

INTRODUCTION

Peru is an emerging, social market economy and according to the World Bank, the country has strong macroeconomic fundamentals. As of 2021, the country has a high HDI (Human Development Index) score of 0.762. Despite this, according to data published by the Peru National Institute of Statistics and Information in 2021, the country had a poverty rate of 25.9%, while the rural population faced a poverty rate of almost 40%, and the urban population faced a poverty rate of 22.3%. The World Population Review estimates that 48.36% of the population lived with less than US\$10/day in 2019, and in 2023, the estimated homelessness rate is 2.04%. This could be mainly due to the high amount of political instability that has marred the country for decades. Although housing is just one aspect of poverty reduction, it is still an important one for Peru to address. It is also one of the major United Nations Sustainable Development Goals to be met by 2030.

According to research published by UN Habitat in 2008, roughly 32% of dwellings in Peru do not have access to one or more necessary basic services. The research also identifies a housing deficit of over 1 million, which includes overcrowding, lack of basic services, and precarious housing. Moreover, the paper identifies the problem as being unmet demand for low-cost housing. It is important to note that the homelessness rate of 2.04% could simply be a measure of the proportion of individuals who completely lack a home and is not an indicator of the proportion of individuals who face some sort of housing deficiency. In 2009, roughly 45% of urban households in Peru faced a qualitative deficit and about 14% faced a quantitative deficit (Bouillon, 2012). This implies that quality of housing is a bigger problem than the quantity of housing.

_

¹ Computed as (homeless population/total population) *100

The other major problem to address is the efficient allocation of housing. The report by the UN Habitat also highlights the success that Peru has achieve in reforming housing finance mechanisms over the years. Specifically, the report mentions the creation of La Fondo Mivivienda, which was a huge step to improve the access to housing, although it has not substantially improved housing outcomes for the extremely poor and vulnerable, as the programs require access to formal credit markets. The report then goes on to talk about Techo Propio, a programme run by La Fondo Mivivienda, which does target mainly the extremely poor, but there are some problems, such as, construction firms wanting to focus on higher valued housing as it is a more lucrative business venture.

All these problems exist despite the Peruvian government spending around US\$ 3.3 billion on housing programs between 1999 and 2014. Clearly, housing subsidies require a reform to address these inefficiencies. In general, improving housing outcomes is linked to better health outcomes, better outcomes for children's education, better social cohesion, better low-skilled and unskilled employment outcomes, and economic growth through better housing financing mechanisms. (Doling, Vandenberg, and Tolentino, 2013)

This essay aims to present a holistic subsidy design that addresses qualitative and quantitative deficiencies in housing and improvements that could be made to the Techo Propio program by La Fondo Mivivienda, to improve the allocation of housing.

POLITICAL ECONOMY CONTEXT

Given that Peru has been marred by political instability for decades, it would be quite remiss to ignore the context of political economy while discussing subsidy reform. Daron Acemoglu has argued that "inferences that ignore political economy can go wrong" (Acemoglu, 2010). Alex

Segura-Ubiergo highlights Peru's highly instable political past, and addresses the presidency of Alberto Fujimori, who selectively increased expenditures only for provinces with the lowest political support. This is the crux of the issue and highlights a substantial inefficiency, which is, that social expenditures are going to those that do not necessarily require it simply because it is more politically popular to do so (Segura-Ubiergo, 2007 p.229-258). This is also corroborated by the report by the UN Habitat. The liberalization of the Peruvian financial market which saw the expansion of the credit market and increased competition, led to a fall in interest rates. This resulted in the growth of the mortgage market amounting to roughly USD 1 billion during the 90s. Despite this, there was no substantial impact on access to housing or to the reduction of the housing deficit.

PRELIMINARIES

The first major issue that will be addressed is the deficiencies in the quality and quantity of housing in Peru. Housing quality can encompass a lot of different factors, so it is important to establish what exactly what those are. Some factors that are relevant in this case are: Physical Sustainability (Roof, Wall, and Floor Material), Overcrowding (Persons Per Room, Persons Per Bedroom, Families Per House, Kitchen, and Washroom), and Housing Services (Water Supply, Hygiene, and Electricity) (Meng and Hall, 2006; World Bank Group, 2021). Deficiencies in housing quantity will simply be defined as the difference between the number of households and the number of available dwellings. The beneficiaries of a subsidy program that addresses these issues is the population facing these deficits (45% of urban population). Specifically, we need to understand why these deficiencies come about, and target the subsidy to address that specific root cause.

