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The Rental Market in an Industrialising City*

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Abstract

In this paper we present new descriptive evidence from a unique survey of landlords carried out in the industrialising city of Hawassa, Ethiopia. In 2017, Hawassa saw the creation of a large industrial park employing today over 20,000 workers. We show that the rental market appears to be fairly competitive: most of the rental housing is offered by private landlords who own one or two properties. Housing quality is also quite homogeneous. Finally, comparing rental prices in the year prior to the inauguration of the park to 2019 prices, we find a nominal increase of about 26 percent, roughly in line with overall consumer price inflation. The market has thus seemed capable of accommodating a large number of new tenants. As the industrial park aims to double in size in the coming years, the key barrier for a future expansion of private rental housing seems to be the availability of credit.

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1 Introduction

Providing adequate housing for a growing urban workforce is a key challenge for many developing countries. This is particularly true in countries that are undergoing fast structural transformation like Ethiopia. In these countries, wage differentials lead large number of workers to move from low-productivity rural activities into high value-added jobs in the urban economy. If the new urban dwellers can be adequately housed, spatial misallocations can be fully corrected and a country will be able to reap the highest possible economic benefits from this transition. On the other hand, if housing markets are unable to respond to increased demand, housing shortages and price hikes will entrench spatial misallocation and limit economic growth (Bird and Venables, 2019a,b; Hsieh and Moretti, 2019).

We have extremely little evidence to understand the functioning of housing markets in developing countries. In particular, most of the evidence we have comes from worker surveys or administrative datasets (Marx et al., 2013, 2015; Tsivanidis, 2018). These forms of data are inherently limited as they mostly capture the demand side of the market. The incentives and constraints faced by the supply-side remain poorly understood.

In this paper, we fill this gap by reporting on a unique landlord survey we carried out in the city of Hawassa, Ethiopia. This is a particular good setting to study how housing markets support structural transformation. In mid 2017, the city saw the inauguration of the Hawassa Industrial Park, a garment manufacturing hub that today employs more than 20,000 workers (in a city with a population of approximately 300,000 workers). To study the functioning of the housing market and the evolution of prices, we performed three separate exercises. We first listed all homeowners in two neighbourhoods that accommodate a large number of workers. Second, we randomly sampled 500 landlords from this list of homeowners and administered them detailed interviews. Third, to get a broader picture of the city housing market, we interviewed a second sample of landlords, selected through a geographically stratified random sampling procedure.

The data we collected shows that the rental market appears to be fairly competitive: most of the rental housing is offered by private landlords who own one or two properties.

Housing quality is also quite homogeneous. Finally, comparing rental prices in the year prior to the inauguration of the park to 2019 prices, we find a nominal increase of about 26 percent, roughly in line with overall consumer price inflation. The market has thus seemed capable of accommodating a large number of new tenants. As the industrial park aims to double in size in the coming years, the key barrier for a future expansion of private rental housing seems to be the availability of credit.

In rest of the paper we proceed as follows. In Section 2, we describe in detail the three surveys. In Section 3, we present the key results. In Section 4, we discuss the design of two randomised evaluations that are motivated by our findings.

2 The survey

We mainly rely on use three sources of data in this paper: (A) a homeowner census in three selected neighbourhoods, (B) a in-depth survey of landlords randomly sampled from the home owner census, and (C) a survey of three landlords in each geographical block of the city. For simplicity, we will refer to these as datasets A, B and C.

For the first dataset, following initial qualitative work, we selected two ‘sub-cities’ (neighbourhoods) where most of the workers of the industrial park are known to reside: Tabor and Tula. We carried out **a full listing of all homeowners in these two neighbourhoods**. We contacted every house in the neighbourhood and asked to talk to the owner of the house. We then administered a short questionnaire to the homeowner, including questions on socio-demographic characteristics, real estate ownership and participation in the rental market. In total, we listed 2,952 homeowners.

