

Article

# Country typology reflecting (sub)national conditions for housing policy implementation

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**Abstract:** The paper demonstrates the importance of subnational data on housing to be systematically reported and added to country typologies. We asked which national and local level characteristics of housing regimes can serve as benchmarks for reasonable country groupings. The aim of this paper is to (1) develop a methodological tool enabling the comparison of conditions for housing policy implementation on national and subnational levels and (2) identify the group of countries where conditions for housing policy implementation on national and subnational levels tend to be comparable. This country classification can be used as a practical instrument for comparative analyses and policy learning. As a conceptual framework, we used the international comparative Housing research 2.0 launched by Hoekstra in 2020. For our analysis, we selected 15 basic factors that were tested in 24 European countries. We have identified three key factors having an impact on housing policy implementation: decentralisation level in housing, local budget housing expenditure and the information on which governance level has core competencies within housing. The numeric database has been run through a k-means cluster analysis. Five distinct types of countries with similarities in conditions for housing policy implementation on national and subnational level have been identified and described.

**Keywords:** housing policy; housing regime; housing outcome; subnational level; comparative analysis; country typology

## 1. Introduction

The United Nations stated that housing policy in the set of analysed countries has been strongly decentralised (UN, 2021). The European Union has already confirmed in its Leipzig Charter on Sustainable European Cities the importance of urban governance within affordable housing development (EU, 2007). Additionally, since 2016, housing has been a significant part of the EU's Urban Agenda (Eurofound, 2022), which is a platform for mutual development of European subnational governance. OECD has been aware of the fact that multilevel governance matters within housing. Therefore, basic notices about subnational housing have been added to the OECD's Affordable Housing Database (OECD, 2021a; OECD 2022d). Countries across Europe have a wide range of approaches towards housing policy, which is why policy instruments applied by cities and countries vary (Housing Europe, 2022). However, there are limited data about housing from this level of governance, thus, policy research and its application lack solid data background for appropriate performance. Both international research and practice have been falling behind the ongoing reality of housing policy decentralisation. No urban-level housing research institute has been set up, housing data on local levels have been scarce and practical instruments for local level housing are often not accessible. Therefore, this study

contributes to international country typologies in housing by adding sub-national factors for the first time to the typologies of Kemeny (2001), Schwartz and Seebrook (2008), and Hoekstra (2020). This study strives to help scholars and policymakers do their research as well as to foster international cooperation to reflect the actual reality of housing development.

The aim of this paper is to (1) develop a methodological tool enabling the comparison of conditions for housing policy implementation on national and subnational levels and (2) identify the group of countries where conditions for housing policy implementation on national and subnational levels tend to be comparable. Adding subnational factors to the national level housing policy typologies and exercising their relevance within the whole housing policy conditions of individual countries is one of the paper's contributions. The created country classification can be used as a practical instrument for comparative analyses or policy transfers. If policymakers want to learn from housing policies in other countries, they need to choose countries with similar conditions.

This paper is organised in three main sections. In the first section (literature review), the importance of subnational factors connected to housing is outlined within a policy context. This chapter also presents updated knowledge on subnational housing policy and international housing typologies. The second section presents research methodology and introduces identified factors of conditions for subnational housing policy implementation. The five resulting types of countries and their specifications within conditions for housing policy implementation on national and subnational levels are presented in the third section. This is followed by conclusions and final remarks on the research limitations and space for further research.

## **2. Literature review**

The housing sector in the western part of the world has been rather decentralised and the competencies lie broadly on local level governments (EU, 2020; OECD, 2020). However, data collected for this level of governance are very scarce. The history of subnational housing research started almost 30 years ago when Malpezzi and Mayo (1997) published their research on housing and urban indicators in which they identified a baseline set of indicators explaining housing markets on a city level. In their work, they emphasised the need for the subnational level of housing to be taken into consideration. Research focusing more on the housing situation on the urban level has been subsequently growing since the early 2000s. Even there, though, such studies of cities provided a complex view of differences on a national level and international comparisons of capital cities (Angel, 2000; Kadi and Musterd, 2013; Arundel and Doling, 2017). Such analyses are a good base. However, capital cities generally face very different realities than lower-level cities of say 80,000 people. City-level housing was also presented as a part of research on the socioeconomic situation of people living in cities (Murie and Musterd, 2004) or within the discussion of city development indicators (Musterd et al., 2016).

