

AMRON-SARFiN Report

on housing loans
and real estate transaction prices

3 / 2022



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REPORT IN NUMBERS

510.381 billion

| total housing loans debt

CHANGE
Q3 2022/Q2 2022

0.41 % 

2.438 million	number of active loan agreements	1.83%	
21 218	number of concluded agreements	44.74%	
PLN 7.007 billion	value of concluded agreements	48.23%	
PLN 329 569	average value of a housing loan	5.87%	
134.74 points	Housing Availability Index (HAI M3)	27.71 points	
15.67%	share of new housing loans with LtV above 80%	3.24 pp	
97.52%	share of new housing loans in PLN. by value	1.12 pp	
63.60%	share of new housing loans with lending period of 25–35 years	2.54 pp	
PLN 11 400	average transaction price per square meter of a dwelling in Warsaw	1.34%	
PLN 2 187	average monthly rent rate of a housing unit in Warsaw	4.79%	



WE ARE CLEARLY HEADING TOWARDS THE STABILIZATION OF TRANSACTION PRICES, WHICH MAY LAST FOR AT LEAST THE NEXT TWO OR THREE YEARS, WHICH, GIVEN HIGH INFLATION, WILL IN FACT MEAN A REAL DECREASES IN HOUSING PRICES.

dr. Jacek Furga

*Chairman of the Real Estate Finance Committee,
Polish Banks Association and President of the Management
Board of Centre of Banking Law and Information
(Centrum Prawa Bankowego i Informacji Sp. z o.o.)**

Dear Readers,

it is the fifty-third edition of the AMRON Centre Report published by the Polish Banks Association. For 13 years we have been systematically providing you with up-to-date information on lending activity of Polish banks in the area of housing financing, as well as on trends and transaction prices on the residential real estate market. In current edition of the Report we present extremely interesting results for the third quarter of 2022 in relation to results of the few previous quarters. The housing loans market slows down rapidly.

The third quarter of 2022 brought a further decline in lending. Due to the decisions of the Monetary Policy Council taken in July and September 2022, NBP reference rate increased only by 0.75 pp, to 6.75% at the end of the third quarter. On the other hand, however, the WIBOR index raised regardless the MPC's decisions. At the end of the third quarter of 2022, WIBOR 3M, the crucial component of mortgage loans' price and interest rate equalled to 7.16%. In addition, the assessment of the creditworthiness of potential borrowers has been effectively undermined by Polish Financial Supervision Authority recommendation, applicable since April this year, to use an increased safety buffer of 5 pp in the creditworthiness analysis process.

As a result, in the third quarter of this year, not only the volume of new lending decreased, but also the drop in the loan portfolio, observed for the first time in Q2 2022, continued. Both the

number and value of newly granted loans were lower than the number and value of loans repaid in the same period. Increasing loan interest rates encourage a growing number of borrowers to repay their loans earlier, at least in part.

As for September 30 this year, the number of active housing loan agreements in Poland decreased to **2 438 136**. This meant a decrease by **45 403** loans compared to the end of Q2 2022. Total indebtedness of Polish households due to housing loans at the end of the third quarter of this year amounted to **PLN 510.381** billion, compared to **PLN 508.277** billion at the end of the previous quarter. From July to September this year, total value of active mortgage loans for housing purposes increased by **0.41%**, i.e. by **PLN 2.104** billion.

Lending activity of Polish banking sector in the third quarter was as much as 45% lower than in the previous quarter in terms of number of granted housing loans. In terms of value, the decrease reached the level of **48%**. Compared to the corresponding period of the previous year, **69%** fewer loan agreements were concluded, and their value was lower by **70%**.

Decrease in the average value of a housing loan, from a record level of **PLN 353 thousand** at the end of Q2 to **PLN 329 569** at the end of Q3 this year, recorded for the first time since 2012, seems to be a symptomatic signal of the housing

loan availability trend reversal. I think it is worth recalling that the average value of a housing loan granted in 2012 was equal to PLN 195 thousand.

The share of loans with the LtV ratio exceeding 80% has been also, already for 10 years now, systematically decreasing from almost 53% in 2013 to **15.67% at the end of Q3 2022**.

The housing market is adopting to the diminishing number of granted loans. Compared to the results from the previous quarter, the number of started constructions decreased by **32.17%**, and the number of dwellings, for construction of which a building permit was issued, fell by **29.32%**. In relation to the results of the third quarter of 2021, these numbers were lower respectively by **37.31%** and **20.92%**.

Although developers recorded an increase in the category of completed apartments – from July to September this year there were **36 353** of them, which was by **9.22%** more than in the previous quarter, it should be remembered that these apartments were bought and credited at least a dozen or so months ago.

Compared to the results achieved by the developers' sector in the corresponding period of the previous year, decreases were recorded in all three categories. Number of dwellings, the construction of which was started in Q3, 2022 decreased by **44.82%**, number of dwellings, for construction of which construction permits were issued, was lower by **10.50%**, while the drop in number of dwellings completed amounted to **0.62%**.

In the third quarter of 2022, we continuously recorded a varied dynamics of changes in average apartment prices in the largest Polish cities. Increases in the average nominal price were recorded in Warsaw, Wrocław and Poznań – respectively by **1.34%**, **1.72%** and **0.33%**. On the other hand, decreases in average prices occurred in Cracow (by **1.38%**), Gdansk (by **1.47%**) and Lodz, where the highest dynamics of the average price was recorded – **3.66%**.

Compared to the same period of 2021, a two-digit increase in the average price of apartments was recorded only in Wrocław – by **11.73%**. The lowest increase at the same time was recorded in Gdansk – by **0.75%**.

The increase in the living costs and mortgage loans interests caused a further decline in the housing availability. The M3 Housing Affordability Index (M3 HAI) reached a level close to 134 points, last recorded at the turn of 2011 and 2012. However, after taking into account the 5% buffer required by the provisions of Recommendation S of the Polish Financial Supervision Authority, the index level equalled to 94.02 points, which was a result comparable to the results from the turn of 2007 and 2008 – the period with the lowest availability of housing in the history of M3 HAI quotations.

We are clearly heading towards the stabilization of transaction prices, which may last for at least the next two or three years, which, given high inflation, will in fact mean a real decreases in housing prices. This, in turn, after potential buyers get used to high mortgage interest rate, may result in maintaining mortgage lending at the level observed in the previous quarter. This will translate into a result of approx. 80–85 thousand loans in 2023. Of course, much depends on the situation beyond our eastern border and on the Polish government's decisions on the European funds for the implementation of the Polish National Recovery Plan.

Due to rising interest rates and rising costs of living, the decline in the affordability of flats and the creditworthiness of potential borrowers resulted in shifting a significant part of the demand from the housing market to the rental market. Quarterly increases in rent rates on individual markets were (with the exception of Wrocław) higher than the recorded increases in transaction prices. The highest increase in relation to the level of rent recorded in the previous quarter was recorded in Cracow – by **7.20%**, and the lowest in Poznań – by **3.82%**. The average rent rate for an apartment in Warsaw in the third quarter of 2022 amounted to **PLN 2 187** and was higher than the one recorded in the previous quarter by **4.79%**.

In the previous Report, I stated that the residential mortgage loan has become an instrument of a high political risk. The decision of the Regional Court in Katowice, which temporarily regulates that the interest rate on the disputed liability for the duration of the trial will be based solely on the loan margin, without taking into account the WIBOR index, raises further doubts. The greatest threat to the banking sector is the unlimited, as recent events have proven, risk of borrowers

questioning any provision of long-term loan agreements, sometimes after several years from the date of their conclusion.

In this context, another problem arises in the sector. Growing share of loans with a periodically fixed interest rate seems to be another ticking bomb due to the still unsettled problem of compensation for early repayment of a loan. Without resolving this issue, any attempts to retain borrowers maintaining the repayment period specified in the contract, will be very difficult. This is also the reason why banks today do not take the risk of granting loans with a fixed rate for a period longer than 5–7 years. And for now, it looks like high interest rates will stay with us for longer.

Representatives of the Polish Banks Association have been participating for several months in discussion on the new shape of housing loans market organized by the Responsible Finance Club at the European Financial Congress. We offer solutions and financial instruments that have been

verified over the years, ensuring incomparably more effective meeting of citizens' housing needs in neighbouring countries.

And the time for taking reasonable systemic solutions and joining the support of the Polish government is high. We will end the year 2022 with only 125 000 newly granted loans, which will be the lowest result in 20 years.

I invite you to read the Report. We will be obliged for any comments that will help us improve its future versions. Please send your questions and suggestions to the following e-mail address: raport@amron.pl.

Jacek Furga. Ph.D..

* AMRON Centre was established by Polish Banks Association to manage and develop the System for Analysis and Monitoring of Real Estate Market Transactions and it operates within the organizational structure of a limited-liability company Centre of Banking Law and Information

ANALYSIS OF MARKET ENVIRONMENT

The third quarter of 2022 brought further, dynamic decrease in the number of newly granted housing loans. The decline of mortgage financing entails changes in the credit and housing markets structures. For the first time since 2012, we have observed a break in the upward trend of the average mortgage loan amount. We have also noted a change in the structure of the market in terms of the LtV ratio structure – clear increases in share of loans with the borrower’s down-payment above 50%, i.e. loans “supporting” cash purchases, often conditioned by the earlier sale of other real estate on the housing market.

After good results achieved by the sector in the previous quarter (due to the entry into force of the amended Developer Act), the third quarter brought a significant weakening of developers’ activity. The number of apartments started by developers decreased by 44.18% compared to the previous quarter, reaching the level similar to the one recorded in the second quarter of 2020, i.e. after imposing the lockdown as a result of the first wave of COVID-19 pandemic.

Increase in the living costs and interest rates on loans caused a further decline in the availability of housing. The M3 Housing Affordability Index (M3 HAI) reached a level close to 134 points, last recorded at the turn of 2011 and 2012. After taking into account the 5% buffer required by the provisions of Recommendation S of the Polish Financial Supervision Authority, the index level was equal to 94.02 points, which was a result comparable to the quotations from the turn of 2007 and 2008 – the period with the lowest availability of flats in the history of M3 HAI quotations.

Declines in price availability of flats and the creditworthiness of potential borrowers, caused by rising interest rates, new Polish Financial

Supervision Authority Recommendation S and growing living costs resulted in a shift of a significant part of the demand from the housing to the rental market. Apart from persistently increased demand for apartments for rent from refugees from Ukraine, it was the most important factor determining the increase in rent rates in Q3 2022.

The most important factors shaping the situation on the residential real estate market and the mortgage loan market in the third quarter of 2022 were:

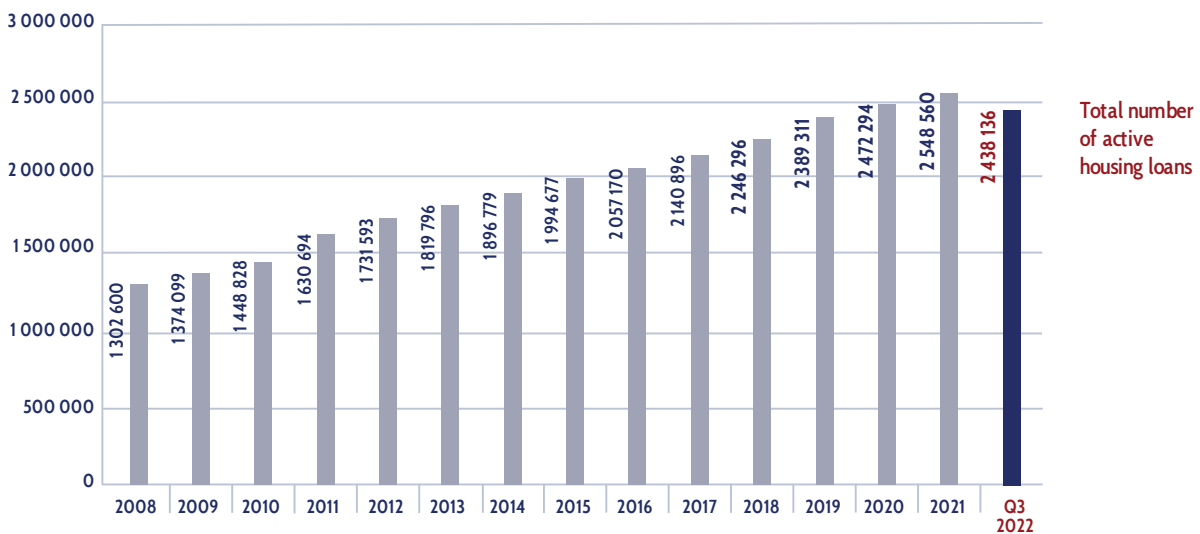
- two increases in NBP interest rates from 6.00% to 6.50% (July 8, 2022) and to 6.75% (September 9, 2022);
- further dynamic increase in the inflation rate – in Q3 2022, Central Statistical Office consumer price index amounted to 13.3% compared to the same period of the previous year (in the previous quarter it was 13.9%);
- persistently low level of unemployment – at the end of September 2022, the registered unemployment rate was 5.1%, i.e. slightly decreased (by 0.1%) compared to the end of the previous quarter;
- another clear decline in consumer optimism, visible in the BWUK quotations (consumer confidence index recorded by the Central Statistical Office);
- a significant decrease in the activity of the development sector;
- persistently high prices of construction materials, higher by 27% on average compared to the same period last year. The increase in prices was recorded in all 20 product groups (data from PSB Handel S.A.).

