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



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introduction

Dear Readers.

We would like to present the latest, fourth edition of the E-VALUER INDEX, our annual report dealing with the residential market in Poland.

Last year turned out to be a peak year for the residential market. The number of apartments sold and investment projects completed by developers was unprecedented. We attempt to recap on the most important factors contributing to such developments and also to show trends and directions that might significantly affect the residential market in the current year. As in our previous year's publication, medians of prices are our point of reference because, in our view, they reflect the state of the residential market much better than average prices.

Our analysis covers major residential markets in Poland. Because large metropolises are characterised by significant internal diversification, trends and prices were analysed for individual districts as well.

This year, for the first time, we have included an analysis of the new buy-to-let (BTL) market. We are of the opinion that the BTL market will grow increasingly important in the years to come, among other things because of the planned governmental Apartment Plus Programme (Program Mieszkanie Plus).

We kindly invite you to read the report. Should you have any questions or be interested in obtaining a more detailed analysis or a study dealing with other issues, please do not hesitate to contact us.

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

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 specified per square meter of usable space of a residential unit (PLN/sqm). Gross prices were specified for the market of new properties (the real estate primary market). The report was prepared based on nearly 60000 transactions recorded in 2016.

2016 – another peak year

In our previous report, we stated that 2015 was the peak year. What can be said about the 2016 performance? Above all, 2016 was the year in which 2015's records were broken. On the majority of markets, the supply of apartments on the primary market was the highest in history and the number of transactions likewise peaked. The majority of listed developers achieved an all-time high in sales in 2016.

Low bank deposit and uncertainty regarding the effectiveness of other forms of investment continue to drive Poles to invest in the residential market. This was a key factor affecting the market in 2016, as the majority of new apartments were purchased for cash. Based on estimates, over 60% of all 2016's transactions were made for cash, whereas the transactions involving mortgage loans accounted for less than 40% of the total transactions on the market. Such a high share of cash transactions in total transactions has not been recorded on the market for a dozen or so years.

Very cheap mortgage loans also contributed to the market boom; however, with cash purchases outnumbering purchases with mortgage loans based on the data referred to above, it should be concluded that this was not a key factor.

Another factor that helped improve the condition of the real estate market in 2016 was the very good situation on the labour market, including a record low unemployment rate and rising salaries. In particular, the low unemployment rate had a very beneficial effect on the residential market. A sense of job security is always an important factor that stimulates such long-term important life decisions as purchasing a new apartment.

Changes to the MdM Programme introduced back in 2015, including the preferential treatment of 3+ families and extending the programme to include the secondary market, also had a positive impact on the residential market, mostly with regard to recorded transaction volumes. The popularity of the MdM Programme can be evidenced by the fact that funds allocated to the programme for subsequent years are usually used up after the first 2 or 3 months of the year.

2016 was another year of stable prices, although the prices of apartments slightly rose in the majority of the cities; however, no more than by 5% on average. This shows that the record-breaking demand for apartments was met by sufficient supply. It should be stressed that such insignificant price increases were frequently balanced out by smaller average areas of apartment sold by developers compared to the previous year. In consequence, in many cases in 2016, apartments with the same number of rooms were sold for the same prices as in 2015, even though the average per sqm price slightly rose. The trend for developers to downsize units, which has been seen for a few years, is best reflected in data pertaining to the average metric area for individual types of apartments sold in 2016. Currently, the area of newly built studios rarely exceeds 30 sqm, whereas the area of two-room apartments has been consistently reaching an area of 40 sqm on average. The area of three-room apartments is most typically close to 55 sqm, and the area of four-room apartments is 80 sqm.

Even though the prices of apartments remained comparable to those recorded at the end of 2015, the price of land for development projects has grown quite dynamically. Due to high demand for apartments, developers

have been trying to aggregate appropriate land banks for expected future supplies. Hence, over the past two or three years, the price of land for multifamily housing developments consistently rose to very high levels in all cities at the end of 2016. As a result, developers' margins declined during this period; however, they were balanced out by high sales volumes.

To recap, the residential market was definitely dominated by the primary market with all-time high sales in 2016. Due to a large volume of apartments for sale keeping pace with market demand, there were no significant price increases, which was definitely advantageous for buyers. Developers once again took advantage of the positive economic situation to a maximum extent. The secondary market continues to be clearly overshadowed by the primary market.

Major factors driving demand up in 2016 included:

- low interest rates of bank deposits, encouraging holders of ample cash to seek alternative investments, mostly on the housing market,
- relatively "cheap" mortgage loans due to persistently low interest rates,
- the excellent situation on the labour market (a low unemployment rate, gradually rising salaries),
- the possibility of extra payments under the Apartments for the Young programme (Mieszkanie dla Młodych MdM).



Residential market in Poland

PRICES, TRENDS, FORECAST

| LINDS, I OILLONST | primary market | | primary marl | | S€ | econdary marke | et |
|--|----------------------|-------------------------------|-----------------------------|----------------------|-------------------------------|------------------------------|----|
| | median price 1sqm | annual trend E-VALUER 2016 | E-VALUER forecast | median price 1sqm | annual trend E-VALUER 2016 | E-VALUER forecast | |
| WARSAW | 7620 | 2% | ① | 7237 | -1% | $\nabla_{+}\nabla$ | |
| CRACOW | 6563 | 5% | $\nabla_{\downarrow}\nabla$ | 5988 | 1% | $\nabla_{\downarrow} \nabla$ | |
| WROCŁAW | 5776 | 1% | ① | 5236 | 3% | $\nabla_{\downarrow}\nabla$ | |
| POZNAŃ | 5840 | 1% | $\nabla_{\downarrow}\nabla$ | 5109 | 3% | $\nabla_{\downarrow}\nabla$ | |
| GDAŃSK | 5792 | 4% | $\nabla_{\downarrow}\nabla$ | 5186 | 5% | $\nabla_{\downarrow}\nabla$ | |
| GDYNIA | 5966 | 3% | $\nabla_{\downarrow}\nabla$ | 4869 | 2% | $\nabla_{\downarrow} \nabla$ | |
| SOPOT | 10147 | 4% | ① | 7008 | 3% | ① | |
| ŁÓDŹ | 4664 | 2% | 企 | 3255 | 2% | 企 | |
| KATOWICE | 4957 | 2% | 企 | 3395 | 5% | $\nabla_{\downarrow}\nabla$ | |
| SILESIAN AGGLOMERATION (WITHOUT KATOWICE) | 3938 | 0% | ① | 2691 | 4% | $\nabla_{\downarrow}\nabla$ | |

