

ANALYSIS OF THE TRANSACTION PRICES AND FORECAST FOR THE RESIDENTIAL MARKET
PRIMARY AND SECONDARY MARKET

03.2018

E-VALUER INDEX



EMMERSON
EVALUATION

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E-VALUER INDEX 2018



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INTRODUCTION

PRICES

The analysis includes data on transactional prices. Please note that a transaction price is a selling price only which was provided for in a notarial deed at the stage of preliminary or final contract.

MEDIAN

In this report medians of real estate transaction prices have been used. Median (the so-called „middle-value dividing a set into two equal parts) reflects information regarding real estate prices in better way than average because its amount is not affected by single figures significantly deviating from the majority of transactions typical of the entire set (such as, for example, the purchase of one high-end property).

In this report, all prices are per 1 sqm usable area of an apartment (PLN / sqm). The primary market refers to gross prices. The report was prepared on the basis of almost 90,000 transactions that took place in 2017.

Dear Readers,

We would like to present you the fifth edition of E-VALUER INDEX, our annual report on the residential market in Poland.

Once again, some record high numbers have been recorded on the residential market. Demand for apartments continues to be high, coupled with an increase in supply. This situation is reflected in higher prices of apartments on the primary and secondary market, as well as in the rate of their sale, which, in most cities, was faster than in the previous year. In our report, we attempt to analyse the most important factors affecting the current market situation and identify the directions and trends that may, to the greatest extent, affect the residential market in the future. Taking into account the practice adopted in previous publications, we refer to price medians, which in our opinion reflect the situation on the residential market much better than average prices.

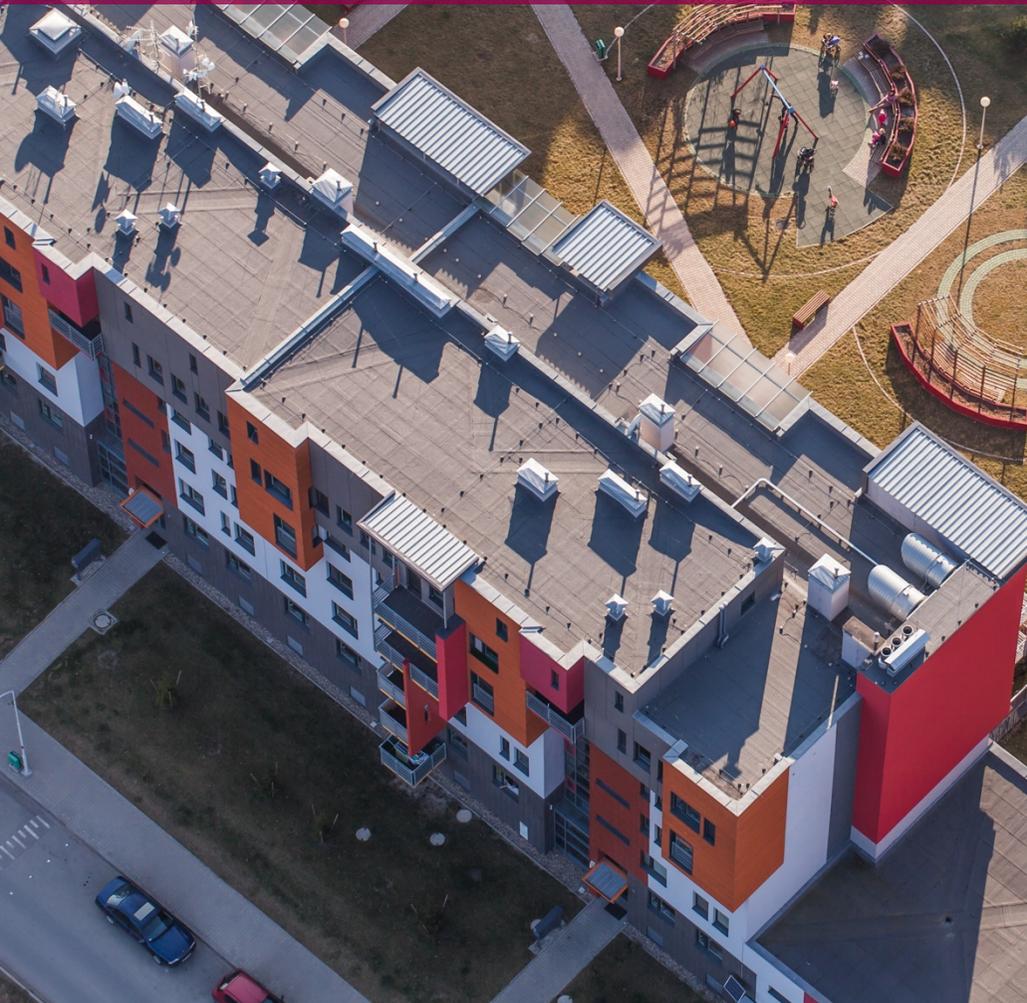
The analysis covers the largest residential markets in Poland. Due to the spatial diversity of large urban agglomerations, the report analyses prices and trends also for individual districts.

This year we have re-examined the rental market for new apartments. In addition, we have enriched our report with aspects that are important, especially from the investor's point of view, such as the pace of investment sale, supply and demand on the developer market and construction costs of new apartments.

We encourage you to read this report. If you have any questions or would like to obtain a more detailed analysis of a given topic, as well as a study covering another scope, please contact us.

Dariusz Książak, Robert Korczyński, Michał Mrowiec
The Management Board Emmerson Evaluation Sp. z o.o.

ANALYSIS OF THE RESIDENTIAL MARKET IN 2017



2017 was another year of a record supply on the residential market. An increase in the number of apartments sold compared to 2016 was recorded in most of the major Polish agglomerations. A particularly high share of newly introduced apartments in the offer of developers was recorded in Lodz, Katowice, Wroclaw and Warsaw. Moreover, in 2017 investments were sold faster than in the previous year. Despite the record high supply reflected in the number of apartments put up for sale by developers, the increase in demand for apartments still remains dominant. This situation is particularly visible on the markets in Tricity, Cracow and Warsaw.

The continued high demand for apartments translated into a general upward trend in their prices, both on the primary and secondary market. On the first one, price increases in some locations amounted to as much as 10-15% of the amount paid by buyers in 2016, which is why in many locations on the primary market it is becoming more and more popular to conclude purchase agreements already during the construction phase, or even before the commencement of construction works. In most agglomerations the pace of sales of new apartments was increasing. In 2017, developers were able to count on contracting the purchase of nearly every second apartment in new developments at their initial stage (even before the open shell was completed). The prices of second-hand apartments also increased significantly, but their increase did not exceed 10%. The only city where prices grew faster on the secondary market than on the primary market was Poznan.

After Warsaw and Cracow, which invariably occupy the second and third place respectively in the ranking of the most expensive cities in terms of prices of new apartments (Sopot has been the leader in this respect for many years now), the fourth place in 2017 belonged to Gdansk, which advanced by as many as two places compared to last year's E-Valuer report. The median price of residential units on the developer market in Gdansk in 2017 was PLN 6,719 per square meter. In comparison, in 2016 it amounted to 5,792 PLN per square meter. It was Tri-City that recorded the biggest price increases compared to the previous year, where in the already mentioned Gdansk prices grew on average by 16%. Prices of new apartments in Gdynia and Sopot increased by nearly 10%. Besides Tri-City a similar increase (9%) could only be observed in Lodz.

The dynamic development of the primary market stimulates growth also in the secondary market. In a situation where there are few ready newly built units, the demand is partly shifting towards the secondary market, which often offers apartments located in more attractive locations than the newly built ones. None of the locations included in the E-Valuer report recorded any decrease in the median prices of second-hand apartments. Warsaw, Sopot and Cracow were still the most expensive cities. The fastest growth in second-hand apartment prices was recorded in Gdansk (10%), Katowice (9%), Gdynia (7%) and Opole (7%).

The market is still largely shaped by the significant scale of purchases of premises for lease. Real estate is perceived by Poles as a certain investment, providing a satisfactory and safe profit. A considerable number of apartments are purchased in cash, and a large part of these transactions serve the aforementioned investment of capital. At the same time, mortgage loans were very popular among people who did not have sufficient cash resources. The credit action accelerated compared to 2016.

Among the new trends in construction, investments in modern, high standard dormitories have become more and more noticeable. To a large extent, they are created through the renovation of old, no longer operational, industrial and technical buildings. Such investments are carried out, for instance, in Cracow, Lodz, Sopot or Warsaw. Even earlier they had appeared in Lublin and Wroclaw. The market for condo hotels is still growing as it was not hampered by the new regulations on the minimum size of residential units. They most often take the form of commercial premises, as there are no regulations for the minimum usable area specified in the regulation of the Minister of Infrastructure and Construction. Such units may be developed in the form of micro apartments of as little as 15 square meters.

Another interesting trend observed on the real estate market in 2017 is the growing interest in luxury apartments. Developers who have completed this type of investment have recently boasted of record-breaking transactions.

Availability of land for new investments and the increasing construction costs are becoming more and more of a problem for the developer industry. Prices of land that could be used for multi-family residential development are also breaking new records. As a result, the share of land cost in the total cost of a development project is gradually increasing. Its average share in the value of investments on most residential markets in Poland in 2017 was about 15-20%, but in the best locations this ratio was significantly higher. There are also increasing problems with finding workers on construction sites and increasing labour costs. According to our analyses, the cost of building one square meter of an apartment has increased over the last few years by as much as a dozen or so percent.

Residential market in Poland

PRICES, TREND, FORECASTS

	primary market			secondary market				primary market			secondary market		
	median price 1sqm	annual trend E-VALUER 2017	E-VALUER forecast	median price 1sqm	annual trend E-VALUER 2017	E-VALUER forecast		median price 1sqm	annual trend E-VALUER 2017	E-VALUER forecast	median price 1sqm	annual trend E-VALUER 2017	E-VALUER forecast
WARSAW	7 925	4%	↑	7 382	2%	↑	SZCZECIN	4 708	3%	⚖	4 123	5%	⚖
CRACOW	6 826	4%	↑	6 168	3%	↑	GORZOW WLKP.	3 468	2%	⚖	2 933	3%	⚖
WROCLAW	6 123	6%	↑	5 445	4%	↑	ZIELONA GORA	3 840	5%	⚖	3 263	5%	⚖
POZNAN	6 074	4%	↑	5 365	5%	⚖	OPOLE	4 293	5%	⚖	4 085	7%	⚖
GDANSK	6 719	16%	↑	5 705	10%	↑	KIELCE	4 757	3%	⚖	3 628	3%	⚖
GDYNIA	6 503	9%	↑	5 210	7%	↑	BYDGOSZCZ	4 836	5%	↑	3 806	5%	⚖
SOPOT	11 162	10%	↑	7 358	5%	↑	TORUN	5 460	5%	↑	4 034	6%	⚖
LODZ	5 088	9%	↑	3 360	3%	↑	OLSZTYN	4 742	4%	↑	4 197	0%	⚖
KATOWICE	4 907	-1%	↑	3 701	9%	⚖	BIALYSTOK	4 593	4%	↑	4 039	0%	↑
SILESIA AGGLOMERATION (WITHOUT KATOWICE)	4 174	6%	↑	2 852	6%	⚖	LUBLIN	5 208	6%	↑	4 753	5%	⚖
							RZESZOW	4 516	3%	↑	4 388	1%	⚖

WARSAW

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS

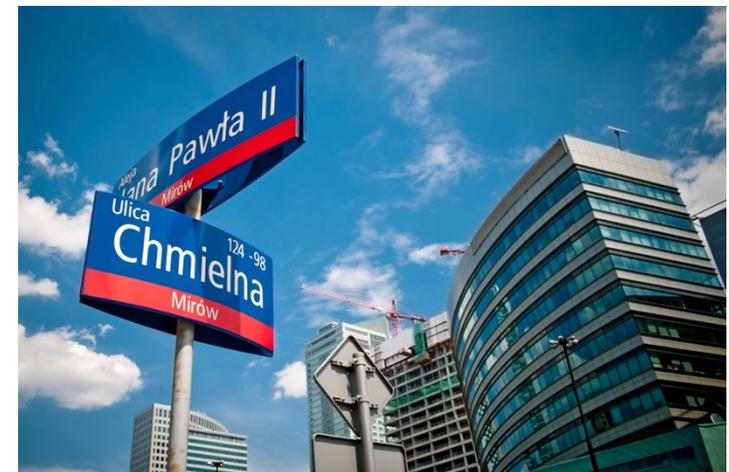
ANNUAL PRICE CHANGE TREND

	primary market		secondary market	
	median price 1sqm	annual trend E-VALUER 2017	median price 1sqm	annual trend E-VALUER 2017
BEMOWO	6 929	1%	6 852	-1%
BIAŁOŁĘKA	6 401	4%	6 075	3%
BIELANY	8 496	6%	6 880	0%
MOKOTÓW	9 390	12%	8 045	4%
OCHOTA	9 617	11%	8 005	2%
PRAGA-POŁUDNIE	8 192	8%	6 926	1%
PRAGA-PÓŁNOC	7 286	-5%	6 672	5%
REMBERTÓW	6 708	11%	6 030	3%
ŚRÓDMIEŚCIE	16 375	15%	10 129	2%

	primary market		secondary market	
	median price 1sqm	annual trend E-VALUER 2017	median price 1sqm	annual trend E-VALUER 2017
TARGÓWEK	6 733	0%	6 140	2%
URSUS	6 933	5%	6 369	1%
URSYNÓW	8 097	2%	7 895	0%
WAWER	6 260	1%	6 181	1%
WESOŁA	6 040	6%	5 646	5%
WILANÓW	7 795	6%	8 058	3%
WŁOCHY	6 852	0%	6 988	4%
WOLA	8 746	10%	7 632	3%
ŻOLIBORZ	8 290	0%	8 375	1%

The supply on the primary residential market in the capital is mainly the result of limited land availability. Therefore, the relatively largest supply can be observed in the districts of Mokotow or Wola, and the smallest in the intensively built-up districts, such as Śródmieście or Ochota.

The planned new investments are concentrated mainly close to the 2nd subway line. This results in a very high activity of developers in the western part of Bemowo, near the Daszyński Roundabout (Wola), Praga Północ or Targówek. Numerous investments can be observed in post-industrial areas, such as in the vicinity of Kłobucka Street in Ursynów, the area of Ursus plants, the vicinity of Instalatorów Street in Włochy or Mińska Street in Praga Południe district. It's also worth paying attention to the area in the vicinity of the Żerański Canal (Białołęka) or Stegny Canal (Mokotów) close to Sobieskiego Street, where developers' expansion is significant.



