

Room for Development

HOUSING MARKETS IN LATIN AMERICA AND THE CARIBBEAN



César Patricio Bouillon, editor

DEVELOPMENT IN THE AMERICAS



IDB



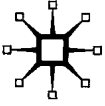
Room for Development
Housing Markets in Latin America and
the Caribbean

César Patricio Bouillon, Editor



Inter-American Development Bank

palgrave
macmillan



ROOM FOR DEVELOPMENT
Copyright © Inter-American Development Bank, 2012.

All rights reserved.

First published in 2012 by
PALGRAVE MACMILLAN®
in the United States—a division of St. Martin's Press LLC,
175 Fifth Avenue, New York, NY 10010.

Where this book is distributed in the UK, Europe and the rest of the world,
this is by Palgrave Macmillan, a division of Macmillan Publishers Limited,
registered in England, company number 785998, of Houndmills,
Basingstoke, Hampshire RG21 6XS.

Palgrave Macmillan is the global academic imprint of the above companies
and has companies and representatives throughout the world.

Palgrave® and Macmillan® are registered trademarks in the United States,
the United Kingdom, Europe and other countries.

ISBN: 978-1-137-00564-9 (hardback)
ISBN: 978-1-137-00563-2 (paperback)

Library of Congress Cataloging-in-Publication Data

Room for development : housing markets in Latin America and the
Caribbean / César Patricio Bouillon, Editor ; Inter-American Development Bank.
pages cm

ISBN 978-1-137-00564-9—

ISBN 978-1-137-00563-2

1. Housing—Latin America. 2. Housing—Caribbean Area. I. Bouillon, César
Patricio. II. Inter-American Development Bank.

HD7305.5.A3R66 2012
333.33'8098—dc23

2011049337

A catalogue record of the book is available from the British Library.

Design by Newgen Imaging Systems (P) Ltd., Chennai, India.

First edition: April 2012

10 9 8 7 6 5 4 3 2 1

Printed in the United States of America.



Room for Development

Boxes

1.1	Consequences of Land Titling Programs: An Experiment in Argentina	10
4.1	The Potential for Rental Housing: Habitat for Humanity in Buenos Aires	105
5.1	A Virtuous Circle: Financing Basic Infrastructure with Land-Based Revenue	142
5.2	Colombia's Macroproyectos: A Successful Case of Low-Income Housing in a Mixed-Use Setting	146
6.1	Energy Efficiency in Barbados	178
7.1	Securitization and Mortgage Financing in Latin America and the Caribbean	194
8.1	Patrimonio Hoy	224
8.2	Market-Based Slum Upgrading: Terra Nova in Brazil	227
8.3	A Joint Venture to Foster Low-Income Housing in Paraguay	229
8.4	A Public-Private Partnership for Low-Cost Housing in El Salvador	235

Figures

1.1	Projections of Urban Land Cover for Latin America and the Caribbean, 2000–2050	18
2.1a	Housing Conditions by Income Quintile in Latin America and the Caribbean, Mid-1990s and Late 2000s: Quantitative Deprivations	30
2.1b	Housing Conditions by Income Quintile in Latin America and the Caribbean, Mid-1990s and Late 2000s: Dwellings of Disposable Materials or Overcrowded	30
2.1c	Housing Conditions by Income Quintile in Latin America and the Caribbean, Mid-1990s and Late 2000s: Inadequate Infrastructure	30
2.1d	Housing Conditions by Income Quintile in Latin America and the Caribbean, Mid-1990s and Late 2000s: Lack of Secure Tenure	31
2.2a	Housing Shortages by Country in Latin America, 2009: Quantitative	33
2.2b	Housing Shortages by Country in Latin America, 2009: Qualitative	33
2.3a	Housing Shortages by City, 2009: Quantitative	34
2.3b	Housing Shortages by City, 2009: Qualitative	34
2.4	Slum Population and Income Per Capita, Select Countries Worldwide, 2005	37
2.5	Slum Population and Income Per Capita by Population, 2005	38
2.6	Change in Population Density in Select Cities Worldwide, 1990–2000	42
2.7	Urbanized Area Population Density in Select Cities Worldwide, 1800–2000	43
2.8	Total Housing Deficit for Select Cities in Latin America and the Caribbean, 2009	48

