SILESIAN UNIVERSITY OF TECHNOLOGY PUBLISHING HOUSE

SCIENTIFIC PAPERS OF SILESIAN UNIVERSITY OF TECHNOLOGY 2024
ORGANIZATION AND MANAGEMENT SERIES NO. 196

SITUATION ON THE RESIDENTIAL REAL ESTATE MARKET IN CITIES WITH COUNTY RIGHTS IN POLAND

Mirosław SOŁTYSIAK[1*], Dariusz ZAJĄC[2]

[1] Rzeszow University of Technology; emiroslaw@prz.edu.pl, ORCID: 0000-0003-3366-1537
[2] University of Rzeszow; dzajac@ur.edu.pl, ORCID: 0000-0001-7918-1366
* Correspondence author

Purpose: The aim of the article is to identify and assess the situation on the residential real estate market in cities with county rights in Poland.
Design/methodology/approach: The article identifies and assesses the situation on the residential real estate market in cities with county rights in Poland. The empirical material of the article concerns all cities with county rights in Poland. The numerical data comes from the Central Statistical Office in Warsaw (Local Data Bank), and the time scope of the research covers the years 2020-2022. The collected and organised empirical material was prepared in tabular and graphic form, using the comparative analysis. Moreover, the following measures of descriptive statistics were used to analyze the data: dynamics index, mean and coefficient of variation. Additionally, a point assessment was made of all diagnostic features illustrating the situation on the residential real estate market in separate groups of cities with county rights in Poland against the background of all such cities, which is a new approach to the research problem discussed in the article.
Findings: The analysis of statistical data confirmed the research hypothesis, which assumes that the number of inhabitants is an important factor shaping the situation on the residential real estate market in cities with county rights in Poland, and this situation is better in cities with fewer inhabitants, and the worst in cities. with the largest number of inhabitants.
Originality/value: The originality of the work lies in the approach to the analysis of the research issues undertaken. A point assessment of all diagnostic features illustrating the situation in the residential real estate market in separate groups of cities with county rights in Poland against the background of all such cities. The work may be useful and is addressed primarily to politicians at the central level, as well as to local government officials responsible for the conditions, possibilities and directions of local socio-economic development of cities with county rights, as well as to other decision-makers implementing urban development policy in Poland.
Keywords: residential real estate market, cities with county rights in Poland, number of inhabitants.
Category of the paper: research paper.

1. Introduction

Cities with county rights in Poland are local government units with a unique influence on supra-local and even regional development because they are where the potentials, activities, and entities deciding on its course are concentrated. The measure of a city's strength is primarily its ability to shape its development in terms of quality, i.e., to generate new solutions and new processes characterised by innovation and creativity. The pace and nature of the development of modern cities are determined equally by the ability to use unconventional potentials to achieve breakthrough ideas, as well as the skills and competences of functioning in various cooperation networks. It should be added that strong cities usually become real centres of socio-economic development, which is reflected in their attributes such as:

- high attractiveness of the city for entities looking for conditions for the implementation of unconventional, innovative projects,
- significant share in the economic structure of the city of companies creating local and supralocal cooperation networks around us, including those involving entities transferring intellectual values to the economy,
- the presence of numerous potential partner entities in the city enabling enterprises to outsource functions and, as a consequence, specialise their own activities and constantly strengthen leading strategic competences,
- extensive relationships connecting business entities with local government institutions, scientific, research and development, educational institutions, and civic sector entities,
- extensive relationships connecting business entities with local government institutions, scientific, research and development, educational institutions, and civic sector entities (Wrana, 2013).

One of the main criteria for assessing the effectiveness of actions undertaken by city governments is the ability to compete. Winning the competition for a significant investor, the location of an important institution, a prestigious event, or for new residents is a tangible and often spectacular, testimony to the success of the policy implemented by local government authorities. Competition is also a process that motivates various entities to increase the effectiveness of their own activities or implement innovations. Competition between cities leads to their own strengthening and to the strengthening of the regional structure. However, nowadays the importance of cooperation as a competence that determines the importance of the city and its development possibilities is becoming more and more visible. Therefore, nowadays one of the most important factors determining the development of a city is its social potential, which is usually identified by:

- an efficient leader, able to formulate a long-term vision of the development of a given local system, who is able to gather the local elite around him,
- the local elite, gathering the most active and creative actors,

- functioning of local institutions stabilising the actions of the leader and dynamizing local development,
- activity of the local community getting involved in projects initiated by local government authorities or initiating development themselves,
- tendency of local governments towards inter-municipal cooperation,
- and small and medium-sized enterprises strengthening the local entrepreneurship fabric.

Attributing a key role to the above-mentioned factors in the city's development process results from many reasons, but the most important of them lies in the statement that the way of using the values and resources of the local environment ultimately always remains the responsibility of the human factor, which, through its actions, can either create a development factor out of them or a barrier that limits it (Wrana, 2013; Tuziak, 2014; Kulawiak, 2016).

