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Comparative inter-country analysis of assessment of the effectiveness of state housing policy: statistical instruments

The article provides a comparative analysis of assessment of the effectiveness of housing policies in Austria, Germany and Russia in the context of the adequate housing concept. In modern world management practice, there is no universal set of criteria for assessing the housing policy effectiveness, however, there are sets of indicators in the public information resources of these countries that can reflect such an assessment. The only problem is information asymmetry, in which each country forms its own set of estimated indicators, which leads to their incomparability. At that, the need for such data exists in connection with the need to update the current results of the housing policy implementation and the assessment of current trends in the housing sector development.

Each country has its own mechanism for assessing the effectiveness of housing policy, based on its own set of parameters corresponding to the determined goals and directions of the housing sector development.

Adequate housing as a criterion for assessing the effectiveness of the housing policy implementation allows a full demonstration of the effectiveness of measures implemented by the state in the housing sector.

The concept of adequate housing, as an actual doctrine of the national development of the housing sector, allows for a comparative analysis of the housing policy of different countries by assessing and comparing the effects of its implementation.

According to the study of housing policy in Austria, Germany and Russia, it was determined that the national model of housing policy evolves in the development of concepts, goals, implementation mechanism and depends both on the level of satisfaction of the need for housing, and on historical experience, traditions and socio-economic characteristics of management at this stage.

Keywords: public housing policy, inter-country studies, adequate housing, housing provision, housing affordability, housing comfortability, statistical information

INTRODUCTION

It is known that providing the population with decent living conditions is the primary social task of the state.

Each country has its own individual set of instruments for providing the population with housing, which is associated both with a single concept of housing policy in any country and the role of the state, as well as with the traditions and historical path of the state development in this economic environment [1]. Taking into account the housing policy direction and the peculiarities of implementation of the state socio-economic policy in general, an individual set of criteria and indicators is formed in each country for a comprehensive assessment of the results achieved in implementing the housing policy goals [2].

The inter-country comparison in order to analyze the assessment of the housing policy effectiveness in the context of individual areas of its implementation is possible only at an integrated approach to assessing the results of the housing policy of each individual country [3].

For the analysis, three countries were selected with different goals in the mechanism of the housing policy implementation and the level of implementation of the concept of adequate housing as a basic methodology. A study of the experience of Austria and Germany shows that these countries, at various stages of their development, faced solutions to problems in the housing sector similar to those of modern Russia [4–6]. The consideration of estimated indicators of these

countries will make it possible not only to compare the approaches to the selection of indicators of the housing policy performance, but to understand how this or that information base and grouping of estimated indicators makes it possible to form the basis for effective management decisions. In addition, such a comparative assessment will allow determination of the criteria and parameters that most objectively and comprehensively reflect the success of the achieved results of housing policy, and the assessment of the effectiveness of implementation of the concept of adequate housing in a given country [7, 8].

Each country has its own mechanism for assessing the housing policy effectiveness and is based, at the same time, on its own set of parameters corresponding to the given goals and directions of the housing sector development [9]. Organizations conducting inter-country comparisons often use their own monitoring databases and proprietary methods for assessing the available data. The comparative analysis of the effectiveness of modern housing policy in Austria, Germany and Russia also requires a certain unification of the assessment system and becomes possible at analyzing and comparing data on the provision of the population with adequate housing.

The adequate housing provision of the population, as a criterion for assessing the housing policy effectiveness, fully shows the effectiveness of measures implemented in the country's housing sector.

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▶ The main parameters for characterizing housing as adequate were formulated by the UN Center for Human Settlements in the Habitat Agenda at the Second Conference on Human Settlements (Habitat II) in Istanbul (1996): The adequate housing implies "adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water-supply, sanitation and waste-management facilities; suitable environmental quality and health-related factors; and adequate and accessible location with regard to work and basic facilities: all of which should be available at an affordable cost" [10].

The housing comfortability is expressed in its convenience, healthy living, as well as the favorable emotional effect of this housing on a person's life [10]. However, in the definition of "adequate" housing, there is a clear requirement that it should be affordable. And only with the combination of a sufficient level of comfort and affordability, the housing can be considered "adequate". At the same time, affordability means not only the possibility of acquiring real estate for private ownership, but the ability to bear the burden of maintaining the housing in proper condition, as well as the ability to provide adequate housing for all categories of the population, including those who cannot do it on their own in market conditions [11, 12].

RESEARCH MATERIALS AND METHODS

This study is based on theoretical and empirical research by leading scientists dealing with the implementation of housing policy goals in the context of the implementation of the adequate housing concept, as well as inter-country comparative studies (A. Andreenkova, W. Amann, V. Busch-Geertsema, J. Kirchner, N. Kosareva, W. Mundt, T. Ovsianikova, T. Polidi, A. Puzanov, K. Wagner, et al).