CAUSES OF THE ISSUE

A major reason for these problems is the growth of the informal housing market in Peru largely due to rapid urbanization caused by rural-urban migration. Data from the National Institute of Statistics and Information, shows a trend of declining formalization procedures across Peru since 2011, with only a few years recording an increase. According to research by the Inter-American Development Bank, the lack of a formal housing sector means that households will have no choice but to establish informal housing markets, which is a major reason for qualitative deficits (Rojas and Medellin, 2011). Informal housing in Peru largely includes slums (Las Barriadas) and squatter settlements. These settlements tend to lack adequate water infrastructure and other services (Herrera, Bauer, and Guillen, 2022). According to a case report by Development Progress, there have been improvements in water infrastructure, electricity provision, sanitation and construction with brick and cement, amongst slums in Peru. In 2007 approximately, 63% of households had water directly piped, 59% had piped sewage systems, 85% had adequate electricity provision, and 62% had houses constructed with brick and cement (Cockburn, Romero, Lucci, and Lenhardt, 2015). Although these are significant improvements over the 2002 figures, there is still significant qualitative deficiencies amongst slums in Peru.

THE POLICY

On paper, Peru does have a system of involving private sector construction by directly subsidizing low-income households to purchase or build homes via the Techo Propio program. The inefficiencies arise because firms do not want to build low-income housing as they prefer more profitable ventures. It seems obvious then to effectively incentivize them to build low-income housing or to focus on non-market solutions. A major part of the informal housing market is self-help housing, which involves individuals building houses themselves. As I

mentioned before, these are largely deficient in quality, but this can be addressed with the establishment of assisted self-help programmes. This simply means that self-help housing is supplemented with outside (usually government or firm) assistance. This assistance could include adequate land plots, legal title, inclusion of infrastructure, technical assistance, provision of good quality building materials, promotion of micro-finance solutions, and the support of housing cooperatives (Bredenoord and van Lindert, 2010).

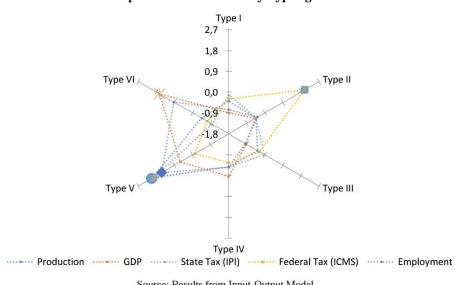
A part of a large-scale public housing program in Brazil implemented in 2009 called Mina Casa Mina Vida – Entitades (MCMVE) (Translates to: "My Home My Life: Entities")², has made considerable steps in improving housing deficiencies in Brazil. This program aims to provide quality low-income housing mainly for individuals who have an annual income of at most 31,680 Brazilian Reals (US\$ 6078)³. To achieve this, individuals in the program are paired with organizing entities, which may be a housing cooperative or a non-profit private entity that is already qualified by the Ministry of Regional Development. According to CAIXA, a state-owned financial services company, these entities must "bring together, organize and support families in the development and execution of housing projects, in addition to being able to act as a temporary substitute for families who will benefit from housing, if they contract financing directly" (CAIXA Report, 2016). An interregional macroeconomic input-output model through analysis of 6 different low-income housing typologies and the construction sector, in the context of various housing programs in Brazil, shows that the highest multiplier effects to production, state tax, and employment come from investment into Type V housing. Here, Type V housing is defined as low-income housing complexes. A diagram is show below (Rodger Barros Antunes

² Translated by Google Translate

³ Converted by Google

⁴ Translated by Google Translate

Campos, 2016).



Graph 1: Total Generator by Typologies

Source: Results from Input-Output Model

This could be seen as evidence supporting low-income housing complexes supported by housing cooperatives just as the MCMVE implements. It is important to note that this specific program is only 1% of the entire MCMV program in Brazil (RioOnWatch, Osborn, 2013; Stiphany and Ward, 2019)

The MCMV was a major undertaking for Brazil. In its implementation in 2009, it received a budget of approximately US\$ 17.55 billion to construct 1 million homes (RioOnWatch, Healy, 2014). This is more than 5 times the amount that Peru has spent on housing programs from 1999-2014. Considering the current government budget deficit of approximately US\$ 681 million⁵, it stands to reason that a program like MCMV could potentially be outside the public finance

⁵ Converted by Google

capacity of Peru. Even the MCMVE program which could cost upto US\$ 1.755 billion⁶, would still considerably strain fiscal capacity in Peru.