For the second dataset, we carried out an extensive interview with **a random sample of 524 landlords**. We sampled landlords stratifying by Kebele (geographical unit), gender of the owner, and terciles of number of housing units and rent charged. We administered a detailed questionnaire that covers questions about economic activities, housing quality, history of engagement with the rental market, constraints to further expansion of the rental housing supply. In particular, we carried out a detailed household

unit roster: for each unit, we obtained the average rental price of a room in that unit in the last five years.

Finally, we collected some additional data to be able to measure outcomes and prices for a broader set of landlords than those residing in the three neighbourhoods selected above. We did this by (i) dividing the city in small geographical units or blocks, (ii) randomly sampling a point in each block and (iii) interviewing three landlords that could be found by walking away from the sampled point, in a randomly chosen direction. This produced **a sample of 1,662 landlords**. Given the larger size of the sample, we administered a shorter version of the detailed landlord survey that constitutes our second dataset.

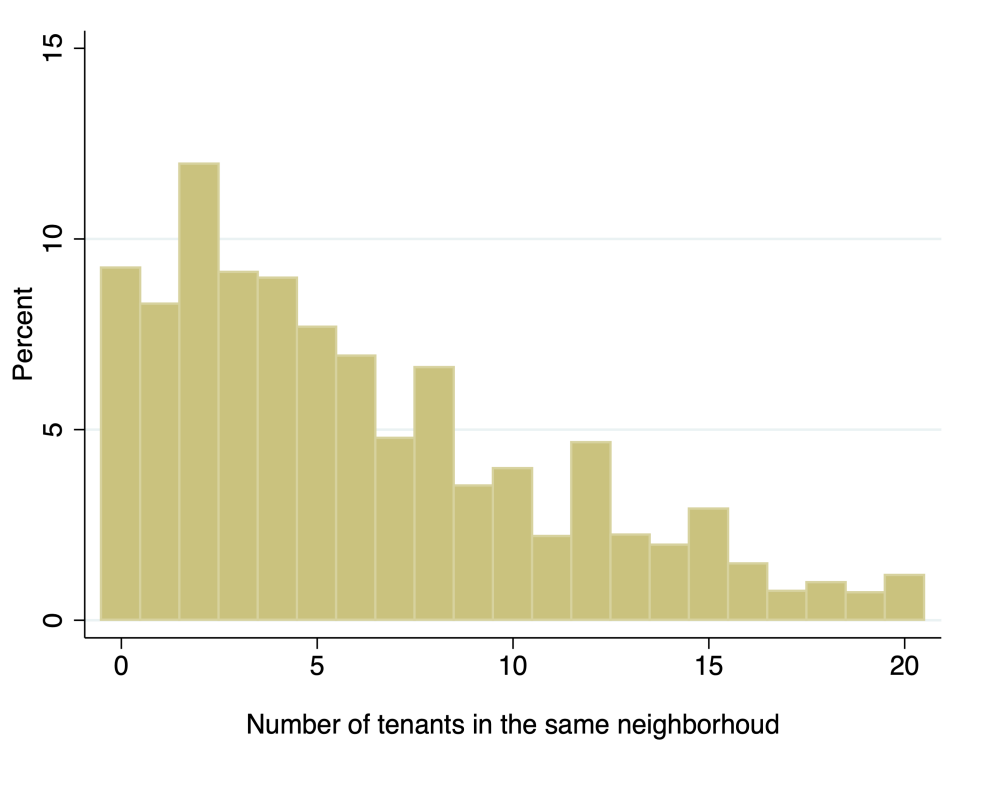
3 Key results

3.1 Market structure

In terms of market structure, we have two key findings. First, we find that renting is extremely common in the selected neighbourhoods. Almost 90 percent of the listed homeowners have at least one tenant. This can be seen from the histogram of the number of tenants across homeowners presented in Figure 1. Second, we find that most of the rental market is composed of small players. Figure 1 shows that the bulk of the distribution of landlords have fewer than 10 tenants. Figure 2 shows that more than 85 percent of tenants live in the property of a landlord that only owns one house (and that virtually all tenants live in the property of a landlord that has no more than two separate houses). In other words, the market is composed of a very large number of small players.