The residential real estate market is a current and very important area for research and considerations both in the sphere of science, business, and social and economic policy, as well as regional and local policy. Today, the importance of the housing sector is increasing as a factor of economic growth and stability of the financial sector. However, due to the impact of this sector on the economy, its functioning and further development are important issues in the cognitive and application aspect (Allen, Carletti, 2011; Zaremba, 2011; Borowska, Domańska, 2016; Grzybowska-Brzezińska, Kuberska, Wojarska, 2017).

The development of the residential real estate market depends on a number of diverse but closely related factors. These include primarily: sociodemographic, economic, legal, financial, institutional, and political conditions. These factors mean that the real estate market is subject to constant changes and the relationship between it and its environment is a feedback loop. It should be added that a given, specific local environment, e.g., a city, and its specific features and conditions may either favor the development of this market, limit it, or even inhibit it. It is worth paying special attention to the socio-demographic environment of the real estate market, especially in relation to the housing market. Demographic conditions play a key role in shaping the real estate market, especially at the local level (i.e., among others: the number of population (residents) and its changes over time, population density, natural increase, migration balance, percentage of the working-age population). The development of the real estate market is therefore largely dependent on the current and future demographic situation (Łaszek, 2006; Belniak, 2001, 2008; Foryś, 2010; Gołąbeska, 2011; Zaremba, 2011; Kłusek, 2016; Grzybowska-Brzezińska, Kuberska, Wojarska, 2017).

A very important participant in the residential real estate market is the household, which is an economic entity, separated in the economic sense on the basis of personal property and making decisions regarding consumption and investment based on its own preferences and existing objective constraints (i.e. price and income). The basis for the development of households are decisions regarding the choice of level and field of education, the choice of place of work and residence, and how to spend the money earned. Each household strives to spend its income in such a way as to achieve the greatest possible utility from the purchased goods and services in accordance with its own preferences, and when making decisions, it is guided by both subjective factors (i.e., traditions, preferences, habits, etc.) and objective factors (i.e., traditions, preferences, habits, etc.) i.e., the amount of wages, pensions, interest, prices, taxes, etc.). The consequences of decisions made by households are, on the one hand, a specific amount of demand for goods and services, and, on the other hand, the size and structure of supply. Therefore, households are the basic units of the sphere of consumption, which, having money, material resources, and the time and work of their members, finance the purchases of goods and services, produce items of consumption, and services, and organise the processes of consumption and investment (Zalega, 2007; Kośny, 2013; Grzybowska, 2014; Kozera, Stanisławska, Głowicka-Wołoszyn, 2016; Bywalec, 2017, 2020; Kata, Nowak, Leszczyńska, Kowal, Sebastianka, 2021).

An important factor shaping the situation on the residential real estate market may be the financial situation of households, i.e., their financial situation and the state of their material resources, which inform about the family's wealth and largely influence the level, quality and conditions of its life. The financial situation of a household is therefore determined by both its assets and the level of income, and the impact of these two elements on the economic behaviour of households may be not only substitutive but also complementary, when low income is compensated by previously accumulated assets (Choroś-Mrozowska, Clowes, 2018; Kata, Nowak, Leszczyńska, Kowal, Sebastianka, 2021).

Additionally, in the residential real estate market, an important factor influencing the choices made by consumers and households is the fact that this market is imperfect, with poor flow of information, local, where choices are made on the basis of individual adjustment of the characteristics of the apartment to the buyer's preferences. The imperfect functioning of the housing market makes it very difficult to perfectly match the structure of supply to the structure of demand, resulting in a certain ambiguity in the valuation of individual characteristics and the always individual nature of the transaction. Unlike homogeneous goods, we are dealing not with one point of balance but with their entire area. When considering the consumption choices of households, we consider the consumption of a stream of services. The basic consumer choices are decisions about the amount of housing consumption and the choice of the form of this consumption between ownership and a flat for rent (Augustyniak, Łaszek, Olszewski, Waszczuk, 2013; Grzybowska-Brzezińska, Kuberska, Wojarska, 2017).

The decision-making process and the buyer’s preferences influence the condition of the housing market. Consumer behaviour on the market is neither a simple phenomenon nor isolated from other elements and manifestations of individual lives. A person's specific behaviour on the market is the resultant or result of the influence of many determinants. Without recognising these determinants and the directions and ways of their impact, it is not possible to thoroughly understand consumer behaviour. Consumer behaviour in the housing market, as in other markets, is influenced by many factors. They can be divided into four main groups, i.e. personal, cultural, social, and psychological. The strength of these factors is closely related to the specificity of houses and apartments as specific consumer products and the nature of the Polish real estate market, as well as, in a broader sense, to the processes of globalisation and transformations within European culture (Kotler, 1994; Kieżel, 2000; Rozborska, 2011; Grzybowska-Brzezińska, Kuberska, Wojarska, 2017).