Residential market in Poland

| LINDS, I ONLCASI | | orimary market | t | S€ | econdary marke | et |
|---------------------|----------------------|-------------------------------|-----------------------------|----------------------|-------------------------------|------------------------------|
| | median price 1sqm | annual trend E-VALUER 2016 | E-VALUER forecast | median price 1sqm | annual trend E-VALUER 2016 | E-VALUER forecast |
| SZCZECIN | 4571 | 2% | $\nabla_{\downarrow}\nabla$ | 3 927 | 2% | $\nabla_{\downarrow}\nabla$ |
| GORZÓW WIELKOPOLSKI | 3400 | 3% | ① | 2848 | 2% | $\nabla_{\downarrow}\nabla$ |
| ZIELONA GÓRA | 3657 | 4% | ① | 3108 | 0% | $\nabla_{\downarrow}\nabla$ |
| OPOLE | 4089 | 5% | $\nabla_{\downarrow}\nabla$ | 3818 | 4% | $\nabla_{\downarrow}\nabla$ |
| KIELCE | 4618 | -2% | $\nabla_{\downarrow}\nabla$ | 3522 | 0% | $\nabla_{\downarrow} \nabla$ |
| BYDGOSZCZ | 4650 | 1% | $\nabla_{\downarrow}\nabla$ | 3625 | 5% | $\nabla_{\downarrow}\nabla$ |
| TORUŃ | 5200 | 0% | $\nabla_{\downarrow}\nabla$ | 3806 | 4% | $\nabla_{\downarrow} \nabla$ |
| OLSZTYN | 4560 | 2% | $\nabla_{\downarrow}\nabla$ | 4197 | 4% | $\nabla_{\downarrow} \nabla$ |
| BIAŁYSTOK | 4416 | 2% | $\nabla_{\downarrow}\nabla$ | 4039 | 5% | $\nabla_{\downarrow}\nabla$ |
| LUBLIN | 4913 | 5% | $\nabla_{\downarrow}\nabla$ | 4527 | 4% | $\nabla_{\downarrow} \nabla$ |
| RZESZÓW | 4384 | 1% | ① | 4345 | 2% | $\overline{\nabla}$ |

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



03.2017

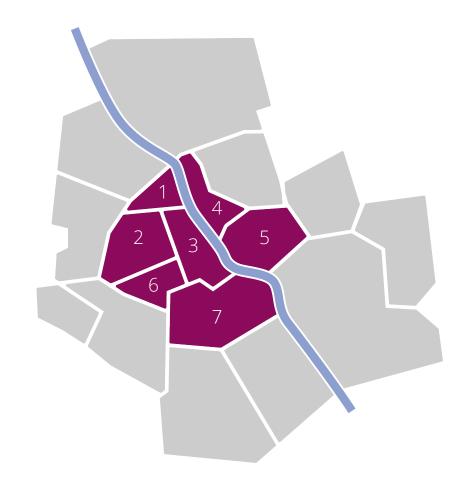
Warsaw – central districts

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS ANNUAL PRICE CHANGE TREND

| 1 ŻOLIBORZ | | | | |
|---------------------|-----------------|----------------------|--|--|
| 2016 | annual trend | median price 1sqm | | |
| primary market | 3% | 8290 | | |
| secondary market | 5% | 8292 | | |

| 2 | WOLA | | | |
|---------------------|-----------------|----------------------|--|--|
| 2016 | annual trend | median price 1sqm | | |
| primary market | 1% | 7951 | | |
| secondary market | -1% | 7410 | | |

| 3 ŚRÓDMIEŚCIE | | | |
|---------------------|-----------------|----------------------|--|
| 2016 | annual trend | median price 1sqm | |
| primary market | 4% | 14239 | |
| secondary market | 3% | 9930 | |



| 4 PRAGA PN. | | | | |
|---------------------|-----------------|----------------------|--|--|
| 2016 | annual trend | median price 1sqm | | |
| primary market | 6% | 7669 | | |
| secondary market | 0% | 6354 | | |

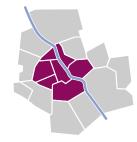
| 5 PRAGA PD. | | | | |
|---------------------|-----------------|----------------------|--|--|
| 2016 | annual trend | median price 1sqm | | |
| primary market | 2% | 7585 | | |
| secondary market | 0% | 6857 | | |

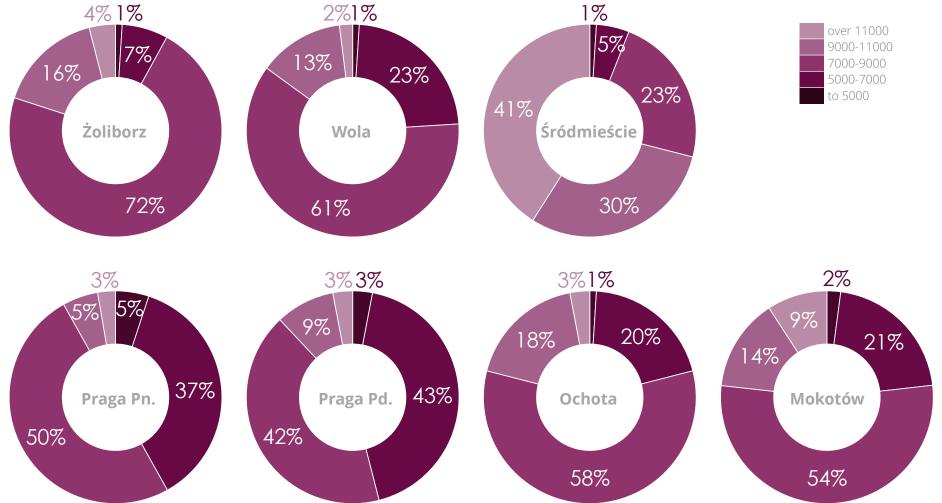
| 6 | ОСНОТА | | | |
|---------------------|-----------------|----------------------|--|--|
| 2016 | annual trend | median price 1sqm | | |
| primary market | 1% | 8664 | | |
| secondary market | 2% | 7848 | | |

| 7 MOKOTÓW | | | | |
|---------------------|-----------------|----------------------|--|--|
| 2016 | annual trend | median price 1sqm | | |
| primary market | 4% | 8384 | | |
| secondary market | -1% | 7736 | | |

Warsaw – central districts

TRANSACTION PRICE DISTRIBUTION ON PRIMARY AND SECONDARY MARKETS





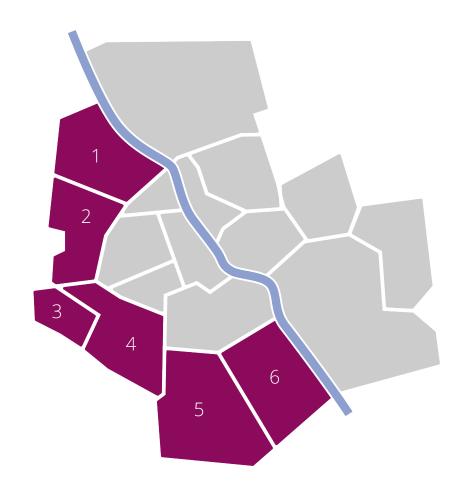
Warsaw – districts outside the centre (left bank)

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS ANNUAL PRICE CHANGE TREND

| 1 | BIELANY | | | |
|---------------------|-----------------|----------------------|--|--|
| 2016 | annual trend | median price 1sqm | | |
| primary market | 2% | 8015 | | |
| secondary market | 2% | 6880 | | |

| 2 BEMOWO | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 2% | 6860 |
| secondary market | 0% | 6921 |

| 3 | URSUS | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 4% | 6603 |
| secondary market | -2% | 6306 |



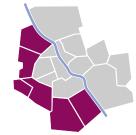
| 4 | WŁOCHY | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 3% | 6852 |
| secondary market | 2% | 6719 |

