

Natalia Sajnog¹, Paulina Gira²

DOES THE FEATURE OF LOCATION ON THE FLOOR AFFECT THE MARKET VALUE OF RESIDENTIAL REAL ESTATES?

Abstract: The price and market value of real estate are influenced by a number of attributes. Some of them, such as location, neighborhood or area, have a universal dimension, while others result from the specificity of the analyzed real estate segment. The aim of the study was to assess the impact of the feature of location on the floor on the value of residential real estate. The analysis covered the actual market decisions of consumers (so-called revealed preferences) and declared preferences (so-called expressed preferences). In the first case, the study covered transaction prices recorded in 2022 in the Śródmieście and Wola districts of the capital city of Warsaw. In the second case, the study was based on a survey conducted in two research groups. The first consisted of potential buyers (people not professionally associated with the real estate market) and the second were property appraisers. The analyses took into account the division of buildings by height and construction technology. The obtained results were subjected to comparative analysis and selective cross-analysis.

Keywords: residential real estate, market value, market decisions, location on the floor

Received: 31 May 2025; accepted: 18 June 2025

© 2025 Authors. This is an open access publication, which can be used, distributed and reproduced in any medium according to the Creative Commons CC-BY 4.0 License.

¹ Warsaw University of Technology, Faculty of Geodesy and Cartography, Department of Cadastre and Land Management, Warsaw, Poland, ORCID ID: <https://orcid.org/0000-0001-8758-4122>, email: natalia.sajnog@pw.edu.pl

² Paulina Gira Wycena Nieruchomości, Osiek, Poland, email: paulina.gira13@gmail.com

Introduction

The real estate market plays an important role in the economy, broadly influencing many of its aspects. The condition of the real estate market is closely linked to the macroeconomic state (interest rates, labor market situation, inflation, housing policy and regulations) and also to urbanization and demographic trends (Grzybowska-Brzezińska et al., 2017; Mączyńska, 2010). Investment in real estate contributes to Gross Domestic Product growth, job creation (Zaremba, 2011). While in the social dimension, it shapes space affecting the quality of life of residents and is an important tool for accumulating capital and investing savings (Witkowski, 2007; Żelazowski, 2013; Gurbin, 2016).

The real estate market can be divided in terms of various criteria among which the following of them are most often distinguished: object criterion, spatial extent, acquired rights to real estate, price criterion and quality criterion (Kucharska-Stasiak, 2016). The first of these, i.e. the subject criterion, is described through a whole spectrum of attributes of the so-called market characteristics, which can be classified as universal, e.g. location, neighborhood, area, and specific, resulting from the specifics of the analyzed real estate segment. Thus, among the attributes of residential real estate, the following are additionally distinguished above all: the standard of finishing of the premises (Kokot, 2020), the technical condition of the building (Kokot & Bas, 2016; Ziembicka, 2016), additional premises belonging to the property (Trojanek, 2013) and location on the floor (Wong et. al., 2011; Sajnóg & Borkowski, 2019).

The feature of location on the floor of a building has been studied by researchers. Some studies have shown a linear and positive relationship between the floor level and the price of the property (Chen & Jim, 2010; Meese & Wallace, 2003). An increase in price with a higher floor location and thus with a better “view from the window” was also confirmed by Sajnóg & Borkowski (2019) in a study using geostatic methods, in the context of apartments located in luxury high-rise buildings in Warsaw. In turn, Xiao & others (2019) applying a hedonic price model to the Chinese real estate market showed that the relationship between floor level and housing price is non-linear and is different in multi-storey buildings (without elevator) and high-rise buildings. As well as that landscape proximity significantly affects the relationship between floor level and housing price. The significance of the impact of the feature of floor level location on property value was also verified through surveys. Sajnóg and Jaskólska (2025) showed that when selecting the top 5 market features affecting the value of real estate, the feature in question was indicated by 37.94% of respondents in the group of professionals associated with the real estate market and only 10.54% of respondents in the group of potential buyers (people not professionally associated with the real estate market). The results are therefore different and depend primarily on the research method.

The aim of the study was to assess the impact of the feature of location on the floor on the value of residential real estate. The analysis covered the actual market decisions of consumers (so-called revealed preferences) and declared preferences (so-called expressed preferences). In the first case, the study covered transaction prices recorded in 2022 in the Śródmieście and Wola districts of the capital city of Warsaw. In the second

case, the study was based on a survey conducted in two research groups. The first consisted of potential buyers (people not professionally associated with the real estate market) and the second were property appraisers. The analyses took into account the division of buildings by height and construction technology. The obtained results were subjected to comparative analysis and selective cross-analysis.

Materials, methods and study area

The study was based on the following materials:

- (i) thematic studies in the scope of literature review,
- (ii) a register of real estate transaction prices obtained from the Office of Geodesy and Cadastre in Warsaw,
- (iii) database of real estate appraisers federated in the Warsaw Association of Real Estate Appraisers and the Mazovian Association of Real Estate Appraisers.

The following research methods were applied:

- (i) review of documents,
- (ii) statistical method,
- (iii) analyses and logical construction,
- (iv) quantitative method with the application of the survey technique.

One of the elements of market knowledge is buyers' preferences, which play a key role in the formation of supply and demand, and one of the primary sources of information in the process of identifying factors affecting the formation of real estate prices (Gaca, 2019). They are divided into so-called revealed preferences (revealed preferences), presenting the actual market decisions of consumers, and so-called stated preferences (stated preferences), i.e. referring only to the declared (hypothetical) market behavior of consumers.

The preferences revealed include empirical research, which was based on actual data from the secondary residential real estate market for the Śródmieście and Wola districts of Warsaw. Each transaction was assigned to one of three building construction technologies, i.e.: tenement buildings, mixed technology and the large-panel-system building. Grouping into the appropriate category was guided by the vision of the building and the year it was built. In addition, information available on the Warsaw monuments' website was used to identify tenements. Moreover, in the case of mixed technology, a division was made according to the height of the building: (i) up to and including 17 overground floors, and (ii) above 17 overground floors (high-rise buildings) (§ 8 of Regulation, 2002). The data concerned transactions concluded in 2022.

The stated preferences include a quantitative method with the application of the survey technique (Krok, 2015). The survey was preceded by: (i) planning the group of respondents and the survey method, (ii) developing the survey form (Polny & Wojciak, 2015). The survey was based on a questionnaire (Apanowicz, 2002) prepared and made available to two groups of respondents. The first was made up of potential buyers and the second was made up of professionals associated with the real estate market (appraisers). To create the electronic version of the survey, Microsoft Forms was used, and the survey was made available from September 16, 2024, to September 29, 2024, through social

media and, additionally, via the secretariat of the Warsaw Association of Property Appraisers and Mazovia Association of Property Appraisers, with a request to share the link with appraisers. In the first group of respondents, 152 responses were collected, and in the second group, 54 responses. Despite the relatively low number of submitted questionnaires, it was determined that the collected answers provide reliable data, and the results obtained are cognitively sufficient. The prepared questionnaire consisted of two parts. The first part included questions aimed at gathering demographic and social characteristics of the respondents, such as gender, age, education, place of residence and type of dwelling. The second part of the survey consisted of thematic questions. The first two questions were general and concerned unambiguous answers as to whether the feature “location on a floor” affects the value of residential premises property (and whether it retains its relevance in buildings equipped with an elevator). Further questions taking into account the division of buildings by construction technology concerned the determination of the effect of the feature on the value of premises located: (i) on the ground floor, (ii) on the top floor. This publication, due to its limitations, focused on apartments located in buildings built with large-panel-system technology. The results obtained were presented in comparative and selected cross-analysis and discussed.

