



EVALUER INDEX 20 24

ANALYSIS OF TRANSACTION PRICES
AND FORECASTS
FOR THE RESIDENTIAL
MARKET IN POLAND
PRIMARY AND SECONDARY MARKET



EMMERSON
EVALUATION

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Introduction

Dear Readers,

We encourage you to read the latest Evaluator Index report, which is a cyclical study of the real estate market in Poland. As every year, we presented the most important events of the past year and comprehensively analyzed the country's largest housing markets. We also attempted to predict future trends. Last year, the real estate market abounded in events with a significant impact on the entire housing sector. One of the most notable events was the announcement and entry into force of the 2% Safe Mortgage Loan program, the lowering of the prudential buffer on mortgage lending, and the first interest rate cuts in two years. Due to all these factors 2023 was a year marked by an increasing demand and rising prices in the housing market.

We do believe that this study will be positively received by you and that it will allow you to deepen your knowledge of the real estate market in Poland. We invite you to contact us for a detailed analysis and to order studies of a different scope.

Management Board of Emmerson Evaluation

Price information

This analysis includes data on transaction prices. Readers of the report should note that a transaction price should be understood only as the price at which the sale transaction was made and which was recorded in the notarial deed at the stage of the preliminary or final agreement.

Median

In this report we use the median real estate transaction prices. The median (the so-called middle value, dividing the set into two equal parts) better reflects information on real estate prices than the average, because its result are not influenced by single values deviating considerably from most transactions typical for the whole set (such as the purchase of one luxury property). In this report, all prices are given per 1 sqm of usable floor area of an apartment (PLN/sqm). For both the primary and secondary market, reference is made to gross prices.



RESIDENTIAL MARKET ANALYSIS IN 2023

Last year was very volatile. The easing of credit policy, the announcement and entry into force of the government's housing program, as well as the first reductions in NBP interest rates all affected the real estate market. Compared to 2022, there was an increase in demand, as well as increased supply. Although developers added more apartments to their sales offerings, strong demand outstripped new supply in most of the cities analyzed. This, in turn, contributed to a decline in the level of new housing offerings on the market. The number of granted mortgage loans rose sharply in the second half of the year. The declarations alone about the possibility of obtaining a low-cost mortgage loan under the 2% Safe Mortgage Loan program already translated into a revived demand in the residential real estate market in the first half of 2023. Some buyers feared that after the introduction of government support, housing prices would rise significantly and the choice of available units would be considerably reduced. People interested in taking advantage of the program also went to the sales offices to make advance reservations for housing units.

The launch on July 1, 2023 of government support for those interested in buying their first apartment attracted a great deal of interest. Creditworthiness when applying for a preferential loan was on average 30% higher compared to standard obligations. In the structure of buyers, the number of buyers financing the purchase of an apartment with a mortgage loan increased compared to 2022. In the period January-June 2023 (before the launch of the program), a total of just over 55,000 mortgage loans worth more than PLN 19 billion were granted. In the period July-December both the number as well as value of the granted mortgage loans

more than doubled - about 112,000 loans totaling almost PLN 45 billion were recorded.

As a result of the increase in demand for housing triggered by, among other things, the presence of the assistance program, people buying a unit faced a limited offer on the real estate market. Apartments purchased under the program varied depending on their location. The total amount for which one could buy a unit depended on the amount of one's own contribution, as well as top-down limits - 500,000 for a single person and 600,000 for a married couple or a couple raising a child. In smaller towns, due to lower prices in the real estate market, the program was more favorable and allowed the purchase of a larger apartment. In large Polish cities, by contrast, mainly studios and two-room apartments were eligible. Projects newly put on sale were generally characterized by higher prices. Price increases were also seen in the secondary market, where, as a result of the prevailing recovery, sellers could afford to raise the prices of the apartments on offer.

As of January 2024, acceptance of applications under the 2% Safe Mortgage Loan were discontinued due to reaching the statutory thresholds for subsidy limits. 92.6 thousand people benefited from the program totaling PLN 27.2 billion. According to data from the Credit Information Bureau, it accounted for 36% of the full-year value of lending in the home loan segment. In contrast, in the second half of the year alone, the share was more than half. Better credit availability has also contributed to the increase in demand for housing over the past year. The first signs of monetary policy easing in 2023 occurred in February, when the Financial Supervision Authority (KNF) reduced the prudential buffer for loans with a temporarily fixed interest rate to 2.5%.

In June 2023, as a result of the revision of Recommendation S, KNF again relaxed the conditions for assessing creditworthiness. The decisions of the Monetary Policy Council on interest rates also had an impact on improving creditworthiness. By September 2023, the reference rate was 6.75%. At the end of the third quarter, the Monetary Policy Council made a decision about the first decrease. Initially, the benchmark rate declined by 75 basis points to reach 5.75% a month later. Lowering of interest rates had a positive effect on mortgage loan amounts. Nonetheless, mortgage rates are still high, but borrowers are reaching for them more readily in anticipation of further rate cuts in the future.

The largest annual price increases in the primary market were recorded in Opole and Szczecin, where they amounted to 23% and 22%, respectively. Significant increases of 18% were also recorded in Warsaw and the Silesian Agglomeration.

The dynamics of price growth in the secondary market was lower, with annual rates ranging from 4% in Sopot to 17% in Rzeszow, among others. The highest median price in the primary market was invariably in Sopot, where it amounted to more than PLN 22,500/sqm. Among Poland's largest cities, the highest median prices were invariably recorded in Warsaw - PLN 16,225 per sqm. Last year, the second most expensive location with a median of PLN 14,500/sqm was Krakow, which overtook Gdynia, which was previously in second place, where a median of PLN 13,536/sqm was recorded. Unit prices below PLN 8,000 characterized locations such as Zielona Gora (nearly PLN 7,900/sqm) and particular cities in the Silesian Agglomeration, where the price reached less than PLN 7,600/sqm. The lowest price per square meter had to be paid on the primary market in Gorzow Wielkopolski, where the median was PLN 6,800. Compared to the previous year, taking into account the rank of cities, a relatively low price increase was recorded in Lodz, where it amounted to 8%. As a result, the gap between the median price in the primary market in the capital of Lodzkie Voivodeship and other major cities is widening. In 2022, developer housing prices in Lodz, Katowice and Szczecin were at similar levels. A year later, the capital of the Lodzkie Voivodeship was the cheapest, with differences between the two cities reaching as much as PLN 1,300/sqm.

In the secondary market, as in the primary market, the most expensive cities were Sopot and Warsaw with prices of nearly PLN 15,700/sqm and PLN 13,700/sqm, respectively. The only location where the median price of units on the secondary market did not exceed PLN 6,000/sqm was the Silesian Agglomeration, where prices on the secondary market reached PLN 5,200/sqm. In 2023, total primary market sales in all analyzed cities increased by 52% compared to the previous year. However, comparing with 2021, it was 13% lower. Developers responded to the increased demand by increasing their new offerings, which brought the number of apartments introduced for sale in 2023 to a total of 14% more than a year earlier. However, analyzing individual cities, fewer apartments were put on sale in the Tri-City, Wroclaw and Katowice compared to the previous year. The total pool of these units, however, was increased by new supply in Lodz, among others, where almost twice as many apartments were put on the market compared to 2022. The total number of units newly introduced onto the market in 2023 was similar to that in 2020. Considering the offering from all the analyzed cities, however, the current supply level resembles that of 2021. The record high offering over the past years was recorded at the end of 2023 in Lodz, where it amounted to more than 7,000 units at the end of the year. Only Warsaw had a higher level of supply, with about 1,600 more available apartments on offer than the capital of Lodzkie Voivodeship.

The rental market in 2023 was characterized by rent increases, but not as drastic as those experienced a year earlier. The availability of long-term rental housing increased. Some of the refugees who contributed to the increased demand for housing in 2022 left the country. The outflow of tenants was also due to an increase in demand for housing, boosted by the 2% Safe Mortgage Loan program, among other factors. This exodus of tenants will become increasingly evident as purchased apartments in development projects are put into use. The past year also saw another increase in the number of units leased under PRS rental agreements. The PRS market grew to more than 15,000 housing units of this type. Despite its rapid growth, the sector still accounts for a small share of the rental market in Poland.

RESIDENTIAL MARKET IN POLAND

MEDIAN PRICE ON THE PRIMARY AND SECONDARY MARKET
AND TREND 2023/2022 AND TREND I IH/IH2023 OF PRICE CHANGES IN 2023.

Source: Evaluator data base

	primary market			secondary market		
	median price 1 sqm	trend 23/22	trend I IH23/IH23	median price 1 sqm	trend 23/22	trend I IH23/IH23
WARSAW	16,225	18%	12%	13,769	8%	6%
KRAKOW	14,500	14%	6%	11,907	11%	6%
LODZ	9,829	8%	3%	6,985	7%	5%
WROCLAW	12,933	12%	7%	10,745	10%	6%
POZNAN	11,641	10%	8%	9,212	10%	7%
GDANSK	13,302	10%	4%	11,459	5%	4%
KATOWICE	10,079	12%	7%	6,778	6%	3%
THE SILESIA AGGLOMERATION (not incl. KATOWICE)	7,591	18%	7%	5,225	4%	3%
GDYNIA	13,536	5%	1%	10,142	6%	2%
SOPOT	22,536	4%	2%	15,691	4%	1%
SZCZECIN	11,096	22%	9%	8,189	6%	5%
BYDGOSZCZ	9,300	17%	8%	6,872	5%	3%
LUBLIN	9,443	12%	6%	8,496	9%	4%
BIALYSTOK	9,321	13%	8%	8,048	10%	5%
TORUN	9,138	12%	5%	7,753	7%	4%
RZESZOW	9,266	16%	8%	8,698	17%	8%
KIELCE	8,211	14%	3%	7,030	11%	5%
OLSZTYN	8,785	13%	5%	7,345	7%	2%
ZIELONA GORA	7,890	9%	6%	6,730	11%	4%
OPOLE	8,711	23%	9%	7,572	14%	8%
GORZOW WIELKOPOLSKI	6,800	4%	2%	6,178	14%	7%

WARSAW

Warsaw is the leader in primary market price growth among Poland's largest cities. Prices in Warsaw rose by an average of 18% throughout 2023, while the median price was PLN 16,225/sqm.

The second half of the year contributed particularly strongly to this situation, when significantly increased demand for apartments combined with limited offerings resulted in a six-month increase in median prices of 12%. Developers, responding to market demand, increased the number of newly launched apartments on the market, but the rapid increase in sales caused another decline in the number of available apartments in new developments.

In the second half of 2023, developers added more than 10,300 units to the capital's housing portfolio in 96 new developments or subsequent phases. This represents a more than a double growth (up 124%) compared to the first half of the year. The number of newly launched apartments in Warsaw in the period July-December 2023 was the highest since the second half of 2018. New developments appeared in 15 of the city's 18 districts. Most apartments were put on sale in Bialoleka, Mokotow, Praga-Polnoc and Wlochy. In total, almost 60% of the newly launched apartments were located there. This is due to the fact that in the aforementioned districts the supply of investment land is still relatively good, which makes developers eager to locate their projects there. In the remaining districts, less than 1,000 units were put on sale, while no new developments were reported in Ochota, Wola and Zoliborz.

In Warsaw, at the end of December 2023, the supply of apartments available for sale on the primary market amounted to more than 8,600 units. Compared to the first half of this year, the offer remained at a similar

level (it decreased by merely 3%).

However, comparing with the same period of the previous year, this number has already decreased by 30% and reached the lowest value in the analyzed decade. The largest number of apartments at the end of the second half of 2023 were offered in the Bialoleka and Mokotow districts - about 1,200 in each. There was also a high offering in the districts of Praga-Polnoc and Wlochy. These four districts together accounted for more than half of the supply in Warsaw. These are the same locations where the largest number of apartments were introduced for sale, which is indicative of the current dynamics of the residential market in these neighborhoods. The smallest supply characterized Ochota district (less than 40 apartments), where no new projects were launched in the last six months.