It was only Hoekstra (2020) and Matznetter (2020) who opened a discussion on urban housing policy. They call for the extension and institutionalisation of a local (municipal or regional) level housing database, which has not been established up to

this point. They argue that local-level comparative analysis is crucial for today's housing research and practice, given the diversity in responding to housing needs and thus variation in housing policy outcomes (Hoekstra, 2020, p. 81; Matznetter, 2020, p. 70).

Hoekstra (2020), Matznetter (2020) and Stephens (2020b) have been leading an academic discussion on this matter, whether municipal level housing situation shall be the key point of interest for comparative research and even after a lengthy discussion, there is not an agreement. Stephens does believe that the local level is important. However, the factors leading to various decisions and housing outputs depend largely on national policies, central bank decisions and other external effects (Stephens, 2020b, p. 593), which the local level has no chance to influence and to which the local level only needs to dynamically respond. This research does not aim to prove any of these authors right or wrong. It, however, aims to add the sub-national factors within the national-level housing policy typologies and thus emphasise their relevance within the whole housing policy conditions of individual countries. A simple hint on how to approach such thinking in practice has already been produced by Peverini (2021), who has shown parameters and stakeholders critical for the development of urban-level housing scheme.

Understanding baseline typologies used historically within housing policy research is a core for any attempt of a new typology building. Starting from the welfare-based Esping-Andersen's typology (Esping-Andersen, 1990) and following up with many others, Kemeny (2001), Hoekstra (2005), Haffner et al. (2012), Stephens (2017), Stephens (2020b), and Schwartz and Seabrooke (2008) set a good knowledge base. These models generally combine welfare and housing variables and specifically look at various welfare factors as well as dwelling tenure, renting schemes or market financialisation concepts. It is important to state that Esping-Andersen's baseline typology is not used for this segmentation as her typology has been used by scholars looking at housing welfare and social housing regimes; it does not take housing as a 'public policy in its own right' (Aalbers, 2016, p. 10 noted in Stephens and Hick, 2022, p. 8). All in all, it is however important to notice that not a single one of these housing typologies reflected the sub-national level realm of housing.

The first theoretical framework, or perhaps only a baseline plea for developing one, taking subnational-level housing conditions into consideration, was outlined by Joris Hoekstra in 2020. He called it the 'International comparative housing research 2.0'. In this framework, Hoekstra set up multiple variables, demonstrating a need for the inclusion of sub-national factors into housing policy discussion.

The crucial terms to understand in this analysis are housing regimes, housing outcomes, and conditions for housing policy implementation. The definition of housing regimes has been taken over from Stephens and Hick (2022) and means the same as housing systems, and it is the overall institutional and cultural structure around housing. Housing regimes provide an answer to what the conditions are for housing policy implementation. Housing outcomes describe what happens on national and subnational levels when applying housing policies within certain housing regimes. In other words, they describe the change within society resulting from the implementation of certain housing policies, such as lower level of homelessness, higher level of rental housing, and so forth. Housing outcomes are a very important

source of knowledge as they provide information on the historical experience of policy implementation within a housing regime (both Hoekstra, 2020, or also mentioned in Stephens and Hick, 2022). Conditions for housing implementation are a combination of national and subnational factors describing housing regimes and housing outcomes. To grasp overall conditions for housing implementation, it is important to meaningfully include both aspects.

### **3. Methodology**

The purpose of this research is to identify countries where conditions for housing policy implementation on national and subnational level tend to be comparable. Policymakers can use the typology created for policy learning. The housing conceptualisation by Hoekstra (2020) called the ‘International comparative housing research 2.0’ has been recognised as being the most relevant theoretical framework for this purpose as it brings the subnational perspective into discussion.