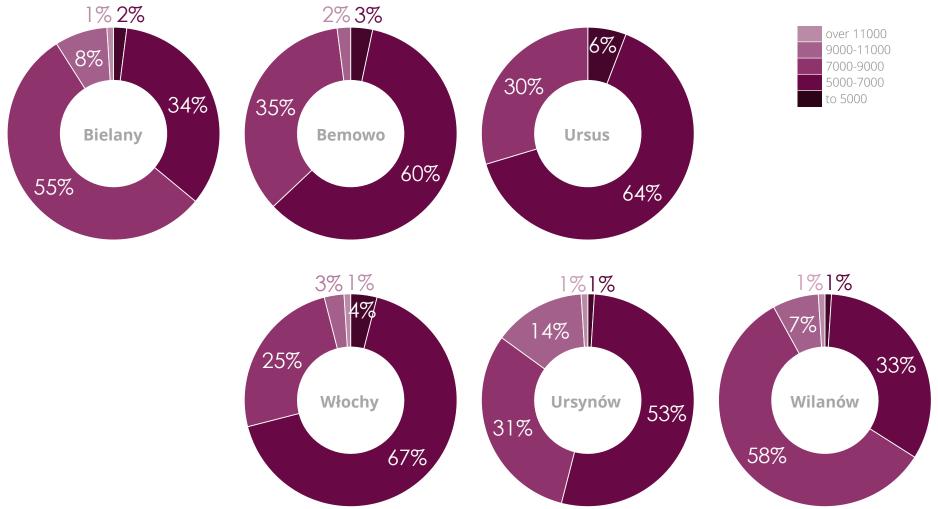
| 5 l | JRSYN | WČ |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | -2% | 7938 |
| secondary market | -1% | 7895 |

| 6 WILANÓW | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 3% | 7354 |
| secondary market | 0% | 7823 |

Warsaw – districts outside the centre (left bank)

TRANSACTION PRICE DISTRIBUTION ON PRIMARY AND SECONDARY MARKETS



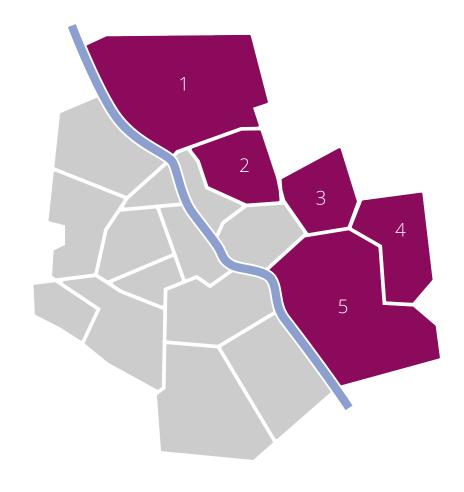


Warsaw – districts outside the centre (right bank)

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS ANNUAL PRICE CHANGE TREND

| 1 BIAŁOŁĘKA | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 2% | 6155 |
| secondary market | -1% | 5898 |

| 2 TARGÓWEK | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 5% | 6733 |
| secondary market | 0% | 6020 |



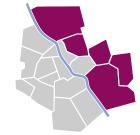
| 3 REMBERTÓW | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 2% | 6043 |
| secondary market | -3% | 5854 |

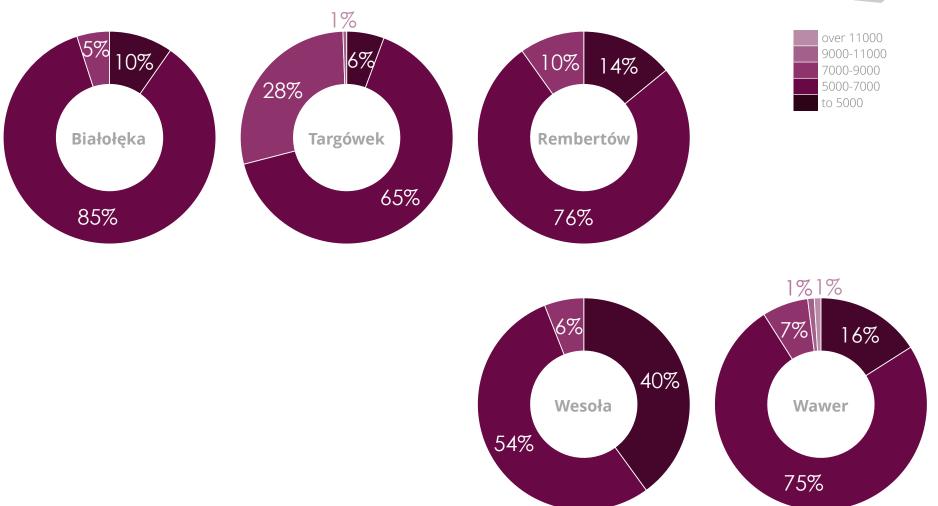
| 4 | WESO | ŁA |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 0% | 5698 |
| secondary market | 0% | 5377 |

| 5 | WAWER | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 0% | 6198 |
| secondary market | 2% | 6120 |

Warsaw – districts outside the centre (right bank)

