

Tenure arrangements in the EU countries: the trade-off between ownership and rental housing

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Abstract

Distinguishable patterns of mass homeownership have emerged across the EU countries in recent decades, and have become commonly addressed in comparative analyses of housing systems in the globalised world. Numerous studies examined the spatial differentiation of housing tenure in the EU-15, yet the situation of the new member states still appears to be only vaguely recognized. The aim of the paper is to identify clusters of countries according to similarities within housing tenure and to explain differences in tenure composition (ownership vs. rental housing). The research procedure relies on cluster analysis that is part of multidimensional statistical classification methods.

The paper uses cross-sectional European Union Statistics on Income and Living Conditions (SILC) data to deconstruct to what extent the living arrangements have varied across the European Union countries. The spatial scope of analysis covers all EU member states.

The results allowed for distinguishing countries that boast similar housing tenure structure. The proposed typology may help to better understand the diversification of living arrangements within the EU and thus be useful in tailoring by authorities of the member states housing policies through identification of role models and good practices.

Keywords: tenure forms, ownership, rental housing, cluster analysis, EU countries

JEL Classification: R31, R28, C38

1. Introduction

Even though home ownership has long ceased to be considered the ideal tenure form (Kemeny, 1981; Elsinga and Hoekstra, 2005; Jones *et al.*, 2007; Tan and Khong, 2012; Aarland and Reid, 2019), it is generally still preferred by governments, individuals and society as a whole (Doling and Elsinga, 2005; Jones *et al.*, 2007). In 2018, more than one quarter of the EU-28 population lived in an owner-occupied home with an outstanding mortgage or loan, while more than 40% of the population lived in a debt-free owner-occupied home. In total, 7 out of 10 EU-28 citizens

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lived in owner-occupied dwellings, while more than each fifth was a tenant with a market price rent, and the remaining part were tenants in reduced-rent or free accommodation.

The purpose of this paper is to analyse and classify the European Union countries with regard to the prevailing housing tenure types. The empirical analyses are based on the EU Survey on Income and Living Conditions (SILC), enabling comparisons on the state level. In the research procedure, the cluster analysis was used as a method of classification. The clustering approach is recommended for smaller samples and does not require pre-determination of the number of groups, which is of key importance for the exploratory nature of the research.

The study is embedded in tenure-oriented approach. The most basic categories analysed in housing studies is ownership vs. rental housing. In the EU countries owner-occupied housing is usually discussed in terms of actual possession, i.e. whether there is an outstanding mortgage or loan for the dwelling, while the rental sector consists of dwellings that are privately-owned for the purpose of making a profit, and dwellings owned by local authorities and non-profit organizations that usually rent their stock at reduced price or free of charge. Such general classification of tenure types is problematic in comparative research, as tenure types may differ significantly across countries or have no counterparts, and there are numerous subsectors within each particular tenure type (Borg, 2015; Barlow and Duncan, 1988; Harloe *et al.*, 1988; Ruonavaara, 1993).

Taking into account the abovementioned conditions and availability of international data, the authors distinguish four tenure types for the purpose of the research: owner with mortgage or loan, owner with no outstanding mortgage or housing loan, tenant renting at market price and tenant renting at reduced price or free of charge.

The use of tenure types for cross-national studies has been widely criticized (Barlow and Duncan, 1988), due to too broad and abstract use of the concept of tenure. However, there is a common agreement that housing tenure is a fundamental concept in housing policy research, as it sets up the rules of the games between actors in the housing market by defining the formal position of residents in their capacities as owners, co-owners and users of their dwellings (Borg, 2015; Bengtsson, 2009).

2. The trade-off between tenures

Homeownership has expanded significantly to such an extent that it is now the dominant housing option in the vast majority of EU countries. In many of those countries, it is the

overwhelmingly prevalent tenure accommodating approximately 70% of households. Considering the significant cost of land, dwelling purchase and construction, homeownership is perceived by many as an important indicator of decent living conditions and a final step of most households' housing ladders.