SITUATION ON HOUSING LOANS MARKET

Active housing loans

As for September 30, 2022, the total number of active housing loan agreements in Poland amounted to **2 438 136**. This meant a decrease by **1.83%** in Q3 2022, i.e. nominally by **45 403** loans,

compared to the end of Q2 2022. It follows that the number of housing loans repaid in the third quarter almost three times exceeded the number of newly granted loans.

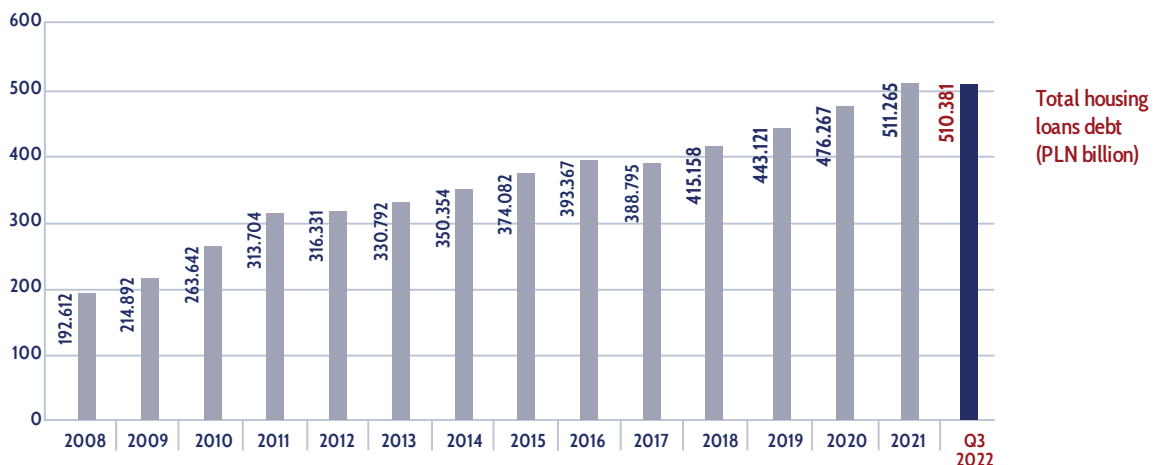


SOURCE: SARFIN

Total housing loans debt

The total value of Polish households debt due to granted housing loans at the end of the third quarter of 2022 amounted to **PLN 510.381 billion**, compared to **PLN 508.277 billion** at the end of

the previous quarter. In the period from July to September this year, the value of active mortgage loans for housing purposes increased by **0.41%**, i.e. by **PLN 2.104 billion**.



SOURCE: SARFIN

New housing loans

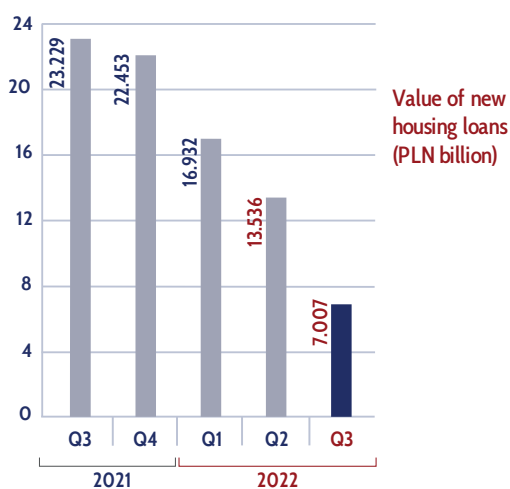
Number of housing loans granted in the third quarter of this year amounted to **21 218**, which was **44.74%** less than in the previous quarter (less by **17 180** loans in nominal terms). The value of newly granted mortgage loans amounted to **PLN 7.007 billion**, which meant a decrease by **PLN 6 528 million**, i.e. **48.23%** less compared to Q2 2022.

In relation to the corresponding period of the previous year, **47 135** (i.e. **68.96%**) fewer loan agreements were concluded and their value was lower by **PLN 16.222 billion (69.83%)**.

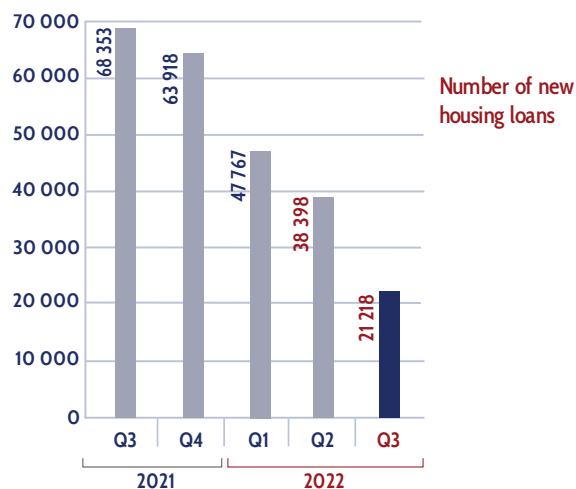
QUARTER	VALUE (PLN BILLION)	CHANGE/ previous quarter	NUMBER	CHANGE/ previous quarter
Q3 2021	23.229	4.94% ↗	68 353	2.00% ↗
Q4 2021	22.453	3.34% ↘	63 918	6.49% ↘
Q1 2022	16.932	24.59% ↘	47 767	25.27% ↘
Q2 2022	13.536	20.06% ↘	38 398	19.61% ↘
Q3 2022	7.007	48.23% ↘	21 218	44.74% ↘

Value and number of new housing loans

SOURCE: SARFIN



SOURCE: SARFIN



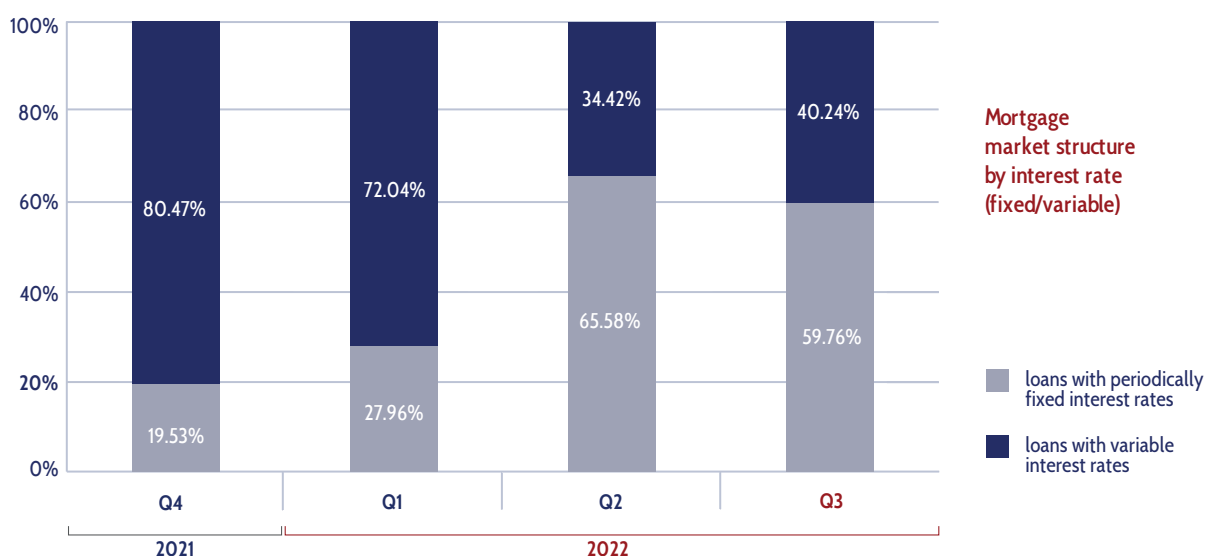
SOURCE: SARFIN

Fixed rate loans

Number of loans with a periodically fixed interest rate increased in the third quarter of 2022 by **25 576**. This number included both newly signed and annexed loan agreements. Share of loans with converted interest rate (from variable to periodically fixed) in total number of loans with periodically fixed interest rate granted in Q3 2022 equalled to **50.43%** and was by **5.82 p.p.** lower than in the second quarter of this year. The number of newly granted loans with a periodically fixed interest rate amounted

to **12 769**, which accounted for **59.76%** of total sales of mortgage loans in the third quarter of 2022.

Total value of loans with a periodically fixed interest rate granted in the third quarter of 2022 amounted to **PLN 3.9 billion** and the average value of such a loan was **PLN 305 427**, which was clearly less than the average value of a newly granted loan with a variable interest rate (**PLN 367 736**).



SOURCE: PBA

In terms of loans with a fixed interest rate, banks' offer includes three types of products. They differ primarily in the duration of the fixed interest rate period – up to 5 years, between 5 and 10 years and over 10 years. The market is dominated by loans of the first category – with a periodically fixed interest rate up to 5 years. In the third quarter of 2022, **25 132** loans of that type were granted, which accounted for **98.26%** of all loans with a periodically fixed rate. Loans with an interest rate fixed for the period from 5 to 10 years were granted significantly less, i.e. **312**, while loans with an interest rate fixed for a period of more than 10 years – only **132**. They accounted respectively for **1.22%** and **0.52%**

of all loans with periodically fixed interest rate. Similar proportions occurred in terms of value. The total value of loans granted with a periodically fixed interest rate (both for newly concluded and annexed loans) for up to 5 years amounted to approximately **PLN 6.9 billion**. Total value of loans with a periodically fixed interest rate for a period of between 5 and 10 years granted in Q3 2022 was equal to approx. **PLN 93.8 million**, and for a period of over 10 years – **PLN 34.8 million**. Shares of the last two categories accounted for respectively **1.22%** and **0.52%** of the total amount of all loans with periodically fixed interest rate loans granted in Q3 2022.

Loan currency

Changes in the currency structure of newly granted housing loans noted in the third quarter of this year were slightly more dynamic than in previous quarters. PLN housing loans accounted for **97.52%** of the value of all new mortgage loans, i.e. **1.22 pp** less compared to the previous quarter. Share of CHF loans in the new loans portfolio remained at the level noted in the previous quarter and amounted only to **0.01%**. Share of EUR loans increased to the highest ever recorded level of **2.33%**, which was by **1.07 pp** more, compared to

the previous quarter. Loans granted in other foreign currencies constituted **0.14%** of the new loans portfolio, which was more by **0.05 pp** than in the second quarter of the year.

Compared to the third quarter of 2021, share of value of newly granted loans in PLN decreased by **1.76 pp**, share of euro housing loans increased by **1.69 pp**, share of loans denominated in other foreign currencies increased by **0.07 pp**, while share of loans denominated in Swiss francs has not changed.

QUARTER	PLN	CHF	EUR	OTHER
Q3 2021	99.28%	0.01%	0.64%	0.07%
Q4 2021	99.15%	0.02%	0.76%	0.08%
Q1 2022	99.08%	0.01%	0.80%	0.10%
Q2 2022	98.64%	0.01%	1.26%	0.09%
Q3 2022	97.52%	0.01%	2.33%	0.14%

Currency structure of the value of new loans

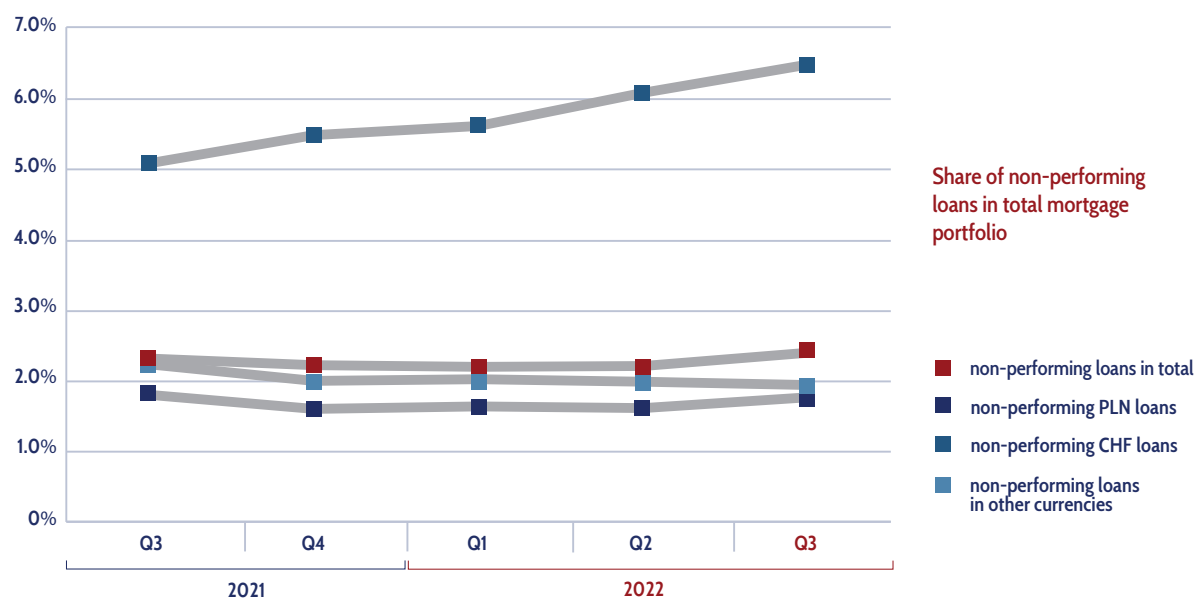
SOURCE: SARFIN

Quality structure of mortgage loans portfolio

In the third quarter of 2022, share of non-performing loans in total housing loan portfolio amounted to **2.50%** comparing to the level noted a quarter earlier, i.e. it increased by **0.16 pp**. At the end of September, PLN housing loans with overdue payments constituted **1.84%** of the PLN loans portfolio, which meant a decrease by **0.13 pp**. The upward trend in the share of non-performing loans in Swiss francs continued – at the end of the quarter it amounted to **6.37%** of the portfolio in total and was higher by **0.34 pp** than

a quarter earlier. The share of non-performing loans denominated in other currencies increased to **2.08%** (which was less by **0.05 pp**).