When purchasing an apartment, buyers pay special attention to the price of the property, which is usually the main factor determining their choice. The location of the property is also important. Residential properties are permanently assigned to specific places in space, which means that they are immobile. Immobility means that the proximity of elements of the environment (closest neighbourhood), as well as the location in terms of other objects or socioeconomic phenomena (location) are an integral part of the analysed apartment, just like the physical (nonspatial) features of the property. Environmental factors are the external components of a home. Unlike the internal (physical) features of the apartment, real estate users do not have exclusive rights to consume elements of the environment. The environment can generate both positive and negative effects. The positives include proximity to social and technical infrastructure, availability of various types of services, and a diversified and prosperous labour market. However, the negative ones include: annoying noise, environmental pollution, or high crime rate in the vicinity of the property. The determinants of real estate features may therefore be the benefits of agglomeration resulting from the accumulation of a large group of people, business units, and institutions in a small area, and thus extensive infrastructure (Domański, 2002; Polko, 2005; Czornik, 2008; Grzybowska-Brzezińska, Kuberska, Wojarska, 2017).

The buyer's decision-making process in the residential real estate market involves prudent and rational decisions, the course of which varies greatly depending on the characteristics of the consumer, the type of product, or the environment. Segmenting buyers and understanding the impact of individual factors is an essential area of research at the local, regional, and national levels. Due to the variability of the environment, especially the conditions related to location, which is a limited good, research must be updated and verified in market realities. Therefore, important determinants of purchasing behaviour in the residential real estate market are factors related to the characteristics of buyers and the conditions of the microenvironment (Grzybowska-Brzezińska, Kuberska, Wojarska, 2017).

Residential property management is a complex process that involves making decisions both tactical and strategic. To ensure the implementation of tasks, real estate owners must adapt their services to technological pressure and to the dynamically changing market and customer requirements, often results in the implementation of various innovations that improve and increase the efficiency of management, especially of public housing resources (Kabus, Dziadkiewicz, 2023).

As research shows, social innovations play an important role in the residential real estate market (especially municipal ones), manifested, among others, by organizing social campaigns, involving residents in the management of municipal resources, informing residents about events taking place in the surroundings, supporting culture, art, and sports, activities related to health protection by promoting health-promoting attitudes, using local resources to create e.g. support centres, business incubators and counseling, as well as supporting employee volunteering for the local community. These activities contribute primarily to improving the quality of life of residents of municipal properties. Therefore, it is worth focussing on developing social innovations that are really important and expected by residents of municipal resources. Moreover, it is important because the issue of social responsibility and participation of residents in the management of municipal resources is current (Kabus, Dziadkiewicz, 2022).

Analysis of the housing market in Poland indicates a low level of housing resources. The housing situation in the country is one of the worst in Europe. Despite a dynamic increase in the number of apartments put into use and one of the highest gross value added generated by the construction sector, Poland is still characterised by a housing deficit. The reasons for this state of affairs should be sought, among others, in:

- local and uncoordinated action of real estate market actors,
- fragmentary operation of sectors directly related to housing,
- insufficient support or failure to use the possibilities of conducting an effective housing policy by local government units, including cities with legal rights poviat,
- the dominant share of the development industry in the structure of the primary housing market,
- and insufficient evaluation of housing programmes and policies, both at the national, regional, and local level (Muzioł-Węcławowicz, Nowak, 2018; Samorek, Cichocki, 2023).

Due to the above, it is necessary to take actions in many fields, forcing the intensified development of a comprehensive housing policy aimed at improving the resource in terms of quantity, quality, and accessibility. It is necessary to develop the social housing sector, contributing to improving the housing needs of less wealthy citizens. Social housing policy directly shapes the living environment and determines the quality of life. We should look for housing policy instruments focused on the effective increase in the ability to meet the housing needs of that part of society that is unable to meet them on their own. Support instruments should be intended primarily for people in the so-called rent gap and those without creditworthiness. The solution would be the development of accessible housing, including social, social and rental housing. It is also necessary to develop ecological construction, including passive and zero-emission buildings. Environmentally friendly solutions can be implemented in all phases of the building life cycle, including the stage of modernisation and renovation. The issue of energy saving, the use of environmentally friendly building materials, thermal modernisation, and supporting the sustainable revitalisation of housing resources are important. In addition, it is important to improve the standard of housing, including in terms of equipment and size of apartments, counteracting the progressive commoditisation of apartments and focusing on increasing the number of apartments that are affordable for residents and at the same time meet their real needs and expectations (Samorek, Cichocki, 2023).

2. Research aim, empirical material, and research methods

The aim of the article is to identify and assess the situation on the residential real estate market in cities with county rights in Poland.

The article hypothetically assumes that the number of inhabitants is an important factor shaping the situation on the residential real estate market in cities with county rights in Poland, with the situation being better in cities with fewer inhabitants and the worst in cities with the largest number of inhabitants.