The research area covered two Warsaw districts, i.e. Śródmieście and Wola, which are characterized by high technological diversity in the construction of multifamily buildings, including a large share of high-rise buildings (above 55 meters above ground level) compared to the Polish capital (Fig. 1, Fig. 2).



Fig. 1. Location of the Śródmieście district on the background of the capital city of Warsaw

Source: pl.wikipedia.org/wiki/Srodmiescie



Fig. 2. Location of the Wola district on the background of the capital city of Warsaw

Source: pl.wikipedia.org/wiki/Wola

Śródmieście is located in the central part of Warsaw, on the left side of the Vistula River. The district is a business, residential, cultural and transportation center. Located in the district, the Palace of Culture and Science has been creating the city's landscape for

years and is a locational landmark of the capital. Downtown covers an area of 15.57 square kilometers, which is about 3% of all of Warsaw, and is inhabited by 97,983 people (Central Statistical Office, as of January 1, 2024). In terms of population, the district ranks 9th in Warsaw and the population has been steadily declining since 2003.

Wola is located in the central-western part of Warsaw, on the left side of the Vistula River. The district was largely demolished during World War II, causing it to be rebuilt anew, and is now a business, residential, cultural and transportation center. Today, Wola is one of the most dynamically developing districts in Warsaw. In place of old industrial plants and dilapidated buildings, numerous modern residential and commercial buildings have been and continue to be built. Wola covers an area of 19.26 square kilometers, which is about 4% of all of Warsaw, and is inhabited by 150,319 people (Central Statistical Office, as of January 1, 2024). In terms of population, the district is ranked 4th in Warsaw. Between 2003 and 2012, the population of Wola decreased by 8,172 residents, but since 2013 there has been a population growth.

Results and discussion

The revealed preferences – Śródmieście district. In the Śródmieście district, 898 secondary market transactions were accepted for the study after a critical analysis of the transactions. After splitting the transactions by building construction technology, the result was: 531 apartments located in tenements, 165 apartments located in buildings built with mixed technology, and 202 apartments located in buildings built with so-called “large-panel-system” technology.

In the Śródmieście area in 2022, transactions were recorded for apartments located in townhouses with up to 8 floors above ground. The highest average unit prices were obtained for units located on the 4th floor and above (with a significant drop in price on the 8th floor, however the number of transactions here was small). In contrast, the lowest average unit prices were obtained for apartments located on the ground floor (Fig. 3).

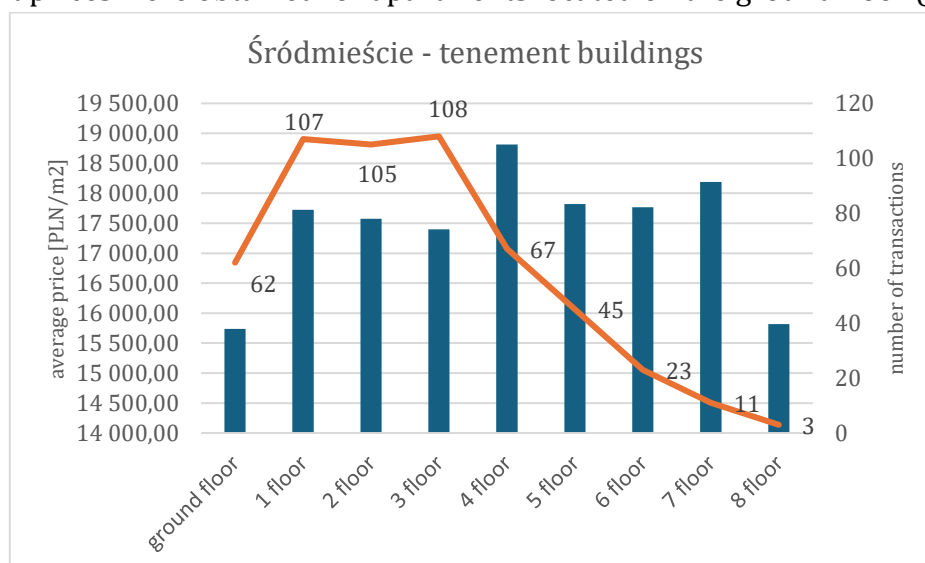


Fig. 3. Dependence of the average price of a residential property on floor location – Śródmieście district

Source: own study

Transactions of apartments located in buildings constructed with mix technology were further divided according to the height of the building, adopting the division: (i) buildings up to 17 floors above ground; (ii) buildings above 17 floors above ground. In the first range, transactions involved apartments located from the first floor to 13 floors. The highest average unit prices were obtained for units located on the 9th floor. The values exceeded the value of PLN 25,000 per square meter. High values were also obtained for residential properties located on the 12th and 13th floors, whose value oscillated around PLN 24,000 per square meter (with only one transaction on the 13th floor, which does not give reliable results). The lowest average unit prices were obtained for residential properties located on the ground floor. The difference between the highest average unit price obtained for residential properties located on the 9th floor and those on the ground floor was more than PLN 12,000 per square meter (Fig. 4).

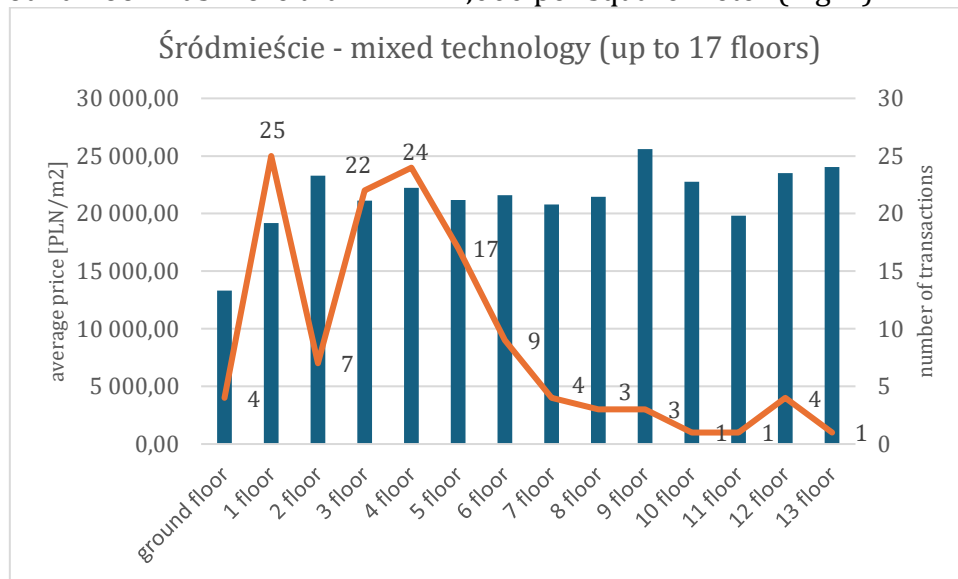


Fig. 4. Dependence of the average price of a residential property on floor location – Śródmieście district