In 3Q and 4Q of 2023, more than 9,500 apartments were sold on the primary market in Warsaw. This represents an increase of 23% compared to the first half of the year. Compared to the second half of 2022, the increase was more than double. The district with the highest number of units sold was Bialoleka, where their number amounted to more than 1,700. Investments occurring in the area are more affordable and eligible for the government program. High sales also characterized the districts of Praga-Poludnie, Ursus and Wlochy.

In Warsaw, despite an increase in the number of apartments newly introduced onto the market, the supply of units at the end of 2023 decreased, continuing the trend observed since mid-2022.

Responding to the growing demand, developers augmented the supply with new apartments, but the increase in sales levels meant that the offer nevertheless shrank. The highest prices on the primary market in Warsaw invariably characterize Srodmiescie district, where the median price per square meter is over PLN 38,000. Median prices of more than PLN 20,000/sqm occur in central, well-connected districts such as Wola, Zoliborz and Ochota. In Wola, it reached nearly PLN 24,000/sqm, which is due to the presence there of almost exclusively premium investments. In addition, in the structure of units is important, where 64% are 1 and 2-bedroom apartments, which reach the highest prices per square meter. In 2023, the largest annual increases in median prices were recorded in the following districts: Srodmiescie, Bielany and Bemowo. In Srodmiescie the change was 29%, which besides the

market conditions, was influenced by the fact that there are only two projects in the district, both with a premium standard. In Bielany, the number of investments increased and a significant share of the offer is made up of apartments introduced relatively recently, which had higher prices. The district is a very attractive place to live because of its extensive infrastructure, green areas, security and good transportation, so it is in high demand among buyers. The price increase in Bemowo is due to the fact that some of the apartments for sale are located in close proximity to the subway line under construction. In Warsaw's secondary market, prices in the past year increased by 8% compared to a year back. Higher price increases occurred in the second half of last year - 6%. The highest increases occurred in Wlochy district (by 21%), while the lowest in Bielany district (by 4%).

MEDIAN PRICE ON THE PRIMARY AND SECONDARY MARKET AND TREND 2023/2022 AND TREND IIH23/IH23 OF PRICE CHANGES IN 2023.

Source: Evaluator data base

CHANGES ON THE DEVELOPER'S MARKET 2023/2022

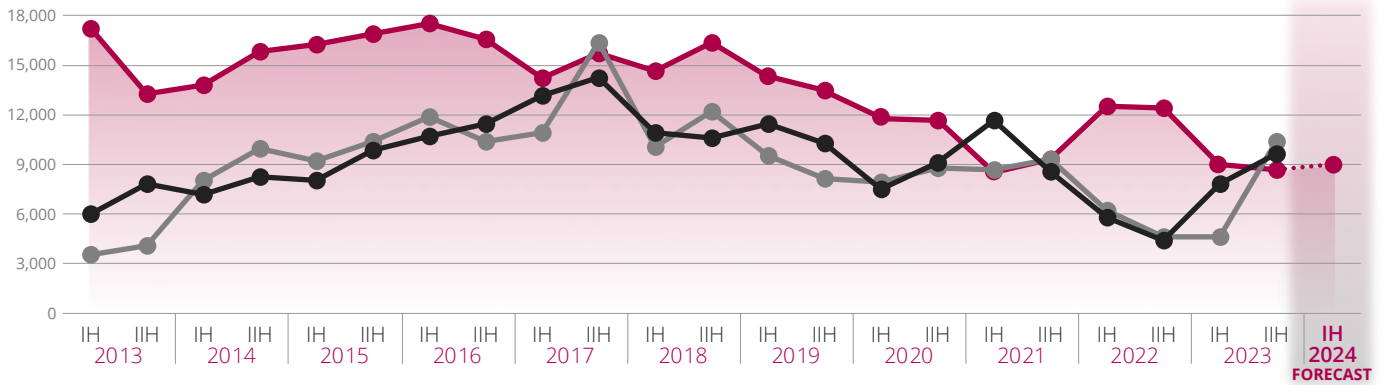
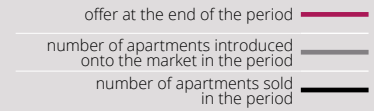
Source: Emmerston Evaluation based on Evaluator data

	primary market			secondary market		
	median price 1 sqm	trend 23/22	trend IIH23/IH23	median price 1 sqm	trend 23/22	trend IIH23/IH23
Bemowo	16,048	25%	16%	12,758	14%	6%
Bialoleka	11,609	16%	13%	10,639	8%	3%
Bielany	17,847	27%	8%	12,451	4%	3%
Mokotow	19,690	24%	6%	14,722	5%	3%
Ochota	22,237	10%	3%	14,373	7%	7%
Praga-Poludnie	15,417	12%	11%	12,572	5%	2%
Praga-Polnoc	17,694	18%	5%	13,405	7%	5%
Rembertow	11,575	14%	3%	9,908	15%	7%
Srodmiescie	38,413	29%	14%	18,876	14%	12%
Targowek	13,700	19%	14%	12,000	13%	6%
Ursus	13,370	21%	19%	11,611	19%	6%
Ursynow	18,320	23%	12%	13,592	5%	5%
Wawer	11,374	21%	8%	11,074	14%	2%
Wesola	11,147	12%	3%	9,692	9%	9%
Wilanow	16,623	24%	21%	16,816	16%	11%
Wlochy	14,475	18%	13%	13,859	21%	8%
Wola	23,946	20%	2%	15,506	14%	8%
Zoliborz	25,934	-	9%	16,161	5%	4%



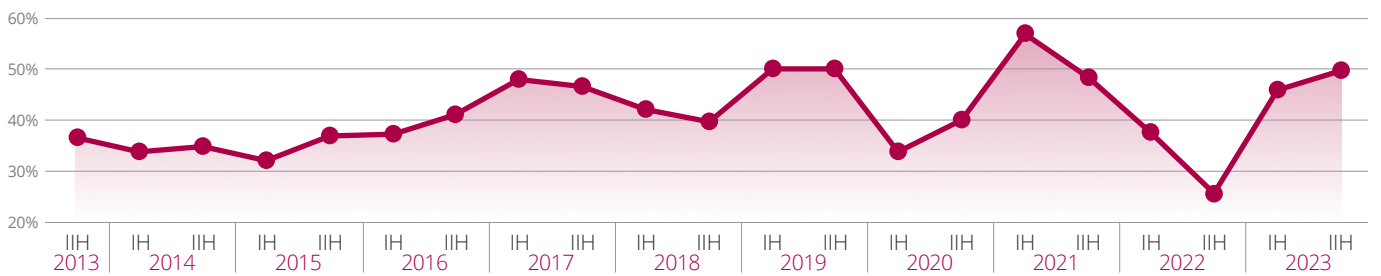
SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET WITH A SUPPLY FORECAST PRIMARY MARKET

Source: Emmerson Evaluation based on Evaluator data



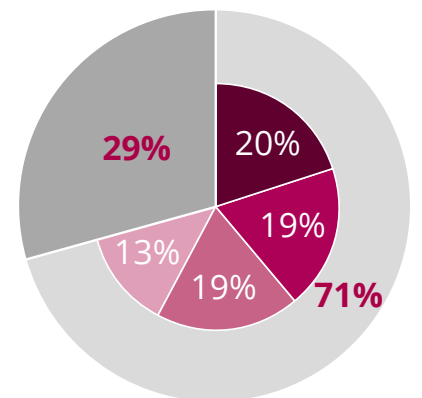
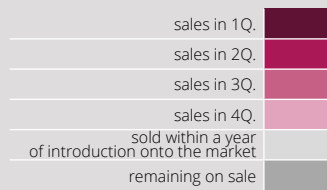
RELATION OF APARTMENTS SOLD TO TOTAL OFFERING PRIMARY MARKET

% of the sold offering in the given period
Source: Emmerson Evaluation based on Evaluator data



AVERAGE RATE OF SALES OF FLATS IN 2023 IN INVESTMENTS INTRODUCED ONTO THE MARKET IN 1Q. 2023* [%] PRIMARY MARKET

*% of apartments sold in individual quarters of the year after the introduction of the investment onto the market (average)
Source: Emmerson Evaluation based on Evaluator data



Srodmiemie remained the most expensive district, where the median at the end of 2023 was over PLN 18,800/sqm. The disparity between the price on the primary and secondary markets in the district is due to the large share of apartments in older buildings, often managed by housing cooperatives. The largest number of secondary market transactions was recorded in Mokotow district. In the structure of apartments sold last year in the capital city most were 2-bedroom

apartments, which accounted for 46% of all transactions. In the second half of 2023, in terms of prices, the Safe Mortgage Loan 2% program potentially covered about 45% of the apartments sold on the secondary market, assuming a limit for couples of PLN 600,000. Taking into account the additional maximum own contribution of PLN 200,000, the share rose to about 75% of the transaction.

KRAKOW

In Krakow's primary market, median unit prices amounted to PLN 14,500, which translates into an annual increase of 14%. For the second half of the year, the number of units introduced and sold was at a similar level. In Krakow's primary real estate market in Q3 and Q4 of 2023 a total of 4,300 apartments in 50 new developments or stages were introduced for sale, resulting in a 34% increase compared to the first half of the year.

Compared to the same time last year, when developers introduced a very small number of new units into the market, the current value is almost three times higher. The period from October to the end of December was characterized by a particularly large number of newly introduced units - 2,500. In the second half of 2023, the largest number of new apartments were added to the offering in the districts of Podgorze and Pradnik Bialy, which together held a 41% share of the new supply. These are the most dynamically developing districts in Krakow in terms of housing. In addition, infrastructure investments, such as the construction of a high-speed tramway, are located in Pradnik Bialy. A relatively large number of new apartments was also recorded in the Debniki district - more than half a thousand units. In districts such as Stare Miasto, Czynyny and Krowdrza, no new developments were put on the market in the second half of 2023.

In the second half of 2023, the offering of apartments in the primary market decreased by 9% semiannually and amounted to almost 4,300 units, the lowest value over the past 10 years analyzed in the report.

The number of newly introduced apartments for sale which was lower than the number of apartments sold in 2023 impacted the low level of offering in December 2023. Considering the level of supply by district, the largest number of apartments on offer, as in the case of units newly introduced for sale, was in Pradnik Bialy and Podgorze. These were 21% and 16% of the offerings, respectively.

Krakow was one of the few large cities in Poland where the number of apartments sold on the primary market in the second half of 2023 was slightly lower than in the first. Sales volume, however, still remained relatively high, reaching nearly 4,500 units, an increase of 79% over the second half of the previous year. Podgorze and Pradnik Bialy districts in Q3 and Q4 of 2023 accounted jointly for 34% of sales in the city.

There is currently an equilibrium in the Krakow primary market. The number of newly introduced apartments is very close to the number of units sold and the current supply. This shows that developers are adjusting supply to demand. In Krakow, the price median of the primary market at the end of 2023 was PLN 14,500/sqm, an annual increase of 14%.

MEDIAN PRICE ON THE PRIMARY AND SECONDARY MARKET AND TREND 2023/2022 AND TREND I/H23/I/H23 OF PRICE CHANGES IN 2023.