3.1	Change in Urban Growth Rate and Total Population, 2010–2025	53
3.2	Affordability Gap Due to Low Household Income in Select Latin American Cities	58
3.3	Interest Rate Affordability Gap in Select Latin American Cities (Sorted by Income Effect)	61
3.4a	Affordability Gap in Select Latin American Cities: Inability to Document Income (Sorted by Income Effect) Due to Self-Employment	63
3.4b	Affordability Gap in Select Latin American Cities: Inability to Document Income (Sorted by Income Effect) Due to Lack of Affiliation to Social Security	64
3.5	Effect of House Prices on Affordability in Select Latin American Cities	67
3.6a	Housing Supply in Bogota, 2008: Housing Supply and Capacity to Pay	68
3.6b	Housing Supply in Bogota, 2008: Housing Supply by Income Deciles	68
3.7	Total Affordability Gap in Latin American and Caribbean Cities	70
3.8	Tenure Choices by Gender of Household Head, Argentina, 2009	76
3.9a	Distribution of Monthly Household Income Per Capita by Tenure Choice in Brazil: Formal Workers	78
3.9b	Distribution of Monthly Household Income Per Capita by Tenure Choice in Brazil: Informal Workers	78
4.1	Rental Tenure: Latin America and the Caribbean vs. Select European Union Countries	91
4.2	Rental Tenure by City Size: Largest Cities in Latin America and the Caribbean, 2010	92
4.3	Rental Tenure Evolution in Urban Latin America, 1995–2007	93
5.1	Land Prices and Income for 18 Latin American Cities	114
5.2a	Effect of Land Prices on Housing Affordability by Plot Size, Select Latin American and Caribbean Cities: 60-Square-Meter Plot Size	115
5.2b	Effect of Land Prices on Housing Affordability by Plot Size, Select Latin American and Caribbean Cities: 100-Square-Meter Plot Size	116

5.3a	Housing Supply and Population Distribution Arranged by Land Cost and Family Capacity to Pay in Select Cities in Latin America: Buenos Aires	118
5.3b	Housing Supply and Population Distribution Arranged by Land Cost and Family Capacity to Pay in Select Cities in Latin America: Cordoba	118
5.3c	Housing Supply and Population Distribution Arranged by Land Cost and Family Capacity to Pay in Select Cities in Latin America: Rosario	118
5.3d	Housing Supply and Population Distribution Arranged by Land Cost and Family Capacity to Pay in Select Cities in Latin America: Rio de Janeiro	118
5.3e	Housing Supply and Population Distribution Arranged by Land Cost and Family Capacity to Pay in Select Cities in Latin America: Santiago	118
5.4a	Housing Supply by Income Deciles in Select Cities in Latin America: Buenos Aires	119
5.4b	Housing Supply by Income Deciles in Select Cities in Latin America: Cordoba	119
5.4c	Housing Supply by Income Deciles in Select Cities in Latin America: Rosario	119
5.4d	Housing Supply by Income Deciles in Select Cities in Latin America: Rio de Janeiro	119
5.4e	Housing Supply by Income Deciles in Select Cities in Latin America: Santiago	119
5.5	Plot Size Effect on Affordability, Cities with Minimum Plot Size Regulations	132
5.6	Time to Register Property in Latin American and Caribbean Countries, 2010	134
5.7	Cost to Register Property in Latin American and Caribbean Countries, 2010	135
5.8	Cost of Registering Property (Percent of Property Value) and Income Per Capita around the World, 2009	135
6.1	Construction Costs as a Share of the Total Price of the Cheapest Housing Solution, Select Cities, 2010	152
6.2a	Construction Costs in Select Latin American and Caribbean Cities and Countries (Base Year 2000 = 100): Overall Costs	154

