

Household overcrowding in Central and Eastern Europe countries- urban-rural approach

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Abstract: Housing is a particularly important asset for humans. The use of dwelling of an appropriate standard determines the quality of life and affects all aspects of human well-being. Hence, it is important to monitor housing poverty, understood as the inability to meet housing needs at a specific level. The study focused on the problem of household overcrowding, which, like housing conditions problems, is one of the components of housing deprivation. The aim of the study is to present the problem of household overcrowding in the countries of Central and Eastern Europe (CEEs). Differences occurring in rural and urban areas were indicated. European Union Statistics on Income and Living Conditions (EU-SILC) data for 2007-2022 were used. Household overcrowding is still a serious problem experienced in the EU countries surveyed, which poses a challenge to housing policy.

Keywords: housing deprivation, overcrowding, household, housing policy, rural areas, CEEs

1 Introduction

Housing conditions play a key role in the life of every individual and constitute an important aspect of the existence and functioning of a household. Housing is one of the basic human needs, it not only provides shelter and a sense of security, but also determines the quality of life of the population [1]; [2]; [3] and affects human health [4]. Moreover, the use of an apartment with appropriate conditions enables the satisfaction of higher-level needs, i.e. work [5], study or recreation [6]; [7], and determines sustainable social development [8]. Satisfying housing needs is one of

the dimensions describing the well-being of the population. All this means that from the point of view of social policy and shaping the living conditions of the population, it is important to identify various deficiencies in ensuring adequate housing conditions, which is referred to as housing poverty.

Research reveals that the level of provision of housing needs varies in individual countries [9]; [10]; [11], which struggle with housing problems of various nature. The study analyzes one of the dimensions of housing poverty, which is overcrowding, i.e. the problem of insufficient housing space in relation to the needs of the household. The overcrowding index means the percentage of people living in an overcrowded apartment, determined on the basis of the number of rooms available in the household, the size of the household and the age of its members and family situation [12]. The problem of overpopulation is shown in the urban-rural cross-section, which is underrepresented in previous studies, especially in relation to the countries of Central and Eastern Europe (CEEs). These countries are classified as countries with poor housing conditions [11]. The aim of the study was to determine the level of household overcrowding in CEEs and to indicate differences between rural and urban areas. The following tasks are indicated: (1) to indicate changes over time; (2) to capture differences compared to other European Union (EU) countries.

2 Overcrowding as a dimension of housing deprivation

Housing deprivation is defined as the inability of an individual or household to meet their housing needs at a specific level [13]. Housing deprivation can take various forms, depending on what aspect of the housing shortage concerns. An extreme form of housing poverty occurs when an individual or household has no access to housing at all [14], which is rarely analyzed due to the unavailability of statistical data on homelessness [15]. Dimensions of housing poverty may also include the unsuitable structure of the building/apartment, inadequate technical infrastructure and the characteristics of the apartment (including leaking roof, damp walls/floors/foundations, rotting window frames or floors, lack of adequate light, lack of heating, lack of access to a toilet or shower) [6]; [13]; [14]; [15]; [16]; [17]. The overcrowding of apartments analyzed in the study is one of the dimensions of housing poverty, which means insufficient space in relation to the users and their needs. There are many indicators, both objective and subjective [18], of overpopulation levels that take into account a country's cultural and social contexts [19]; [20]. It is worth mentioning that studies often analyze extreme housing poverty, which means the simultaneous accumulation of various deficiencies in the household's ability to meet housing needs [7]; [14]; [21], which makes a decent life impossible [15]. It should be emphasized that the problem of failure to meet housing

needs concerns various social groups [15]. In recent years, the importance of research on housing conditions has been increasing [14], which results from the fact that in the era of the Covid-2019 pandemic, the apartment has become the central point of human life and work [22]. Attention is paid to new features of apartments - access to space, the Internet and the level of security in the vicinity of the residence.

When considering the problem of housing overcrowding from an urban-rural perspective, it should be noted that research indicates that the spatial dimension (especially rural areas) has received less attention than other factors determining housing deprivation [23]. At the same time, differences in deprivation in rural areas compared to urban areas are indicated [24].