In the course of the study, the methodology of comparative analysis and the grouping of data from open statistical materials were used, including: Federal Statistical Office of Germany (Destatis), Federal State Statistics Service of the Russian Federation (Rosstat), Federal Statistical Office of Austria (Statistik Austria).

When studying and comparing the housing policies of Austria, Germany and Russia, special attention was paid to the search for conceptual approaches to an objective assessment of the

effectiveness of housing policy in the studied countries and the instruments for its implementation.

RESULTS AND DISCUSSION

It is possible to characterize the housing policy effectiveness and individual aspects based on official statistics, on the basis of which various assessment methods are formed, both in Russia and in other countries [13]. In this case, the quantitative data of official statistics are an instrument to fix the parameters available for measurement and being important for the state, by the state itself. At the same time, unimportant or non-measurable data are excluded in order to unify and reflect the information of the highest priority for the state, which causes a certain dependence of final indicators of official statistics, which are an instrument for demonstrating the features of the real situation, on the priority directions of development of state policy and its socio-economic orientation. The possibility of using statistical data is limited by their array, while the data of official state statistics primarily fix the parameters that are important from the point of view of the state itself.

In Austria, Germany and Russia, official statistics show housing policy outcomes in the concept of adequate housing in varying degrees of detailed elaboration. There are data from the array of statistical information presented in the public domain on the Internet resources of the official statistics bodies of the studied countries, which directly characterize the housing provision of the population, the housing comfortability and living conditions, as well as the housing affordability (Table 1)^{1, 2, 3} [14–16].

In the proposed grouping, indicators are grouped according to conceptual criteria for adequate housing: housing provision, housing comfortability and affordability. It is clear that since there is no single methodological basis for the assessment, the sets of indicators used in the studied countries are different, but this still allows assessing the detailed elaboration of the used policy

¹ United Nations 1996 *Report of the United Nations Conference on Human Settlements (Habitat II)*, preliminary version, Istanbul, 3-14 June 1996.

² Federal Statistical Office of Austria. 2021. URL: http://www.statistik.at/web_en/statistics/PeopleSociety/housing/index.html

³ Federal State Statistics Service of the Russian Federation. 2020. Russian statistical yearbook. URL: <https://rosstat.gov.ru/folder/210/document/12994>

Table 1. Comparison of official statistics indicators in Austria, Germany and Russia

Russia	Austria	Germany
<i>Housing provision of the population</i>		
Total area of dwellings, average per one inhabitant (end of year) — total, m ²	Number of dwellings (main residences) in 1,000	Dwellings (residential and non-residential buildings) in 1,000
Apartments — total, mln	Average living space per dwelling in m ²	Rooms, total in 1,000
Average size of one apartment, total area of dwellings, m ²	Average number of rooms per dwelling	Living floor space, total in mln m ²
Families, registered as requiring dwellings (end of year), thou., percent of total number of families	Average living space per person in m ²	Dwellings per 1,000 inhabitants, number
Families, received dwellings and improved their housing conditions during the year, thou., percent of total number of families registered as needing dwellings	Average number of rooms per person	Living floor space per dwelling in m ²
Overhauled premises in apartments of residential buildings per year, thou. m ² of total area	Quota of rented dwellings (including sub-tenancy) in %	Living floor space per inhabitant in m ²

Continuation of the Table 1

Privatized dwellings, thou.; total area, mln m ²	Quota of owner-occupied dwellings and houses in %	Rooms per dwelling, number
	Number of rented dwellings in 1,000	Proportion of unoccupied dwellings, %
		Households owning real property, %
		Households in owner-occupied property or in rented dwellings, by household structure in dwelling unit, 1,000
<i>Comfort of living conditions and housing stock improvement</i>		
Share of total area equipped with: • piped water, %; • sewage (canalization), %; • heating, %; • bath (shower), %; • gas (pipeline, liquefied), %; • hot water supply, %; • electric stoves, %	Quota for the best equipped dwellings (equipment category A) in %	Types of energy used for heating occupied dwellings, by year of construction of the residential building in 1,000
Households by type and amenity of occupied dwellings, %	Share of households with single heating furnace or no heating in %	Building characterized by improved accessibility of dwellings: • Flush access to the dwelling in 1,000; • Building entrance door sufficiently wide, in 1,000; • Hallways sufficiently wide, in 1,000
Households with different level of money income by type of occupied dwelling, %		Dwelling characterized by improved accessibility: • No thresholds or floor unevenness in 1,000; • All rooms accessible without steps in 1,000; • Dwelling entrance door sufficiently wide in 1,000; • Room doors sufficiently wide in 1,000; • Hallways sufficiently wide in 1,000; • Kitchenette: sufficient space in 1,000; • Bathroom/sanitary facilities: sufficient space in 1,000; • Floor-level shower in 1,000
Households by average dwelling size per one inhabitant, %		Burden induced by the residential area and the dwelling: • There is noise from neighbors or from the street, percentage of the population; • There is crime, violence or vandalism in the area, percentage of the population; • There is environmental pollution in the self-used flat or the self-used house, percentage of the population; • There is damage due to damp, percentage of the population
<i>Housing affordability and housing costs</i>		
Households consumption expenditures by group of population with different level of disposable resources: housing utilities, water, electricity, gas and other types of fuel, %	Rent and running costs per dwelling in Euro	Rent and rent to income ratio of main tenant households: • Net rent exclusive of heating expenses, average in EUR per m²; • "Cold" incidental expenses (not including heating and hot water), average in EUR per m²; • Gross rent exclusive of heating expenses, average in EUR per m²; • "Warm" incidental expenses, average in EUR per m²; • Gross rent inclusive of incidental expenses, average in EUR per m²; • Rent to income ratio, %