The analytical strategy is two-stage: (1) the development of a typology framework explaining conditions for housing policy implementation on national and subnational levels and (2) its testing on a set of countries. A robustness test is also done to prove the typology’s relevance. The typology development has stemmed from Hoekstra’s framework ‘International comparative housing research 2.0’ (Hoekstra, 2020) and builds on previously developed typologies by Kemeny (2001), which touches on rental schemes that are culturally rooted in countries as well as that of Schwartz and Seabrook (2008), which describes variations in housing market financialisation among countries. We compiled a set of factors explaining the national and local contexts of housing policies and commented on their impacts on other factors and the conditions for housing policy implementation (see **Table 1**). The number of factors selected for this analysis is 15 plus classification by Kemeny (2001) and Schwartz and Seabrook (2008). A brief explanation of reasons for its inclusion is a part of each factor’s note. Finally, each factor falls into either housing regime or outcome. The number of factors was set as 15 for the capacity to interpret the typology in a simple though robust way. Three crucial factors describing subnational conditions for housing policy implementation were included in the list: decentralisation level in housing (F4, Land-use Governance rate by OECD), local budget housing expenditure (F5) and key governance level in housing (State/Regional/Urban). It is important to understand the relevance of the factor key governance actor in housing. This indicator tells which governance level is crucially involved in housing development in the country—whether it is a city, a region or a state. Since data for this indicator are not accessible in any synchronised database, it was eventually not included in the numerical database (**Table 2**) and thus in testing. For further research, it is relevant to state that stronger explanatory factor of decentralisation level would be useful.

**Table 1.** List of factors explaining conditions for housing policy implementation, their theoretical background and source of their quantitative equivalent.

Factor group	Housing regime/Housing outcome	Factor	Theoretical background—relevance for inclusion from other typologies and theories	Quantitative source	Identifier in numerical database (Table 2)
Housing satisfaction and life satisfaction	HO	Housing deprivation rate		Housing deprivation “Housing deprived population across the income, Share of deprived population”; 2019 (or latest year available), (OECD, 2022c; HC2.3)	F1
	HO	Social satisfaction—happiness	Overall general satisfaction of people with country’s governance and development level	Happiness Quality of life index described by six main characteristics, GDP per capita, social support, healthy life expectancy, freedom, generosity, and corruption; 2018; (World Happiness Report, 2019)	F2
	HO	Subjective indicators of housing affordability	Satisfaction with the availability of good, affordable housing, which can complement other measures of housing outcomes and can help better understand the determinants of housing satisfaction (added by authors)	Housing satisfaction People satisfied with the availability of good, affordable housing in their city or area where they live; 2018 or latest available year, (OECD, 2022c; HC1.4.1)	F3
Institutional structure in welfare and housing	HR	Key institutional governance actor in housing	Governance system in a country, as Horne (2018)	Key institutional governance actor Data for this parameter are not directly available in public databases; therefore, this indicator does not make a part of the database for quantitative statistical clustering, although it is crucial for a follow-up comparative analysis of subnational entities. Its inclusion will be vital when available in a single database and thus easily accessible.	Not in numerical database
	HR	Decentralisation level in housing governance	Governance system in a country Horne (2018) and land-policy as a crucial factor for housing policy efficiency (Lawson et Ruonavaara, 2020)	Land-use governance “Higher values of the land-use governance indicators reflect more decentralisation to the municipalities and/or more overlap across government levels; they have been empirically linked to housing supply that is less responsive to changes in demand” OECD (2021b)	F4
	HR	% housing in local budget	City spending on affordable housing (Basolo, 2000) Need for municipal involvement in housing (Feather, 2019)	<b>Local budgets Housing Expenditure</b> “Calculated as a proportion of Local Government Spending on Housing and community amenities / Total Local Government Expenditure, % of GDP”, data for 2018 or latest available year, (OECD,2020)	F5

Table 1. (Continued).