The effects of apartment overcrowding may be different and may concern many spheres of human life, including having a harmful impact on both physical and mental health of people [25]; [26]; [27]; [28]. The effects include, among others: children sharing a bed or bedroom; increased physical contact; lack of sleep, lack of privacy, an inability to care adequately for sick household members; poor hygiene practices [18]. As a result, overcrowding of apartments leads to an increase in health care costs [27].

3 Methodology

Data for 2007-2022 from the European Union Statistics on Income and Living Conditions (EU-SILC) were used [29]. The study uses the definition of overpopulation according to Eurostat [14]; [29], based on the percentage of the population living in an overcrowded household. A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum of rooms equal to: - one room for the household; - one room by couple in the household; - one room for each single person aged 18 and more; - one room by pair of single people of the same sex between 12 and 17 years of age; - one room for each single person between 12 and 17 years of age and not included in the previous category; - one room by pair of children under 12 years of age. The indicator is presented by degree of urbanisation (DEGURBA)⁸. The spatial scope of the study concerns the countries of Central and Eastern Europe. Based on OECD classification [30] the following countries have been selected: Bulgaria, Croatia, Czechia, Estonia, Hungary, Lithuania, Latvia, Poland, Romania, Slovakia, Slovenia. Countries that are members of the EU were selected for the analysis [31].

⁸ DEGURBA classifies local administrative units (LAUs) as cities, towns and suburbs or rural areas based on a combination of geographical contiguity and population density: (1) Cities (densely populated areas); (2) Towns and suburbs (intermediate density areas); (3) Rural areas (thinly populated areas).

Most of these countries joined the EU in 2004, except Bulgaria and Romania (which joined the EU in 2007) and Croatia, which has been a member since 2013. CEE countries are EU member states which were part of the former Eastern bloc. Apart from their geographical location, these countries have similar historical and cultural roots and a similar development path. Their level of wealth is lower compared to Western European countries.

4 Results and discussion

In the first stage of the research, taking into account the availability of data, the level of apartment overcrowding in EU countries was compared and changes over time were indicated in the long term, i.e. in the years 2007-2022 (Fig. 1). The problem of overpopulation has been found in the countries of Central and Eastern Europe [16]. The highest rate (2022) occurs in Latvia (41.7%), Romania (40.5%), Bulgaria (36.2%), Poland (35.8%), Croatia (32.7%) and in Slovakia (31.8%). At the same time, a significant improvement in the overpopulation rate can be observed in all CEEs in the analyzed period. In 2007, the highest overpopulation rate occurred in the following countries: Latvia, Romania, Lithuania, Poland, Bulgaria and amounted to over 50%. The greatest improvement was recorded in Hungary (by 30.4 p.p.), Slovenia (28.9 p.p.), Lithuania (27.9 p.p.) and Estonia (27.8 p.p.).

It should be emphasized that CEEs also have other problems related to housing poverty. Data show that housing shortages, e.g. leaking roofs, occur in all EU countries, and interestingly, in all CEEs this problem is decreasing over time. It should be emphasized that CEEs have a lack of access to a toilet or shower (Fig. 1), which is experienced by 21.2% of apartments in Romania, 7% in Latvia and Bulgaria and 6.4% in Lithuania.

Then, the level of apartment overcrowding in CEEs was compared to other EU countries in the urban-rural section in 2013-2022 (Fig. 2, 3). Research has revealed that the problem of overcrowding in cities and towns in CEEs is more common than in other countries. This may refer to urban overcrowding typical for Soviet-style state-provided mass housing what existed in the Baltic countries [32].