The empirical material of the article concerns all cities with county rights in Poland. The numerical data comes from the Central Statistical Office in Warsaw (Local Data Bank), and the time scope of the research covers the years 2020-2022. The collected and organised empirical material was prepared in tabular and graphic form, using the comparative analysis. Moreover, the following measures of descriptive statistics were used to analyse the data: dynamics index, mean, and coefficient of variation.

To identify and assess the situation on the residential real estate market in cities with county rights in Poland, the following diagnostic features that illustrate it were analysed:

- average number of residential premises sold as part of market transactions in 2020-2022 (dynamics) - stimulant;
- average value of residential premises sold as part of market transactions in 2020-2022 (dynamics) - stimulant;
- average usable area of a residential premises sold as part of market transactions in 2020-2022 (m^2) - stimulant;
- average price of residential premises sold as part of market transactions in 2020-2022 (PLN) - destimulant;
- average price per 1 m^2 of residential premises sold as part of market transactions in 2020-2022 (PLN) - destimulant.

The article distinguishes three groups of cities with county rights for analysis, depending on the number of inhabitants, i.e.:

I – cities with a population of up to 100,000;

II – cities with 100-200 thousand inhabitants;

III – cities with 200,000 inhabitants and more.

Furthermore, the article contains a point assessment of all diagnostic features that illustrates the situation on the residential real estate market in separate groups of cities with county rights in Poland against the background of all such cities. Individual diagnostic characteristics were compared with the average for all cities with county rights in Poland, which was taken as 100 points, and their advantage or underweight was accordingly assessed in the designated groups of such cities. Then all points were summed up and the average was calculated (Figure 1). It should be emphasised that this is a new approach to the research problem discussed in the article.

3. Results

In the territorial division of Poland, there are 66 cities with county rights, among which the largest group are cities with the smallest number of inhabitants, i.e. up to 100,000 (29 units, which is 43.9% of the total). Next, this applies to the group of cities with 100-200 thousand inhabitants (23 units, representing 34.9% of the total). However, the group of cities with the largest number of inhabitants, i.e. 200,000, is the least numerous and more (14 units, which is 21.2% of the total) (Table 1).

The data in Table 1 shows that in cities with county rights in Poland, the average number of residential premises sold as part of market transactions increased in 2020-2022, with the highest number in 2021. However, there is a great variation in this respect between separate groups of cities with county rights, depending on the number of inhabitants. The group of cities with the largest number of inhabitants, i.e. 200,000, has by far the highest average number of residential premises sold as part of market transactions in 2020-2022 and more, and it is clearly the lowest in the group of cities with the smallest number of inhabitants, i.e. up to 100,000. It should be added that, as in the case of all cities with county rights in Poland, also in all their groups depending on the number of inhabitants, the average number of residential premises sold as part of market transactions was the highest in 2021.

Table 1.
Average number of residential premises sold as part of market transactions in cities with county rights in Poland in 2020-2022

Specification	Years			Dynamics, year 2020 = 100
	2020	2021	2022	
Cities with county rights in total (N = 66)				
Mean	1 844,4	2 278,4	2 096,9	110,8
Coefficient of variation V (%)	179,0	173,6	186,7	29,2
Cities with a population of up to 100,000 (N = 29)				
Mean	440,3	540,0	470,1	115,8
Coefficient of variation V (%)	56,2	54,1	47,6	28,0
Cities with 100-200 thousand inhabitants (N = 23)				
Mean	1 269,9	1 441,9	1 273,1	103,0
Coefficient of variation V (%)	59,7	56,9	55,8	18,4
Cities with 200,000 inhabitants and more (N = 14)				
Mean	5 650,9	7 193,9	6 766,0	112,7
Coefficient of variation V (%)	100,1	89,9	98,1	41,1

Source: Central Statistical Office in Warsaw.

However, the differentiation of this feature between individual cities with district rights in Poland in 2020-2022 is very large, and it is clearly smaller in groups of cities with fewer inhabitants, i.e., these separated groups of cities are the most homogeneous in this respect (Table 1).

In turn, the dynamics of the average number of residential premises sold as part of market transactions in the years 2020-2022 in cities with county rights in Poland is rather small and positive, but differs in individual groups of these cities, depending on the number of inhabitants. It is clearly the lowest in the group of cities with 100-200 thousand inhabitants (Table 1).

The differentiation of this feature between individual cities with county rights in Poland in 2020-2022 is quite large, but it is the smallest in the group of cities with 100-200 thousand inhabitants, i.e., this separate group of cities is the most homogeneous in this respect (Table 1).

The data in Table 2 show that in cities with county rights in Poland, the average value of residential premises sold as part of market transactions increased in 2020-2022. However, there is a great diversity in this respect between separate groups of cities with county rights, depending on the number of inhabitants. The group of cities with the largest number of inhabitants, i.e., 200,000, has by far the highest average value of residential premises sold as part of market transactions in 2020-2022. and more, and it is clearly the lowest in the group of cities with the smallest number of inhabitants, i.e. up to 100,000.

