

## **Regional development & Globalization: Best Practices**

54th ERSA congress, August 26-29<sup>th</sup>, Saint Petersburg, Russia

### **The attraction of the urban core: centrality, intensification and residential density gradients**

**Dani Broitman, Eric Koomen**

**VU University – Amsterdam**

Residential development is a complex dynamic process and as a result the growth rate of housing stock varies substantially over space and time. Urban economic models predict gradients in land rent and residential density from maximum values in the city centre to minimum values at the city edge. These gradients are expected to flatten as the city expands. This paper aims to understand recent spatio-temporal dynamics in residential development within cities as well as in their suburban and peri-urban environments. The analysis is carried out for the Dutch urban agglomerations located along the hinterland corridors surrounding the main motorways that connect the Netherlands with continental Europe. It aims to understand the fast growth of some cities (belonging to the most urbanized area of the country and the heart of the Dutch economy, the Randstad), the relative success of a second group (located in both in intermediate and peripheral areas) and the lagging behind of others (mainly located in the periphery of the country).

The residential development trends described in this paper suggest a strong tendency towards uneven growth among geographical regions, related with regional economic performance, measured in terms of GDP growth and job market evolution. Within regions, main cities grew more than their subordinate peri-urban municipalities, except for the Randstad, the most densely populated and economically active area of the country. In this highly urbanized region, the residential stock in municipalities surrounding the urban cores (Amsterdam, The Hague, Rotterdam and Utrecht) grew more, both in absolute and relative terms, than the main cities.

In line with theory, the average dwelling size increases with distance from the city centre, while the average number of inhabitants per housing unit tends to decrease. The physical development of the urban cores reveals that, following increased densities in city centers, in the biggest cities density gradients are gradually sharpening (against expectations of flattening gradients over time). Land price gradients are sharpening too, but much faster. Both last trends are remarkably clear in the main cities of the Randstad. Through these processes, increasingly uneven residential growth processes are evidenced, both regionally and, in particular, within urban regions.

Submission Title: **The attraction of the urban core: Centrality, intensification and residential density gradients**

General theme: **G\_L Spatial agglomerations - economic clusters and metropolitan areas**

Keywords (and) JEL codes:

**R14 - Land Use Patterns**

**R21 - Housing Demand**

**R31 - Housing Supply and Markets**