Source: Evaluator data base

	primary market			secondary market		
	median price 1 sqm	trend 23/22	trend I/H23/I/H23	median price 1 sqm	trend 23/22	trend I/H23/I/H23
Krowdrza	14,432	11%	9%	12,190	10%	6%
Nowa Huta	11,912	18%	8%	10,895	14%	10%
Podgorze	13,869	19%	14%	11,859	12%	6%
Srod miescie	19,352	10%	4%	13,551	9%	8%

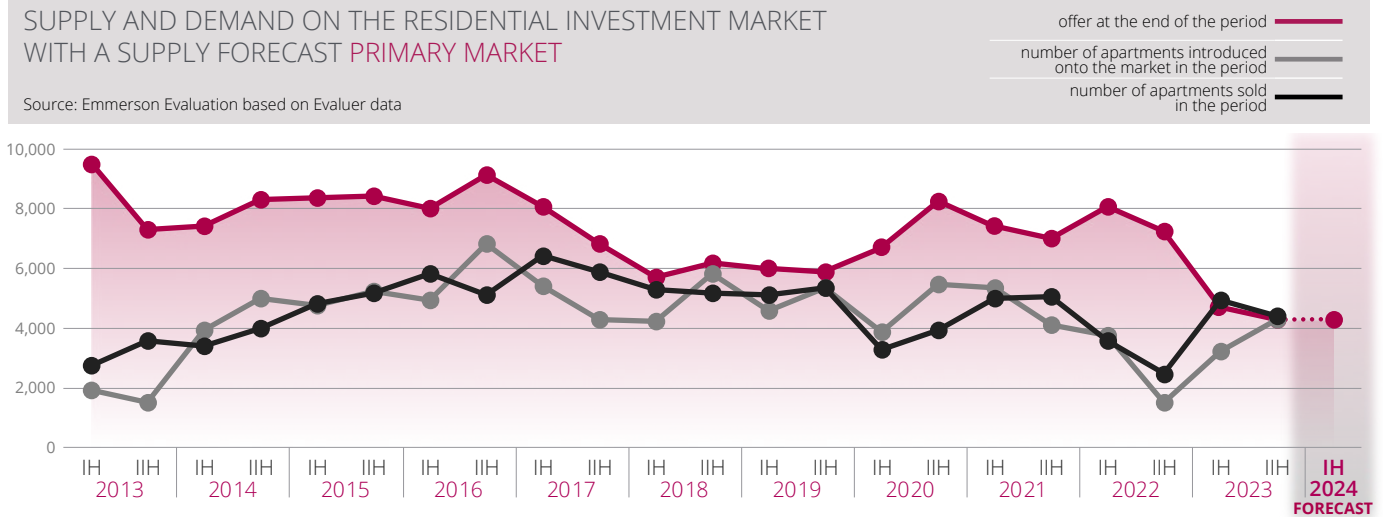
CHANGES ON THE DEVELOPER'S MARKET 2023/2022

Source: Emmerson Evaluation based on Evaluator data



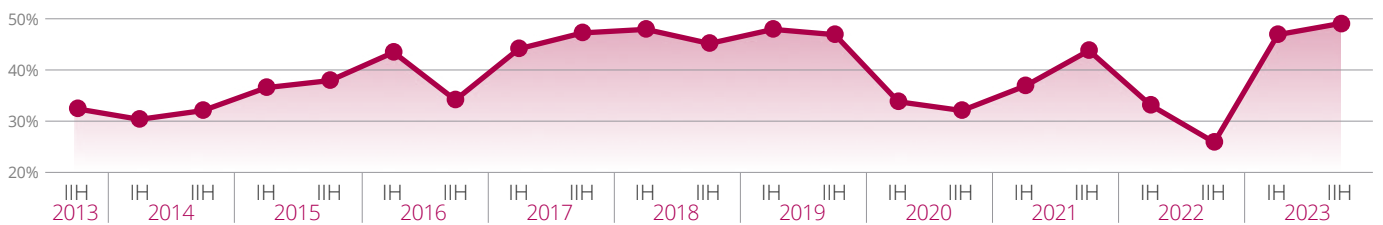
SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET WITH A SUPPLY FORECAST PRIMARY MARKET

Source: Emmerson Evaluation based on Evaluator data



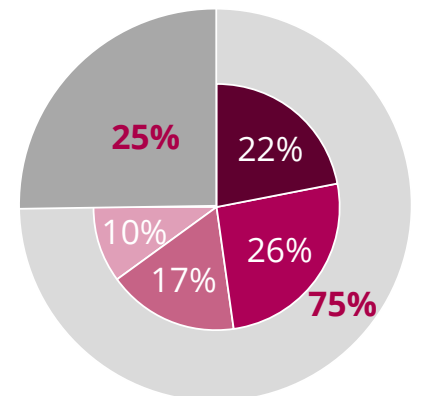
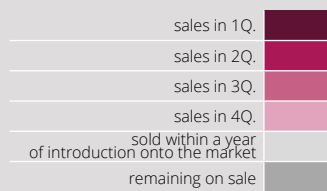
RELATION OF APARTMENTS SOLD TO TOTAL OFFERING PRIMARY MARKET

% of the sold offering in the given period
Source: Emmerson Evaluation based on Evaluator data



AVERAGE RATE OF SALES OF FLATS IN 2023 IN INVESTMENTS INTRODUCED ONTO THE MARKET IN 1Q. 2023* [%] PRIMARY MARKET

*% of apartments sold in individual quarters of the year after the introduction of the investment onto the market (average)
Source: Emmerson Evaluation based on Evaluator data



The highest unit price characterizes Srodmiescie district, where the median reached more than PLN 19,300. The district with the highest price growth rate was Podgorze, where the median price of a square meter increased by 19% per year and by the end of 2023 was nearly PLN 13,900.

In Krakow, unit housing prices also increased in the secondary market. Taking the entire city into account, the median increased annually by 11% and reached nearly PLN 12,000/sqm. The highest annual increases were recorded in districts of Nowa Huta (14%) and Podgorze (12%). As in the primary market, the most expensive district in the secondary market was also Srodmiescie, where, at the end of December

2023, median unit prices exceeded PLN 13.5 thousand. Over the past year, prices there rose by 9%. On Krakow's secondary market, buyers chose primarily 2-bedroom apartments - they accounted for 50% of the sale agreements recorded in 2023. The largest number of transactions of second-hand apartments was recorded in Podgorze district.

In the second half of last year, about 55% of the apartments sold on the secondary market were priced at up to PLN 600,000, and so were potentially within the limit for couples under the 2% Safe Mortgage Loan program. When augmenting this figure with a maximum own contribution of PLN 200,000, the share rose to about 85%.

WROCLAW

In Wroclaw's primary market, the units remaining on offer at the end of 2023 recorded a median price per square meter of nearly PLN 13,000. It was 12% higher than a year earlier. Comparing the six-month dynamics of price changes, the first half saw a median increase of 5%, while the second half saw a 7% increase.

In July-December 2023, the lowest number of apartments were put on sale since the second half of 2013. Increasing demand with low supply of new units resulted in a drastically low level of available supply, which at the end of December 2023 amounted to less than 4,000 units. This result is almost 40% lower than in 2022, when the number of available housing units exceeded 6,500 at the end of December.

In the second half of 2023, developers launched 2,300 residential units within 26 new developments or project stages, by 14% less than in the first half of the year. The largest number of newly introduced apartments was recorded in Krzyki district - more than 900 units. This represents a 40% share in the structure of all new housing stock. Krzyki district continues to be the most attractive part of the city for investors due to the availability of big plots of land, where it is possible to build multi-stage housing developments. Buyers, in turn, choose this location for its numerous green areas and good transportation to the city center. In Stare Miasto and Srodmiescie districts in the second half of last year

developers decided not to start selling new projects.

In Wroclaw, at the end of 2023, the largest number of available apartments was in Krzyki district - 38% of the entire city's offering. In the districts where no new investments were introduced in the past half of the year, the offering decreased the most. The smallest supply was recorded in Srodmiescie district - not even 350 apartments.

During the year, a total of more than 7,400 residential units were sold on Wroclaw's primary market. More sales transactions were recorded in the second half of the year - more than 4,000. This was 20% higher than in the period of January-June. Compared to the second half of 2022, sales rose by 85%.

The largest number of units in the past six months in the capital of the Lower Silesian Voivodeship was sold in Krzyki district - more than 1,500 units. The smallest number of sales transactions in the primary market was recorded in Srodmiescie district - about 350 units, influenced by the low level of offerings and the highest unit prices.

MEDIAN PRICE ON THE PRIMARY AND SECONDARY MARKET AND TREND 2023/2022 AND TREND IIH/IH2023 OF PRICE CHANGES IN 2023.

Source: Evaluator data base

	primary market			secondary market		
	median price 1 sqm	trend 23/22	trend IIH23/IH23	median price 1 sqm	trend 23/22	trend IIH23/IH23
Fabryczna	11,213	15%	9%	10,287	8%	5%
Krzyki	12,271	16%	9%	11,173	13%	8%
Psie Pole	11,060	11%	6%	10,404	13%	8%
Stare Miasto	15,331	7%	5%	11,848	10%	7%
Srodmiescie	15,712	7%	5%	10,862	3%	3%

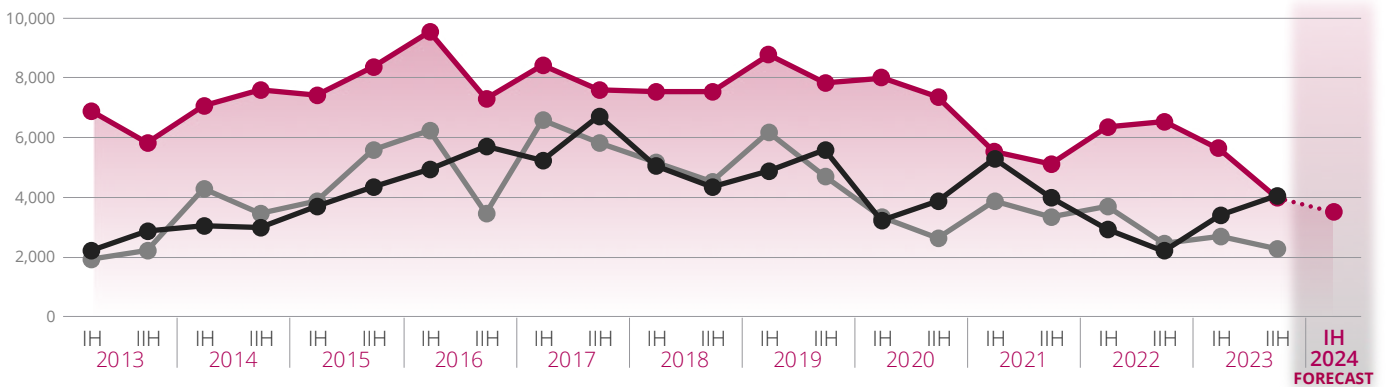
CHANGES ON THE DEVELOPER'S MARKET 2023/2022

Source: Emmerson Evaluation based on Evaluator data

Total offering	
Number of apartments introduced onto the market	

SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET WITH A SUPPLY FORECAST PRIMARY MARKET

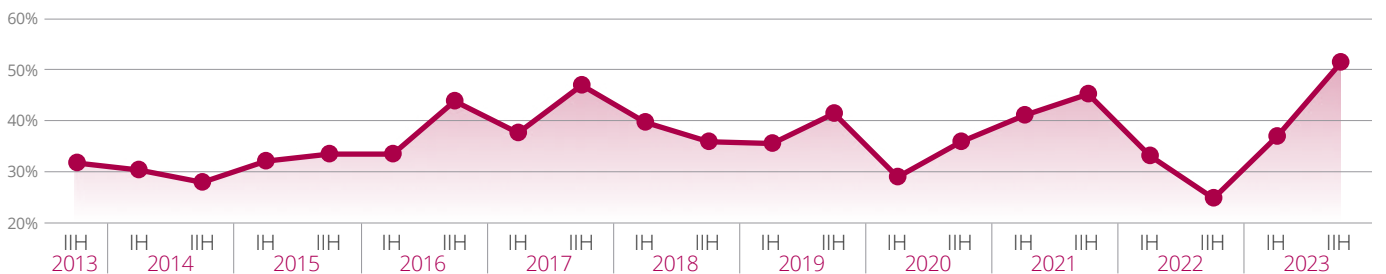
Source: Emmerson Evaluation based on Evaluator data



RELATION OF APARTMENTS SOLD TO TOTAL OFFERING PRIMARY MARKET

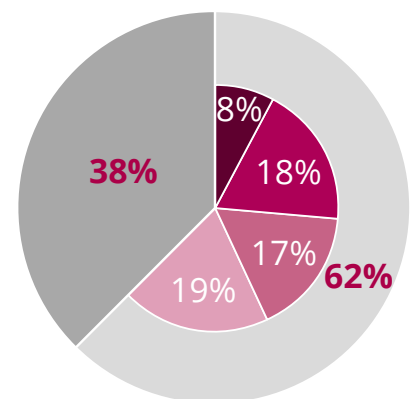
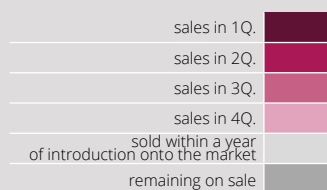
% of the sold offering in the given period

Source: Emmerson Evaluation based on Evaluator data



AVERAGE RATE OF SALES OF FLATS IN 2023 IN INVESTMENTS INTRODUCED ONTO THE MARKET IN 1Q. 2023* [%] PRIMARY MARKET

*% of apartments sold in individual quarters of the year after the introduction of the investment onto the market (average)
Source: Emmerson Evaluation based on Evaluator data



In the primary market, the highest price increases in the past year were recorded in Krzyki district, where the median price per square meter on an annual basis rose by 16% to more than PLN 12,200/sqm. The highest unit price was in Srodmiescie district, where at the end of December 2023 the median amounted to PLN 15.7 thousand/sqm. Investments on sale in Wroclaw's Srodmiescie district were mostly characterized by higher quality and standard of finishing, which influenced higher prices in this district. The lowest median unit price at PLN 11,000 was in Psie Pole district.

