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Measuring Universality in Social Protection

A pilot study of housing support benefits

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Abstract

The aim of this report is to analyse the degree of universality of housing (support) policy across the EU member states and to refine the set of most relevant and reliable indicators that could be used to measure the universality of housing policy. The study is based on the analytical framework developed by Muñoz de Bustillo Llorente et al. (2020) proposing to measure universal social protection through the two main dimensions of coverage and adequacy. We understand coverage of housing policy as the degree to which state housing support is provided to those in need, and we propose to measure it in light of a wide range of different forms of housing support and regulations (indicators on social rental housing, housing allowances, government expenditure on housing, rental market regulation, and tenure status). We understand adequacy of housing policy as the extent to which the housing needs are adequately covered by the housing policy. We propose to measure it as a combination of indicators that characterize housing affordability (housing expenditure and house price to income ratio), availability (overcrowding rate and average age of young people leaving the parental household) and adequacy/quality (share of population encountering problems with their dwelling and around it); in addition, we also propose to include an indicator that defines satisfaction with the dwelling. In this report, we also present and discuss the results of the measured universality of housing (support) policy in the EU Member States applying our proposed methodology. The analysis is performed using OECD and Eurostat data available at the EU level. The report highlights the limitations of the data as well as possible solutions to address them, with the aim of improving the assessment of universality of housing policy and comparability across the EU member states in the future.

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Executive summary

The purpose of this report is to analyse the degree of universality of housing (support) policy across EU member states. The report is based on the analytical framework developed by Muñoz de Bustillo Llorente et al. (2020) defining universal social protection through coverage and adequacy. In this study, we use the terms "housing universality", "universality of housing support policy," and "universality of housing policy" as synonyms. However, the housing universality is a broader concept, as it is not only achieved through various forms of housing support, but also through the market, the availability of well-paid jobs, increasing salaries, or a sufficient supply of (affordable) housing. The increase in the degree of housing universality is usually associated with economic growth, while its decrease can be caused by economic crisis, wars, or other disasters.

First, this report provides a theoretical and conceptual overview that discusses different housing policy systems and welfare state regimes as well as the concept of decommodification. The degree of universality of housing policy depends on the housing system and the welfare state regime of a country. Housing policy encompasses a wide range of policies, not only of a fiscal nature, but also in the form of social capital, infrastructure development, or community amenities. There are no single and direct indicators to estimate coverage and adequacy of housing policy, thus it is necessary to rely on multiple indicators and treat housing as a multidimensional phenomenon.

Second, the report overviews the housing indicators that are currently available at the country level in the Eurostat and OECD databases. It then proposes formulas (constructed from a dozen of indicators) on how to measure the coverage of housing policy and the adequacy of housing policy that, when combined, yield the aggregate index – so-called universality of housing policy. The results obtained using proposed formulas are also discussed in the report. In 2020 the universality of housing policy was the highest in Sweden, followed by France, Finland, and the Netherlands. The same set of countries, in addition to Ireland, Austria, and Germany, also had the highest universality of housing policy in 2010. Meanwhile, the lowest universality was achieved in Slovakia, Spain, Portugal, and Greece, both in 2010 and 2020. Eastern and central European countries have a lower level of housing universality, while northern and western countries have a higher level. In general, the results show that universality of housing policy is declining in Europe (especially due to falling coverage), and the gap between the two groups of countries (eastern-central and northern-western) is narrowing over time.

Finally, the report highlights the limitations of the data as well as possible solutions to address them, with the aim of improving the assessment of universality of housing policy and comparability across the EU member states in the future.

1 Introduction

The aim of this report is to analyse the degree of universality of housing (support) policy ([1]) across EU member states. This study also aims to refine the set of the most relevant and reliable indicators that could be improved in the future, thus also improving the measurement of universality of housing policy ([2]). The study is based on the analytical framework developed by Muñoz de Bustillo Llorente et al. (2020) defining universal social protection through coverage and adequacy.

Housing is an important determinant of one's wellbeing, health as well as financial and family stability. It is an important pillar of the welfare state, although "wobbly" as Torgersen (1987) famously named it. Its importance grew considerably in the last decades due to "the dramatic escalation of house prices in many global cities around the world" (Galster and Lee, 2021: 1) caused by the recent global financial and economic crisis of 2008 and more recently caused by the Covid-19 crisis. Yet, "housing affordability has become a global crisis with a strong negative impact on the wellbeing of people and on the exacerbation of urban inequality" (United Nations: Habitat, 2015: 3). In most EU member countries housing prices are growing faster than income, and it is found that income inequality and housing inequality are "mutually reinforcing" (Pittini et al., 2017). Thus, in many countries, people are spending increasingly more on housing, while other costs (e.g., food, health, education) have been stable or falling (OECD, 2019).

Therefore, it becomes crucial to analyse the universality of housing policy. Universality is understood as "a denotative concept that aims to describe the extent to which a social system or program covers the entire relevant population in an adequate manner" (Muñoz de Bustillo Llorente et al., 2020: 9). Muñoz de Bustillo Llorente et al. (2020) state that coverage and adequacy are the key dimensions for assessing the universality of social protection of a given need. We rely on their proposed framework.

Previous studies have rarely analysed housing in terms of universality. Housing differs considerably from other parts of the welfare state such as social security, education, and health care. First, as stated by Lund (2011: 1), housing constitutes "a 'home' rather than a locale for a temporary activity such as going to school or entering a hospital". Everyone needs housing from cradle to grave and the state has never been a major provider of housing. Second, housing is a commodity, an asset and a wealth attribute. In recent years we witnessed an increasing financialization of housing, which means an increased dominance of the financial markets in the housing sector leading to more privatization, marketization, and commodification of the housing market (Wijburg, 2020). Thus, instead of focusing on universality in housing, scholars have devoted their attention to studying related fields such as affordability of housing (Galster and Lee, 2021), decommodification/commodification of housing (Doling, 1999), social housing (Hansson and Lundgren, 2019; Preece, Hickman, and Pattison, 2020), housing as part of the welfare state (Allen, 2006; Hoekstra, 2003, 2013; Kemeny, 2001, 2005), housing as a social right (Aidukaitė and Ubarevičienė, 2022; Bengtsson, 2001), housing quality (Soaita and Dewilde, 2019), and recently the interconnection between poverty and housing (Hick, Pomati, and Stephens, 2022). All of these research areas indirectly or directly seek to explore how housing policies produce better housing coverage and adequacy for the entire population – the definitions that are related to the concept of universality and will be further explored in this report. A recent study (Arranz et al., 2022) attempted to assess the universality of housing policy. Using the analytical framework developed by Muñoz de Bustillo Llorente et al. (2020), Arranz et al. (2022) proposed measuring the coverage of housing policy by considering the following indicators: homeless people as a share of total population, social rental dwellings as a share of the total number of dwellings, and share of households in the bottom quintile of the disposable income distribution receiving housing allowances. The adequacy of housing policy was proposed to be measured by taking into account indicators such as the overcrowding rate, severe deprivation rate, affordability, and housing cost overburden rate. We attempt to expand the measurement and provide a broader analytical and theoretical framework.

Analysis is done using mostly OECD and Eurostat data on the EU level. The report highlights some of the data constraints and possible solutions with a view to generalizing the application of the framework adjusted to housing to all member states.

([1]) "Housing (support) policy" and "housing (support) policies" are used as a synonym in this study.

([2]) In this study, we use definitions of "housing universality", "universality of housing support policy" and "universality of housing policy" as synonyms. However, housing universality is a broader concept, as it can also be achieved to some extent through the market, availability of well-paid paid jobs, increasing salaries, and a large supply of housing. Economic growth can help ensure housing coverage and adequacy, meanwhile disasters such as a war or economic crisis can reduce housing adequacy and coverage.

This report has the following objectives: (1) to provide a clear view of the universality of housing policy, with a short state of the art and the identification of present and future challenges to measure effective adequacy and coverage of housing policy; (2) to propose indicators and present datasets for measuring these two elements at a member state level.

The report is organized as follows. In Section 2 we provide a scientifically well-grounded reasoning on the topic of housing policy and the welfare state to understand the universality of housing policy. The differences in housing policy systems are discussed in different welfare state regimes, and the concept of decommodification in housing is assessed. In Section 3 we provide an overview of housing support forms as well as an overview of available housing indicators; we then provide a scientifically grounded reasoning for selecting the most appropriate indicators to measure the coverage and adequacy of housing policy. In Section 4, the results of the measurements are provided. In Section 5 the limitations of our approach and challenges for the future are discussed. Section 6 concludes the study. The report is supplemented by a wealth of visual material, which is included in the appendixes.

2 Theoretical and conceptual overview

2.1 Housing policy and welfare state

Despite having a commodifying nature, housing is considered to be a social right (Aidukaitė and Ubrevičienė, 2022; Bengtsson, 2001). In our previous report (Aidukaitė and Ubarevičienė, 2022), we argue that housing as a social right is understood as the state's (national, regional, local) obligation to provide adequate housing to every citizen/resident irrespective of his/her income. To understand housing as a social right we need to turn to the discourse on the interrelationship between welfare state and housing policy. Bengtsson (2001) points out that the right to housing in the national welfare state policy can be either a "universal" or "selective". If the right to housing is ensured by a selective housing policy, the state is obliged to provide housing to individuals and households on the criterion of income test or means-test and outside of the general housing market. If the right to housing is ensured by a universal housing policy, the state is obliged to ensure the conditions that everybody can obtain adequate housing in the general market, regardless of their economic situation. In Marshall's (1950) terms, the universal right to housing can be understood as a social right to live a decent life in a society and to have a modicum of economic welfare and security. Hence, in order to understand the universality in housing, it is important to examine housing policies on the "universal-selective" scale.

Housing policies, according to Bengtsson (2001), are understood in the Western societies as the state corrections to the housing markets. Other authors (Clapham, 2006; Doherty, 2004; Lund, 2011; Ruoppila, 2005, quoted by Aidukaitė, 2013; Aidukaitė 2014, p. 422; Aidukaitė *et al*., 2014) define *housing policy* as the government's intervention in the housing field (through legislation or practice) in order to modify market forces by affecting the choices of households while achieving social objectives. The social objectives can be various, such as increasing housing affordability; increasing availability of social housing; reducing homelessness; ensuring the high quality of homes; ensuring sustainable and environmentally friendly houses with energy efficiency, and so on. The objectives can also be to increase home ownership, which can be promoted directly or indirectly through various state's regulations, purchase credits and loans.

Housing policies involve a broad range of interventions which, for the purpose of this analysis, are worth mentioning. We rely on Lund's (2011: 2) listed policies attributed to housing policies:

1. Financial policies designed to increase or reduce the cost of house purchase – often related to national economic management, for example, setting interest rates;
2. Taxation measures aimed at encouraging or discouraging housing investment and consumption, for example, Stamp Duty Tax, payable on purchasing a house, which can be changed either to stimulate or depress the housing market;
3. The basis on which people have rights and obligations in a dwelling – sometimes called "tenure";
4. Direct subsidies to producers and consumers;
5. Infrastructure support for housing construction such as the roads and schools necessary to make developments sustainable;
6. Community care policy, for example, "supported" housing and home improvement agencies;
7. Physical planning constraints and incentives;
8. Supply, allocation and management policies in the social housing sector;
9. Security for the "quiet enjoyment" of a "home" and the lifestyle choices that such security promotes;
10. "Social capita"', that is, the value of social networks people can draw on that may accrue from living in a neighbourhood, and
11. Housing-related policies aimed at reducing 'social exclusion'.

Thus, housing policy includes a broad set of policies, not only of a fiscal nature, but also in a form of social capital, infrastructure development, and neighbourhood policies. As stated by Haffner and Hulse (2021), housing provides a bundle of attributes "which include quality, security and location in relation to jobs, transport, facilities, and services, with the latter having become increasingly important in the 2000s at least in large metropolitan areas" (p. 73). Therefore, in evaluating housing policies we have to rely on multiple indicators and treat housing as a multidimensional phenomenon. For the purpose of our analysis, in this

report we are not going to study a broad range of policies related to housing but will focus on policies that help to obtain a decent home. These policies are related to home purchase, rent, and building, which are generally related to housing construction and allocation.

Housing is an important factor of well-being, health, financial, and family stability. Without adequate housing, there will not be a "Social Europe". However, despite its significance, housing has been a rather neglected field in welfare state studies (see e.g. Kemeny, 2001, 2005).

Housing policy is considered to be a part of the welfare state. Esping-Andersen (1990), perhaps the most prominent scholar in the field of welfare state research, defines the welfare state as the "state responsibility for securing some basic modicum of welfare for its citizens". Yet, according to Esping-Andersen, the welfare state cannot be understood just in terms of the rights it grants. He argues that it should be taken into account how state activities are interlocked with the roles of the state, the market, and the family regarding social provisions. The degree of stratification and decommodification, which is understood as an ability to sustain a decent standard of living without relying on the market, are also important in order to understand the welfare state (see section 2.2 for more details on definitions). However, Esping-Andersen neglected housing in his research.

The welfare state research has focused mainly on such parts of the welfare state as social security, education, and health care. Housing has been rarely discussed as part of welfare state (Kemeny, 2001; Lund, 2011). This situation has started to change due to the increasing importance of adequate housing, the sharp rise in housing prices in many cities around the world, shortage of affordable (social) housing as well as the overall decline in housing affordability, especially for low-income households (Dewilde, 2022; Galster and Lee, 2021; Scanlon et al., 2014).

Nevertheless, earlier welfare state scholars such as Wilensky (2002) listed housing in the welfare state definition as an important part of basic human needs. He stated:

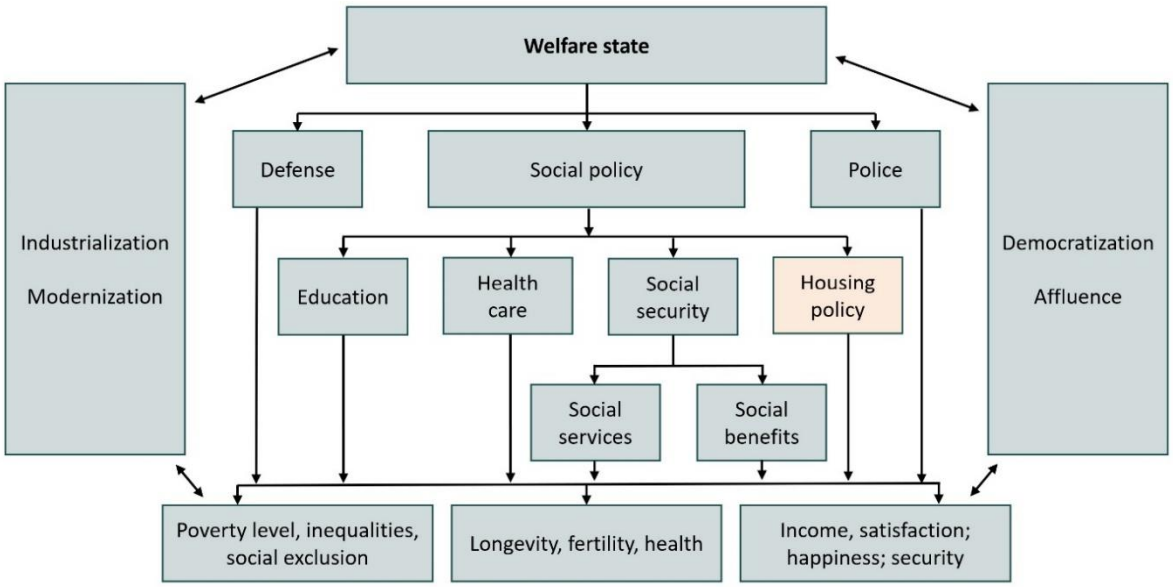
"The essence of the welfare state is government-protected minimum standards of income, nutrition, health and safety, education, and housing assured to every citizen as a social right, not as charity" (Wilensky, 2002: 211).

In this report, we understand "the welfare state as a government obligation to ensure a decent standard of living for its citizens given as a social right through such channels as social security, social services, the labor market, and housing policy, education, and health care" (Aidukaitė, 2004: 24). Figure 1 illustrates the definition of the welfare state. Thus, housing policy is an important part of the welfare state alongside other important parts: education, social security, which consists of social services and social benefits, and health care. Together with other parts of the welfare state, housing policy contributes to addressing welfare state outcomes such as the level of poverty and inequality in the country, the level of longevity, health of the population, satisfaction with life, and the level of happiness.

However, as stated by Kemeny (2001), although housing "has always been recognized as comprising a key aspect of everyday life, closely associated with security and with health and well-being" (p. 53), it differs from the other parts of the welfare state in being characterized by high capital intensity.

It has to be mentioned, as it is illustrated by Figure 1, that all parts of the welfare state are closely interrelated and affect each other and together generate the overall outcomes. Housing affordability (this concept will be discussed in more detail later) is closely related to the cash transfers provided by social security, which comprise the most important and most funded part of the welfare state. Cash transfers as housing allowances and various tax subsidies are usually directly attributed to housing policy (see e.g., Griggs and Kemp, 2012). However, cash transfers as unemployment insurance, pension benefits, child allowances, sickness, and disability benefits help to increase housing affordability and to ensure decent housing for people experiencing social risks.

Figure 1. The definition of the welfare state



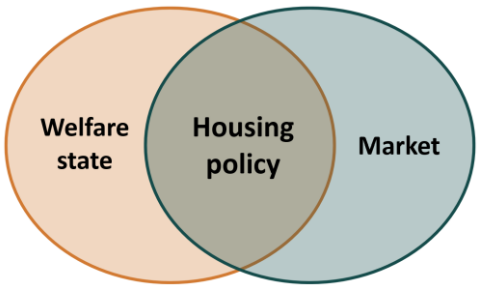
Source: Aidukaitė, 2004; Aidukaitė *et al*., 2012, Picture 1, p. 19.

As noted, housing differs from the other parts of the welfare state (social security, education, health care) as it represents a permanent need. While as it comes to other welfare state provisions such as education, sickness insurance, old-age pensions, parental leave, and so for, people need them temporarily or at a certain stage in their lies, e.g., when getting old, having children, becoming unemployed etc. (Kemeny, 2001; Lund 2011).

Another important distinctive feature of housing is the fact that it is "rarely, if ever, considered as a universal form of public provision" (Kemeny, 2001). Housing is never for "free", even in the case of social housing. One exception could be in the case of the refugee situation. However, in most cases individuals/families/households have to contribute to the housing cost. Even in the case of home ownership without a mortgage, owners have to pay various housing utilities and taxes (see Section 2.2; Doling, 1999).

Thus, housing is part of the welfare state provision and part of the market. Figure 2 shows how the welfare state and the market intersect. In the middle, we have housing policy, which mitigates the market forces by affecting the choices of households while achieving affordable and decent housing.