Altogether, we estimate that all landlords in the neighbourhood host about 16,500 tenants, up to 5,000 of which are workers at the Hawassa Industrial Park. This large market appears to function in an informal way and largely without intermediation. More than 90 percent of landlords find their tenants by posting a notice on their front door. The most common form of contract is a verbal agreement without a fixed duration.

Figure 1: Distribution of number of tenants

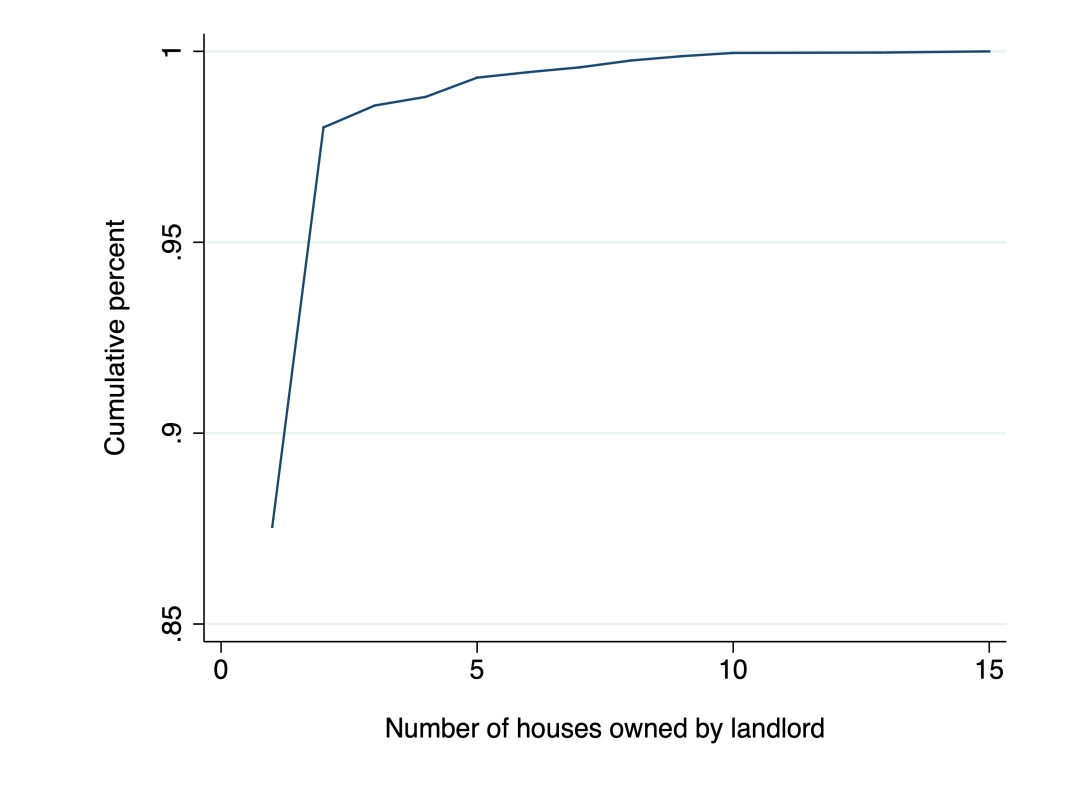


Notes: This figure displays the distribution of the number of tenant across homeowners. The data is from dataset A.

3.2 Rental prices

Our second finding is that while nominal rental prices increases have been substantial in the last five years, real prices have actually been fairly stable. This is consistent with the hypothesis that the market is relatively competitive. Figure 3 shows average rent per room for the past 5 years. We can see that average rent has increased by about 50 percent in 5 years. The bulk of this increase happened in 2017 and 2018 (the park started its operations in 2017). Between 2016 and 2019, nominal prices have risen by about 26 percent. Over a comparable period of time, consumer price inflation in the region of Hawassa has been 33 pct (we do not have a specific figure for the city of Hawassa, however this figure is consistent with overall inflation in the Country and somewhat lower inflation in Addis Ababa). This suggests that real rental prices have actually stayed constant or decreased. The right panel Figure 3 also shows how competition has helped keep prices

Figure 2: Cumulative distribution of tenants across landlords with different numbers of houses



Notes: *Notes:* This figure displays the cumulative distribution of tenants with respect to the number of houses owned by the landlord. The data is from dataset A.

down: rental price growth for those landlords those units that have been on the market constantly for the period between 2016 and 2019 has been 33 percent. This suggests that the new units that have become available offered a lower rental price.