WARSAW

Demand on macro scale is largely generated by good access to transport, urban infrastructure and increasingly, proximity to workplace. Hence, the central districts of Warsaw, such as Wola, Mokotów, Żoliborz and the areas located close to the first underground line (Mokotów, Bielany, Ursynów) and the second underground line (Bemowo, Targówek, Praga Północ) continue to be the most popular ones. High demand for apartments is also reported in the regions where there are many office buildings, such as Służewiec in Mokotów or the dynamically developing “close” Wola.

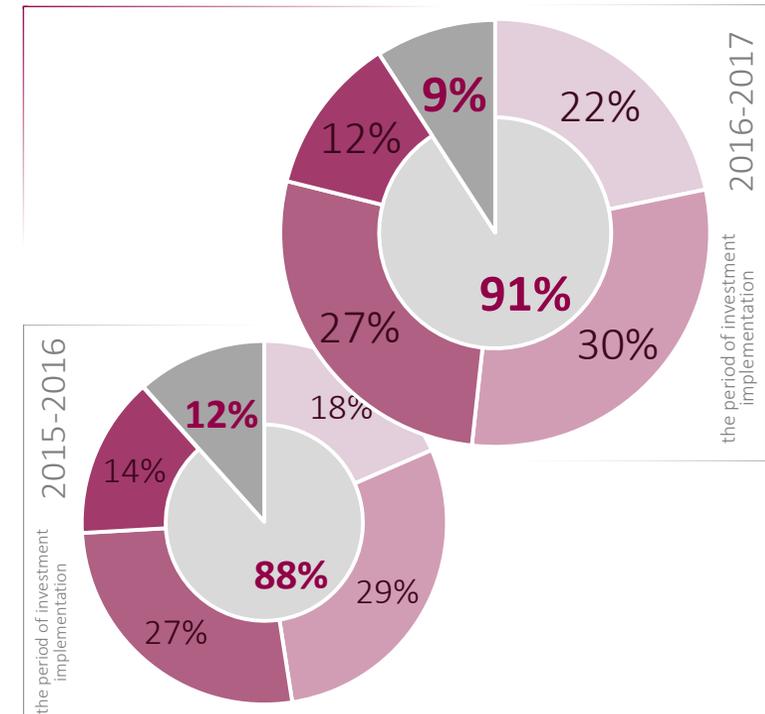
In Warsaw, apartments in central districts neighbouring with Śródmieście sell the fastest. The largest demand is for the smallest 1-2 room apartments. They are largely purchased for long-term and short-term lease in the form of micro apartments.

Virtually all the Warsaw districts could boast an upward trend in prices in 2017. The highest growth was recorded in the central districts, close to the second underground line. Despite the planned high supply of apartments in 2018, the upward trend will continue due to the expected high demand. In selected locations, price increases may be higher than in 2017.

In 2018, there will still be a very high demand driven both by purchases made to meet the residential needs of people coming to Warsaw and by the demand from individual and institutional investors who want to take advantage of the very good economic situation on the capital's residential and aparthotel market.

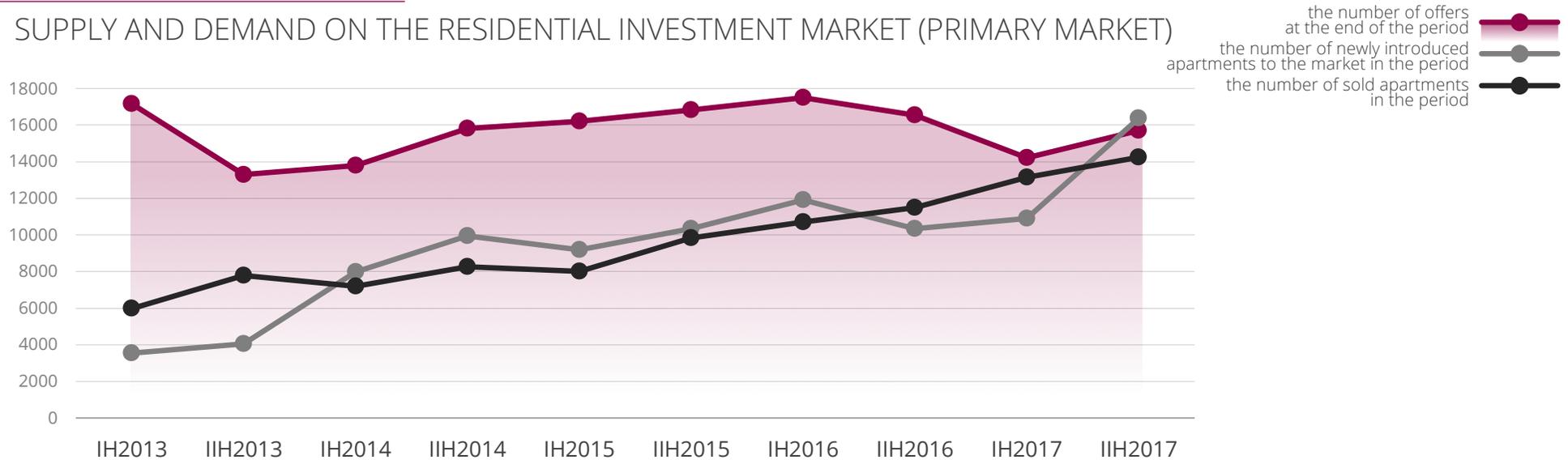
We expect that Warsaw will continue to show a visible trend of displacing old industrial buildings and replacing them with new ones. Investors will also follow communication changes. Apart from the second underground line, the planned third underground line, Warsaw's Southern Ring Road, the new tram route to Wilanów and Praga Południe are also interesting.

AVERAGE PACE OF DEVELOPER'S APARTMENTS SALE

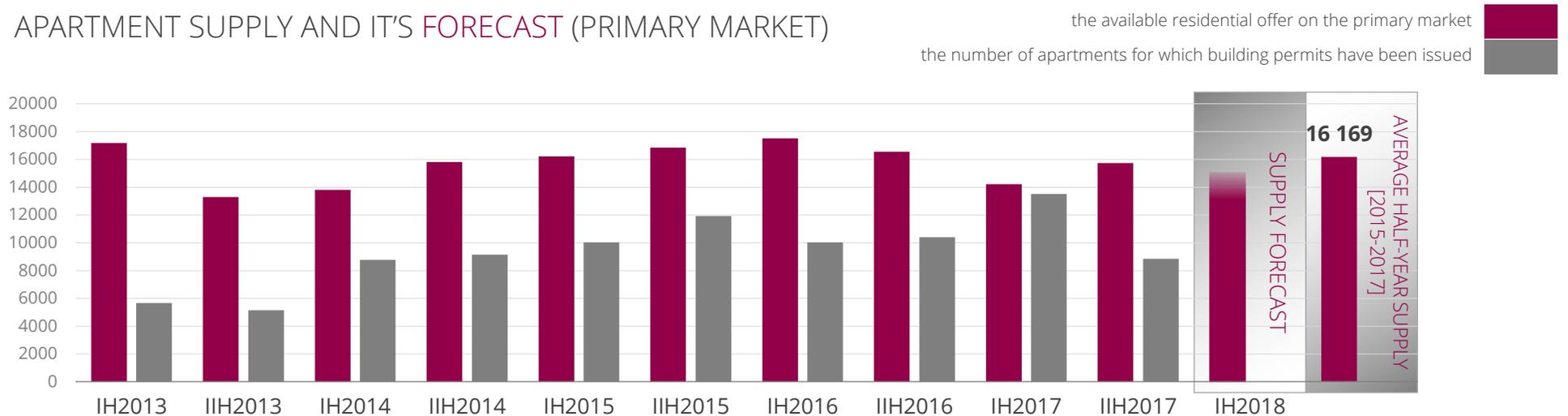


WARSAW

SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET (PRIMARY MARKET)



APARTMENT SUPPLY AND IT'S FORECAST (PRIMARY MARKET)



CRACOW

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS

ANNUAL PRICE CHANGE TREND

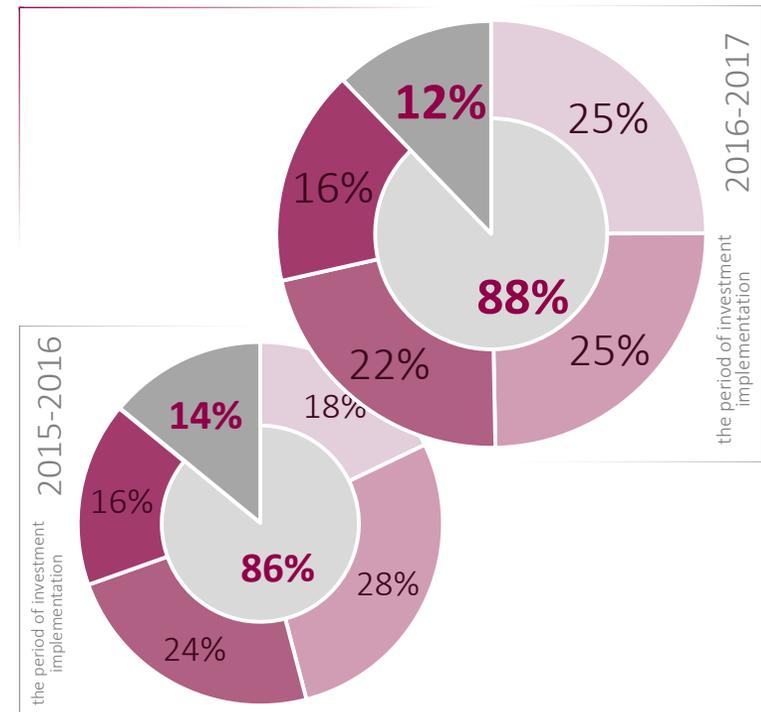
	primary market		secondary market	
	median price 1sqm	annual trend E-VALUER 2017	median price 1sqm	annual trend E-VALUER 2017
KROWODRZA	6 770	5%	6 655	3%
NOWA HUTA	5 529	4%	5 053	5%
PODGÓRZE	5 568	1%	5 864	2%
ŚRÓDMIEŚCIE	7 248	8%	6 783	2%

The Cracow residential market is very dynamic and diversified in terms of the prices of apartments and their distribution. Residential units are as readily purchased on the secondary market as on the primary one. Currently, new development projects are quickly appearing almost in every part of the city. Regardless of the location, whether in the city centre, e.g. near Vistula boulevards or on its outskirts, e.g. in the Złocień residential estate in the Podgórze district, the apartments easily find buyers. The great interest of developers in the Cracow's primary market is also confirmed by the fact that in 2017 as much as 1/3 more residential permits were issued there than a year earlier (GUS).

Buyers were most interested in apartments located within the boundaries of the districts of Śródmieście and Podgórze. These purchases were usually motivated by investment plans in terms of long-term lease, as well as short-term lease, which is very popular in Cracow, and only in the second place they served meeting one's own residential needs. 2-room flats with a surface of 35-50 square meters accounted for the largest group of transactions, however 2-3 room apartments with surface of 50-65 square meters were also popular.

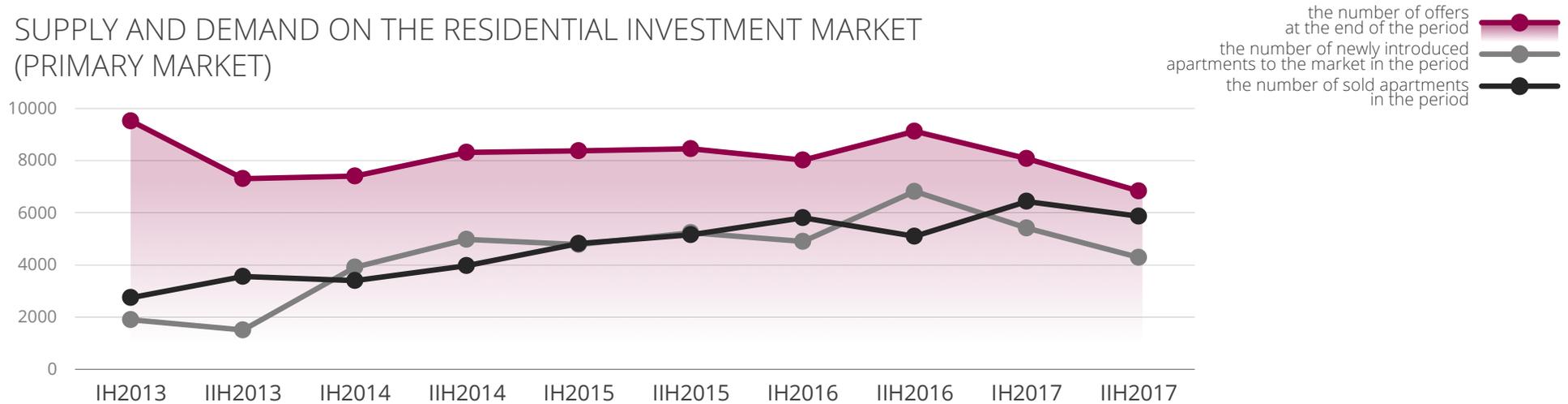
Apartments in Cracow sold faster than a year ago. Almost half of the apartments in new developments were sold already at the initial stage of development. As a result of the limited availability of land for multi-family residential development, developers completed slightly fewer apartments than in the previous year, which, combined with steadily growing sales, resulted in a decrease in the total offer of apartments in Cracow at the end of the year.

AVERAGE PACE OF DEVELOPER'S APARTMENTS SALE

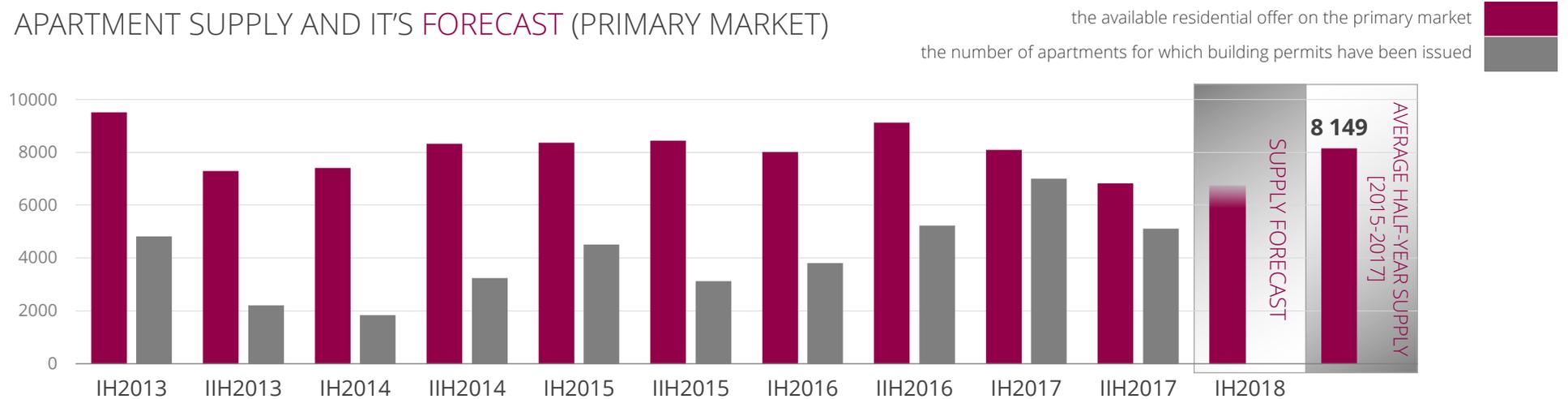


Due to the continued high sales rate exceeding the rate of realization of new investments by developers, we forecast that in 2018 the number of apartments available on the primary market in the capital of Małopolska will be lower than in the previous year. This process will be accompanied by strong price increases, even by several percent.

SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET (PRIMARY MARKET)



APARTMENT SUPPLY AND IT'S FORECAST (PRIMARY MARKET)



WROCLAW

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS

ANNUAL PRICE CHANGE TREND

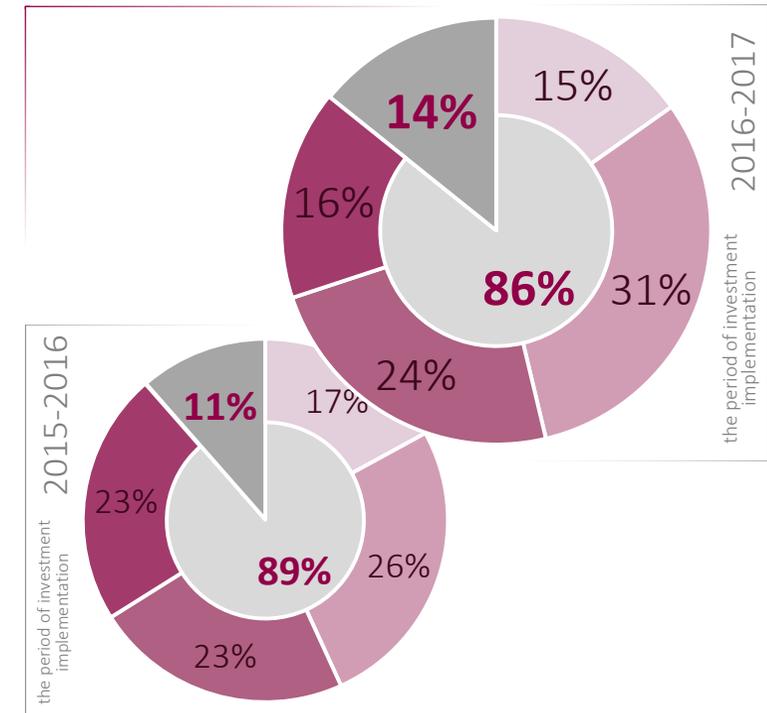
	primary market		secondary market	
	median price 1sqm	annual trend E-VALUER 2017	median price 1sqm	annual trend E-VALUER 2017
FABRYCZNA	5 398	6%	5 318	4%
KRZYKI	5 687	5%	5 483	2%
PSIE POLE	5 952	11%	5 006	3%
STARE MIASTO	6 869	15%	5 919	3%
ŚRÓDMIEŚCIE	6 399	7%	5 222	2%

In 2017, in terms of supply and the number of transactions on the Wrocław market, the district of Krzyki stood out and in particular the precincts of Jagodno, Klecina, Tarnogaj and Fabryczna (the precincts of Żerniki, Oporów and Maślice). Residential units that were sold the fastest were located in the following districts: the Old Town, Śródmieście and the central precincts of Krzyki and Fabryczna (e.g. Południe, Popowice, Grabiszyn). The biggest increases in prices on the primary market were recorded in the districts of Old Town and Psie Pole. The secondary market was characterised by smaller and more even increases in prices per square meter (within the range of 2-4%).

In Wrocław, 2-3 room apartments are most popular. Due to the access to universities and the city being a famous tourist destination, some of them are purchased by investors. The Oder River is also beginning to enjoy a great interest on the Wrocław market - more and more investments are being executed in the immediate vicinity of the river. There is also another noticeable trend, namely there are more and more investments from the so-called popular segment+, which will certainly become increasingly important in the coming years.

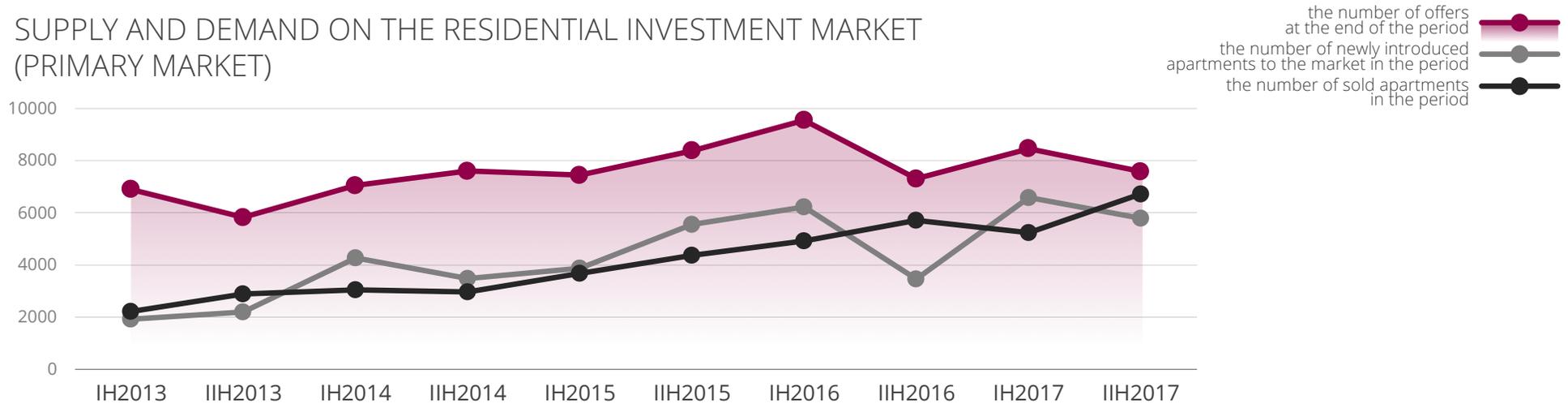
Wrocław is currently the leader in terms of the number of apartments for which building permits have been issued per 100,000 inhabitants. We forecast that in 2018 the supply will remain at the level similar to the previous year as a result of the large number of residential units that developers have already obtained permits for and plan to introduce to the market.

AVERAGE PACE OF DEVELOPER'S APARTMENTS SALE

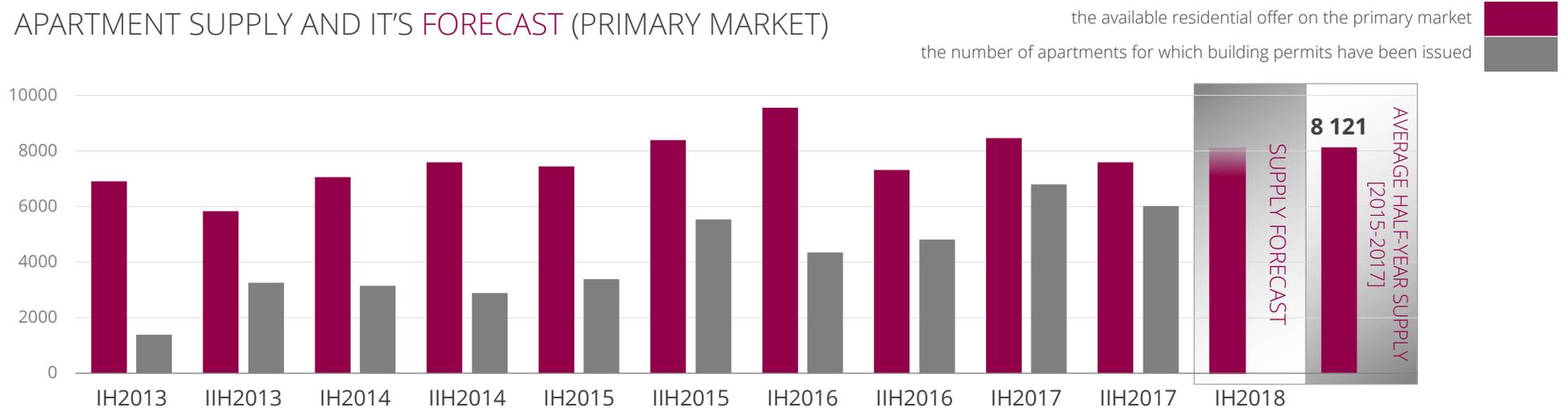


There are no indications that the demand and sales rate of investments in 2018 will decrease either. Therefore, the announced high supply should not cause price falls and market instability. Residential price increases, both on the primary and secondary market, may amount to several percent. In some of the most popular districts, such as the Old Town, growth can be as high as 10%.

SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET (PRIMARY MARKET)



APARTMENT SUPPLY AND IT'S FORECAST (PRIMARY MARKET)



POZNAN

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS

ANNUAL PRICE CHANGE TREND

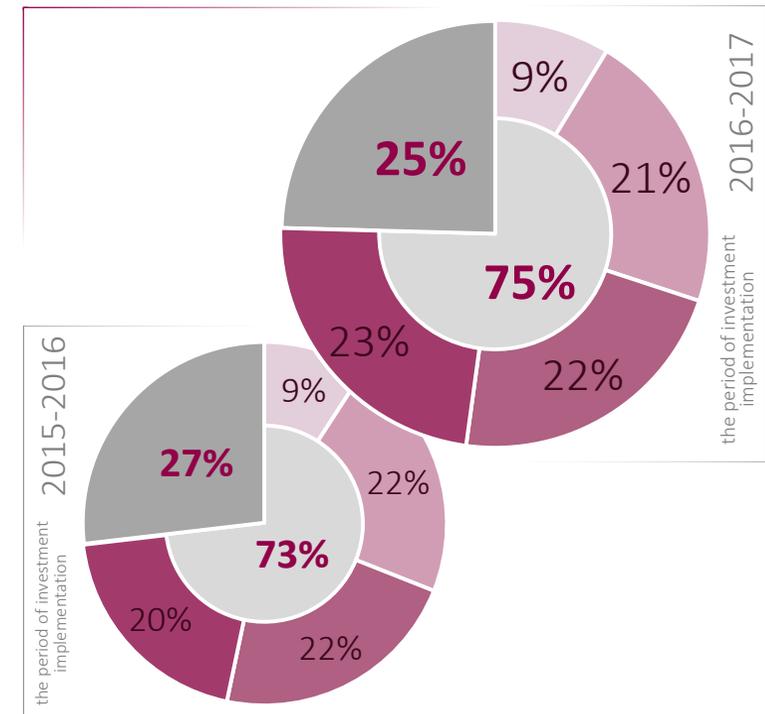
	primary market		secondary market	
	median price 1sqm	annual trend E-VALUER 2017	median price 1sqm	annual trend E-VALUER 2017
GRUNWALD	5 920	2%	5 182	2%
JEŻYCE	6 137	0%	5 346	2%
NOWE MIASTO	6 019	5%	5 412	10%
STARE MIASTO	5 920	0%	5 379	3%
WILDA	6 034	4%	5 231	8%

The biggest supply in the capital of Wielkopolska is in the districts of the Old Town, the New Town and Grunwald. The smallest one was recorded in Wilda district. In terms of the number of transactions, the Old Town was the leader with apartments selling out the fastest. The district is well connected with the city centre, and the prices of apartments are still more attractive than, for example, in the Nowe Miasto area. The Old Town also has a well-developed network of retail, service and educational points. In the district there is also, among others, the Naramowice precinct, which is currently in an intensive phase of development and the prices of apartments here are competitive in comparison with the whole city. Additionally, in 2018, the construction of a tram line will start, which will improve communication with the city centre. The residents will also benefit from the reconstruction and extension of Naramowicka Street.

In the Nowe Miasto district, on the other hand, the highest concentration of development investments takes place and is planned in the Łaciny area. However, the prices here are much higher than in the area of Naramowice due to the vicinity of Lake Malta, proximity to the city centre, transport accessibility and a rich commercial and service base.

In Poznan, the demand for apartments is quite even in all parts of the city. The best sellers were 2 and 3-room residential units with a surface of 35 to 60 square meters. In each of the districts there are investments in the premium segment, however, the luxury market in Poznan has not yet developed. The dominant investments are located in the intermediate and peripheral parts of the city.

AVERAGE PACE OF DEVELOPER'S APARTMENTS SALE



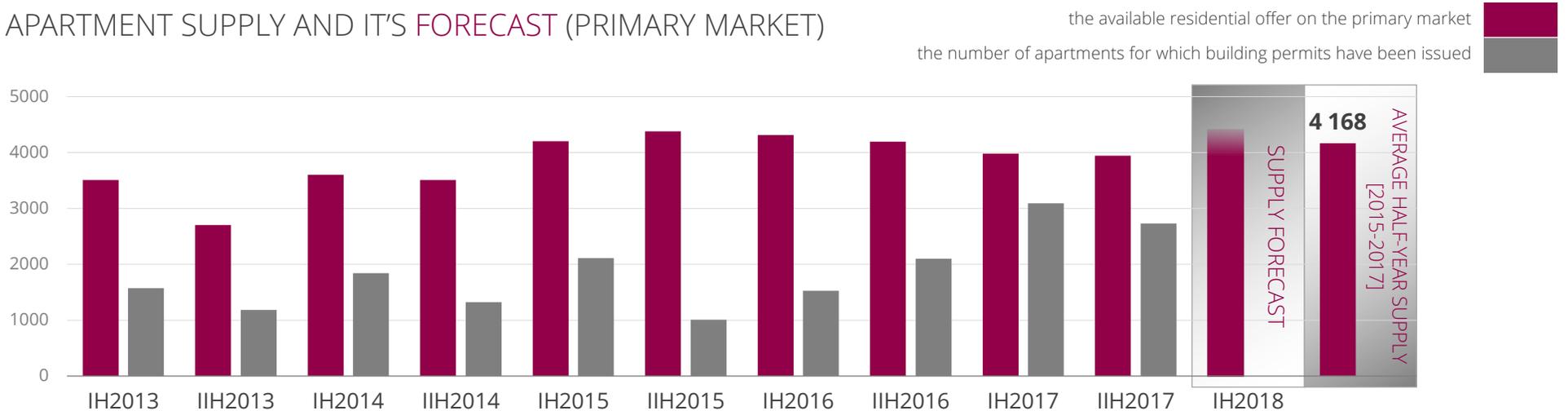
POZNAN

As for the capital of Wielkopolska, we expect apartment prices to remain stable due to the very good situation on the labour market - low unemployment and a relatively high average remuneration, while the costs of real estate construction continue to rise. Further development of the intermediate and peripheral areas of the city is also expected, as indicated by land purchases by developers.

SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET (PRIMARY MARKET)



APARTMENT SUPPLY AND IT'S FORECAST (PRIMARY MARKET)



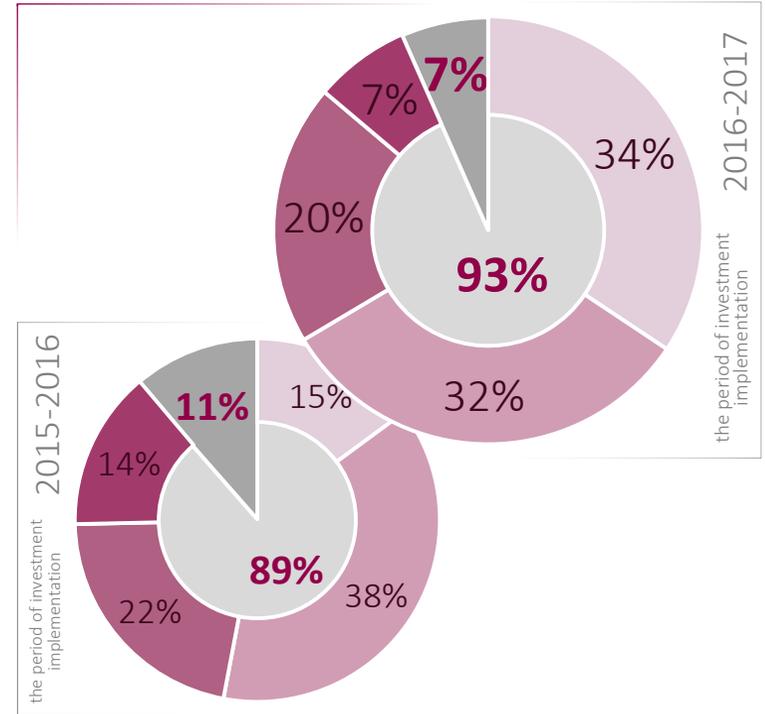
TRI-CITY

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS

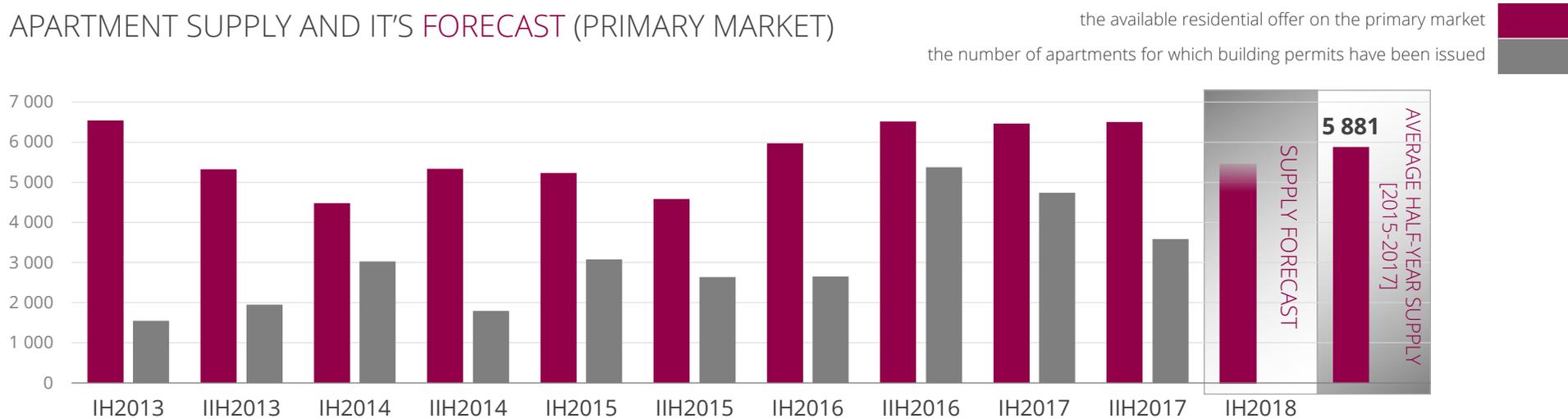
ANNUAL PRICE CHANGE TREND

	primary market		secondary market	
	median price 1sqm	annual trend E-VALUER 2017	median price 1sqm	annual trend E-VALUER 2017
GDAŃSK	6 719	16%	5 705	10%
GDYNIA	6 503	9%	5 210	7%
SOPOT	11 162	10%	7 358	5%

AVERAGE PACE OF DEVELOPER'S APARTMENTS SALE



APARTMENT SUPPLY AND IT'S FORECAST (PRIMARY MARKET)



SOPOT

The Sopot market is characterised by a very limited pool of land for investment. This is due to the specific location of the city, which is adjacent to Gdansk and Gdynia agglomerations, the Tri-City Landscape Park and the Bay of Gdansk. Investment projects in Sopot include mainly revitalization of older buildings and extension of existing buildings and tenement houses, as well as prestigious residential investments addressed to a nationwide buyer.

The area of Lower Sopot, located along the beach of the Bay of Gdansk with numerous commercial and service outlets, Bohaterów Monte Cassino Street and the Sopot pier are the most popular location among buyers.

On the Sopot market, the greatest demand is reported for 2-3 room apartments, which may be potentially leased. It is rental, both for tourists and students, that is an important factor affecting the supply and demand of the local residential market.

Due to its location, limited supply of land and investments as well as the touristic character of the city, the residential real estate market in Sopot will enjoy constant interest. The current apartment prices in Sopot are very high and due to the high investment demand they are likely to continue to rise. In the event of a possible crisis, however, price reductions should take place mainly on the secondary market, where currently prices are very high.

GDYNIA

Among the largest investments announced in Gdynia, it is worth mentioning the project „Gdynia Centrum” by the Semeko developer and Xcity Investment, a company belonging to the PKP S.A. group, which is planning to develop the area of Międzytorza and construct residential buildings, office and commercial areas, as well as recreational space. A new trend observed on the Gdynia market is the commencement of investments in downtown areas, where so far the supply of new projects has been limited. In addition, revitalisation of its northern areas is planned in Śródmieście district.

In terms of supply and the number of transactions, the area of Chwarzno-Wiczlino and Mały Kack districts recorded the biggest revival. It was in these parts of the city, as well as in the city centre, that the largest supply of new flats was observed. A large development of luxury investments took place in the Śródmieście district and in coastal districts such as Orłowo.

Buyers were most interested in 1-2 room apartments located in the city's central and coastal districts due to the attractiveness of such residential units in terms of rental possibilities. Gdynia's real estate market is much more balanced than the markets in Sopot or Gdansk. For several years now, there has been a moderate increase in residential property prices, without sudden price rises, e.g. as a result of a „fashion” or city promotion.

Real estate in Gdynia is mostly purchased for residential purposes. The share of apartments purchased for rent is much lower than in other parts of the Tri-City, which is due to a smaller number of public universities and a lower significance of the city in terms of tourism. Therefore, possible future economic disturbances should not be significantly reflected in the prices of apartments in Gdynia. They should continue their upward trend in 2018.

TRI-CITY

GDANSK

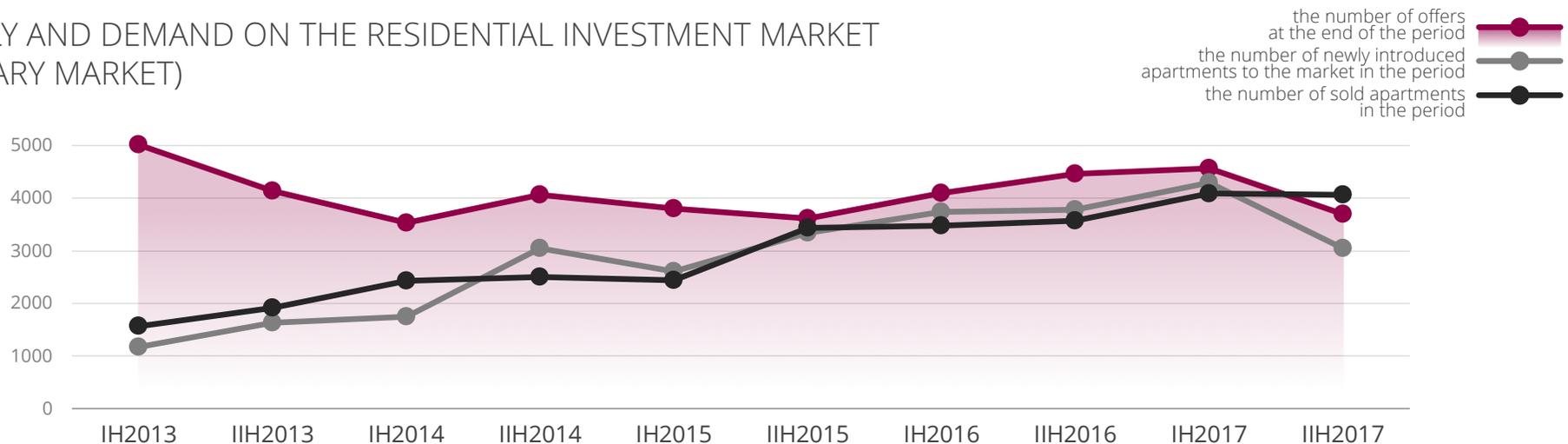
The largest revival in terms of supply and number of transactions on the residential market was recorded by such regions as, Piecki-Migowo, Jasień and the southern districts of Gdańsk – Chełm and Ujeścisko-Łostowice, where land for new investments is still available.

Developers are still most interested in coastal and downtown districts. So far, new investments in these areas have appeared mainly in the most attractive places, such as the coastal strip of the Żabianka and Przymorze districts, Wrzeszcz or Główne Miasto districts. Recently, however, due to the limited supply of land for new investments, developers have focused their attention on new promising areas, such as post-shipyard areas of Młode Miasto, post-industrial areas of Granary Island and its vicinity, or on the areas that have been considered less attractive until now, such as the districts of Młyniska and Brzeźno.

In Gdansk, the fastest selling apartments are in highly urbanized districts, such as Śródmieście, Przymorze, Wrzeszcz, Zaspą, Brzeźno and Oliwa. In these areas the demand is largely driven by investing in apartments for rent. The largest demand was for 1-2-room apartments located in downtown and coastal districts of Gdansk, due to the easy renting of such properties. Short term tenants and tourists are drawn by their attractive location (the Gulf of Gdansk) and the city's historical heritage. Many students who study in large academic centres also rent apartments.

In 2017 the prices of apartments in Gdansk reached a very high level, especially in the central districts. In the first quarter of 2018, the progressing increase in the prices of residential units is still noticeable. However, the constantly growing supply of apartments for rent may translate into a decrease in the rates of return on residential investments, which, in time, may make the Gdansk market less attractive for investors.

SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET (PRIMARY MARKET)



LODZ

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS

ANNUAL PRICE CHANGE TREND

	primary market		secondary market	
	median price 1sqm	annual trend E-VALUER 2017	median price 1sqm	annual trend E-VALUER 2017
BAŁUTY	5 093	7%	3 490	5%
GÓRNA	5 078	11%	3 477	5%
POLESIE	5 099	6%	3 817	10%
ŚRÓDMIEŚCIE	5 989	13%	3 226	4%
WIDZEW	5 416	12%	3 952	10%

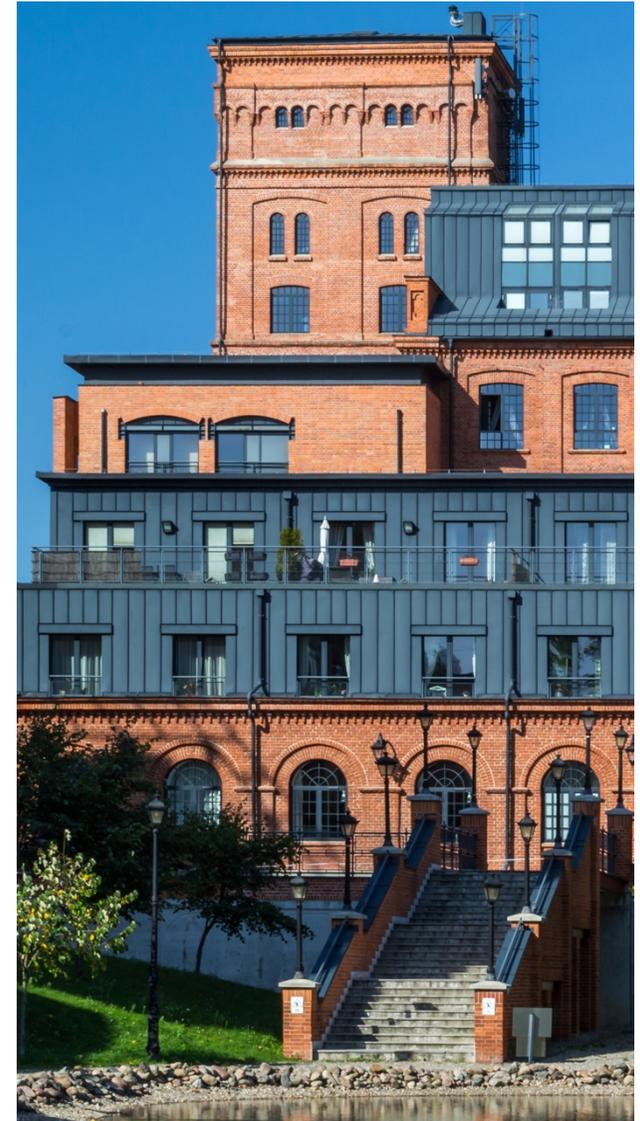
Lodz residential market is characterized by a strong activity of local developers. A small number of the largest nationwide market players operate here. For this reason, a relatively small share of their investments in comparison with local companies is also noticeable.

In 2017, the residential market in Śródmieście, Zachodni Widzew and Wschodnie Polesie was developing the fastest. In these areas, the highest number of transactions was concluded in all districts. The rate of sale of investments, especially in the central part of the city, was strongly influenced by investment purchases of apartments for lease.

Buyers on the Lodz market most often sought small flats, up to approx. 50 square meters and located in the central part of the city. Due to the location and good communication with the city centre, second-hand apartments in Retkinia (Polesie district), Janów and Olechów (Widzew) as well as Dąbrowa (Górna) residential estates were also very popular.