Research on the MCMVE suggests that although it has considerably increased access to housing, there are multiple problems that prevent it from reaching its full potential. The authors advocate for Autogestão, which refers to "the co-management of urban resources within environments that evolve incrementally and relative to social experience". They analyze the MCMVE program in Heliopolis and Sao Fransico municipalities of the state of Sao Paolo in Brazil. They essentially find that only 7% of MCVME beneficiaries are living in highly precarious conditions. The result is that this low-income housing programme fails to enlist the most vulnerable. Community meetings are found to be largely meaningless as individuals are not informed of their right to contest project location, evaluate plan quality, and are also not informed of other consequences such as increase commute times and decreased access to schools (Stiphany and Ward, 2019).

One of the major consequences that could stem out from this is the worsening of political stability majorly due to increased spatial segregation. Stiphany and Ward note that increasingly

stability majorly due to increased spatial segregation. Stiphany and Ward note that increasingly individuals are swayed by the promise of 'Entitades' to bolster community development, which has normalized social segregation problems. Spatial segregation in general has lowered access to job opportunities for beneficiaries (Leite, Giannotti, and Goncalves, 2022). A socio-spatial analysis of cities in Brazil also shows that upper classes and whites have higher access to formal jobs than lower classes and blacks (Bittencourt, Giannotti, and Marques, 2020). Higher socioeconomic (specifically, income) inequality is linked to higher political instability (Thorbecke and Charumilind, 2002; Alesina and Perotti, 1996; Ostby, 2013). This policy could

6 10% of 17.55 billion

therefore have a large impact on political stability. According to data from the Worldwide Governance Indicators, in 2021, Peru has dropped 6 percentile points in worldwide political stability rankings (32.08), relative to 2016 figures. Thus, such a policy that bolsters spatial segregation is detrimental to Peru. However, this problem could be curved by taking the suggestions of Stiphany and Ward, which is to implement the Autogestão system, as this could potentially bolster long-term social development withing housing communities. On the other hand, implementing a program like this and ensuring that Autogestao works properly would involve huge administrative focus as it has to bring together very different people with very different agendas. In 2021, Peru has dropped 4 percentile points in worldwide government effectiveness rankings (41.35) and 11 percentile points in worldwide corruption control rankings (29.33), relative to 2016 values. The drop is not the problem, but rather the fact that Peru scores below average in these measures implies considerable inefficiencies and prevalence of corruption, which would significantly hinder the effectiveness of Autogestao policy.

A case study conducted in a rural community in Nicaragua shows the importance of assisted self-help housing programmes in a rural setting. The researchers study three different housing projects conducted in the community during the time of study. The first project was implemented by Escuela Radiofonica Nicaragua, which made family recipients work together to construct homes made with adobe and reinforced with cement. Specialists were hired to oversee and train the participants, which taught them skills required to complete construction of their homes. The intention was not only to provide housing to villagers but also to develop a greater sense of community and provide skills. The researchers are unclear on the effects on community development but are quite clear that skill development improved substantially. In 1998, the second project was implemented by Red Cross as a response to Hurricane Mitch. They focused

on building multiple houses on one piece of land to allow them to easily connect it to water and electricity provisions. Unlike the first project, recipients were not trained but were still expected to contribute. Experts were brought in for labour and village recipients were expected to bear the labour costs. The benefits were improved living conditions but the costs involved were potential health risks due to crowding, lack of ability to maintain chickens and grow vegetables, no skill development and some were also in debt after paying for labour costs. Ultimately, Red Cross failed to understand the needs of the population and foster inclusive housing development. The third housing project was implemented by an NGO and Frente Amplio Opositor (FAO), a pollical advocacy group. The project built four homes selected via a lottery. Financing was provided through the NGO as a loan, and recipients did not have to provide anything else. The recipients did have a say in the kind of construction they wanted. There was a corruption scandal associated with the program and the debts were never collected. The researcher argues that ultimately a housing policy has to be flexible, involve governments at the federal, state, and local level in assistance and ensure partnerships between governments, NGO, companies, and lenders in order to create a comprehensive housing package. She ends by stating that citizens must be leading the charge and they must be empowered to allow their voices to be heard (Kurlanska, 2017). This case study provides important lessons for implementing a community-based housing programme especially in a rural setting. Although the implications can still be relevant to small urban communities. This is a qualitative study and so naturally its applicability to any other community outside is unknown. But, some lessons and observations can be taken and molded into a policy for Peru.