Source: own study

In the second bracket, due to the large variation for buildings with more than 17 floors above ground, a division was applied for apartments located up to the 5th floor, from the 6th to the 15th floor, from the 16th to the 25th floor, from the 26th to the 35th floor and from the 36th to the 45th floor. With this systematization, the highest average unit prices were obtained for apartments located in the last range. These values exceeded the value of PLN 50,000 per square meter. The transactions are for apartments located in high-rise, prestigious buildings with scenic, panoramic views of Warsaw. The lowest average unit prices were obtained for residential properties located in the range up to the 5th floor. The difference between the highest average unit price obtained for units in the “36-45 floor” range and those located “up to the 5th floor” was about PLN 37,000 per square meter. The figure illustrates how the average unit price increases with the location of the apartment on a higher floor (Fig. 5).

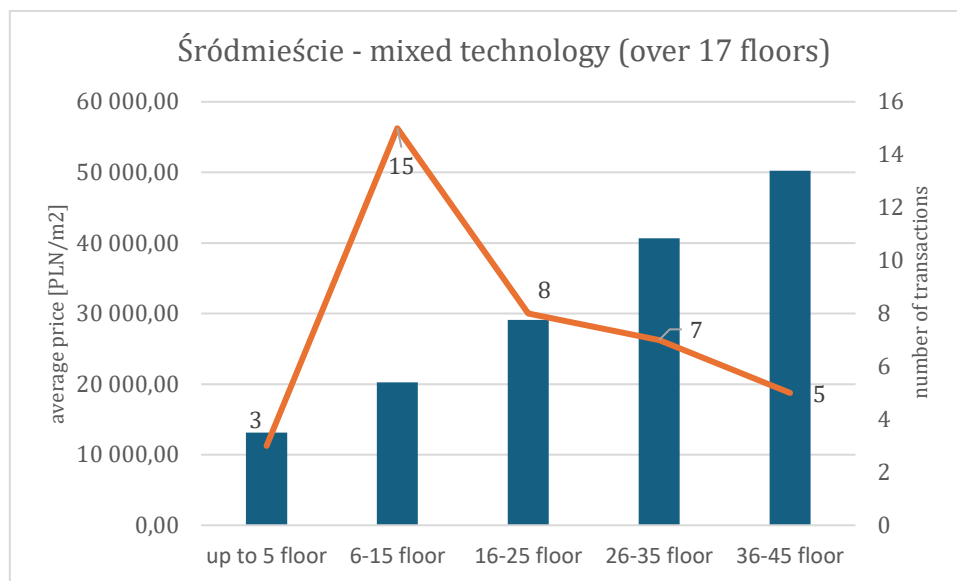


Fig. 5. Dependence of the average price of a residential property on floor location – Śródmieście district
Source: own study

In 2022, in the Śródmieście area, transactions were recorded for apartments located in buildings built with so-called “large-panel-system” technology with up to 16 floors above ground (with no transactions recorded for the 15th floor). The highest average unit prices were obtained for units located on the 13th and 14th floors. These values amounted to about PLN 17,000 per square meter. The lowest average unit prices were obtained for residential properties located on the 12th and 16th floors (with only one transaction on floor 16, which does not provide meaningful results). In general, however, unit prices of apartments located in buildings built with this technology were more consistent (Fig. 6).

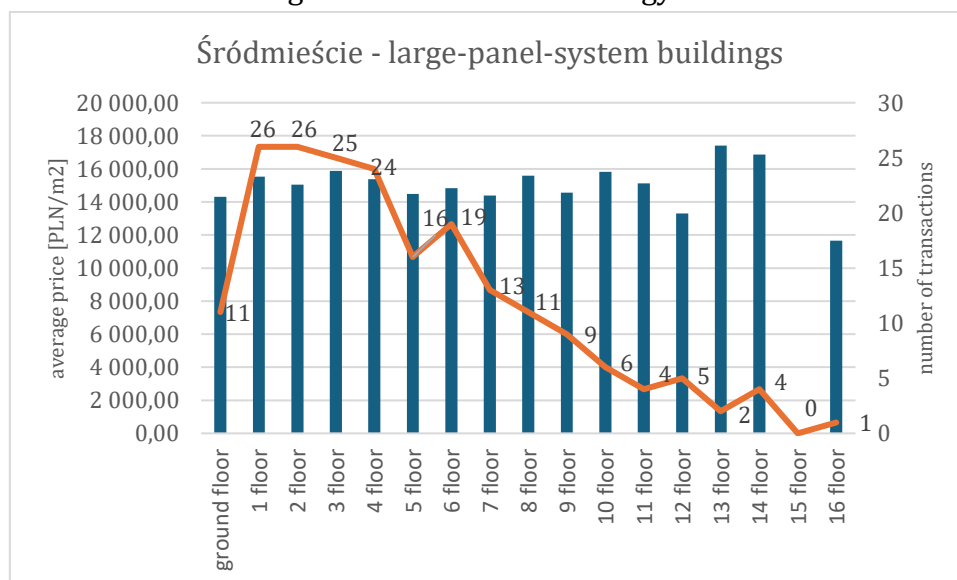


Fig. 6. Dependence of the average price of a residential property on floor location – Śródmieście district
Source: own study

The revealed preferences – Wola district. In the Wola district, 1,483 secondary market transactions were accepted for the study after a critical analysis of the transactions. After dividing the transactions by construction technology, the result was: 322 apartments located in tenement buildings, 739 apartments located in buildings built with mixed technology, and 422 apartments located in buildings built with so-called “large-panel-system” technology.

In 2022 in the Wola area, transactions were made for apartments located in tenement buildings with up to 7 floors above ground. Prices on each floor were fairly consistent. High average unit prices were obtained for apartments located on the 1st, 2nd and 5th and 6th floors. Due to the frequent lack of an elevator in this type of building, apartment properties located on the 2nd and 3rd floors are the most desirable to prospective buyers and also the most expensive. The high average unit price obtained for units located on the 5th and 6th floors may be related to the scenic qualities and better sunlight. The highest average unit price was recorded on floor 7 but it concerned only one transaction, so the result is not reliable (Fig. 7).