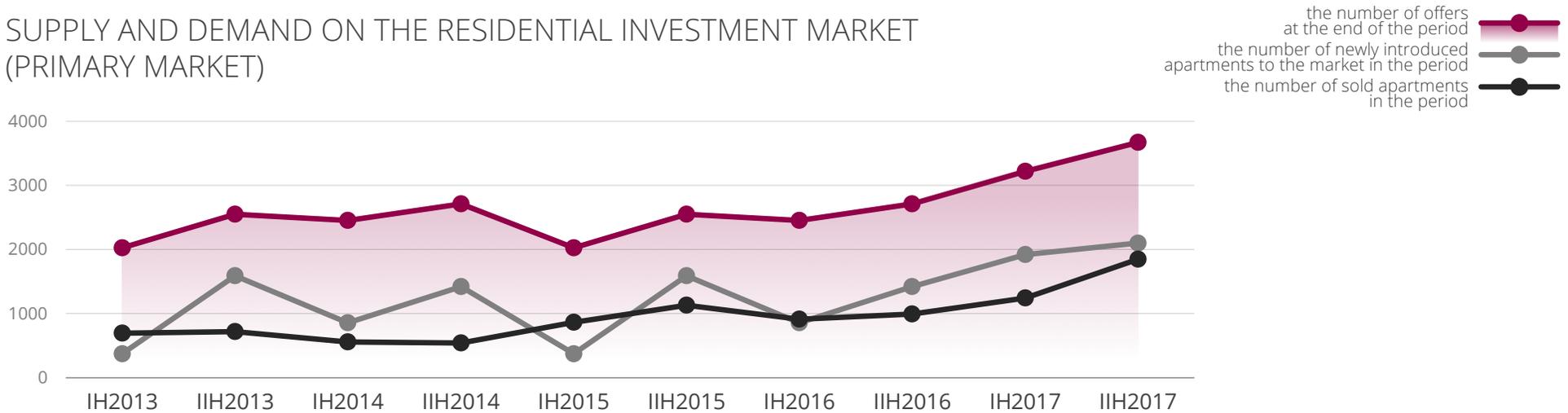
Growing interest of developers in the Lodz market, especially in the office sector is due to the emergence of large international companies and it is changing the image of the city and creating new jobs. These factors also contributed to the growing demand for new residential projects among both the city's residents and external investors.

We forecast a further increase in apartment prices in Lodz due to the still relatively low supply and low prices in comparison with other major cities in the country.

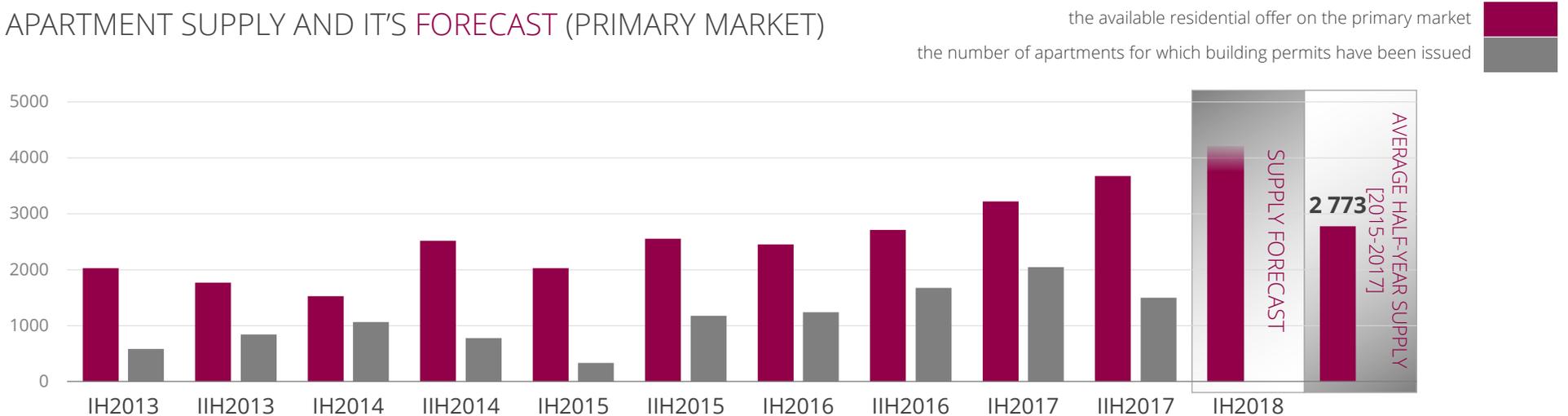


LODZ

SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET (PRIMARY MARKET)



APARTMENT SUPPLY AND IT'S FORECAST (PRIMARY MARKET)

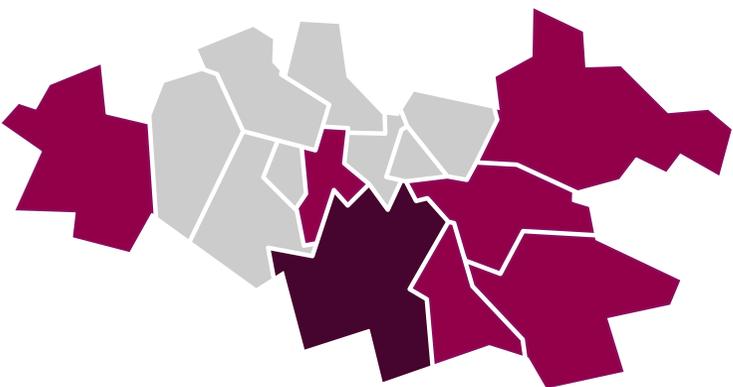


KATOWICE AND THE SILESIAN AGGLOMERATION

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS ANNUAL PRICE CHANGE TREND

	primary market		secondary market	
	median price 1sqm	annual trend E-VALUER 2017	median price 1sqm	annual trend E-VALUER 2017
KATOWICE	4 907	-1%	3 701	9%
SILESIAN AGGLOMERATION* (WITHOUT KATOWICE)	4 174	6%	2 852	6%

*SILESIAN AGGLOMERATION:
Gliwice, Chorzow, Dabrowa Gornicza, Sosnowiec, Myslowice, Jaworzno



The southern districts are the most popular ones among developers operating in Katowice. This is mainly due to the availability of investment areas, which is very limited in the northern part of the city. For this reason, the demand for apartments is directed mainly to southern areas, where most of the green areas and small residential buildings are located.

In 2017 apartment prices in other cities of the agglomeration increased faster than in the capital of Silesia – Katowice. One of the factors responsible for this situation is the fact that buyers often decide to buy a flat in other GOP cities, and not in Katowice itself, due to the very good transport between these cities and much lower prices per square meter. On average, apartments sold by developers in other cities of the agglomeration cost about 20% less than apartments available in Katowice.

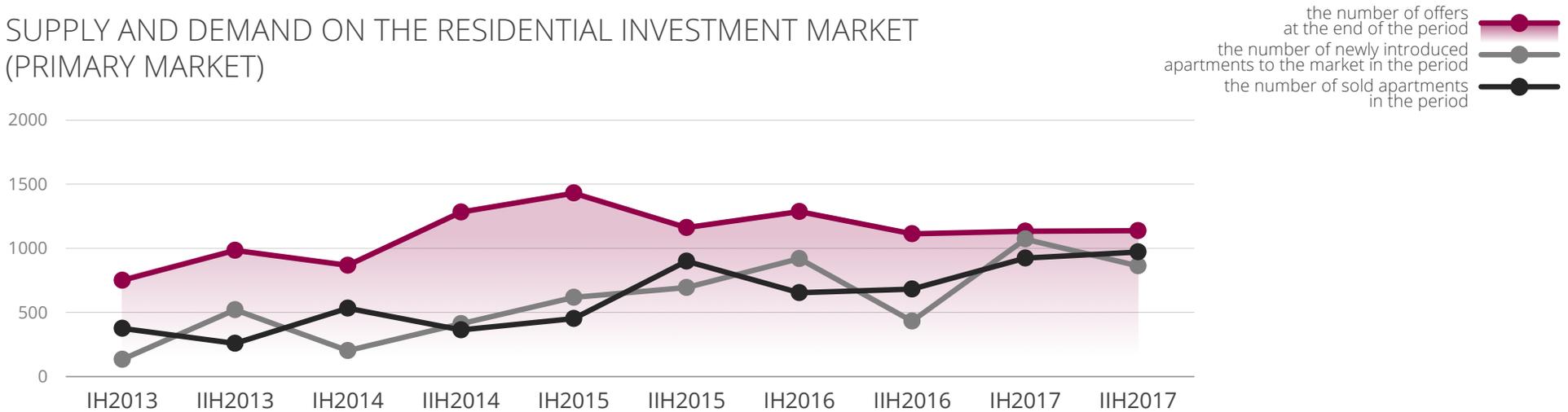
In Katowice, there is also a gradual trend to reduce the surface area of 1- and 2-room apartments built by developers. Such apartments are most frequently bought to profit from their lease. On the other hand, in other cities of the agglomeration we observe the opposite trend – an increase in the surface of particular types of apartments. Compared to Katowice, in these cities, the proportions between apartments purchased for one's own purpose and apartments purchased for investment purposes are more favourable in case of apartments bought to satisfy one's residential needs. When buying such apartments, the buyer is more sensitive to the comfort and favourable layout of the apartment.

In the cities of the Silesian agglomeration we can observe the smallest number of residential units in the country, for which building permits were granted per the number of inhabitants. The ratio of construction permits issued in 2017 per number of inhabitants is more favourable for Katowice. However, the number of investments carried out in the capital city of the Silesian Voivodship is still much lower than in other major Polish agglomerations.

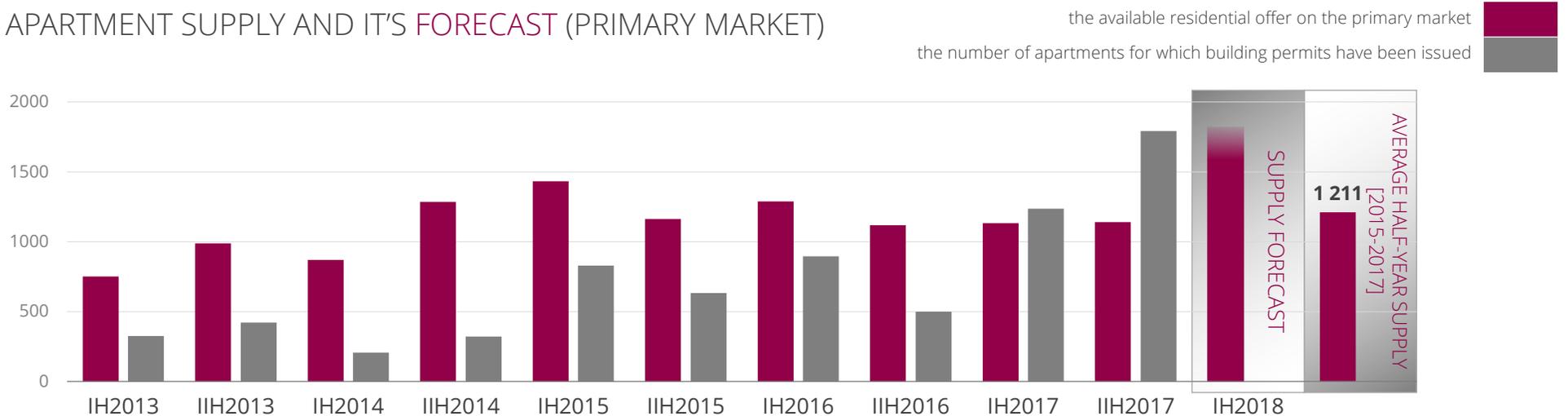
In the capital of Upper Silesia, we expect an increase in the number of apartments available on the primary market in the near future due to the record high number of apartments for which construction permits were issued in 2017. We expect prices to rise both in Katowice and in other cities of the Silesian agglomeration, due to the high rate of sales exceeding the rate of introducing new investments to the market.

KATOWICE

SUPPLY AND DEMAND ON THE RESIDENTIAL INVESTMENT MARKET (PRIMARY MARKET)



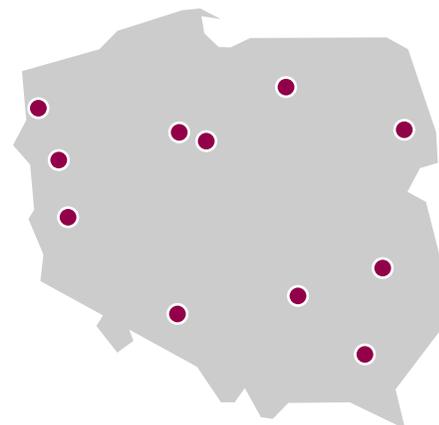
APARTMENT SUPPLY AND IT'S FORECAST (PRIMARY MARKET)



REGIONAL CITIES

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS ANNUAL PRICE CHANGE TREND

	primary market		secondary market	
	median price 1sqm	annual trend E-VALUER 2017	median price 1sqm	annual trend E-VALUER 2017
GORZOW WIELKOPOLSKI	3 468	2%	2 933	3%
ZIELONA GORA	3 840	5%	3 263	5%
OPOLE	4 293	5%	4 085	7%
SZCZECIN	4 708	3%	4 123	5%
KIELCE	4 757	3%	3 628	3%
BYDGOSZCZ	4 836	5%	3 806	5%
TORUN	5 460	5%	4 034	6%
LUBLIN	5 208	6%	4 753	5%
OLSZTYN	4 742	4%	4 197	0%
BIALYSTOK	4 593	4%	4 039	0%
RZESZOW	4 516	3%	4 388	1%



In 2017, all the smaller cities being capitals of their respective voivodeships recorded a few percent increase in residential prices, both on the primary and secondary market. It can be seen that the housing boom, which has been observed for a long time in the largest agglomerations, has reached these cities as well. In some voivodeship cities of medium size investments of the largest domestic developers have appeared that – until now – have been operating on the national market and preferred investments in the largest agglomerations.

The cities which recorded the highest price increases on the primary and secondary market in 2017 were Lublin, Torun and Opole. Torun and Lublin are also the only smaller capitals of voivodeships where price of square meter of primary market apartments exceeded PLN 5,000. Cities, which have not been very popular among buyers until now, are gaining more and more popularity. Torun and Lublin, due to their rich offer of universities are a great choice for investment purchases. The combination of a relatively low price of an apartment with rental rates at a level similar to those on the outskirts of larger cities makes it possible to achieve higher rates of return on rental than in the case of Warsaw or Cracow.