Factor group	Housing regime/Housing outcome	Factor	Theoretical background—relevance for inclusion from other typologies and theories	Quantitative source	Identifier in numerical database (Table 2)
				<b>National budget housing expenditure</b> “Calculated as a proportion of National Government Spending on Housing and Community amenities / Total National Government Expenditure, % of GDP”, data for 2018 or latest available year, (OECD,2020)	
	HR	% housing in national budget	Various levels of government and their role in housing (Hulchanski, 2004; Feather, 2019)		F6
	HO	GDP per capita	Economic situation of people as a relevant indicator of socio-economic situation of a country (added by author, it is important to take into consideration that GDP per capita already included in World Happiness Report Index)	GDP per capita “Level of GDP per capita and productivity, GDP per hour worked, calculated in USD according to its 2015 PPP value”; data for 2018; OECD Compendium of Productivity Indicators; OECD (2021b)	F7
	HO	% household’s expenditure on housing	Social aspect—well-being of people (Hulchanski, 2004)	Household’s housing expenditure “Housing expenditure as share of final consumption expenditure of households; 2017 or last available year”, %, (OECD, 2022c; HC1.1.2)	F8
	HO	Housing ownership structure—proportion of housing units purchased with use of mortgage			F9
	HO	Housing ownership structure—proportion of owner inhabited—no loan			F10
	HO	Housing ownership structure—proportion of rental inhabited— from private landlord	Multilevel governance regimes—ideas mainly from the literature of Stephens (2020a and 2020b)	Ownership of accommodation European Quality of Life Survey (Eurofund, 2022), Ownership of accommodation, data collected in 2016, data missing for Norway and Iceland	F11
	HO	Housing ownership structure—proportion of rental inhabited— from public/non-profit/social institute.			F12

**Table 1.** (Continued).

Factor group	Housing regime/Housing outcome	Factor	Theoretical background—relevance for inclusion from other typologies and theories	Quantitative source	Identifier in numerical database (Table 2)
Housing-related capabilities and functioning	HO	Construction —% new dwellings/all	Land policy as a crucial factor for development Debrunner and Hartmann (2020); Kang and Groetelaers, (2018); Lawson and Ruonavaara, (2020); Turner, 2017, Lewis, (2016)	Relative Construction pace in 2011-2020 “Total share of dwellings completed in the year, as a percentage of the total existing housing stock”, % (around 2011 and 2020 or last year), (OECD, 2022c; HM1.1.4)	F13
Broader institutional and cultural context	HR	Historical background	Historical consequences identified by Blackwell and Khol (2018)	History—Communist/Western Consulted with political maps of political systems on both sides of the iron curtain in Europe	F14
	HR	Schwartz and Seabrook typology (financial capital)	Housing typology widely used in housing comparative analysis for a cross- check of the model’s relevance as well as completion from the cultural historical perspective; Schwartz, H., Seabrooke, L. (2008)	Four types of housing systems: Familial, Corporatist-market, Liberal-market, Statist-developmental	
	HR	Kemeny’s typology (rental sector)	Housing Typology widely used in housing comparative analysis for a cross-check of the model’s relevance as well as completion from the cultural and welfare historical perspective; Kemeny, J. (2001)	Two types of housing systems and their mixtures: dualist, unitary	

Source: own elaboration.

Based on these factors, a typology was developed step by step, looking at expected relationships between regimes and outcomes found in literature and their impact on conditions for housing policy implementation. It was decided that five clusters would be appropriate to cover significant differences between factors but keep the interpretation of this typology simple. The relevance of this approach has then been also tested in the second step.

The testing of typology’s relevance was done quantitatively on a set of countries for which data were available. For variables listed in **Table 1**, a quantitative equivalent has been identified with a necessary precondition for its data to be accessible from a public database. The data analysed originated mainly from the OECD database with additions from the European Quality of Life Survey and the World Happiness Report. Only 24 European countries could be used for such a test for a simple lack of available data. The data on key housing governance level and Kemeny or Schwartz and Seabrook typology have not been included in the numerical testing. The complete set of data can be seen in **Table 2**.

**Table 2.** Database of housing factors for OECD countries.

Country	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14
Austria	0.008	7.25	0.55	17	1.84	0.66	68.5	0.23	22	45	18	12	1.55	1
Belgium	0.001	6.92	0.57	18	2.90	0.63	71.7	0.24	26	32	15	23	0.98	1
Czechia	0.000	6.85	0.55	12	5.35	1.93	41.2	0.25	20	56	15	5	0.53	0
Denmark	0.011	7.60	0.74	15	0.36	0.47	73.8	0.29	50	9	19	19	0.10	1