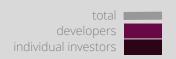
TRANSACTION PRICE DISTRIBUTION ON PRIMARY AND SECONDARY MARKETS

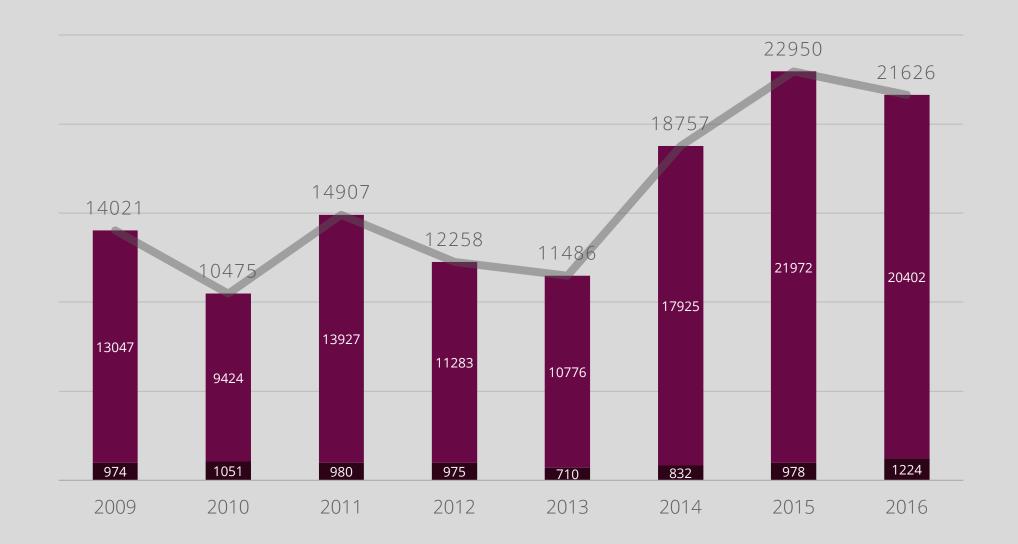




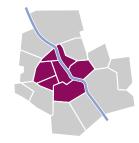
Warsaw

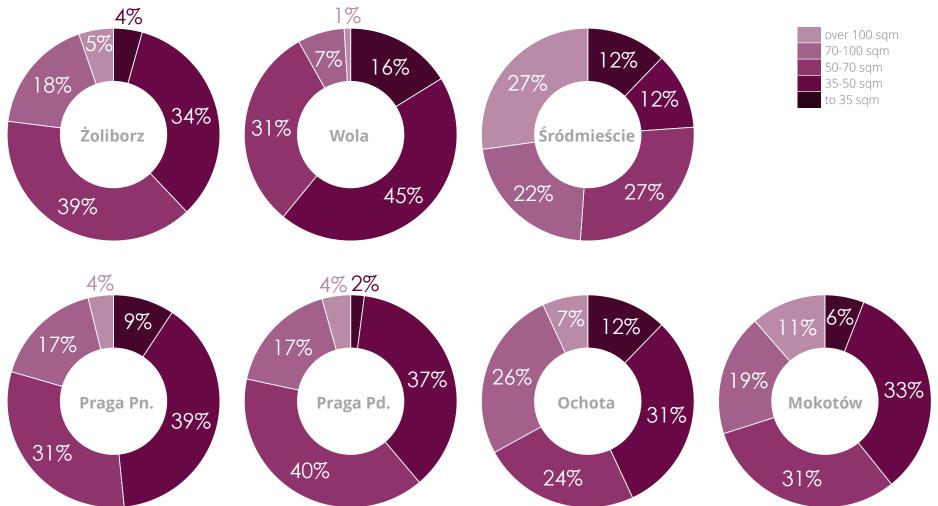
ANALYSIS OF THE BUILDING PERMITS ISSUED IN THE YEARS 2009-2016



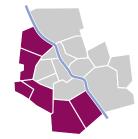


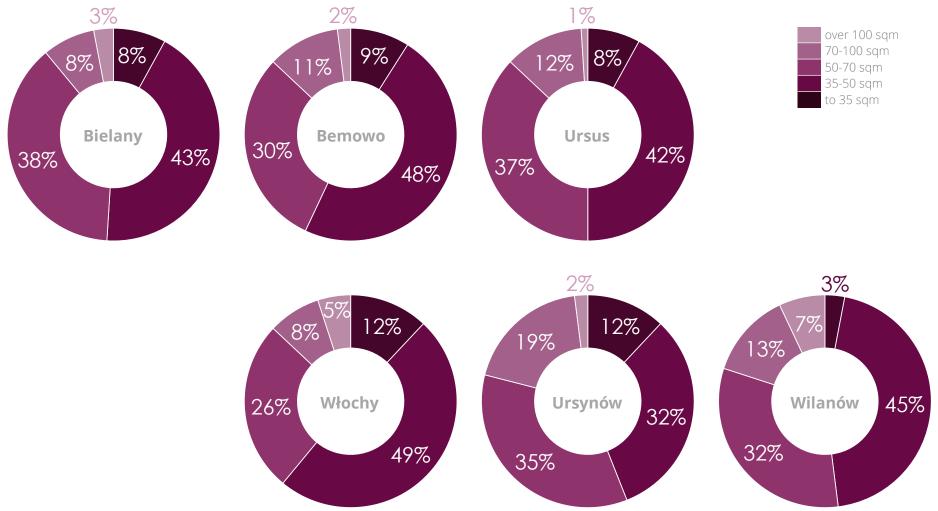
Warsaw – central districts





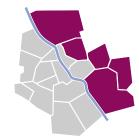
Warsaw – districts outside the centre (left bank)





Warsaw – districts outside the centre (right bank)