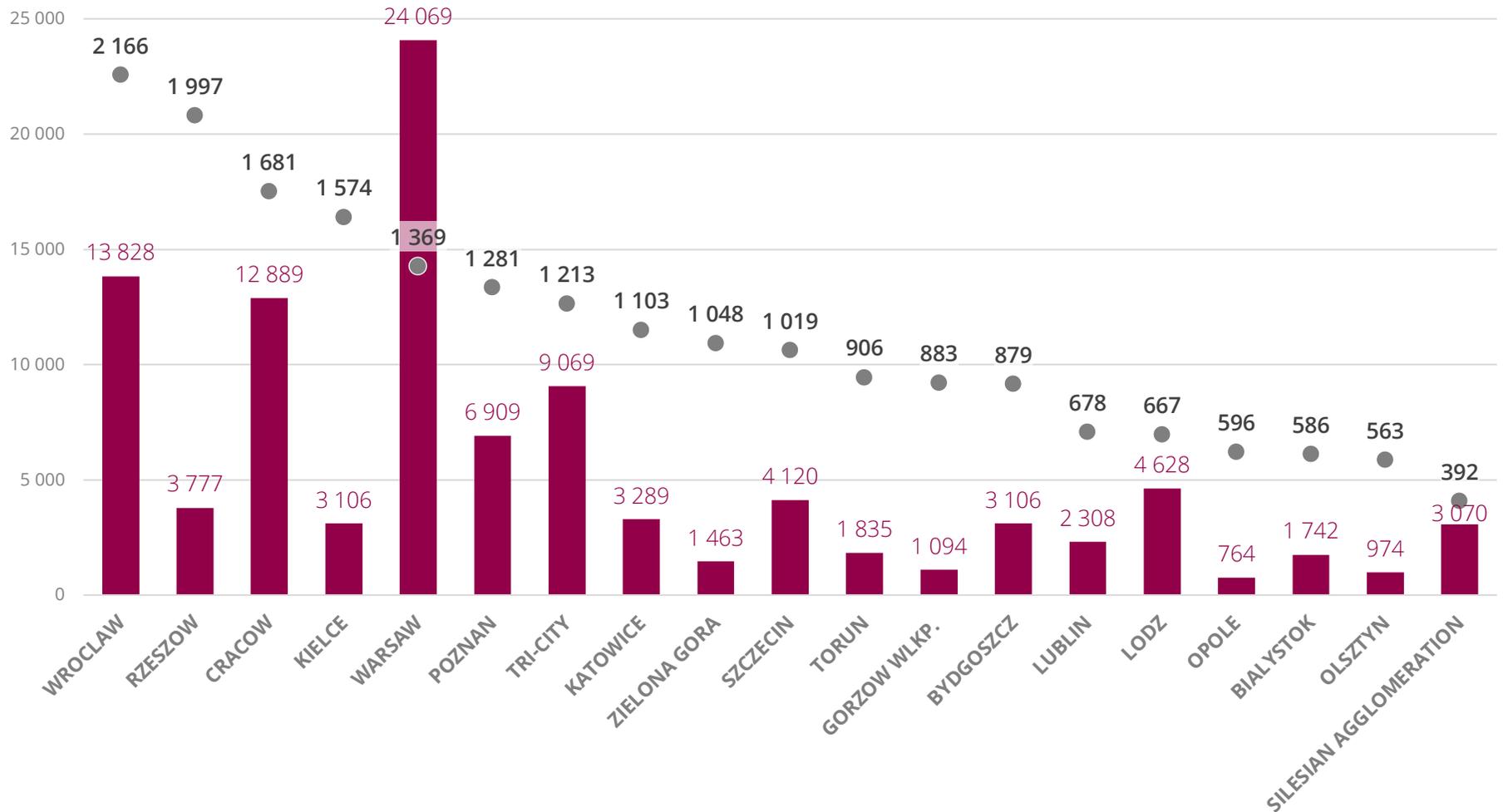
In 2018, we expect a record high number of completed apartments in smaller and medium sized capitals of voivodeships. Supply will grow rapidly in Rzeszow, which is currently the second city in the country in terms of the number of building permits per 100,000 inhabitants. Another leader in this respect is also the city of Kielce.

Prices on all the markets of smaller capitals of voivodeships will rise successively in 2018 due to high demand and the recent visible increase in construction costs.

Analysis of the building permits

PER 100,000 INHABITANTS

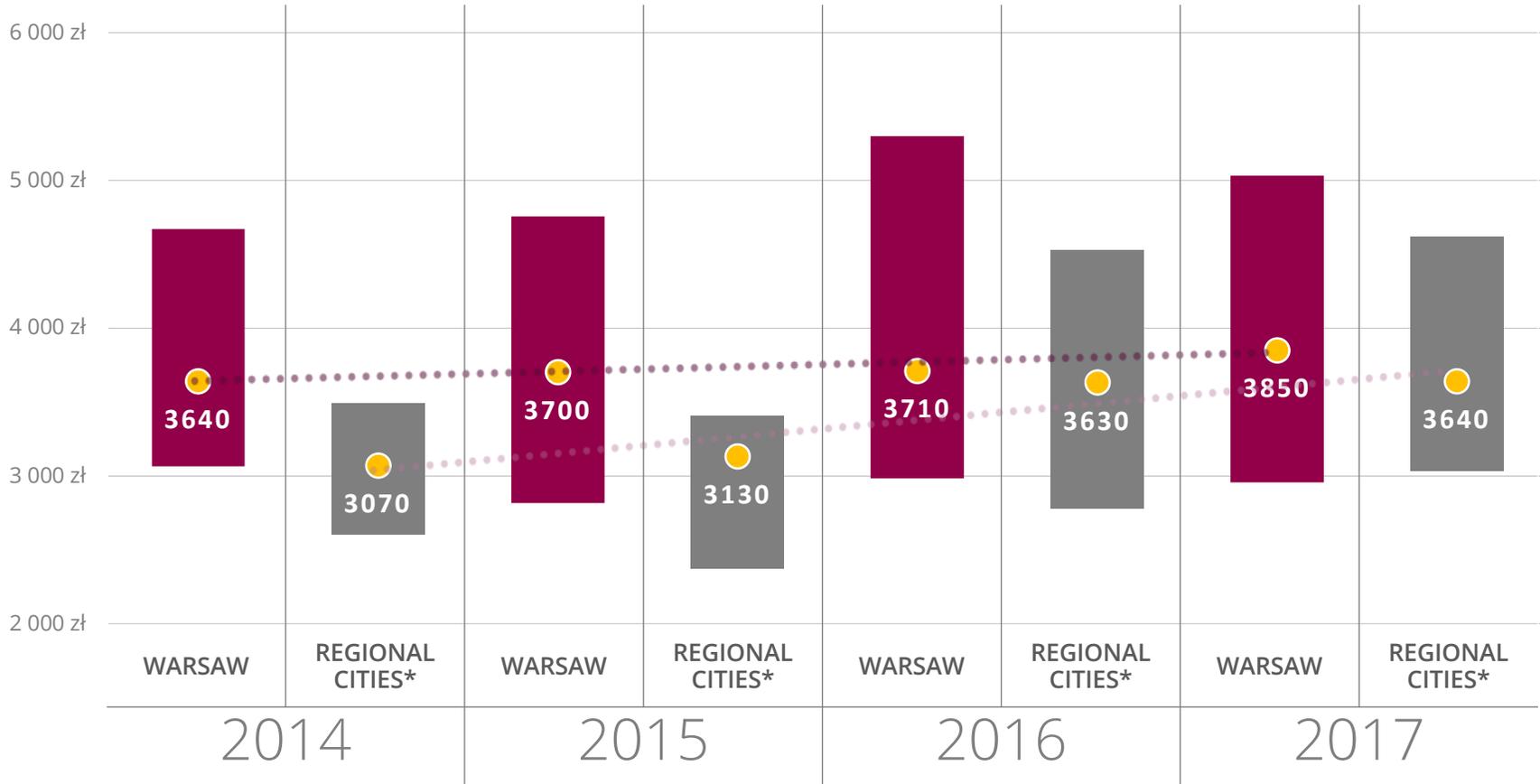
the number of apartments for which building permits were issued in 2017 (in total) ■
 the number of apartments for which building permits were issued in 2017 per 100,000 inhabitants ●



Construction costs of development investments

[PLN/UFA sqm]

Warsaw
regional cities
average cost of construction



*CRACOW, POZNAN, WROCLAW, TRI-CITY, SZCZECIN, LODZ

The data show the costs of general contracting, without the so-called soft costs and land purchase costs

THE MARKET OF NEW APARTMENTS TO LET

Returns on rent of apartments

WARSAW	4,3-5,1%
CRACOW	4,5-5,2%
POZNAN	4,1-5,2%
WROCLAW	4,4-5,4%
LODZ	5,5%
LUBLIN	5,3%
BIALYSTOK	5,3%
SZCZECIN	5,4%

The analysis covered the apartments put up for rent, which were completed and handed over to clients not earlier than in 2015.

RENT

Losses made in the course of negotiations at 5% of the rent amount (offered) were accounted for in the calculations of rent medians. Monthly net rental rates were adopted in the analysis, i.e. exclusive of administrative charges, fees for parking spaces, storage space for tenants and costs of utilities.

RATE OF RETURN

The rate of return for rent was calculated as the ratio of annual obtainable rental income to an apartment transaction price in eight Polish cities. An estimated cost of administrative charges in individual locations, a flat-rate tax on income from rent at 8.5% and losses of income related to a void period of one and a half months were accounted for in the adopted model.

GLOSSARY

On the largest Polish residential markets we can observe an increase in market rental rates, following the increase in the prices of new apartments. Apparently, the owners of premises purchased for rent are in this way trying to maintain the current profitability of the investment. The average rates you can currently get from renting a flat are just over 4%, and for the best locations they can exceed 5%. Some apartments may provide a higher rate of return, even exceeding 6%, but such opportunities happen sporadically.

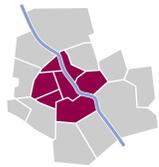
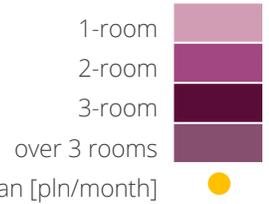
Slightly higher rates of return than in the largest agglomerations are observed in cities where the transaction prices of residential units are not very high. We refer here to capitals of voivodeships, not belonging to the five largest Polish agglomerations, which are characterised by an attractive lease market due to their large academic centres. Examples of such cities include Lodz and Lublin.

The offer of new apartments for rent in terms of the type of residential unit was quite uniform. Two room-apartments dominated in all of the locations we analysed. Their share in the available offer ranged from 53% in Poznan to 66% in Szczecin. Less popular were 3-room apartments and there were even fewer 1-room apartments in the offer. The largest supply of apartments for rent in the new construction sector was in the central districts, as in the case of Warsaw and Cracow, and districts characterised by the greatest activity of developers in recent years, such as the district of Krzyki in Wrocław.

The level of rates of return on rental of new flats, calculated as the relation of the owner's possible annual income to the price to be paid for an apartment purchased for rent in a new residential investment, is presented in the table next.

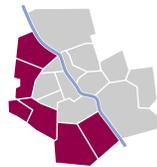
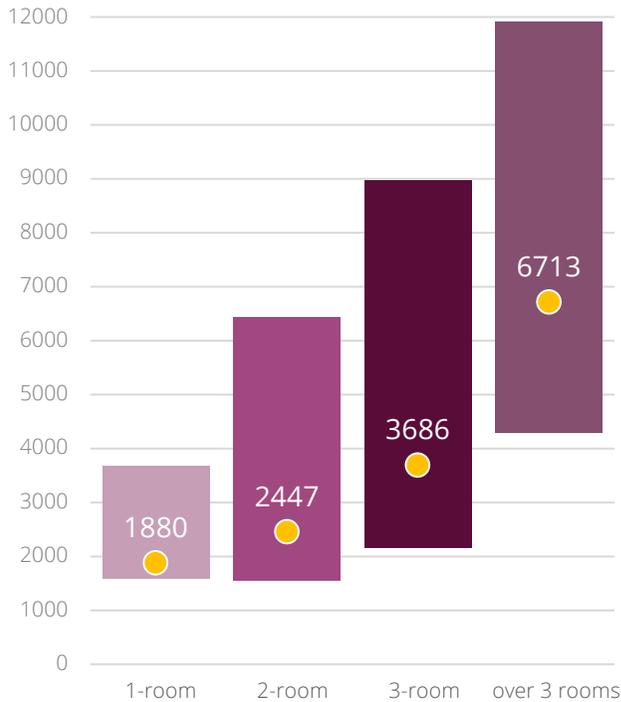
WARSAW

MONTHLY RENT – MEDIAN AND RATES



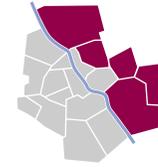
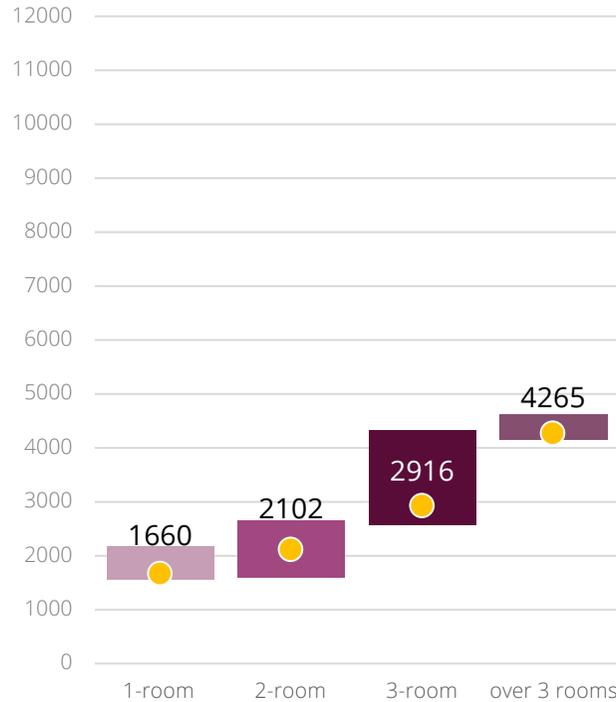
central districts