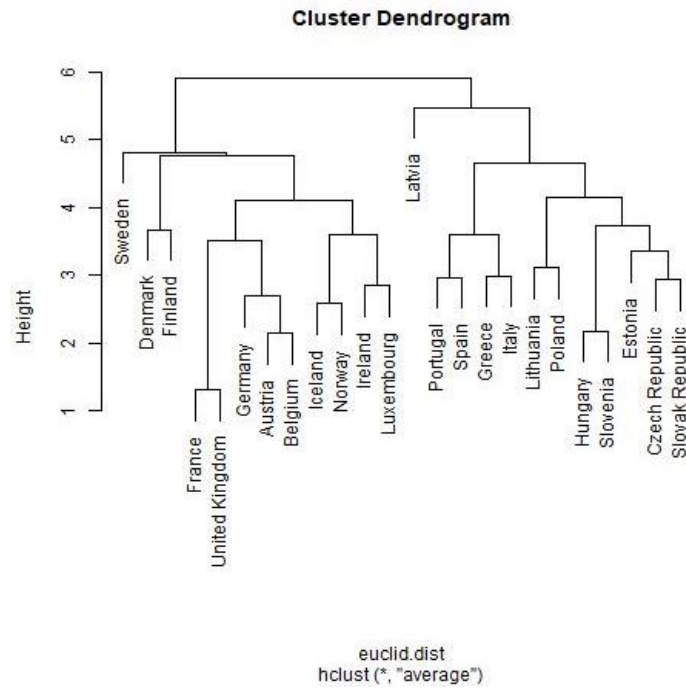
**Table 2.** (Continued).

Country	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14
Estonia	0.007	5.89	0.60	10	3.45	0.85	39.2	0.18	19	61	4	4	0.01	0
Finland	0.001	7.77	0.74	17	0.75	0.55	61.7	0.29	37	42	24	3	1.33	1
France	0.002	6.59	0.47	20	8.23	2.02	67.1	0.26	21	35	20	22	0.96	1
Germany	0.007	6.99	0.56	17	3.33	0.94	66.4	0.24	20	26	33	19	0.68	1
Greece	0.007	5.29	0.41	2	2.26	0.23	33.6	0.20	11	70	18	1	0.00	1
Hungary	0.024	5.76	0.44	27	7.17	1.50	36.7	0.19	16	72	6	3	0.40	0
Iceland	0.000	7.49	0.46	14	3.32	1.34	62.3	0.22	55	23	13	8	2.11	1
Ireland	0.000	7.02	0.43	10	12.38	2.04	99.5	0.24	31	39	19	8	1.03	1
Italy	0.007	6.22	0.51	10	2.77	0.96	53.4	0.23	18	59	13	7	0.22	1
Latvia	0.065	5.94	0.37	26	10.29	2.89	35.7	0.21	11	69	11	7	0.29	0
Lithuania	0.069	6.15	0.35	12	5.47	1.47	41.3	0.15	9	76	9	2	0.85	0
Luxemb.	0.000	7.09	0.46	12	6.16	1.38	96	0.25	38	31	20	2	1.63	1
Norway	0.000	7.55	0.59	13	4.64	1.61	85.1	0.23	50	30	8	11	1.16	1
Poland	0.030	6.18	0.31	13	3.75	1.42	39.7	0.21	7	80	4	6	1.50	0
Portugal	0.001	5.69	0.36	12	7.39	1.05	39.4	0.18	30	45	18	4	0.30	1
Slovakia	0.023	6.20	0.55	17	6.50	1.28	43	0.24	16	76	0	4	0.80	0
Slovenia	0.002	6.12	0.36	29	4.57	1.00	45.1	0.19	6	83	2	4	0.36	0
Spain	0.003	4.37	0.43	23	4.85	1.08	52.3	0.22	26	43	24	2	0.25	1
Sweden	0.000	7.34	0.52	13	2.35	1.44	68.7	0.26	50	124	21	13	1.12	1
UK	0.00	7.05	0.44	24	7.13	1.96	70.9	0.27	31	32	17	20	1.00	1

Source: own elaboration.