Another point that must be addressed is the importance of property rights institutions to assisted self-help housing programs. Specifically, the focus will be on land and property titling programs.

In the late 1990s, Peru introduced Comisión de Formalización de la Propiedad Informal (COFOPRI) a program that aimed to formalize property rights in Peru. It was largely successful, issuing approximately one million titles in the first four years of operation (Cantuarias and Delgado; World Bank, 2004). However, as mentioned previously, formalization procedures have largely reduced since 2011. An analysis of the COFOPRI program in Peru was done on a sample of 2750 households. DID estimates were computed based on two comparison groups. The robust results showed that beneficiary households in program neighbourhoods are 12% more likely to desire credit, 8% more likely to desire any home improvements, and received 49% more credit for home improvements (Field, 2005). These results indicate that strengthening property rights could bolster increases in housing quantity and more importantly (in case of Peru) improvements in housing quality. In Peru, an empirical analysis based on a survey of 2750 urban households conducted in March 2000 was used to estimate the impact of urban property rights on labour supply. The researcher analyzed the COFOPRI and the results showed positive effects of titling on labour hours, a shift in labour supply from work at home to outside work, and a substitution away from child labour (Field, 2007). An analysis of Mexico's Procede, the country's largest land certification program, showed that it had reduced violent death in rural areas especially in municipalities where the dominant political party had never lost an election (Dower and Pfutze, 2020). Another analysis of Procede shows that secure property rights curb the dominance and exploitation of political power (Dower and Pfutze, 2015). Using DID estimation, the COFOPRI program has seen a 50% higher likelihood of women to appear as owners of land and a 30% higher likelihood of participation in household decision making (Field, 2003).

CONCLUSION

The establishment of La Fonda Mivivienda, and the Techo Propio program have largely been successful in substantially improving housing accessibility and quality for Peruvian population. It seems that the Techo Propio program would benefit largely from being supplemented with a community based assisted self help housing programme such as the one analogous to the Minha Casa Minha Vida – Entitades Program in Brazil, especially considering the prevalence of the informal housing sector in Peru. This program would largely be supplemented by strengthening property rights and bolstering inclusive communities by empowering individuals to share their voice.

However, there are also considerable caveats to consider, which include: fiscal capacity considerations, political instability, and large administrative inefficient that could limit the effectiveness of the program.

WORKS CITED

- "Housing Policy Matters for the Poor: Housing Conditions in Latin America and the Caribbean, 1995-2006." *Inter-American Development Bank* 289 (n.d.), 04.
 - https://publications.iadb.org/en/publication/10982/housing-policy-matters-poor-housing-conditions-latin-america-and-caribbean-1995.
 - "Estadísticas." PERU Instituto Nacional de Estadística e Informática INEI. Accessed March 28, 2023. https://www.inei.gob.pe/estadisticas/indice-tematico/poblacion-y-vivienda/.
 - "Homelessness by Country 2023." Homelessness by country 2023. World Population Review.

 Accessed March 28, 2023. https://worldpopulationreview.com/country-rankings/homelessness-by-country.
- "Human Development by Country, around the World." n.d. TheGlobalEconomy.com. https://www.theglobaleconomy.com/rankings/human_development/.
 - "PERU Instituto Nacional de Estadística E Informática INEI." 2021. Inei.gob.pe. 2021. https://www.inei.gob.pe/estadisticas/indice-tematico/sociales/#url.
 - "Poverty Rate by Country 2023." Poverty rate by country 2023. World Population Review.

 Accessed March 28, 2023. https://worldpopulationreview.com/country-rankings/poverty-rate-by-country.
- Acemoglu, Daron. "Theory, General Equilibrium, and Political Economy in Development Economics." *Journal of Economic Perspectives* 24, no. 3 (2010), 17-32. doi:10.1257/jep.24.3.17.

- Alesina, Alberto, and Roberto Perotti. "Income distribution, political instability, and investment." *European Economic Review* 40, no. 6 (1996), 1203-1228. doi:10.1016/0014-2921(95)00030-5.
 - Antunes Campos, Rodger Barros. "The Socioeconomic Impacts of Low Income Housing Programs in São Paulo State, Brazil." Working Papers, Department of Economics, University of São Paulo (FEA-USP), 2016.
 - Bank, Inter-American Development, César Patricio Bouillon, and César Patricio Bouillon. "2." Essay. In *Room for Development Housing Markets in Latin America and the Caribbean*, 33–34. New York, NY: Palgrave Macmillan US, 2012.
- Behr, Daniela M., Lixue Chen, Ankita Goel, Khondoker T. Haider, Sandeep Singh, and Asad Zaman.