In the secondary market, on an annual basis, the median price of one square meter increased by 10% and at the end of 2023 was over PLN 10,700. In the first half

of last year the increases amounted to 4% whereas in the second half to 6%. The highest price increases for apartments on Wroclaw's secondary market were recorded in Krzyki and Psie Pole districts - by 13% each compared to the previous year. The highest number of transactions was recorded in Krzyki district. Buyers were most likely to choose 2-bedroom apartments - transactions of such units accounted for 44% of the structure of all units purchased in this district. The 2% Safe Mortgage Loan 2% program potentially covered about 70% of the secondary market apartments sold in the second half of the year in terms of price, assuming a maximum limit for couples of PLN 600,000. Augmenting this figure with a maximum own contribution of PLN 200,000, the share rose to about 90%.

POZNAN

Prices on Poznan's primary market rose by 10% compared to 2022. At the end of December 2023, the median price per square meter amounted to more than PLN 11,600. In half-year terms, the higher price growth was in the second half of the year, when it amounted to 7% compared to the January-June period.

In the second half of the year, the number of newly introduced and sold apartments was at an even level, which may indicate the correct response of developers to the existing demand. More than 2,700 units were added to the offerings in 23 new projects, and sales amounted to nearly 2,600 units.

The largest number of newly introduced apartments was added Stare Miasto district's offerings in the second half of 2023. The units located there accounted for 33% of the total supply on the primary market in Poznan. Developers are locating most of their investments in parts of the district far away from the city center, such as Naramowice, where land is still available for multifamily housing. A large number of apartments were also introduced onto the market in Grunwald district. The fewest units were introduced for sale in Wilda district - about 240 apartments.

At the end of 2023, more than 4,200 apartments were available on the primary market in Poznan. Most of them (28% of the total supply) were located in Stare Miasto district. The lowest number of apartments were

for sale in the smallest Poznan's district Wilda, where the share amounted to 5% of the supply. The offering in other districts was at a similar level, ranging from 21% to 23% of the all the available apartments.

During the year, a total of nearly 4,500 residential units were sold in Poznan. More transactions were recorded in the second half of 2023, when nearly 2,600 units were sold, an increase of 60% compared to the same period in the previous year.

The highest number of transactions in July-December was observed in Grunwald district - a 29% share of total sales in the city. In contrast, the fewest apartments were sold in Wilda district, which was also characterized by the lowest supply. The number of transactions there didn't even reach 90.

The highest median price per square meter in the primary market was recorded in Wilda district, where at the end of 2023 it amounted to more than PLN 12,500, which translates into an annual increase of 11%. The lowest prices were recorded in Grunwald and Jezyce districts, where the median price was just over PLN 11,000/sqm.

MEDIAN PRICE ON THE PRIMARY AND SECONDARY MARKET AND TREND 2023/2022 AND TREND I/H23/I/H23 OF PRICE CHANGES IN 2023.

Source: Evaluator data base

	primary market			secondary market		
	median price 1 sqm	trend 23/22	trend I/H23/I/H23	median price 1 sqm	trend 23/22	trend I/H23/I/H23
Grunwald	11,041	9%	4%	9,377	11%	7%
Jezyce	11,076	3%	2%	9,767	12%	9%
Nowe Miasto	11,757	15%	8%	9,284	4%	3%
Stare Miasto	12,192	11%	6%	8,868	10%	6%
Wilda	12,579	11%	9%	9,501	9%	8%

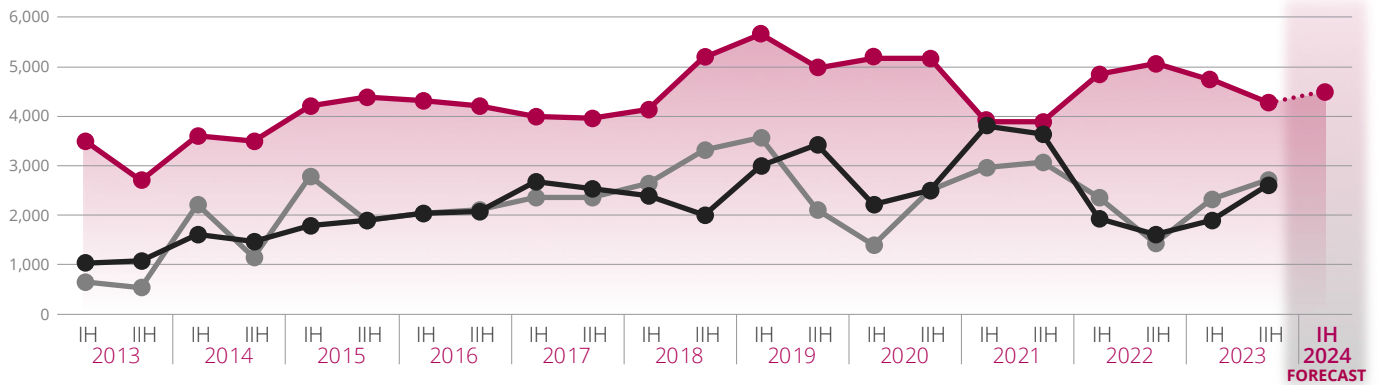
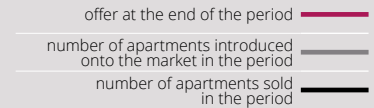
CHANGES ON THE DEVELOPER'S MARKET 2023/2022

Source: Emmerson Evaluation based on Evaluator data

Total offering	
Number of apartments introduced onto the market	

SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET WITH A SUPPLY FORECAST PRIMARY MARKET

Source: Emmerson Evaluation based on Evaluator data



RELATION OF APARTMENTS SOLD TO TOTAL OFFERING PRIMARY MARKET

% of the sold offering in the given period

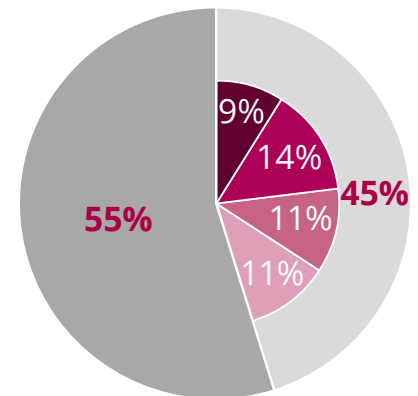
Source: Emmerson Evaluation based on Evaluator data



AVERAGE RATE OF SALES OF FLATS IN 2023 IN INVESTMENTS INTRODUCED ONTO THE MARKET IN 1Q. 2023* [%] PRIMARY MARKET

*% of apartments sold in individual quarters of the year after the introduction of the investment onto the market (average)

Source: Emmerson Evaluation based on Evaluator data



The highest price growth dynamics, however, was recorded in Nowe Miasto district, where the median price increased by 15% and at the end of 2023 reached more than PLN 11,700/sqm. In the secondary market, prices of apartments rose by 10% a year. The median unit price of apartments at the end of 2023 in Poznan was over PLN 9,200. A higher rate of price growth dynamics was recorded in the second half of the year - 7% compared to the first half. The highest price increase - of 12% a year - was recorded in Jezyce district. The median unit prices there reached nearly PLN 9,800. Price median rose the least in Nowe Mias-

to district - by 4% a year.

The highest number of transactions (47% of all those concluded in 2023) on the secondary market was recorded in Stare Miasto district. They concerned primarily 2-bedroom units, which accounted for 51% of all transactions in the city. Apartments that potentially, in terms of price limits, fell within the government program (PLN 600 thousand for couples) accounted for about 80% of secondary market transactions in the second half of 2023. The share of units sold for the maximum amount of PLN 800 thousand, assuming the highest own contribution limit, was about 95%.

TRI-CITY

In the second half of 2023, the primary market in the Tri-Cities saw a decrease in the offer of available apartments when compared to the first half of the year. This, combined with a significant increase in sales of units, resulted in an annual increase in the price median ranging from 4% in Sopot to 10% in Gdansk.

In Gdansk, in the last two quarters of last year, the number of apartments put on sale increased by 46% compared to the first half of the year. This was due to the introduction of a significant number of apartments onto the market in the October-December period (about 1,500 units). Most of the city's investments appeared in areas near its southern borders, a considerable distance from the center. In Gdynia, developers introduced just 3 new projects onto the market, offering a total of more than 160 apartments, a drop of more than 70% compared to the first half of 2023.

In the Tri-City residential market, the total supply at the end of 2023 was more than 4,800 units. It consisted of more than 3,800 units in Gdansk, almost 900 in Gdynia and about 100 in Sopot. Compared to the first half of 2023, the offerings in these cities decreased by 24%, 35% and 31%, respectively.

The level of sales on the primary market in the Tri-City in the second half of 2023 increased by 47% compared to the first half of the year and amounted to almost 4,700 apartments. In Gdansk, sales reached a figure of about 4,000 apartments.

MEDIAN PRICE ON THE PRIMARY AND SECONDARY MARKET AND TREND 2023/2022 AND TREND I/H23/I/H2023 OF PRICE CHANGES IN 2023.

Source: Evaluator data base

	primary market			secondary market		
	median price 1 sqm	trend 23/22	trend I/H23/I/H23	median price 1 sqm	trend 23/22	trend I/H23/I/H23
GDANSK	13,302	10%	4%	11,459	5%	4%
GDYNIA	13,536	5%	1%	10,142	6%	2%
SOPOT	22,536	4%	2%	15,691	4%	1%

CHANGES ON THE DEVELOPER'S MARKET 2023/2022

Source: Emmerson Evaluation based on Evaluator data

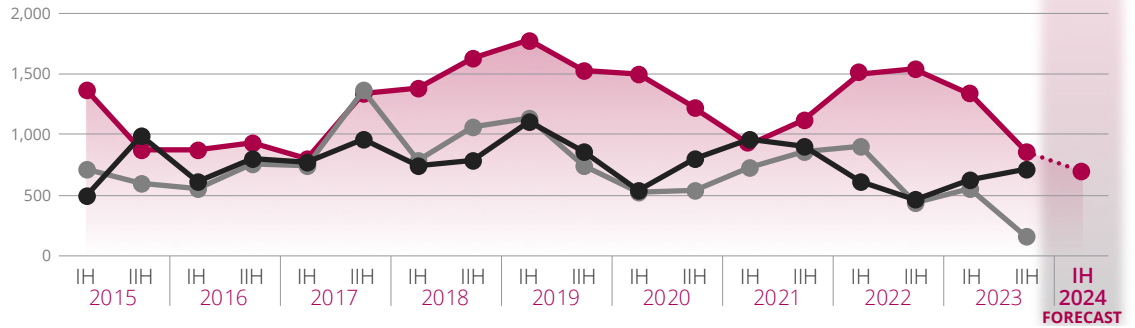
	GDANSK	GDYNIA
Total offering		
Number of apartments introduced onto the market		

SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET
WITH A SUPPLY FORECAST PRIMARY MARKET