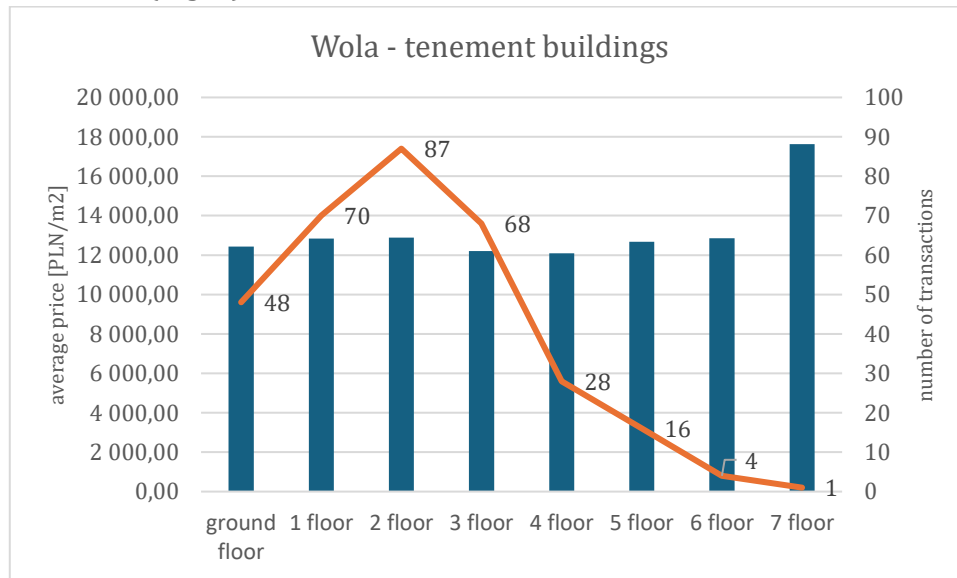


Fig. 7. Dependence of the average price of a residential property on floor location – Wola district
Source: own study

Transactions of apartments located in buildings constructed with mix technology were further divided according to the height of the building, adopting the division: (i) buildings up to 17 floors above ground; (ii) buildings above 17 floors above ground.

In the first range, the highest average unit prices were obtained for units located on the 10th and 11th floors. These values exceeded PLN 17,000 per square meter. The lowest average unit prices were obtained for apartments located on the ground floor, which may be related to insecurity and city noise. The difference in the unit average price is about PLN 3,000 per square meter (Fig. 8).

DOES THE FEATURE OF LOCATION ON THE FLOOR AFFECT
THE MARKET VALUE OF RESIDENTIAL REAL ESTATES?

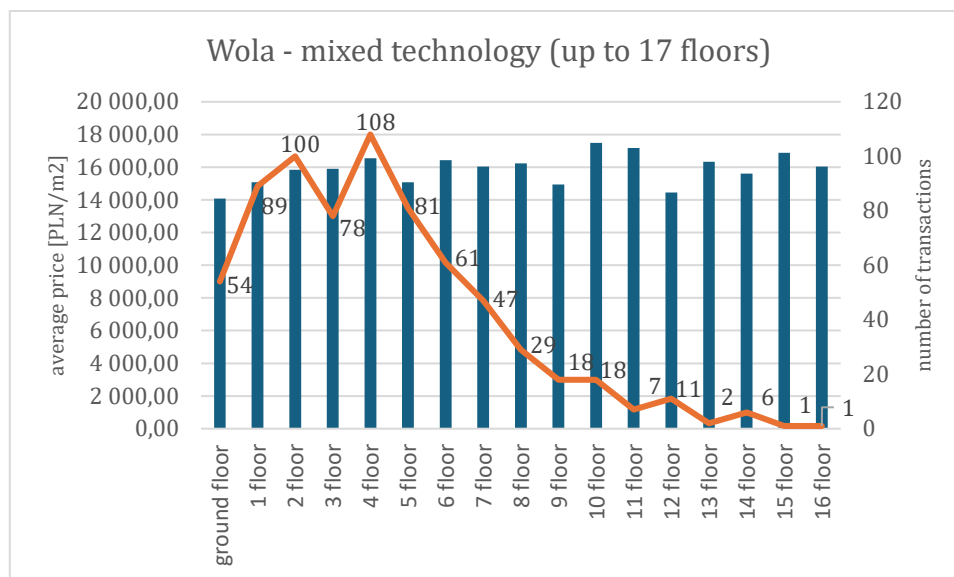


Fig. 8. Dependence of the average price of a residential property on floor location – Wola district
Source: own study

In the second range, due to large height variations for buildings with more than 17 above-ground floors, a division was applied for units located up to the 5th floor, from the 6th to the 15th floor and from the 16th to the 25th floor. With such systematization, the highest average unit prices were obtained for units located in the first and third ranges. These values exceeded the value of PLN 17,000 per square meter. The lowest average unit prices were obtained for residential properties located in the 6th to 15th floor range, with the difference not being high – about PLN 860 per square meter (Fig. 9).

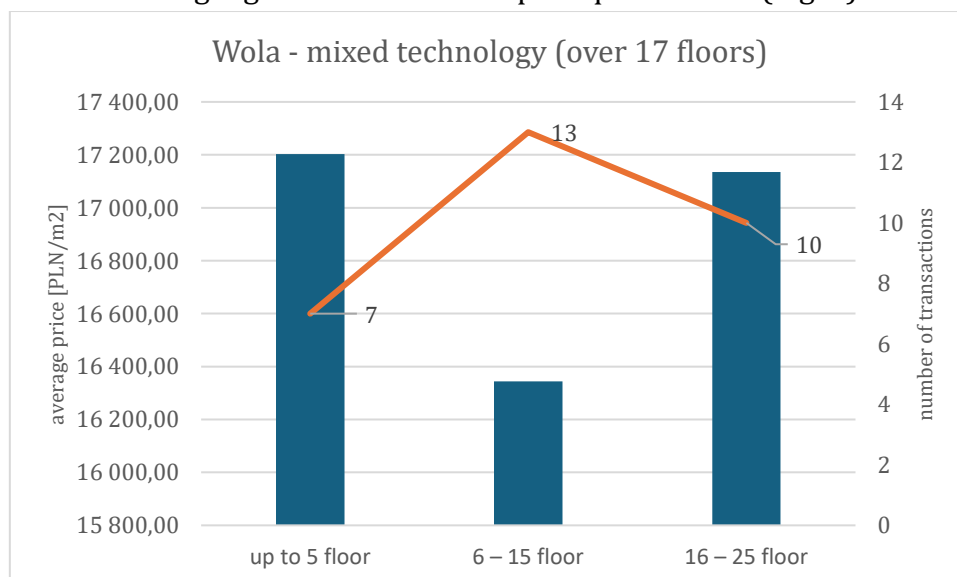


Fig. 9. Dependence of the average price of a residential property on floor location – Wola district
Source: own study

In 2022, in the Wola district, transactions were recorded for apartments located in buildings built with so-called “large-panel-system” technology with up to 13 floors above ground (with no transaction recorded for floor 12). The highest average unit prices were obtained for units located on floors 11 and 13 – the values amounted to more than PLN 13,500 per square meter (with the fact that, on floor 13, the price is determined by a single transaction which results in the unreliability of the result). This is most likely related to the scenic qualities. The lowest average unit prices were again obtained for residential properties located on the ground floor (Fig. 10).

