

# AN EMPIRICAL EQUILIBRIUM MODEL OF THE MARKETS FOR RENTAL AND OWNER-OCCUPIED HOUSING

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Friday 1<sup>st</sup> November, 2024

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## Abstract

A large and growing share of households rent from private landlords. I empirically analyze how landlords affect welfare and housing affordability by influencing rents, prices, and the allocation of houses between the rental and owner-occupied sectors in the UK in the presence of household borrowing constraints. I combine several novel datasets of UK property markets and document three key facts that point to the impact of landlords on the housing market: (i) housing quality is segmented between the rental and owner-occupied sectors, with rentals generally offering lower quality, (ii) cities with more pronounced quality segmentation tend to have higher rent-to-price ratios, and (iii) in more segmented cities landlords have fewer assets. To quantify the effect of landlords on the housing market, I develop and estimate a two-sided assignment model which features households' optimal choice of housing quality and tenure (i.e., the choice to rent or own) in the presence of borrowing constraints, landlords' profit-maximizing choice of quality to rent out, and endogenous quality segmentation and rent-to-price ratios which are determined in equilibrium. I conduct counterfactual experiments to show that differences in landlord costs of capital explain much of the variation in quality segmentation and rent-to-price ratios observed across cities.

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