Therefore, home ownership rates are still on the increase, and the trend is reinforced by e.g. the availability and accessibility to mortgages, the support of governments, the construction boom (Ronald and Elsinga, 2012), and last but not least – cultural patterns. Making the decision to purchase a house elevates the purchaser to a culturally significant status of a homeowner. Home is viewed as a basic privilege and thus is the cornerstone of housing policies in the most EU countries. Unlike renters, homeowners are perceived as financially independent citizens who embody the values of individual freedom, personal responsibility and self-reliance (Dickerson, 2009).

Although privately owned housing stock outnumbers other tenure forms in almost all EU states, one can observe some variation within its size and growth dynamics. The reasons for this heterogeneity are manifold. Macro-economic factors such as gross domestic product (GDP), price-to-rent indices and population density as well as political and cultural attitudes towards the benefits of property creation and historical development have all been shown to play a role (Voigtlander, 2009). Institutional factors are also thought important to understanding tenure choice, for example differences in mortgage markets (Proxenos, 2002) and pension schemes (Kemeny, 1981; Castles, 1998). There is a heated debate on the “trade-off” between welfare and housing. When countries are compared, a relationship seems to emerge between housing and welfare: the higher the home-ownership rate, the lower the state pensions. Although there is agreement on the statistical relationship between home-ownership and public spending on state pensions, the causal relation between the two remains unclear.

Despite the general approval for home ownership, more and more attention has been drawn to its risks and challenges. While this tenure form can undoubtedly provide security and benefits to middle- or high-income households that boast the potential to build equity from their home, which is supposed to serve as a financial buffer in times of economic downturns or as a way to secure next generations' needs, for some it may pose a source of insecurity. There is a growing concern among policy makers that low- and moderate income households do not benefit from being homeowners as much as the rich. The reason is that the benefits of being a homeowner are offset by additional financial burden (e.g. high mortgage risk), locational trade-offs, limited ability to accumulate wealth, or being forced to sell a dwelling at a loss in case of moving homes in the early years after purchase (Hulse *et al.*, 2010). The financial strain

to meet housing costs may seem particularly distressing due to the extensive time of debt repayment.

Another risk connected to home ownership is lower job mobility. While it is true to say that it affects all homeowners, those with low and moderate income seem to experience even more inconvenience in this matter. They purchase in outer metropolitan locations to be able to afford home ownership and are thus often forced to commute substantial distances (Ewijk and Leuvensteijn, 2009; Hulse *et al.*, 2010). In addition to the financial and time costs of commuting, extended distance to work entails less time with family and the feeling of exclusion, i.e. being “locked” in to a particular location without possibility to access employment in other areas.

Across Europe, different attitudes to renting may be observed. While in many countries rental housing is still perceived as the sector characterized by precarious housing contracts, low quality dwellings or even housing for the destitute, in others it is considered a cornerstone of market stability and a “safety net” in times of economic downturns (Haffner *et al.*, 2017). In Germany, Sweden, Austria, Switzerland, private rental stock has long been perceived a safe and convenient form of tenure for various household types.

3. Method and data

The research procedure aims at distinguishing groups of countries (members of the EU) that are similar with respect to tenure arrangements. It employs a multidimensional statistical classification method – i.e. cluster analysis (Bailey, 1994). The clustering algorithm involves the division of the N -element set of objects, whose elements are characterized by the n -dimensional feature vector, into c homogeneous subsets (groups) in such a way that the vectors that make up one subset are more similar to each other than to vectors with other subsets. Among the many grouping procedures, the cluster analysis uses most often hierarchical methods based on the similarity tree (dendrogram) and non-hierarchical methods, which include grouping using the k -means method (objects are assigned to the number of k -clusters distinguished by the researcher) (Kaufman & Rousseeuw, 1990).