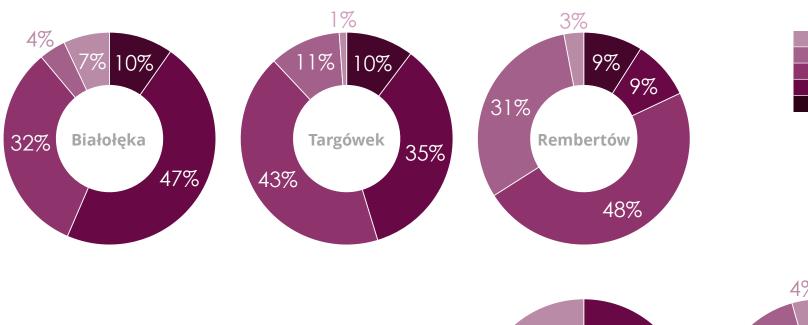
SALES STRUCTURE OF APARTMENTS ACCORDING TO USABLE AREA ON THE PRIMARY MARKET

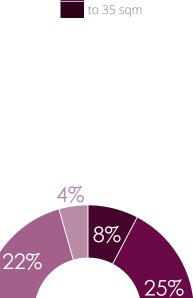


over 100 sqm 70-100 sqm

50-70 sqm

35-50 sam





Wawer

41%

31%

8%

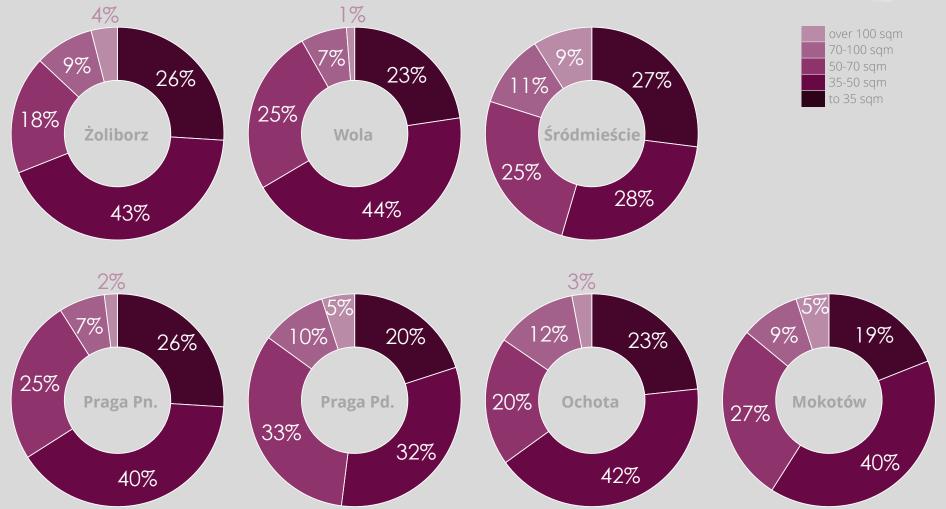
23%

38%

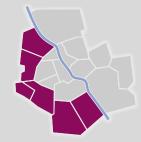
Wesoła

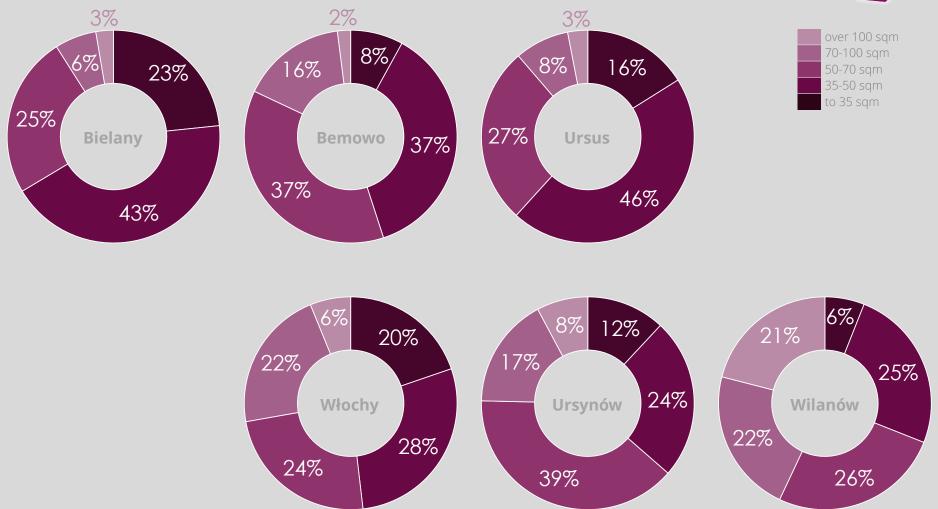
Warsaw – central districts



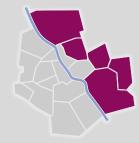


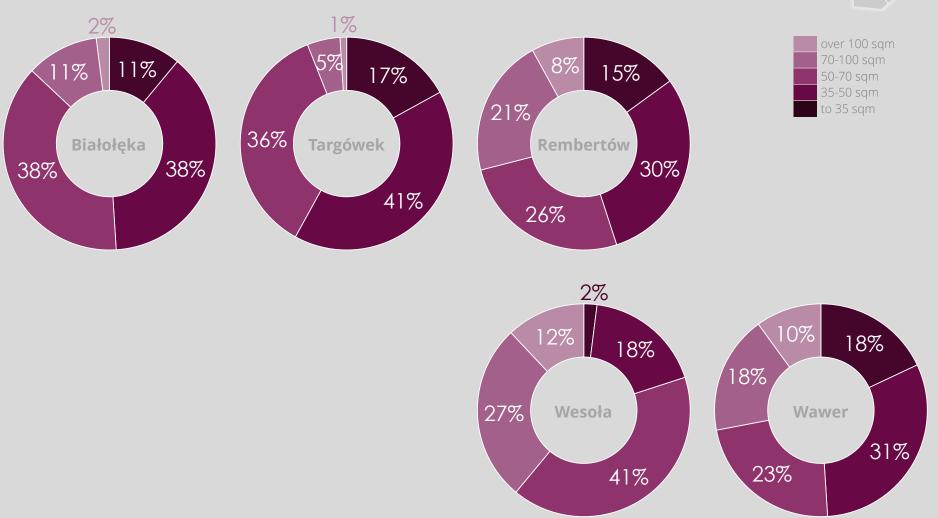
Warsaw – districts outside the centre (left bank)



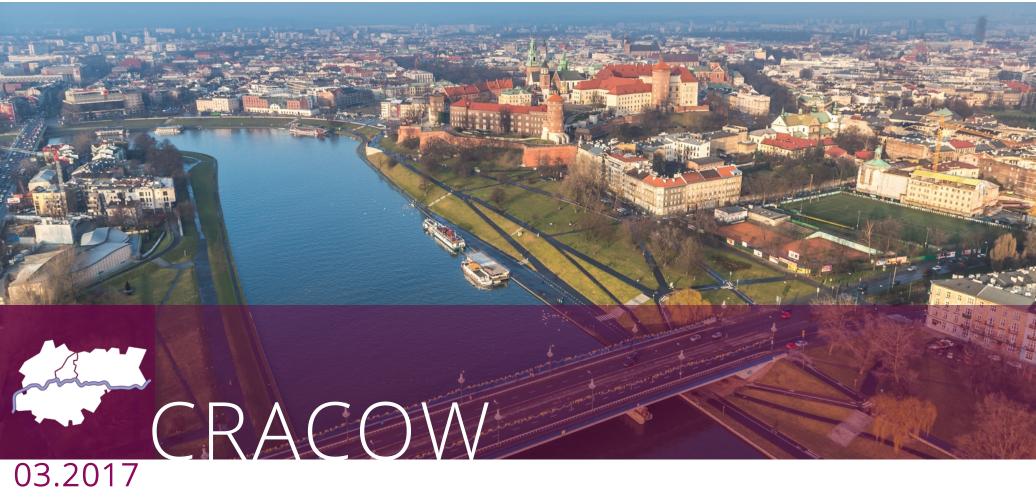


Warsaw – districts outside the centre (right bank)

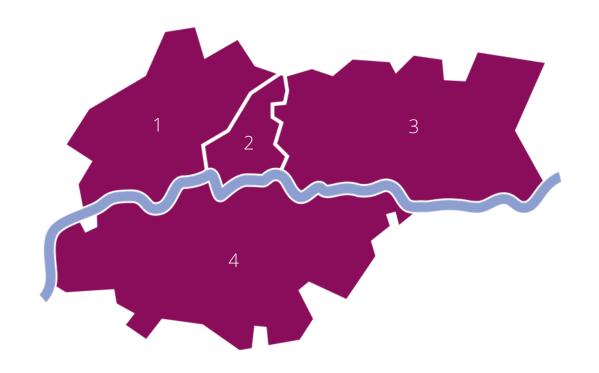




ANALYSIS OF TRANSACTION PRICES AND FORECASTS FOR THE RESIDENTIAL MARKET PRIMARY AND SECONDARY MARKET



MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS ANNUAL PRICE CHANGE TREND



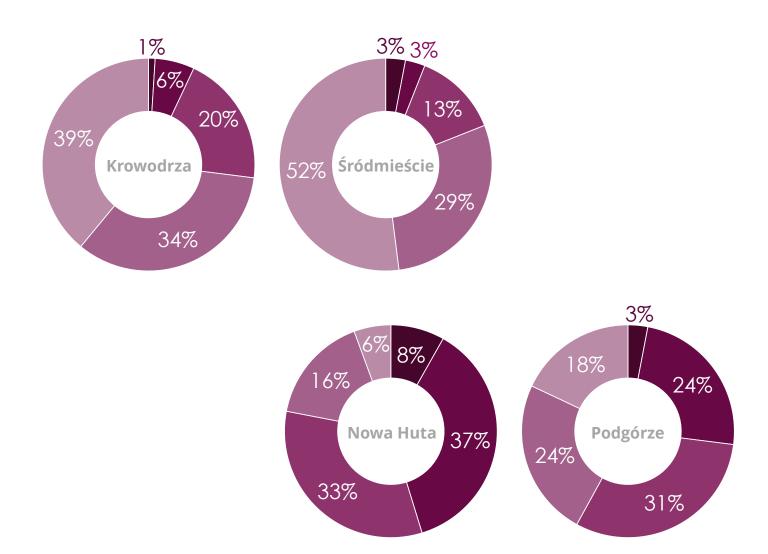
| 1 KROWODRZA | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 2% | 6448 |
| secondary market | -1% | 6461 |

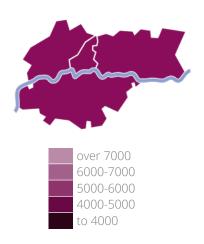
| 2 ŚRÓDMIEŚCIE | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | -4% | 6711 |
| secondary market | 4% | 6650 |

| 3 NOWA HUTA | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 3% | 5316 |
| secondary market | 1% | 4812 |

| 4 PODGÓRZE | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 3% | 5513 |
| secondary market | -1% | 5749 |