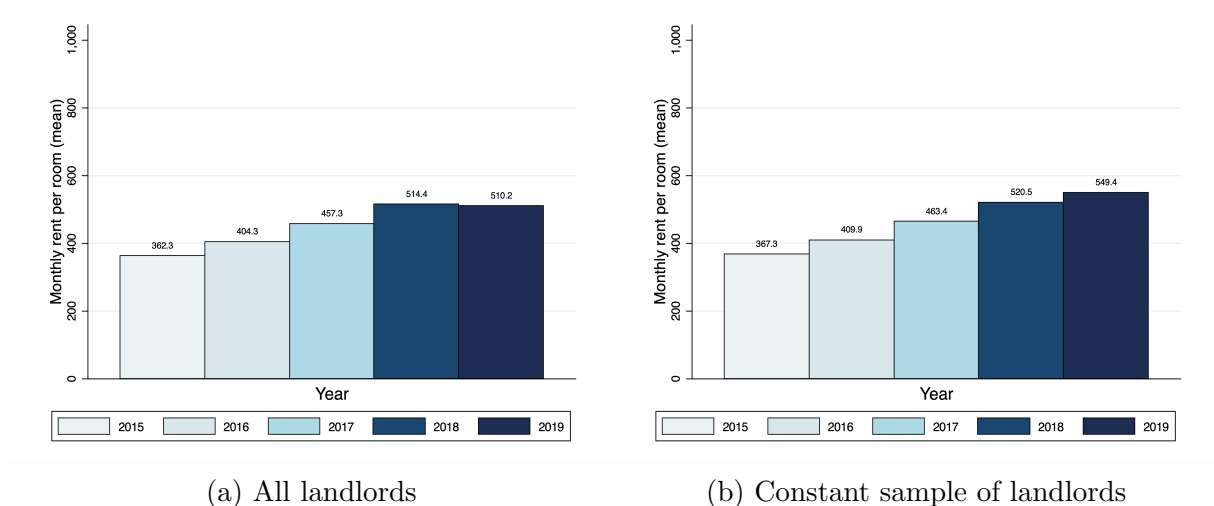
Further, Figure 4 shows, the bulk of this increase has happened for rents in the bottom part of the distribution, consistent with an increased demand for low-cost housing on part of the workers of the industrial park.

Average rent per tenant in 2019 in these two neighbourhoods was 234 ETB per month (the median was 200 ETB per month). In most cases, this figure includes bills. Interestingly, there is substantial variation in this figure: the standard deviation of rent per worker is 166 ETB. If we truncate rent per worker at the 10th and 90th percentile of its distribution to account for measurement error, we still find a standard deviation of 108

ETB.

It is also important to note that these figures are somewhat lower than those reported by the workers themselves. For example, in a survey of 90 workers starting a job at the Hawassa Industrial Park at a similar time, we found that average rent per worker was 277 ETB per month, and the median was 250. The discrepancy may be due to misreporting (e.g. landlords may report lower prices as they may fear the introduction of rent controls) or selection (e.g. new workers may be unable to find the cheaper accommodation when they first move to Hawassa).