Compared to the third quarter of 2021, share of total volume of non-performing housing loans increased by **0.07% pp**. Share of PLN loans with arrears in repayments decreased by **0.03 pp**, share of loans denominated in Swiss francs increased by **1.19 pp**, while share of non-performing loans in other foreign currencies decreased by **0.25 pp**.



SOURCE: NATIONAL BANK OF POLAND

QUARTER	NON-PERFORMING LOANS IN TOTAL	NON-PERFORMING PLN LOANS	NON-PERFORMING CHF LOANS	NON-PERFORMING LOANS IN OTHER CURRENCIES
Q3 2021	2.43%	1.87%	5.18%	2.33%
Q4 2021	2.35%	1.75%	5.52%	2.13%
Q1 2022	2.34%	1.72%	5.70%	2.15%
Q2 2022	2.35%	1.73%	6.09%	2.07%
Q3 2022	2.50%	1.84%	6.37%	2.08%

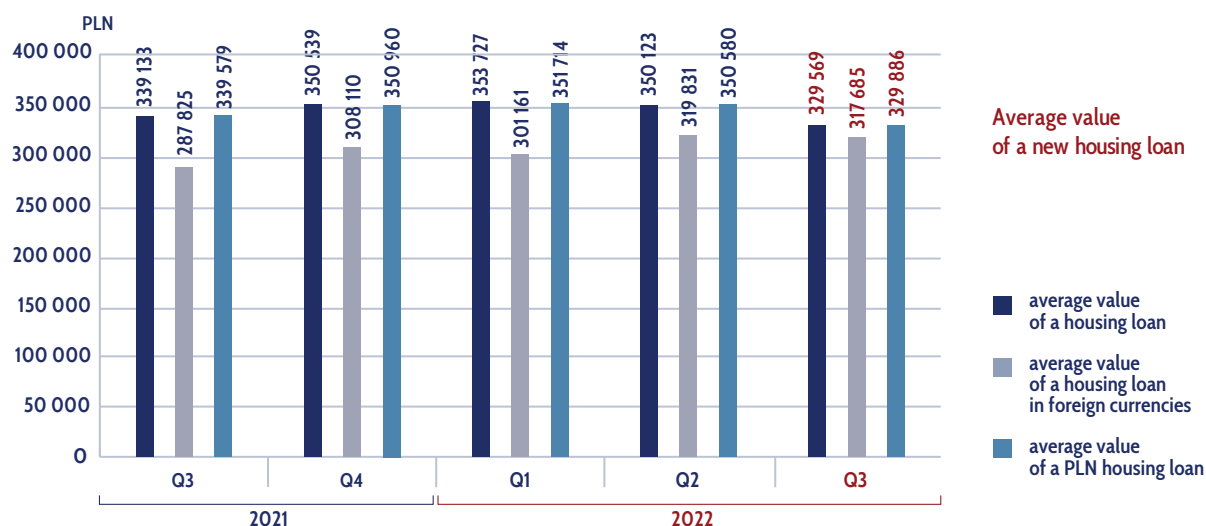
Share of non-performing loans in total mortgage portfolio

SOURCE: NATIONAL BANK OF POLAND

Average value of a loan

The average value of newly granted housing loans in the third quarter of 2022 amounted to **PLN 329 569**, which meant a decrease by **PLN 20 554 (5.87%)** compared to the previous quarter. At the same time, the average value of a foreign currency loan decreased by **PLN 2 146**, i.e. **0.67%** and amounted to **PLN 317 685**. The average amount of a housing loan in Polish zlotys was **PLN 329 886**, i.e. less by **PLN 20 694 (5.90%)** compared to the value recorded in the second quarter of 2022 year.

In relation to the third quarter of the last year, the average value of new housing loans granted in domestic currency was lower by **2.85%** (by **PLN 9 693** in nominal terms) and the average value of loans denominated in foreign currencies was higher by **10.37%** (i.e. **PLN 29 860**). The average value of a mortgage loan in total increased by **2.82%**, i.e. by **PLN 9 565** in nominal terms, compared to the analogous quarter of 2021 year.



SOURCE: SARFIN

QUARTER	AVERAGE VALUE OF A HOUSING LOAN	AVERAGE VALUE OF A HOUSING LOAN IN FOREIGN CURRENCIES	AVERAGE VALUE OF A PLN HOUSING LOAN
Q3 2021	339 133	287 825	339 579
Q4 2021	350 539	308 110	350 960
Q1 2022	351 251	301 161	351 714
Q2 2022	350 123	319 831	350 580
Q3 2022	329 569	317 685	329 886

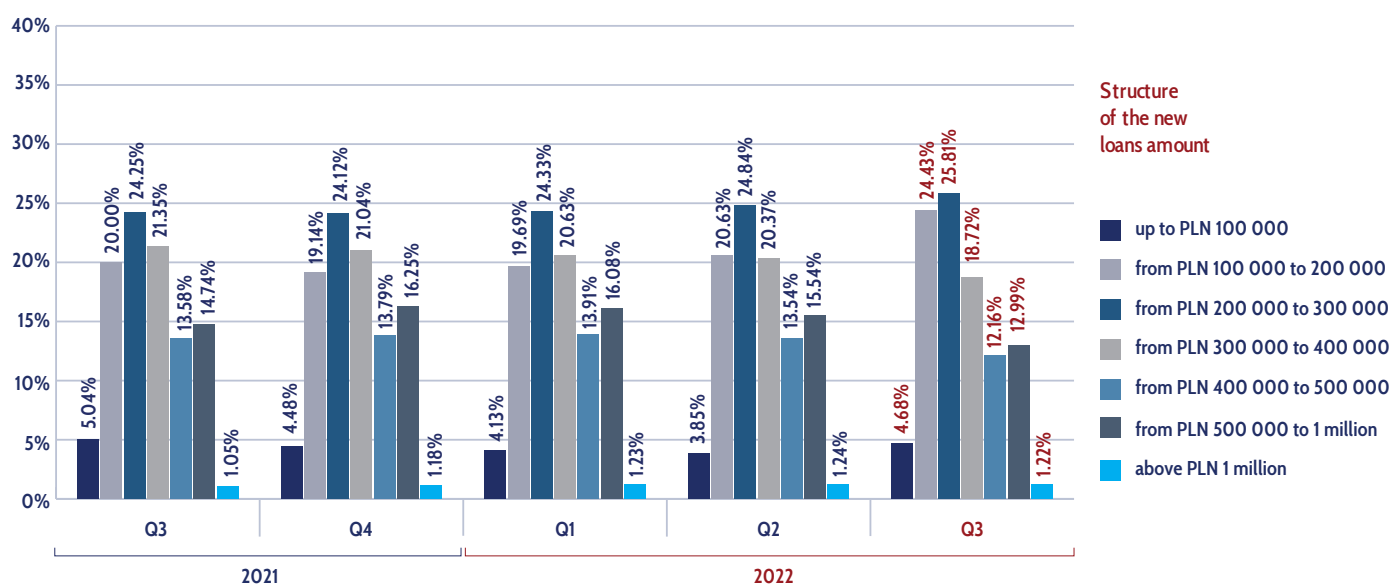
Average value of a new housing loan

SOURCE: SARFIN

Structure of new loans, by amount

In the third quarter of 2022, some substantial changes were noted in the structure of newly granted housing loans in terms of value. Increases were observed in shares of loans with a value below PLN 100 thousand (by **0.83 pp**), between 100 and 200 thousand (by **3.81 pp**) and between 200 and 300 thousand (by **0.97 pp**), while shares of all other loan categories decreased. The largest decrease, by **2.56 pp**, was recorded in category of loans amounting from PLN 500 to 1 million. This change was related to the increase in share of loans “supporting” cash purchases, often conditioned by the earlier sale of other real estate.

Compared to the third quarter of 2021, a decrease in share of loans with values up to PLN 100 thousand (by **0.36 pp**) and loans from PLN 300 to 1 million was recorded. The largest decrease was observed in category of loans amounting from PLN 300 to 400 thousand (by **2.63 pp**). In other value categories, there were noted increases – from **0.17 pp** in case of loans from PLN 1 million, up to **4.43 pp** for loans from PLN 100 thousand to 200 thousand.



SOURCE: SARFIN

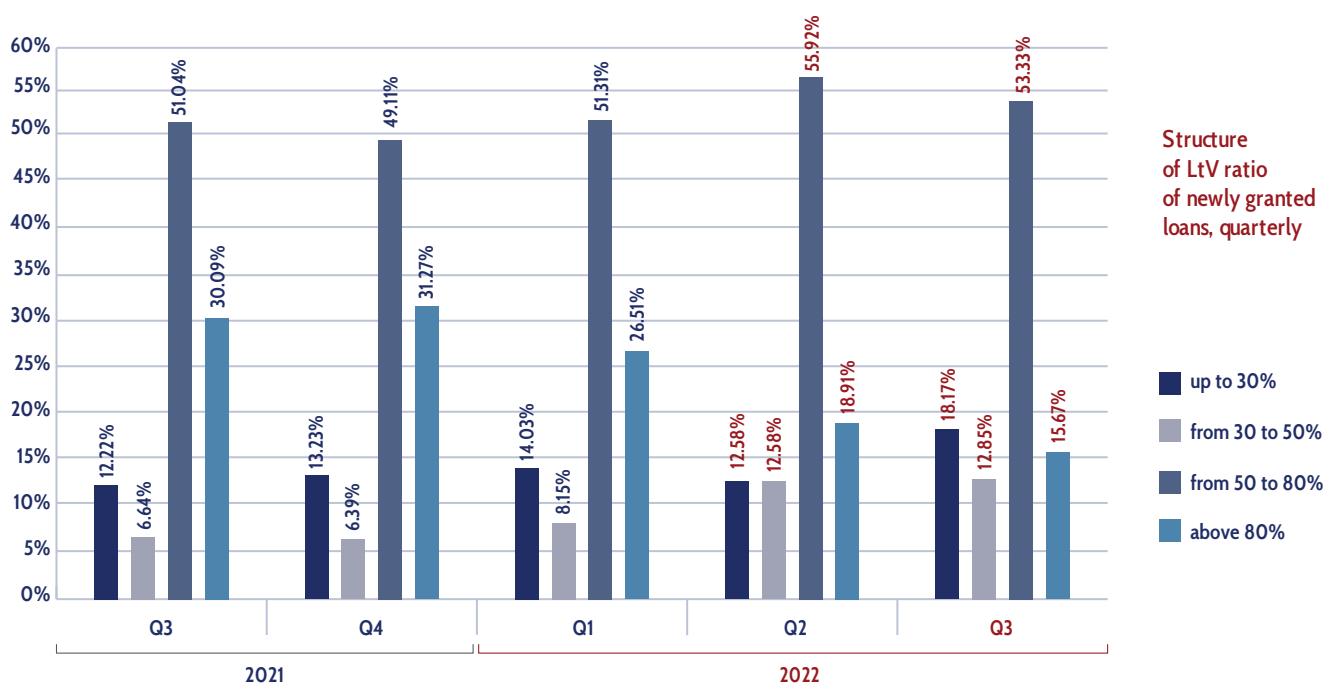
	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022
up to PLN 100 000	5.04%	4.48%	4.13%	3.85%	4.68%
from PLN 100 000 to 200 000	20.00%	19.14%	19.69%	20.63%	24.43%
from PLN 200 000 to 300 000	24.25%	24.12%	24.33%	24.84%	25.81%
from PLN 300 000 to 400 000	21.35%	21.04%	20.63%	20.37%	18.72%
from PLN 400 000 to 500 000	13.58%	13.79%	13.91%	13.54%	12.16%
from PLN 500 000 to 1 million	14.74%	16.25%	16.08%	15.54%	12.99%
above PLN 1 million	1.05%	1.18%	1.23%	1.24%	1.22%

SOURCE: SARFIN

Structure of new loans, by LtV ratio

Third quarter of 2022 brought dynamic changes of the housing loans market structure in terms of the LtV ratio. Share of loans with LtV ratio between 50 and 80% decreased by **2.59 pp** and accounted for **53.33%**. Percentage of loans with LtV ratio amounting to 80% and more decreased by **3.24 pp**, i.e. to **15.67%**, share of loans with a LtV ratio ranging from 30 to 50% increased slightly by **0.27 pp** to **12.85%**, while share of loans with LtV not exceeding 30% increased by **5.65 pp**, to the level of **18.15%**.

In relation to the third quarter of 2021, there was a clear decrease in share of loans with a LtV ratio at the level of 80% or more – by **14.42 pp**. In all other LtV categories increases were recorded – by **2.28 pp** in case of loans with LtV from 50% to 80%, **6.22 pp** in case of loans with LtV ratio ranging from 30 to 50% and by **5.92 pp** in category of loans with the LtV up to ratio from 30%.