The numeric database has been run through a cluster analysis, which has identified groups of countries with comparable conditions for housing policy implementation on both national and subnational level. We opted for *k*-means cluster analysis as the most suitable method to obtain the least possible country types where conditions of housing policy implementation are comparable. To make the dataset relevant and easy to work with, the data have been standardised. The method “average” has been selected as the most suitable as the Coephenetic Coefficient’s calculation. The number of clusters was set 5 as the most relevant based on two methods, the Euclid distance and the WSS Plot (Within Sum of Squares). The resulting dendrograms have been comparable with outputs by *k*-means analysis. The use of principal components did not prove to be relevant, as the results were rather comparable whether PCA was used or not. A cross-check of the results was done by inclusion of Kemeny’s (2001) and Schwarz and Seabrook’s (2008) typology, which have shown similar outputs. The result of testing is then presented in **Figure 1**, presented as a simple dendrogram showing the overall vicinity of countries.





**Figure 1.** Cluster dendrogram retrieved from testing of typology relevance by cluster analysis.

#### 4. Results

This chapter describes the resulting types of countries according to their conditions for housing policy implementation on national and subnational level. The five resulting country clusters give a clear specification of conditions for housing policy implementation on national and subnational levels. The following paragraphs provide a description of each country type. Finally, **Table 3** provides results of the application of this typology on a set of 24 OECD countries.

**Table 3.** Description of country typology based on conditions for housing policy implementation.

	ID	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Housing deprivation	F1	high	higher average	rather low	low	low
Happiness	F2	rather low	average	low	rather high	high
Housing satisfaction	F3	low	higher average	rather low	average	high
Land-use governance (decentralisation level)	F4	varies across the cluster*	rather high	low	moderate	varies across the cluster*
Local budget housing expenditure	F5	high	average	average	high	low
National budget housing expenditure	F6	high	average	low	rather high	low
GDP per capita	F7	low	low	rather low	high	rather high
Household’s housing expenditure	F8	low	low (CR exc.)	rather low	high	high
Ownership of accommodation—with mortgage	F9	low	rather low	average	rather high	varies across the cluster*
Ownership of accommodation—owner inhabited—no loan	F10	high	high	rather high	low	rather low

**Table 3.** (Continued).

	ID	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Ownership of accommodation—rental inhabited from private landlord	F11	rather low	low	low	high	high
Ownership of accommodation—rental inhabited from public/non-profit/social institute	F12	low	low	low	high	high
Relative construction pace in 2011–2020	F13	rather low	rather low	low	high	rather high
History: communist/Western	F14	communist	communist	western	western	western
Core institutional governance actor in housing	/	state/regional	municipal	state/regional	state/regional	rather municipal
Schwartz and Seabrook typology (financial capital)	/	familial	familial	familial	statist-develop/liberal-market	corporatist-market
Kemeny’s Typology (rental sector)	/	dualist/unitary (mixed due to historic cons.)	dualist/unitary (mixed due to historic cons.)	dualist	dualist/unitary	unitary
Countries		Latvia Lithuania	Czechia Slovakia Slovenia Poland Hungary Estonia	Portugal Spain Greece Italy	France Ireland United King. Luxembourg	Austria Denmark Belgium Finland Germany Sweden Norway Iceland

\* Individual insight needed—data available in the complete database.  
Source: Own elaboration.

#### **4.1. Cluster 1: Latvia and Lithuania**

Cluster 1 is the post-communist cluster, comprising countries which are rather poor. Housing policy is framed by national governance and less power is allocated to local public stakeholders. The expenditure on the local level can be high or low, however, if high, it can also be caused by inefficiency rather than political prioritisation. The construction pace is slow, and the population still lives in relatively worse conditions compared to other countries. Non-profit or social housing is unavailable. It is typical for people to own their dwellings, which is also culturally rooted and relates to dualist scheme identified by Kemeny (2001). Based on property structure and financialisation level set by Schwartzs and Seabrook (2008), the system is rather familial, which means that dwellings are often shared within families, which makes mortgage debt in these countries lower than in others. The reliance of families on each other and lack of financial resources of the younger generation to cater for own housing makes the society vulnerable and with little trust towards the system. The housing policies need to get trust of people into system on national and subnational levels, especially in the efficiency of spending on housing. Once the market is revived, financialisation might cause social polarisation if the rental sector does not get legal support.