Figure 3: Rent per room over time



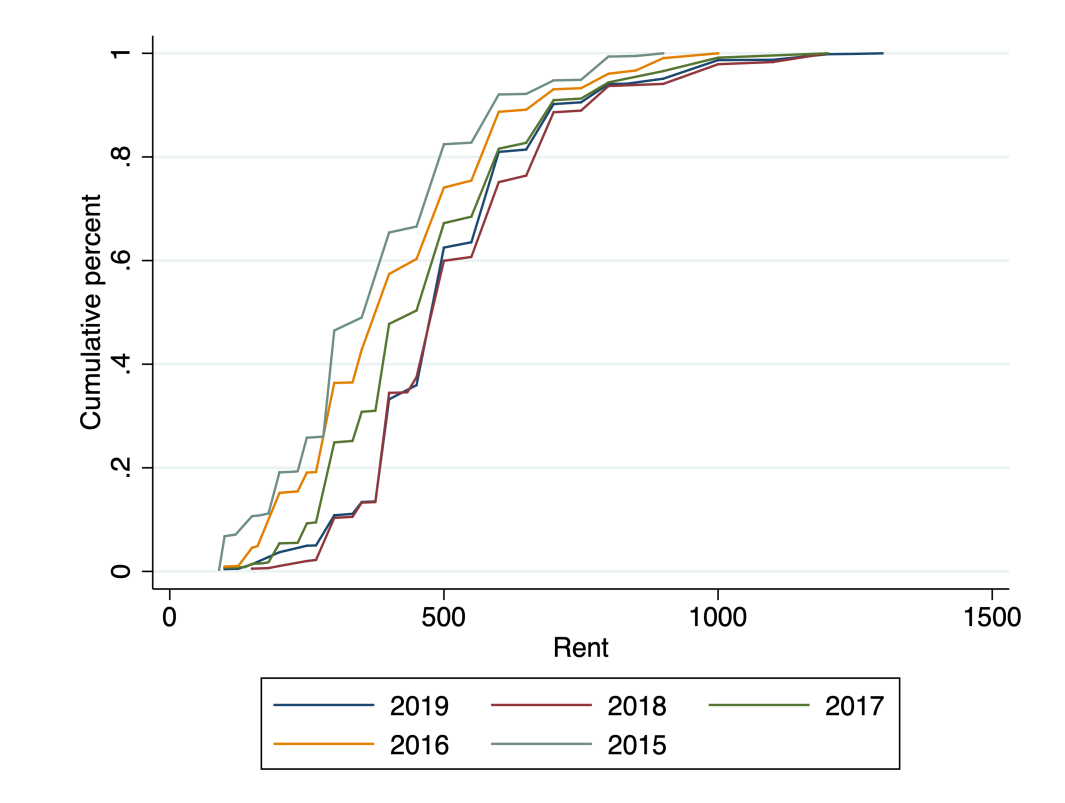
Notes: This figure displays the average rent for five different years. The left panel includes all rent observations in the sample, while the right panel includes only housing units that have been rented for the whole period of five years. The data is from dataset B.

3.3 Housing quality

Our third finding is that, despite the large dispersion in prices, housing quality seems fairly homogeneous. Figure 6 shows that more than 80 percent of rented units have a concrete floor and mud walls and more than 90 percent have a roof made of corrugated iron. In most cases, these are separate units located in the same compound where the landlord lives. The typical unit has only one room with 3 people living in it. The median size per tenant is 5.3 squared meters.

There are significant rental premia associated with having a concrete floor and concrete

Figure 4: Cumulative distribution of rent per room across years (constant sample)