Table 2.
Average value of residential premises sold as part of market transactions in cities with county rights in Poland in 2020-2022 (PLN)

Specification	**Years**			**Dynamics, year 2020 = 100**
	2020	**2021**	**2022**	
Cities with county rights in total				
Mean	660 742 134,1	916 427 572,0	952 370 847,2	140,6
Coefficient of variation V (%)	254,3	235,0	254,3	31,7
Cities with a population of up to 100,000				
Mean	105 663 367,8	149 566 964,8	140 118 521,7	148,2
Coefficient of variation V (%)	70,1	73,9	58,3	31,6
Cities with 100-200 thousand inhabitants				
Mean	309 626 934,1	393 572 370,6	387 813 237,5	132,4
Coefficient of variation V (%)	78,6	77,9	72,0	20,0
Cities with 200,000 inhabitants and more				
Mean	2 362 300 607,1	3 326 554 146,1	3 522 055 479,5	137,8
Coefficient of variation V (%)	132,4	114,9	125,7	44,1

Source: Central Statistical Office in Warsaw.

The differentiation of this feature between individual cities with county rights in Poland in 2020-2022 is, in turn, very large, but it is clearly smaller in groups of cities with fewer inhabitants, that is, these separated groups of cities are the most homogeneous in this respect (Table 2).

The dynamics of the average value of residential buildings sold as part of market transactions in the years 2020-2022 in cities with district rights in Poland is large and positive, but slightly differentiated in individual groups of these cities depending on the number of inhabitants. It is the highest in the group of cities with the smallest number of inhabitants, i.e. up to 100,000, and the lowest in the group of cities with 100-200,000 inhabitants. However, in the group of cities with the highest number of inhabitants, i.e. 200 thousand and more, it is closest to the average for all cities with county rights in Poland (Table 2).

In turn, the differentiation of this feature between individual cities with district rights in Poland in the years 2020-2022 is quite large, and it is the smallest in the group of cities with 100-200 thousand inhabitants, i.e., this separate group of cities is the most homogeneous in this respect (Table 2).

Table 3.
Average usable area of a residential premises sold as part of market transactions in cities with county rights in Poland in 2020-2022 (m^2)

Specification	Years			Average for years 2020-2022
	2020	2021	2022	
Cities with county rights in total				
Mean	53,0	53,2	52,5	52,9
Coefficient of variation V (%)	7,3	6,3	6,2	5,8
Cities with a population of up to 100,000				
Mean	53,0	53,7	52,6	53,1
Coefficient of variation V (%)	6,6	7,5	7,2	6,3
Cities with 100-200 thousand inhabitants				
Mean	52,1	52,5	52,2	52,3
Coefficient of variation V (%)	4,9	5,0	5,4	4,9
Cities with 200,000 inhabitants and more				
Mean	54,2	53,2	52,8	53,4
Coefficient of variation V (%)	10,9	5,1	5,1	6,4

Source: Central Statistical Office in Warsaw.

In cities with county rights in Poland, the average usable area of residential premises sold as part of market transactions remains at a similar level in 2020-2022. There are no major differences in this regard between the groups of these cities depending on the number of inhabitants (Table 3).

It should be added that the differences in this feature between individual cities with county rights in Poland in the years 2020-2022 are small or even negligible, and this also applies to all their groups depending on the number of inhabitants (Table 3).

The data in Table 4 shows that the average price of residential properties sold as part of market transactions in cities with county rights in Poland increased in the years 2020-2022, and this also applies to all their groups depending on the number of inhabitants. However, the average price of residential premises sold as part of market transactions in 2020-2022 is clearly differentiated between separate groups of cities with county rights depending on the number of inhabitants. It is definitely the highest in the group of cities with the largest number of inhabitants, i.e., 200,000 and more. However, in the remaining groups of cities, it is lower and more similar to the average for all cities with county rights in Poland.

Table 4.
Average price of residential premises sold as part of market transactions in cities with county rights in Poland in 2020-2022 (PLN)

Specification	Years			Average for years 2020-2022
	2020	2021	2022	
Cities with county rights in total				
Mean	258 081,6	293 109,9	323 787,5	291 659,7
Coefficient of variation V (%)	40,0	43,4	39,7	40,8
Cities with a population of up to 100,000				
Mean	235 829,3	274 276,1	300 206,6	270 104,0
Coefficient of variation V (%)	45,8	54,0	47,6	49,0
Cities with 100-200 thousand inhabitants				
Mean	225 295,5	255 567,8	287 105,1	255 989,5
Coefficient of variation V (%)	24,3	22,6	21,5	22,6
Cities with 200,000 inhabitants and more				
Mean	355 696,6	391 117,5	430 277,3	392 363,8
Coefficient of variation V (%)	27,2	29,5	28,8	28,4

Source: Central Statistical Office in Warsaw.