SOURCE: SARFIN

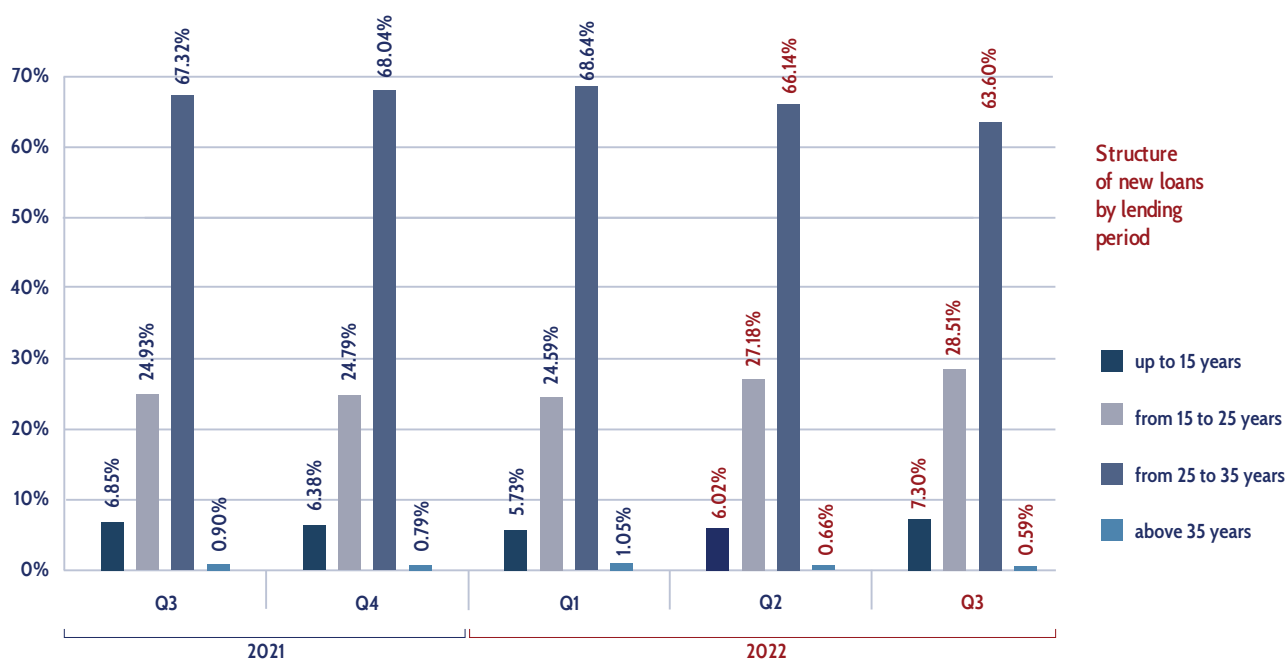
	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022
up to 30%	12.22%	13.23%	14.03%	12.58%	18.15%
from 30 to 50%	6.64%	6.39%	8.15%	12.58%	12.85%
from 50 to 80%	51.04%	49.11%	51.31%	55.92%	53.33%
above 80%	30.09%	31.27%	26.51%	18.91%	15.67%

SOURCE: SARFIN

Lending period

In the third quarter of 2022, increases were recorded in categories of loans with maturities up to 15 years and from 15 to 25 years. Their market shares equalled respectively to **7.30%** and **28.15%**, i.e. by **1.28 pp** and **1.33 pp**. In other two categories, declines were recorded – by **2.54 pp** in case of loans granted for the period between 25 and 35 years and by **0.07 pp** for loans with maturity over 35 years.

Compared to the results recorded in the third quarter of 2021, share of loans with maturities up to 15 years increased (by **0.45 pp**) and from 15 to 25 years (by **3.58 pp**). Shares of other categories of the housing loans decreased – by **3.72 pp** in case of loans granted for the period between 25 and 35 years and by **0.31 pp** in case of loans with maturities over 35 years.



SOURCE: SARFIN

	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022
up to 15 years	6.85%	6.38%	5.73%	6.02%	7.30%
from 15 to 25 years	24.93%	24.79%	24.59%	27.18%	28.51%
from 25 to 35 years	67.32%	68.04%	68.64%	66.14%	63.60%
above 35 years	0.90%	0.79%	1.05%	0.66%	0.59%

SOURCE: SARFIN

Housing Availability Index M3 – HAI M3

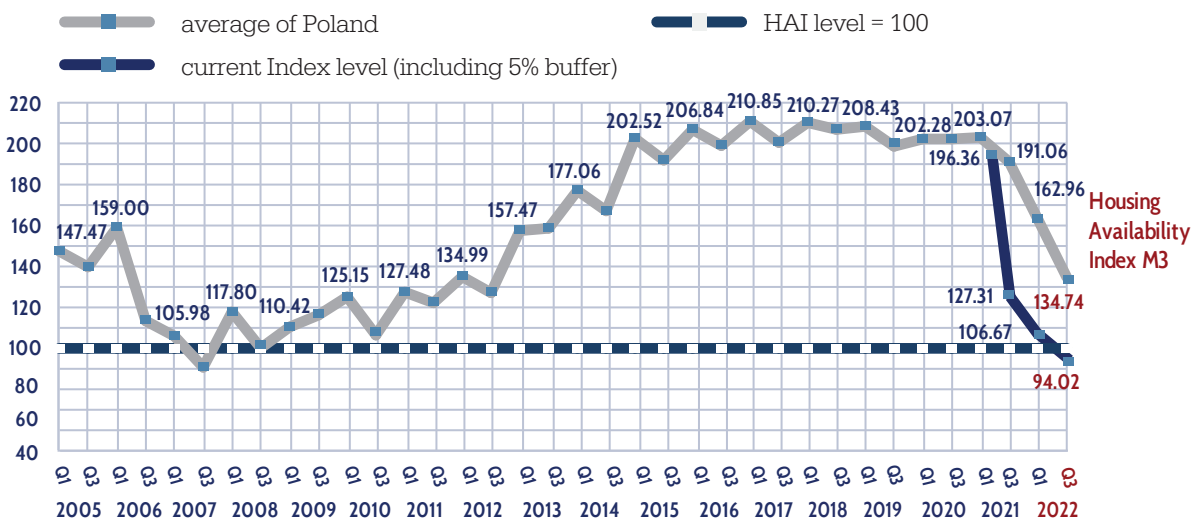
Housing Availability Index (HAI M3), a synthetic measure presented in AMRON-SARFiN Reports, shows quarterly changes in availability of housing units in Poland for the exemplary family comprising of two employed adults with one older child. A slight decrease of dwelling availability in Q3 2022 was influenced by the following factors:

- slight prices decrease in analysed housing segment (with floor area from 45 to 55 sqm) in cities monitored in order to calculate HAI M3 Index (8 biggest cities) – by **3.59%** in relation to Q2 2022;
- an increase in interest rates of newly granted loans – according to National Bank of Poland real interest rate of loans granted in Q3 2022 amounted to **9.05%** (while in Q2 2022 it was **7.58%**). For the first time the estimation included also the value of the index, taking into account the 5% buffer required by the provisions of Recommendation S of the Polish Financial Supervision Authority when examining creditworthiness;
- decrease of the average gross family income by

2.39% in the third quarter of 2022 compared to the previous quarter;

- raised level of living costs, which for the Report purposes are expressed as the minimum subsistence level of the previous quarter (calculated as inflation quarter on quarter due to the postponement of announcing the minimum subsistence level by the Institute of Labour and Social Affairs for the next quarter) – by **3.10%** in relation to the second quarter of 2022.

The disposable income for HAI M3 (being the difference between the family income and the amount of the loan instalment amount or the value of the minimum subsistence level – in order to calculate the Housing Availability Index M3 the lower amount is taken into account) decreased by **2.24%**. After taking into account a decrease in housing prices, the housing availability index in Q3 2022 decreased by **27.71 points**, to the level of **134.74 points**. Taking into account the 5% buffer required by the provisions of Recommendation S of the Polish Financial Supervision Authority, at the end of Q3 2022 the index level equalled to **94.02 points**.

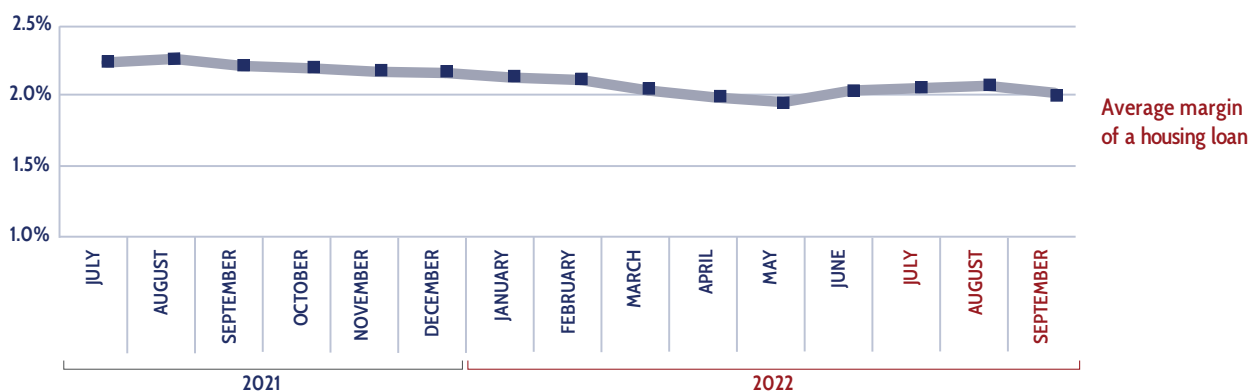


SOURCE: AMRON

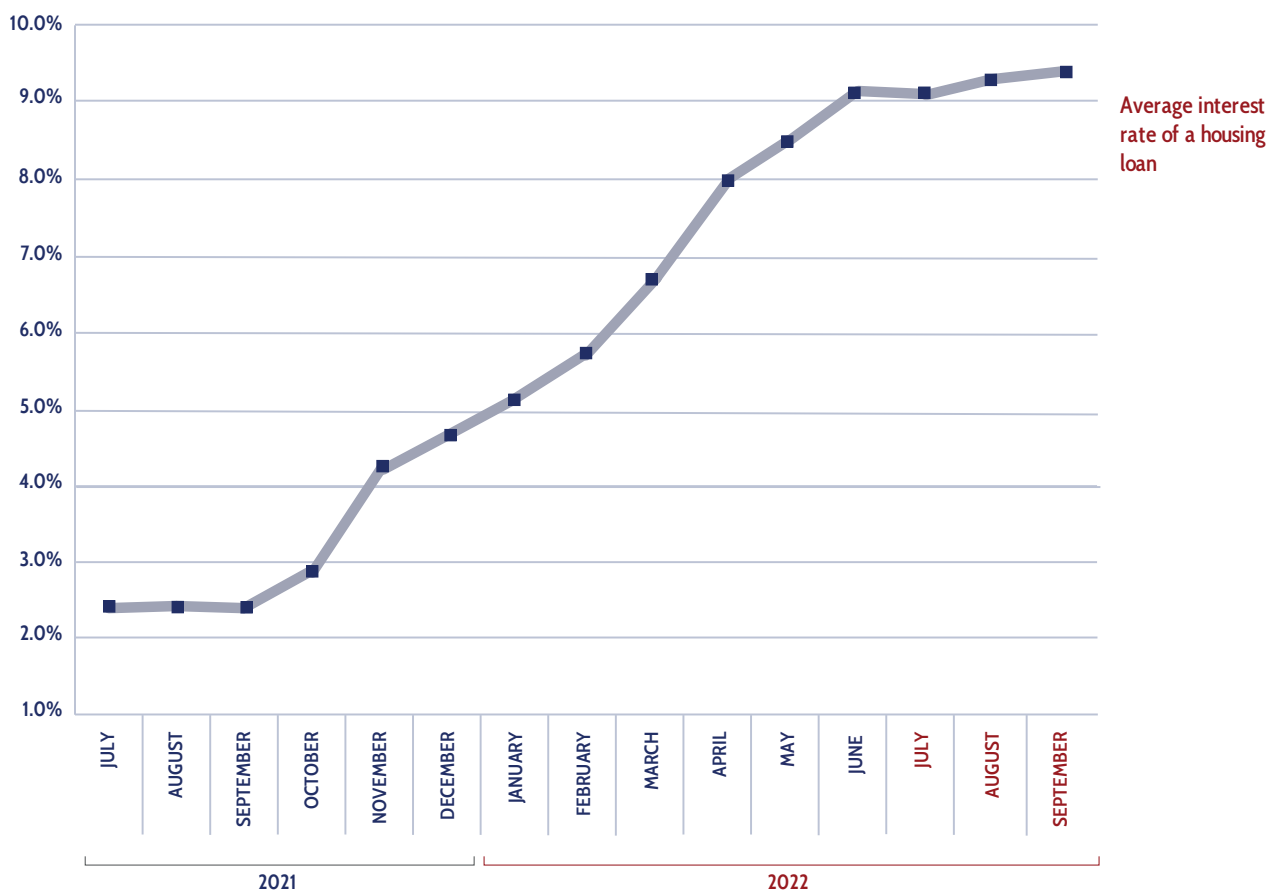
Average margin levels and mortgage interest rates

At the end of the third quarter of 2022, the average margin of a housing loan (for a model mortgage loan in amount of PLN 300 000 with the LtV ratio of 75% and granted for the period of 25 years) amounted to **1.99%**, which was less by **0.02 pp** compared to the end of the second quarter of 2022. Relating to the end of the corresponding period of 2021, the average mortgage margin was lower by **0.23 pp**.

The average interest rate of a model mortgage loan at the end of the third quarter of 2022 accounted for **9.20%**, i.e. by **0.05 pp** more compared to the end of the second quarter of 2022 year and more by **6.74 pp** than as for the end of the third quarter of the last year.



