

Creating Housing Markets in Emerging Market Economies

By Cleo Rose Innes and Brian Casabianca

At the beginning of the 20th century less than 15 percent of people across the globe lived in cities. This figure has risen to 50 percent (4.4 billion people) today and will exceed 66 percent (7.7 billion) by 2050.¹ There is a significant shortfall of housing to meet the needs of people moving to cities, most of whom have limited resources but strong hopes for better educational and employment opportunities. Direct public provision of housing is not affordable for most national governments, so more than 1.6 billion people will struggle to secure housing by 2025. Addressing this under-provision of housing will require connecting capital with low-income urbanizing populations, including solutions to make the private sector more responsive to the investment opportunities that urbanization presents.

The large proportion of the global population that lacks adequate housing has a poorer quality of life as well as lower prospects for work, education, good health, and personal safety.

Not only does the housing sector play a key role in progress toward multiple Sustainable Development Goals (Figure 1), it plays a vital economic role through its impact on incomes, productivity, and savings.



FIGURE 1 Housing Supports Multiple Sustainable Development Goals

Source: IFC.

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Residential construction is a significant contributor to growth and job creation and supports additional employment through linkages to related sectors.

Housing owners can use their assets to create their own employment or additional income when their homes serve as shops, workshops, or rental accommodation. Homes are more than places of safety, wellbeing, and wealth accumulation (as property values increase); they can also serve as productive assets. Homes that serve as collateral enable access to credit.

Lessons from Experience

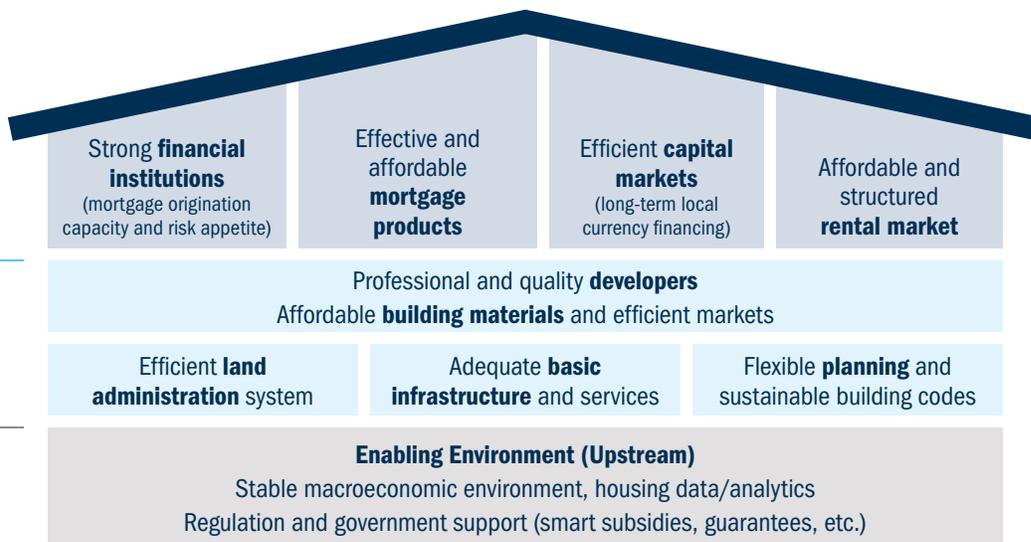
The housing sector is a complex system of many interdependent elements across multiple sectors (Figure 2). Creating housing markets requires undoing constraints on multiple markets and institutional structures that compose well-functioning housing markets. These include regulations, infrastructure, construction goods, labor, and housing credit. Creating housing markets also necessitates addressing the bottlenecks that inhibit supply and/or demand along this value chain of linked elements, as illustrated in Figure 3.

Demand

How to improve access to affordable housing



Adequate income levels



Supply

How to improve efficient delivery of affordable housing

Enabling Environment

FIGURE 2 Elements of Housing Markets

Source: IFC.



FIGURE 3 Chain of Interdependent Elements Necessary to Housing Market Development

Source: IFC.