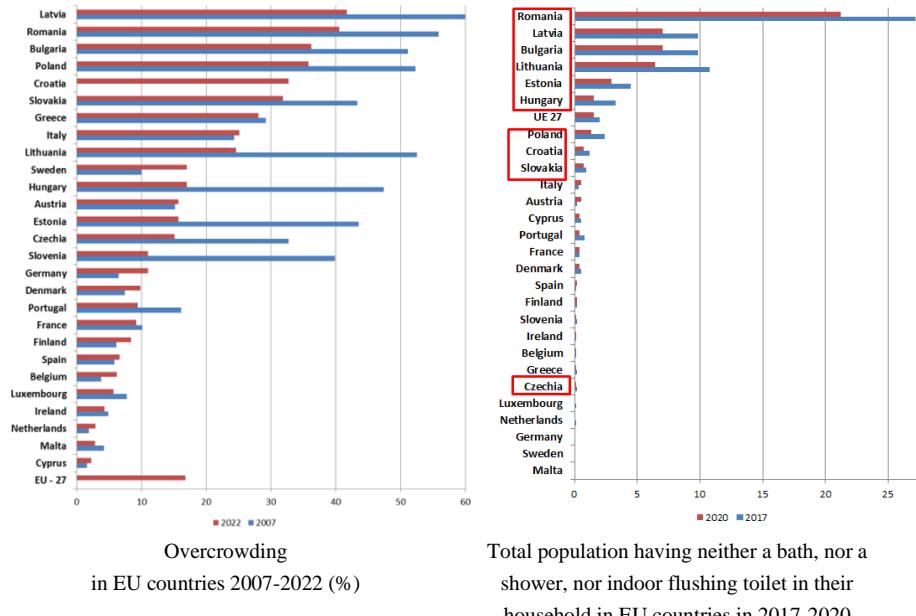


Figure 1
Dimensions of housing poverty in EU countries

In all CEEs except Latvia, the percentage of overcrowded apartments is decreasing. In some Western European countries (especially in cities), there was an increase in indicators describing apartment overcrowding, e.g. in Belgium (by 10 p.p.), France and Germany (by approximately 6 p.p.). This may be due to the positive migration balance in economically highly developed countries in recent years [6]. Overpopulation particularly affects farms located in rural CEE areas and is highest in Romania (39%), Poland (36.8%) and Latvia (36%).

The revealed differences between countries in terms of housing overcrowding confirmed the conclusions of Borg and Guio [11] from their research on housing deprivation. Housing problems, including overcrowding, are more common in eastern and to some extent southern Europe than in western and northern Member States. Moreover, as we predicted in our study, we found that the incidence of overpopulation decreased over time, as previously indicated [19]. This may be due to the fact that as people's living standards improved, more and more people could afford to buy a flat, while a decline in the size of households has been observed in recent years [19].

Among the reasons for the differences in housing overcrowding between countries, the authors point out important national nuances, pointing out that an important determinant of housing problems is the level of wealth of the country [11].

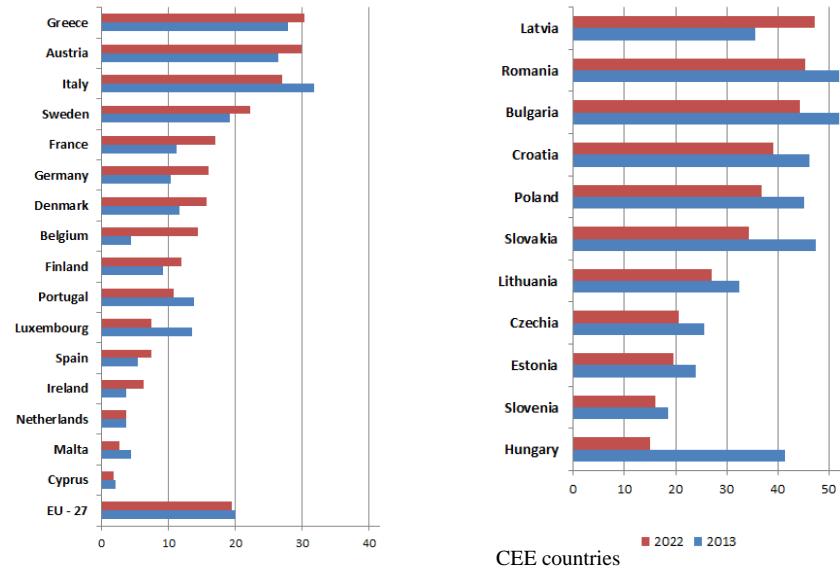


Figure 2
Household overcrowding in cities in EU countries in 2013-2022 (%)