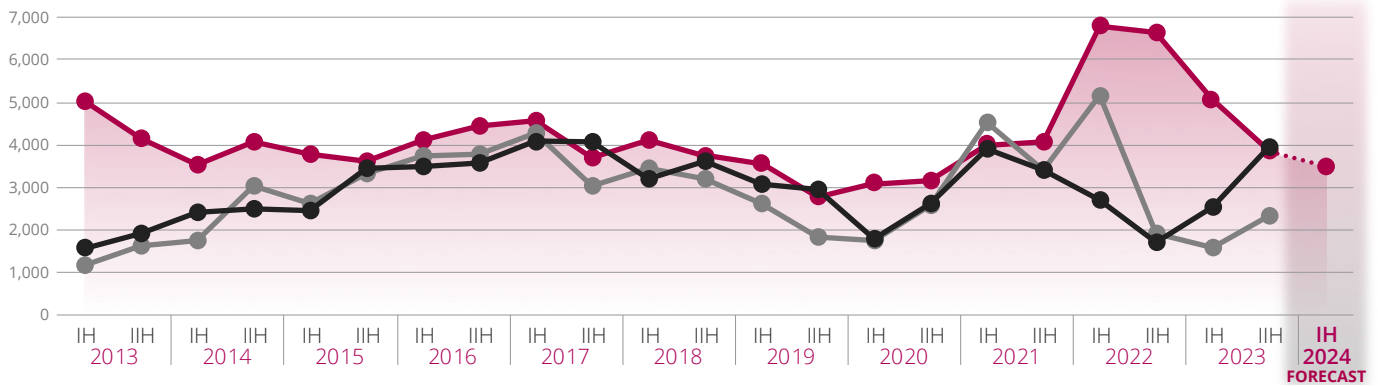
Source: Emmerson Evaluation based on Evaluator data

offer at the end of the period
number of apartments introduced onto the market in the period
number of apartments sold in the period

GDYNIA



GDANSK

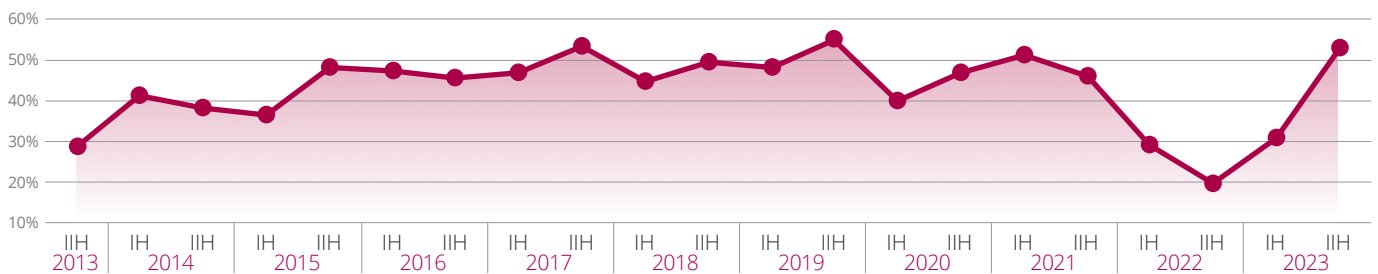


RELATION OF APARTMENTS SOLD TO TOTAL OFFERING PRIMARY MARKET

The data presented concern GDANSK

% of the sold offering in the given period

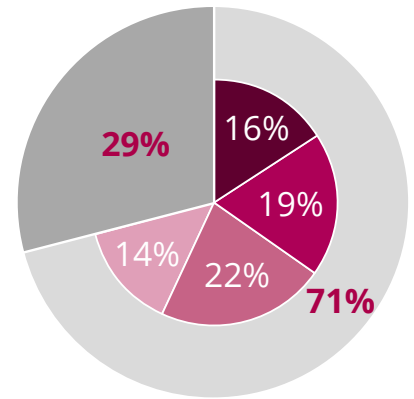
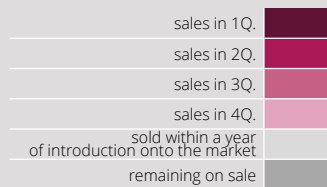
Source: Emmerson Evaluation based on Evaluator data



AVERAGE RATE OF SALES OF FLATS
IN 2023 IN INVESTMENTS
INTRODUCED ONTO THE MARKET
IN 1Q. 2023* [%]

PRIMARY MARKET

*% of apartments sold in individual quarters of the year after the introduction of the investment onto the market (average)
Source: Emmerson Evaluation based on Evaluer data



Compared to the second half of 2022 it was more than a twofold increase. The third quarter particularly contributing to this result, which accounted for almost 60% of half-year sales. In Gdynia, 720 units were sold in the period from July to December, while in Sopot - more than 40.

Prices of apartments on the primary market in the Tri-Cities in 2023 rose between 4% and 10% per year, depending on the city. The highest trend is in Gdansk, where they reached a median of PLN 13.3 thousand/sqm. At a similar price level, with a median of more than PLN 13,500/sqm, was recorded for apartments in Gdynia. The lower unit price in Gdansk is due to the large number of units on offer located a considerable distance from the center, which obtain lower prices. In Gdynia, on the other hand, premium projects dominate the offering. The highest prices invariably characterize Sopot, which, due to its resort characteristics, offers almost exclusively high-end apartments. In 2023, the median there was more than PLN 22,500/sqm.

In the Tri-City, annual price growth in the secondary market was lower than in the primary market, at 5% in Gdansk, 6% in Gdynia and 4% in Sopot. In Gdynia, second-hand apartments reached a lower median than in Gdansk, due to a larger share of transactions in older housing and units with more than 3 rooms. On the other hand, the Gdansk secondary market is characterized by a large share of new-built units, reaching up to 80%. In both Gdansk and Gdynia, 2-bedroom units were the most popular, accounting for 49% and 45% respectively in the structure of all transactions recorded in the secondary market in these cities. In the second half of 2023, the Tri-City, in terms of prices, the government program potentially covered about 60% of the apartments sold on the secondary market in Gdansk and about 70% in Gdynia, assuming a limit for couples of PLN 600,000. Taking into account the maximum own contribution of PLN 200,000, the share rose to about 80% and 85%, respectively.



LODZ

The primary market in Lodz underwent considerable changes in the past year. The median price of one square meter of new units, at the end of 2023, amounted to more than PLN 9,800, up 8% year-on-year.

Starting in the second half of 2022, the primary market has seen a rise in both the number of newly introduced apartments and those on offer. The number of apartments sold has also increased but with lower dynamics. At the end of December 2023, Lodz recorded the highest level of offering over the past years analyzed in the report, which amounted to more than 7,000 units. The reason for such a large number of available apartments was the launch of projects with a significant number of units and a high supply of land for a city of this size.

Over the past year, developers introduced a total of 71 new projects - 32 in the first half of the year and 39 in the second. In 2023, a total of more than 6,800 new apartments were introduced onto the Lodz market. In the second half of the year, despite a similar number of new developments, twice as many apartments were introduced for sale as in the first. In July-December of last year, the largest number of units were introduced for sale in Polesie and the Srodmiescie districts.

The apartments located there accounted for 60% of the new supply. On the other hand, the fewest apartments were introduced in Gorna district - about 350 units.

At the end of December 2023, the largest number of units was available in Polesie district - just over 2,500 apartments, accounting for 36% of the offering in Lodz. The fewest apartments were available in Gorna district (not even 580 units). The unprecedented current offering of apartments on the primary market in Lodz over the years under review is due to a significant number of newly introduced developments offering a large number of residential units (one development has almost 430 units on offer). One factor that makes developers eager to invest in Lodz is the revitalization processes underway in the city. They contribute to the development of undeveloped properties and those built up with decapitated buildings. Urbanization transformations are taking place along with socio-economic changes. Lodz is an increasingly important job market and an important educational center.

MEDIAN PRICE ON THE PRIMARY AND SECONDARY MARKET AND TREND 2023/2022 AND TREND I IH23/IH23 OF PRICE CHANGES IN 2023.

Source: Evaluator data base

	primary market			secondary market		
	median price 1 sqm	trend 23/22	trend I IH23/IH23	median price 1 sqm	trend 23/22	trend I IH23/IH23
Baluty	8,894	7%	5%	6,637	9%	7%
Gorna	8,939	8%	6%	6,785	7%	3%
Polesie	9,280	9%	4%	7,141	8%	7%
Srodmiescie	11,319	5%	4%	7,076	5%	1%
Widzew	9,203	13%	3%	6,972	8%	6%

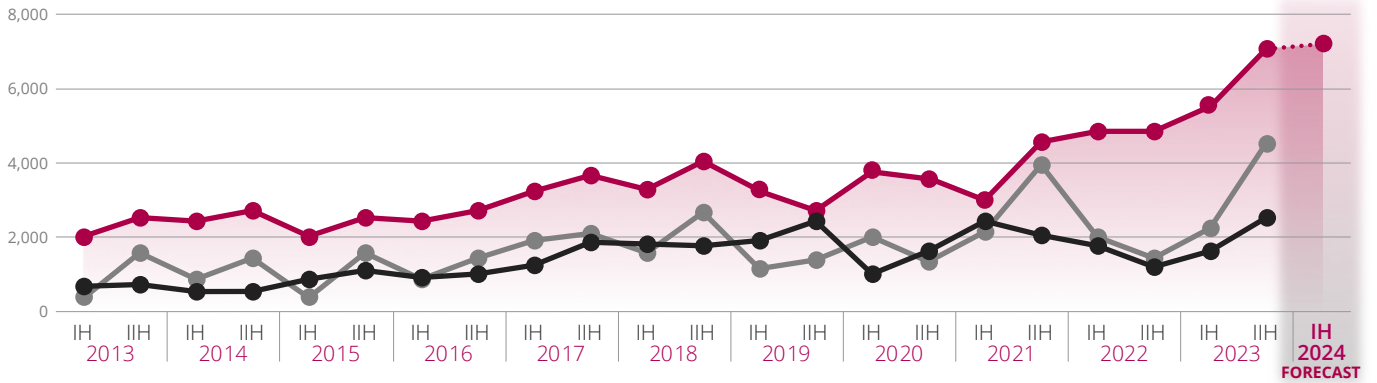
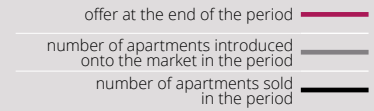
CHANGES ON THE DEVELOPER'S MARKET 2023/2022

Source: Emmerson Evaluation based on Evaluator data

Total offering	
Number of apartments introduced onto the market	

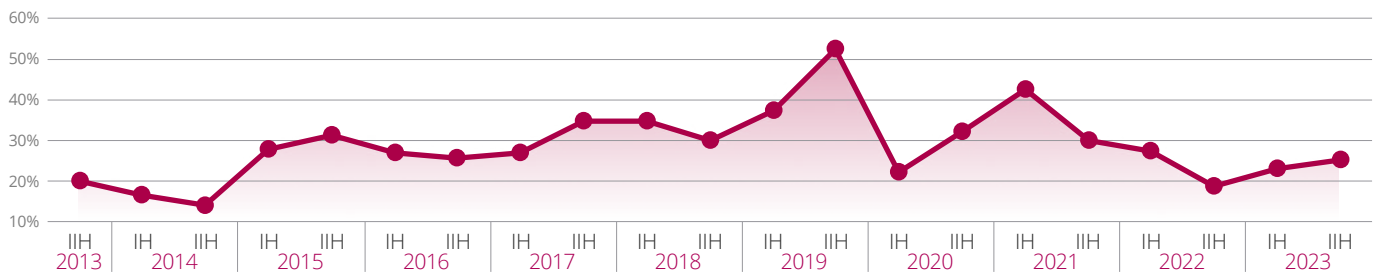
SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET WITH A SUPPLY FORECAST PRIMARY MARKET

Source: Emmerson Evaluation based on Evaluator data



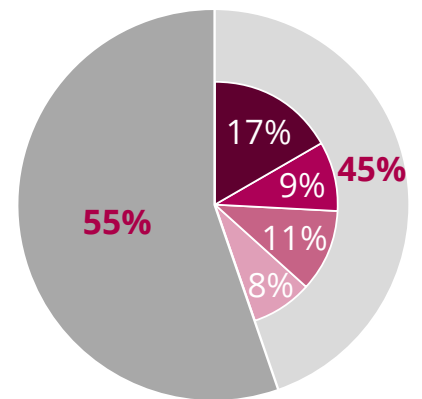
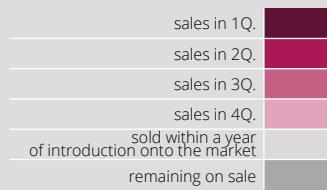
RELATION OF APARTMENTS SOLD TO TOTAL OFFERING PRIMARY MARKET

% of the sold offering in the given period
Source: Emmerson Evaluation based on Evaluator data



AVERAGE RATE OF SALES OF FLATS IN 2023 IN INVESTMENTS INTRODUCED ONTO THE MARKET IN 1Q. 2023* [%] PRIMARY MARKET

*% of apartments sold in individual quarters of the year after the introduction of the investment onto the market (average)
Source: Emmerson Evaluation based on Evaluator data



Developers, seeing the availability of attractive land that often allows for multi-stage projects, are eager to prepare new projects there.

