Off-street residential parking and car ownership

Author(s):
Sartas, Georgios; Axhausen, Kay W.

Publication Date:
2018-05

Permanent Link:
https://doi.org/10.3929/ethz-b-000264747

Rights / License:
In Copyright - Non-Commercial Use Permitted
Off-street residential parking and car ownership

Georgios Sarlas  
IVT, ETH Zürich  
ETH Hönggerberg,  
CH-8093 Zürich

Kay W. Axhausen  
IVT, ETH Zürich  
ETH Hönggerberg,  
CH-8093 Zürich

Off-street residential parking market can be viewed as a case where the market-clearing price is the result of a set of characteristics, some of which have been the result of different policies. However, modelling of the pricing mechanism that governs such partial markets has received very low attention in the literature, mainly due to their unregulated nature. The current study aims to fill in that gap by employing a spatial hedonic modelling approach to model off-street parking rental prices for the city of Zurich. The results highlight the existence of local partial market clearing conditions with rental prices being highly sensitive on the availability of on-street parking in the close vicinity of residences, while the identification of the influence zones of the employed variables brings forward interesting behavioral aspects concerning the decision to rent an off-street parking place. In addition, a car ownership model on a household level is developed, accounting for the endogenous character of parking prices.

Keywords: spatial regression, endogeneity, car ownership