 "Introducing the Adequate Housing Index (AHI): A New Approach to Estimate the Adequate

 Housing Deficit within and across Emerging Economies." World Bank Group International

 Finance Corporation, November 2021.
 - Bittencourt, Tainá A, Mariana Giannotti, and Eduardo Marques. "Cumulative (and Self-Reinforcing) Spatial Inequalities: Interactions between Accessibility and Segregation in Four Brazilian Metropolises." *Environment and Planning B: Urban Analytics and City Science* 48, no. 7 (2020): 1989–2005. https://doi.org/10.1177/2399808320958426.
- Bredenoord, Jan, and Paul Van Lindert. "Pro-poor housing policies: Rethinking the potential of assisted self-help housing." *Habitat International* 34, no. 3 (2010), 278-287. doi:10.1016/j.habitatint.2009.12.001.

CAIXA. "PROGRAMA MINHA CASA MINHA VIDA ENTIDADES RECURSOS FDS." 2016.

- Cantuarias, Fernando, and Miguel Delgado . "Peru's Urban Land Titling Program." *Reducing Poverty, Sustaining Growth What Works, What Doesn't, and Why : A Global Exchange for Scaling Up Success*, May 2004.

 https://doi.org/https://www.semanticscholar.org/paper/Peru%27s-urban-land-titling-program-Delgado-Cantuarias/15410f362551291c78bc9185d73dd475f0b67366.
- Castañeda Dower, Paul, and Tobias Pfutze. "Land Titles and Violent Conflict in Rural Mexico."

 **Journal of Development Economics 144 (2020): 102431.

 https://doi.org/10.1016/j.jdeveco.2019.102431.
- Castañeda Dower, Paul, and Tobias Pfutze. "Vote Suppression and Insecure Property Rights."

 **Journal of Development Economics 114 (2015): 1–19.

 https://doi.org/10.1016/j.jdeveco.2014.11.003.
- Cockburn, Julio C., Jesús Q. Romero, Paula Lucci, and Amanda Lenhardt. "ON THE PATH TO PROGRESS: Improving living conditions in Peru's slum settlements." *Overseas Development Institute Urban Poverty*, June 2015.
 - Doling, John, Paul Vandenberg, and Jade C. Tolentino. "Housing and Housing Finance A Review of the Links to Economic Development and Poverty Reduction." *SSRN Electronic Journal*, 2013. doi:10.2139/ssrn.2309099.
- Field, E. "Entitled to Work: Urban Property Rights and Labor Supply in Peru." *The Quarterly Journal of Economics* 122, no. 4 (2007), 1561-1602. doi:10.1162/qjec.2007.122.4.1561.

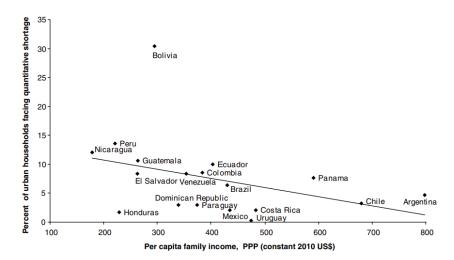
- Field, Erica. "Fertility Responses to Land Titling: The Roles of Ownership Security and the Distribution of Household Assets ." *Harvard University*, 2006.
- Field, Erica. "Property Rights and Investment in Urban Slums." *Journal of the European Economic Association* 3, no. 2 (2005): 279–90. https://doi.org/10.1162/1542476054472937.
- HABITAT, UN. "Housing Finance Mechanisms in Peru." *Human settlements finance systems* series, 2008.
- Kurlanska, Courtney B. "Development, Disempowerment, And Debt: The Transformation Of Aided Self-Help Housing In NicaraguaCourtney B. Kurlanska." *Urban Anthropology and Studies of Cultural Systems and World Economic Development* 46 (2017): 297–332. https://doi.org/https://www.jstor.org/stable/45172869.
- Leite, Camila Cardoso, Mariana Giannotti, and Gilmara Gonçalves. "Social Housing and Accessibility in Brazil's Unequal Cities." *Habitat International* 127 (2022): 102628. https://doi.org/10.1016/j.habitatint.2022.102628.
- Meng, Gang, and G. B. Hall. "Assessing housing quality in metropolitan Lima, Peru." *Journal of Housing and the Built Environment* 21, no. 4 (2006), 413-439. doi:10.1007/s10901-006-9058-1.
 - Østby, Gudrun. "Inequality and Political Violence: A Review of the Literature." *International Area Studies Review* 16, no. 2 (June 19, 2013): 206–31. https://doi.org/10.1177/2233865913490937.

