Africa.” *Environment and Planning C: Government and Policy* 25 (4): 486–515.

Gulyani, Sumila, and Debabrata Talukdar. 2008. “Slum Real Estate: The Low-Quality High-Price Puzzle in Nairobi’s Slum Rental Market and its Implications for Theory and Practice.” *World Development* 36 (10): 1916–37

Hannah, Lawrence. 1989. “Getting the Incentives Right.” *Urban Notes* 1 (1). Washington, DC: World Bank.

Henderson, J. Vernon. 2007. “The Effect of Residential Land Market Regulations on Urban Welfare.” Paper presented at the World Bank Urban Research Symposium, Washington, DC, May 14–16.

Lanjouw, Jean, and Philip Levy. 2004. “A Difficult Question in Deed: A Cost-Benefit Framework for Titling Programs.” *William and Mary Law Review* 45 (3): 889–951.

Malpezzi, Stephen, and Gwendolyn Ball. 1991. “Rent Control in Developing Countries.” Discussion Paper 129. World Bank, Washington, DC.

Martine, George, and Gordon McGranahan. 2010. “Brazil’s Early Urban Transition: What Can It Teach Urbanizing Countries?” International Institute for Environment and Development, London.

Mayer, Christopher J., and C. Tsuriel Somerville. 2000. “Land Use Regulation and New Construction.” *Regional Science and Urban Economics* 30 (6): 639–62.

Mayo, Stephen, Anna Hardman, and Stephen Malpezzi. 1995. “Egypt Rent Regulation Reform Study for the Arab Republic of Egypt.” World Bank, Washington, DC.

ODPM (Office of the Deputy Prime Minister. 2005. *Sustainable Communities: Homes for All: A Five Year Plan from the Office of the Deputy Prime Minister.* London: Crown.

Oxley, Michael, Ross Lishman, and Tim Brown. 2010. “Promoting Investment in Private Rented Housing Supply: International Policy Comparisons.” Department for Communities and Local Government, London.

Payne, Geoffrey, Alain Durand-Lasserve, and Carole Rakodi. 2008. “*Social and Economic Impacts of Land Titling Programmes in Urban and Peri-Urban Areas: International Experience and Case Studies of Senegal and South Africa*.” Final report submitted to Ministry of Foreign Affairs, Government of Norway; Swedish International Development Agency (SIDA); Global Land Tools Network in UN-Habitat.

Razzaz, Omar. 1992. *Contestation and Mutual Adjustment: The Process of Controlling Land in Yajouz/Jordan.* Cambridge, MA: MIT Press.

Razzaz, Omar, and Ahmed Galal. 2001. “Reforming Land and Real Estate Markets.” Policy Research Working Paper 2616. World Bank, Washington, DC.

Renaud, Bertrand. 2004. “Permanence and Change: East Asian Housing Policies after Fifty Years.” Conference paper for the International Housing Conference in Hong Kong, “Housing in the 21st Century: Challenges and Commitments,” Hong Kong, February 2–4.

Rojas, Eduardo, and Nadine Medellin. 2011. “Housing Policy Matters for the Poor: Housing Conditions in Latin America and the Caribbean, 1995–2006.” Working Paper Series IDB-WP-289. Inter-American Development Bank, Washington, DC.

Ruprah, Inder 2010. “The Transparency, Incidence, and Targeting Efficiency of Housing Programs in Latin America.” Working Paper OVE/WP-04/10. Inter-American Development Bank, Washington, DC.

Schuetz, Jenny. 2007. “Land Use Regulation and the Rental Housing Market: A Case Study of Massachusetts Communities.” Joint Center of Housing Studies of Harvard University, Cambridge, MA.

Schuetz, Jenny, Rachel Meltzer, and Vicki Been. 2007. *The Effects of Inclusionary Zoning on Local Housing Markets: Lessons from the San Francisco, Washington, DC, and Suburban Boston Areas.* New York: New York University Press.

Souza, Maria Teresa. 2009. “The Effect of Land Use Regulation on Housing Price and Informality: a Model Applied to Curitiba, Brazil.” Working Paper WP09MS1. Lincoln Institute of Land Policy, Cambridge, MA.

Tsenkova, Sasha, and Bengt Turner. 2004. *The Future of Social Housing in Eastern Europe: Reforms in Latvia and the Ukraine. European Journal of Housing Policy* 4 (2): 133–49.

USAID (United States Agency for International Development). 2008. “Housing Study for Urban Egypt: Final.” Technical Assistance for Policy Reform (TAPR II). Washington, DC.

Whitehead, Christine. 2011. “Housing & Planning Policy: Making Housing Affordable.” CASE Themed Series. London School of Economics, London.

Whitehead, Christine, Mark Stephens, and Moira Munro. 2005. “Lessons from the Past, Challenges for the Future for Housing Policy: An Evaluation of English Housing Policy 1975–2000.” Office of the Deputy Prime Minister, London.

World Bank. 2009. *World Development Report 2009: Reshaping Economic Geography*. Washington, DC.

———. 2010. *Systems of Cities: Harnessing the Potential of Urbanization for Growth and Poverty Alleviation.* Washington, DC.