Figure 2. Welfare state, housing policy and the market intersection



Source: Authors' elaboration

Therefore, according to Lund (2011), housing policy is best understood as the state's actions to modify housing markets. Numerous studies (Aidukaitė, 2014; Arbaci, 2007; Doherty, 2004: 253; Clapham, 2006; Tsenkova and Polanska, 2014) have indicated that over the last decades the state is gradually withdrawing from direct intervention in housing, thus leaving more and more initiative for the market and agencies of civil society. The general housing policy trend in Europe has been towards neoliberalization, meaning less state involvement in the housing market and less government support for housing production (Kettunen and

Ruonavaara, 2021: 1446). However, studies (Dewilde, 2022; Doherty, 2004; Kettunen and Ruonavaara, 2021) show that housing policy still differs remarkably between the EU countries, and the evidence of the state's withdrawal is not conclusive. The private rental markets are still regulated in many European countries (Kettunen and Ruonavaara, 2021) as well as access to and generosity of various redistributive housing allowances clearly has implications on the improvement of living conditions of deprived residents across the EU (Dewilde, 2022).

Studies show that the welfare system and the housing policies, which can be understood as a set of housing-related social policies, do not necessarily coincide (Dewilde, 2022; Kettunen and Ruonavaara, 2021; Stephens, 2019). For instance, Kettunen and Ruonavaara (2021) show that the Nordic welfare states that are similar in all that they represent in the social democratic welfare regime, differ considerably in their basic principles of how housing provision in the country is organized. Danish, Swedish and Norwegian housing policies have been described as "universal" in the sense that they are directed towards all types of households and all segments of the housing market. Finnish and Icelandic housing policies have been labeled as "selective", meaning that they are directed towards households of lesser means based on individual means testing (Bengtsson and Ruonavaara, 2010, quoted by Kettunen and Ruonavaara, 2021: 1457). In Denmark, the main instrument for housing provision has been rental housing in the so-called third sector that consists of housing associations that are self-governing units (Nielsen, 2010, quoted by Kettunen and Ruonavaara, 2021: 1457). Nevertheless, even if the housing policies differ in the Nordic countries, they all seek the same goal of ensuring adequate and affordable housing to everybody. All Nordic countries still demonstrate the best outcomes when it comes to housing availability, affordability, and adequacy (Aidukaitė and Ubarevičienė, 2022). But let us briefly review the ideal typical housing policy systems in different welfare state regimes.

The first attempt to typology housing systems was made by Kemeny (1993), when he distinguished two different rental systems. On the basis of how rental housing is organized, Kemeny (1993) delineated unitary and dualistic rental systems. In the unitary rental system, the private rental market is integrated with the public rental market, they compete with each other to reduce the price for renting and create a single integrated rental market. The state, mainly represented by the municipal housing companies, acts as a market leader to ensure the best possible rules for security of the tenants and ensures good quality housing standards. In this model, private rents follow the public rents. Swedish housing policy could be one of the examples of the unitary housing system. In the dualistic system, private and public renting comprise two separate markets in which access to allocation, security of tenure, and price setting are organized differently. The public/social housing in the dualistic model is marginalized in favor of private renting and home ownership. The typical example of the dualistic renting model can be found in Anglo-Saxon countries, as well as in Mediterranean countries and in central and eastern Europe. These countries have small social rental markets, which are organized alongside the command economy principle with strict centralized political control. The dichotomy unitary dualistic is important to understanding the housing systems in various countries and the universality in housing. Our previous report (Aidukaitė and Ubarevičienė, 2022) shows that countries having unitary rental systems, such as the Nordic countries, Austria, and the Netherlands, have better developed housing rights, while countries with dualist housing systems such as Poland, Lithuania, and Spain have less developed housing rights.

Table 1 summarizes the criteria used by the numerous authors (Allen, 2006; Arbacci, 2007; Balchin, 1996; Hoekstra, 2003, 2013) to theorize the differences in housing policy systems in various welfare state regimes. The criteria of decommodification, stratification, and the role of state, market, and family mix in the housing provision are at the center of the approach when seeking to understand the differences in housing policy and welfare state regimes among countries (Aidukaitė et al., 2014; Aidukaitė and Ubarevičienė, 2022).

Table 1 is mainly based on Hoekstra's (2003) delineated housing welfare regimes, however, extending it by including the housing systems of southern European/Latin Rim (relying on Allen, 2006; Arbacci, 2007; Hoekstra, 2013), and the post-communist welfare state regimes (relying on Aidukaitė *et al*., 2014; Soaita and Dewilde, 2019; Tsenkova, 2009). Hoekstra (2003) delineated major differences between the housing systems of the three welfare state regimes on the basis of the welfare state typology of Esping-Andersen (1990). According to Hoekstra (2003), the meaning of "the housing system" does not only encompass the housing market or housing sector, but also the organization of housing provision, subsidization, rent regulation, general housing policy objectives, and the level of state involvement in the housing policy (quoted by Aidukaitė, 2014: 423). Below we briefly summarize the ideal typical characteristics of the housing policy in different welfare state regimes.

In the social-democratic regime, the state has a strong influence on housing policy by taking the initiative for the production of newly built houses and providing large-scale production subsidies, as well as subsidies

for large target groups (such as students, people with disabilities, elderly, young families, as well as housing for different income groups). The state's influence on price setting and price regulation is strong, and a strict spatial planning prevails. The major objective of housing policy is to guarantee a universal high level of housing quality and large decommodification (Hoekstra, 2003). In the social-democratic welfare state regime, the unitary rental system prevails and the large public/social sector shows the state's commitment to universality and equal housing standards for all social groups (Arbaci, 2007).

The major characteristics of housing policy in the conservative-corporatist regime are the preservation of social stratification in society, the preferential treatment of the traditional family, and the stimulation of households and other private actors to take initiatives in the housing market. Housing decommodification is considered quite large in this model, but not as much as in the social-democratic regime. The state takes moderate influence on regulation of prices to correct negative effects of the market (Hoekstra, 2003). According to Arbaci (2007), the unitary rental system dominates in the conservative-corporatist welfare regime, which means that housing tenure is balanced as a consequence of the price regulation and tenure neutral subsidies. However, contrary to the social-democratic regime, predominance of private rental housing prevails over the social one (Arbaci, 2007, quoted by Aidukaitė and Ubarevičienė, 2022).

Housing policy in the liberal welfare state regime is dominated by the market. The decommodification is low in this regime and stratification is high based on income. There is relatively little state regulation (at both central and local levels) and the house prices are mainly determined by the market. The state provides few production subsidies which are provided on a means-tested criterion (Hoekstra, 2003). Private actors (mainly big companies) take the initiative of producing newly built houses. In the liberal regime the dualistic rental system dominates, which results in housing tenure imbalance in favor of owner-occupation (Arbaci, 2007; Balchin, 1996; Stephens, 2019, quoted by Aidukaitė and Ubarevičienė, 2022).

The Mediterranean welfare state model is characterized by the weak state intervention in the housing markets. In this regime, the extended families play an important role in housing provision. Countries of southern Europe have high levels of owner occupation and low levels of social housing indicating that the dualistic rental system prevails in the Mediterranean welfare state regime (Allen, 2006; Arbaci, 2007; Alberdi and Levenfeld, 1996). Among other important distinctive features of the southern European housing regime is the development of an informal housing market (private rental sector and owner-occupied) as a result of patrimonial tradition in housing and land ownership. Thus, familiarism and clientelism are the major features of the southern European housing policy (Allen, 2006).

The post-communist housing regime can be characterized by such qualities as low decommodification and high stratification based on income. The state's role in housing production and allocation is minimal. The state provides subject subsidies for low-income groups, mainly on a means-tested basis, while the market agents decide on housing construction and price. Private actors (mainly big companies) take the initiative to build new houses. The decommodification is low for those who have to buy their housing at the market price, but it is quite high for those who obtained their housing though massive privatization (Aidukaitė 2014; Aidukaitė et al., 2014; Aidukaitė and Ubarevičienė, 2022).

Overall, the theoretical overview of the ideal typical housing policy regimes shows that there are important differences in the way EU countries arrange their housing policies (Aidukaitė, 2014; Aidukaitė at al., 2014; Aidukaitė and Ubarevičienė, 2022). To account for the universality in housing, we should pay attention to the level of decommodification, the dichotomy between unitary-dualistic rental systems, and the dichotomy between the universal-selective housing policies.

In the following discussion, we review the decommodification in housing, which is an important concept to understand the level of universality behind it.

Table 1. Housing policy in different welfare state regimes: criteria and major characteristics

Criteria	Social-democratic	Conservative-corporatist	Liberal	Mediterranean	Post-communist
Decommodification	High	Quite high	Low	Quite high	High for those who obtained their housing through massive privatization; low for those who obtain their housing at the market price
Stratification	Relatively low	High, mainly based on social status	High, mainly based on income	High, based on social status	High, mainly based on income
The role of State, market and family	Dominant position of the State	Important position of the family; Considerable influence of private non-profit organisations	Dominant position of market parties	Dominant position of the family	Dominant position of market parties; Family plays also important role
State regulation	Strong central government influence	Functional decentralisation, incremental, problem-solving policies	Relatively little State regulation (at both central and local levels)	Relatively little State regulation (at both central and local levels)	Relatively little State regulation (at both central and local levels)
General housing policy objectives	Guaranteed universal high level of housing quality	Preservation of the social stratification in society - Preferential treatment of the traditional family - Stimulation of households and other private actors to take initiatives on the housing market	Dominant position for the market - State only supports marginal groups	State fosters home ownership and allows housing self-construction	Dominant position for the market - State only supports marginal groups
Price setting and price regulation	Strong State influence on price setting and price regulation	Moderate State influence - State regulation of prices to correct negative effects of the market	Market determination of house prices	Moderate State influence	Market determination of house prices
Subsidisation	Large-scale production subsidies - Subject subsidies for	Segmented subsidies; specific arrangements for specific groups	Means-tested subject subsidies - Few production subsidies	Stigmatized provision for a residual population unable to adequately participate in markets	Means-tested subject subsidies - Few production subsidies

	large target groups				
Rental system	Unitary: housing tenure balance, predominance of social rental sector	Unitary: housing tenure balance, predominance of private rental housing	Dualist: housing tenure polarisation (imbalance), predominance of owner occupation	Dualist: housing tenure polarisation (imbalance), predominance of owner occupation	Dualist: housing tenure polarisation (imbalance), predominance of owner occupation
Housing allocation	Allocation on the basis of need	State intervention to correct the market - Certain groups may be favoured in the allocation process	Market determination of housing allocation in a large part of the housing stock - Regulated allocation in a small part of the housing stock (reserved for low-income groups)	Clientelistic elements in housing allocation: social networks, family determines access to new housing	Market determination of housing allocation in a large part of the housing stock - Regulated allocation in a small part of the housing stock (reserved for low-income groups)
Organisation of housing provision	Strict spatial planning - State initiates the construction of new residential buildings	Moderately strict spatial planning - Private actors (households, small companies) initiate the construction of new residential buildings	No strict spatial planning - Private actors (mainly big companies) initiate the construction of new residential buildings	No strict spatial planning Private actors (households, small companies) initiate the construction of new residential buildings	No strict spatial planning - Private actors (mainly big companies) initiate the construction of new residential buildings
Countries representing welfare state regimes	Sweden, Denmark	Austria, Belgium, Germany	United Kingdom	Spain, Italy	Lithuania, Poland, Romania, Estonia

Source: Aidukaitė and Ubarevičienė, 2022, Table 1, p. 15-16; Aidukaitė et al., 2014, Table 1, p. 17; Allen, 2006; Arbaci, 2007, Table 1, p. 412; Hoekstra, 2003, Table 1, p. 62; Hoekstra, 2013; Balchin, 1996; Hegedüs and Teller 2005; Kettunen and Ruonavaara, 2021; Ruoppila, 2005; Soaita and Dewilde, 2019; Stephens, Lux and Sunega, 2015; Tchenkova, 2009.

2.2 The universality of housing support policy and the degree of decommodification

Having discussed the interrelationship between different housing policies and different welfare state regimes, in this section we review previous attempts to measure the degree of decommodification in housing, which is assumed to be a synonym for the universality concept in this context. Therefore, knowing how to measure the degree of decommodification in housing, we will be able to understand how to measure the universality.

We also follow the approach defined by Muñoz de Bustillo Llorente et al. (2020), which states that "coverage and adequacy are therefore the key dimensions to assess the universality of social protection for a given need" (p.3). Universality, which is the main focus of this paper, is a denotative concept that aims to describe the extent to which a social system or program covers the entire relevant population in an adequate manner (Muñoz de Bustillo Llorente et al. 2020, p.9).

The most famous definition of decommodification comes from Esping-Andersen (1990), who defined it as "the degree to which individuals, or families, can uphold a socially acceptable standard of living independently of market participation" (p. 37). In the housing literature, the meaning of decommodification of housing parallels the Esping-Andersen's definition. Hoekstra (2003) defines the decommodification in the housing field as the extent to which households can afford their own housing independent of the income gained from participation in the labor market. The government can influence decommodification through price regulation and through object and subject subsidies. The object subsidies refer to production subsidies affecting the price of housing. The subject subsidies affect the household income, including general income support (pensions, unemployment benefits) and subsidies that are specific to the field of housing. Other authors (Allen, 2006; Arbaci, 2007) suggest that availability and the proportion of social housing within the housing stock can also be a measure of decommodification (quoted by Aidukaitė, 2014: 423). Similarly, Doling (1999) states that there is a tendency to use tenure to account for the degree of decommodification of housing, so that homeowners and private renting are associated with the commodification, and social renting is paralleled with the decommodification (Doling, 1999). Nevertheless, Doling claims that this could be a misleading strategy. This is because private renting in countries with a unitary rental system can display the same high level of decommodification as social housing. This could be the case in Germany, for instance, with a large private rental market (see Figure 3) subsidized and regulated by the state (see e.g., Scanlon et al., 2014). Therefore, the private rental sector provides strong tenant protection and makes an attractive alternative for home ownership for a large part of the population.

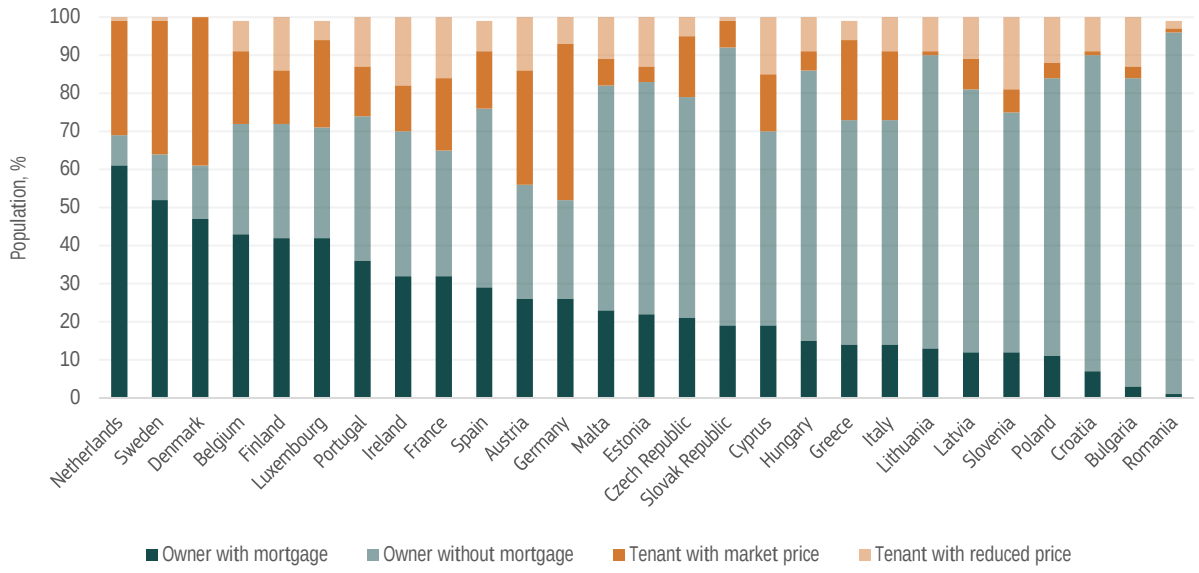
Yet, home ownership may not always be associated with commodification, although it is highly commodified at the point of buying a house and then paying off the loan over a long period of time. However, if the home owner lives in a house that is loan free and does not pay any imputed tax on his/her house, this creates conditions for a high degree of decommodification (Doling, 1999). This situation can be highly characterized by some central and east European countries. For example, 95% of Romanians, 84% of Croatians, and 82% of Bulgarians have their own housing and no outstanding mortgages, while only 8% of Dutch, 12% of Swedes, and 14% of Danes live in the same way (see Figure 3). The differences are explained by many factors, among which are path-dependency (the inherited constitution of housing systems), economic affluence, labour migration, ageing of the population, the degree of familialism in housing production and allocation, and welfare systems (Aidukaitė and Ubarevičienė 2022; Soaita and Dewilde 2020; Stephens, Lux and Sunega 2015). Lithuania is also a country with a very high home ownership rate produced by massive privatization carried in the 1990s (see Figure 3). At present, the decommodification is low in Lithuania for those who have to buy their housing at the market price, but it is quite high for those who obtained their housing though massive privatization (Aidukaitė 2014).

Various housing allowances are also important tools to increase decommodification of housing. A study by Dewilde (2022) has revealed that redistributive housing allowances and rent regulations improve living and housing conditions for low-income households. Griggs and Kemp (2012) showed that housing allowances have a substantial effect on disposable incomes (after housing costs) and as such have an imperative income support function. Thus, various housing allowances and rent regulations should constitute the basis for evaluating the degree of decommodification (Doling, 1999).

To understand the universality in housing, it is worth briefly discussing how stratification is reflected in housing. Esping-Andersen argues that "the welfare state is not just a mechanism that intervenes in, and possibly corrects,

the structure of inequality; it is, in its own right, a system of stratification. It is an active force in the ordering of social relations" (p. 23). This ordering of social relations is achieved through various welfare state institutions (e.g., education, health care) and depends on how social security is organized, namely, whether access to social benefits and/or services are based on social insurance, means-test, or based on the principle of universalism. Housing can be considered a key for stratification. Higher income people possess larger and better-quality housing. The state can reduce housing stratification or increase it through public housing policy measures. According to Hoekstra (2003), in the field of housing, stratification can be achieved through the process of housing allocation. Indeed, the state intervenes in housing markets and favors certain groups in the housing allocation process by regulating prices, providing subject and object subsidies, and providing social housing. Usually, the low-income groups are favored in the allocation process, but high-income groups can also be favored in some cases, e.g., Soviet nomenclature in the Soviet Union were provided a better quality of housing in exchange of submission to the communist party.

Figure 3. Distribution of population by tenure status, 2018



Source: Eurostat data

Based on our literature review, we conclude that the following indicators are important in assessing the degree of decommodification/commodification, therefore of housing universality: share of social housing; share of home owners without mortgages who do not face any tax on imputed rent; redistributive housing allowances; production subsidies; demand subsidies; rent regulations that increase decommodification for sitting tenants.