- Ramirez Herrera, Andrea Cristina, Sonja Bauer, and Victor Peña Guillen. "Water-Sensitive Urban Plan for Lima Metropolitan Area (Peru) Based on Changes in the Urban Landscape from 1990 to 2021." *Land* 11, no. 12 (2022): 2261. https://doi.org/10.3390/land11122261.
- Segura-Ubiergo, Alex. "Peru: Political Instability, Regime Change, and Late Economic Reform in a Non-Welfare State, 1973–2000." In *The Political Economy of the Welfare State in Latin America: Globalization, Democracy, and Development.* Cambridge: Cambridge University Press, 2012. https://doi.org/10.1017/CBO9780511510984.
 - Stiphany, Kristine M., and Peter M. Ward. "Autogestão in an Era of Mass Social Housing: The Case of Brazil's Minha Casa Minha Vida-Entidades Programme." *International Journal of Housing Policy* 19, no. 3 (2019): 311–36. https://doi.org/10.1080/19491247.2018.1540739.
 - The World Bank. 2013. "Overview." World Bank. 2013. https://www.worldbank.org/en/country/peru/overview.
 - Thorbecke, Erik, and Chutatong Charumilind. "Economic Inequality and Its Socioeconomic Impact." *World Development* 30, no. 9 (2002): 1477–95. https://doi.org/10.1016/s0305-750x(02)00052-9.
 - Trohanis, Zoe Elena. 2017. Review of *Does Peru Need More Affordable Housing?* World Bank Blogs. August 3, 2017. https://blogs.worldbank.org/latinamerica/does-peru-need-more-affordable-housing.

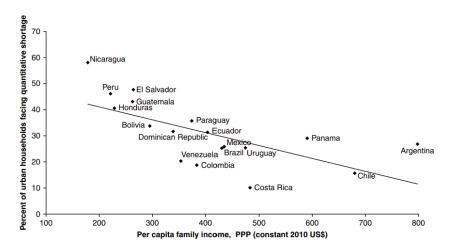
APPENDIX

Figure 2.2 Housing Shortages by Country in Latin America, 2009

a. Quantitative



b. Qualitative

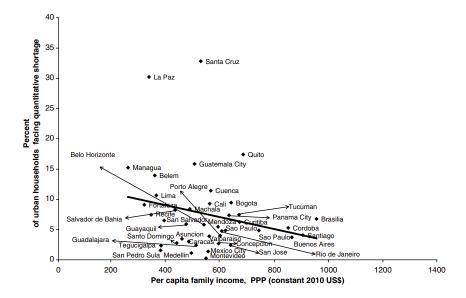


 $\it Source$: Authors' calculations based on Rojas and Medellín (2010).

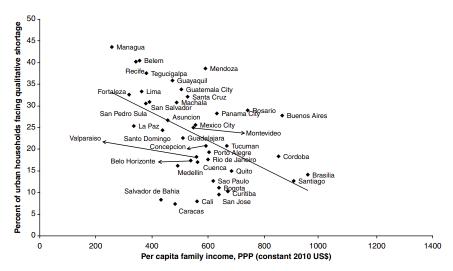
From Bouillion(2012)

Figure 2.3 Housing Shortages by City, 2009

a. Quantitative



b. Qualitative



Note: Argentina (Buenos Aires, Cordoba, Mendoza, Rosario, Tucuman), Bolivia (La Paz, Santa Cruz), Brazil (Belem, Belo Horizonte, Brasilia, Curitiba, Fortaleza, Porto Alegre, Recife, Sao Paulo), Chile (Concepcion, Santiago, Valparaiso), Colombia (Bogota, Cali, Medellin), Costa Rica (San Jose), Dominican Republic (Santo Domingo), Ecuador (Cuenca, Guayaquil, Machala, Quito), El Salvador (San Salvador), Guatemala (Guatemala City), Honduras (San Pedro Sula, Tegucigalpa), Mexico (Guadalajara, Mexico City), Nicaragua (Managua), Panama (Panama City), Paraguay (Asuncion), Peru (Lima), Uruguay (Montevideo), Venezuela (Caracas).

Source: Authors' calculations based on Rojas and Medellín (2010).

From Bouillion (2012)