However, the differences in this characteristic between individual cities with county rights in Poland in 2020-2022 are quite large. However, it is highest in the group of cities with the smallest number of inhabitants, i.e., up to 100,000, i.e. this group of cities is the most diverse in this respect (Table 4).

Table 5.
Average price per 1 m^2 of residential premises sold as part of market transactions in cities with county rights in Poland in 2020-2022 (PLN)

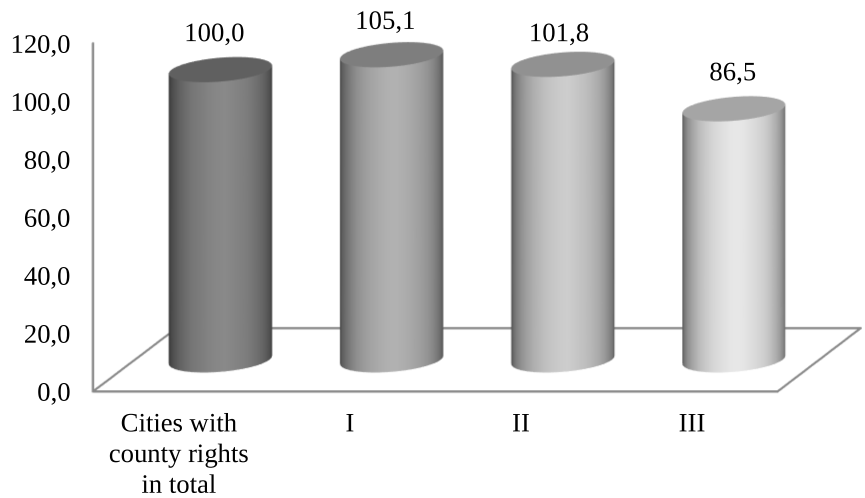
Specification	Years			Average for years 2020-2022
	2020	2021	2022	
Cities with county rights in total				
Mean	4 838,2	5 456,6	6 121,3	5 472,0
Coefficient of variation V (%)	36,0	36,6	35,0	35,7
Cities with a population of up to 100,000				
Mean	4 413,2	5 027,4	5 664,2	5 034,9
Coefficient of variation V (%)	40,2	42,8	40,7	41,1
Cities with 100-200 thousand inhabitants				
Mean	4 306,4	4 851,3	5 471,3	4 876,3
Coefficient of variation V (%)	22,2	20,1	19,0	20,2
Cities with 200,000 inhabitants and more				
Mean	6 554,5	7 296,9	8 089,5	7 313,6
Coefficient of variation V (%)	24,8	25,3	25,0	25,0

Source: Central Statistical Office in Warsaw.

The data in Table 5 show that the average price per 1 m^2 of residential premises sold as part of market transactions in cities with county rights in Poland increased in the years 2020-2022, and this also applies to all their groups depending on the number of inhabitants. However, the average price per 1 m^2 of residential premises sold as part of market transactions in 2020-2022 is clearly differentiated between separate groups of cities with county rights depending on the number of inhabitants. It is definitely the highest in the group of cities with the largest number of inhabitants, i.e., 200,000 and more. However, in the remaining groups of cities, it is lower and closest to the average for all cities with county rights in Poland.

The variation in this feature between individual cities with county rights in Poland in 2020-2022 is quite large. However, it is highest in the group of cities with the smallest number of inhabitants, that is, up to 100,000, i.e., this group of cities is the most diverse in this respect (Table 5).

Figure 1 presents the results of the point assessment on the situation on the residential real estate market in separate groups of cities with county rights in Poland compared to all such cities. It should be noted that the cities with county rights in Poland are diverse in terms of the situation on the residential real estate market. A better situation in this respect compared to all cities with county rights in Poland occurs in the group of cities with the smallest number of inhabitants, i.e. up to 100,000 and in the group of cities with 100-200 thousand inhabitants. However, the worst situation on the residential real estate market is in the group of cities with the largest number of inhabitants, i.e. 200,000 and more.



Explanations: I – cities with a population of up to 100,000; II – cities with 100-200 thousand inhabitants; III – cities with 200,000 inhabitants and more.

Figure 1. Point evaluation of the situation on the residential real estate market in separate groups of cities with county rights in Poland compared to all of these cities (cities with county rights in total = 100.0 points).

Source: Own study.

Therefore, this confirms the research hypothesis put forward in the article, assuming that the number of inhabitants is an important factor shaping the situation on the residential real estate market in cities with county rights in Poland, and this situation is better in cities with fewer inhabitants and the worst in cities with the largest number of inhabitants.