*IFC's Cities initiative develops long-term relationships with mayors, working with them to develop and implement solutions for key urban infrastructure challenges. Client relationship managers coordinate across IFC's investment and advisory services teams, public-private partnerships, and World Bank colleagues to deliver holistic solutions for infrastructure development.

**IFC Upstream can also develop MAS/FIG projects in these highlighted areas of the value chain as long as they are initiatives that will lead to an IFC investment in the next five years.

Addressing these bottlenecks and constraints requires reconciling the needs and interests of the stakeholders in housing market development: governments, investors, and local communities. Furthermore, the interlinkages between these elements make the sequencing and timing of activities particularly important.

Strengthening Supply

The four primary constraints on the supply of housing are:

1. Access to land, urban planning, and building codes
2. Infrastructure services and standards
3. The financial and technical capacity of developers
4. The cost and quality of building materials.

Housing development projects will fail to get off the drawing board where there is contested land tenure or lack of clear title and lien registration. As such, clear ownership rights are critical for housing asset creation and financing. Ongoing engagement between developers and public authorities with respect to planning and building regulations and their implications for zoning and land use is also necessary. Planning is especially important given the necessary linkages of housing to key infrastructure such as roads, water and sanitation, electricity, and solid waste management.

The application of public-private partnerships (PPPs) in the housing sector can be especially valuable in embedding best practices and governing principles in legal, regulatory,

and finance structures. A good PPP project assigns roles and responsibilities at key intervals along the value chain, minimizing the risk of a breakdown in the interdependent and time-sensitive decisions and actions that must occur. IFC's experiences in India provides an illustration (Box 1).

BOX 1 Housing PPPs

IFC served as the PPP transaction advisor to India's Odisha State's extensive program to provide additional housing units for low-income families. This project was one of the first real estate PPPs under the "Real Estate Regulatory Authority Act of 2016" notified by the Government of India, i.e., there was no precedent within Indian law for housing PPPs in real estate that could inform the process.

The project developer was required to design, finance, construct, and hand back 2,600 affordable housing units on approximately 14 acres of land. This was at no cost to the regional development authority. Furthermore, fixed timelines were set. The construction phase had to be completed within three years, with the first 800 units completed and returned to the regional authority within two years.

In return, the concessionaire would be given free hold rights on the balance of 6.5 acres of public land that constituted the project site, with the right to construct a commercial project on that land to recover the investment. The developer was required to address any structural deficiencies within five years of the hand-back, and to create a maintenance account to support ongoing maintenance of the affordable housing units.

The output was significant. All 2,600 affordable housing units were built for families earning less than \$2,800 per year, improving the living conditions of approximately 10,000 people. And \$70 million of private investment was invested in Odisha's affordable housing stock. The development outcome of the engagement was even greater. The bid documents co-authored by IFC were standardized by the Bhubaneswar Development Authority and the Government of Odisha to implement similar PPP projects. Their experience provided confidence that the improved legislative and regulatory requirements had been tested by real-time project implementation. The repeated use of PPPs as one tool in the financing toolkit of Odisha State is evident in a very wide range of other sectors, including more recently the production of solar power in an initiative supported by a World Bank engagement.

The availability of **building materials** that are both affordable and durable is at the center of the value chain. Certified durability of building and construction materials is important to housing credit markets. Homes need to be durable for the mortgages that underpin them to be a viable long-term investment asset class. Steel and concrete have predominated as building materials for much of the twentieth century because they are especially durable. They are also very energy intensive to produce.

Some 17.5 percent of global emissions results from energy use in buildings once they are completed, and the production of iron and steel for industrial purposes, including construction, accounts for a further 7 percent. Reducing these percentages to zero by 2050 will require a shift away from energy sources that produce greenhouse gas emissions, as well as the intensity of energy usage within buildings once they are constructed. Incentives and regulation can trigger demand for increased innovation in construction and design (Box 2).