2.3 Housing as a fundamental human right

When talking about the universality of housing (policies), it is important to discuss housing as a fundamental human right ([3]). Adequate and affordable housing is considered one of the basic human needs (United Nations, 2014). However, it is recognized that "housing has increasingly been treated as an opportunity for investment, not as a social good and fundamental human right" (United Nations, 2022a). Human rights to affordable and adequate housing have been increasingly addressed in the resolutions, charters, declarations, and other documents of many international organizations as well as by the bodies of local authorities. Thus, the legislative base related to housing rights can be found on different levels, ranging from global to local.

([3]) The overview provided in this section is based on the analysis developed by Aidukaitė and Ubarevičienė (2022).

At the global level, the United Nations (UN) is an umbrella organization for many international legal measures. In 1948, the *Universal Declaration of Human Rights* was proclaimed by the United Nations (1948), which was the first document of global significance to establish fundamental human rights, including the right to adequate housing. Later, rights to adequate housing were also acknowledged in several other documents: *International Covenant on Economic, Social and Cultural Rights* (United Nations: General Assembly, 1966), *United Nations Human Settlements Programme* (United Nations: Habitat, 1978) and *United Nations Housing Rights Programme* (United Nations: Habitat, 2002). The *Geneva UN Charter on Sustainable Housing* United Nations Economic Commission for Europe, 2015) is a non–legally binding instrument designed to support member states in ensuring access to decent, adequate, affordable, and healthy housing for all. In 2015, the UN set the *Sustainable Development Goals* (United Nations 2022b), where the goal "Make cities and human settlements inclusive, safe, resilient, and sustainable" aims, among other things, to ensure adequate, safe, and affordable housing for everyone. In 2016, the *New Urban Agenda* (United Nations, 2022c) was adopted by the UN to accelerate sustainable urbanization and to promote equal access to adequate and affordable housing. Other UN treaties contain articles on housing targeting the rights of women, children, refugees, migrants, persons with disabilities, etc. (more information can be found in United Nations, 2022d and Housing Rights Watch, 2022). In addition, *Housing and health guidelines* set up by the World Health Organization (2018) provides recommendations to promote healthy housing for a sustainable and equitable future.

At the European level ([4]), in addition to the UN–based measures, housing rights are protected by the Council of Europe, which covers 47 European countries. The Council of Europe complements UN activities and seeks to promote and further implement human rights and fundamental freedoms. One of the most important initiatives of the Council of Europe (2022) is the *European Convention for the Protection of Human Rights and Fundamental Freedoms*, initially drafted in 1950 (Council of Europe, 1950). Although this document does not explicitly mention housing rights, several articles refer to housing exclusion, poverty, and homelessness. The human rights defined in the Convention are enforced by the *European Court of Human Rights* (2022). The *European Social Charter*, adopted in 1961 (Council of Europe, 1961) and revised in 1996, complements the *European Convention on Human Rights*, but the Charter pays more attention to the economic and social areas, such as employment, housing, health, education, social protection, and welfare. The Article 31 of the Charter deals specifically with "the right to housing" and is often considered as the main statutory item protecting housing rights.

The European Union has established additional measures to protect the fundamental rights as well as housing related rights in EU member states. The *Treaty of the European Union* (European Union, 1992) emphasizes the values such as freedom, equality, tolerance, solidarity, and justice. The *Charter of Fundamental Rights of the European Union* (European Union, 2012) presents the right to housing assistance as a measure needed to combat social exclusion and poverty. *The European Pillar of Social Rights Action Plan* (European Commission, 2021) is a tool enshrining 20 principles to protect social rights; one of the principles, called "housing and assistance for the homeless", deals with i) access to social housing and housing assistance; ii) forced eviction of vulnerable people; iii) services to the homeless. More precisely, one recent and concrete deliverable of the Action Plan is the European Platform on Combatting Homelessness, joined by national ministers, representatives of EU institutions, civil society organizations, social partners, and cities in 2021 ([5]). The report on *Access to decent and affordable housing for all*, recently issued by the European Parliament (2021), recommends an integrated housing strategy to guarantee social, accessible, and affordable housing in the member states.

To sum up, we may conclude that, formally, the attention to housing rights has been constantly increasing at global and European levels, and efforts are being made to put housing rights ahead of market interests, to ensure affordable and adequate housing for all. However, there is a so–called global housing crisis, which has strong negative effects on lower-income earners and, despite various initiatives, exacerbates urban inequality (United Nations: Habitat, 2015 (1978)).

([4]) In this report, we focus on the European Union countries. Although housing problems in this region are not as fundamental as in many other parts of the world, the legislative base related to the housing rights (and human rights in general) as well as the enforcement of these rights is one of the most advanced here.

([5]) More details on the Platform working program are available at http://ec.europa.eu/social/BlobServlet?docId=25258&langId=en

Finally, at the national level, among the EU member states' right to housing is guaranteed constitutionally in Belgium, Finland, Greece, Italy, Netherlands, Poland, Portugal, Slovenia, Spain, and Sweden. Additionally, these countries, France, Latvia, and Lithuania have ratified the European Social Charter Article 31 on the Right to Housing (Council of Europe, 1961). It could be expected that the rights to housing as well as housing universality are higher in these countries. However, the recent comparative study, which assessed the state of housing rights in EU countries using multiple indicators of affordability, availability, and adequacy, conducted by Aidukaitė and Ubarevičienė (2022), showed the relationship between the right to housing declared by law and the actual housing situation in the EU member states is ambiguous. For instance, in Denmark people enjoy high housing rights, but these rights are not embedded in the constitution, while the Polish constitution guarantees housing rights to all citizens, but these rights are not well secured in Poland. One of the main factors behind this gap is the housing tenure composition, and housing rights seem to be the most difficult to secure in countries with a larger home ownership rate and private rental sector. Countries with a well-developed social/public rental sector can provide better housing rights. The country's welfare state regime and housing policy regime explain much of the difference between the housing rights of different countries. In Denmark, even if housing rights are not embedded in the constitution, they are an important part of the overall social-democratic welfare state system. Meanwhile, in Poland, which belongs to a post-socialist welfare state model, housing rights are underdeveloped and constitute a weak part in the welfare state.

Table 2. Housing rights across EU Member States

Country	Housing guaranteed constitutionally	Housing ratified in European Social Charter (art. 31)
BE	✓	✓
FI	✓	✓
GR	✓	✓
IT	✓	✓
NL	✓	✓
PL	✓	✓
PT	✓	✓
SE	✓	X
ES	✓	X
SE	✓	X
FR	X	✓
LV	X	✓
LT	X	✓
AT	X	X
BG	X	X
HR	X	X
CY	X	X
CZ	X	X
DK	X	X
EE	X	X
DE	X	X
HU	X	X
IE	X	X
LU	X	X
MT	X	X
RO	X	X
SK	X	X

Source: Authors' elaboration.

3 Housing as part of social protection

3.1 State support for housing

Although the right to housing is enshrined in many instruments of international importance, the housing system is nevertheless a matter of national policies and/or local/regional policy. International legal documents set out the principles that housing must be universally adequate and affordable to everyone, regardless of the place of residence, demographic characteristics and any other possible grounds of discrimination. However, there is no formula on how these commitments should be achieved.

Compared to other forms of social protection, such as unemployment benefits, pensions, health care, etc., housing is in some ways more complex. To have a safe and secure place to live is a basic need of every person, a need that lasts a lifetime. States often intervene in one way or another in providing adequate housing, especially for low-income households. When it comes to providing any type of social support, two aspects are important: who needs it and how can it be provided. The need for housing support is more difficult to identify compared to some other areas of social protection e.g., unemployment-related benefits or old-age pension. In the latter cases, the state provides monetary support intended to maintain a certain level of income. State support for housing can take various forms depending on specific needs and situations, such as homelessness, low income, disability, family composition, place of residence, etc. Accordingly, each type of support has eligibility requirements. Even if the requirements are met, other obstacles are often encountered e.g., lack of social housing and long queues waiting for it (sometimes for decades). Typically, state support for housing is provided to a household based on the total income of its members or certain household characteristics. It should also be borne in mind that other types of social support, like unemployment benefits, pensions, or family benefits, may also be treated in part as housing assistance as they help to cover part of housing expenses.

As noted in the previous sections, housing policy includes a broad range of measures. Below we overview the main forms of housing support that help to obtain, to rent, or to purchase the home. The most common forms of state housing support are:

— *Social housing* (also called public housing, social rental housing, subsidized housing, etc.) is typically provided by the local authorities to people who are unable to afford housing from their own resources. Such housing is owned and managed by the public sector or non–profit organizations. Residents of such housing typically pay rent that is significantly lower than market rents. OECD defines social rental housing as "residential rental accommodation provided at sub–market prices and allocated according to specific rules rather than according to market mechanisms" (OECD, 2021a: 2).

— *Housing allowances*. According to OECD, housing allowances are "means–tested income transfers to households paid to either owners or tenants towards their housing costs" (OECD, 2021a: 2). *Housing allowances* can cover costs related to rent, payment of mortgage and/or interest, utilities, insurance, and services. *Rent allowances* refer to housing allowances paid to tenants only. Most countries provide means–tested housing allowances to assist low–income households with their rent and other housing costs.

— *Support to homebuyers.* Based on the OECD (2021) definition, this type of support facilitates home ownership and includes one–off grants for the purchase of a residential dwelling. Such support is often provided to first–time homebuyers whose income level is below a certain threshold. This type of support also includes subsidized mortgages, tax reductions to the first-time homebuyers, down payment assistance or mortgage guarantees provided by the government.

— *Accommodation/shelter for the homeless*. It is a facility that provides temporary accommodation for homeless individuals or families. In EU countries, these services are usually provided by NGOs or municipalities.

— *Support to finance housing regeneration.* According to OECD (2021), this type of support includes tax deductions, tax credits and/or grants to finance the renovation of existing residential buildings, for example, to increase their energy efficiency. This support is playing an increasingly important role in achieving the EU's energy and climate goals.

In addition to these most common forms of state housing support, there are many other forms of housing support, for example those targeted at vulnerable groups such as women experiencing violence, orphans, refugees, migrant workers and their families, or people with disabilities. To whom, how much, and in what way the support is provided depends on the housing policy of each state. A recent study by Aidukaitė and Ubarevičienė (2022) showed that liberal welfare state, Mediterranean welfare state, and post-socialist (or hybrid) welfare state countries rely mainly on housing allowances to meet housing needs and secure housing rights, while social-democratic and conservative-corporatist welfare states rely on the provision of social housing.

3.2 Overview of housing indicators

As we emphasize in this report, housing is a multifaceted phenomenon. Therefore, many factors need to be considered when evaluating housing policies and their effectiveness. First, there are many indicators that characterize a housing policy itself, showing how important and how advanced this policy is at the national level. Among these indicators are how much countries spend on housing policy in general or on specific measures, whether the rights to housing are established legally, whether the market forces are regulated, whether a regional policy is in place, if there is an aim to reduce social exclusion and residential segregation, and so on. The second group of indicators characterizes the housing sector and thus allows us to assess the effectiveness of housing policies. The housing sector can be characterized through housing affordability, availability, adequacy (quality), and accessibility.

- Affordability indicates whether housing is affordable for lower and middle-income groups (usually it refers to bottom quintile or to those whose income is below the median household income (Galster and Lee, 2021; Haffner and Hulse, 2021). (Un)Affordability becomes an issue when lower and middle-income households are unable to afford housing at market prices, and have no other alternatives, such as social housing.
- Availability indicates the sufficiency of (certain types) housing. In the context of housing policy, this is often associated with a lack of affordable housing.
- Adequacy (quality) refers to the right to housing of acceptable quality. United Nations (2009) states that housing must ensure security, peace, and dignity. Adequate housing should provide adequate privacy, space, lighting, temperature, and ventilation, basic infrastructure, and access to facilities – all at an affordable price (United Nations, 2009).
- Accessibility shows how the housing needs of the disabled, elderly, refugees, homeless, children, and other vulnerable groups are met. The purpose of accessible housing is to create conditions and facilitate the independent living of these groups. Iwarsson (2013) defines housing accessibility as the relationship between the individual's functional capabilities and the requirements of the physical environment.

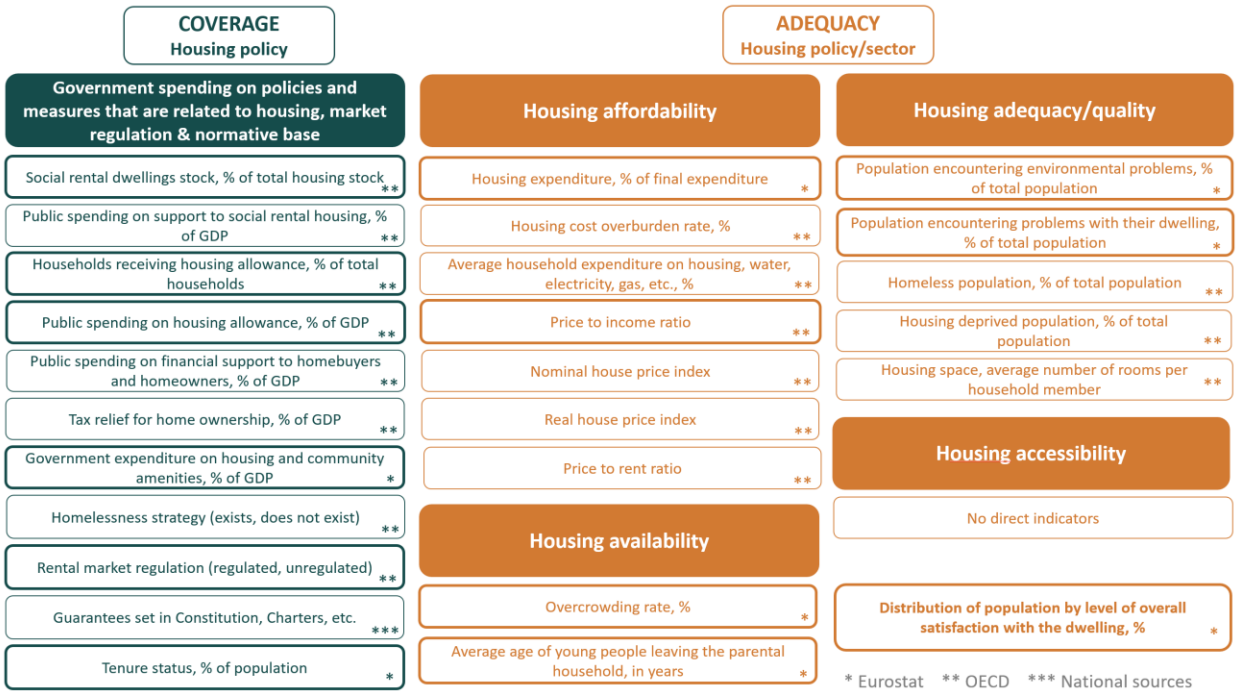
All four indicators are closely interrelated, and they all need to be implemented to ensure effective housing policies and, at the same time, the housing needs of all people. Otherwise, for example, housing can be available, but unaffordable or it can be affordable, but inadequate. In such cases, the housing needs would not be met for all people, and this would not result in an effective housing policy.

Two broad groups of indicators – describing housing policy and the housing sector – represent housing coverage and housing adequacy, respectively, as defined in the general analytical framework of this study. It should be emphasized that each of these categories – coverage and adequacy – cannot be defined by one specific indicator. Therefore, dozens of existing indicators and data need to be examined in order to better understand the state of the coverage and adequacy of housing in the EU. Opposing Muñoz de Bustillo Llorente et al. (2020), in our view, it is not entirely accurate to state that there is a lack of indicators and statistics that assess various aspects of housing. The system of indicators provided by OECD and Eurostat (not to mention all the other sources) is as large and confusing as the housing policy itself; it is difficult to understand how the various indicators relate to each other and whether they overlap or represent completely different spheres of housing policy or characteristics of a housing sector. Of course, the reliability and representativeness of the data can also be questioned.

In Figure 4, we provide a collection of available indicators that qualify to be included in the measurement of housing universality, particularly in housing coverage and housing adequacy. The list in Figure 4 is not exhaustive, and it is compiled by the authors of this study to outline and visually illustrate the variety of housing indicators.

When selecting indicators for measuring the universality of housing policies, the goal is not to include as many indicators as possible, but to select the most significant ones that best reflect housing coverage and adequacy. Therefore, a strict selection of indicators was further applied, based on the literature review as well as on the following criteria: (1) whether the indicator provides relevant information regarding the scope of this study; (2) whether data are sufficient (e.g., some indicators cover only a few EU countries); (3) whether the combination of selected indicators is complementary rather than overlapping. Most of the data for these indicators are collected by OECD and/or Eurostat.

Figure 4. Overview of possible indicators for measuring the universality of housing policies



Note: Bolded frame = selected indicators. A similar overview has been used in the study by Aidukaitė and Ubarevičienė (2022).
Source: Eurostat and OECD; authors' elaboration

Next, we describe the selected indicators for measuring housing coverage and adequacy (taken together – universality) and provide a scientifically grounded reasoning behind these indicators. We focus on their main advantages, but also discuss their limitations. It is worth mentioning that there are indicators for which data are not collected (at least by OECD or EU), but, in our opinion, they could contribute to a better assessment of housing universality; for example, housing shortage, waiting times for social housing, and the provision of housing for the disabled.

3.3 Coverage of housing policy

Based on the analytical framework proposed by Muñoz de Bustillo Llorente et al. (2020), we understand coverage of housing (support) policy as the degree to which state housing support is provided to those in need of such support. Unfortunately, there is no direct indicator defining housing coverage using this or a similar definition. Therefore, we need to rely on a few (indirect) indicators to measure housing coverage as well as compare EU countries among themselves. Our analysis of housing indicators and attempts to combine these indicators to access housing coverage has shown that any measurement has important shortcomings. Therefore, we offer two options for measuring coverage of housing policy that we believe best fit the scope of this study. Later, in Section 4.1 we discuss and compare the results obtained using these two options.

Option 1

We believe that, as many people can provide adequate housing for themselves, it would be best to focus on those for whom this support is most relevant, rather than the entire population, when assessing housing support coverage. Thus, we propose to calculate this coverage as the ratio of the population receiving housing support among those in need of housing support ([6]) to the population in need of this support, or as follows:

$$Coverage\ of\ housing\ policy = \frac{Share\ of\ population\ receiving\ housing\ support\ among\ those\ in\ need}{Share\ of\ population\ in\ need\ of\ housing\ support}$$

In theory, a score of 1 would mean that the coverage is perfect. In other words, this would mean that basic housing needs are met through state support for housing. A value lower than 1 would mean that the coverage is insufficient, and a value higher than 1 would mean that the basic needs are sufficiently met and even higher levels of housing security are ensured in such countries.