A total of more than 4,100 apartments were sold on the Lodz primary market in 2023, 61% of which were sold in the second half of the year. In the July-December period, the most units were sold in Polesie and Widzew districts. Compared to the same period in 2022, this is a more than twofold increase in sales. Apartments located there accounted for 62% of all units sold at the time. In contrast, the fewest sales transactions were recorded in Gorna district - about 180 units.

The highest price increases of 13% per year were recorded in Widzew district, where the median unit price at the end of 2023 was PLN 9.2 thousand. The most expensive district in Lodz in 2023 was invariably Srod-miescie, where this value was over PLN 11.3 thousand/sqm. The lowest prices per square meter had to be paid Baluty district, where at the end of December the median was just under PLN 8,900. Similar price levels were reported in Gorna district.

Price increases for apartments in Lodz are a result of, among other things, the current structure of the offer-

ing, where a large part of the units introduced for sale in recent quarters have high unit prices.

In the secondary market, on an annual basis, the median price per square meter increased by 7% to nearly PLN 7,000 at the end of 2023. The most expensive district was Polesie, where the median unit price at the end of December 2023 was more than PLN 7.1 thousand. The smallest median, on the other hand, characterizes Baluty district - PLN 6.6 thousand/sqm. The largest number of transactions was recorded in Gorna district. Customers were most interested in 2-bedroom units, and they accounted for 55% of the total number of transactions. In Lodz, the share of apartments potentially covered by the price limit for couples provided for in the 2% Safe Mortgage Loan without taking into consideration own contribution (PLN 600,000) in the second half of 2023 was about 95% of the units sold on the secondary market during that period. The maximum amount of PLN 800,000 covered 99% of the apartments. Thus, the city was one of the best locations in terms of the availability of units on the secondary market that could be covered by the program.



KATOWICE

+ THE SILESIAN AGGLOMERATION

Median price per square meter on the primary market in Katowice at the end of December 2023 amounted to PLN 10,000, which marks an annual increase of 12%.

On a half-year basis, prices rose by 5% in the first six months and by 7% in the second. In the second half of 2023, the number of newly-introduced housing units increased dynamically and approached the highest level recorded in the first half of 2022 in past years. In the second half of 2023, some 1,700 residential units were introduced in 11 new projects, a number more than four times higher than in the first half of the year. During the period from July to December 2023, the supply increased in 5 districts: Welnowiec-Jozefowiec, Osiedle Paderewskiego-Muchowiec, Piotrowice-Ochojec, Bogucice and Ligota-Panewniki. Most of the new developments were added in districts located in downtown Katowice.

At the end of December 2023, the offering of units on the primary market in Katowice amounted to just over 2,800 units, which marked a six-month increase of 14%. The largest number of available units was in the district of Welnowiec-Jozefowiec and Bogucice, which accounted for more than half of the city's supply. These

districts are located in the northern, most urbanized and best connected part of the city. The largest offering in Katowice is for 2- and 3-room apartments, which account for 38% and 30% of the total supply, respectively. In the Katowice primary market, more than 2,400 units were sold throughout 2023 - 61% of which relate to transactions concluded in the second half of the year. Comparing the period from July to December last year to the analogical period in 2022, there was a more than twofold increase in sales.

Most of these apartments were located in the districts of Welnowiec-Jozefowiec, Paderewskiego-Muchowiec and Bogucice, where more than 200 units each were sold. Compared to the first two quarters of 2023, the largest increase in sales was in the first district, where volumes nearly quadrupled.

In the secondary market in Katowice, prices rose 6% year-on-year, with the median price at more than PLN 6,700/sqm. Customers mainly bought 2-bedroom apartments.

MEDIAN PRICE ON THE PRIMARY AND SECONDARY MARKET AND TREND 2023/2022 AND TREND I IH23/IH2023 OF PRICE CHANGES IN 2023.

Source: Evaluator data base

	primary market			secondary market		
	median price 1 sqm	trend 23/22	trend I IH23/IH23	median price 1 sqm	trend 23/22	trend I IH23/IH23
KATOWICE	10,079	12%	7%	6,778	6%	3%
THE SILESIAN AGGLOMERATION (not incl. KATOWICE)	7,591	18%	7%	5,225	4%	3%

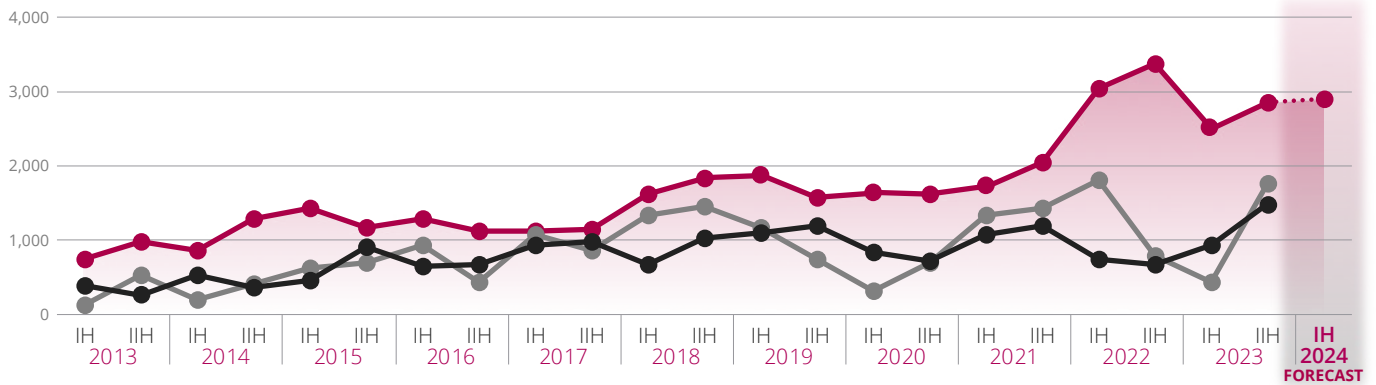
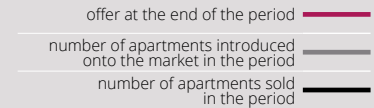
CHANGES ON THE DEVELOPER'S MARKET 2023/2022

Source: Emmerson Evaluation based on Evaluator data

Total offering	
Number of apartments introduced onto the market	

SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET WITH A SUPPLY FORECAST PRIMARY MARKET

Source: Emmerson Evaluation based on Evaluator data

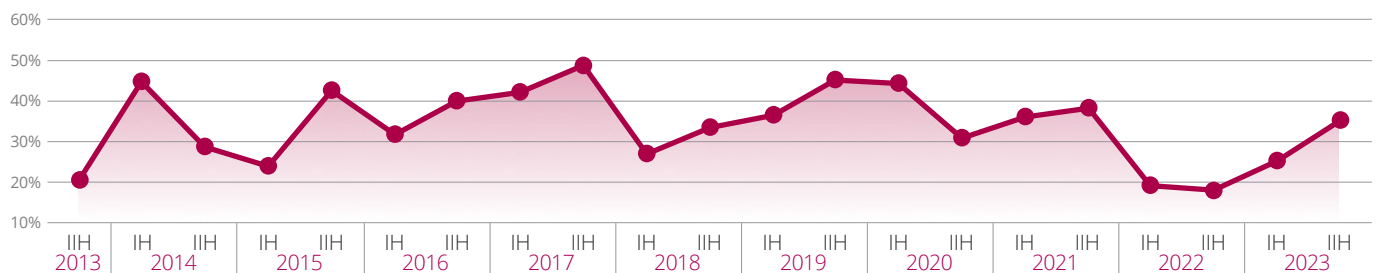


RELATION OF APARTMENTS SOLD TO TOTAL OFFERING PRIMARY MARKET

The data presented concern KATOWICE

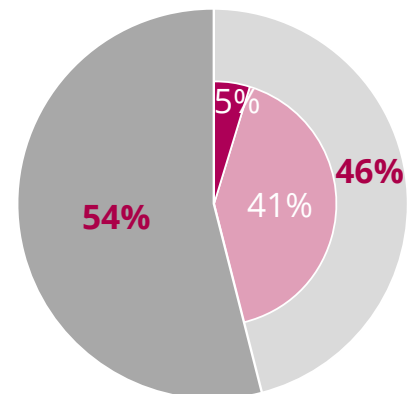
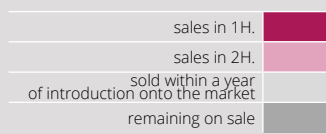
% of the sold offering in the given period

Source: Emmerson Evaluation based on Evaluator data



AVERAGE RATE OF SALES OF FLATS IN 2023 IN INVESTMENTS INTRODUCED ONTO THE MARKET IN 1Q. 2023* [%] PRIMARY MARKET

*% of apartments sold in individual halves of the year after the introduction of the investment onto the market (average). The data presented concern KATOWICE
Source: Emmerson Evaluation based on Evaluator data



Such transactions in the past year accounted for 48% of all purchase agreements in the secondary market. In the Silesian Agglomeration, the median per one square meter at the end of December last year was nearly PLN 7,600 in the primary market and PLN 5,200 in the secondary market. This represents annual growth of 18% and 4%, respectively. The most expensive second-hand apartments were located in Tychy and Gliwice, where the median exceeded PLN 6,000/sqm. The lowest price was in Bytom, where one square meter cost less than

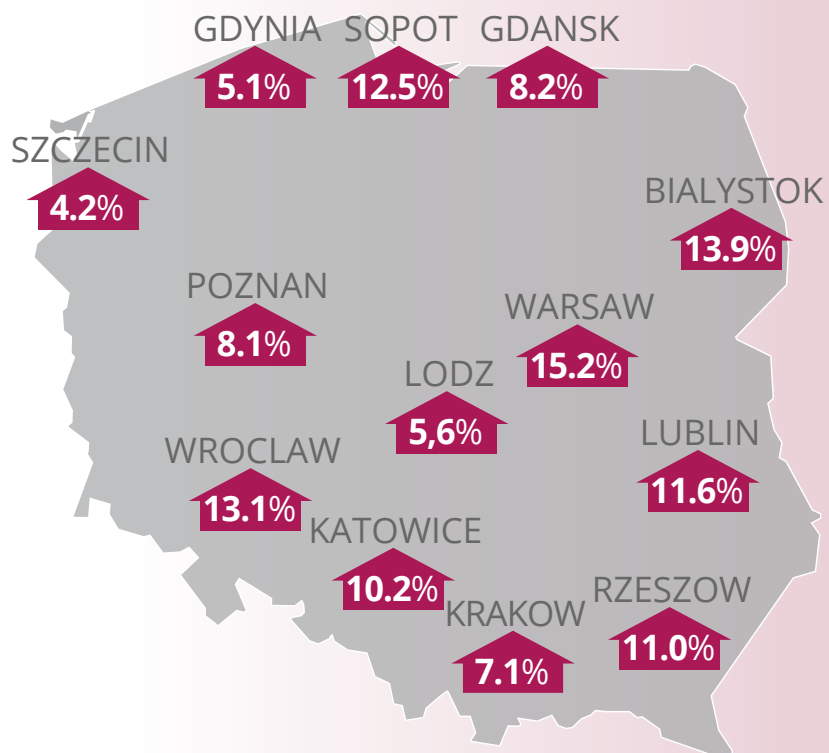
PLN 4 thousand. In cities of the agglomeration, 2-bedroom units were the most popular, accounting for 52% of secondary market transactions. In terms of pricing, the 2% Safe Mortgage Loan 2% program potentially covered about 90% of the units sold on the secondary market in the second half of 2023 - assuming a maximum amount limit for couples of PLN 600,000. Increasing this amount by the possible maximum own contribution, which amounted to PLN 200 thousand, the share was about 95%.