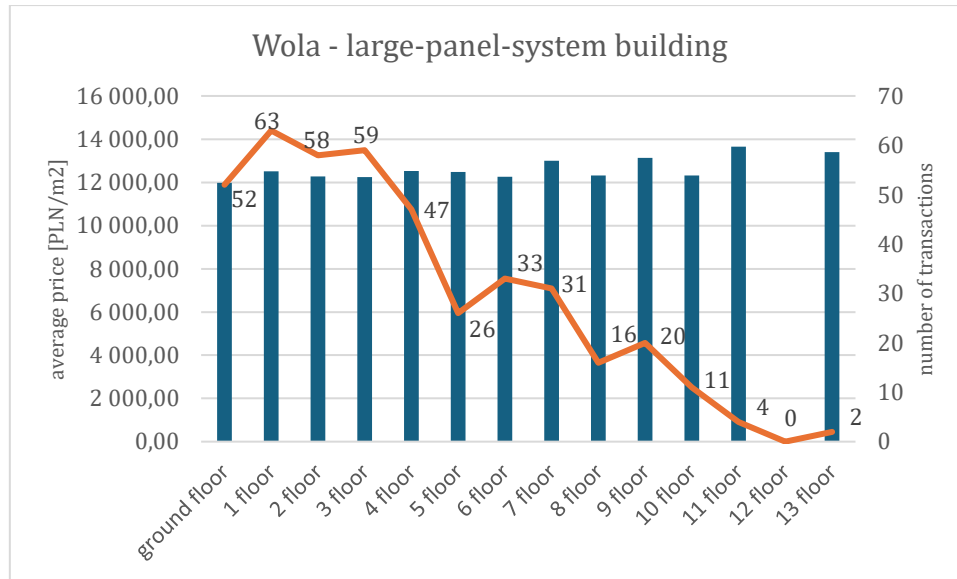


Fig. 10. Dependence of the average price of a residential property on floor location – Wola district
Source: own study

The stated preferences. In the first group (potential property buyers), most respondents were women, making up 74% of the total answers. The research sample was dominated by young people under 25 years, accounting for 37% of all responses. 59% of the respondents had higher education, while 36% had secondary education. Most respondents, accounting for 50% of the research sample, lived in a housing unit of a multifamily building, while 33% occupied a detached family house. 32% of respondents indicated that they lived in a city with a population of less than 20.000, followed by cities with over 1 million residents (21% of responses) and rural areas (20% of responses).

In the second group (property appraisers), most respondents were women, making up 78% of the total answers. The research sample was dominated by middle-aged people: 25-40 years old accounted for 56% and 41-55 years old accounted for 20% of all responses. 94% of the respondents had higher education. Most respondents, accounting for 57% of the research sample, lived in a housing unit of a multifamily building, while 20% occupied a detached family house. 46% of respondents indicated that they lived in a city with a population over 1 million (54% of responses) and cities with a population between 500,000 and 1 million (20% of responses). 11% of respondents indicated they lived in rural areas. The results depicting the profile of a typical respondent in the analyzed two groups are presented in Table 1.

DOES THE FEATURE OF LOCATION ON THE FLOOR AFFECT
THE MARKET VALUE OF RESIDENTIAL REAL ESTATES?

Table 1. Socio-demographic data of respondents – “typical respondent”	
Group I – potential property buyers	Group II – property appraisers
Number of questionnaires: 152	Number of questionnaires: 54
Typical respondent:	Typical respondent:
- Female (74%)	- Female (78%)
- under 25 years (37%)	- Age 25-40 (56%)
- Higher education (59%)	- Higher education (94%)
- Resident of a city with a population of less than 20.000 (32%)	- Resident of a city with a population of more than 1 m (46%)
- Residing in a residential unit in a multi-family building (50%)	- Residing in a residential unit in a multi-family building (57%)

Source: own study

The key objective of the survey was to determine whether the attribute of an apartment's location on the floor affects its value. As it turns out, in both the first and second groups of respondents, the answer was definitely yes. 89.4% answered yes in the group of potential buyers and 98.1% in the group of real estate appraisers (Fig. 11).

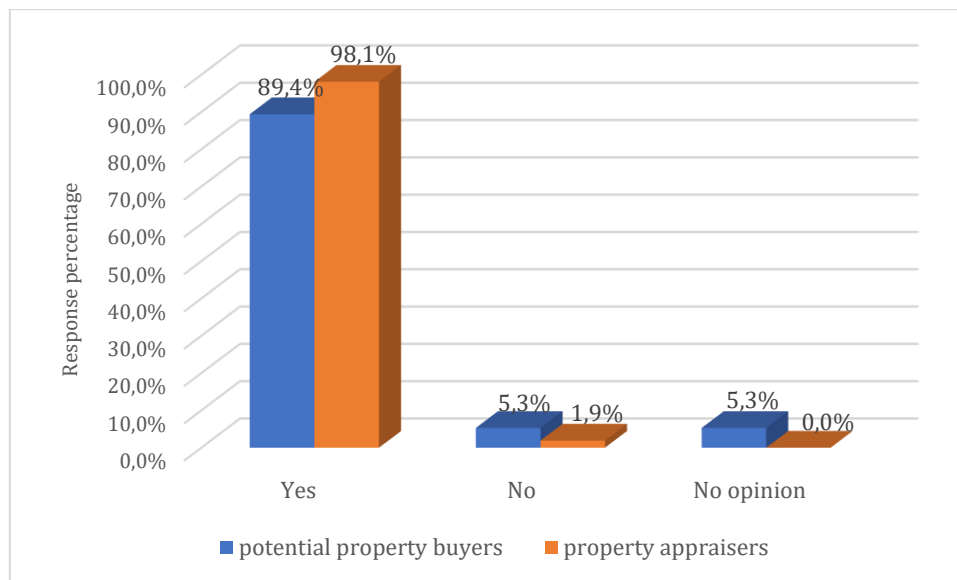


Fig. 11. Does the feature of location on the floor affect the market value of residential real estates?

Source: own study

The next question asked whether the attribute of the unit's location on the floor affects the value of the apartment for buildings equipped with an elevator. The responses were again strongly affirmative in both survey groups (Fig. 12).

This publication, due to its limitations, presents a selection of the most key results of the cross-analysis of the survey questionnaire. Since the results of the revealed preference analysis showed relatively little variation in the unit average prices of apartments depending on the location on the floor in buildings built with so-called “large-panel-system” technology, the expressed preferences for apartments located in buildings built with the same technology were analyzed in detail. In order to make the survey more

readable, the questions focused on the location of the apartment's location on the ground floor (Table 2) and top floor of the building (Table 3).