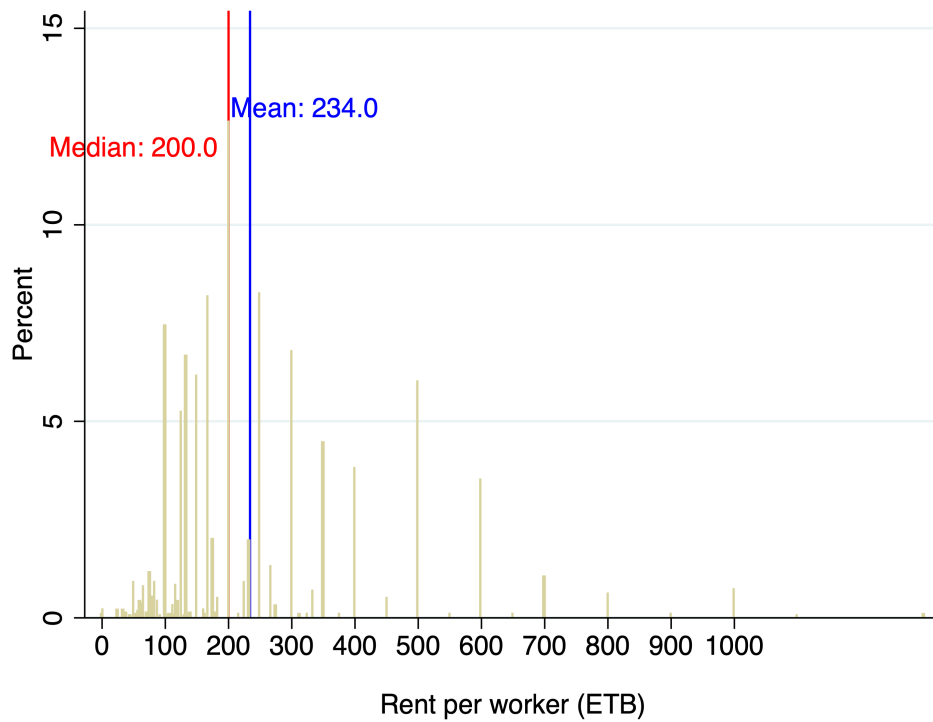


Notes: This figure displays the cumulative distribution of tenants living with landlords with different property structures. The data is from dataset B.

walls. Also, most of the subunits of the neighborhoods have a significant price differential. Surprisingly, there is no premium associated with the space available per tenant (perhaps because of some measurement error in room size). We show these results in Figure 7, where we report the results from a battery of hedonic regressions of rental price on housing characteristics.

It is important to note that all the observable characteristics explain about 30 percent of the variation in rental prices we documented above. In other words, the substantial price dispersion we have documented above is not simply a reflect of heterogeneous housing quality.

Figure 5: Distribution of rent per tenant, 2011



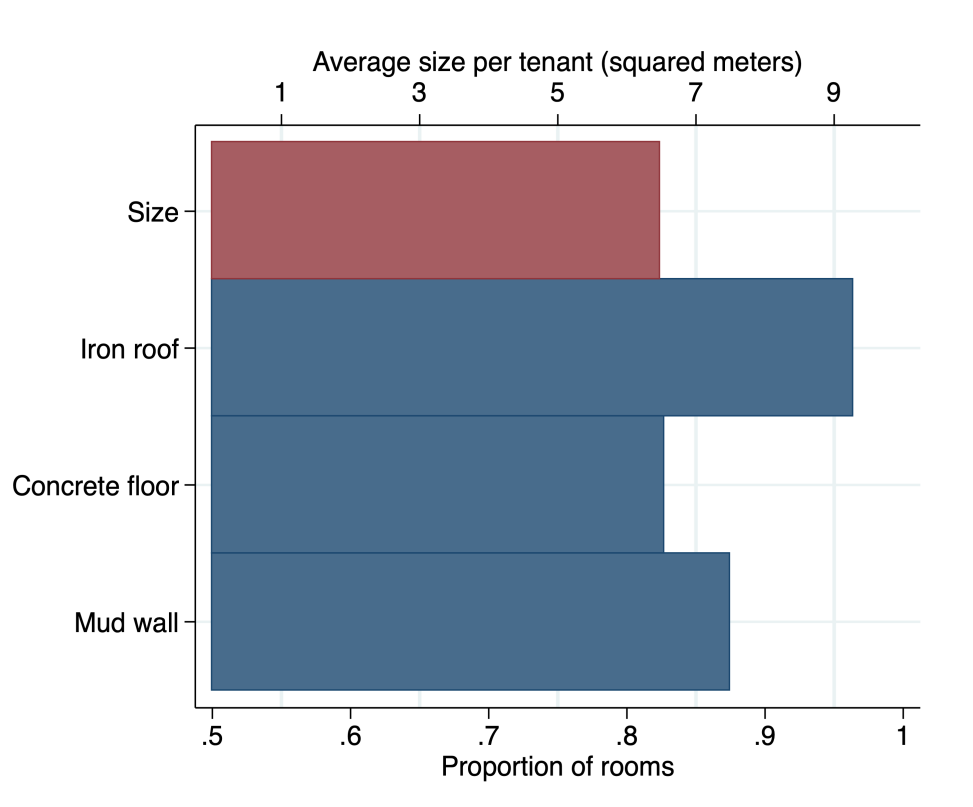
Notes: This figure displays the distribution of the rent paid by a single tenant. The data is from dataset B.