RESIDENTIAL RENTAL MARKET

Following the events of past years, which diametrically affected the rental market, 2023 compared to the previous year was characterized by lower price increases and greater availability of housing in this sector. The war in Ukraine is having less and less of an impact on this sector in most cities - some refugees have left, while some have decided to buy property. Units they moved out from have increased the supply of rental housing. The government's 2% Safe Mortgage Loan program, gentle reductions in interest rates and an increase in the creditworthiness of potential buyers have also had an impact on this market. All of these factors contributed to an increase in the demand for the

purchase of one's own flat among people who had been renting so far. The rental sector in 2023 was fueled by a large number of units purchased in 2021 on the primary market. At that time, sales were at their highest in years, and many buyers decided to purchase real estate for investment purposes, which was one of the most profitable ways to invest capital. The increase in the amount of available housing in this sector coincided with a shrinkage in the potential pool of people interested in renting. In 2024-2025 rented apartments will be left by the people who, often with the support of the government's program, purchased a unit which they cannot move in yet. In 2023 the highest increases in rental rates were recorded in Warsaw, Bialystok and Wroclaw.

ANNUAL CHANGES IN MEDIAN RENTAL RATES



In calculating median rents, losses incurred in negotiations were taken into account in the amount of 5% of the bid rent. The analysis assumes net monthly rental rates, i.e. not including administrative fees, fees for parking space, storage units and costs incurred for utilities.

Compared to 2022, median rates increased in these cities respectively by: 15.2% in the capital, 13.9% in Bialystok and 13.1% in Wroclaw. The smallest growth was in Szczecin - 4.2% per year. The most expensive city analyzed was Warsaw, where median rental rates ranged from more than PLN 2,800/month for studios to more than PLN 5,300/month for three-room units. The highest rental rates in the capital were recorded in the districts of Srodmiescie, Wilanow and Wola. The districts with the highest number of rental unit offers were Mokotow, Srodmiescie and Wola. The second location among the analyzed cities in terms of rental prices was Gdansk, where medians ranged from more than PLN 2,500/month for 1-room apartments to PLN 4,500/month for units with 3 rooms.

Residential rental rates in 2023 recorded an upward trend. Housing prices, both in the primary and secondary markets, showed even greater growth. This caused that rates of return in most of the analyzed cities in the country declined slightly. The largest declines, averaging 0.5% year-on-year, were recorded in Wroclaw

and Gdansk. Some of the few locations where rates of return on rental housing compared to 2022 increased, were cities close to the country's eastern border - Bialystok and Rzeszow. These are locations where the war in Ukraine continues to affect the sector. They are still characterized by a high number of refugees and immigrants who are boosting rental demand. In the capital, the rate of return averaged from 3.5% for 3-bedroom apartments to 4.8% for 1-bedroom units.

Among the surveyed cities, the highest profitability was recorded in Katowice, which was: 5.1% for 1-bedroom apartments, 4.6% for 2-bedroom apartments and 4.5% for 3-bedroom apartments. Compared to the return rates in Katowice in 2022, there was a minimal decrease in profitability of renting 1- and 2-room units.

For years, the highest rates of return have been achieved for 1- and 2-room apartments. 2023 was no exception in this regard. In the cities analyzed, the value for studios was on average 4.6%. For 2-room units it was 0.3 p.p. less, and for 3-room units it was already 0.8 p.p. less.

RANGE OF RENTAL HOUSING YIELDS IN 2023.

	1 ROOM	2 ROOMS	3 ROOMS	
WROCLAW	4.7%	4.3%	3.6%	<p>RATE OF RETURN</p> <p>The rental yield was calculated as the ratio of the annual income obtainable from rental to the transaction price of the apartment. The transaction price was increased by the cost of finishing the apartment (in the case of apartments purchased on the primary market) and the cost of renovating the apartment to prepare it for rental (in the case of transactions from the secondary market). The cost of the renovation was assumed as 50% of the costs incurred for finishing the apartment. Rental income from the apartment has been reduced by the amount that the landlord allocates for the renovation of the apartment scheduled once every 10 years from the moment of starting its rental. The above amount was calculated by multiplying the area of the apartment by 50% of the finishing costs. The model adopted takes into account a flat tax on rental income of 8.5% and the loss of income associated with the 2-month period set aside for tenant search.</p>
WARSZAWA	4.8%	4.3%	3.5%	
SZCZECIN	4.8%	4.6%	4.1%	
SOPOT	2.9%	3.0%	2.6%	
RZESZOW	5.1%	4.6%	3.7%	
POZNAN	4.6%	4.3%	3.7%	
LODZ	4.8%	4.6%	4.5%	
LUBLIN	4.3%	4.5%	4.1%	
KRAKOW	4.3%	4.0%	3.6%	
KATOWICE	5.1%	4.6%	4.5%	
GDYNIA	4.3%	4.4%	4.1%	
GDANSK	4.8%	4.1%	3.9%	
BIALYSTOK	4.9%	4.2%	3.5%	

PRIVATE RENTED SECTOR (PRS)

The PRS (Private Rented Sector) market in Poland, despite its early stage of development, is growing dynamically. The PRS segment continues to grow in popularity. By the end of 2023, more than 15,300 units of housing were available under the PRS program, an increase of 66% compared to 2022.

Resi4Rent has the largest number of units on the market, with more than 4,000 rental units in its inventory. TAG Immobilien, which manages the Vantage Rent platform, owns more than 2,500 of apartments. The last entity on the podium is the Housing for Rent Fund, which has about 2,000 units of this type. Most projects from the PRS market are located in large cities with a well-developed rental market. Warsaw currently has about 6,500 apartments operating under the PRS formula. A large stock of such units is also found in Wrocław, Krakow, Lodz, Poznan and the Tri-City.

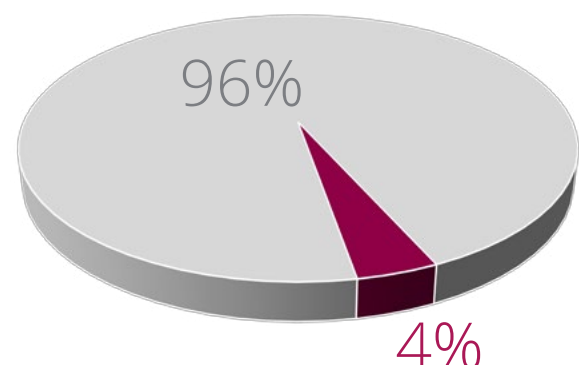
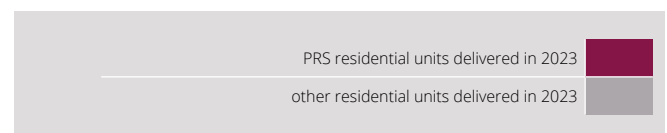
The growth prospects of the PRS market in Poland are evidenced by the number of projects planned and those currently under construction. Throughout the country, the number of housing units that may become available under the PRS program amounts to nearly 25,000. Resi4Rent and the Life Spot platform are the most likely to expand their portfolios. In Warsaw alone, there are nearly 6,900 apartments of this type in various stages of development.

In 2023, the PRS market did not record a large number of transactions. This was influenced, among other things, by the continued relatively high interest rates and problems with the availability of investment land. In addition, the still high cost of bank financing for the sector did not favor the PRS market. Investors focused on ongoing projects. Some of them were completed, resulting in a significant increase in this type of rental housing. The sector was also affected by the discussion of taxing the simultaneous purchase of a large number of apartments. Conflicting messages in this regard held up investment decisions. The final adopted changes to the law, effective January 1, 2024, regarding the tax on civil law transactions in the amount of 6% on the

„wholesale” purchase of housing, due to the wording of the provisions are not restrictive for the PRS market. Poland still remains a country with unregulated legislation on the activities of the PRS sector.

In Poland, the PRS sector represents a small percentage in the rental market, which is dominated by individual investors. In 2023, housing units representing the PRS sector accounted for about 4% of all commissioned units, which is a share by 2 p.p. higher than in 2022.

In the near term, the PRS will be affected by a number of factors. Threats include increased operating costs, high prices and low availability of investment land, or government programs that support the purchase of apartments rather than rental. A positive factor for this market is the continuing shortage of residential units, as well as the slowly changing approach of banks to financing PRS projects, especially for investors already experienced in this sector. Currently, PRS apartments are characterized by high occupancy rates, which is an optimistic sign for the future of the PRS sector in Poland.



The introduction of REITs may contribute to the professionalization of the PRS sector. It is a type of investment fund, allowing individuals to invest in real estate with a limited financial contribution. In Poland, there are no such funds, however, they have been under consideration for a few years now. In the case of PRS

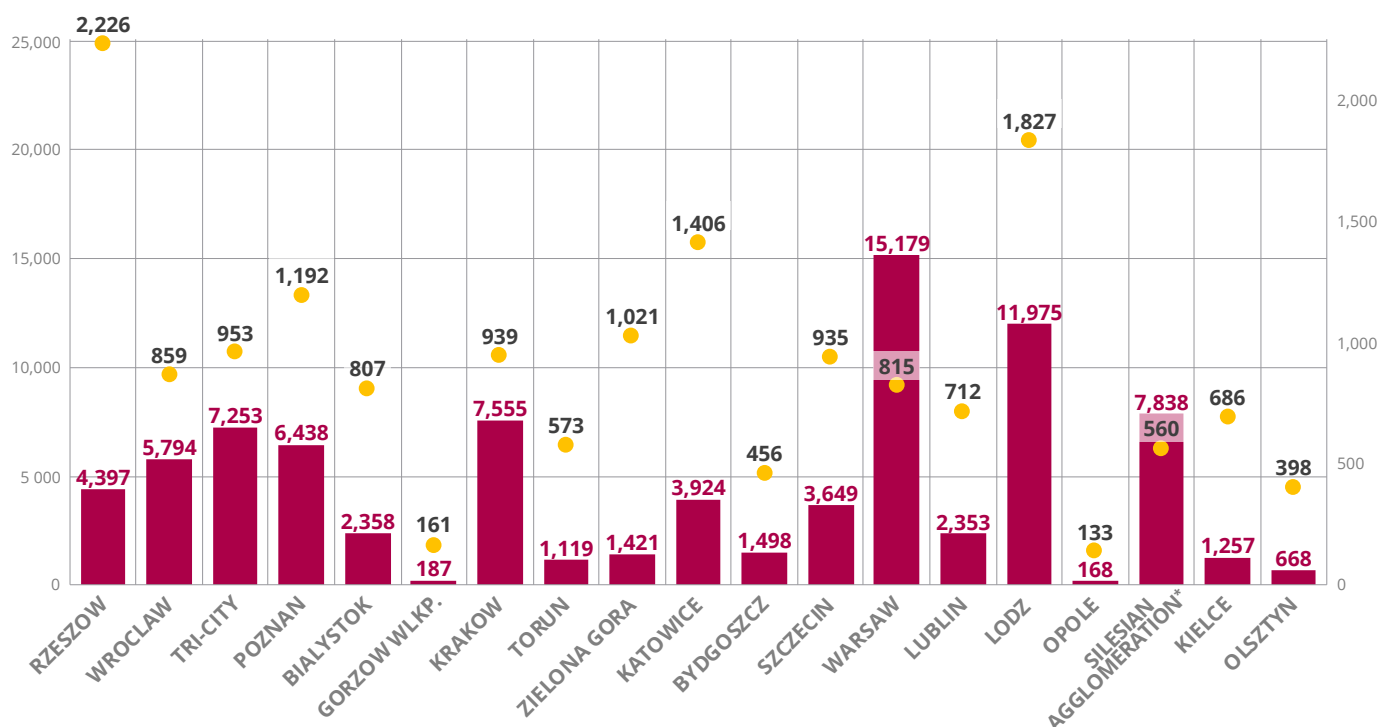
projects, individual investors would have their dividends paid out of rental profits. As the experience of countries where REITs have been introduced shows, they help reduce risk in the sector and provide an additional source of financing for projects in the institutional rental market.