4. Summary and conclusions

The analysis of the collected statistical data carried out in the article shows that:

- In cities with county rights in Poland, the average number and value of residential premises sold as part of market transactions increased in the years 2020-2022; however, there is a clear differentiation in this respect between separate groups of these cities depending on the number of inhabitants. The group of cities with the largest number of inhabitants, i.e., 200,000, has the highest average number and value of residential premises sold as part of market transactions in the years examined. and more, and the lowest are in the group of cities with the smallest number of inhabitants, i.e. up to 100,000. In turn, the differentiation of these features between individual cities with county rights in Poland in 2020-2022 is very large, but it is clearly smaller in groups of cities with fewer inhabitants, i.e. these separate groups of cities are the most homogeneous in this respect;
- The growth dynamics of the average number and value of residential premises sold as part of market transactions in cities with district rights in Poland in 2020-2022 is successively small and large. However, the discussed dynamics indicators vary in specific groups of cities with poviat rights depending on the number of inhabitants, and the lowest are in the group of cities with 100-200 thousand inhabitants. However, the differences in these characteristics between individual cities with county rights in Poland in 2020-2022 are quite large. However, it is the smallest in the group of cities with 100-200 thousand inhabitants, i.e. this separate group of cities with county rights is the most homogeneous in this respect;
- The average usable area of a residential premises sold as part of market transactions in cities with district rights in Poland remains at a similar level in the years 2020-2022 and there are no major differences in this respect between their groups depending on the number of inhabitants. Moreover, the differentiation of this feature between individual cities with county rights in the years examined is small, or even negligible, and this applies to all separate groups of these cities;
- in cities with county rights in Poland, the average price in total and per 1 m^2 of residential premises sold as part of market transactions increased in 2020-2022. However, these prices are clearly differentiated between specific groups of cities depending on the number of inhabitants. They are definitely the highest in the group of cities with the largest number of inhabitants, i.e. 200,000 and more, and in other separate groups of cities, are lower and most similar to the averages for all cities with county rights in Poland. The differentiation of these features between individual cities with county rights in Poland in 2020-2022 is quite large, and it is greatest in the group of cities with the smallest number of inhabitants, i.e. up to 100,000, i.e. this group of cities is the most diverse in this regard.

Moreover, the analysis of statistical data allows us to confirm the research hypothesis put forward in the article, assuming that the number of inhabitants is an important factor shaping the situation on the residential real estate market in cities with county rights in Poland, and this situation is better in cities with fewer inhabitants, and the worst it is in the cities with the largest number of inhabitants.

It should be added that the results of the statistical data analysis presented in the article provide important and up-to-date knowledge that may be useful primarily for central-level politicians and local government officials responsible for the conditions, possibilities and directions of local socio-economic development of cities with poviat rights, as well as for other decision-makers implementing urban development policy in Poland. At the same time, this justifies the need to continue similar research and analysis.

References

1. Allen, F., Carletti, E. (2011). *Systemic risk from real estate and macro-prudential regulation*. Waszyngton: Federal Reserve Board and Journal of Money, Credit and Banking Conference "The Regulation of Systemic Risk", pp. 15-16.
2. Augustyniak, H., Łaszek, J., Olszewski, K., Waszczuk, J. (2013). Kupić czy wynająć? Analiza decyzji podmiotów na rynku mieszkaniowym determinowanych polityką mieszkaniową. In: *Raport o rynku nieruchomości mieszkaniowych i komercyjnych w Polsce w 2012 roku*. Warszawa: Narodowy Bank Polski, pp. 115-131.
3. Belniak, S. (2001). *Rozwój rynku nieruchomości w Polsce na tle krajów wysoko rozwiniętych*. Kraków: Wydawnictwo AE w Krakowie.
4. Belniak, S. (2008). Makroekonomiczne uwarunkowania rynku mieszkaniowego w Polsce. *Zeszyty Naukowe UE w Krakowie, nr 792*, pp. 5-18.
5. Borowska, M., Domańska, J. (2016). Współczesny rynek nieruchomości jako obszar dociekań naukowych w świetle literatury. *Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach, nr 270*, pp. 19-28.
6. Bywalec, Cz. (2020). *Ekonomika i finanse gospodarstw domowych*. Warszawa: PWN, pp. 232.
7. Bywalec, Cz. (2017). *Gospodarstwo domowe. Ekonomika, finanse, konsumpcja*. Kraków: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, p. 310.
8. Choroś-Mrozowska, D., Clowes, D. (2018). Ekonomiczne uwarunkowania zachowań konsumpcyjnych gospodarstw domowych w Polsce w latach 2006-2015. *Zeszyty Naukowe UEK, 1(973)*, pp. 27-45. https://doi.org/10.15678/ZNUEK.2018.0973.0102
9. Czornik, M. (2008). *Miasto. Ekonomiczne aspekty funkcjonowania*. Katowice: Wydawnictwo Akademii Ekonomicznej w Katowicach.