#### **4.2. Cluster 2: Czech Republic, Slovak Republic, Slovenia, Poland, Hungary and Estonia**

Cluster 2 is the economically better-off post-communist cluster. Housing policy is framed by national governance with competencies formally given to local public

stakeholders though without resources, which is the halfway point between central and multilevel governance. People are generally wealthier than in other post-communist countries. Public expenditure on housing is relatively low on national and subnational levels as housing has been left to the market. Public housing is, therefore, not big, nor is rental housing in general. Dwellings are often shared within families, making mortgage debt in these countries lower than in others. It is typical for people to own their homes, but the new generation might not have the chance anymore and needs to take mortgages. The construction pace is slow as to low economic power of the as well as rather poor legislation. The quality of housing is, however, not so bad compared to other communist countries. Update of construction law and development of rental systems are policies, the implementation of which might be priority in these countries. It is important to work on it within communities to develop trust in system in the society which relies solely on private ownership. A clear division of powers between national and subnational level might be a key for this purpose.

#### **4.3. Cluster 3: Portugal, Spain, Greece and Italy**

Cluster 3 describes the economically worse performing western cluster describing mainly the Mediterranean region. These countries have experienced economic booms, and from those times the housing quality is not bad, however, the current economic situation is poor and makes the construction pace slow. Decentralization level varies across these countries and meaning that the land use policy is not clearly set to national or subnational level, which makes the pace of construction certainly vary the expenditure on national and local level may vary and therefore, significant differences across countries might be observed. A high number of people live in their own dwellings shared within families (familial system by Schwarz and Seabrook, 2008) or rented dwellings owned by private landlords, while a rather small proportion of people rent their apartments from non-profits, social housing providers, or public entities. Dwellings are often shared within families, which makes mortgage debt in these countries lower than in others (dualist, Kemeny, 2001). These countries' national governments have the conditions to update housing policy instruments based on economic and demographic situation which change dynamically. Rental system shall be reinforced for the needs of lower- and middle-class population and there is room for subnational governments to be given sufficient competencies to be a part of this process. The financial resources of the countries are rather low, which is why efficiency-oriented policies are crucial.

#### **4.4. Cluster 4: France, Ireland, United Kingdom and Luxemburg**

Cluster 4 is the better-off western cluster. Housing policy is framed by national governance and the decentralisation level is rather low, which means that the land use policy is organized by large centrally. Expenditure on housing is rather high at national and local levels. People are generally well-off, and their quality of housing is quite high. Construction works fast despite cities having limited impact on land-use. Financialisation causes affordability problems and shifts in social development. It is typical for people to rent their apartments from private landlords but also from non-profits, social housing providers, or public entities (which points to a combination of

unitary and dualist systems). However, private ownership is still the most preferred choice and also a social status. There is only a low number of homeowners who do not have a mortgage, which says property does not stay within families and is exchanged in the market (Liberal Market type by Schwartz and Seabrook (2008)). These countries have well-set policies that manage to develop dynamically. The strong adherence to ownership and financialisation might lead to social polarisation and lack of affordable rental housing. There are conditions for national to fight financialisation and subnational governments to adapt policy instruments for dynamic changes of city development.

#### **4.5. Cluster 5: Austria, Denmark, Belgium, Finland, Germany, Sweden, Norway and Iceland**

Cluster 5 comprises economically well-performing western countries. Housing policy is framed by national governance, but extensive powers lie on regional or municipal public and private stakeholders. Budget expenditure is low on national as well as subnational levels as the efficiency of policies is high and multiple costs are off balance—at housing associations which circulate their resources with help of public income. This cooperation has a long history and is typical for a unitary type of housing system described by Kemeny (2001). It is typical for people to live in rented apartments more than people do in other countries. However, those who have a private house get it themselves, not from a family, which makes this group fall rather into corporatist market type defined by Schwartz and Seabrook (2008). In the private market, however, people face rather high affordability problems, although the rate of construction is high. As these countries are well off and attractive, housing market financialisation is necessarily present. People are generally well-off across these countries, and the quality of their housing is quite high. The national governments of these countries have the conditions to focus on financialisation of rental sector and capability of housing associations to cope with the pace of price increase within housing construction and maintenance. The rental sector might be getting less affordable and there is no way out.

**Table 3** then presents the detailed outputs for all countries and the matching points between them. The testing has shown a rather significant match with the description of clusters developed from literature in the first phase of research. The most significant deviations stem from different systems of accounting on national and subnational levels, different institutional structures of housing policy organisation and an unclear distribution of power and resources within multilevel governance.