Mokotów, Śródmieście, Żoliborz, Wola, Praga-Południe, Praga-Północ, Ochota



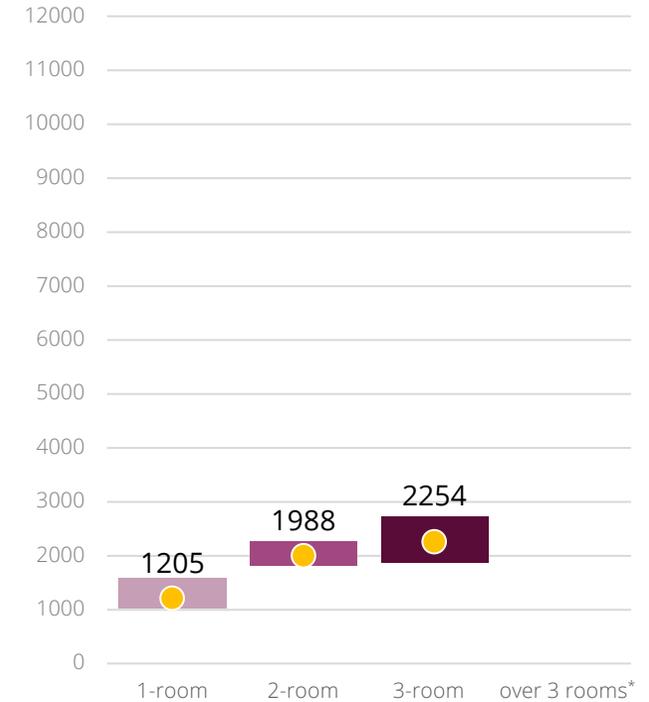
districts outside the centre (left bank)

Bemowo, Bielany, Ursus, Włochy, Ursynów, Wilanów



districts outside the centre (right bank)

Białołęka, Rembertów, Targówek, Wawer, Wesoła



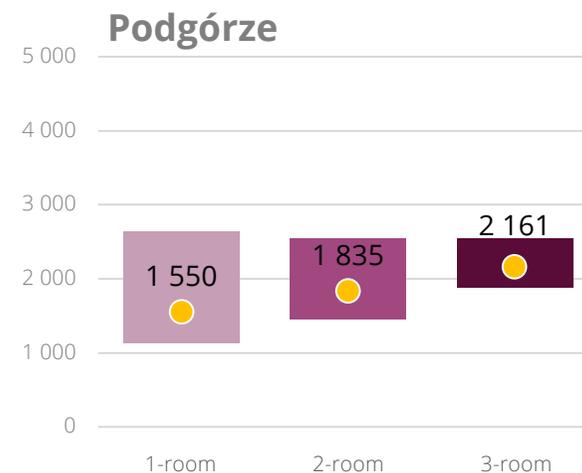
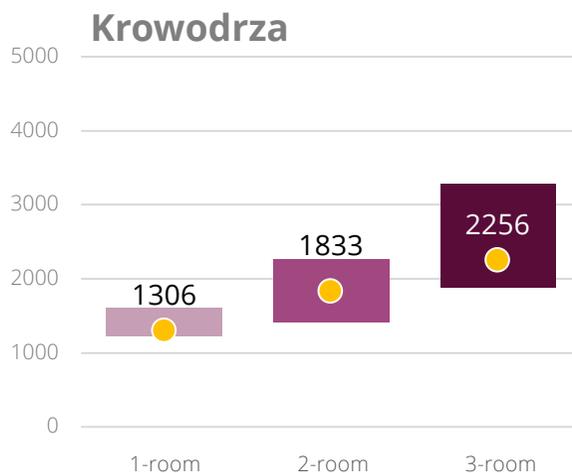
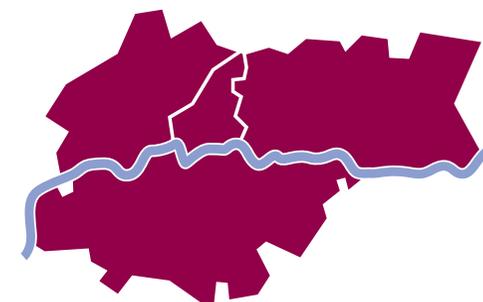
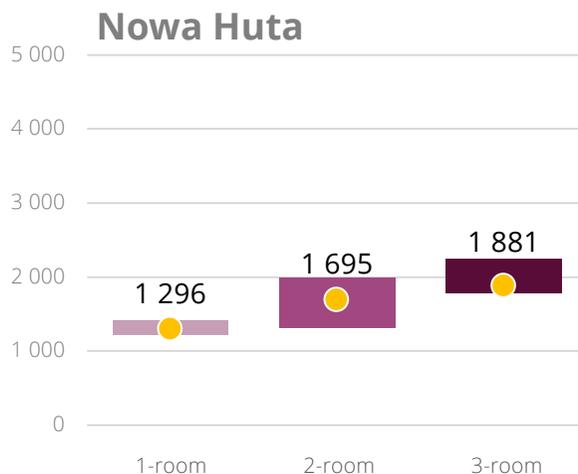
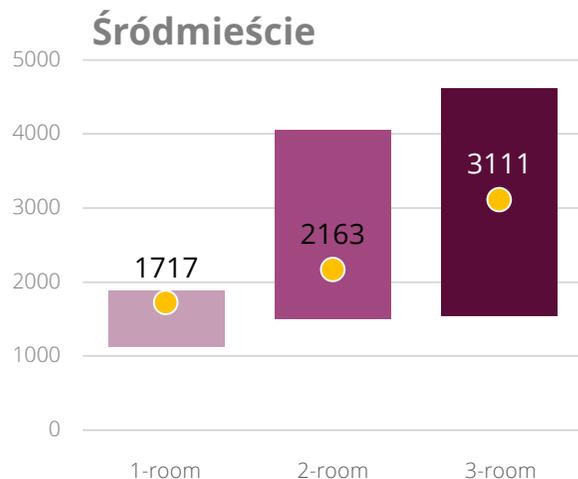
* There are not enough data to provide the analysis during the reporting period

CRACOW

MONTHLY RENT – MEDIAN AND RATES



rent median [pln/month]

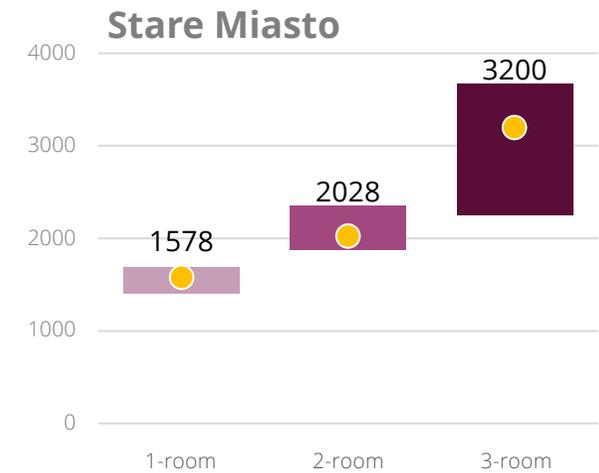
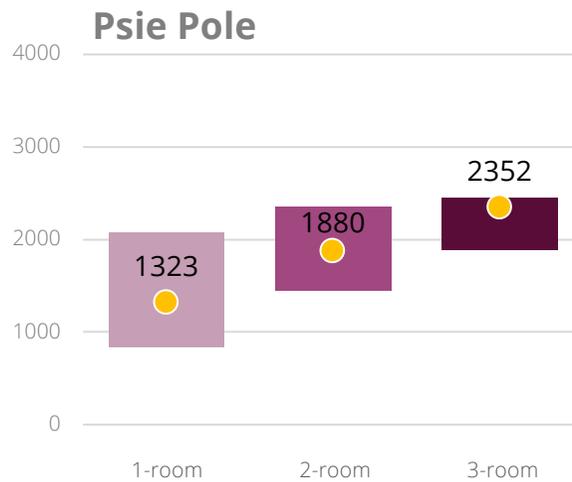
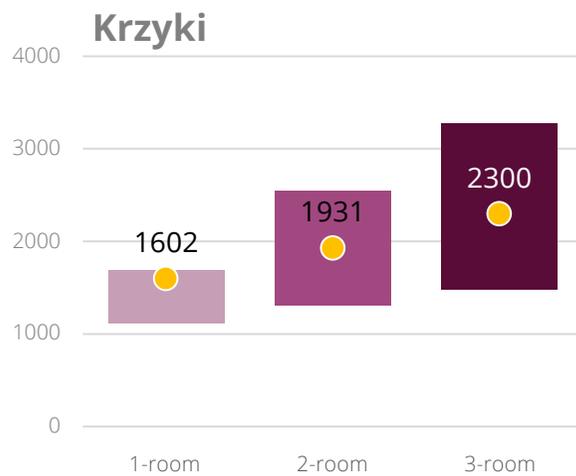
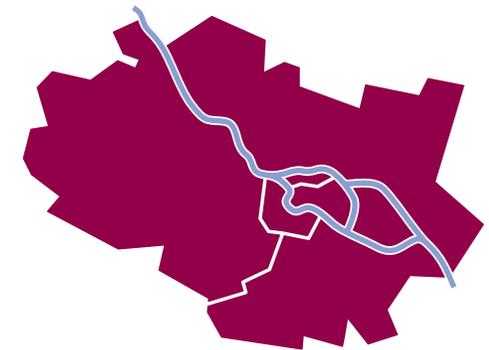
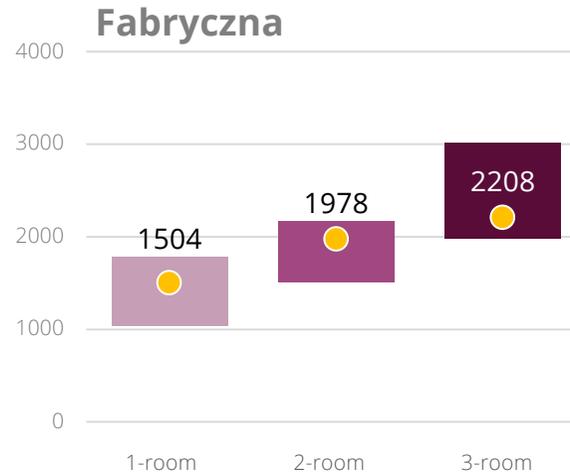
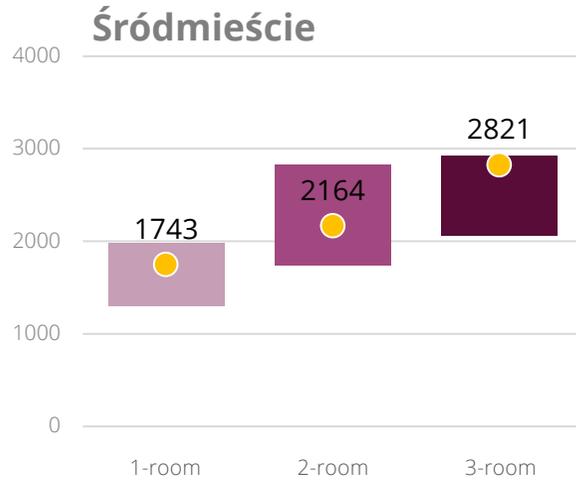


WROCLAW

MONTHLY RENT – MEDIAN AND RATES



rent median [pln/month] ●

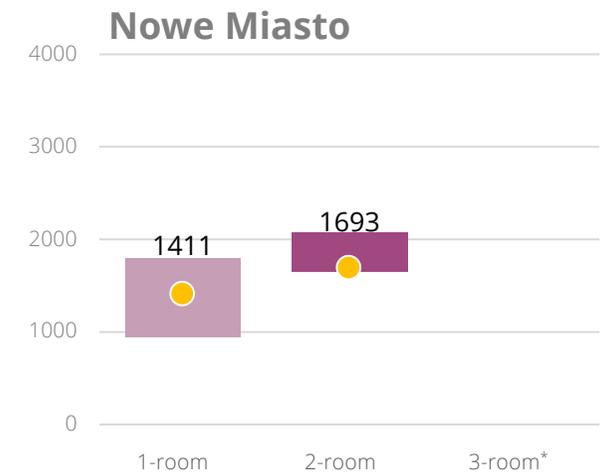
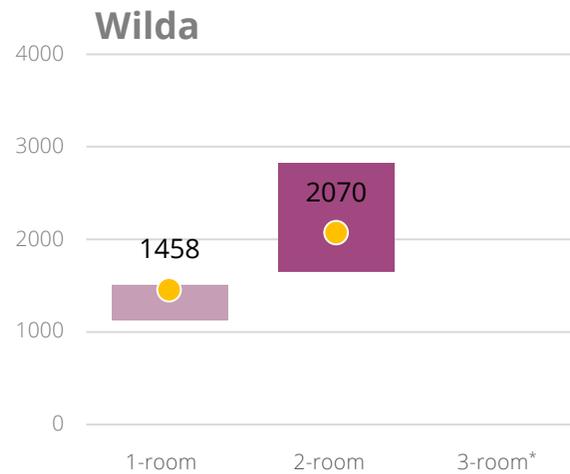
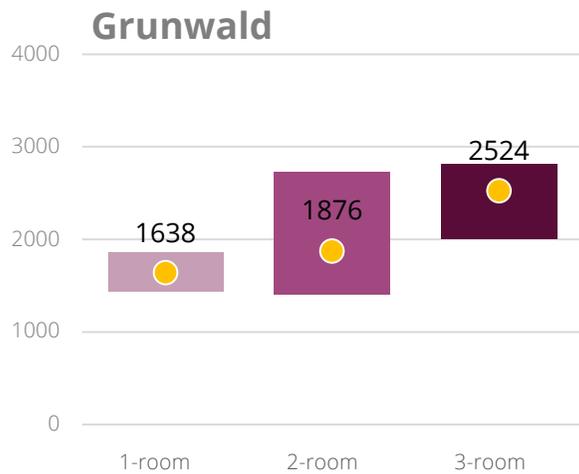
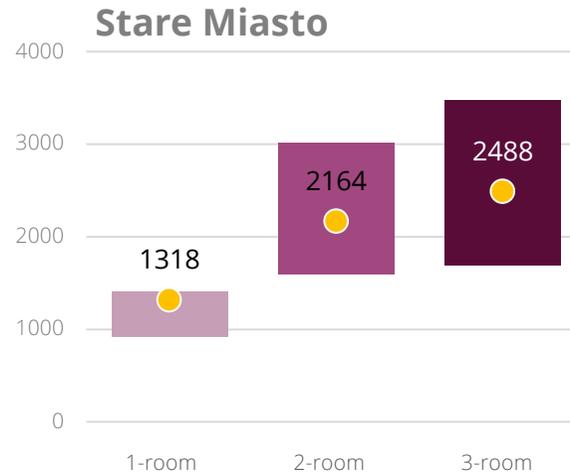
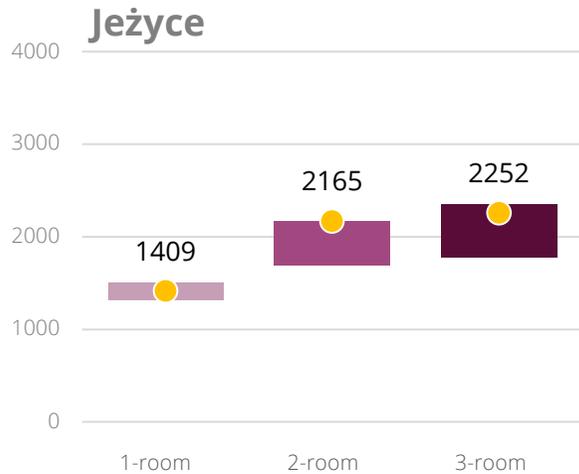
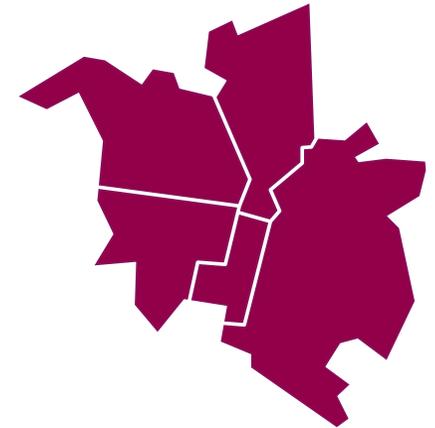