10. Domański, R. (2002). *Gospodarka przestrzenna*. Warszawa: PWN.
11. Foryś, I. (2010). Przesłanki demograficzne potrzeb mieszkaniowych i ich wpływ na przyszłość rynku mieszkaniowego w Polsce. *Świat Nieruchomości, 2(72)*, pp. 28-35.
12. Gołąbeska, E. (2011). Efektywność inwestowania na rynku nieruchomości przy uwzględnieniu ryzyka. *Studia i Prace Kolegium Zarządzania i Finansów, 110*, pp. 9-22.
13. Grzybowska, A. (2014). Gospodarstwo domowe a działalność parabanków. *Zeszyty Naukowe Wyższej Szkoły Bankowej we Wrocławiu, 4(42)*, pp. 119-129.
14. Grzybowska-Brzezińska, M., Kuberska, D., Wojarska, M. (2017). *Rynek nieruchomości w Polsce w kontekście współczesnych realiów gospodarczych*. Olsztyn: Instytut Nauk Politycznych Uniwersytet Warmińsko-Mazurski w Olsztynie, p. 130.
15. Kabus, J., Dziadkiewicz, M. (2022). Residents' Attitudes and Social Innovation Management in the Example of a Municipal Property Manager. *Energies, 15(16)*, 5812; https://doi.org/10.3390/en15165812
16. Kabus, J., Dziadkiewicz, M. (2023). Modern Management Methods in the Area of Public Housing Resources in the Community, *Sustainability, 15(10)*, 7776; https://doi.org/10.3390/su15107776
17. Kata, R., Nowak, K., Leszczyńska, M., Kowal, A., Sebastianka, B. (2021). *Bezpieczeństwo finansowe gospodarstw domowych – wybrane zagadnienia*. Rzeszów: Wydawnictwo Uniwersytetu Rzeszowskiego, p. 322.
18. Kieżel, E. (2000). *Rynkowe zachowania konsumentów*. Katowice: Wydawnictwo Uczelniane Akademii Ekonomicznej w Katowicach.
19. Kłusek, M. (2016). Wpływ przemian demograficznych na rozwój współczesnej gospodarki na przykładzie Polski. In: A. Kraińska (ed.), *Rynek nieruchomości, pracy i finansowy - kierunki rozwoju*. Elbląg: Fundacja Hutena.
20. Kośny, M. (2013). *Determinanty bezpieczeństwa ekonomicznego rodzin*. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, p. 196.
21. Kotler, P. (1994). *Marketing. Analiza, planowanie, wdrażanie i kontrola*. Warszawa: Gebetliner i Spółka.
22. Kozera, A., Stanisławska, J., Głowicka-Wołoszyn, R. (2016). Wewnętrzne społeczno-ekonomiczne determinanty bezpieczeństwa ekonomicznego gospodarstw domowych rolników. *Roczniki Naukowe SERiA, t. XVIII, z. 6*, pp. 110-116.
23. Kulawiak, A. (2016). Historyczne i społeczne czynniki rozwoju małych miast – przykłady Uniejowa i Dąbia. *Biuletyn Uniejowski, Tom 5*, pp. 209-222. http://dx.doi.org/10.18778/2299-8403.05.14
24. Łaszek, J. (2006). Rynek nieruchomości mieszkaniowych i jego specyfika jako czynniki determinujące ryzyko kredytowania hipotecznego. *NBP. Materiały i Studia, 203.*
25. Muzioł-Węcławowicz, A., Nowak, K. (eds.) (2018). *Mieszkalnictwo społeczne. Raport o stanie polskich miast*. Warszawa: Instytut Rozwoju Miast i Regionów, pp. 24-34.

26. Polko, A. (2005). *Miejski rynek mieszkaniowy i efekt sąsiedztwa*. Katowice: Wydawnictwo Akademii Ekonomicznej w Katowicach.
27. Rozborska, M. (2011). Osobiste uwarunkowania zachowań konsumenckich na rynku mieszkaniowym. *Prace Naukowe Uniwersytetu Ekonomicznego w Katowicach*, pp. 426-436.
28. Samorek, B., Cichocki, M. (2023). *Polski rynek nieruchomości mieszkaniowych*. Warszawa/Kraków: Badania Obserwatorium Polityki Miejskiej, Instytut Rozwoju Miast i Regionów, p. 54. https://doi.org/10.51733/opm.2023.03
29. Tuziak, B. (2014). *Autorytet władz gminnych a rozwój społeczności lokalnych*. Warszawa: Scholar.
30. Wrana, K. (2013). Uwarunkowania i procesy rozwoju miast. *Śląskie Studia Regionalne, Nr IV(I)*, pp. 7-16.
31. Zalega, T. (2007). Gospodarstwo domowe jako podmiot konsumpcji. *Studia i Materiały, Wydział Zarządzania, Uniwersytet Warszawski, 1*, pp. 7-24.
32. Zaremba, A. (2011). Uwarunkowania rozwoju rynku nieruchomości jako istotnego czynnika rozwoju lokalnego. *Journal of Agribusiness and Rural Development, 1(19)*, pp. 115-121.