SOURCE: AMRON CENTRE BASED ON BANKS' CREDIT OFFERS



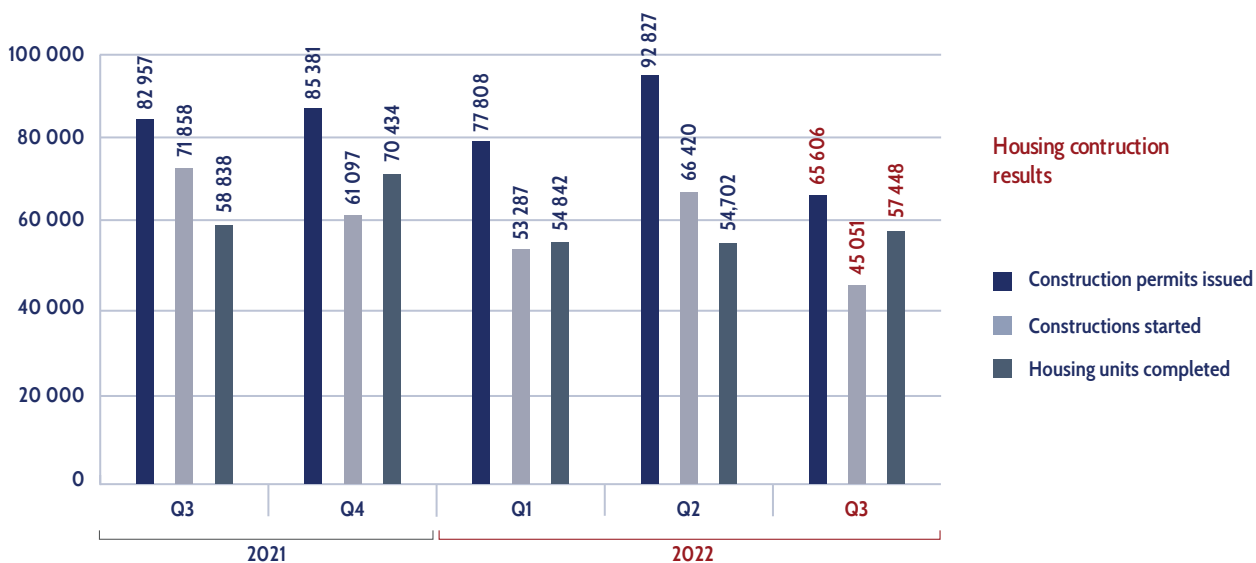
SOURCE: AMRON CENTRE BASED ON BANKS' CREDIT OFFERS

SITUATION ON HOUSING MARKET

Housing construction results

Compared to the quotations from the previous quarter, the number of flats completed in the third quarter of 2022 year increased by **5.02%** (in total **57 488** flats were completed in Q3 2022). The number of constructions started decreased by **32.17%**. The number of dwellings, for construction of which a building permit was issued or a building design application was submitted, decreased as well, by **29.32%** to **65 606**.

Compared to the third quarter of 2021, decreases in all three categories were recorded. The number of constructions started was lower by **37.31**, decrease in number of completed dwellings amounted to **2.36%**, while the number of dwellings with construction permits issued or construction design applications submitted decreased by as much as **20.92%**.



SOURCE: CENTRAL STATISTICAL OFFICE

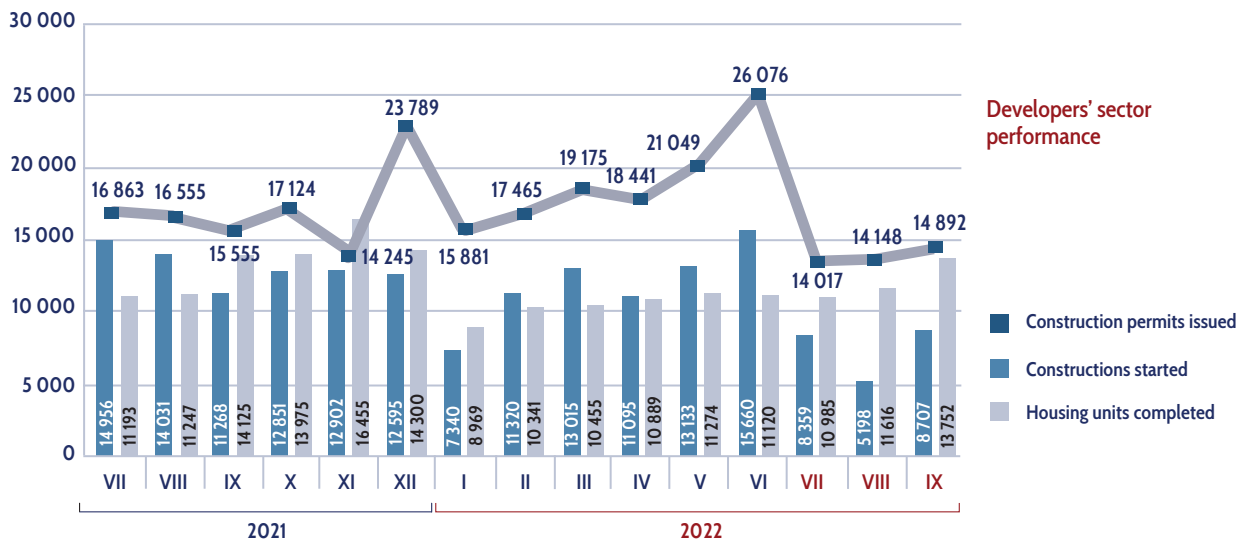
Developers' sector results

In the third quarter of this year developers started construction of **22 264** flats, which was less by **44.18** than in the previous quarter. The number of apartments with building permits obtained in this period amounted to **43 057**, which meant a decrease by **33.74%**. An increase was recorded only in category of completed dwellings. Between July and September 2022, as much as **36 353** dwellings were completed, which was by **9.22%** more than in the previous quarter. Such deep decreases in case of two first indicators, apart from the deteriorating situation on the housing market, should be associated with increased developers activity in the previous quarter, related to the entry into force the amended Developer Act imposing an obligation on developers to pay contributions to the Developers' Guarantee Fund.

Compared to the results achieved by the developers' sector in the corresponding

period of the last year, decreases in all three categories were recorded. Number of dwellings under construction decreased by **44,82%**, number of issued construction permits or submitted applications was lower by **10.50%** and the number of completed dwellings fell by **10.19%**.

In the third quarter of 2022, the number of building permits obtained by developers accounted for **65.63%** of all building permits in the housing sector (less by **4.38 pp** compared to the previous quarter). The number of flats started by developers constituted **49.42%** of all commenced investments (less by **10.63 pp** than in the previous quarter) and the number of flats completed by developers accounted for **63.28%** of all completed flats (more by **2.44 pp** in relation to the previous quarter).

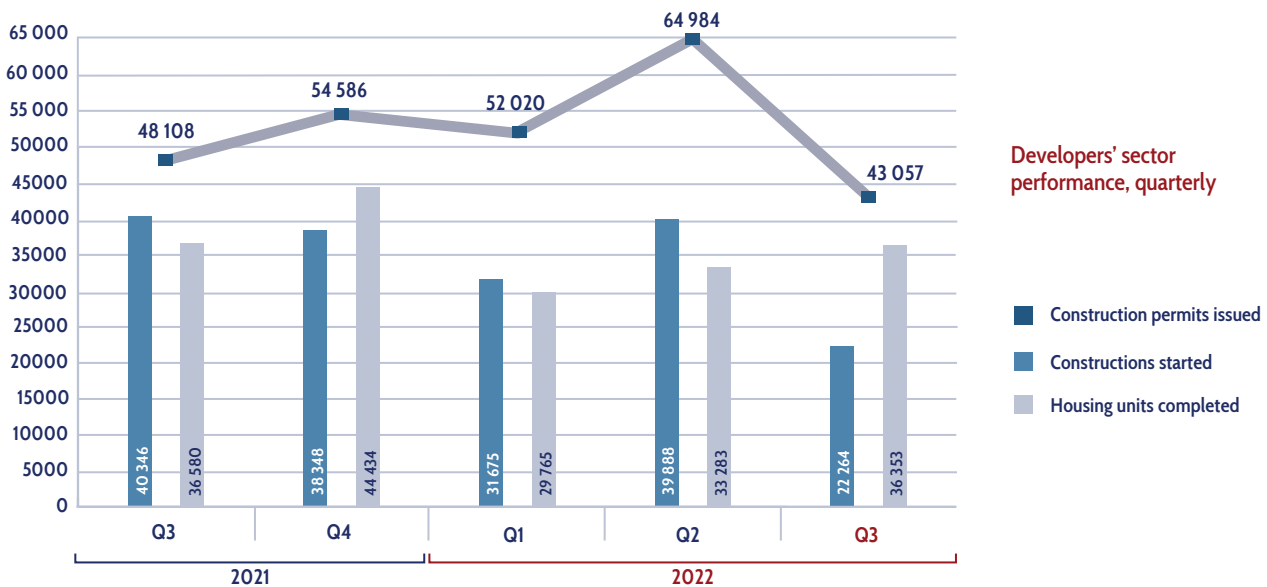


SOURCE: CENTRAL STATISTICAL OFFICE

	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022
Construction permits issued	48 108	54 586	52 020	64 984	43 057
Constructions started	40 346	38 348	31 675	39 888	22 264
Constructions started	36 580	44 434	29 765	33 283	36 353

