I don't want you as a neighbour: what will the landlord do?

A matching model of housing market discrimination with externalities

Pierre-Philippe Combes[1], Bruno Decreuse[2], Benoît Schmutz[3], Alain Trannoy[4]

April 2009

We construct a model which transposes Becker's theory of customer discrimination to the private rental housing market. We use a dynamic programming framework to look after the best responses of unprejudiced landlords who seek to minimize their vacancy rate. In doing so, they have to take the ethnic preferences of their potential applicants into account and may sometimes find it optimal to discriminate against some groups of the population if these groups happen to be prejudiced against. We define discrimination here as quantity rationing because of the limited feasibility of price discrimination in a context of rent posting. Landlords are heterogeneous with respect to the number of lots they own, which in turns impacts their behaviour in terms of discrimination.

We consider a very simple world of identical two-appartment buildings and define as neighbours two individuals who share the same building. Hence, there are two types of landlords: the ones who only own one appartment (called "type I") and the ones who own the building ("type II"). The population of applicants is divided into two groups. In one of these ("Natives"), some individuals are prejudiced against the kind of the other group ("Foreigners"). This prejudice is strong enough so that they will refuse any appartment in the vicinity of a foreign tenant, but not strong enough to make them move out whenever a black applicant is coming into their building. Apart from that, applicants are not strategic players and they accept any appartment where they have been accepted. In particular, their search is undirected, which means they do not choose the landlord's type. As a result, type-I landlords may discriminate because if they accept a Foreigner now, they will be more likely to be confronted to a Foreign neighbour later when they have to rent their appartment again, which will make it harder. Type-II landlords may discriminate for the above-stated reason as well, but also because if they accept a Foreigner now, they will have more trouble renting their other appartment: in other words, they cannot "free ride" on the the other landlord's tenant.

We demonstrate the existence of two equilibria involving customer discrimination: in one equilibrium, Foreigners are underrepresented in the rental market

[1] Greqam-Idep, CNRS
[2] Greqam-Idep, Université de la Méditerranée
[3] Greqam, Université de la Méditerranée
[4] Greqam-Idep, EHESS

whereas in the other one, they are barred from it. We show that if a type-I landlord discriminates, then a type-II landlord will discriminate too; and that if both types discriminate, then the type-II landlord will maybe discriminate more strongly. This result gives us an empirical test for customer discrimination. Using French data from the National Housing Survey, we estimate that Foreign tenants are less likely to be renting from a landlord who owns the entire building, which confirms our theory.

We also propose an extension of this framework to the home-buying market. Landlords become sellers, with the type-I sellers selling one appartment whereas type-II sellers sell the whole building. We assume the sale process is sequential, which allows potential buyers to know their future neighbours' type. We show that discrimination arises only for type-II sellers and leads to the underrepresentation of Foreigners in the home-owning market.