Provision of subsidies to citizens to pay for dwellings and municipal services: - Families, received subsidies in the reporting year, mln families; - Share of families using subsidies in total number of families, %; - Amount of accrued subsidies, bln roubles; - Monthly average subsidy per a family, roubles	Rent and running costs per m ² in Euro	Rent per square metre and dwelling, by household structure: - Net rent exclusive of heating expenses, per m², per dwelling in Euro; - Gross rent exclusive of heating expenses, per m², per dwelling in Euro; - Gross rent inclusive of incidental expenses (heating and water, etc.), per m², per dwelling in Euro
Citizens using social support, mln persons	Rent (running costs not included) per dwelling in Euro	Housing costs as a proportion of disposable net household income, percentage of housing costs
Amount of money for provision of social support to citizens, bln roubles	Rent (running costs not included) per m ² in Euro	Housing cost share and housing cost overload: - Share of housing costs in disposable household income, %; - Percentage of the population living in households overburdened by housing costs (i.e. more than 40 % of the disposable household income is spent on housing costs), %
Monthly average social support per one user, roubles	Running costs per dwelling in Euro	Financial burden of the total housing cost: - Percentage of population perceiving monthly housing costs to be: no burden, %; - Percentage of population perceiving monthly housing costs to be: some burden, %; - Percentage of population perceiving monthly housing costs to be: a heavy burden, %
Share of citizens using social support in total population size, percent	Running costs per m ² in Euro	Economic burden due to arrears of payment: - Percentage of population living in households in arrears on mortgage or rent payments, % - Percentage of population living in households in arrears on utility bills, %
	Average housing costs (rent and running costs) per dwelling in Euro	
	Average housing costs (rent and running costs) per m ² in Euro	
	Median of housing costs in Euro	
	Median of housing costs per m ² in Euro	

performance markers that are put into the methodology by the countries.

In the countries under study, official statistics reflecting the situation in the field of housing provision are represented, first of all, by the same indicators characterizing the housing stock and some housing conditions of the population, such as: total housing stock volume, m²; number of residential premises, pcs; average size of a living space, m²; etc. At the same time, there are country differences in the system of indicators in the housing stock statistics, reflecting the specifics of the analysis of the housing industry through the size, structure, dynamics and housing provision of the population.

In Germany, statistics on the housing conditions of the population is represented by an extensive group of indicators characterizing the housing provision in relation to households or individuals. At that, it is the household, and not the individual, that is often the considered unit of the aggregate. In addition, statistical data are presented in the context of the household structure, which takes

into account the number of persons of which the household consists, whether there are children under 18, the monthly net income and the age of the main recipient of income. In addition to the per capita housing provision of the population, the comfortability and affordability of housing is detailed in Germany. Among the indicators for demonstrating the housing policy results, there are such specific indicators as: "Building characterized by improved accessibility of dwellings" and "Dwelling characterized by improved accessibility", etc., which demonstrates the social orientation of the housing policy being implemented in the country. At that, the availability of statistical information on the financial burden from the total cost of housing and the economic burden due to late payment allows the state to track possible failures and imbalances in the implementation of measures to provide the population with housing in the existing socio-economic conditions.

In Austria, as well as in Germany, statistics showing the living conditions of the population, as the studied units of the population, uses such categories as household, person and housing unit, but

the basic characterized unit in the course of accounting and analysis is the housing unit. As a result of the above, it should be noted that both in Germany and in the Austrian system of statistics on housing conditions there is a distribution of households when considering their provision with certain types of utilities. The presence of the indicator "Quota for the best equipped dwellings" as an evaluation unit for housing improvement, without dividing into separate types of communal amenities, demonstrates an integrated approach to assessing the quality of housing conditions of the population, and the variability of indicators of housing affordability, including rent, allows concluding that the housing policy in Austria is highly socially oriented.