There are no statistics that directly indicate the *share of population receiving housing support*. To estimate this figure, we suggest summing up the coverage of the main forms of housing support, more specifically the share of households living in social housing and the share of households receiving housing allowance. As has already been discussed in this report, it is also difficult to determine t*he share of population in need of housing support* (see, e.g., page 19). One solution could be to assume that everyone in the bottom quintile of the income distribution needs state housing support, because income is most likely to be the limiting factor to attain adequate housing. However, since the numerator of the formula includes indicators that are already associated with the lower quintile (according to eligibility criteria and so on), the formula for calculating coverage of housing policy is as follows:

$$Coverage\ of\ housing\ policy = Soc.h. + H.allow.$$

Where:

Soc. h. = Social rental housing stock, % of total housing stock ([7])

H. allow. = Share of households receiving housing allowance, % of total households

The advantage of *Option 1* is that when housing support coverage is calculated in this way, the result obtained is a meaningful number, i.e., degree to which state housing support is provided to those in need of such support. However (and as it will be discussed later), there are issues with data, therefore these results may not be accurate enough.

Option 2

While the two indicators used above can be considered as the most significant for accessing coverage of housing policy, there are many other forms of state support for housing, whose contributions are also important in building up coverage and universality overall. As we already discussed, housing policy in any country consists of various elements, and the fact that some type of support, such as social housing, is less popular does not necessarily mean that coverage is lower as a result. The parameters of the housing sector (especially the ownership structure) are also important, on which the development of specific types of support are highly dependent. Against this background, we believe the coverage can be counted as a larger set of different forms of housing support or regulations, or as follows:

([6]) We want to emphasise how much a given country satisfies the needs of those who are actually in need of housing; This also closely correspond to the definition of Munoz de Bustillo Llorente et al. (2020).

([7]) The statistics on social housing are provided as a percentage from a total housing stock or as a number of units. Preferably, data on the percentage and number of people living in social housing should be used. However, we may assume that the figures are quite similar.

$$Coverage\ of\ housing\ policy = Soc.h. + H.allow. + H.allow(p) + Gov.exp. + Rent\ reg. + Own$$

(All values standardized)

Where:

Soc. h. = Social rental housing stock, % of total housing stock

H. allow. = Share of households receiving housing allowance, % of total households

H.allow(p) = Public spending on housing allowances, % of GDP

Gov. exp. = General government expenditure on housing and community amenities, % of GDP

Rent reg. = Rental market regulation (regulated/unregulated)

Own. = Owner-occupiers without mortgages, % of total population

The main difference from *Option 1* is that *Option 2* includes more indicators, the selection of which was determined by the discussions in Section 3.1 and Section 3.2. These indicators are very different in their nature and we no longer focus on the bottom quintile. In addition, we use standardized values that allow us to "sum up" different measures, and, as a result, the calculation delivers the derivative figures, i.e., the results do not represent numbers that directly describe the extent of coverage. However, we believe this calculation allows for a more objective comparison of EU countries. Thus, we will compare the results obtained using both options of calculation.

Variables' descriptions

Social rental housing stock, percentage of total housing stock (Soc. h.)

Based on the theoretical literature discussed in Section 2, this is a major indicator to account for a decommodification and coverage in the housing policy. The availability and the proportion of social housing within the housing stock is an important measure of decommodification (Allen, 2006; Arbaci, 2007). The share of social housing varies significantly in EU countries: in 2020 it accounted for as much as 34% in the Netherlands (and it was even 38% in 2010), while social housing was (almost) non-existent in many eastern and south-eastern EU countries; the average in EU was around 7% in 2020.

— *Data source*. OECD data ([8]) is used as the main source of statistical data. Although OECD data are available for most of the EU member states, the dataset is incomplete and there is no yearly coverage. Therefore, OECD provides statistics approximated into two points in time: 2010 and 2020. We will rely on these two points in time in our measurements as well. To increase the comparability between countries, some missing data was filled out using data obtained from "Housing Europe" ([9]) or national sources.

— *Challenges and limitations*. The existing statistics on social housing are not perfect for comparing European countries, and the reasons for this are related to the economic, social, and cultural history. Together, they led to different understandings of social housing and the mechanisms of its functioning in different countries. Social housing may differ regarding tenure status, size, type of provider, entitlement rules, and eligibility criteria. For example, in Cyprus social housing mostly targets refugee populations, in Sweden it is open to everyone in order to avoid stigmatization; in principle, in many countries it is aimed at low–income people and families.

([8]) OECD Affordable Housing Database; https://www.oecd.org/els/family/PH4-2-Social-rental-housing-stock.pdf
([9]) The European Federation of Public, Cooperative and Social Housing (see more at https://www.housingeurope.eu/)

— *Space for improvements.* It is unlikely that the definition of social housing could be harmonized, but data collection and presentation should be improved in all countries. The collection of annual data would help to better understand and forecast the housing market. Moreover, existing statistics are provided as a percentage from a total housing stock or as a number of units; data collection on the number (and percentage) of people living in social housing should be considered.

Share of households receiving housing allowance, percentage of total households (only bottom quintile of the disposable income distribution) (H. allow.)

As noted in section 2, housing allowances is an important indicator accounting for the degree of decommodification in housing. Housing allowances help to increase the affordability and adequacy of housing. We only include data for the bottom quintile in the measurement, as this group is most in need of housing support. It is also the most numerous groups in all countries receiving this type of support. For example, the highest allowances were in Ireland – 60.7% of households belonging to the bottom quintile and 6.2% of households belonging to the top quintile were receiving housing allowances in 2018. Allowances were also high in Finland (54.6% and 2.5% respectively, in 2019), France (54.4% and 3.9%, in 2019), the Netherlands (45.5% and 0.4% in 2019) and Sweden (33.9% and 0.8%, in 2019). Meanwhile, there were no such forms of housing support (or data was not recorded) in Slovakia, Bulgaria, and Romania.

— *Data source.* OECD data ([10]) are used. The database is almost complete and covers the period between 2010 and 2019 (or last year available).

— *Challenges and limitations.* We focus on the bottom quintile, but there may also be people in other groups who need help. Even more so, people belonging to the preceding quintile find themselves in a worse position compared to those belonging to the bottom quintile and receiving allowances.

— *Space for improvements.* Instead of using the bottom group, the group below median income could be used.

Public spending on housing allowances, as a percentage of GDP (H.allow(p))

Public spending on social policy is one of the key indicators of a state's commitment to ensure everybody's well-being and to increase universality in social policy (Castles, 2009). This indicator shows how much the state spends on housing allowances in general, thus it complements the above indicator, but is not limited to the bottom quintile alone. Although we do not consider this indicator to be of primary importance, we believe its inclusion may help to provide a more accurate estimate of housing coverage in EU countries. One way to interpret this indicator is as follows: support for housing may reach a large number of people, but in monetary terms it may be very low in terms of expenditure per capita, or vice versa. This indicator is calculated as a percentage of GDP; in the EU in 2020 it ranged from 0.1% in Portugal to 0.88% in Finland.

— *Data source.* OECD data ([11]) are used. Data are only provided for 2020 or last year available, not all EU countries are covered.

— *Challenges and limitations.* Data are not updated annually.

— *Space for improvements.* More data are needed to assess the change over time.

General government expenditure on housing and community amenities, as a percentage of GDP (Gov. exp.)

These expenditures consist of community development (accounts for 40% of total costs), housing development (20%), water supply, street lighting, R&D related to housing and community amenities, and other housing and community amenities (Eurostat, 2022a). We include this variable because it is an aggregate indicator reflecting

([10]) OECD Affordable Housing Database; https://www.oecd.org/els/family/PH3-3-recipients-payment-rates-housing-allowances.pdf
([11]) OECD Affordable Housing Database; https://www.oecd.org/els/family/PH3-1-Public-spending-on-housing-allowances.pdf

the strength and consistency of the state's housing policy. This indicator is calculated as a percentage of GDP; in the EU in 2020 it ranged from 0.23% in Greece to 2.17% in Croatia.

— *Data source.* Eurostat data ([12]) are used. The database is complete and covers the period from 1995 to 2020.

— *Challenges and limitations.* Government expenditure highly varies from year to year, thus we suggest including an average value over a period of time, e.g. 2010–2020. Looking at the data (see Appendix C), in general, expenditure appears to be higher in countries with less developed housing policies and fewer housing support mechanisms (mainly Central and Eastern European countries). Therefore, it is unclear whether these countries are misusing their finances or whether they simply need more investment to improve the situation and close the gap with more advanced countries.

— *Space for improvements.* Data are sufficient.

Rent control in the private rental sector (Rent reg.)

Renting in the private sector imposes the greatest financial burden on households compared to other types of tenure. Thus, in addition to other forms of state support for housing, some countries control the private rental sector (e.g., Austria, Denmark, France, Germany, Ireland, the Netherlands, and Sweden in 2019/2020). This control can take different forms, e.g., on initial rent levels, on rent increases, and on the quality of rental housing. In many cases, the purpose of regulation is to protect tenants, but sometimes also landlords. As stated by Doling (1999), the private renting in the countries with unitary approaches (which means the state controls and regulates private rental sectors) to policy can be characterized by the same high level of decommodification as social housing. Therefore, it is important to include rent control in the calculation of coverage.

— *Data source.* OECD data ([13]) are used for 2019 or 2020. We use this binomial indicator to indicate whether or not rent is regulated. We add 1 point (before standardization) to the countries where rent is regulated, and 0 where rent is not regulated by the state. OECD also provides more detailed (qualitative) information, but it is problematic to include this in the calculations; we also consider it non-essential in determining housing coverage.

— *Challenges and limitations.* We suspect that the data provided by the OECD may not be up to date, as countries may change their regulations frequently; in addition, regulation can take many forms: strict or loose regulation, regulation of only certain sectors and so on.

— *Space for improvements.* More detailed information could be included; the indicator could have some quantitative values (in terms of public or private expenditures, percentage of the regulated market, and so on).

Owner-occupiers without mortgages (Own)

This indicator is not directly linked to housing policies, but we consider tenure status as an important indicator that reveals the need for state housing support. The higher the share of owner-occupiers without mortgages, the less public support is needed to provide housing (especially social housing). We assume that a higher ownership rate means less need for direct (financial) state support through housing policy. As it is noted in Section 2.2, home ownership without a mortgage is a highly de-commodifying factor, therefore, its role in measuring universality needs more attention.

— *Data source.* Eurostat (EU-SILC survey) data ([14]) are used. Data for some countries go back to 2003, but complete coverage starts from 2010 and is up to 2020.

— *Challenges and limitations.* The ownership structure varies greatly between countries. In part, this is a consequence of housing policy. However, this is mostly due to historical reasons and political nature.

([12]) Eurostat database; https://ec.europa.eu/eurostat/databrowser/view/GOV_10A_EXP__custom_2146330/default/table?lang=en
([13]) OECD Affordable Housing Database; https://www.oecd.org/els/family/PH6-1-Rental-regulation.pdf
([14]) Eurostat database; http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_lvho02

— *Space for improvements.* Data are sufficient.

Table 3 provides the summarized information on all indicators that are included in the calculation of coverage of housing (support) policy.

Table 3. Summary table of indicators of coverage by housing support

Indicators for coverage	Data source	Available years	Geographical coverage	Limitations, challenges	Possible improvements
Social rental housing stock as percentage from total housing stock	OECD, Housing Europe, National sources	Data approximated to 2010 and 2020	OECD countries/ EU Member States	Different understandings of social housing; various forms of housing support; great variation in the share of social housing between countries	Improved data collection; Data on the number (and percentage) of people living in social housing could be provided
Share of households receiving housing allowance (bottom quintile)	OECD	2010–2019	OECD countries/ EU Member States	Bottom quintile vs. wider coverage	Instead of quintiles, below median income could be used
Public spending on housing allowances, as % of GDP	OECD	2020 or last year available	Most of OECD countries/ EU Member States	One year data, not all countries covered	More data are needed to assess the change over time
General government expenditure on housing and community amenities, as % of GDP	Eurostat data	1995-2020	EU Member States	High variation from year to year	Data are sufficient
Rent control in the private rental sector	OECD data	2019 or 2020	OECD countries / EU Member States	One year data; Data are not up-to-date	Improved data collection, more quantitative data could be provided
Owner-occupiers without mortgages	Eurostat data	2003-2020	EU Member States	Great variations between countries determined by various reasons	Data are sufficient
Not included indicators					
Homelessness	OECD data	Latest year available, ranging from 2009 to 2020	OECD countries	Lack of consistent and comparable data	Harmonized definitions of data collection method
Public spending on grants and financial support to homebuyers and homeowners	OECD data	2019 or 2020	Most of OECD countries/ EU Member States	One year data, not all countries covered	More data are needed to assess the change over time and compare countries
Guarantees set in Constitution, Charters and other documents	National sources	All years	All countries	Does not have specific limitations or challenges	There is no single database that summarizes data

Source: Eurostat and OECD; authors' elaboration.

Existing, but not included indicators

We considered but did not take into account few important indicators when measuring housing coverage. These indicators and the reasons not to include them are as follows.

Homelessness is an extreme situation and it needs special attention when it comes to housing provision and housing policy. Data on homeless populations are collected and provided by OECD ([15]). However, we do not recommend including homelessness as an indicator when measuring the universality of housing for several

([15]) OECD Affordable Housing Database; https://www.oecd.org/els/family/HC3-1-Homeless-population.pdf

important reasons. The main reason for excluding homelessness from the calculations is the lack of consistent and comparable data. Homelessness is difficult to measure, thus the statistics are limited and imprecise. Therefore, the comparison of the countries becomes problematic, as the definition of homelessness and methods of data (on homelessness) collection varies from country to country (Feantsa, 2022). For example, some countries use broader definitions covering different types of accommodations for the homeless, including hidden homelessness, while other countries report only on street homelessness. Thus, some countries would appear as having a disproportionate problem compared to other countries, but in fact the opposite may be the case. Moreover, it is a debatable question whether this indicator should be attributed to coverage or to adequacy. Based on the latest year available at the country level, due to their very small number the largest estimated number of homeless was in the Slovak Republic – 0.44% (2011 data), and the smallest in Croatia – 0.01% (2013 data). It should be noted that strengthening analytical work and data collection on homelessness is one of the strands of works of the European Platform on Combating Homelessness for the coming years.

Homelessness is caused by a complex set of constraints related to the design of the particular country's housing policy and housing markets. Such structural factors as poverty, low wages, unemployment, low welfare state benefits, and unsecure employment can contribute to increasing risks of homelessness. Individual and family causes (divorce, drug abuse, mental health problems) can also accelerate the way to homelessness (Baptista and Marlier, 2019).

Public spending on grants and financial support to homebuyers and homeowners. Data are provided by OECD ([16]), but are incomplete: not all countries are covered, and data are available for only one year. This type of housing support is not targeted at the poorest or most vulnerable groups, although it is considered to be very important for young families (Mackie, 2016). In principle, support for homebuyers and homeowners is not a social security measure that guarantees a basic level of social security, but it aims to ensure a higher level of social security (Plaza et al., 2019). Regarding this type of public support, there is great variation between countries: it does not exist at all in many countries, but Finland has spent as much as 0.9% of GDP in 2019.

Guarantees set in constitution, charters and other documents. We may assume that when the rights to housing are set in legal documents, this implies higher housing coverage. However, a recent study (Aidukaitė and Ubarevičienė, 2022) showed that the relationship between the right to housing declared by law and the real housing situation in the EU member states is ambiguous.

Non-existent but potential indicators

We believe that one of the key indicators in assessing housing coverage should be the housing shortage, especially the shortage of affordable housing. It could be supplemented by the indicator on the waiting time for social housing. However, such data are not collected, at least not at the EU level.

3.4 Adequacy of housing policy

In the above section, we selected indicators that would allow assessing of the degree to which state housing support is provided to those in need of such support. This section is intended to assess the adequacy of housing policy. We understand adequacy of housing policy as the extent to which housing needs are adequately covered by the housing policies. It is worth noting that since we look at the overall housing data, it is impossible to distinguish to what extent housing 'adequacy' has been achieved exclusively through the state support for housing, and to what extent without its intervention. In the EU countries, the market is the biggest player in the housing sector, and support for housing plays a relatively small role. However, it is beyond the scope of this study (and likely any other quantitative study) to analyze the role of housing support on the housing adequacy as isolated from the other factors. This could be set as one of the challenges for the future studies. Adequacy of housing policy, as measured in this study, describes the adequacy of the entire housing stock, without distinguishing between housing directly affected by state support for housing. Nevertheless, this approach will still let us draw conclusions about the effects of the housing support policy.

([16]) OECD Affordable Housing Database; https://www.oecd.org/els/family/PH2-1-Public-spending-support-to-home-buyers.pdf

In general, we propose to measure adequacy of housing policy as a combination of the indicators that characterize housing affordability, availability, adequacy (quality) and accessibility:

$$Adequacy\ of\ housing\ policy = availability + affordability + adequacy\ (quality) + accessibility$$

More specifically, for each of these four parameters we propose to assign the key indicators that are most appropriate given the scope of this study and data availability. These are the following:

Affordability

- *Housing expenditure as a share* of *final consumption expenditure of households;*
- *House price to* income.

Availability

- *Overcrowding* rate ;
- *Average age of* young *people leaving the parental household.*

Adequacy/quality

- *Share of* population *encountering environmental problems in/around their dwelling;*
- *Share of* population *encountering problems with their dwellings.*

Accessibility

- Indicators do not exist.

Based on the literature review and data availability, an adjustment of the formula above is needed. First, we adjusted the formula by giving more weight to the affordability indicator, since affordability is usually the most relevant barrier to adequate housing. Second, because there is no data on accessibility (i.e., how and to what extent housing policies respond to the housing needs of people with disabilities) we suggest that data on housing satisfaction be included in the calculation. Finally, the result obtained is multiplied by -1 because higher values of all variables are associated with negative phenomena (e.g., higher expenditure, higher overcrowding, higher housing dissatisfaction, etc.). After multiplication, a higher number means greater adequacy. Note, that all values are standardized. We propose to calculate adequacy of housing policy as follows:

$$Adequacy\ of\ housing\ policy = (0.4 * (H.exp. + H.price) + 0.2 * (Over. + Leav.age) + 0.2 * (D.probl. + E.probl.) + 0.2 * (H.satisf.)) * (-1)$$

(All values standardized)

Where:

H. exp.= Housing expenditure, % of final consumption expenditure of households

H. price = House price to income ratio

Over. = Overcrowding rate, %

Leav. age. = Average age of young people leaving the parental household, age in years

D. probl. = Share of population encountering problems with their dwellings, %

E. probl. = Share of population encountering environmental problems in/around their dwelling, %

H. satisfy = Distribution of population by level of overall satisfaction with the dwelling and household type, %

Variables' descriptions

Housing expenditure as share of final consumption expenditure of households (H. exp.)