In the study a hierarchical method was used using the agglomeration technique, in which each object is initially treated as a separate cluster, and then, in the course of the research, the closest objects are joined in increasingly larger clusters, until all the objects are combined into one generalized structure called a similarity tree (dendrogram).

The criterion for joining were the values of the similarity function, for which the Euclidean distance was calculated using the following formula:

$$d(o_i, o_k) = d_{ik} = \sqrt{\sum_{j=1}^n (z_{ij} - z_{kj})^2}, \quad (1)$$

where:

z_{ij} – value of j variable for item i ,

z_{kj} – value of j variable for item k ,

$j = 1, 2, \dots, n$ – number of variables,

$i, k = 1, 2, \dots, N$ – number of items.

While the similarity of objects was determined on the basis of Euclidean distance, the agglomeration method (i.e. the principle of joining objects into clusters) was determined on the basis of an analysis of variance using the so-called Ward method. In each grouping stage, out of all cluster pairs, the pair that combines the smallest differentiation will be joined. Therefore, the sum of squares of deviations within clusters is minimized. It is often indicated in the literature that this is the most effective method among the available methods of binding clusters (Ward, 1963; Kaufman and Rousseeuw, 1990; Everitt, Landau and Leese, 2001; Suchecki and Lewandowska-Gwarda, 2010).

As a result of hierarchical clustering, similarity trees were created, on the basis of which the final typology was developed. Due to the fact that in the agglomeration procedure of cluster analysis the number of groups is not predetermined, the division into groups (types of countries) was made based on the agglomeration chart (binding distance chart relative to binding stages) depicting the differences between the clusters arising in subsequent analysis stages (Kaufman and Rousseeuw, 1990; Stanisiz, 2007).

The spatial scope of the study covered all EU Member States. Due to the availability of statistical data, and the low variability of tenure arrangements over time, the analysis was limited to the year 2018. In the research procedure, the distribution of population by tenure status data was adopted as diagnostic variables constituting the n -dimensional vector of differentiating features of the EU countries:

1. Owner, with mortgage or loan [%].
2. Owner, no outstanding mortgage or housing loan [%].
3. Tenant, rent at market price [%].
4. Tenant, rent at reduced price or free [%].

The above statistics were acquired from the EUROSTAT study – the European Survey on Living Conditions (EU-SILC).

4. Results

The similarity tree resulting from the cluster analysis along with the plot of linkage distance across steps indicated distinguishing four clusters of countries with similar characteristics with regard to tenure arrangements (Fig. 1). The developed typological classification clearly highlighted the spatial regularities in the area of similarity of tenure structures in the EU housing markets (Fig. 2).