3.4 Barriers to further expansion of the rental market

Our fourth finding is that the most important barrier to a further expansion of the housing stock allocated to the rental market is lack of finance. Figure 8 plots the main reasons that prevent landlords for renting more rooms. The most common answer (given by 62 percent of landlords) is lack of finance (required to build more housing units). Lack of space seems to be a constraint for only about a quarter of the households.

The lack of finance reported by landlords is consistent with the the most common source of funding to build the existing rented units was the landlord's own savings. For more than 60 percent of the units, this was the main source of funding and for the average unit 70 percent of funding was composed of own savings. Loans from formal institutions were particularly rare.

Figure 6: Housing quality

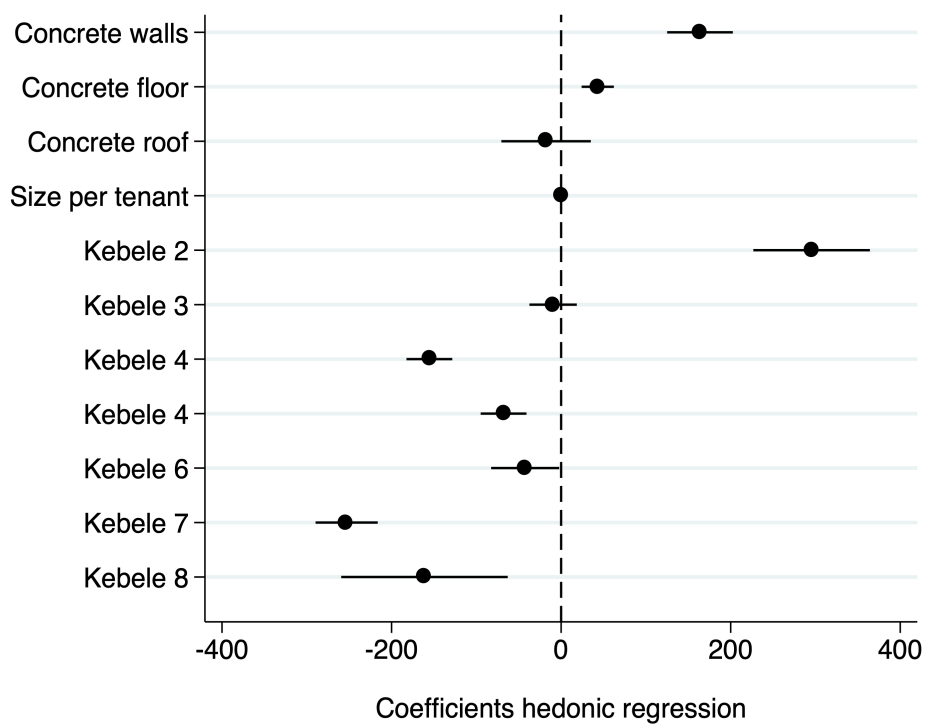


Notes: This figure displays the means of different housing quality indicators for all rented housing units. The data is from dataset B.

Further, we can look at the existing stock of housing units. The landlords we surveyed have a total of 2,489 separate units, 1,782 of which are currently rented. There are only 210 existing units that the landlord would like to rent but has not yet rented. The three most common reasons given for this are ‘political instability in Hawassa?’ and ‘poor quality of the unit?’ (which presumably implied that the unit needs some renovation before being rented).

