World Development 109 (2018) 57–72

Contents lists available at ScienceDirect

World Development

journal homepage: www.elsevier.com/locate/worlddev

A sharing economy? Unpacking demand and living conditions in the urban housing market in Kenya

Sumila Gulyani [a], Debabrata Talukdar [b,*], Ellen M. Bassett [c]

[a] The World Bank, Washington, DC, United States
[b] 234 B, Jacobs Management Center, School of Management, State University of New York at Buffalo, Buffalo, NY 14260, United States
[c] Department of Urban and Environmental Planning, School of Architecture, University of Virginia, United States

ARTICLE INFO

Article history:
Accepted 12 April 2018

Keywords:
Sharing
Housing
Living conditions
Rents
Kenya
Sub-Saharan Africa

ABSTRACT

With Africa's urban transition underway, housing is a formidable challenge. Housing shortfalls and continued slum growth are consistently forecast. But what kinds of housing do current residents occupy? Do owners have better quality housing than tenants? How much do tenants pay and what features do they value? This study builds a demand-side understanding of housing using survey data from over 14,000 households in 15 Kenyan cities.

Kenya's urban housing market is characterized by renting and sharing. Approximately 86 percent of residents are tenants; they outnumber owners in 14 of 15 cities. Sharing is ubiquitous—households share houses, rooms, and/or facilities such as toilets and taps. In contrast to standard notions of an "acceptable" housing unit, only 18 percent of urban Kenyans live in a self-contained unit with a toilet, kitchen, electricity, and private water connection. The market is delivering two under-studied housing categories—compounds and dormitories—explicitly designed for sharing. These house 40 percent of urban households in individual rooms, but require sharing of toilets and water connections.

Rents represent a significant share of household income, but indicate low ability to achieve ownership, if viewed as monthly mortgage payments. Hedonic regression analyses reveal the relative value of house features with electricity, kitchens and number of rooms emerging as important drivers of rent. Neighborhood conditions, such as lack of flooding and perceived safety, and neighborhood level infrastructure and services, such as garbage collection and access to transport, also have positive impacts upon rents.

Our analysis urges a rethinking of housing policies, including reevaluation of what type of housing is deemed acceptable and affordable for very low income urban residents. It underscores the need to develop more and better-quality rental housing and calls for a reassessment of housing and infrastructure investment programs, as well as more creative approaches for expanding home ownership.

1. Introduction

In a now classic article from 1996, Stephen Malpezzi and J. Sa-Aadu asked a pointed question: What have African housing policies wrought? They argued that the policies prevailing at the time were highly flawed as evidenced by enormous housing shortfalls, continued growth of unauthorized substandard housing, and significant overcrowding. Problems of land access, finance, infrastructure provision and the regulatory environment impeded the development of housing by the private sector, while direct government intervention in housing production only served to crowd out private housing production, thus exacerbating housing shortfalls while failing to meaningfully advance housing affordability. Their prescription was straightforward: governments must "disengage from direct production and at the same time provide the necessary enabling environment for private production to flourish" (Malpezzi & Sa-Aadu, 1996).

What has happened in the intervening years relative to African housing policies and markets? Many of the worrisome trends identified by Malpezzi and Sa-Aadu still prevail. Africa continues to urbanize with 25 of 100 of the world's fastest growing cities located on the continent (UN Habitat, 2014). African cities are characterized by acute housing scarcity and housing affordability remains a large concern as poverty in African cities remains extremely high. While formal housing production has increased, it almost exclusively caters to higher income groups (UN Habitat, 2014). Informal settlements, thus, continue to proliferate and they

* Corresponding author.
E-mail addresses: sgulyani@worldbank.org (S. Gulyani), dtalukda@buffalo.edu (D. Talukdar), bassette@virginia.edu (E.M. Bassett).

https://doi.org/10.1016/j.worlddev.2018.04.007
0305-750X/

provide the majority of housing opportunity for new city residents (Fox, 2014). Land markets remain distorted and the availability of serviced urban land lags behind that of demand (Kessides, 2006; World Bank, 2016). Regulatory environments, as measured by processes like applying for building permits or registering land, while the subject of much policy attention, remain an obstacle in many African countries (World Bank, 2017).

Some of their observations, however, no longer hold. Most governments have retreated from a role as a direct housing provider (Buckley & Kalarickal, 2005). And they have responded to exhortations from economists, donors, and urban policy specialists to enable markets to work and to collaborate with the private sector—witness the ubiquity of "public-private partnerships' in areas of urban development such as infrastructure and housing provision (e.g., Jones & Datta, 2000; Miraftab, 2004; Ibem, 2010). The size, activity and political clout of the private development community, moreover, has grown. For instance, the Kenya Property Developers Association (KPDA) was established in 2006 to represent the residential, commercial and industrial property development sector. KPDA has weighed in on policy issues such as improving processes of land registration and streamlining official development review, because these processes impede housing production thus affecting housing affordability and developer profitability (KPDA, 2010). While private sector developers no longer compete with their own governments, they do have some stiff competition as international capital has arrived in urban Africa, with significant construction activity by foreign developers, particularly from China (Chen & Myers, 2013).