This indicator is often equated to housing affordability, which is in itself an object of research (Galster and Lee, 2021; Haffner and Hulse, 2021). While we are aware of the challenges to operationalize housing affordability, we do not go into further debate in this study and we use data on the indicator that is provided by OECD. Based on the OECD (2021b), housing-related expenditures consist of actual rentals for housing, imputed rentals for housing, maintenance, and repair of the dwelling, water supply, and miscellaneous services relating to the dwelling, electricity, gas, and other fuels.

— *Data source.* OECD data ([17]) are used. The database is complete and covers the period from 1995 to 2019.

— *Challenges and limitations.* Affordability is higher in the countries where ownership rate (especially ownership without outstanding mortgages) is higher. Therefore, tenure status composition should be taken into account when interpreting the results.

— *Space for improvements.* Data are sufficient. Further research and scientific debate on the measurement of housing affordability could contribute to the improvement of the indicator in the future.

House price to income ratio (H. price)

According to OECD (2022), "The price to income ratio is the nominal house price index divided by the nominal disposable income per head and can be considered as a measure of affordability". A higher ratio means that it is more difficult to buy a house.

— *Data source.* OECD data ([18]) are used. Data for some countries go back to 1970, but more complete coverage starts from 2009 to 2020. Data are missing for Croatia, Cyprus, and Malta.

— *Challenges and limitations.* It is difficult to interpret the data on this indicator, because it is built on a few dimensions: it takes into account relative change within countries and the ratio is calculated as annual rate of change, where 2015=100.

— *Space for improvements.* Data are sufficient.

Overcrowding rate (Over.)

The overcrowding rate is defined as the percentage of the population living in an overcrowded household. High overcrowding rate is an indicator of hard-to-afford housing. According to EU-SILC survey, "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" (Eurostat, 2022b).

— *Data source.* Eurostat (EU-SILC survey) data ([19]) are used. Data for some countries go back to 2000, but the complete coverage starts from 2010 and data are up to and including 2020.

— *Challenges and limitations.* Significant cultural differences or urban morphology may affect the indicator, but may not necessarily be associated with deprivation.

([17]) OECD Annual National Accounts Database; Eurostat Annual national accounts database; https://www.oecd.org/els/family/HC1.1-Housing-related-expenditure-of-households.xlsx

([18]) OECD Data / Housing prices; https://data.oecd.org/price/housing-prices.htm

([19]) Eurostat, data browser; https://ec.europa.eu/eurostat/databrowser/view/ilc_lvho05a/default/table?lang=en

— *Space for improvements.* Data are sufficient.

Average age of young people leaving the parental household (Leav. age)

We believe that part of the overcrowding phenomenon may be directly related to the average age at which young people leave their parents' household, thus together these two indicators can better reveal housing availability. Although we do not consider this indicator to be of primary importance, we believe that its inclusion may help to better access the adequacy of housing policy.

— *Data source.* Eurostat (LFS series) data ([20]) are used. Data cover the period from 2008 until 2020.

— *Challenges and limitations.* Significant cultural differences and the strong role of the (traditional) family can have a greater impact than financial reasons. It is no coincidence that in southern Europe the figures are higher than in northern Europe.

— *Space for improvements.* Data are sufficient.

Share of population encountering problems with their dwellings (D. probl.)

This indicator directly shows housing deprivation. It takes into account three elements: (1) Population living in a dwelling with a leaking roof, damp walls, floors or foundation or rot in window frames or floor; (2) Share of population unable to keep home adequately warm; (3) Share of population having neither a bath, nor a shower, nor indoor flushing toilet in their household. We include the average value of these three components in the calculations.

— *Data source.* Eurostat (EU-SILC survey) data ([21]) are used. Data for some countries go back to 2003, but the complete coverage starts from 2010 and data are up to and including 2020.

— *Challenges and limitations.* No specific data challenges or limitations.

— *Space for improvements.* Data are sufficient.

Share of population encountering environmental problems in/around their dwelling (E. probl.)

Apart from the quality of the housing itself, the quality of the living environment and its security are also important. This indicator takes into account three elements: (1) noise from neighbours or from the street; (2) Pollution, grime or other environmental problems; (3) Crime, violence or vandalism in the area. We include the average value of these three components in the calculations.

— *Data source.* Eurostat (EU-SILC survey) data ([22]) are used. Data for some countries go back to 2003, but the complete coverage starts from 2010 and data are up to and including 2020.

— *Challenges and limitations.* We assume that the values of this indicator are dependent on the level of urbanization and the population density in the countries, thus they are difficult to influence through housing policy measures.

— *Space for improvements.* Data are sufficient.

([20]) Eurostat, data browser; https://ec.europa.eu/eurostat/databrowser/view/yth_demo_030/default/table?lang=en

([21]) Eurostat, data browser; https://ec.europa.eu/eurostat/databrowser/view/ilc_mdho01/default/table?lang=en; https://ec.europa.eu/eurostat/databrowser/view/ilc_mdes01/default/table?lang=en; https://ec.europa.eu/eurostat/databrowser/view/ilc_mdho05/default/table?lang=en

([22]) Eurostat, data browser; https://ec.europa.eu/eurostat/databrowser/view/ilc_mddw01/default/table?lang=en; https://ec.europa.eu/eurostat/databrowser/view/ilc_mddw02/default/table?lang=en; https://ec.europa.eu/eurostat/databrowser/view/ilc_mddw03/default/table?lang=en

Distribution of population by level of overall satisfaction with the dwelling and household type (H. satisfy)

The statistics on the satisfaction with the dwelling were compiled based on the principle that the survey respondents could choose from four options of satisfaction level (Very high/ High/ Low/ Very low; without breakdown by type of household). We include the last (Level of satisfaction very low) category in our calculations in order to highlight the problems related to housing (as in the case of other adequacy indicators). It is known that the low-income households report lower levels of satisfaction (see e.g., Campbell et al. 1976; Abidin, 2019), which could also be related to previously described indicators, e.g., higher overcrowding rate, environmental problems, etc.

— *Data source.* Eurostat (EU-SILC survey) data ([23]) are used.

— *Challenges and limitations.* The data are self-reported and thus may be biased because of misinterpretation of the questions, personal needs, experiences, or motives, etc. Data are only for 2012. Longitudinal study (Kabisch et al. 2020) has shown that residential satisfaction is impermanent and that different housing characteristics that lead to overall satisfaction may become more or less important over time. For example, sound insulation is always important, but the requirements for apartment size change over time.

— *Space for improvements.* More recent data are needed, however EU-SILC data on housing conditions are part of an *ad hoc* module, meaning that these data were collected for a particular purpose but are not part of the continuously collected variables. In addition, dwelling (dis)satisfaction could be measured only among the population in the bottom quintile.

Table 4 provides the summarized information on all indicators that are included in the calculation of housing coverage.

Table 4. Summary table for housing adequacy indicators

Indicators for coverage	Data source	Available years	Geographical coverage	Limitations, challenges	Possible improvements
Housing expenditure, % of final consumption expenditure of households	OECD	1995-2019	OECD countries/ EU member states; Data for Croatia is missing	Tenure status composition should be taken into account (controlled) when interpreting the data	Intensive research on the topic generates new ideas (e.g., see Galster and Lee, 2021)
House price to income ratio	OECD	1970-2020, but some data are missing	OECD countries/ EU member states	Difficult to interpret the data	Data are sufficient.
Overcrowding rate, %	Eurostat (EU-SILC survey)	2000-2020, but some data are missing	EU member states	The role of traditional families, architecture, etc.	Data are sufficient.
Average age of young people leaving the parental household, age in years	Eurostat LFS series	2008-2020	EU member states	The role of traditional families	Data are sufficient.
Share of population encountering problems with their dwellings, %	Eurostat (EU-SILC survey)	2003-2020	EU member states	No specific data challenges or limitations.	Data are sufficient.
Share of population encountering environmental problems in/around their dwelling, %	Eurostat (EU-SILC survey)	2003-2020	EU member states	Related to level of urbanization, population density	Data are sufficient.

([23]) Eurostat, data browser; https://ec.europa.eu/eurostat/databrowser/view/ilc_hcmp04/default/table?lang=en

Distribution of population by level of overall satisfaction with the dwelling and household type, %	Eurostat (EU-SILC survey)	Only 2012	EU member states	Subjective evaluation	Data only for 2012; data for longer time series would be appreciated
Not included indicators					
Severe housing deprivation	OECD	2010-2019, but some data are missing	OECD countries/ EU member states	No specific limitations, but other similar indicators are already included	Data are sufficient.
Housing cost overburden rate	OECD	2010-2019, but some data are missing	OECD countries/ EU member states	No specific limitations, but other similar indicators are already included	Data are sufficient.
Average household expenditure on housing, electricity, gas and other fuels	OECD	1995, 2017, 2019	OECD countries/ EU member states	No specific limitations, but other similar indicators are already included	Data are sufficient.

Source: Eurostat and OECD; authors' elaboration.

Existing, but not included indicators

There are many more available indicators (see Figure 4) but we did not include them in our calculations due to various reasons. For example:

Severe housing deprivation ([24]) is not included in our calculations as it is composed of several other indicators we included, i.e., share of population encountering problems with their dwellings and overcrowding rate.

Housing cost overburden rate ([25]) and average household expenditure on housing, electricity, gas and other fuels ([26]) largely overlaps with the indicator that we included, which is housing expenditure as a share of final consumption expenditure of households.

3.5 Precision and reliability of proposed indicators and methodology

This study aims to contribute to the definition and measure of universality in social protection, specifically the universality of housing policies in EU countries. Given the conceptual framework developed by Muñoz et al. (2020), and the available data, we proposed (above) a more complex and detailed measurement of universality than that contained in the preliminary Muñoz et al. (2020) proposal. However, the reliability of the results in assessing the universality of housing depends primarily on the precision and reliability of the data used. Official statistical sources have been used for this study, and collecting new data is out of its scope. Also, as we have indicated, the problem is not the lack of housing indicators, but the risk of not choosing adequately among available indicators as well as a possible lack of their precision to measure what is aimed for in this study. Thus, one of the goals of this study is to refine the set of the most relevant and reliable indicators that could be improved in the future, while also improving the measurement of housing universality.

Apart from the precision and reliability of the indicators and data, there are more nuances that contribute to the challenges to assess housing universality. Here are some examples that illustrate the problems encountered in allocating housing support.

A study conducted in Lithuania (Aidukaitė, 2021) showed that people who have registered for social housing are not very concerned about or interested in getting it as soon as possible. There may be moral hazard problems

([24]) OECD affordable housing database; https://www.oecd.org/els/family/HC2-3-Severe-housing-deprivation.pdf
([25]) OECD affordable housing database; https://www.oecd.org/els/family/HC1-2-Housing-costs-over-income.pdf
([26]) OECD affordable housing database; https://www.oecd.org/els/family/HC1-1-Housing-related-expenditure-of-households.pdf

when people queuing for social housing do not really need it. The same study also highlighted another problem – when the income of a housing beneficiary starts to exceed the declared supported income for social housing by only a few Euros, the beneficiary must give up social housing, even though social housing is very much needed. Such income thresholds encourage beneficiaries not to search for a better job and thus remain in a precarious situation, or encourages the concealment of real income.

Other studies also show that in countries with higher housing coverage, people in the lowest quintile are quite well covered with housing support (Pittini, 2019; Whitehead and Scanlon, 2007). In such cases, the housing problems seem to be solved for the lowest income households, but the provision of affordable housing becomes more problematic for those households who earn slightly more but are not eligible for housing support. Thus, it is this group of people (slightly above the lower quintile) that is less well protected in terms of housing, as well as in social protection in general. To our knowledge, the social protection of this group of people is under-explored.

There are also situations when people could apply for housing assistance, but do not do so on purpose or for some reasons; according to Reijnders et al. (2018), the most prominent reasons are bureaucratic obstacles and unwillingness to lose the sense of independence. Conversely, it may happen (albeit rarely) that not all those who actually receive support fall into the category of those who should receive it, thus depriving the poorer people of the opportunity to improve their living conditions. It depends on how successfully housing providers assess housing needs and how they respond when those needs change.

These examples illustrate that to measure the universality of housing policy we need not only reliable indicators and data, but also transparent and well-managed housing support policies.

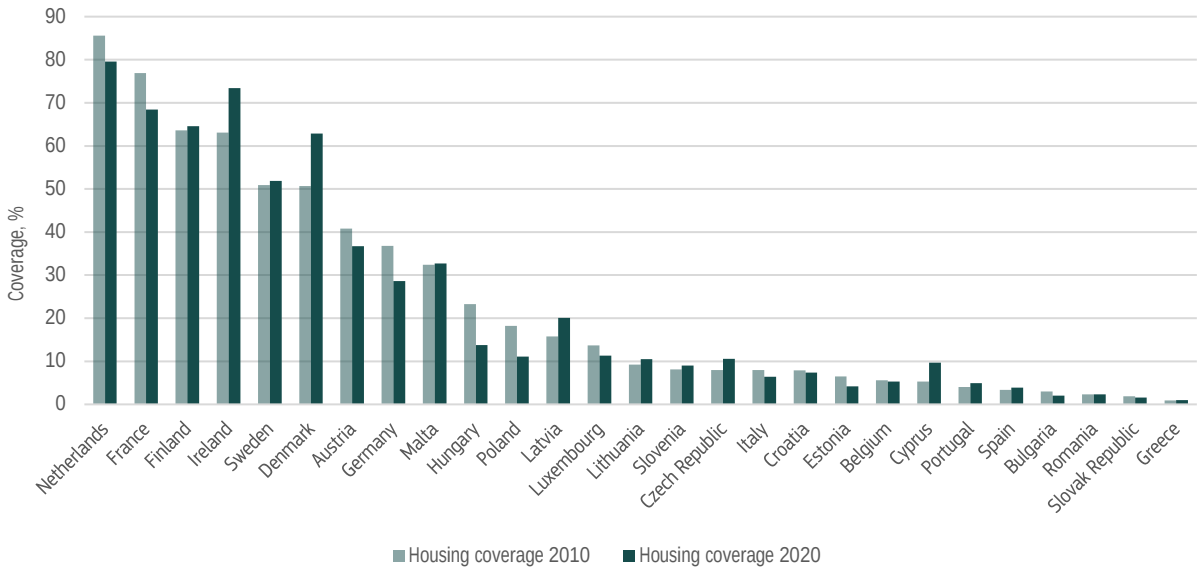
4 Measuring index of universality

4.1 Coverage

This section discusses and compares the results obtained using formulas that we constructed in Section 3.3. We proposed *Option 1* and *Option 2* for calculating coverage of housing policy, for each of which we provided scientifically grounded reasoning, but we also warned about the limitations of the existing data and potential problems with data reliability. Figure 5 shows the results gained using proposed *Option 1* for the situation in 2010 and 2020. Coverage in percentage refers to the share of the population/households of the bottom quintile receiving housing support (i.e., living in social housing or receiving housing allowances).

Our results show that in most countries, coverage of housing policy for the bottom quintile is less than 50%. The highest coverage is in the western and northern European countries (the Netherlands, France, Finland, Ireland, Sweden, and Denmark – more than 50%), and the lowest coverage is in eastern and southern countries (Greece, Slovakia, Romania, Bulgaria, Spain, Portugal – less than 5%). The differences between European countries are very large, but that was to be expected and is in line with our theoretical and literature review. It is possible to state that countries with the unitary rental systems and belonging to social-democratic and conservative-corporatist regimes exhibit higher coverage of housing policy, while countries belonging to Mediterranean and post-socialist welfare state regimes with dualistic rental systems experience lower coverage. In terms of changes between 2010 and 2020, there is no prevailing trend or clear geographical pattern in EU countries. Coverage decreased in the Netherlands, France, Austria, Germany, Hungary, and Poland, and it increased in Ireland, Denmark, Latvia, and Cyprus. In the rest of the countries, the change was very small. The absence of a prevailing trend means that housing policies are largely influenced by the decisions made at the country level.

Figure 5. Coverage of housing policy in 2010 and 2020 (Option 1 calculation)

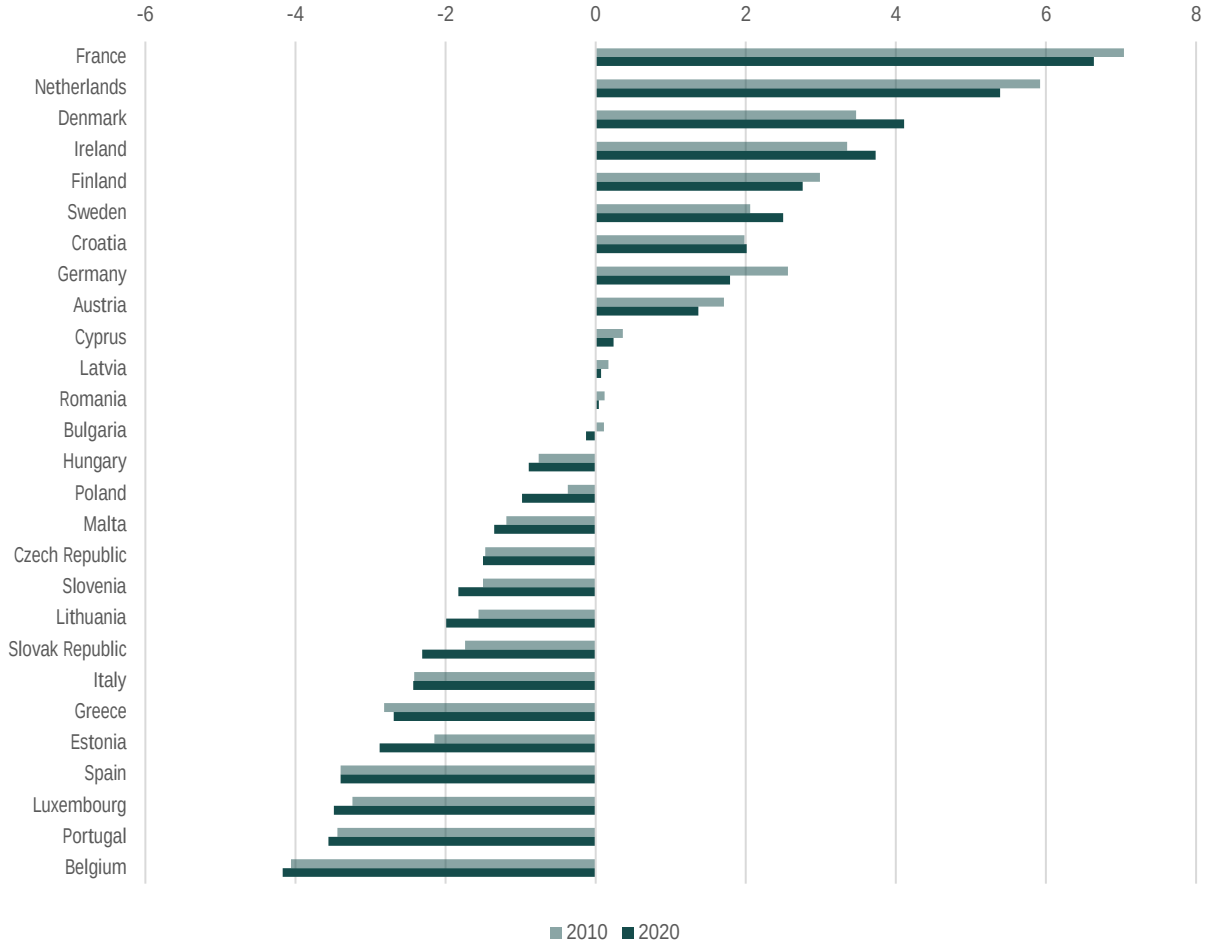


Notes: Data on social housing are insufficient for Croatia, Cyprus, Bulgaria, Greece, and Romania, thus should be interpreted with caution. See section 3.3 for more details on the calculation method *Option 1*.
Source: Eurostat and OECD; authors' calculations.