Developers' sector performance, quarterly

SOURCE: CENTRAL STATISTICAL OFFICE



Developers' sector performance, quarterly

■ Construction permits issued
■ Constructions started
■ Housing units completed

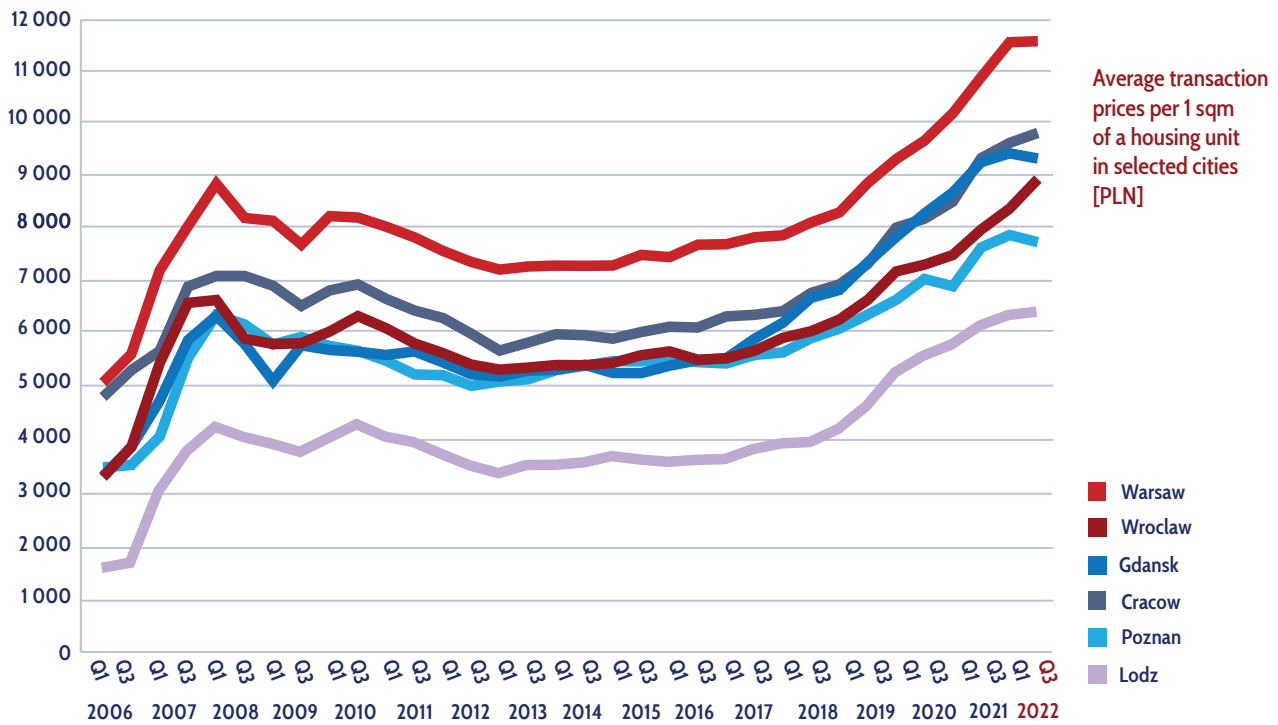
SOURCE: CENTRAL STATISTICAL OFFICE

Average transaction prices of housing units

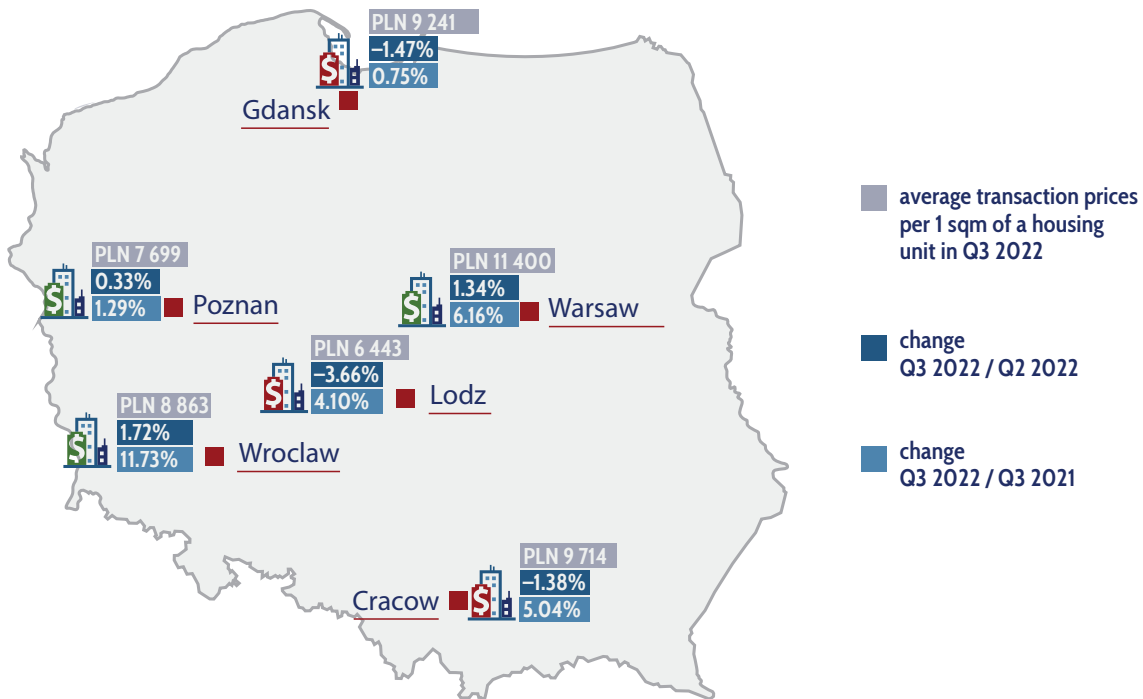
In Q3 2022, varied dynamics of changes in average apartment prices in the largest Polish cities was recorded. Increases in the average nominal price were observed in **Warsaw**, **Wroclaw** and **Poznan** – respectively by **1.34%**, **1.72%** and **0.33%**. The average transaction price in the third quarter of 2022 equalled in these cities to **PLN 11 400/sqm**, **PLN 8 863/sqm** and **PLN 7 699/sqm**, respectively. On the other hand, decreases in average prices occurred in **Cracow** (by **1.38%**), **Gdansk** (by **1.47%**) and **Lodz**, where

the highest dynamics of the average price was recorded – **3.66%**.

Compared to the corresponding period of 2021, the largest increases in the average price of apartments were recorded in Wroclaw (by **11.73%**), Warsaw (**6.16%**) and Cracow (**5.04%**). The lowest increase was recorded in Gdansk – **0.75%**. The average price per square meter of an apartment in Poznan was **1.29%** higher than the one recorded a year earlier.



SOURCE: AMRON



SOURCE: AMRON

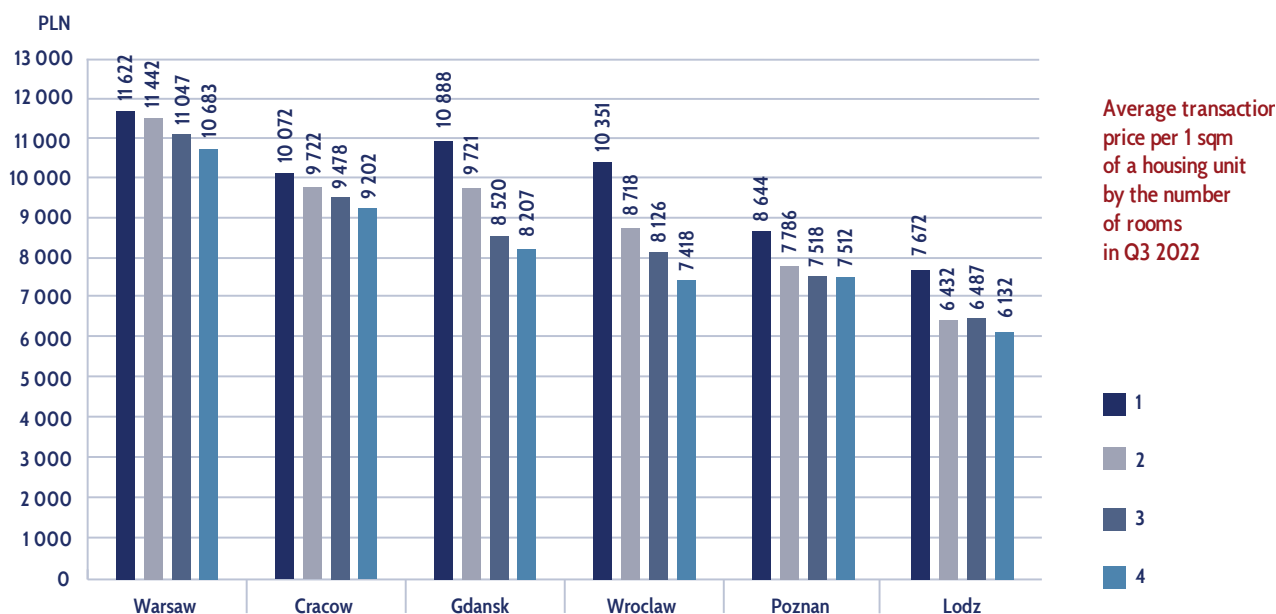
QUARTER	WARSAW	WROCLAW	GDANSK	CRACOW	POZNAN	LODZ
Q1 2015	7 267	5 475	5 289	5 921	5 509	3 782
Q2 2015	7 354	5 534	5 253	5 973	5 454	3 732
Q3 2015	7 463	5 617	5 287	6 044	5 502	3 720
Q4 2015	7 339	5 563	5 343	6 013	5 426	3 742
Q1 2016	7 422	5 687	5 423	6 141	5 564	3 677
Q2 2016	7 503	5 554	5 388	6 279	5 429	3 621
Q3 2016	7 651	5 533	5 525	6 128	5 489	3 714
Q4 2016	7 527	5 540	5 687	6 310	5 530	3 898
Q1 2017	7 659	5 560	5 562	6 332	5 465	3 729
Q2 2017	7 704	5 585	5 717	6 202	5 445	3 864
Q3 2017	7 787	5 701	5 919	6 361	5 622	3 913
Q4 2017	7 882	5 928	6 162	6 489	5 727	3 972
Q1 2018	7 824	5 936	6 215	6 429	5 668	4 017
Q2 2018	7 961	5 941	6 327	6 567	5 685	4 077
Q3 2018	8 062	6 060	6 676	6 765	5 932	4 042
Q4 2018	8 117	6 150	6 808	6 789	6 026	4 201
Q1 2019	8 247	6 275	6 821	6 922	6 109	4 284
Q2 2019	8 447	6 546	7 046	7 029	6 214	4 553
Q3 2019	8 790	6 638	7 329	7 301	6 366	4 709
Q4 2019	9 021	6 921	7 711	7 714	6 532	5 037
Q1 2020	9 228	7 160	7 797	7 968	6 637	5 324
Q2 2020	9 331	7 064	8 007	7 873	6 827	5 519
Q3 2020	9 568	7 286	8 227	8 132	7 023	5 633
Q4 2020	10 081	7 227	8 289	8 015	6 988	5 651
Q1 2021	10 073	7 464	8 616	8 446	6 887	5 839
Q2 2021	10 224	7 598	8 757	8 738	7 222	5 853
Q3 2021	10 738	7 932	9 173	9 249	7 601	6 189
Q4 2021	11 082	8 197	9 378	9 285	7 762	6 278
Q1 2022	11 382	8 317	9 337	9 528	7 831	6 382
Q2 2022	11 249	8 713	9 379	9 851	7 673	6 688
Q3 2022	11 400	8 863	9 241	9 714	7 699	6 443

Average transaction prices per 1 sqm of a housing unit in selected cities [PLN]

SOURCE: AMRON

The analysis of changes in the average transaction price for 1 sqm of usable floor area indicates its strong correlation with the number of rooms in an apartment in most of the analysed locations. The size of the housing market seems to be the key factor in this case, which certainly is not always strictly related to the size of the city itself or a group of cities. The larger the market, the greater

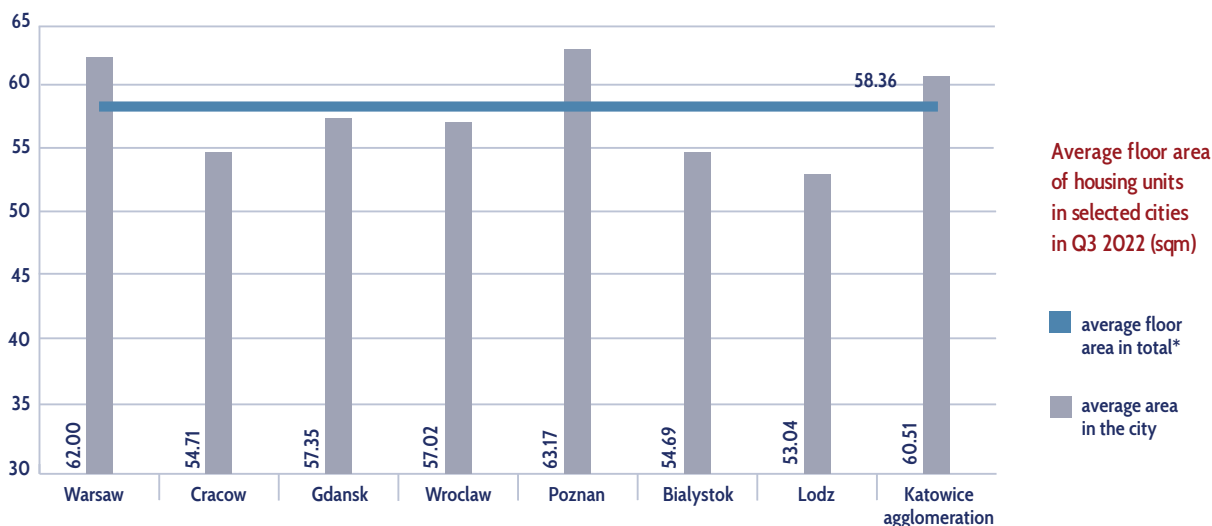
variety of prices and vice versa – the smaller the market, the more homogeneous in terms of prices. In the third quarter of 2022, the average price of 1 square meter of a studio apartment in Warsaw was **PLN 11 622** per sqm, a two-room apartment – **PLN 11 442** per sqm, a three-room apartment – **PLN 11 047** per sqm and a four-room apartment – **PLN 10 683** per sqm.



SOURCE: AMRON

The average usable floor area of dwellings purchased in the third quarter of 2022 in the eight largest Polish agglomerations slightly increased, compared to the value recorded in the previous quarter and amounted to **58.36 sqm**. The highest

average area of sold flats was recorded in Poznan (**63.17 sqm**) and Warsaw (**62.00 sqm**), while the smallest flats were traded in Lodz, where the average space was equal to **53.04 sqm**.



* in 8 surveyed locations

SOURCE: AMRON

Average transaction prices of flats in smaller Polish cities

The analysis below presents changes in the average prices of 1 sqm of dwellings in all

voivodship capital cities and in the largest cities of the Katowice agglomeration, by regions.

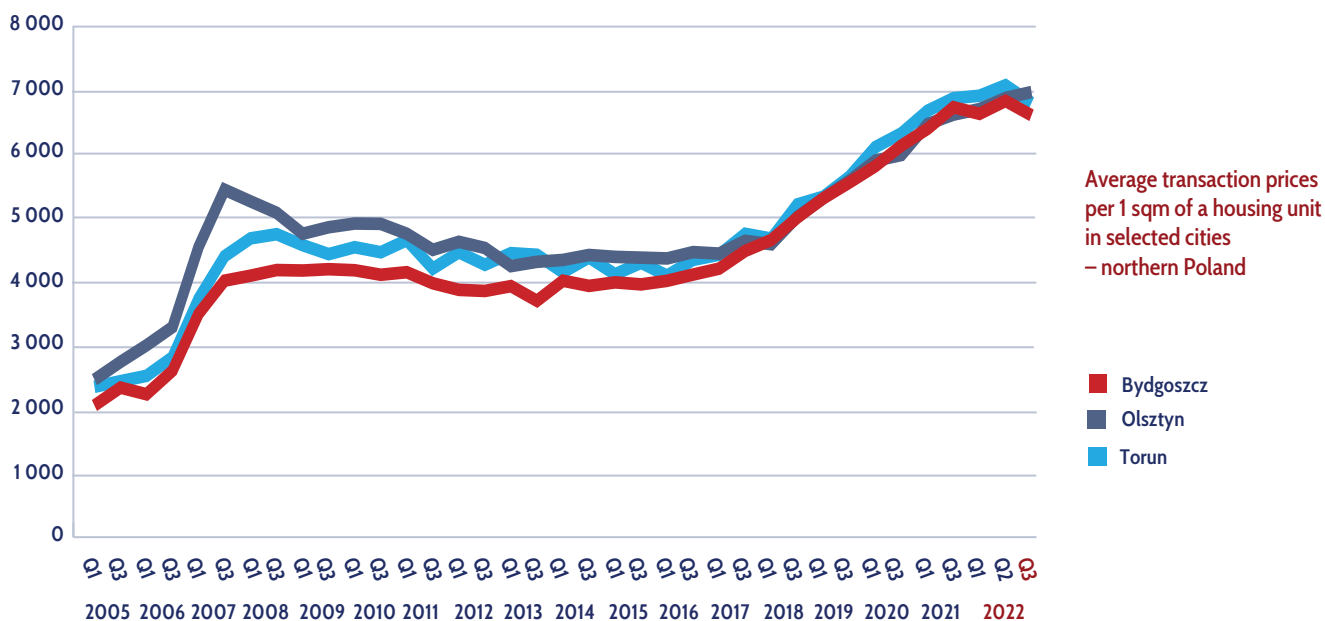
Region – northern Poland

Among the cities of the northern region, the highest average price per square meter of a flat in the third quarter of 2022, was recorded in **Olsztyn – PLN 6 835**. The highest dynamics of the average price compared to the second quarter of 2022 – a decrease by **3.92%** – was recorded in Torun. A decrease in the average price by **3.29%**

was recorded also in **Bydgoszcz**. The average price recorded in **Olsztyn** was by **1.34%** higher than in the previous quarter. In relation to the third quarter of the previous year, the highest decrease was recorded in **Bydgoszcz** – by **1.88%**. The average price in Olsztyn was **5.35%** higher than in the previous year.