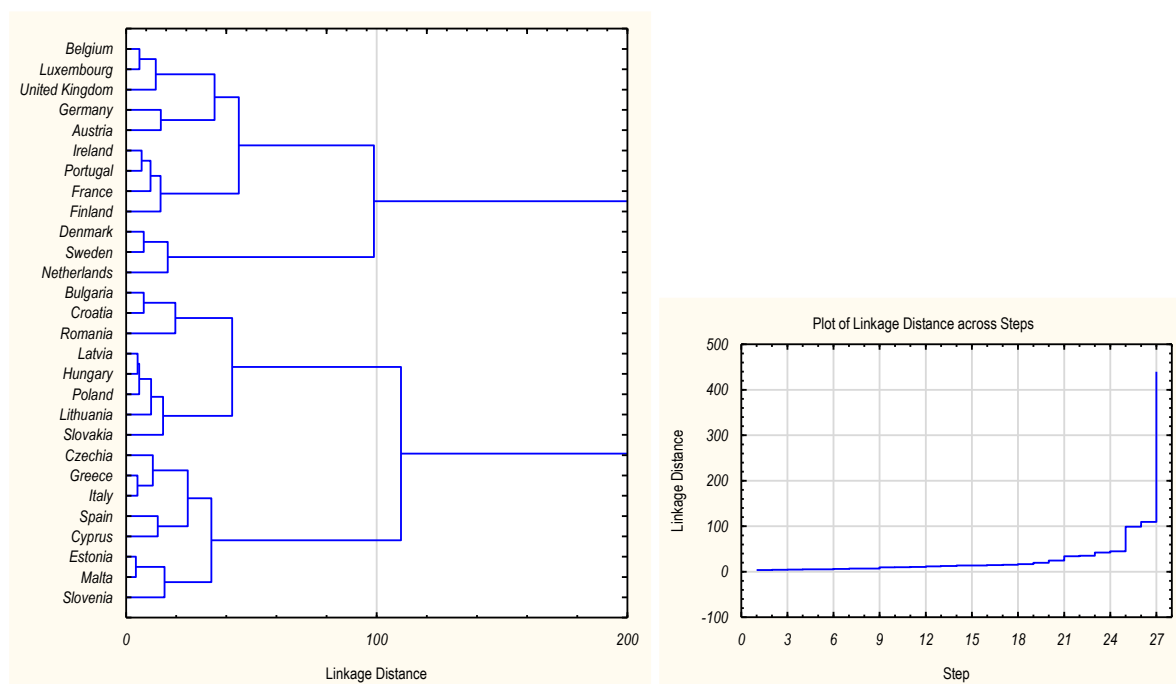


Figure 1. Similarity tree of the EU countries according to tenure arrangements in 2018

The first type (A) covered most of the “old”, mostly Western EU countries including Belgium, Germany, Ireland, Spain, France, Luxembourg, Austria, Portugal, Finland and the United Kingdom. They were economically advanced countries, with developed housing systems and relatively high housing affordability. This cluster of countries was the most balanced in terms of housing tenure. Every third resident owned a flat without any debt, and the same share had flats with mortgage or loan. The remaining share lived in rental housing – almost 20% rented at market price, and approximately 13% at reduced price or free (Table 1). Such a high share of residents benefiting from reliefs and rent reductions (the highest among the groups identified) indicates an important place of social housing policy in these countries.

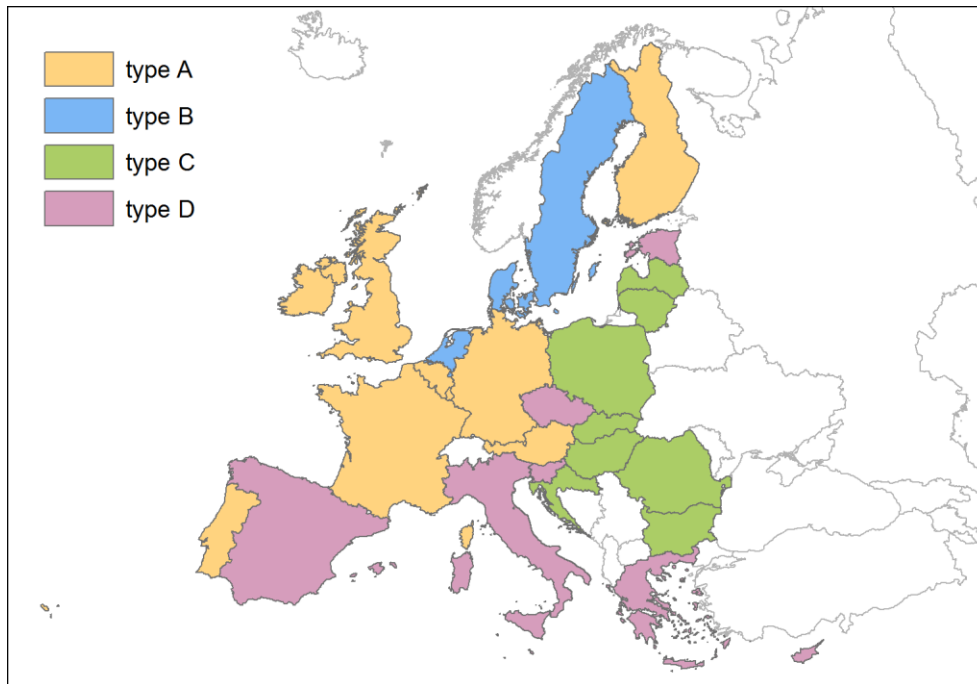


Figure 2. Spatial diversity of types of EU countries distinguished according to tenure arrangements in 2018