That said, our understanding of how these changes in housing policy and expansion of housing actors have affected housing markets and the built form of African cities is still rather limited and more focused on the supply side.[1] The rise of the high-income gated community, for instance, is a well-known phenomenon in several African cities including Accra, Cape Town and Maputo (e.g., Landman, 2004; Grant, 2005; Morange, Folio, Peyroux, & Vivet, 2012). At the other end of the housing spectrum, Huchzermeyer (2011) has investigated the mushrooming of high density tenement neighborhoods built by private capital in Kenya's capital city, Nairobi. Efforts to de-densify primate cities by building new towns on the urban periphery have also been the subject of discussion and debate (Bhan, 2014; Watson, 2014; Cain, 2014).

At the same time, there is an extensive body of evidence documenting informal housing and the continued expansion of slum settlements in the major cities of Sub-Saharan Africa (e.g., Fox, 2014). In this literature, Kenya's capital city, Nairobi, is one of the most documented locations (e.g., Amis, 1984; Gulyani & Talukdar, 2008; Dafe, 2009; Bird, Montebruno, & Regan, 2017). This literature has told us much about slum housing, and also given us rich depictions of social, economic, and environmental conditions within the slums. Nairobi slums, unlike many other locales, are characterized by high levels of tenancy and absentee ownership. Despite availing very low quality housing units and sub-standard access to urban services, including particularly appalling sanitary infrastructure, rents are relatively high—leading one pair of authors to characterize the city's slums as a presenting a "low quality, high-price puzzle" (Gulyani & Talukdar, 2008). While conditions in the city's slums appear to have ameliorated in some areas in the last decade, central city locations continue to be characterized by high population densities, poor housing quality, and abysmal urban services (Bird et al., 2017).

Building upon these studies, in this paper we examine the housing situation in Kenya holistically by looking across the spectrum: formal *and* informal housing, capital city *and* other cities, and rental *and* ownership tenures. Specifically, we seek to identify the spectrum of housing options in the country and understand consumer demand for housing across these categories. What types of housing do current urban residents live in? Do they own or rent? What do they pay for their housing? What features are they demanding in their housing and how do they value these features?

To address these questions, we leverage data from a rare and statistically-representative survey of over 14,000 households drawn from 15 cities. (We use the term cities, in its broadest sense to include the capital as well as smaller municipalities and towns, rather than following the legal definition of "cities" in Kenya).[2] We examine the different housing options "selected" by households and conduct a hedonic regression analysis of rents to ascertain the implicit relative valuation of different housing features, infrastructure services, neighborhood quality and location. This analysis, analogous to a "revealed preferences" approach, provides measures of users' acceptability of and willingness to pay for different types of housing products, across income groups and geographies. The study also gives us insight into what private sector housing providers see as market-appropriate products. Overall, our findings shed light on the nature of the existing housing market, provide an empirical basis for policy formulation, and point to options for ameliorating housing conditions and expanding access while protecting affordability. By doing so, the paper makes substantive contributions to the literature on housing markets in Sub-Saharan Africa in general and Kenya in particular.

The paper is organized as follows. Section two discusses research design and data sources. Section three presents the descriptive findings from the survey, including a typology of the dominant forms of urban housing available to urban households. Section four presents hedonic regression analyses of rents across the 15 cities in the sample to order to understand what consumers get for their money across housing categories and geographies. In the final section, we discuss the implications for housing policy and we provide directions for its reform.

2. Methodology and data

Our empirical analysis of the housing market in urban Kenya utilizes data collected through a large-sample household survey conducted in 15 urban jurisdictions—legally termed municipalities or cities – in Kenya administered between July 2012 and March 2013; (henceforth, we use the term city for all surveyed urban jurisdictions). The 15 cities provide representation across different sizes of cities by population. (See Appendix A for a map of the 15 cities and their population according to the country's last census). The survey instrument, developed with inputs from the authors, contained ten modules covering topics ranging from household composition to neighborhood conditions, housing type and quality, and access to infrastructure services. The survey also geo-coded the residential location of household respondents, enabling computation of the distance of each household's location from the central business district (CBD) of its respective city.

The sampling frame for the survey was developed with the Kenyan National Bureau of Statistics (KNBS) based on its designation of mutually exclusive and exhaustive enumeration areas (EAs) for the 2009 Kenyan national census. Within each city, KNBS also classified the EAs into two settlement types: informal (slum) and formal (non-slum), based on the criteria adopted by the UN-Habitat (2006). The survey employed a two-stage stratified cluster

[1] The literature on housing in the cities of post-Apartheid South Africa is a clear exception. South African cities are amongst the most well studied in the region.

[2] In 2011 Kenya's Parliament passed The Urban Areas and Cities Act. Under this legislation only a few of the localities surveyed now qualify for city or municipal status. All the 15 localities are urban and under previous legal constructs were considered either municipalities or towns.