6.2b	Construction Costs in Select Latin American and Caribbean Cities and Countries (Base Year 2000 = 100): Material Costs	155
6.2c	Construction Costs in Select Latin American and Caribbean Cities and Countries (Base Year 2000 = 100): Labor Costs	156
6.3	Cost of Construction Permits and Income Per Capita, 2009	163
6.4	Construction Technologies	164
6.5	Type of Construction for New Social Housing in Select Latin American Countries	172
B6.1	Viability of Renewable Distributed Generation (DG) in Barbados	179
B6.2	Average Power Consumption by the Hotel Sector in Barbados	181
B6.3	Cost Effectiveness of Energy-Efficient Appliances in Barbados	182
7.1a	An International Comparison of House Price Levels (Constant Prices): Advanced Economies and Emerging Economies, 1990–2010	188
7.1b	An International Comparison of House Price Levels (Constant Prices): Select Developing Countries and Regions, 2000–2010	188
7.2a	Mortgage Debt as a Percent of GDP, 2009: Western Europe and North America	191
7.2b	Mortgage Debt as a Percent of GDP, 2009: Asia and the Pacific	191
7.2c	Mortgage Debt as a Percent of GDP, 2009: Eastern Europe	192
7.2d	Mortgage Debt as a Percent of GDP, 2009: Latin America and the Caribbean	192
7.2e	Mortgage Debt as a Percent of GDP, 2009: Africa and Middle East	192
B7.1	Securitized Mortgages as a Percent of Total Mortgage Portfolio	195
7.3	Brazil: Net Requirements and Total Housing Loans by Private Lenders	203
7.4a	Mexico: Evolution of Loan Origination by Main Participants: Percent of Mortgage Loans	205
7.4b	Mexico: Evolution of Loan Origination by Main Participants: Number of Mortgage Loans	205

7.5	Colombia: Mortgage Disbursements for Social and Nonsocial Housing	208
8.1	Critical Market Failures along the Low-Income Housing Value Chain	213
8.2	Basic Starting Options for a Core House, Guyana Incremental Housing Program	217
8.3	Expansion Possibilities for a Core House, Guyana Incremental Housing Program	218
9.1	Housing Policy in Argentina: Approaches and Trends	249
9.2	Housing Policy in Chile: Approaches and Trends	251
9.3	Housing Policy in Colombia: Approaches and Trends	254
9.4a	Housing Sector Results, Household Formation, and Formal Housing: Argentina	256
9.4b	Housing Sector Results, Household Formation, and Formal Housing: Chile	256
9.4c	Housing Sector Results, Household Formation, and Formal Housing: Colombia	257
9.5	Percent Distribution of Beneficiaries of Select Public Housing Programs by Income	265
9.6	Argentina: Changes in Housing Conditions for Beneficiary Families Due to Housing Programs	270
9.7	Colombia: Changes in Housing Conditions for Beneficiary Families Due to Housing Programs	271
9.8	Colombia: Changes in Distance to Amenities for Beneficiary Families Due to Housing Programs	272
9.9	Argentina: Level of Satisfaction with Housing Programs	273

Tables

1.1	Negative Health Impacts Resulting from Poor Conditions in Housing and Surrounding Neighborhoods	8
1.2	Ranking of Select Megacities Based on Ambient Air Quality and Road Travel Speed	16
2.1	Basic Housing Market Outcomes	25
2.2	Regional Housing Shortages in Latin America and the Caribbean, 2009	26
2.3	Total Housing Deficits in Latin America and the Caribbean by Country, 2009	28
2.4	Urban Housing Deficits in Latin America and the Caribbean by Country, 2009	29
2.5	Housing Report Card for Latin American and Caribbean Countries	32
2.6	Perception of Dwelling Surroundings in Latin America and the Caribbean, 2007	40
2.7	Segregation Measures Based on Educational Attainment of Adults in Select Cities in Latin America and the United States	46
3.1	Composition of Cities' GDP Growth in Latin America and the Caribbean, 2007–2025	54
3.2	Housing Demand in Select Latin American and Caribbean Cities, 2007–2025	55
3.3	Mortgage Interest Rates in Latin American and Caribbean Countries, 2010	60
3.4	Price of the Cheapest Private-Sector Housing Solution Offered and Number of Months Needed to Buy It in Select Latin American and Caribbean Cities, 2010	65
3.5	Affordability Scorecard of Latin American and Caribbean Cities	71
4.1	Rental Tenure in Select Cities Worldwide	92
4.2	Qualitative Shortage in Urban Areas, 2006	95