Table 1. Types of EU countries distinguished according to tenure arrangements

Type	No. of countries	Distribution of population by tenure status [%]:			
		owner, with mortgage or loan	owner, no outstanding mortgage or housing loan	tenant, rent at market price	tenant, rent at reduced price or free
A	9	35.1	31.3	22.2	11,5
B	3	52.9	11.5	34.9	0,7
C	8	10.1	77.8	3.8	8,3
D	8	19.2	57.1	12.9	10,9
EU-28		26,5	42.8	22.0	8.7

The second group (type B) consisted of three countries located in northern and western Europe – Sweden, Denmark and the Netherlands. As indicated in Table 1, this cluster was characterized by a significant dominance of ownership with mortgage or loan (almost 53% of residents). The share of owners not encumbered by a mortgage did not exceed 10%. In these countries housing prices are higher but the housing finance systems are also more developed encouraging people to purchase, even with less support from the family. More than every third resident of these countries rented a flat. It is noticeable, however, that the share of rental housing with reduced rents is very low (less than 1% of residents benefited from this type of privilege). It stems from the fact that in Denmark and Sweden social housing was originally embedded in a universal welfare policy whose target was to create housing quality for the entire population.

In the Netherlands, likewise, the stock of rental housing is considerable and this way relatively affordable.

The third cluster (type C) included most of the developing countries of Central and Eastern Europe with: Bulgaria, Croatia, Hungary, Latvia, Lithuania, Poland Romania and Slovakia. The cluster was markedly different from the previous groups which belonged to the “old” Union. A characteristic feature of this group was the extremely high share of owners with no outstanding mortgage or housing loan (almost 80%). Only 5% of owners had a debt commitment. In CEE countries families have traditionally been involved in housing careers of next generations. Children leave their homes late and they buy their first flats with significant financial help of their parents. The lowest share of tenants (approximately 10% of residents rented apartments) was also due to vast privatisation. Moreover, it is worth noting that there were double as many tenants with rent at reduced price or free of charge than tenants with rent at market price) (Table 1).

A separate group (type D) were Southern European countries (Greece, Spain, Italy, Cyprus and Malta), as well as stronger, well-developed economically CEE countries (Czechia, Estonia and Slovenia) that boasted similar tenure structures. Based on statistical characteristics from Table 1 it can be stated that this cluster was characterized by a high percentage of owners without housing debt (57%), as well as a relatively high share of tenants with reduced rents (almost 11%).

5. Conclusions

In the light of the results obtained, it can be concluded that there were clear spatial regularities in the field of tenure structure. On one hand, the dichotomy of old vs. new EU member states became visible, on the other hand, the more and more profound gap between the north and the south (also in other areas of socio-economic life) was identified.

The presented study is a contribution to the full explanation of the tenure arrangement and is part of the increasingly moving research trend within housing studies (Ruonavaara, 1993; Doling and Elsinga, 2005; Elsinga and Hoekstra, 2005; Aarland and Reid, 2019). There are numerous similarities of the results obtained to the previous observations by e.g. Doling and Ronald (2010), Borg (2015), Lennartz, Arundel and Ronald (2016). However, the novelty of the research is the inclusion of Central and Eastern European countries in the research, and the detection of spatial regularities that distinguish these countries from the rest of the Community.

The identified typology may become a contribution to further, in-depth research on the determinants of the housing situation of Europeans and the development of housing systems. At the same time, the typology developed may be useful while designing housing policies of individual Member States and their common integration at the EU level.

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