The cement industry currently produces around 3.5 billion tons of ordinary portland cement (OPC), one of the common cement types, annually and contributes 7 percent of all global CO₂ emissions that result from human activity.² When powdered limestone is heated and combined with other materials to produce clinker, 40 percent of the total weight of that limestone is released as CO₂. Decarbonizing

BOX 2 Incentivizing Green Building

IFC launched a green building design tool and certification system in 2014, Excellence in Design for Greater Efficiencies, or EDGE. This tool is focused on making new residential and commercial buildings more resource efficient. Using the EDGE tool, IFC has helped to develop regulations in Colombia, Costa Rica, Indonesia, Panama, Peru, the Philippines, and Vietnam, as well as development of green building codes and regulations in Indonesia.

IFC also invests directly in green buildings and currently has a portfolio of over \$4 billion in these assets. EDGE certification is available in more than 170 countries through a global network of certifiers. Green buildings represent an investment opportunity of more than \$24.7 trillion in emerging markets by 2030. For more on how investors, developers, building owners, and governments can support the growth of this investment opportunity, see IFC's recent report, *Green Building: A Finance and Policy Blueprint for Emerging Markets (2019)*.

cement production is a priority, and several concepts are under research and development. These include alternative heat generation sources for processing such as biomass, fossil fuel-free electrification, and hydrogen. In addition, carbon capture storage and/or utilization is also being explored, as are changes to clinker ratios and clinker alternatives. Finally, increased material efficiency and the principles of ‘the circular economy’ may suggest some interim solution while new technologies are tested. All of the proposed approaches will require an intensive effort, as they suggest new challenges including the availability of new minerals (for clinker) and changes to material standards and construction processes (for material efficiencies).

A shift away from the use of these materials and greater use of green building materials suggests opportunities for both emissions and cost reductions, while at the same time meeting rising demand for new construction. Alternative construction materials, including mass timber³ and green technologies applied to construction materials,⁴ could be particularly beneficial to countries that rely heavily on imported building materials and confront acute shortages of low-cost housing.⁵ Among the many advantages of using timber or cellulose-based construction materials are that they can be produced locally and are both labor-intensive and carbon-negative to produce. They also provide more scope for factory-based manufacturing of housing, which involves a high level of repetition, increasing efficiency and further lowering the cost of construction.

However, sound forestry management that ensures that the production of timber is sustainable must be established. While enabling carbon sequestration, forests provide a wide range of additional value and ecosystem services including flood prevention, erosion control, and biodiversity. Timber

must be provided from forest growth and not existing forest stock. If not, these valuable attributes will be lost, as will the future of this industry and its economic and related benefits.

Subsidies can play an important role in stimulating a supply or demand response in the housing sector. Experience has shown that the design of housing subsidy schemes needs to be calibrated and targeted. The spillover effects of the use of subsidies highlight the systemic nature of the housing market and its impact on interdependent elements across different sectors. Even the best-designed subsidies will need to factor for the variability inherent in political and economic confidence and stability.

Given the relatively long-term nature of investment in housing production, particularly where elements of market development are missing, there may be long pauses in project development. Developers working in challenging contexts will need affordable **developer finance** and operational expertise to manage uncertainty or instability that could result from macroeconomic or political shocks. Extensive delays could cause investors to withdraw their interest in a project in favor of more attractive investment opportunities elsewhere.

Strengthening Demand

Houses are costly assets that represent several multiples of the purchaser’s annual salary. As a result, the **demand response** for housing is largely driven by the existence of housing credit markets. Mortgage market development is closely linked to overall financial sector development.⁶ Many emerging market economies have made good progress in serving the middle class with housing finance, but it can still be scarce and expensive where domestic deposits are low.⁷