To assess the resilience of this output, we conducted several series of tests. Initially, we focused on altering the housing expenditure data, as they are subject to variation in collection and reporting methods across different countries. This modification led to no changes within clusters 1 to 3, while clusters 4 and 5 experienced some reshuffling. We attributed this phenomenon to the presence of housing associations in some countries within clusters 4 and 5, which influenced housing expenditure calculations, thus reorganising the country groupings. Consequently, we updated the typology description and included information about housing associations and their impact on off-balance accounting within cluster 5. It is

worth noting that housing associations are absent in post-communist countries, have a limited presence in Mediterranean countries, and play a more substantial role in several Western countries.

The second test of robustness involved artificially modifying the second subnational factor, namely, the level of decentralisation (F4), which in this analysis looks specifically at decentralisation of land-use policy. This adjustment, however, did not result in any significant alterations in the classification. This suggests that this particular factor has limited explanatory power when used independently unless it is linked to other factors. However, we feel that omitting this factor could deteriorate the interpretations, so we decided to keep it in the set.

## **5. Conclusion**

For years, housing policy has been identified as an important area of urban development and a prerequisite for affordable housing for the population. This research has added to the scholarship on international comparative analysis of housing policy by outlining a baseline typology that also considers sub-national levels of governance. The research has proved that consideration of multilevel governance on housing policy matters, and therefore, data about housing need to be collected not only on the national but also on the subnational level.

We identified 15 factors as relevant for the description of conditions for housing policy implementation in a country. This has been done with the help of theoretical background published by Hoekstra (2020). This typology has been tested on 24 European OECD countries, which makes its relevance limited so far only to the European perspective. Five clusters of countries have been identified, describing housing situation from national and subnational perspective. The five clusters that came out of the quantitative analysis match groupings by Kemeny (2001) and Schwartz and Seabrook (2008).

The resulting typology takes into consideration the complexity of housing regimes set mainly by national-level policies and housing outcomes, showing what happened in the countries based on these regimes and other circumstances. This combination can seem rather impossible because the regimes and outcomes have an impact on each other. However, the differences in their combinations can reveal conditions and potential for housing policy implementation because conditions reveal how (process) and where (policy level) can who (institution) implement what (policy suggestion). The description of clusters provided an interpretation of factor combinations and set an example of how to think about conditions for housing policy implementation based on identified regimes and outcomes.

The identified typologies show what is happening to the system and society in such countries, where there is potential for improvement, and how this potential can be transformed into actions. This is definitely not a methodical paper showing what to do, where and how. This paper provides another perspective on housing policy analysis, taking multiple factors into consideration.

## 6. Contribution of the research

In our research, we tried to point out that decentralisation matters for housing policy, and thus, regions and cities and the data connected to their reality need to be somehow taken into consideration when looking at housing policy analysis and making. The typology developed could be said to be the first one that takes into consideration subnational level factors and looks to what extent they are relevant. From testing this typology, it has been clear that subnational expenditure matters and there are clear implications when this factor is removed. The contribution of this typology is threefold. First, it can be used for international comparative analyses related to housing policy, which aims to take into consideration also subnational factors. Second, in practice, this output could be used, for example, for the European Commission (or other multinational organisation) when distributing resources into international cooperation within the housing sector. Resources might be used more efficiently when provided to countries with comparable housing policy conditions. Last but not least, this research extends, although slightly, the Hoekstra's 'International comparative housing research 2.0' (2020) and adds collecting data on housing also on the subnational level.

## 7. Limitations and further research

Other factors for which we would have data, however, have not been identified. We believe that further research should set a goal to identify other factors of subnational housing for which data could be collected and reported in a standardised way, at least across OECD countries. With the help of this, the introduced typology could be expanded and significantly improved. The quality of the dataset might be improved by a) using data from various years of collection and running a time series analysis, b) developing a dataset by reaching the data manually from all the countries we want to include. Option a) is doable if data are provided for a satisfactory number of countries. Option b) is doable if a large time capacity is attributed to the researcher. It is advisable to follow up on this research with one of the suggested options.

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