Housing statistics in Russia use dominants based on the parameters of the housing area; at that, the main objects of study are housing units, and the accounting units of the survey are a person, a family and a household. In addition, the Russian statistical system also contains features of living conditions of households, such as: distribution of households by type and improvement of the occupied housing unit; distribution of households with different levels of cash income by type of the occupied housing unit; distribution of households by area of housing units per person on average, which makes it possible to assess the housing comfortability and affordability.

It should be noted that the indicators characterizing the living conditions of the population in Russia are shown in the statistics of the standard of living of the population as a section of social statistics, while in Austria and Germany they are separated into an independent section of housing statistics.

Analyzing the conceptual approaches of the methodology for calculating indicators characterizing the living conditions of the population, it can be stated that significant differences in the final parameters of the housing stock, assessed in the countries under consideration, relate mainly to the ownership. For Austria and Germany, it is typical to use the parameters of the household and the housing unit in the assessment, while in Russia the parameters of these survey units are used to a much lesser extent, and statistics consider the individual person (citizen) as the main unit of the population and the leading parameter of the housing unit is its area (m²). Some indicators that are present in the statistical systems of Austria and Germany (e.g. the share of rented housing, the average number of rooms per person) are absent in Russian statistics at all. Such indicators for inter-country comparisons can be obtained either from scientific articles or authors' assessments of scientists and analysts, or from databases of authoritative international organizations that study the living conditions of the population.

CONCLUSION

In general, the current situation with regard to the provision of housing for the population in Austria and Germany, in comparison with Russia, is more positive.

Despite the fact that on average there are 445 and 460 dwellings per 1,000 inhabitants in Austria and Russia, respectively, and in Germany this value reaches 511 dwellings, the total provision of the population with living space in Russia is almost two times lower than in Austria and Germany. For Russia, as for Austria and Germany at proper time, the transition to a new stage in the development of the housing sector is currently relevant, when it is important not only to increase the volume of construction, but also to improve the housing quality. More than 60 % of housing in Russia is one- and two-room apartments. In terms of rooms availability, Russia is

distinctly behind Austria and Germany. According to the OECD estimates, this figure in Russia is 0.9 rooms per person. While in Austria and Germany this indicator is twice as high, at the same time it is almost twice the Russian and average size of an Austrian or German apartment.

According to the OECD calculations, the most favorable housing conditions, including the number of rooms per person, the provision of necessary utilities, as well as the amount of housing costs, have now developed in Germany and Austria. The provision of the necessary utilities is the basic feature of the housing comfortability. According to this parameter, Austria and Germany are significantly ahead of Russia.

In contrast to Austria and Germany, the state housing policy in Russia at the present stage focuses on the quantitative parameters of housing provision of the population, which are expressed in the physical provision of the population with the total area of housing, and the qualitative parameters of such provision are not a priority and are assessed as long-term and strategic. This state policy agenda contributes to the formation of a package of measures in Russian cities aimed at increasing the volume of housing construction outside the assessment of such construction in accordance with the balanced use of urban areas, the need to replace dilapidated and emergency housing and utilities infrastructure.

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► Сравнительный межстрановой анализ оценки эффективности государственной жилищной политики: статистический инструментарий

В статье проводится сравнительный анализ оценки эффективности жилищной политики Австрии, Германии и России в контексте концепции надлежащего жилья. В современной мировой управленческой практике универсальный набор критериев оценки эффективности жилищной политики отсутствует, однако в публичных информационных ресурсах этих стран имеют место наборы показателей, способных отразить такую оценку. Единственной проблемой становится информационная асимметрия, при которой в каждой стране формируется свой набор оценочных показателей, что приводит к их несопоставимости. При этом потребность в таких данных существует в связи с необходимостью актуализации имеющихся текущих результатов реализации жилищной политики и оценкой сложившихся тенденций развития жилищной сферы.

В каждой стране имеется свой механизм оценки эффективности жилищной политики, базирующийся на собственном наборе параметров, соответствующем заданным целям и направлениям развития жилищной сферы.

Надлежащее жилье как критерий оценки эффективности реализации жилищной политики позволяет в полной мере продемонстрировать результативность реализуемых государством мероприятий в жилищной сфере.

Концепция надлежащего жилья, как актуальная доктрина национального развития жилищной сферы, позволяет проводить сравнительный анализ жилищной политики разных стран путем оценки и сопоставления эффектов ее реализации.

Согласно исследованию жилищной политики Австрии, Германии и России, определено, что национальная модель жилищной политики эволюционирует в развитии концептов, целей, механизма реализации и зависит как от уровня удовлетворенности потребности в жилье, так и исторического опыта, традиций и социально-экономических особенностей хозяйствования на данном этапе.

Ключевые слова: государственная жилищная политика, межстрановые исследования, надлежащее жилье, обеспеченность жильем, доступность жилья, комфортность жилья, статистическая информация

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