Figure 6 illustrates the results obtained using proposed *Option 2*. The standardized values of the indicators included are used, therefore the results should be interpreted with caution as they do not reflect numbers that directly describe the extent of coverage. However, the results allow us to compare countries with each other as well as to estimate the change over time. The countries that are distributed at the top of the graph may be treated as having the higher coverage of housing policy. Here we see the same set of countries having the

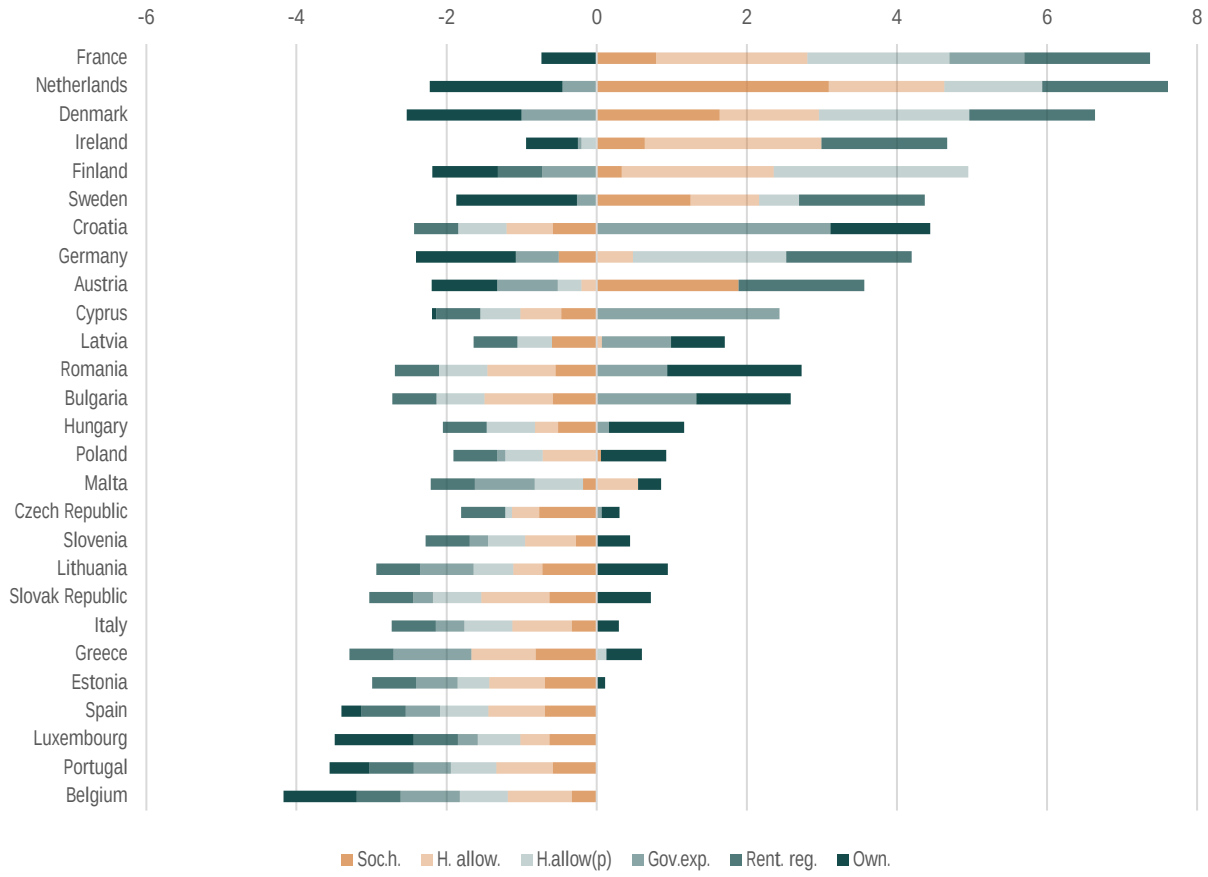
highest coverage as in *Option 1* calculation: France, the Netherlands, Denmark, Ireland, Finland, and Sweden. The countries that are distributed at the bottom of the graph may be treated as having the lowest coverage, here we see Belgium, Portugal, Luxemburg, and Spain, thus also partly overlapping with the results obtained with *Option 1*. Interestingly, Belgium finds itself at the very bottom, having the lowest coverage across the EU. Belgium is never in the last place in terms of individual indicators, but when all indicators are added together, it ranks last. More detailed results (standardized values of each variable) are displayed in Figure 7. Figure 7 also shows that France appears to be above the EU average for all factors except the rate of owner-occupiers without mortgages, while Belgium, Portugal, Luxemburg, and Spain are below the EU average in all respects.

Figure 6. Coverage of housing policy in 2010 and 2020 (Option 2 calculation)



Notes: Standardized values; data on social housing were insufficient for Croatia, Cyprus, Bulgaria, Greece, Romania, thus should be interpreted with caution; data on public spending on housing allowances are only for 2020 or last year available, thus 2020 data are used for 2010. See section 3.3 for more details on the calculation method *Option 2*.
Source: Eurostat and OECD; authors' calculations.

Figure 7. Coverage of housing policy breakdown, 2020 (*Option 2* calculation, Figure 6 supplement)



Notes: Standardized values; data on social housing were insufficient for Croatia, Cyprus, Bulgaria, Greece, Romania, thus should be interpreted with caution; data on public spending on housing allowances are only for 2020 or last year available, thus 2020 data are used for 2010. See section 3.3 for variables' descriptions.
Source: Eurostat and OECD; authors' calculations.

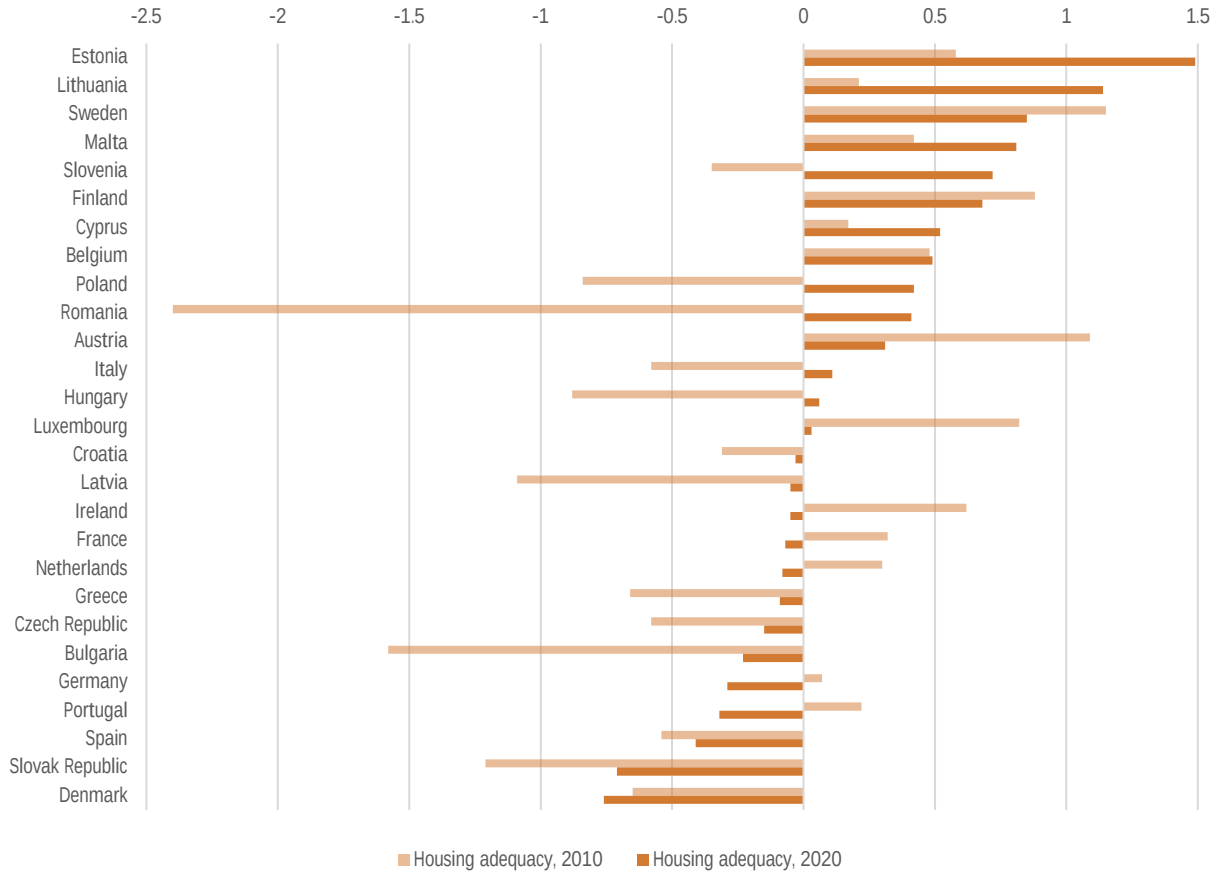
To sum up, the results show that both Option 1 and 2 produce similar results, especially for the countries with the highest coverage. Looking back and reflecting on the theoretical background, our results confirm that housing policies (especially the resources dedicated to their implementation) are to some extent still related to the ideal-typical housing policy regimes delineated by Hoekstra (2003) and extended to Mediterranean and post-socialist/hybrid (see Table 1, section 2).

4.2 Adequacy

In Section 3.4 of this report, we proposed to measure adequacy of housing policy through a set of indicators characterizing housing affordability, availability, and adequacy (quality). As with the coverage measurement, we provided scientifically grounded reasoning for the selected indicators, we also described gaps in existing data, and potential data reliability issues. Using data that were available and the proposed formula, we obtained the results shown in Figure 8. These results illustrate and compare adequacy of housing policy in EU countries in 2010 and 2020 (more detailed results for 2020 are displayed in Figure 9). The standardized values of the included indicators were used; thus, as we have already mentioned, the results do not imply numbers that can be directly interpreted concretely but rather compares the countries with each other. We can interpret the results as follows: countries that are at the top-half of the chart have above-average adequacy, and countries that are at the bottom half have below-average adequacy. In contrast to housing coverage, adequacy values do not have a clear geographical distribution across the EU; the countries of Western, Northern, Southern, and Eastern Europe

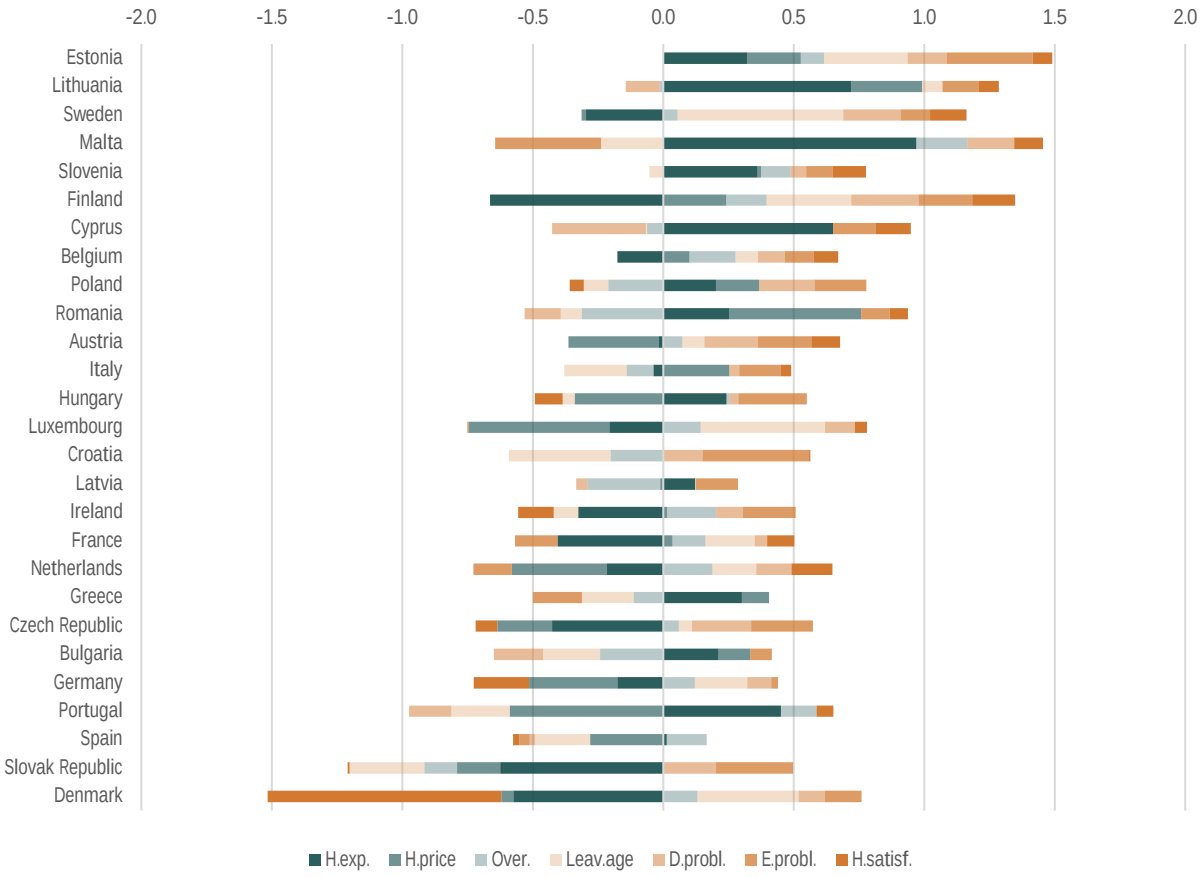
are randomly distributed on the graph. According to our calculations, the highest adequacy in 2020 was in Estonia, Lithuania, Sweden, Malta, Slovenia, and Finland, and the lowest in Denmark, Slovakia, Spain, Portugal and Germany. Figure 9 helps to understand what factors determine the degree of adequacy in one country or another. For example, Lithuania scored high because of low housing expenditures, Sweden scored high because young people leave their parental household early, while Denmark scored low because many people reported low level of satisfaction with their dwelling. In terms of relative values in the context of EU countries, adequacy has significantly increased in Estonia, Lithuania, Slovenia, Poland, Romania, Hungary, Latvia, and Bulgaria, i.e., exceptionally in central and eastern European countries. Adequacy has dropped in Austria, Luxemburg, Ireland, France, Netherlands, Germany and Portugal, i.e., mainly in western countries. It is interesting that we do not see a pattern of how countries are distributed by values in general, but this pattern becomes apparent when we look at the changes that occurred over a 10-year period, i.e., a clear divide between east and west Europe. We can only speculate that such changes show a fairly successful effort to reduce the gap between the new EU member states and the old ones. This is also another reminder that housing is very complex and is explained by many factors, among which are path-dependency (the inherited constitution of housing systems), economic affluence, labour migration, population ageing, and welfare systems (see Soaita and Dewilde, 2020). However, a separate study would be needed to identify and assess these causes more precisely, delving into each country's housing policy.

Figure 8. Adequacy of housing policy in 2010 and 2020



Notes: Standardized values; changes in Romania are very large due to the very large changes in almost all indicators, especially regarding affordability and adequacy/quality indicators; for Croatia data are not available for *affordability* indicators; for Malta and Cyprus data are not available for the indicator *house price to income ratio*, and for Romania and Bulgaria data of 2018 are used instead of 2020. See section 3.4 for details about indicators' calculation.
Source: Eurostat and OECD; authors' calculations.

Figure 9. Housing adequacy in 2010 and 2020 (Figure 8 supplement)



Notes: Standardized values; changes in Romania are very large due to the significant changes in almost all indicators, especially regarding affordability and adequacy/quality indicators; for Croatia data are not available for *affordability* indicators; for Malta and Cyprus data are not available for the indicator *house price to income ratio*, and for Romania and Bulgaria data of 2018 are used instead of 2020. See Section 3.4 for variables' descriptions.
Source: Eurostat and OECD; authors' calculations.

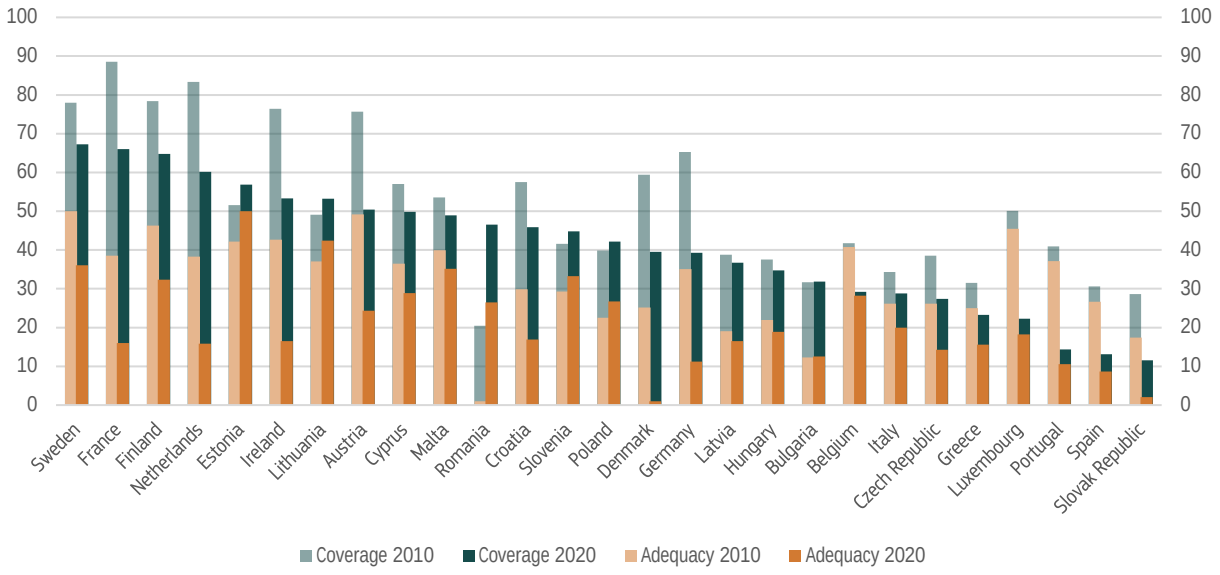
4.3 The aggregate index – universality of housing policy

To calculate the aggregate index, so-called universality of housing policy, we need to combine the two measurements: coverage of housing policy and adequacy of housing policy. We combine their results based on the standardized values of the indicators of which they are composed (as shown in Figure 6 and Figure 8), because otherwise the measurements are not comparable. Although housing coverage and adequacy results are already based on standardized values, we need to represent these values in the same range, i.e., we select a range (in our case we chose from 1 to 50) and transform these values so that all countries gain values between 1 and 50 for both coverage and adequacy; relative distance between any two points in each range remains constant after this transformation. The obtained results are shown in Figure 10, and illustrate the situation in 2020 and 2010 (additionally, Appendix C includes the complete data table).