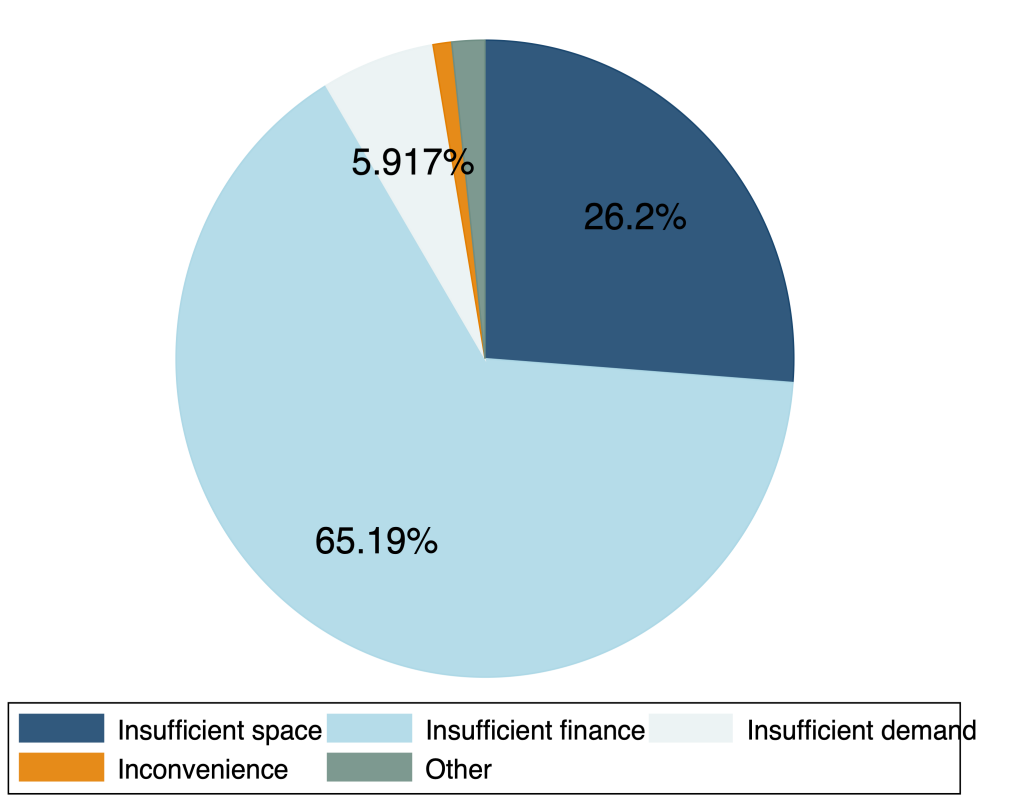
Moral hazard issues after signing the rent contract seem to be of second order. Only 7 percent of landlords disagree with the statement ‘My tenants are generally trustworthy’. Problems related to theft, noise or smell are extremely rare. 10 percent of landlords had a tenant fail to make a rental payment in the last 12 months, but in 60 percent of these cases the tenant eventually paid what was owed.

Figure 7: The determinants of rental price



Notes: This figure displays the coefficients and confidence intervals obtained with a hedonic regression of rental prices on room characteristics.. The data is from dataset B.

Figure 8: Why are you not renting more rooms in your house?



Notes: This figure displays the share of the landlords that reported a given reason for not renting more rooms. The data is from dataset B.

4 Future experimental designs

These surveys generate two leads for future experimental work on rental markets in the industrialising cities of Ethiopia. First, interventions that relax credit constraints have the potential to substantially increase the stock of housing available in the rental market and decrease rental prices even further. The Government itself has run a small pilot scheme in 2017 that funded the construction of some housing units. While there have been problems with the scheme (in particular, with the quality of the houses built), the take-up of the program was encouraging. In a future design, it would be interesting to experiment with offering credit conditional on meeting set housing quality standards.

Second, the existence of substantial price dispersion despite the relative homogeneity of housing quality points to the existence of potential search frictions. This is further confirmed by the existence of frequent tenant turnover (which is the most commonly reported problem by landlords). Search frictions in rental markets have been documented in recent experimental work by Bergman et al. (2019). Overall, this suggests that interventions that reduce these frictions — for example, by publicising the prices of rented units and their quality on a publicly available platform or by supporting the worker in the search process — may be promising in this context.

Both types of interventions need to be evaluated at scale, with a design that randomises at the neighbourhood level and thus incorporate at least some of the general equilibrium implications of incentivising and interfering with landlord behaviour. The key outcome of interest in both cases would be the equilibrium rental price in each neighbourhood and its dispersion. Rental housing quality, the average tenure of tenants, and measures of tenant and landlord satisfaction will also be of interest.

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