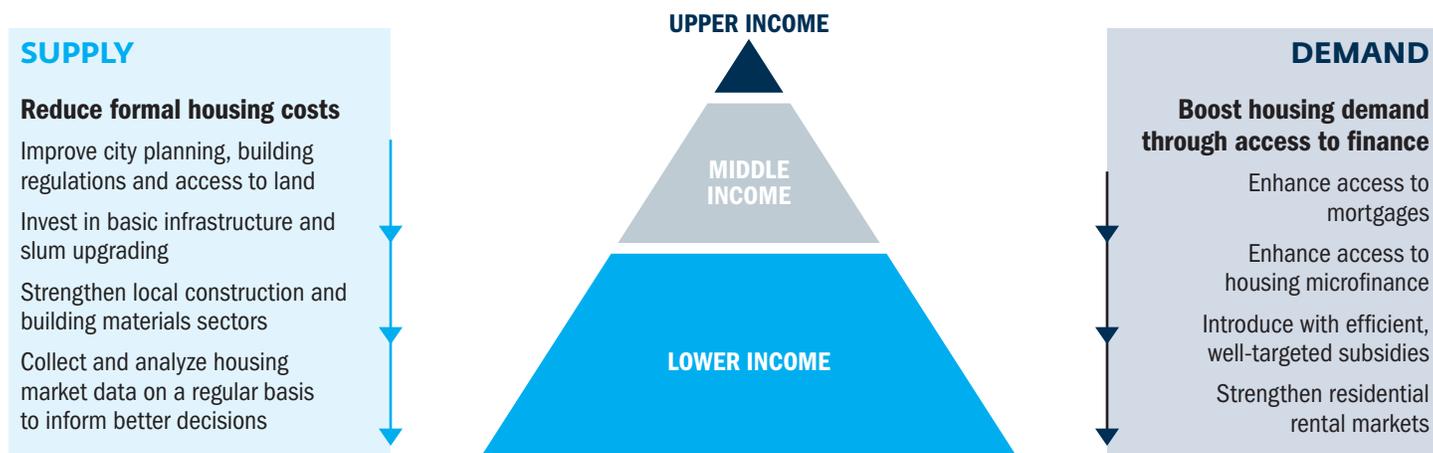


FIGURE 4 Pushing into the Bottom Two-Thirds of the Income Pyramid

Source: IFC.

Urbanization in emerging markets has been so rapid over the past few decades that the financial sector, and housing credit markets in particular, have not developed sufficient depth and breadth to meet demand. Low-income borrowers without collateral face challenges, as they usually do not meet the necessary criteria to secure housing credit. These are the unbanked at the bottom two-thirds of the income pyramid (Figure 4), who often lack access to almost all financial services.

Differences between mortgage-market characteristics include interest type, time to maturity, and sources of finance for lenders. In some countries, retail deposits are the primary source

of financing, while others rely on securitization. The reasons for the failure of the financial sector to support the financing needs of the whole economy are multiple. The underdevelopment of the financial sector and the absence of long-term financing in the local economy are predominant among them. Linking the domestic banking sector to international capital markets can support expanded provision (Box 3).

The secondary mortgage market provides liquidity to banks and other financial institutions that supply mortgages. The presence of a secondary mortgage market enables institutional investors to diversify their portfolios of fixed-income assets,

Box 3 Longer Terms in Local Currency

The West Africa Economic and Monetary Union (WAEMU) lacks affordable financing for housing. Fewer than 7 percent of households in the region can afford to buy their own home.

IFC was among the founding shareholders of an initiative by The Central Bank of West African States (BCEAO)⁸ to bring foreign institutional investors to regional financial markets in support of housing development in this region.

BCEAO created the Caisse Régionale de Refinancement du Crédit Hypothécaire (CRRH) in 2010, a mortgage refinancing fund for creditors in the UEMOA/WAEMU zone.

CRRH issued six bonds between 2012 and 2016, which provided funding for 33 banks in the eight WAEMU member countries.

In 2017, through a 12-year local currency bond issue totaling CFA francs (CFAF) 25 billion (\$45 million), CRRH was able to lengthen the term of its loans to financial institutions, which in turn enabled these institutions to lengthen the maturity of mortgages and significantly improve affordability. IFC utilized a new local currency facility at the World Bank that enables it to hedge foreign exchange risk in CFAF to participate with CFAF 5 billion (\$9 million). The success of the local currency bond issue by CRRH is especially important, as international sources of finance would otherwise include foreign exchange risk.