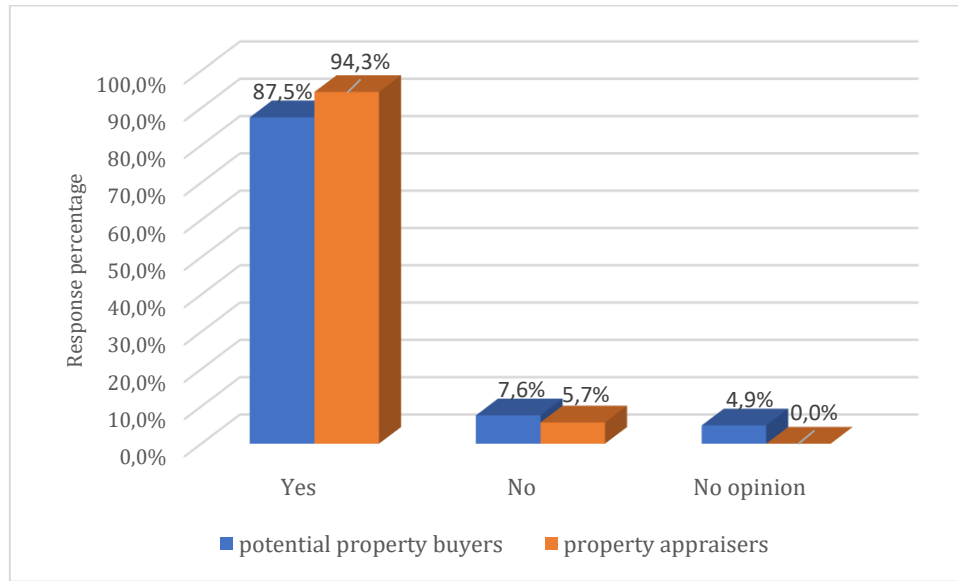


Fig. 12. Does the feature of location on the floor affect the market value of residential real estates located in buildings equipped with an elevator?
Source: own study

Table 2. Summary of cross-analysis results for the question: Does the location of a ground-floor apartment in a building built with so-called “large-panel-system” technology affect the decline in the value of a residential property?

Profile aspect of respondents	ANSWERS							
	Yes		No		It does not affect either the decrease or the increase		No opinion	
	Group 1	Group 2	Group 1	Group 2	Group 1	Group 2	Group 1	Group 2
Woman	40,0%	82,9%	31,4%	7,3%	14,3%	9,8%	14,3%	0,0%
Man	76,9%	66,7%	12,8%	0,0%	10,3%	8,3%	0,0%	25,0%
Age under 25	56,4%	57,1%	23,6%	14,3%	9,1%	28,6%	10,9%	0,0%
Age 25-40	57,1%	83,4%	25,0%	3,3%	14,3%	13,3%	3,6%	0,0%
Age 41-55	36,6%	80,0%	34,2%	10,0%	14,6%	10,0%	14,6%	0,0%
Age 56-65	46,2%	66,7%	23,0%	0,0%	15,4%	0,0%	15,4%	33,3%
Age over 65	57,1%	100,0%	14,3%	0,0%	28,6%	0,0%	0,0%	0,0%
Place of residence: village	45,2%	66,7%	25,8%	0,0%	19,4%	33,3%	17,8%	0,0%
Place of residence: city up to 20k inhabitants	31,1%	66,7%	40,0%	0,0%	11,1%	33,3%	17,8%	0,0%
Place of residence: city <20k-150k) inhabitants	60,0%	40,0%	15,0%	20,0%	15,0%	40,0%	10,0%	0,0%
Place of residence: city <150k-500k) inhabitants	41,7%	100,0%	41,7%	0,0%	16,6%	0,0%	0,0%	0,0%
Place of residence: city with more than 500 thousand inhabitants	75,0%	86,1%	11,1%	5,6%	8,3%	5,6%	5,6%	2,7%

Source: own study

DOES THE FEATURE OF LOCATION ON THE FLOOR AFFECT
THE MARKET VALUE OF RESIDENTIAL REAL ESTATES?

In group 2 of respondents, i.e. property valuers, there is generally a greater attachment to the influence of the feature "location on the floor" on the value of the property. Lower values were noted only in the case of the division into the group of men and residents living in a city with 20 to 150 thousand inhabitants. In group 1, on the other hand, the expression of lack of opinion on the question was observed much more often. Analyzing the responses of women and men in both groups, there is a lack of consistency. In the group of property valuers, 82.9% of women expressed the view that the value of the property would decrease due to its location on the ground floor, while in the group of potential buyers, this was only 40%. In turn, 76.9% of potential buyers are in favour of reducing the value compared to 66.7% of men from the group of property valuers.

Table 3. Summary of cross-analysis results for the question: Does the location of a top floor apartment in a building built with so-called "large-panel-system" technology, affect the decline in the value of a residential property?

Profile aspect of respondents	ANSWERS							
	Yes		No		It does not affect either the decrease or the increase		No opinion	
	Group 1	Group 2	Group 1	Group 2	Group 1	Group 2	Group 1	Group 2
Woman	64,8%	70,7%	10,5%	22,0%	11,4%	4,9%	13,3%	2,4%
Man	66,7%	33,3%	28,1%	16,7%	2,6%	41,7%	2,6%	8,3%
Age under 25	49,1%	57,1%	18,1%	14,3%	16,4%	14,3%	16,4%	14,3%
Age 25-40	71,4%	66,7%	21,4%	23,3%	7,2%	10,0%	0,0%	0,0%
Age 41-55	73,1%	50,0%	12,2%	20,0%	4,9%	30,0%	9,8%	0,0%
Age 56-65	76,9%	33,3%	7,7%	33,3%	0,0%	0,0%	15,4%	33,3%
Age over 65	100,0%	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Place of residence: village	64,5%	66,6%	16,1%	16,7%	3,3%	16,7%	16,1%	0,0%
Place of residence: city up to 20k inhabitants	73,3%	100,0%	13,3%	0,0%	4,4%	0,0%	0,0%	0,0%
Place of residence: city <20k-150k) inhabitants	65,0%	80,0%	10,0%	0,0%	10,0%	20,0%	15,0%	0,0%
Place of residence: city <150k-500k) inhabitants	100,0%	66,7%	0,0%	0,0%	0,0%	33,3%	0,0%	0,0%
Place of residence: city with more than 500 thousand inhabitants	44,4%	55,6%	25,0%	27,8%	22,2%	11,1%	8,4%	5,5%

Source: own study

The answers to the question about the potential decrease in the value of the property due to the location of the apartment on the top floor of the building are more diverse in the individual groups of respondents. However, it is clearly visible that women are overwhelmingly convinced of this statement (answers "yes" – 64.8% group 1 and 70.7% group 2, respectively). There is a great deal of diversity in the answers of men. Among property valuers, 33.3% answered "yes" and the vast majority of 41.7% said that it does not matter (it does not affect either the increase or decrease in the value of the property).