In 2020 universality of housing policy was highest in Sweden, followed by France, Finland, and the Netherlands. They all scored more than 60 points. The same set of countries, and in addition Ireland, Austria, and Germany, had the highest universality of housing policy also in 2010. Based on our results, the lowest universality was achieved in Slovakia, Spain and Portugal, where it did not reach 20 points in 2020, and similar sets of countries could be found for 2010, but the scores were significantly higher. In 2020, in some countries the higher degree of universality is due to higher coverage values (e.g., in Slovakia, Germany, Denmark, Croatia, Ireland, the Netherlands, and France), while in other countries the higher degree of universality is due to higher adequacy

values (e.g., in Luxembourg, Belgium, Slovenia, Lithuania, and Estonia). It is important to note that on average, universality of housing policy was higher in 2010 than in 2020. With some exceptions, we see a pattern that eastern and central European countries had lower universality of housing policy and northern and western countries had higher universality of housing policy both in 2010 and 2020.

Figure 10. Aggregate indexes for coverage and adequacy of housing policy, 2010 and 2020



Source: Eurostat and OECD; authors' calculations.

5 Limitations, propositions and challenges for the future

This report proposes an approach to measure coverage and adequacy of housing policies across European Union countries, including the results of calculations and their interpretation. The calculations rely on Eurostat and OECD at the country level. An overview of the existing indicators, the systematization of the data and their analysis revealed several shortcomings.

- Many indicators are collected to describe various aspects of housing policy and the housing sector. The system of indicators provided by OECD and Eurostat (not to mention all the other sources) is as large and complex as housing policies themselves, therefore it is difficult to understand how various indicators relate to each other and whether they overlap or represent completely different spheres of housing policy or characteristics of housing sector. Thus, our proposition would be to improve the system of indicators so that it would be easy to use by policymakers, researchers, and citizens. Some indicators may be abandoned at the expense of improving the quality of others. For example, the three indicators: i) Housing cost overburden rate, ii) average household expenditure on housing, electricity, gas, and other fuels, and iii) housing expenditure as share of final consumption expenditure of households are largely overlapping and could be organized as one indicator with some sub-categories.
- Fairly simple indicators, such as housing shortage, waiting times for social housing, and provision of housing for the disabled, could contribute to a better assessment of housing universality. No such data are currently collected (at least by OECD or EU).
- The availability, reliability and representativeness of the data need to be critically assessed in these types of studies. For each indicator, the countries and years for which data are available need to be closely monitored. Some data are presented in a very consistent manner, but there are indicators that significantly lack data and therefore cannot be included in the universality measurement. This limits the choice of indicators and the accuracy of the measurement. Greater accuracy can only be achieved by improving data quality.
- There are many misunderstandings about the definitions used when assessing universality of housing policy. The definitions of social housing and homelessness are the least harmonized.
- When assessing universality of housing policy, it is difficult to obtain results that are expressed in "meaningful numbers", i.e., numbers that directly indicate the degree of universality. It happens because there are no direct indicators for coverage or adequacy and thus, we propose to use the combinations of several different indicators; when combining these indicators, their values must be standardized. As a result, the "standalone" interpretation of the values is not possible, but it is possible to compare countries and monitor changes over time.
- Insufficient assessment of the universality of housing policy may result not only from lack or inaccuracy of data, but also due to non-transparent or poorly managed housing policies. For example, cases where housing support is given to those who should not receive it, or where people queuing for social housing do not really need it. This is a problem that each country must address when auditing its social policies.
- Housing adequacy, as measured in this study, describes the adequacy of the entire housing stock. Existing indicators do not allow us to distinguish to what extent housing "adequacy" has been achieved exclusively through state support for housing, and to what extent without its intervention. It is beyond the scope of this study (and likely any other quantitative study) to analyse the role of housing support on the housing adequacy as isolated from the other factors. This could be set as one of the biggest challenges for the future studies in this area.

Conclusions

The main results of this study can be presented in five main conclusions. Together these conclusions provide more insight into the degree of universality of housing policies across EU member states and the challenges of assessing it.

— Housing policies vary widely across the EU. Housing policy regimes generally correspond to welfare state regimes in the EU. Thus, the degree of universality of a housing policy also depends on the housing system and the welfare state regime of a country.

— Compared to other forms of social protection, such as unemployment benefits or pensions, housing (protection) policy is more complex: state support for housing consists of a broad range of measures, such as social housing, housing allowances, support for homebuyers, etc. There are no single and direct indicators to assess coverage and adequacy of housing policy, therefore, dozens of indicators need to be combined to measure housing (support) universality.

— Based on our results, in 2020 universality of housing policy was highest in Sweden, followed by France, Finland, and the Netherlands. The same set of countries, and in addition Ireland, Austria, and Germany, had the highest universality of housing policy also in 2010. Meanwhile, the lowest universality was achieved in Slovakia, Spain, Portugal, and Greece, in both 2010 and 2020.

— Our analysis has revealed some interesting geographical patterns. Many housing indicators show clear differences between eastern and southern Europe on one hand and western and northern Europe on the other hand, with the latter generally performing better. Interestingly, this geographical breakdown disappears when indicators are combined, i.e., when we acquire coverage and adequacy values. However, the aggregate index of universality of housing policy shows that (with some exceptions) eastern and central European countries had lower universality and northern and western countries had higher universality in both 2010 and 2020. It is also worth noting that the gap between these two groups of countries is narrowing over time.

— In general, our results show that universality of housing policy is declining in Europe. Although, this conclusion should be treated with caution as we use standardized values, the literature review also suggests that housing universality is declining, especially due to falling coverage of housing support policy.

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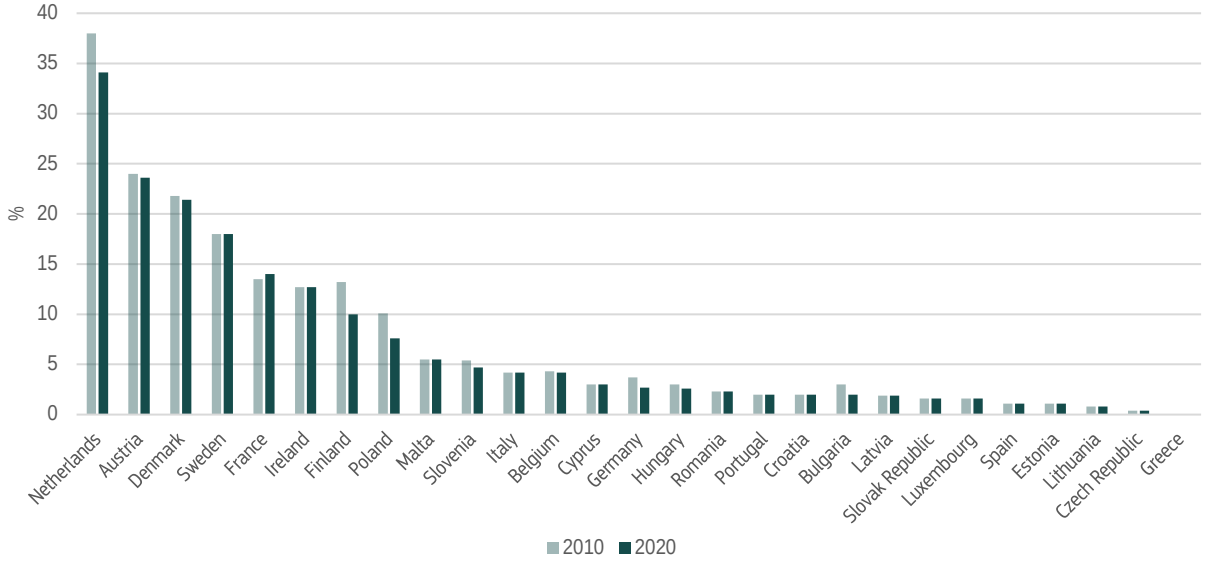
Annexes

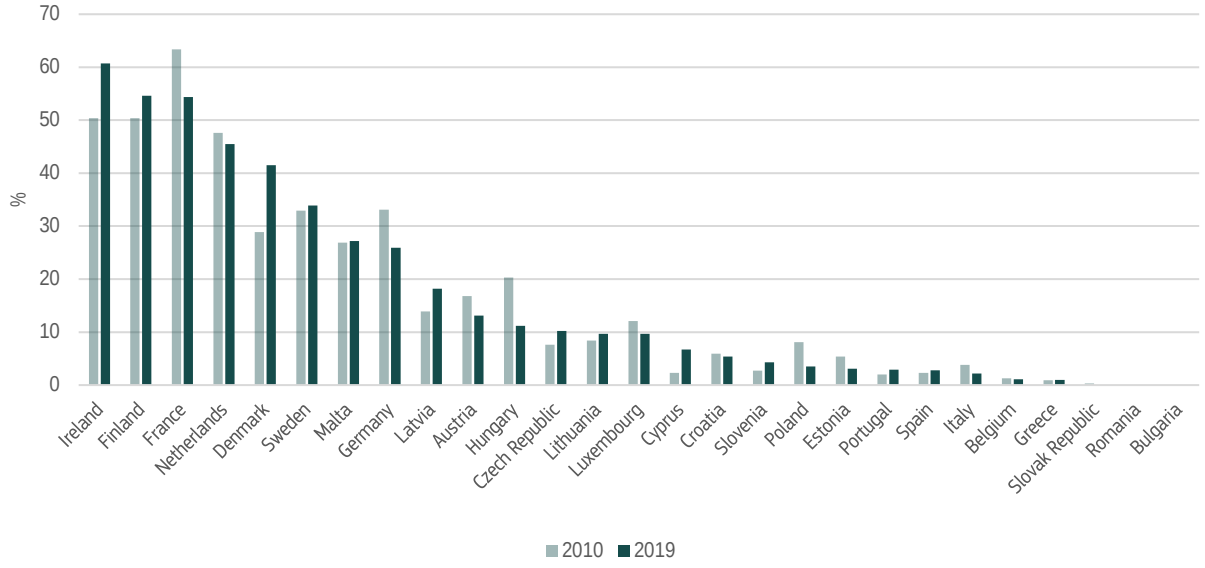
Annex 1. Coverage indicators

Figure A1.1. Social rental housing stock, %



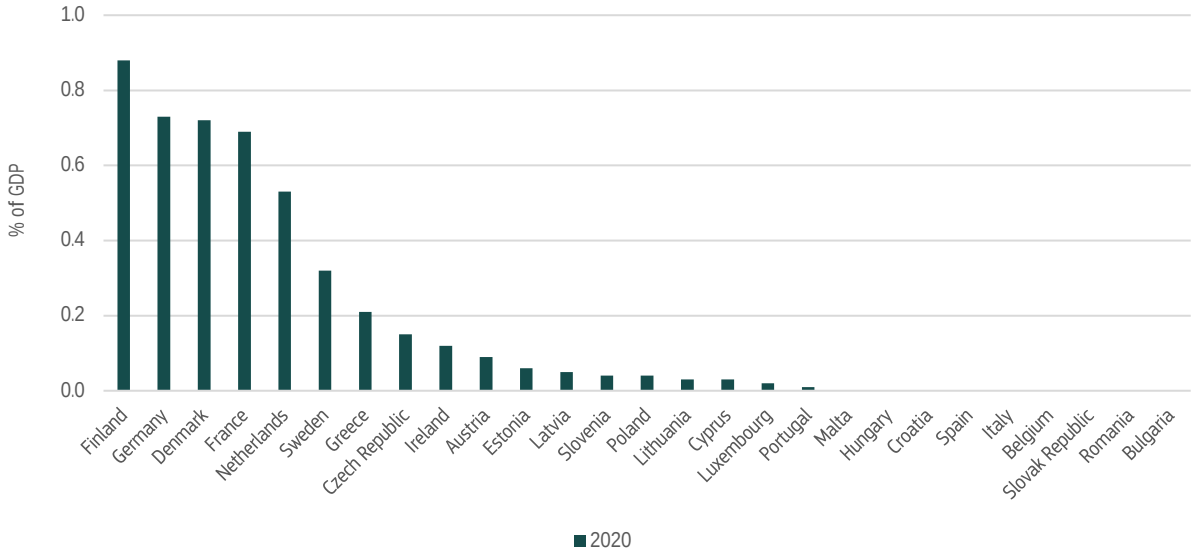
Source: OECD.

Figure A1.2. Share of households receiving housing allowance, bottom quintile of the disposable income distribution, %



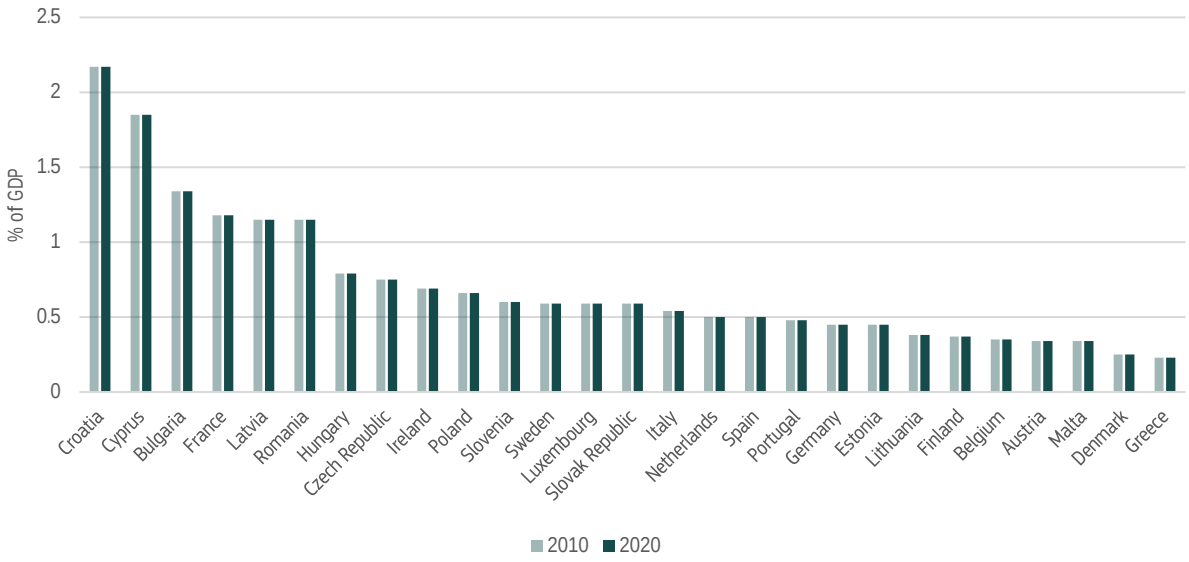
Note: Countries with a value of "0" do not provide this form of housing support or data are unavailable.
Source: OECD.

Figure A1.3. Public spending on housing allowances, % of GDP



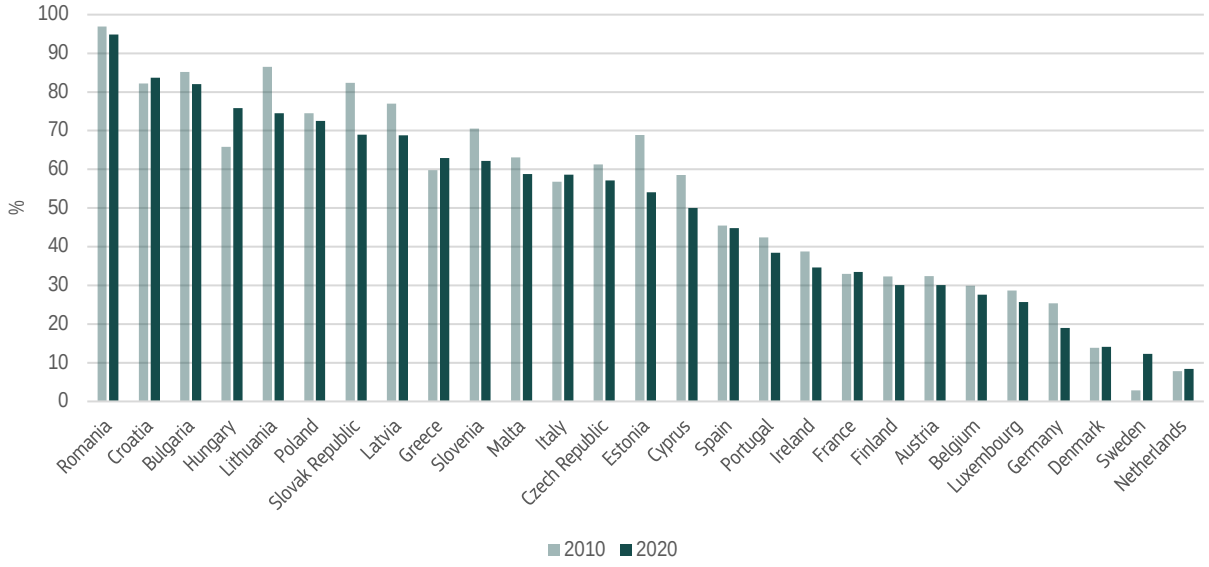
Note: Countries with a value of "0" do not provide this form of housing support or data is unavailable.
Source: OECD.

Figure A1.4. General government expenditure on housing and community amenities, % of GDP



Source: Eurostat.