TRANSACTION PRICE DISTRIBUTION ON PRIMARY AND SECONDARY MARKETS

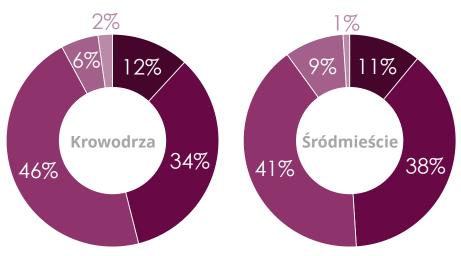


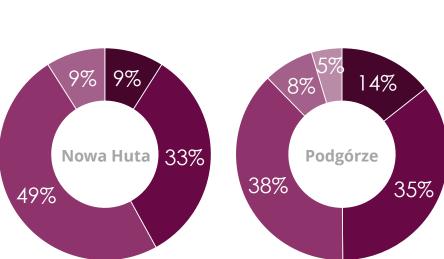


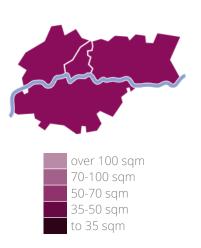
ANALYSIS OF THE BUILDING PERMITS ISSUED IN THE YEARS 2009-2016

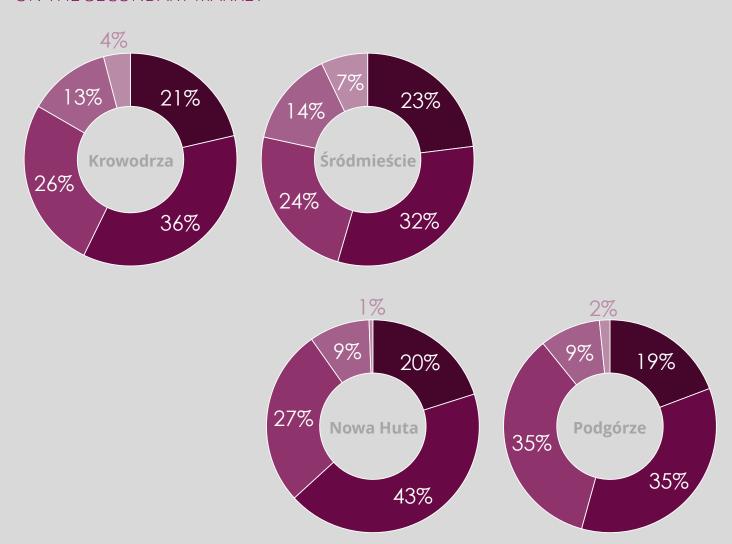


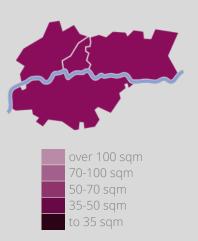










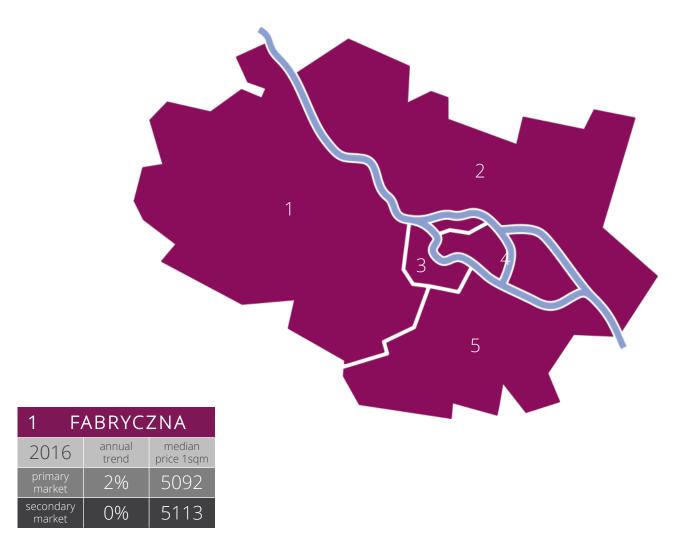


ANALYSIS OF TRANSACTION PRICES AND FORECASTS FOR THE RESIDENTIAL MARKET PRIMARY AND SECONDARY MARKET



03.2017

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS ANNUAL PRICE CHANGE TREND



| 2 PSIE POLE | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 1% | 5362 |
| secondary market | 1% | 4860 |

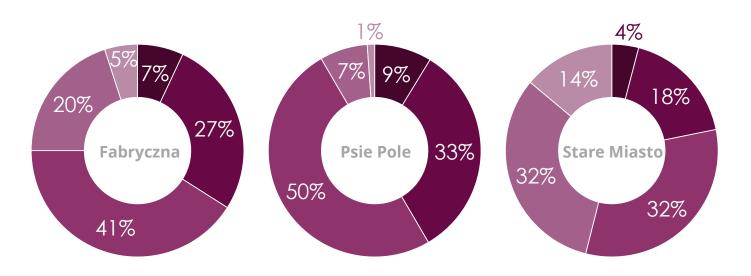
| 3 STARE MIASTO | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | -2% | 5973 |
| secondary market | 0% | 5747 |

| 4 ŚRÓDMIEŚCIE | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | -1% | 5980 |
| secondary market | 1% | 5120 |

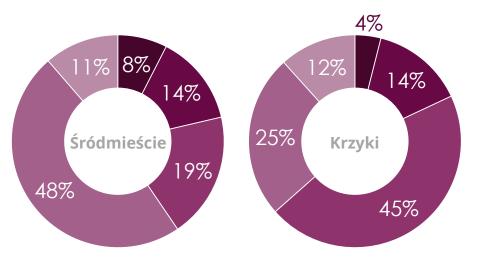
| 5 | KRZYKI | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 0% | 5416 |
| secondary market | 3% | 5375 |