By January 2018, CRRH had issued seven local currency bonds of 10- or 12-year maturity in regional capital markets and refinanced approximately 8,000 bank mortgages.

The World Bank Group's investments and support toward strengthening CRRH are expected to crowd in \$5 of private financing through the bond market for every \$1 it invests, thus directly addressing the financial needs of the sector. Some 50,000 businesses and families are expected to obtain new mortgage loans as a result; 200,000 people will obtain better shelter; and about 250,000 housing-sector jobs will be created.⁹

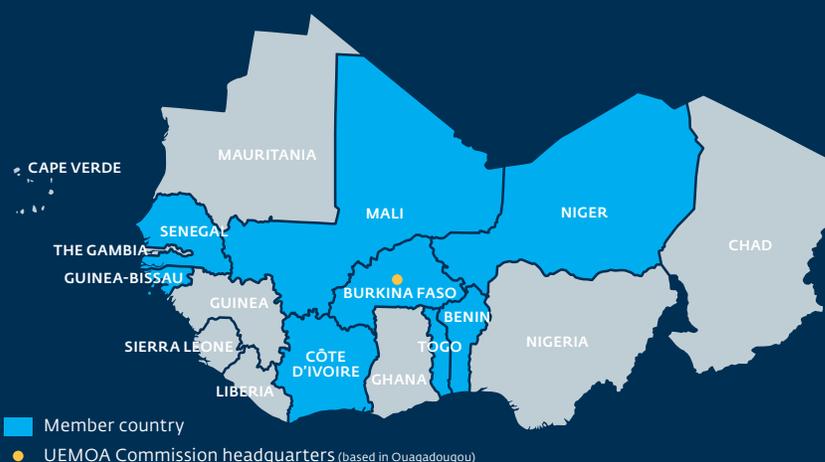


FIGURE 5 Member Countries of the West African Economic and Monetary Union

Source: Sabel and West Africa Club Secretariat, 2016.

while housing financiers both offload risk and increase the funds available for housing finance to new borrowers. A more liquid mortgage market keeps interest rates lower for existing owners and new borrowers. By working together through the secondary mortgage market, the interests and needs of these diverse stakeholders produce greater liquidity, stability, and affordability. Under the right conditions, this can serve as a powerful incentive to improve market standards and stimulate financial market development. The case of Titularizadora Colombiana illustrates that the appropriate legal and regulatory conditions can be created to attract the interest of secondary investors (Box 4).

Conclusion

The transformative effects of housing on quality of life and wellbeing, together with the realization of its economic potential, places housing at the heart of the economic development agenda and its goals.

BOX 4 Mortgage Securitization in Colombia

Titularizadora Colombiana (TC) was created in July 2001 as a securitization company. The 1997-1998 financial crisis was a shock to mortgage markets; specialized savings and loans institutions and borrowers were adversely affected by interest rate hikes, rising unemployment, and depressed housing prices. As a result, the housing finance system was reformed in 1999 to allow for the establishment of non-credit institutions to securitize housing loans. The objective was to raise long-term funds from capital markets, manage the significant cash flow risks of mortgages, and provide equity relief to the primary mortgage lenders. Initial capitalization came from the main mortgage lending banks and other private investors, including IFC.

IFC supported 19 mortgage-backed security (MBS) issues by TC, including three nonperforming mortgage loan securitizations, for a total volume of securitized assets exceeding \$2.9 billion (equivalent). Since 2008, TC has successfully launched 25 MBS issues without IFC enhancement, for an additional securitized assets volume of \$5.9 billion (equivalent). This effort has focused regulators on mortgage loan regulation, defined foreclosure processes, and clear accounting rules for banks and investors. TC's contribution has included standardizing underwriting practices and the setting of clear qualification standards for the mortgages it is willing to purchase.

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- 8 This is an entity made up of the Banque Ouest Africaine de Développement (BOAD) and the Conseil Régional de l’Epargne Public et des Marchés Financiers
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