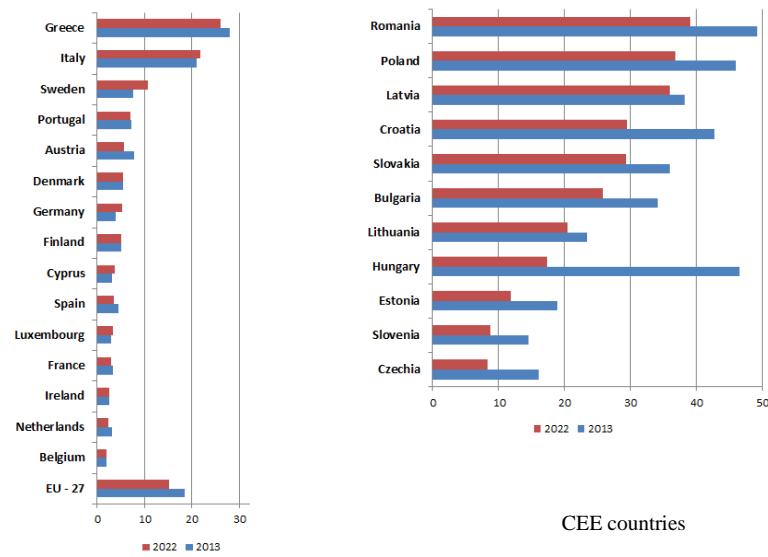


Figure 3
Household overcrowding in rural areas in EU countries in 2013-2022 (%)

Other factors explaining the identified differences may be the social welfare system, fiscal policy, and housing policy in a given country. Research by other authors

identifies determinants at the household level as important for housing conditions [11], including household income and family support [8]; [33]. Research by Rao and Chou [26] in the UK shows that the financial situation of household members (including annual income, type and status of employment) has a significant relationship with overcrowding in homes, as does the type of accommodation and the number of people living there. Taking into account the differences in development between urban and rural areas and the specificity of these areas [23], differences in the factors influencing overpopulation can be expected, which, however, requires detailed research. Differences in housing overcrowding rates between the new and the 'old' EU15-Member States, as well as between cities, towns and rural areas, may be related to the specific demographic and family structure in these countries [34]; [35]. These differences include different family models and different household structures, e.g. in some countries there is a high percentage of single-person households or multi-generational households (e.g. Southern and Eastern European countries) [34]. Shared housing, (usually with grandparents or parents), for both generations is an effective way to reduce housing costs in the context of lack of affordability [32].

It should be emphasized that there are spatial differences in the tolerance of housing crowding [18], which is related to cultural and economic factors. Other studies have found [35] that while in more developed countries (except Greece and Italy) the percentage of households that subjectively assess (living) space as a problem is much higher than the percentage of households above the Eurostat threshold, in post-socialist countries it is the other way around. This proves that depending on the selected measures, the level of apartment overcrowding may vary [35].

Conclusions

The problem of apartment overcrowding occurs in all EU countries, but it is most visible in CEE countries. At the same time, dynamic changes in the improvement of apartment overcrowding have been recorded in CEE countries in 2007-2022.

In-depth research on housing overcrowding in CEE countries is necessary. Firstly, an important issue is a detailed analysis of the factors that led to the improvement of overpopulation rates in individual countries. Secondly, it is important to identify households that are particularly vulnerable to living in overcrowded housing. This will allow us to prepare appropriate tools for housing support and development policy.

The revealed differences in the level of overcrowding of apartments in rural and urban areas and the lack of research on housing deprivation, including overcrowding of apartments in rural areas, confirm the importance of this topic and the need to undertake further research in this respect, taking into account the territorial context. The period after the Covid-2019 pandemic is particularly important when rural areas have become an attractive place to live for urban

residents, which could cause changes in the housing conditions of the population and affect the level of housing deprivation.

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