TRANSACTION PRICE DISTRIBUTION ON PRIMARY AND SECONDARY MARKETS





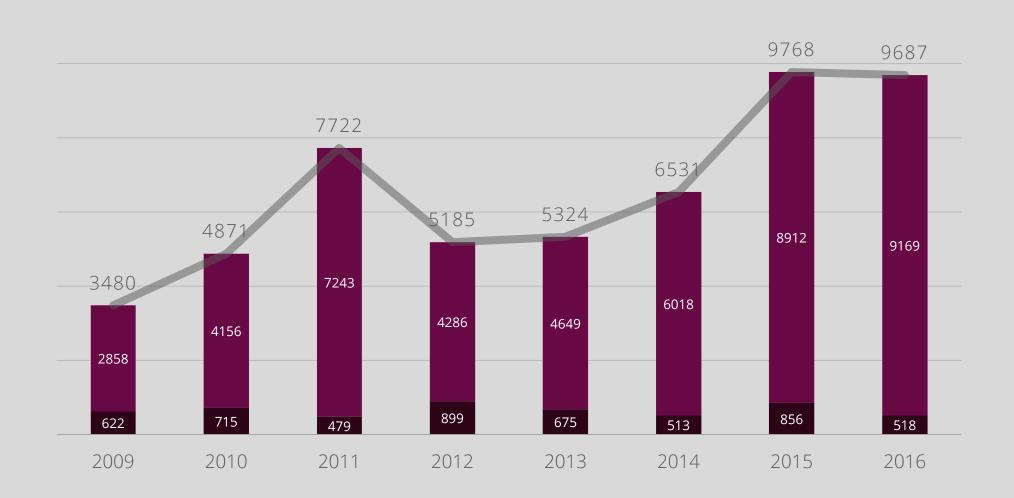




ANALYSIS OF THE BUILDING PERMITS ISSUED IN THE YEARS 2009-2016

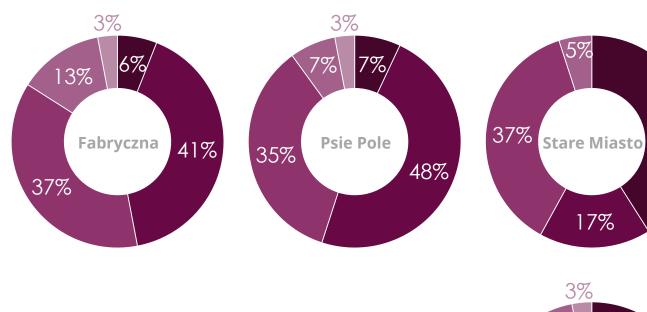


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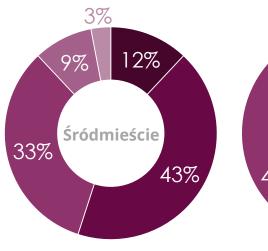


SALES STRUCTURE OF APARTMENTS ACCORDING TO USABLE AREA ON THE PRIMARY MARKET

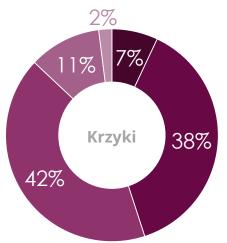


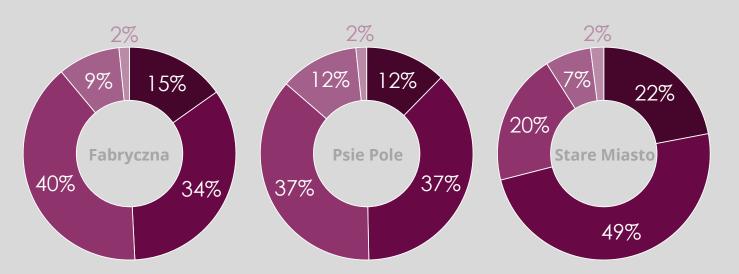




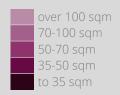


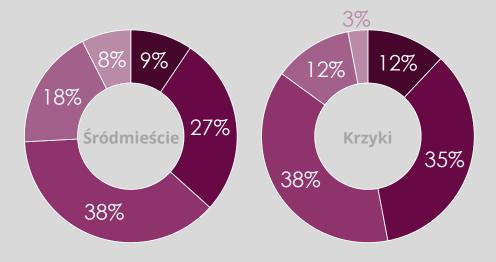
41%











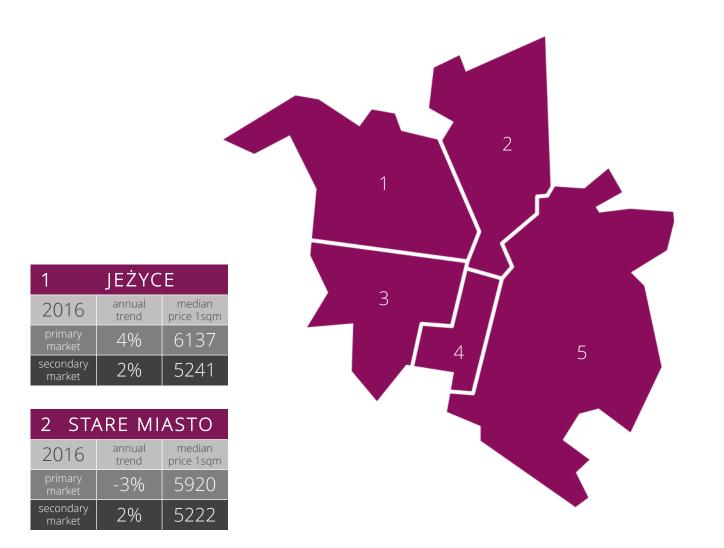
ANALYSIS OF TRANSACTION PRICES AND FORECASTS FOR THE RESIDENTIAL MARKET PRIMARY AND SECONDARY MARKET



03.2017

Poznań

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS ANNUAL PRICE CHANGE TREND



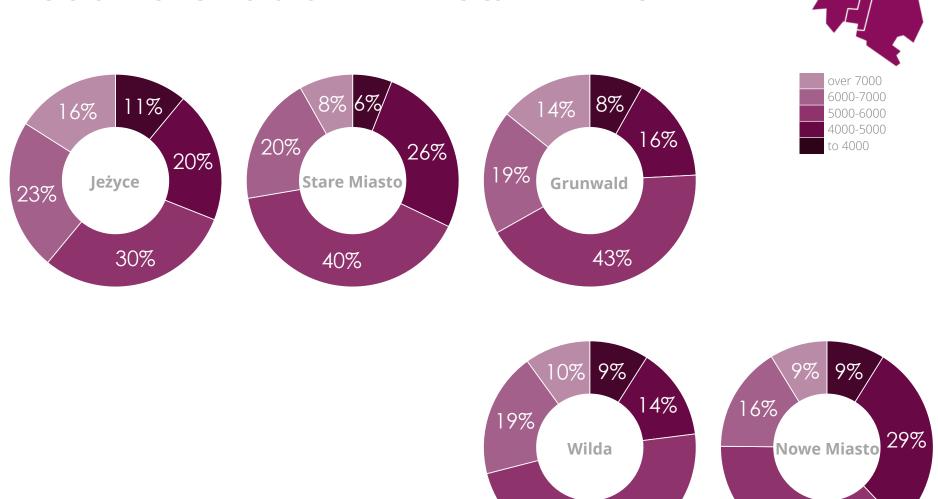
| 3 GRUNWALD | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 2% | 5804 |
| secondary market | 3% | 5080 |

| 4 | WILDA | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | -3% | 5802 |
| secondary market | 3% | 4843 |

| 5 NOWE MIASTO | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 1% | 5733 |
| secondary market | 2% | 4920 |

