Rent Price Convergence and Rental Market Integration in Vienna

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Extended Abstract

In the terminology of Kemeny (1995) a *unitary* or *integrated* rental market is characterised by competition between for- and non-profit housing providers. According to the theory this should lower rents for all tenants, also those accommodated within the private segment of the market. Although originally put forth as a theory concerned with housing regimes on a national level, recent debates have emphasised the importance of the local level, meaning regions or cities when dealing with housing regimes. In this paper we go even further and empirically investigate the proposed relationship between non-profit supply and private housing rents on a neighbourhood level. The probably best possibility for such a case study is the city of Vienna. Housing in the Austrian capitals is not only dominated by rental sector (70%) but has a substantial non-profit supply with a market share of 21% (Statistik Austria, 2020). But most important, Vienna might be regarded as one of the last examples of a European city with an accommodation market that can truly be characterized by what Kemeny, Kersloot, and Thalmann (2005) refer to as an integrated rental market (Matznetter, 2020).

Critics of this view might point out the rapidly rising housing costs in Vienna, which have been especially pronounced in the aftermath of the financial crisis 2008 (Statistik Austria, 2020). These recent developments can be traced back both to trends in market fundamentals as well as policy changes and possibly some processes of financialization. However, rent price developments might still be dampened by the large supply of social housing, especially in those neighbourhoods with a high level of competition between the market segments. The question is not if rents are rising or not, but where they are heading. To deal with this question, we draw on the econometric convergence literature, more specifically the idea of club convergence. Originally designed for questions of macroeconomic growth patterns between economies, Phillips and Sul (2007) developed a econometric toolbox enabling us to endogenously detect so called convergence clubs which are characterised by a similar growth trajectories. Applied to the case of local rent levels, we can detect neighbourhoods with common price trajectories.

To test whether higher non-profit housing shares within a neighbourhood indeed bring down prices on the private rental market, we need to check if there are differences in those price trajectories associated to the local segmentation of the housing supply.

For this study we use a unique micro-dataset containing 111,749 rent price offerings between 2011 and 2019 partially provided by the *DataScienceService GmbH* as well as the *Research Unit Urban and Regional Studies* of the University of Technology Vienna. In order to combat sampling problems and outlier issues in the data, we use a multilevel approach to construct quarterly mean prices for 196 of the 250 Viennese subdistricts. We then perform the *log-t convergence test* suggested by Phillips and Sul (2007) to test for rent price convergence between the subdistricts in the panel. After rejecting the convergence hypothesis, we apply the clustering algorithm also developed by Phillips and Sul (2007) to detect different convergence clubs across the city. Exploiting the ordering in the outcome of the clustering process, we then use an ordered

probit model to investigate the impacts of non-profit housing cooperatives shares in the local housing market onto club membership and thus rent price trajectories on the private market. Doing so, we also control for centrality and socioeconomic differences within the spatial units.

We indeed find significant evidence against allover convergence of private rents between subdistricts. Instead we detect three different convergence clubs. We can also conclude a significant role of non-profit housing supply in the local rental market onto club membership, with higher social housing shares beeing associated to lower price trajectories, even when controlling for centrality and socioeconomic characteristics. Thus, drawing on the econometric convergence literature we are for the first time able to provide quantitative evidence on the price dampening effects of an integrated rental market. We are even able to this on a very local level using a novel and unique micro-dataset of Viennese rent offering prices. One of the main contributions of this paper is to add an appropriately sophisticated empirical approach to the otherwise rich discussion on housing regimes and the respective strand of literature from the field of critical housing studies.

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