Finally, respondents were asked about the possible percentage decrease in the value of the property due to the location of the apartment on the ground floor in a building

constructed using large-panel-system technology. In the group of potential buyers (Fig. 13) as well as in the group of property valuers, the dominant answer was a decrease in value of 6-10%. In group 1, i.e. potential buyers, the differences in the answers of women and men in the individual ranges did not exceed 12%. While in group 2, i.e. property valuers, the differences reached almost 21% (a decrease in value of 1-5%; women 33.3% of answers, men 12.5% of answers).

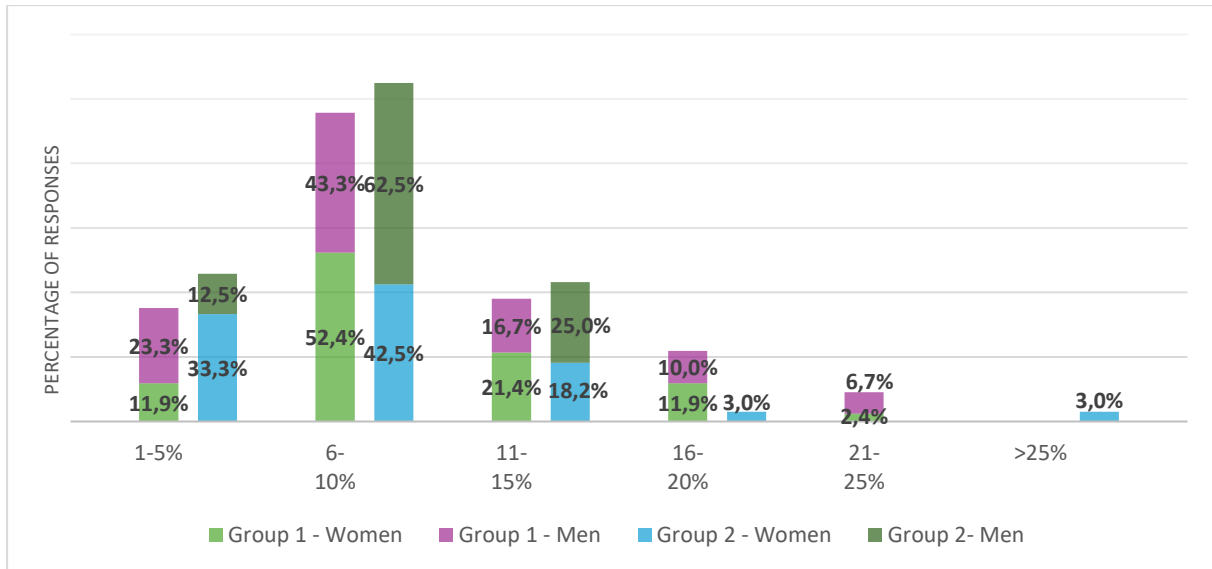


Fig. 13. Percentage decrease in value due to location of apartment on ground floor in building built with so-called "large-panel-system" technology
Source: own study

On the other hand, the answers to the question about a possible decrease in the value of the property due to the location of the apartment on the top floor in a building built with so-called "large-panel-system" technology were more varied in each group of respondents (Fig. 14). Again, the range showing a 6-10% decrease in value received the highest percentage in both groups. At the same time, in Group 1, i.e., potential buyers, a significant proportion of respondents also favored a decrease of the order of, respectively: 1-5%; 11-15% and 16-20%. In Group 2, i.e., real estate appraisers, the remaining votes were mainly spread between the ranges of 1-5% and 11-15% decrease in value. A decline in value of 16-20% was indicated only by women at 3.4% of the surveyed population.

DOES THE FEATURE OF LOCATION ON THE FLOOR AFFECT THE MARKET VALUE OF RESIDENTIAL REAL ESTATES?

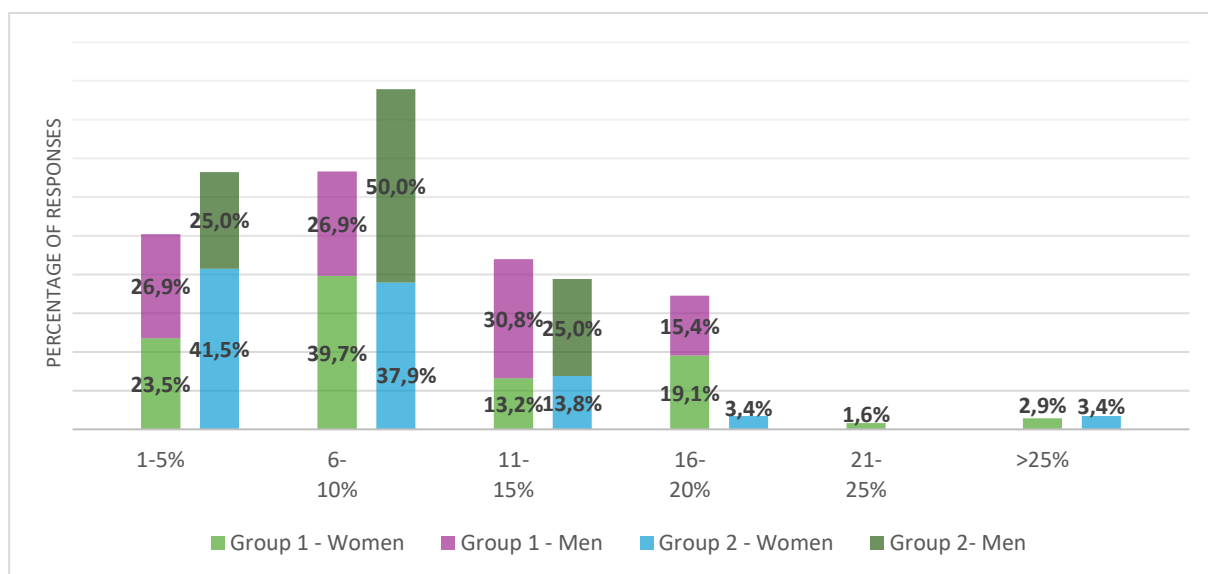


Fig. 14. Percentage decrease in value due to location of apartment on top floor in building built with so-called “large-panel-system” technology
Source: own study

Conclusions

The study focused to assess the impact of the feature of location on the floor on the value of residential real estate. The analysis covered the actual market decisions of consumers (so-called revealed preferences) and declared preferences (so-called expressed preferences). In the second case, the study was based on a survey conducted in two research groups (group 1 – potential buyers – people not professionally associated with the real estate market; group 2 – property appraisers). The analyses took into account the division of buildings by height and construction technology.

The results of the revealed preference survey prove that the feature of the location of the apartment on the floor in the building influences the value of the property, with the scale of this influence varying and depending on the spatial location of the analyzed market and the technology of construction of the building. The largest price differences were recorded for buildings built with mixed technology and tenements. On the other hand, the smallest differences in the case of buildings built with so-called “large-panel-system” technology.