city	Price in Q3 2022	Change Q3 2022/Q2 2022	Change Q3 2022/Q3 2021
Bydgoszcz	6 475	-3.29%	-1.88%
Olsztyn	6 835	1.34%	5.35%
Torun	6 668	-3.92%	-1.07%

SOURCE: AMRON



SOURCE: AMRON

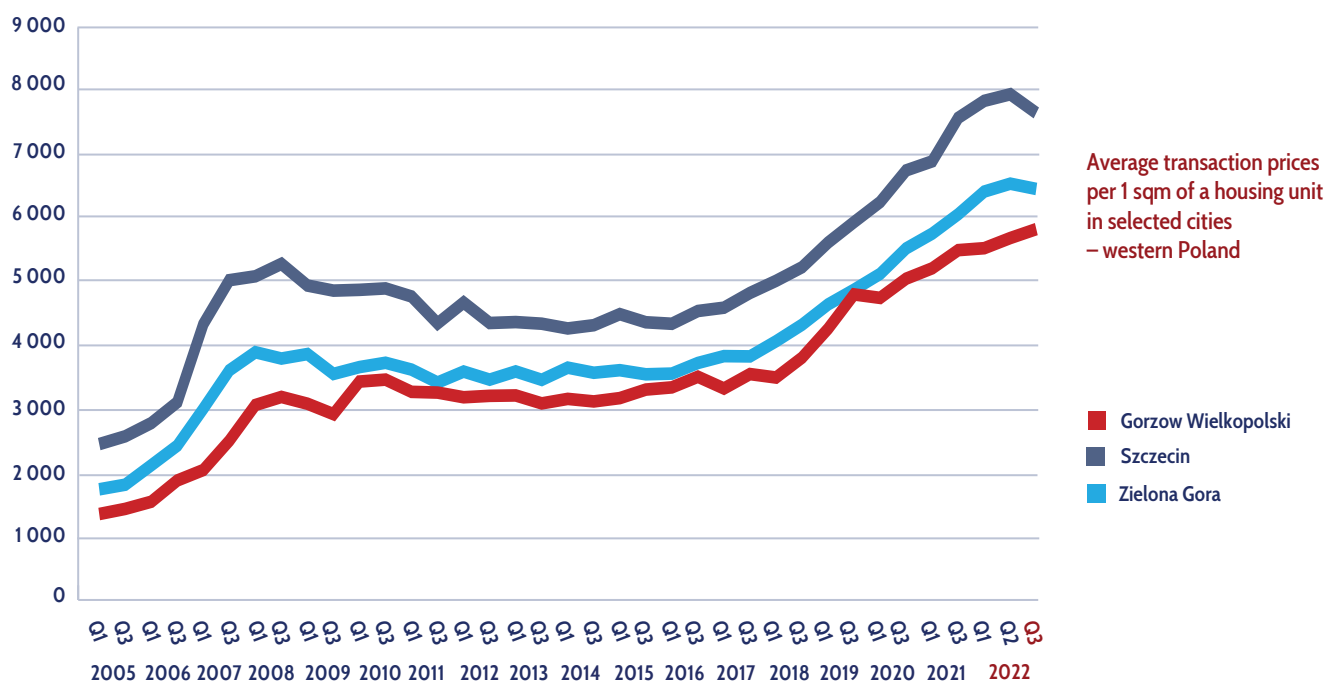
Region – western Poland

The highest average price among the cities of Western Poland was recorded in **Szczecin**, where the average price of a square meter of a flat in the third quarter of 2022, equalled to **PLN 7 478**. It was lower than the one recorded in the previous quarter by **3.70%**, which was the

highest price dynamics recorded among cities in the region. The lowest average price was recorded in **Gorzow Wielkopolski** – **PLN 5 692**. In annual terms, the highest price dynamics was again recorded in **Zielona Góra** – an increase of **6.55%**.

city	Price in Q3 2022	Change Q3 2022/Q2 2022	Change Q3 2022/Q3 2021
Gorzow Wielkopolski	5 692	2.47%	6.01%
Szczecin	7 478	-3.70%	1.01%
Zielona Gora	6 311	-1.27%	6.55%

SOURCE: AMRON



SOURCE: AMRON

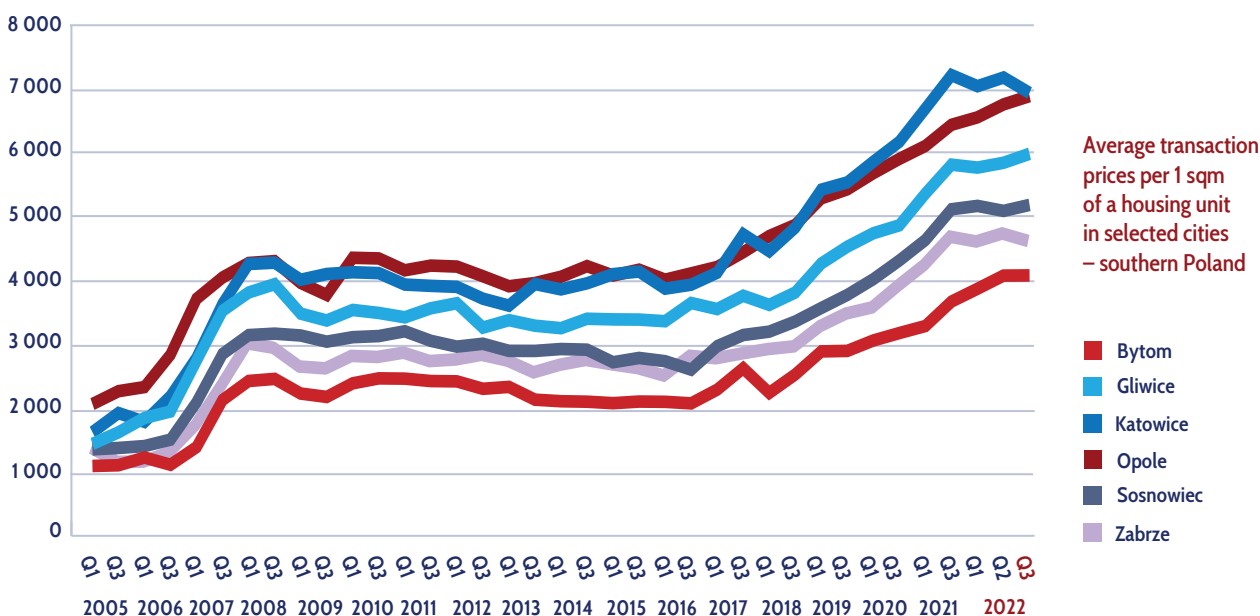
Region – southern Poland

Katowice continued to be the most expensive city among the examined cities in southern Poland. The average price per 1 square meter of a flat in **Katowice** in Q3 2022 amounted to **PLN 6 801** and was by **3.36%** lower than in the previous quarter. A price decrease was also noted in **Zabrze** – by **2.49%**. In other cities of the region, slight

increases were observed – from **0.07%** in **Bytom** up to **2.41%** in **Gliwice**. In annual terms, the city with the highest price dynamics in annual terms was **Bytom** – the average price recorded in the third quarter of 2022 was higher by **11.16%** than a year earlier.

city	Price in Q3 2022	Change Q3 2022/Q2 2022	Change Q3 2022/Q3 2021
Bytom	3 996	0,07%	11,16%
Gliwice	5 866	2,41%	2,94%
Katowice	6 801	-3,36%	-3,86%
Opole	6 752	1,94%	7,00%
Sosnowiec	5 081	1,85%	1,34%
Zabrze	4 551	-2,49%	-1,42%

SOURCE: AMRON



SOURCE: AMRON

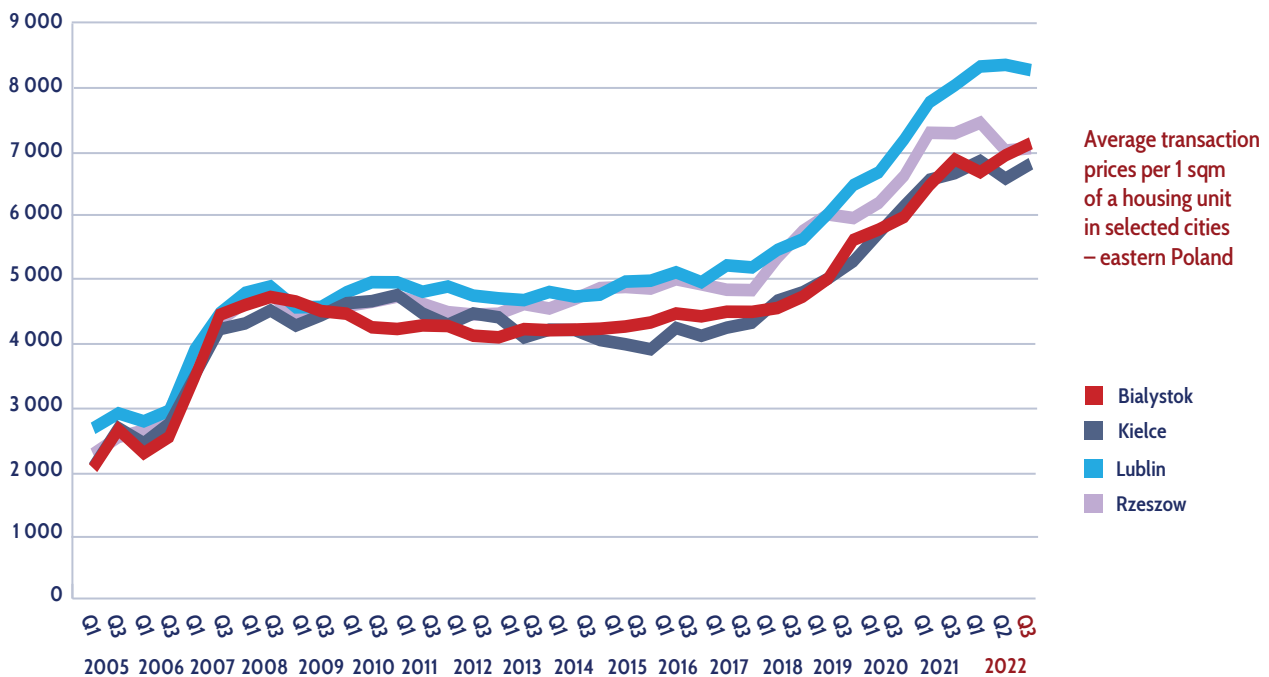
Region – eastern Poland

In the third quarter of 2022, the highest average price among the cities in eastern Poland was recorded in **Lublin** – **PLN 8 113**. The highest price dynamics in this period was recorded also in **Lublin** – an increase by **3.53%** compared to the value recorded a quarter earlier. The lowest

average price was recorded in **Kielce** – **PLN 6 677**. In annual terms, the most significant change in housing prices was recorded in **Białystok**, where the price recorded in the third quarter of 2022 was higher by **10.17%** than the one recorded a year earlier.

city	Price in Q3 2022	Change Q3 2022/Q2 2022	Change Q3 2022/Q3 2021
Białystok	6 988	2,71%	10,17%
Kielce	6 677	3,53%	3,85%
Lublin	8 113	-0,98%	6,48%
Rzeszów	6 916	0,54%	-3,29%