5.1	Housing Cost Components in Latin American and Caribbean Cities, 2010	112
5.2	Chile: Evolution of Housing Cost Components in Social Housing Programs, 1994–2004	113
5.3	Land Affordability in Select Cities in Latin America	121
5.4	Categories and Instruments for Land Use Regulation	125
5.5	Urban Planning Systems in Latin America, Select Countries	128
5.6	Land Regulations in 15 Latin American and Caribbean Cities	131
5.7	Developed and Urban Land Premiums, Select Cities in Latin America and the Caribbean	133
5.8	Factors That Reduce Private Investment in Land Development Targeted at Low-Income People in Argentina	138
5.9	City-Level Subdivision Regulations in Three Cities in Argentina	140
5.10	Costs of Providing Housing Infrastructure in Regular Land Development and Slum Upgrading Programs	144
6.1	Construction Costs by Type of Finishes in Select Cities	151
6.2	Construction Costs and Household Income, Select Cities, 2010	153
6.3	Special Characteristics of the Construction Industry	157
6.4	Concentration and Dispersion of the Construction Industry in Select Cities in Latin America and the Caribbean, 2010	159
6.5	Legal Costs and Time Needed to Obtain Construction Permits, Select Latin American and Caribbean Cities, 2010	161
6.6	Effort, Time, and Money Required to Obtain Construction Permits in Latin American and Caribbean Countries, 2009	162
6.7	Advantages and Disadvantages of Industrialized Construction	166
6.8	Differences between Traditional and Modern Construction Technologies	168
6.9	Savings of Industrialized Construction	171
7.1	Market Share of Government-Sponsored Credit Institutions in Real Estate Lending in Select Latin American Countries	189
7.2	Factors Favoring the Provision of Housing Finance	198
8.1	Residents' Own Investments in Housing Improvements in Chile's Progressive Housing Programs	221

8.2	Household Housing Investments by Type of Initial Housing Solution, El Salvador	222
8.3	Comparative Investment Patterns of Households That Do and Do Not Receive Remittances	232
9.1	Constitutional Provisions Concerning Housing in Select Latin American Countries	240
9.2	Dos and Don'ts of the Enabling Markets Approach to Housing	243
9.3	Housing Programs in Latin America and the Caribbean	244
9.4	Annual Housing Production in Each Submarket in Argentina, Chile, and Colombia	257
9.5	Housing Programs in Argentina, Chile, and Colombia	258
9.6	Features of the Most Important Housing Programs in Argentina, Chile, and Colombia	262
9.7	Coverage of Housing Programs	268

Acknowledgments

Development in the Americas (DIA) is the flagship publication of the Inter-American Development Bank. This issue was produced under the direction of César Patricio Bouillon, lead research economist of the Research Department. The general editor of the volume was Rita Funaro, publications coordinator of the Research Department, who was assisted by Nancy Morrison. The technical editor was Carlos Andrés Gómez-Peña, economics associate. Eduardo Lora, the chief economist (a.i.) and general manager of the Research Department, provided extremely valuable guidance and advice throughout the life of this project. Vicente Fretes, chief of the Fiscal and Municipal Management Division of the Institutional Capacity and Finance Sector and Eduardo Rojas, former principal specialist in Urban Development and Housing at the Inter-American Development Bank, provided useful inputs to the entire project. Santiago Levy, the vice president for Sectors, provided overall support for the project.

The principal authors of each individual chapter are as follows:

Introduction: César Patricio Bouillon

Chapter 1: César Patricio Bouillon, Viviane Azevedo, and Katia Herrera

Chapter 2: César Patricio Bouillon, Nadin Medellín, and Cynthia Boruchowicz

Chapter 3: César Patricio Bouillon, Viviane Azevedo, Nadin Medellín, and Cynthia Boruchowicz

Chapter 4: Andrés Blanco, César Patricio Bouillon, Vicente Fretes, and Andrés Muñoz Miranda

Chapter 5: César Patricio Bouillon, Cynthia Boruchowicz, David Dowall, and Nadin Medellín

Chapter 6: Cynthia Boruchowicz, César Patricio Bouillon, and Sebastian Miller

Chapter 7: Alessandro Rebucci, Arturo Galindo, Frank Warnock, and Veronica Warnock

Chapter 8: Viviane Azevedo, César Patricio Bouillon, and Ophélie Chevalier

Chapter 9: Fernando Cuenin, Carolina Piedrafita, Eduardo Rojas, and Nadin Medellín

Several individuals collaborated with valuable inputs for specific chapters: Viviane Azevedo (chapter 2), Cynthia Boruchowicz (chapter 1), Fernando Cafferata (chapter 6), Marc Godbout (chapter 4), Ophélie Chevalier (chapter 5), Edgardo Demaestri (chapter 7), Bruce Ferguson (chapter 8), and Christiaan Gischler (chapter 6).