In turn, the analysis of the results of stated preferences indisputably proves that in the perception of market participants and its specialists, the feature of the location of the apartment on the floor in the building is important and affects the value of the property – 98.1% of real estate appraisers and 89.4% of potential buyers indicate that the analyzed feature affects the value of the property, and in the case of a building equipped with an elevator, 94.3% and 87.5% respectively. The results are influenced by the selection of the group of respondents. Real estate appraisers spoke taking a generally unambiguous position, thus avoiding “I have no opinion” responses. In both survey groups, a comparison of the survey results shows that among the factors describing the respondents, gender significantly differentiates the results obtained. Women are more consistent in their choices while men show more variation in their responses.

Finally, respondents believe that the location of an apartment on the ground floor in a building constructed using large-panel-system technology reduces its value by 6-10%. Similarly, in the case of an apartment on the top floor in a building using the same

technology, responses in the 6-10% range predominate. In this case, the votes are additionally divided into value reduction ranges of 1-5% and 11-15%.

The above observations have cognitive value. The study can serve as a foundation for further research, particularly by comparing the results with data obtained from a larger research group and by expanding the scope of analyses.

References

- Apanowicz J. (2002). *Metodologia ogólna (General methodology)*. Gdynia: Wydawnictwo Diecezji Pelplińskiej "Bernardinum", pp. 91–93.
- Chen W., Jim C.Y. (2010). Amenities and disamenities: a hedonic analysis of the heterogeneous urban landscape in Shenzhen (China). *Geographical Journal*, vol. 176(3), pp. 227–240. <https://doi.org/10.1111/J.1475-4959.2010.00358.X>.
- Gaca R. (2019). Analiza preferencji nabywców na rynku nieruchomości. (*Analysis of Buyers' Preferences on the Real Estate Market*). In: I. Rącka (ed.): *Nieruchomość w przestrzeni 5. Tom II. Analiza rynku nieruchomości (Real estate in space 5. Volume II. Real estate market analysis)*. Bogucki Wyd. Nauk., Poznań 2019, pp. 149–157.
- Grzybowska-Brzezińska M., Kuberska D., Wojarska M. (2017). Rynek nieruchomości w Polsce w kontekście współczesnych realiów gospodarczych (*The real estate market in Poland in the context of contemporary economic realities*). Olsztyn.
- Gurbin G. (2016). Rynek nieruchomości w otoczeniu niskich stóp procentowych w Polsce w latach 2004–2014 (*The real estate market in the environment of low interest rates in Poland in 2004–2014*). *Studia i Prace WNEiZ US*, vol. 45, no. 1. DOI:10.18276/sip.2016.45/1-21.
- Kokot S. (2020). Socio-Economic factors as a criterion for the classification of housing markets in selected cities in Poland. *Real Estate Management and Valuation*, vol. 28, no. 3, pp. 77–90. <https://doi.org/10.1515/remav-2020-0025>.
- Kokot S., Bas M. (2016). Perception of market characteristics by appraisers, realtors and property buyers. *Studia i Prace WNEiZ US*, vol. 45, no. 1, pp. 355–369. <https://doi.org/10.18276/sip.2016.45/1-28>.
- Krok E. (2015). Budowa kwestionariusza ankietowego a wyniki badań (*Construction of a survey questionnaire and research results*). *Zeszyty Naukowe Uniwersytetu Szczecińskiego – Studia Informatica*, vol. 37, pp. 55–73. <https://doi.org/10.18276/si.2015.37-05>.
- Kucharska-Stasiak E. (2016). Ekonomiczny wymiar nieruchomości (*Economic dimension of real estate*). Wydawnictwo Naukowe PWN, Warszawa.
- Mączyńska E. (2010). Nieruchomości jako wyznacznik trendów rozwoju regionalnego i globalnego (*Real estate as a determinant of regional and global development trends. Mazowsze Studia Regionalne*). *Analizy i Studia*, vol. 4.
- Meese R., Wallace N. (2003). House Price Dynamics and Market Fundamentals: The Parisian Housing Market. *Urban Studies*, vol. 40, no. 5/6, pp. 1027–1045. <https://doi.org/10.1080/0042098032000074308>.

- Polny L. Wójciak E. (2015). Udziały wagowe cech rynkowych nieruchomości a preferencje potencjalnych nabywców (*Weight shares of real estate market features and preferences of potential buyers*). Świat Nieruchomości, 92, 35–41.
- Regulation of the Minister of Infrastructure of April 12, 2002 on the technical conditions to be met by buildings and their location (Journal of Laws 2022, item 1225).
- Sajnóg N., Borkowski A. (2019). Luxury real estate market in Poland. 19th International Multidisciplinary Scientific GeoConference: SGEM 2019: 30 June – 6 July, 2019, Albena, Bulgaria: conference proceedings. Informatics, geoinformatics and remote sensing. Issue 2.2, Geodesy and mine surveying, photogrammetry and remote sensing, cartography and GIS, International Multidisciplinary Scientific GeoConference & EXPO SGEM, vol. 19, nr, 2019, STEF92 Technology, 1086 p. DOI:10.5593/sgem2019/2.2.
- Sajnóg N., Jaskólska M. (2025). The Importance of Residential Real Estate Characteristics in the Assessment of Selected Groups of Real Estate Market Participants. Real Estate Management and Valuation, vol. 33, no. 2, Sciendo, 2024, pp. 1–11. <https://doi.org/10.2478/remav-2025-0011>.
- Trojanek M. (2013). Ekonomiczne uwarunkowania decyzji na rynku nieruchomości: Wybrane problemy (*Economic determinants of decisions on the real estate market: Selected problems*). Wydawnictwo Uniwersytetu Ekonomicznego.
- Witkowski P. (ed.), 2007. Raport 2006 o naprawie sytuacji mieszkaniowej (*2006 Report on the Improvement of the Housing Situation*). Warszawa.
- Wong S.K., Chau K.W., Yau Y., Cheung A.K.C. (2011). Property price gradients: the vertical dimension. Journal of Housing and the Built Environment, vol. 26, pp. 33–45. <https://doi.org/10.1007/s10901-010-9203-8>.
- Xiao Y., Hui E.C.M., Wen H. (2019). Effects of floor level and landscape proximity on housing price: A hedonic analysis in Hangzhou, China. Habitat International, vol 87, pp. 11–26. <https://doi.org/10.1016/j.habitatint.2019.03.008>.
- Zaremba A. (2011). Uwarunkowania rozwoju rynku nieruchomości jako istotnego czynnika rozwoju lokalnego (*Conditions for the development of the real estate market as an important factor in local development*). Journal of Agribusiness and Rural Development, vol. 1, no. 19, pp. 115–121.
- Ziembicka B. (2016). The influence of the technical condition of a building on the property's market value. Folia Oeconomica – Stetinensia, vol. 16, no. 1, pp. 196–207. <https://doi.org/10.1515/fofi-2016-0012>.
- Żelazowski K. (2013). Ocena atrakcyjności rynków mieszkaniowych w Polsce (*Assessment of the attractiveness of housing markets in Poland*). Acta Universitatis Lodziensis. Folia Oeconomica, vol. 289, pp. 115–127.