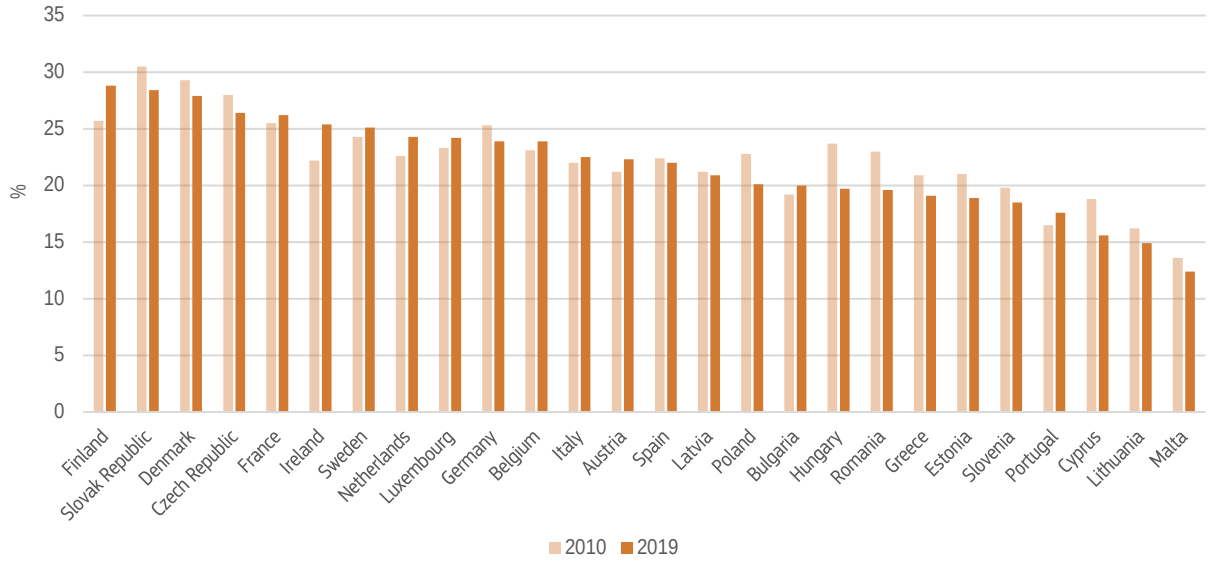
Figure A1.5. Owner-occupiers without mortgages, %



Source: Eurostat.

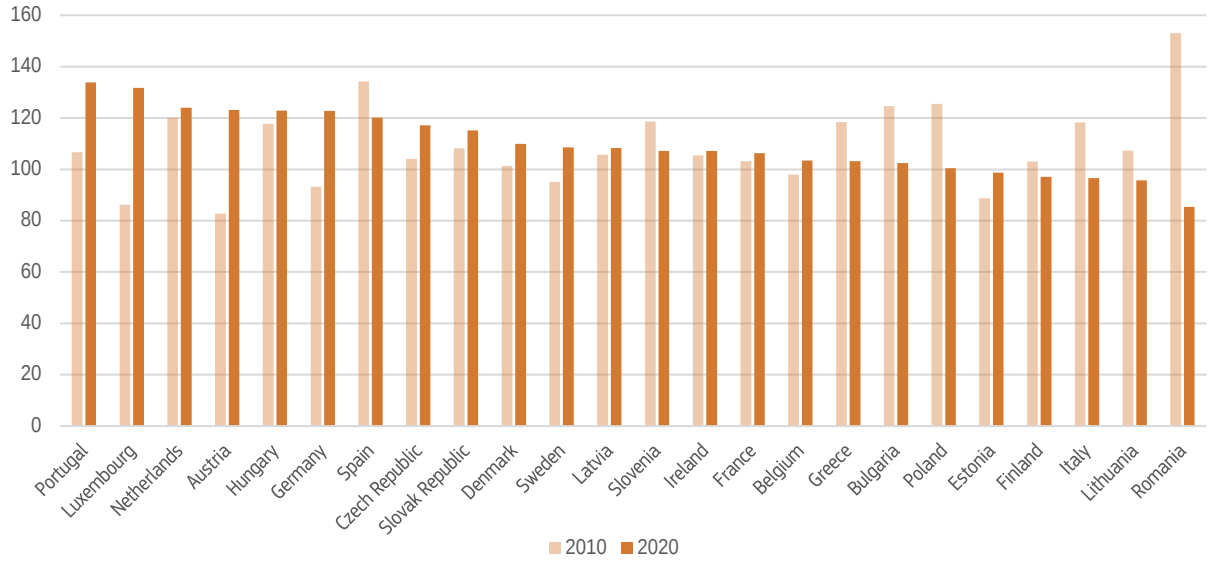
Annex 2. Adequacy indicators

Figure A2.1. Housing expenditure as share of final consumption expenditure of households, %



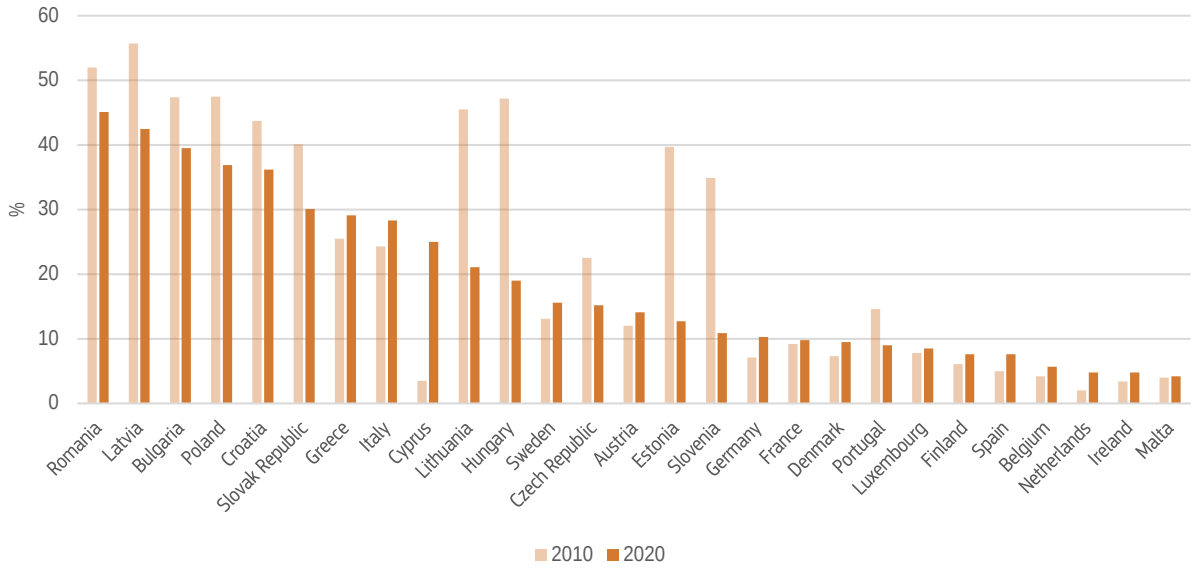
Source: OECD.

Figure A2.2. House price to income ratio



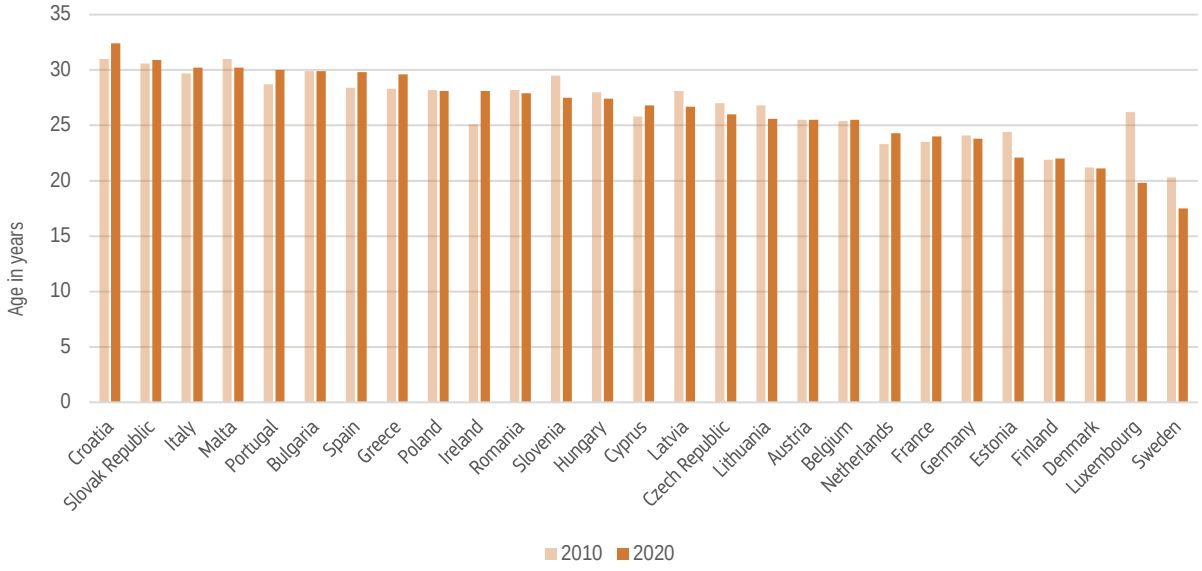
Source: OECD.

Figure A2.3. Overcrowding rate, %



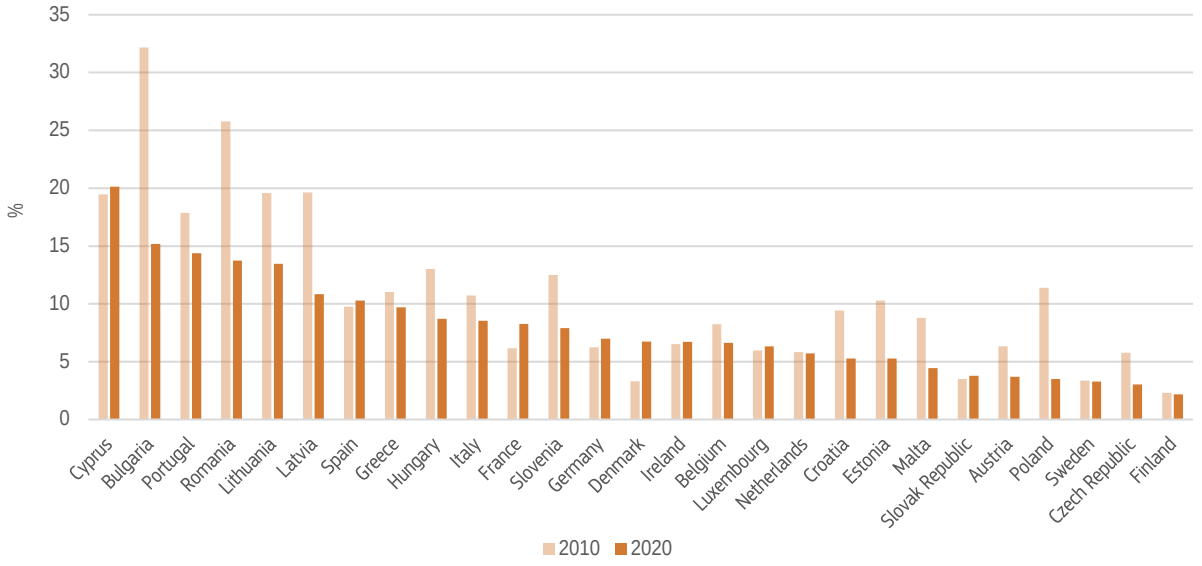
Source: Eurostat.

Figure A2.3. Average age of young people leaving the parental household, years



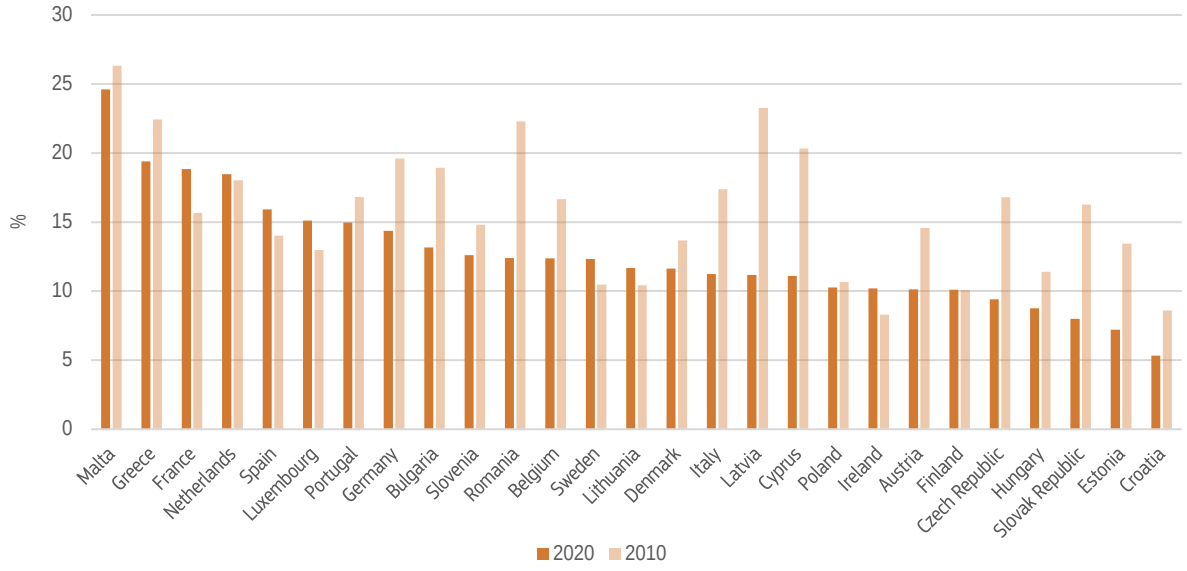
Source: Eurostat.

Figure A2.4. Share of population encountering problems with their dwelling, %



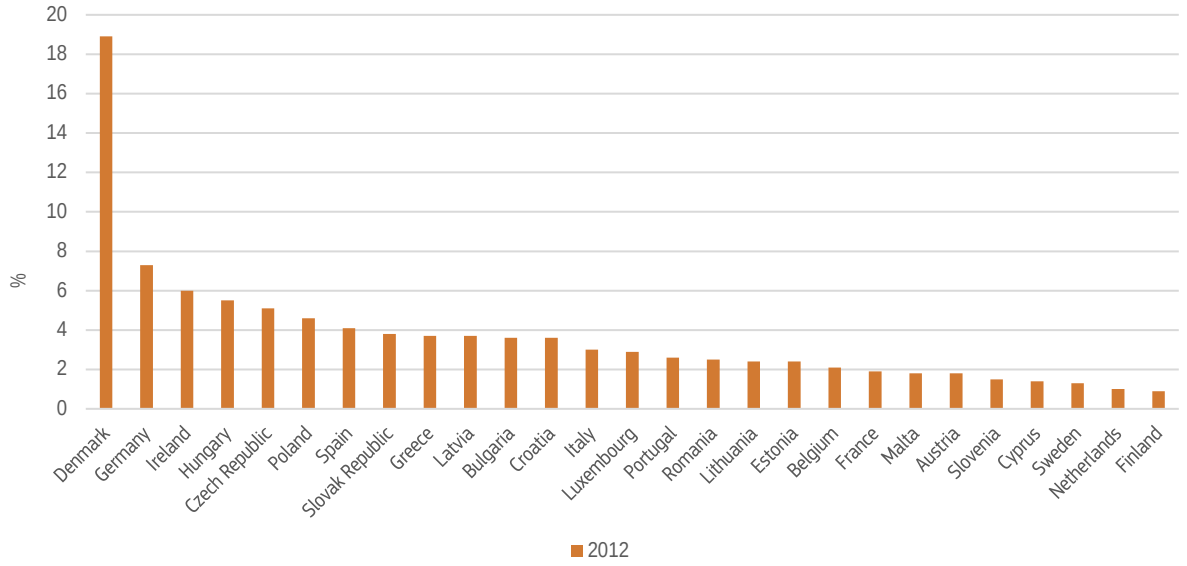
Source: Eurostat.

Figure A2.5. Share of population encountering environmental problems in/around their dwelling, %



Source: Eurostat.

Figure A2.6. Distribution of population by level of overall satisfaction with the dwelling and household type; very low, %



Source: Eurostat.

Annex 3. Aggregated indicators

Table A3.1. Aggregated indicators for adequacy and coverage and decommodification, 2010 and 2020

Country	Coverage 2020	Adequacy 2020	Coverage 2010	Adequacy 2010	Coverage 2020 (mapped)	Adequacy 2020 (mapped)	Coverage 2010 (mapped)	Adequacy 2010 (mapped)	Aggregate index 2020	Aggregate index 2010
Austria	1.37	0.31	1.71	1.09	26.11	24.30	26.47	49.17	50.4	75.6
Belgium	-4.17	0.49	-4.06	0.48	1.00	28.22	1.00	40.75	29.2	41.8
Bulgaria	-0.13	-0.23	0.11	-1.58	19.31	12.54	19.41	12.32	31.9	31.7
Croatia	2.01	-0.03	1.98	-0.31	29.01	16.90	27.66	29.85	45.9	57.5
Cyprus	0.24	0.52	0.36	0.17	20.99	28.88	20.51	36.47	49.9	57.0
Czech Rep.	-1.5	-0.15	-1.47	-0.58	13.10	14.28	12.43	26.12	27.4	38.6
Denmark	4.11	-0.76	3.47	-0.65	38.53	1.00	34.24	25.15	39.5	59.4
Estonia	-2.88	1.49	-2.15	0.58	6.85	50.00	9.43	42.13	56.8	51.6
Finland	2.76	0.68	2.99	0.88	32.41	32.36	32.12	46.27	64.8	78.4
France	6.64	-0.07	7.04	0.32	50.00	16.03	50.00	38.54	66.0	88.5
Germany	1.79	-0.29	2.56	0.07	28.02	11.24	30.22	35.09	39.3	65.3
Greece	-2.69	-0.09	-2.82	-0.66	7.71	15.59	6.47	25.02	23.3	31.5
Hungary	-0.89	0.06	-0.76	-0.88	15.87	18.86	15.57	21.98	34.7	37.5
Ireland	3.73	-0.05	3.35	0.62	36.81	16.46	33.71	42.68	53.3	76.4
Italy	-2.43	0.11	-2.42	-0.58	8.89	19.95	8.24	26.12	28.8	34.4
Latvia	0.07	-0.05	0.17	-1.09	20.22	16.46	19.67	19.08	36.7	38.8
Lithuania	-1.99	1.14	-1.56	0.21	10.88	42.38	12.04	37.03	53.3	49.1
Luxembourg	-3.49	0.03	-3.24	0.82	4.08	18.20	4.62	45.45	22.3	50.1
Malta	-1.35	0.81	-1.19	0.42	13.78	35.19	13.67	39.92	49.0	53.6
Netherlands	5.39	-0.08	5.92	0.3	44.33	15.81	45.06	38.27	60.1	83.3
Poland	-0.98	0.42	-0.37	-0.84	15.46	26.70	17.29	22.53	42.2	39.8
Portugal	-3.56	-0.32	-3.44	0.22	3.77	10.58	3.74	37.16	14.3	40.9
Romania	0.04	0.41	0.12	-2.4	20.08	26.48	19.45	1.00	46.6	20.5
Slovak Rep.	-2.31	-0.71	-1.74	-1.21	9.43	2.09	11.24	17.43	11.5	28.7
Slovenia	-1.83	0.72	-1.5	-0.35	11.61	33.23	12.30	29.30	44.8	41.6
Spain	-3.4	-0.41	-3.4	-0.54	4.49	8.62	3.91	26.67	13.1	30.6
Sweden	2.5	0.85	2.06	1.15	31.23	36.06	28.02	50.00	67.3	78.0

Source: Authors' elaboration.

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