POZNAN

MONTHLY RENT – MEDIAN AND RATES



rent median [pln/month] ●



* There are not enough data to provide the analysis during the reporting period

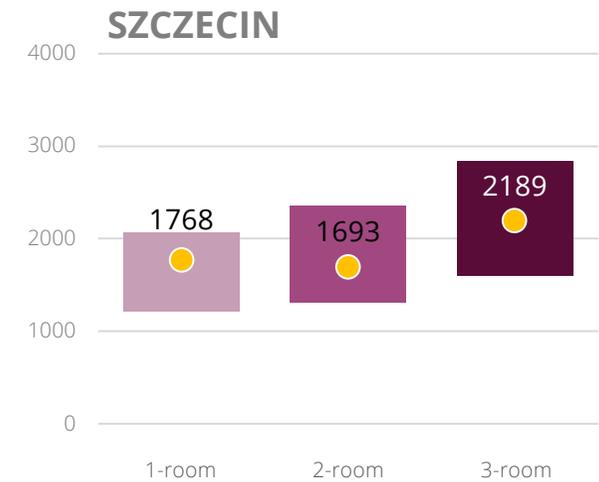
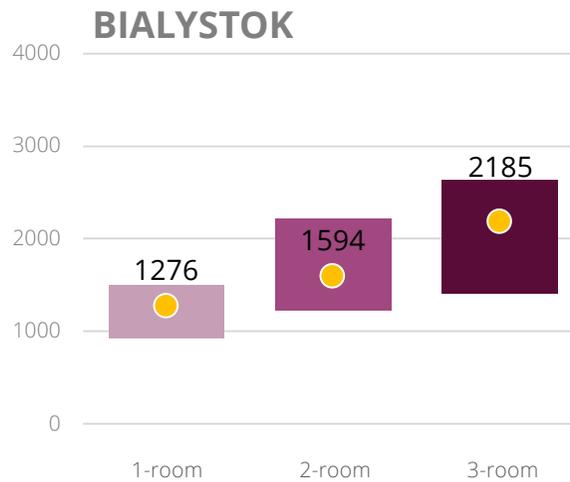
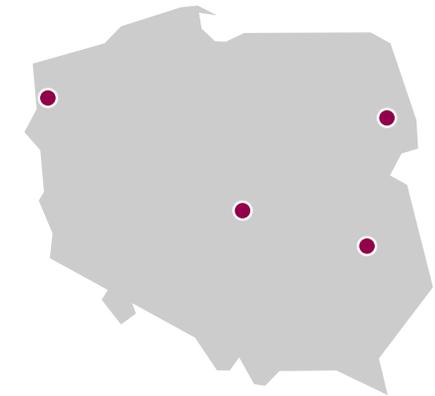
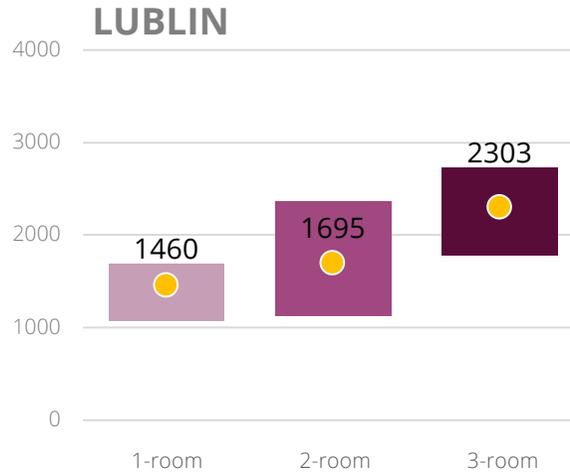
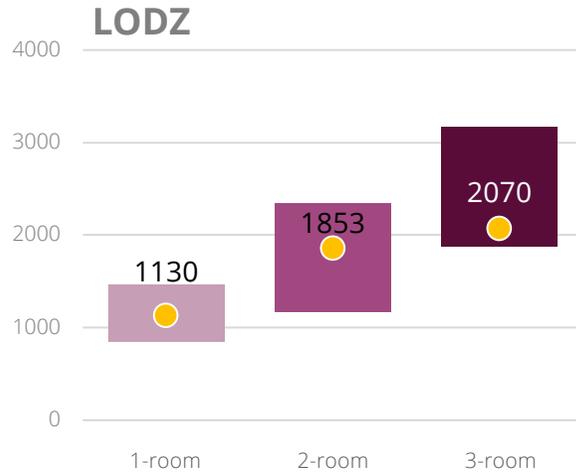
* There are not enough data to provide the analysis during the reporting period

SMALLER CAPITALS OF VOIVODESHIPS

MONTHLY RENT – MEDIAN AND RATES



rent median [pln/month] ●



MIESZKANIE PLUS (APARTMENT PLUS)



What can we expect?

The government's program – Mieszkanie Plus (Apartment Plus) assumes construction of affordable apartments for rent, with the option of taking ownership. Residential investments are to be carried out on market terms on the land owned by local government and private investors, using financing from a fund managed by Bank Gospodarstwa Krajowego Nieruchomości (BGKN). The programme is addressed to all social groups, but in particular it aims at improving the situation of young people, for whom housing conditions are an important element when deciding to start a family. Access to suitable housing is supposed to make it much easier for them.

The first tenants

Under the framework of the program Mieszkanie Plus, over 25,000 flats are being prepared, of which over 2,000 are under construction. The first tenants should move in still in the second quarter of 2018. The most advanced works are in progress in Biała Podlaska and Jarocin. In the first of these cities, at the beginning of March this year, nearly 1.3 thousand people submitted preliminary applications for the 186 available flats. The most likely candidates to take advantage of the Program will be those who have met the formal requirements, i.e. provided the necessary documents, but also obtained additional points awarded e.g. for being a citizen of Biała Podlaska. The number of children in the family or the disability of one of its members is also taken into account.

Among the locations that have recently been included in the government programme is the town of Kępnice in Pomerania. Five buildings with 42 apartments are to be constructed there by June 2019. Nine apartment houses with 304 apartments will be built in Lublin on a plot of land handed over by Poczta Polska. At the turn of 2018 and 2019, construction works are also planned to commence in Warsaw's Ursynow district, where about 3,000 apartments are to be built.

Overly optimistic assumptions

According to the draft regulation of the Council of Ministers of 19 September 2017, the average rent of premises offered under the Apartment Plus Programme, without taking into account the rent and the utility costs, should be within the range of PLN 7 to 13 per square meter per month. In case of a lease option ending with a purchase the rent rate would be higher by approx. 20-40 per cent, depending on the redemption period, financing costs and location of the investment. Rental rates announced by the authors of the Apartment Plus programme are undoubtedly very competitive in relation to the market offer. However, it is worth noting that the calculation of rental fees was based on the assumption of low construction costs (PLN 3,000/square meter) for capitals of voivodeships and 2.5 thousand zlotys per square meter for other locations and minimizing the expenses related to the purchase of land, which was to come mainly from State Treasury resources, e.g. railway, military, postal services, etc.

However, the reality has verified the assumptions of the programme. The Biała Podlaska City Council, which will be one of the first to offer apartments from the „Apartment Plus” programme, has announced that the fees for the tenants wishing to get the option to buy out smaller flats will amount to PLN 890 per month (the amount of compensation, rent, water delivery and garbage collection fees). For a large apartment a family of four will pay 1100 PLN. The offered rent rates are therefore almost 90% higher than the planned ones. The forecasts regarding the level of fees in this case have therefore proved to be too optimistic.

Mieszkanie Plus 2.0 (Apartment Plus 2.0)

Due to the higher investment costs than originally expected, the government has taken steps to optimise the general rules of the programme. On 20th March the Housing Board, appointed by Prime Minister Mateusz Morawiecki, in order to coordinate all government activities related to the implementation of the Apartment Plus project, announced the commencement of works on the Act on Rent Subsidies in Newly Built Houses. In 2019, PLN 200 million is to be allocated for this purpose. State support will be available to tenants who earn less than the amount set out in the Act and who do not have any other apartments. A 2+2 family, which pays about 1500 PLN for a rented apartment, can receive a subsidy of about 500 PLN. Such support will be available for a period of 9 years, however the amount of subsidies will be reduced.

Apartment Plus programme is still in the early stages of its implementation, so there isn't enough data to indicate how it will affect the real estate market and country's economy and in which direction the project will be developing. Concrete conclusions can only be drawn once more apartments have been delivered to tenants and the programme has entered another phase of its development.



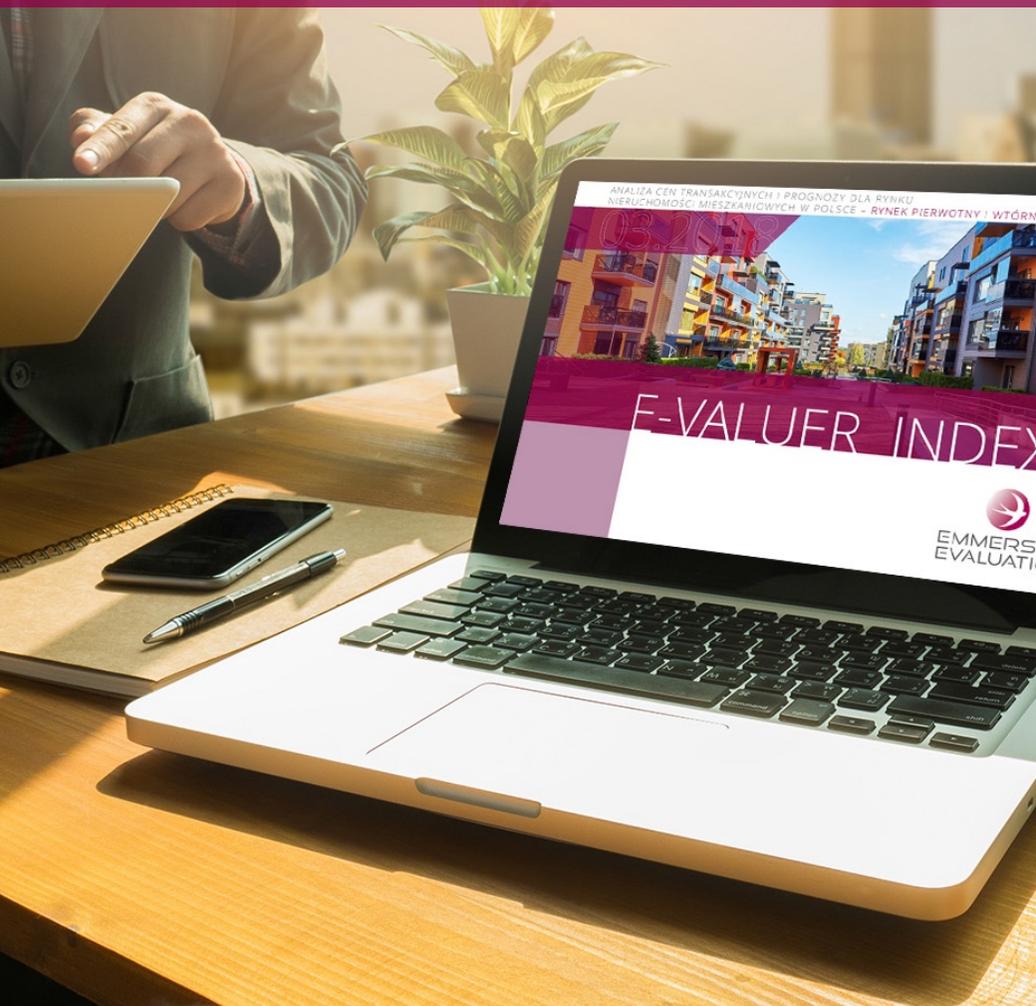
FORECAST 2018



According to our forecasts, the number of apartments completed in 2018, for the first time in history, will exceed 200,000 in the whole country. On the other hand, the number of new building permits may slightly decrease due to the increasingly limited availability of attractive investment land and the growing cost of land acquisition. At the same time, Emerson Evaluation expects the average price per square meter of an apartment will rise in 2018, another year in a row. We estimate the average range of increases at 5-10%, but in the most desired locations they may even significantly exceed this threshold. In some cities, prices may reach levels that have not been recorded historically yet.

Price increases will continue to be driven by high demand, but also by other factors such as rising prices of construction materials, labour, land and the declining availability of land for development. The growth will be supported by good accessibility and low interest rates on mortgage loans. Due to the continued low offered returns on bank deposits, investments in real estate will remain an attractive alternative. Rates of return on rental properties, when compared to other sources of capital investment, will continue to encourage capital investment in the residential market.

THE DESCRIPTION OF EMMERSON EVALUATION'S ACTIVITIES



Emmerson Evaluation Sp. z o.o. was established in 2008 and provides services involving the appraisal of residential, commercial (offices, trade, warehouse, hotels and development investments). The Company makes all-purpose valuations, including to secure debts, for financial statements and profit evaluation in regard of purchases or sales. It has broad experience in valuing large packages of real property, tangible assets and market analyses. Emmerson Evaluation's studies comply with Polish and international standards. Emmerson Evaluation also has its own data base of transaction prices on the real property market, E-VALUER, which now comprises over 1 000 000 transactional data described in great detail.

The Company has regional offices in 5 largest cities in Poland, employs more than 50 real property market experts, including 35 property valuers. Emmerson Evaluation's services are targeted mostly at banks, residential and commercial developers, investment funds and quoted companies.

DETAILED INFORMATION:
www.emmerson-evaluation.pl



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