SOURCE: AMRON



SOURCE: AMRON

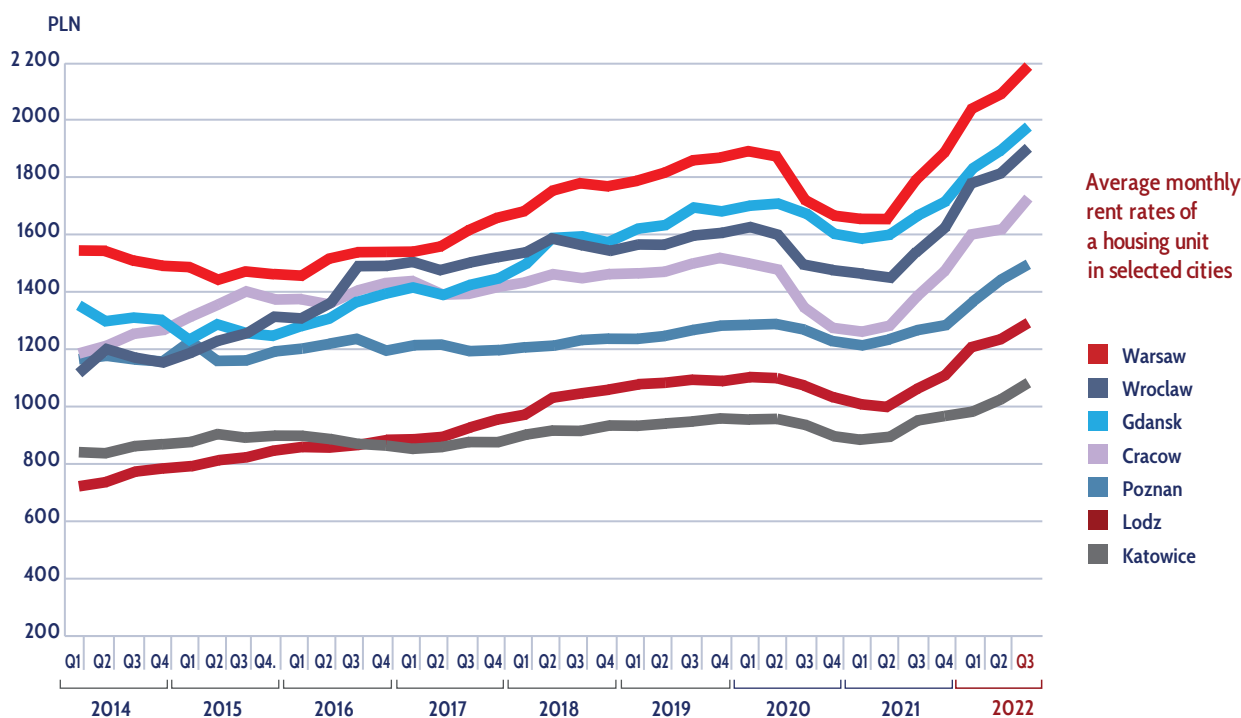
Average rent rates of housing units

Declines in price availability of flats and the creditworthiness of potential borrowers, caused by rising interest rates, new Polish Financial Supervision Authority Recommendation S of and growing living costs, resulted in a shift of a significant part of the demand from the housing to the rental market. In addition to the persistently increased demand for apartments for rent from refugees from Ukraine, it was the most important factor in the increase in apartment rents in the third quarter of this year.

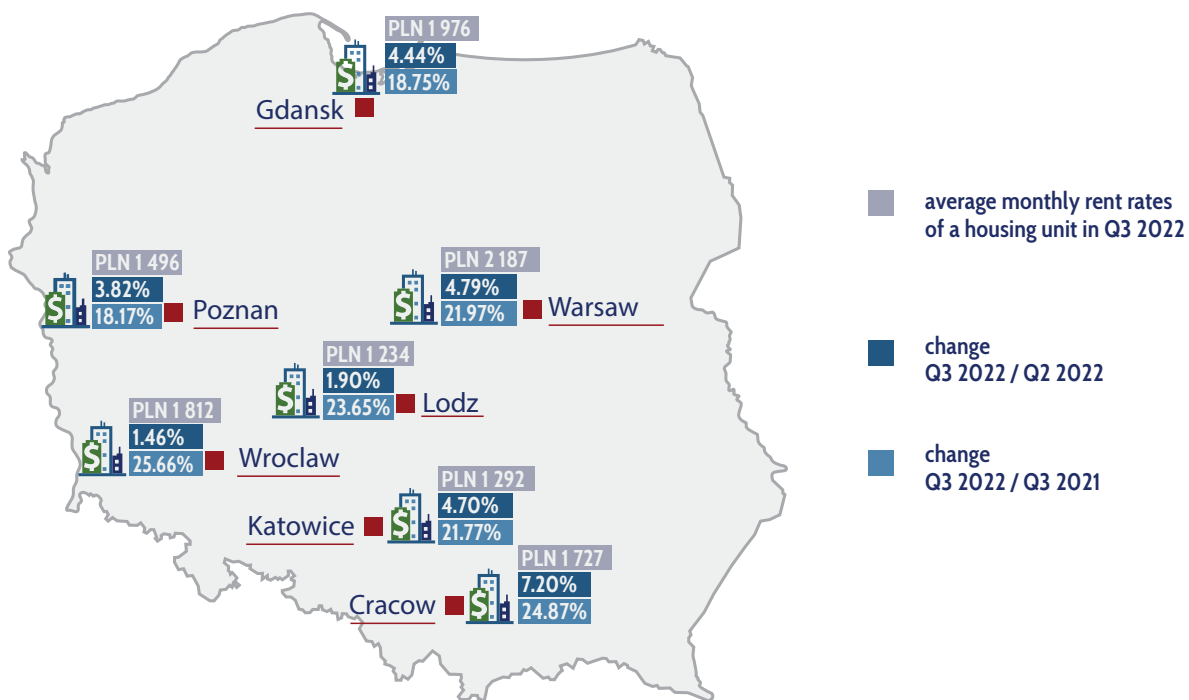
The highest increase in relation to the level of rent recorded in the previous quarter was

recorded in Cracow – **7.20%** (up to **PLN 1 727**). Rent rates in Katowice grew slightly slower – by **5.76%** (**PLN 1 083**). In the remaining surveyed cities, rent increases were slightly lower – by **4.97%** in **Wroclaw** (**PLN 1 902**), **4.70%** in **Lodz** (**PLN 1 292**) and **4.44%** in **Gdansk** (**PLN 1 976**). The lowest increase in the average rent rate was recorded in **Poznan** – **3.82%** (**PLN 1 496**).

The average rent for an apartment in Warsaw in the third quarter of 2022 amounted to **PLN 2 187** and was higher than the one recorded in the previous quarter by **4.79%** (**PLN 100**).



SOURCE: AMRON



SOURCE: AMRON

QUARTER	WARSAW	KATOWICE	WROCLAW	GDANSK	CRACOW	POZNAN	LODZ
Q1 2014	1 544	841	1 116	1 353	1 185	1 165	722
Q2 2014	1 543	837	1 205	1 295	1 212	1 177	737
Q3 2014	1 507	862	1 172	1 311	1 255	1 164	773
Q4 2014	1 491	869	1 152	1 302	1 265	1 157	784
Q1 2015	1 486	876	1 187	1 229	1 313	1 228	791
Q2 2015	1 440	905	1 230	1 290	1 356	1 156	813
Q3 2015	1 472	891	1 254	1 256	1 404	1 160	823
Q4 2015	1 461	899	1 314	1 246	1 373	1 192	847
Q1 2016	1 456	899	1 307	1 282	1 375	1 202	859
Q2 2016	1 518	887	1 358	1 305	1 357	1 219	857
Q3 2016	1 538	870	1 494	1 368	1 405	1 237	867
Q4 2016	1 539	864	1 490	1 394	1 431	1 194	884
Q1 2017	1 540	852	1 505	1 416	1 438	1 214	886
Q2 2017	1 559	859	1 470	1 389	1 390	1 216	894
Q3 2017	1 617	877	1 502	1 424	1 393	1 193	927
Q4 2017	1 659	874	1 521	1 445	1 417	1 196	955

Average monthly rent rates of a housing unit in selected cities [PLN]

QUARTER	WARSAW	KATOWICE	WROCLAW	GDANSK	CRACOW	POZNAN	LODZ
Q1 2018	1 682	902	1 537	1 495	1 433	1 196	972
Q2 2018	1 755	917	1 589	1 592	1 462	1 211	1 033
Q3 2018	1 780	915	1 563	1 594	1 447	1 232	1 046
Q4 2018	1 767	934	1 542	1 571	1 462	1 237	1 059
Q1 2019	1 787	933	1 565	1 620	1 464	1 236	1 078
Q2 2019	1 816	941	1 564	1 632	1 470	1 246	1 083
Q3 2019	1 859	948	1 596	1 695	1 499	1 267	1 094
Q4 2019	1 868	959	1 604	1 680	1 519	1 282	1 088
Q1 2020	1 891	955	1 627	1 700	1 499	1 285	1 103
Q2 2020	1 872	957	1 603	1 709	1 484	1 288	1 099
Q3 2020	1 714	937	1 492	1 676	1 342	1 268	1 073
Q4 2020	1 666	897	1 476	1 603	1 275	1 227	1 033
Q1 2021	1 654	884	1 463	1 585	1 260	1 212	1 008
Q2 2021	1 652	892	1 442	1 597	1 278	1 234	998
Q3 2021	1 793	951	1 541	1 664	1 383	1 266	1 061
Q4 2021	1 886	967	1 621	1 712	1 472	1 282	1 107
Q1 2022	2 042	982	1 786	1 833	1 606	1 365	1 211
Q2 2022	2 087	1 024	1 812	1 892	1 611	1 441	1 234
Q3 2022	2 187	1 083	1 902	1 976	1 727	1 496	1 292

Average monthly rent rates of a housing unit in selected cities [PLN]

SOURCE: AMRON

The rent rates survey was based on the information from current rent agreements (active at the date of the review). The analysis was based on the monthly amounts

owed to the landlord before tax, excluding administration fees and maintenance costs, rent management fees, projected and current utility charges, etc.



IT SEEMS THAT WE ARE CLOSING THE CYCLE ON THE RESIDENTIAL REAL ESTATE MARKET, ALTHOUGH THIS IS NOT OUR MAIN AND ONLY PROBLEM AT THE MOMENT.

prof. Jacek Łaszek

Warsaw School of Economics

Shock after shock

The world does not develop linearly. Periods of relative calm are often followed by the accumulation of violent and previously unpredictable processes that result in acceleration of changes, including the economic changes. It seems that we are closing the cycle on the residential real estate market, although this is not our main and only problem at the moment, as it is indicated by the preliminary readings of all indicators applicable in such situation, i.e. decreases in the mortgage loan availability and credit availability of housing, real decreases in prices on the primary market, decrease in offer prices and the adjustment reaction of developers (reduction in number of started projects).

The cycle is closing in a classic way, almost like described in a textbook. A small exception is the epidemic and related acceleration in housing demand in response to monetary (rates) and fiscal (anti-covid shield) interventions, and then a sharp deceleration under the influence of rising interest rates (inflation), tightened regulatory requirements (Recommendation S) and the supply shock caused by the war in Ukraine. In principle, we are dealing with a stagflation slowdown in the sector after a long, seven-year construction boom. And so we can observe an increase in production costs and prices (supply shock and inflation), a decrease in demand (increases in interest rates) and the perspective of market adjustment to a lower level of production at higher prices. If there are no further external shocks, a slowdown in the growth

of costs and prices of construction production can be expected (a decrease in construction demand means a decrease in prices, especially in real terms) and stabilization of housing prices, or their slight decrease. Experience proves that the slowdown will concern real prices, but some corrections of nominal prices will also be possible, where the disparities between demand and supply are the highest. The impact of war on accelerating a market correction is nothing new, there are many cases when political events have accelerated a correction in the real estate market. It is worth remembering that in 2008/2009, i.e. during a credit boom on Polish market, the correction also came from outside (the collapse of Lehman Brothers) limiting further growth of disproportions in the sector. So was the Korean War, which changed the cycle in the US.

The good news is that we made good use of the boom period and the housing stock in Poland exceeded 400 apartments per 1 000 people, which means that Poland is no longer the world's housing poor man, but still ranks far behind the rich Europe. The second piece of good news is that, despite popular opinion, prices did not increase dramatically. No excessive tensions were generated, that could possibly result in an immediate and deep correction of nominal prices, which always causes trouble for banks. The developers' sector, especially big companies, are well capitalized and experienced in crisis management, so they should be able to cope with high production in progress – the effect of production records. However, losses seem to be inevitable.

As can be observed (credit demand, demand structure), the fall in demand applies mostly to flats purchased by families for their own purposes. Until high inflation and other problems are overcome, not much will change. In this situation, investment demand, especially generated by households, should be supported, as it will be the basis for the “survival” of the construction sector. However, this is already happening. Decline in demand for housing purchases has increased the demand for apartments for rent, there is also a new wave of demand from refugees from Ukraine and rents are constantly rising. Contrary to what

may be expected, this is a good news, because the housing investment is low-margin and in difficult times, like nowadays, it is not so easy to find investors.

Well, we have to wait for the times of easy housing, and in the meantime we are practically getting to know the housing cycle.

Expert's comments published in AMRON-SARFIN Report reflect authors' opinions, which not always are consistent with opinions presented by Polish Banks Association and AMRON Centre.



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During this period, we have collected more than 3.91 million data on prices and real estate values and we gained both huge experience and the trust of our business partners. Our offer also includes periodic analytical publications and standard reports as well as individual reports prepared accordingly to the detailed specifics of the market segment, location and time period. Since the beginning of 2014 we also offer services of real estate valuation.



System for Analysis of Real Estate Financing Market

SARFiN System is a system for exchanging information on sales of housing loans and information relating to the monitoring of the risk portfolio of housing loans. The System is run by the Polish Banks Association since July 2001 and it is available for banks only. Access to the data stored in the SARFiN System has also the National Bank of Poland.

The data processed in the SARFiN System are also used in specialist analytical publications prepared by AMRON Centre, developed at the individual request of banks, investors, developers and other entities interested with reliable information about a particular market segment in the selected location and time period.



Jerzy Ptaszyński

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About AMRON-SARFiN Report

This Report was developed by AMRON Centre in cooperation with the Committee for Housing Finance at Polish Banks Association and prof. Jacek Łaszek. Figures and comments have been developed by AMRON and SARFiN teams under the direction of Jerzy Ptaszyński (jerzy.ptaszynski@amron.pl).

In addition to the data collected in the AMRON and SARFiN Systems, this Report also includes data from Central Statistical Office and National Bank of Poland.

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