Many researchers were involved in the preparation of the background papers employed as the basis for this report: Raúl Abreu-Lastra, Shlomo Angel, María Angélica Arbeláez, Etna Mabel Artiga de Soundy, Sebastián Auguste, Fernando Balderrama, Nelson Baltrusis, Ricardo Bebczuk, Alejandro Becerra, Guillermo Bermúdez, Manuel Bonilla, María Isabel Bonilla, Carolina Camacho, Rosario Casanova, Juan Casazza, Roberto Chávez, Marcela Cristini, Mario Cuevas, Johanna Fajardo, Bruce Ferguson, Yolanda Gaete, Sebastián Galiani, Natalia Garabato, George Gattoni, Christiaan Gischler, Reinhard Goethert, Margarita Greene, Marc Hofstetter, Sigfrido Lée, Julie Litchfield, Marco A. López-Silva, Eduardo Lundberg, James Magowan, Bruno Martins, Rosa Massena, Pauline McHardy, Helena Menna Barreto, Alejandro Micco, Felipe Morris, Paavo Monkkonen, Ramiro Moya, Miguel Palomino Bonilla, Eric Parrado, Agustín Paulín-Hutmacher, Manuel Perló Cohen, Bernardita Piedrabuena, Caio Piza, Alberto Saracho-Martínez, Magdalena Ramada-Sarasola, Ernesto Schargrotsky, Eduardo Reese, Lucas Ronconi, Alejandro Sparacino, Maria Teresa Souza, Roberto Steiner, Eugenia Suárez, Tony Takeda, Jorge Tovar, Pablo Trivelli, Jorge Enrique Torres Ramírez, Miguel Urrutia, Irene Vance, David Vetter, Marcia Vetter, Daniel Wills, and Rudy Wong Barrantes.

The following research assistants contributed to the preparation of the project: Johanna Fajardo, Luis Felipe Sáenz, and Ana Virginia Mujica.

Several individuals provided useful input to specific studies and earlier drafts of this volume. In particular, Samuel Berlinski, José Brakarz, Matías Busso, Ana Corbacho, Julián Cristia, Pablo Federico, Eduardo Fernández-Arias, Kurt Focke, Kirsten Funes Deras, Jane Katz, Fernanda Magalhães, Shagun Mehrotra, Andrew Powell, Ana María Rodríguez, Inder Ruprah, Héctor Salazar, Ernesto Stein, and María Luisa Zanelli.

This book could not have been produced without the immense effort and dedication of the administrative team of the Research Department and, in particular, Patricia Arauz, Carla Carpio, Cathleen Conkling-Shaker, Myriam Escobar-Genes, Raquel Gómez, Elton Mancilla, Luis Daniel Martínez, Mariela Semidey, and Federico Volpino.

The comments and opinions expressed in this publication are those of the coordinator of the project and authors of the corresponding chapters and do not reflect the views of the Inter-American Development Bank or its executive directors in any form.

Contributors

Viviane Azevedo, a Brazilian citizen, received a PhD in Economics from the University of Illinois at Urbana-Champaign and is a specialist in the Opportunities for the Majority Sector of the Inter-American Development Bank.

Andrés Blanco, a citizen of Colombia, is an assistant professor in the Department of Urban and Regional Planning at the University of Florida. He holds a PhD (c) in City and Regional Planning from Cornell University.

Cynthia Boruchowicz, a national of Argentina, received a master of Public Policy from the University of Chicago and is a research fellow in the Research Department of the Inter-American Development Bank.

César Patricio Bouillon, a citizen of Peru, received a PhD in Economics from Georgetown University and is a lead research economist in the Research Department of the Inter-American Development Bank.

Ophélie Chevalier, a national of France, received a master of International Affairs at Columbia University and is a housing and urban development specialist in the Fiscal and Municipal Management Division of the Institutional Capacity and Finance Sector of the Inter-American Development Bank.

Fernando Cuenin, a citizen of Argentina, received an MA in Economics from Universidad Nacional de La Plata and is an operations specialist in the Andean Country Group Department of the Inter-American Development Bank.

David Dowall, a citizen of the United States, is a professor of city and regional planning at the University of California at Berkeley and holds a master's degree in Urban and Regional Planning and a PhD in Economics from the University of Colorado.

Vicente Fretes, an Argentine citizen, received an MBA and a PhD in Economics from the University of Pennsylvania and North Carolina State University, respectively. He is the chief of the Fiscal and Municipal Management Division of the Institutional Capacity and Finance Sector of the Inter-American Development Bank.