ANALYSIS OF BUILDING PERMITS ISSUED PER 100 THOUSAND INHABITANTS

number of apartments for which building permits were issued in 2023 (total) ■
 number of housing units for which building permits were issued per 100,000 residents in 2023. ●

*Silesian agglomeration: Chorzow, Jaworzno, Dabrowa Gornicza, Gliwice, Sosnowiec, Myslowice, Ruda Slaska, Siemianowice Slaskie, Swietochlowice, Tychy, Bytom, Zabrze
 Source: Emmerson Evaluation based on GUS (the Central Statistical Office) data



CONSTRUCTION COSTS OF DEVELOPER'S INVESTMENTS

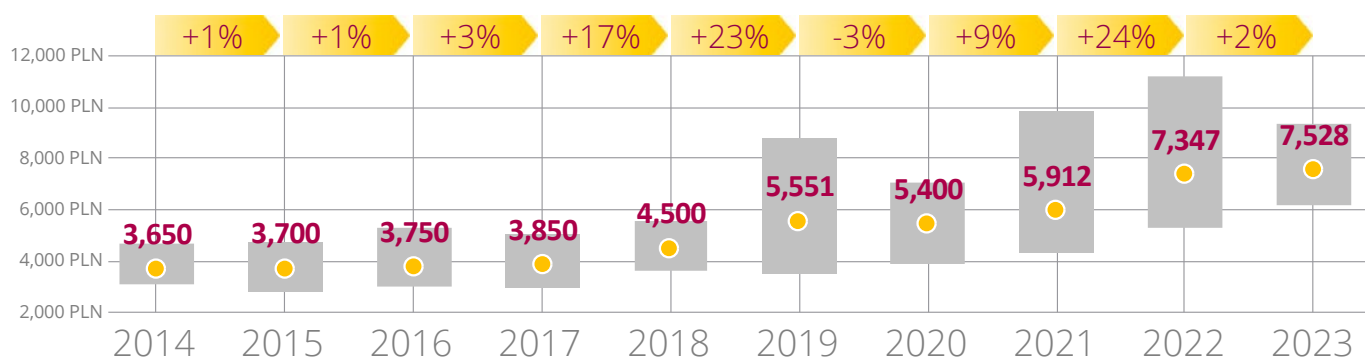
CONSTRUCTION COSTS OF REAL ESTATE
DEVELOPMENT PROJECTS [PLN/SQM. USABLE FLOOR AREA]

range (min-max) of hard construction costs

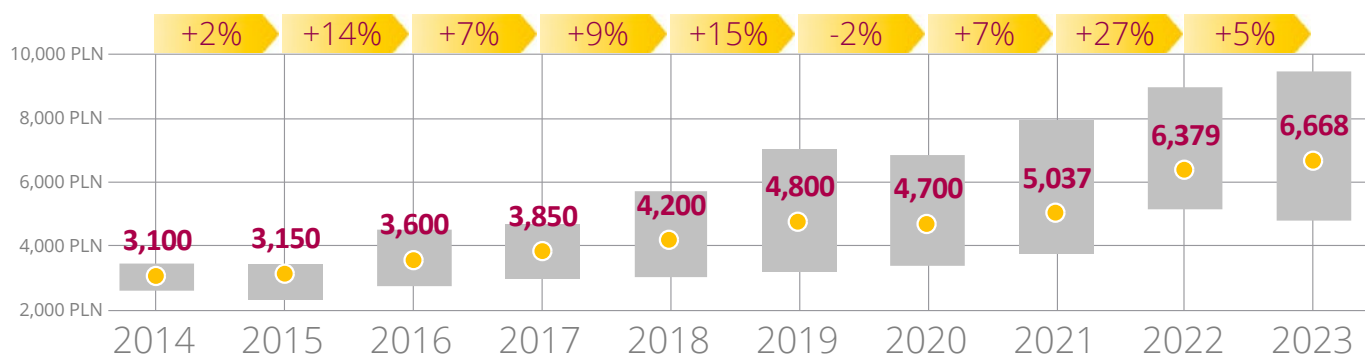
average hard construction cost (net)

changes in the average hard construction cost

WARSAW



THE REMAINING MARKETS*



*KRAKOW, POZNAN, WROCLAW, GDANSK, GDYNIA, SZCZECIN, RZESZOW, TORUN, BYDGOSZCZ, LODZ, LUBLIN, KATOWICE



FORECAST

2024

The past year and especially its second half was again marked by high increases in housing prices. In the primary real estate market in many cities, we saw demand outstrip supply.

Due to the low and severely limited amount of available land primarily in large cities, as well as lengthening formal and legal procedures, we do not anticipate an increased offer of apartments in future months.

After the increase in the number of new projects observed in the second half of 2023, some developers will have limited capacity to prepare further investments in a relatively short period of time. We anticipate that demand will continue to outstrip supply in 2024, especially if new government programs are launched, which also does not give rise to a reason to see reductions in housing prices. Lack of suitable plots of land for development, lengthy administrative processes for obtaining permits will result in low housing supply. It is the level of supply that will be an indicator of the direction of changes in the real estate market in 2024. In Poland, fewer new apartments are currently being built in relation to demand. Due to the disparity between supply and demand, real estate prices are steadily rising. Currently, they are already too high for some buyers despite improvements in creditworthiness.

The situation in the primary market in 2024 will partly depend on the final version of the „Housing for Start” program announced by the government. According to the Ministry of Development and Technology, the new program should be launched in the second half of 2024. According to the assumptions, it will also be available in 2025, but it cannot be ruled out that it will

last longer.

Although the final shape of the government support may still change, its assumptions have been presented, according to which families with at least 3 children are expected to benefit the most. They will be required not to own an apartment and the mortgage loan will be characterized by 0% interest rate. The program may prove much less viable for singles - especially those living in large cities due to the announced introduction of income limits based on household size and subsidies only for a certain capital amount. However, easy access to cheap mortgage loans may again spur a rapid increase in housing prices. In 2024, the most expensive units will be small- and medium-size apartments located in attractive locations with a well-established urban fabric, which will become increasingly scarce in large cities due to the trend of downtown densification.

We forecast that the trend of suburbanization, i.e. the development of the city in its outskirts and suburban zones, will strengthen in the near future. Prices for buying or renting real estate in large cities are rising rapidly and becoming unaffordable for some people. The outskirts of large cities and areas that border major agglomerations are characterized by lower prices for the purchase of units.

These locations are also attractive to developers in terms of the availability of land for development. The highest demand is in areas which are well-connected, including areas near stations and train stops. Good access to service and educational facilities is also important. Buyers choose such locations because of lower living costs and often better access to green and recreational areas.

This trend is also supported by the proliferation of remote and hybrid work models.

Real estate prices depend on many factors. These include construction costs or government housing policies. The increase in housing prices could slow down if new housing units were to be provided at a rapid pace, but data from the Central Statistical Office on the number of developer housing units for which building permits were issued in 2023 shows declines from the previous year in all analyzed cities except Lodz.

In most markets, the excess of demand over supply does not give hope for declines in real estate prices.

In 2024, amendments to the construction law aimed at systematizing the rules for the construction of multifamily buildings with a view to increasing the comfort of residents are to come into force. The most significant changes are a minimum distance of 5 meters from the border of the plot of a multifamily building having more than four stories, as well as an order to build 1.5 parking spaces per apartment. For investments with a minimum of 20 units, the amended regulations also require the arrangement of recreation areas for people with special needs and the construction of playgrounds. The area of the playgrounds will depend on the number of units in the development. Another new requirement is that at least 25% of the plot area must be developed as biologically active area, if no other percentage results from the provisions of the Local Spatial Development Plan. On the one hand, investors will try to obtain permits for the construction of their investments in time for the planned entry into force of the regulations, which may increase the number of permits issued. On the other hand, however, if they fail to obtain a decision by the deadline, they may be forced to redesign many of the planned settlements and apply once again for the required approvals, which will result in fewer apartments being offered in the coming months.

The effective date of the legislation has already been postponed. The current date is not yet known, but the Ministry announces that it will be 2024. Restrictions on the land on which a building can be erected can make it difficult to set aside space for parking spaces. Additional space in the form of above-ground parking will result in a smaller footprint for the project, while the under-

ground garage will need to be significantly enlarged or have an additional underground floor to meet the new requirements. Changes in construction laws can cause construction costs to rise in some situations.

In the coming years, the provisions of the Law on Planning and Zoning, amended in 2023, will come into force. One of the most important changes is the introduction of a general plan for the municipality, which will replace the existing studies of land use conditions and directions, which will determine, among other things, the areas of development replenishment. Only there will it be possible to obtain a decision on development conditions and land use. They will be valid for 5 years.

We expect that a change in the rental market may be brought about by the entry into force of the „Housing for Start“ program, but it will not be spectacular and will not come abruptly. In Poland, the decision to rent is most often not dictated by preference, but by the unavailability of financing for the purchase of one's own apartment. As beneficiaries of assistance programs („2% Safe Mortgage Loan and „Housing for Start“) abandon renting in favor of „housing on its own“ the number of rental units available on the market may increase. As a result, several percent drops in rents are possible in the market. However, reductions should not be expected in large cities due to the rising cost of living and rapidly increasing housing prices. Nowadays, due to high rents, those looking for apartments to rent, accepting the high costs incurred for renting, expect comfortable apartments offering a better standard instead. This phenomenon will result in demand for renting relatively new, comfortable, slightly more expensive apartments, and less interest in apartments that require renovation or refreshing.

The economic situation - including the level of inflation - will also have an impact on the real estate market in 2024. As a result of the likely suspension of measures taken under anti-inflationary policies such as freezing electricity and gas prices, inflation rate could rise again. The real estate market will also be significantly influenced by interest rates, which affect the size of mortgage installments. In the second half of last year, there were two reductions in this index - by 0.75 and 0.25 basis points, respectively, to 5.75%. We expect interest rates to remain at this same level for the first half of 2024. In the first scenario, in the

case of a visible increase in inflation, their value will also not change by the end of the year, which is the most likely option.

The second scenario assumes a gentle reduction in interest rates in the second half of 2024, but it is unlikely. The need to meet ESG (Environmental, Social, Governance) requirements will have an increasing impact on the real estate market. ESG issues, especially those correlated with

building energy efficiency, will be treated as one of the more key ones by market participants. In the future, one can expect price drops for units located in buildings characterized by high-carbon emissions and a new approach to the design and construction of buildings, in accordance with ESG standards. This, in turn, could translate into price increases for units in buildings erected in accordance with the new standards.



DESCRIPTION OF OPERATIONS OF EMMERSON EVALUATION AND EVALUER

Emmerson Evaluation Sp. z o.o. has been operating since 2008 and provides appraisal services for residential, commercial real estate (offices, retail, warehouses, development investments, hotels). The Company performs valuations for all purposes, including, among others, debt protection, financial statements and evaluation of profitability of purchase or sale. It also has extensive experience in the valuation of large property packages, fixed asset valuation and market analysis. All studies prepared by Emmerson Evaluation are in accordance with Polish and international standards. The company has regional offices in 7 major Polish cities and employs over 60 real estate specialists, including 30 appraisers. Emmerson Evaluation aims its services primarily at banks, residential and commercial developers, investment funds and listed companies.

Evaluier Sp. z o.o. is a company specializing in providing information to real estate entities such as banks, investment funds, developers, appraisers, real estate agencies and insurance companies. The company collects reliable data on the real estate market, creates dedicated multidimensional market analysis and provides consulting services to entities operating on the real estate market.

The primary system offered by the company is the EVALUER Database, which contains up-to-date real estate transaction data from across the country. The platform enables the use of BIG DATA's extensive knowledge base and innovative tools to create real estate market analysis based on traditional model as well as models using artificial intelligence.



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