Poznań

TRANSACTION PRICE DISTRIBUTION ON PRIMARY AND SECONDARY MARKETS

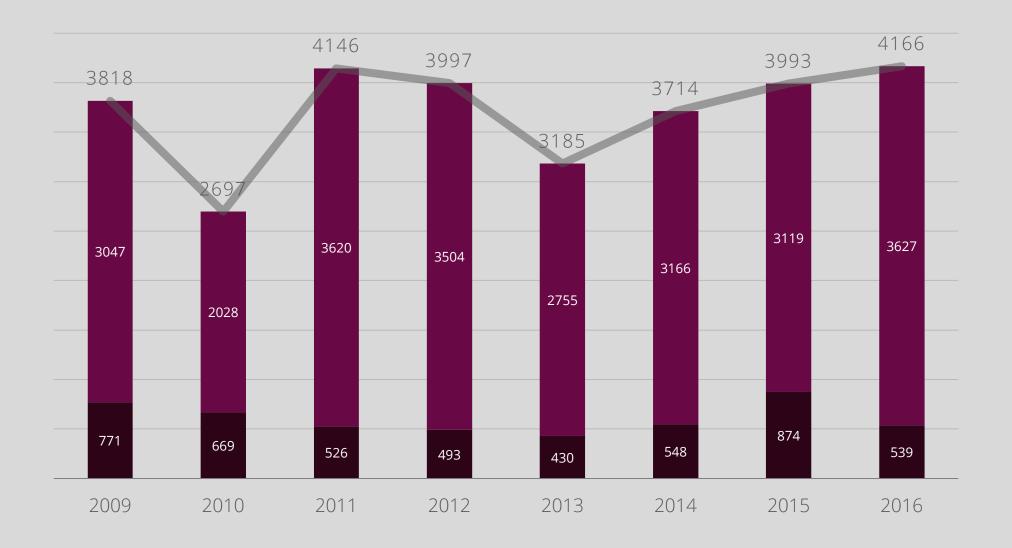


48%

37%

ANALYSIS OF THE BUILDING PERMITS ISSUED IN THE YEARS 2009-2016

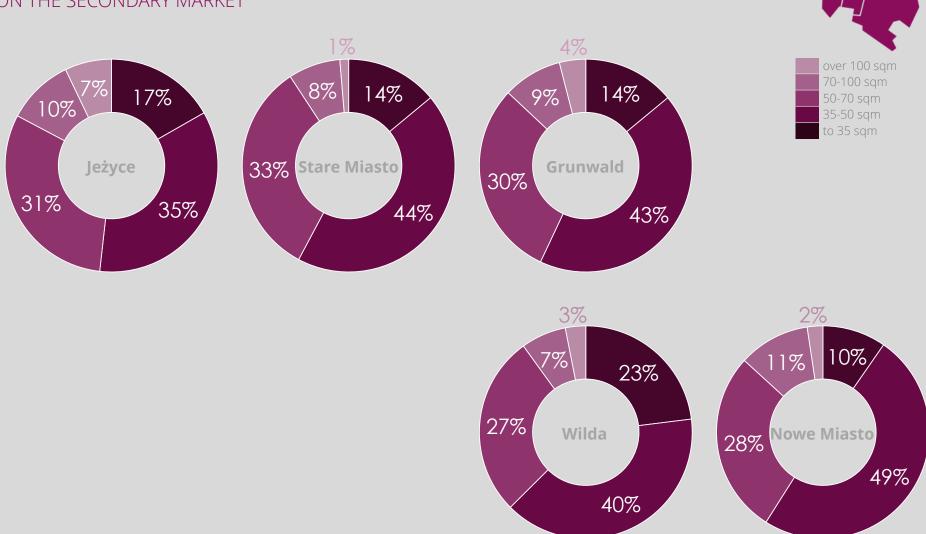




SALES STRUCTURE OF APARTMENTS ACCORDING TO USABLE AREA ON THE PRIMARY MARKET



SALES STRUCTURE OF APARTMENTS ACCORDING TO USABLE AREA ON THE SECONDARY MARKET



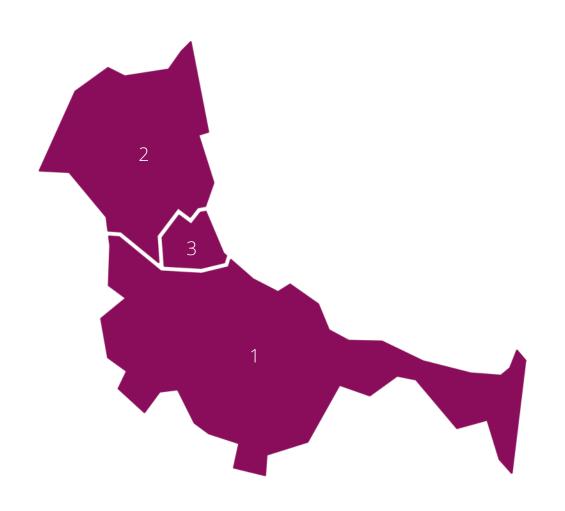
ANALYSIS OF TRANSACTION PRICES AND FORECASTS FOR THE RESIDENTIAL MARKET PRIMARY AND SECONDARY MARKET



03.2017

Tri-City

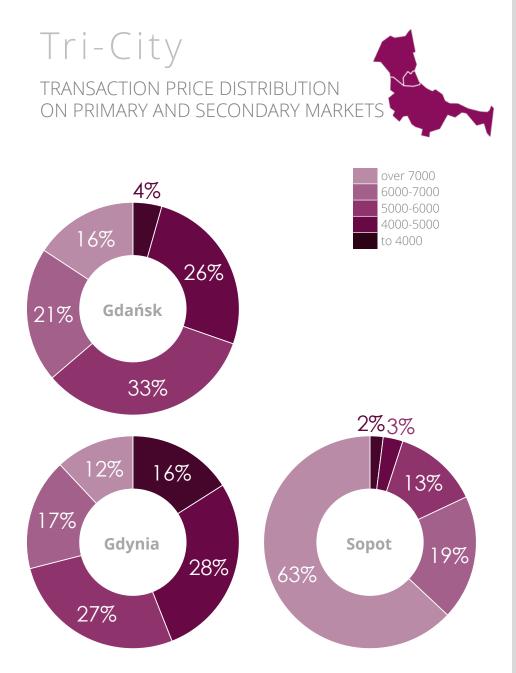
MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS ANNUAL PRICE CHANGE TREND



| 1 | 1 GDAŃSK | | |
|---------------------|-----------------|----------------------|--|
| 2016 | annual trend | median price 1sqm | |
| primary market | 4% | 5792 | |
| secondary market | 5% | 5186 | |

| 2 | GDYNIA | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 3% | 5966 |
| secondary market | 2% | 4869 |

| 3 | SOPO | Т |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 4% | 10147 |
| secondary market | 3% | 7008 |



ANALYSIS OF THE BUILDING PERMITS ISSUED IN THE YEARS 2009-2016

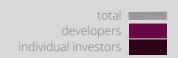


Tri-City



Tri-City

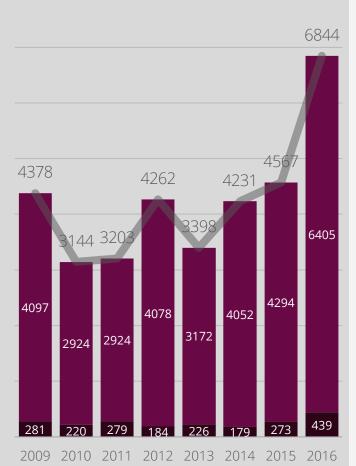
ANALYSIS OF THE BUILDING PERMITS ISSUED IN THE YEARS 2009-2016

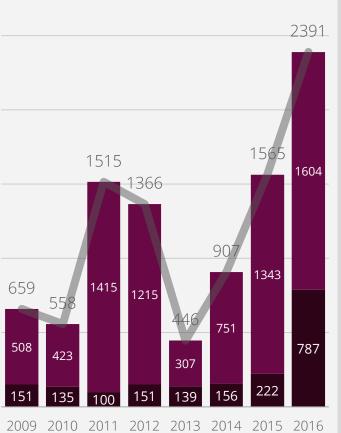


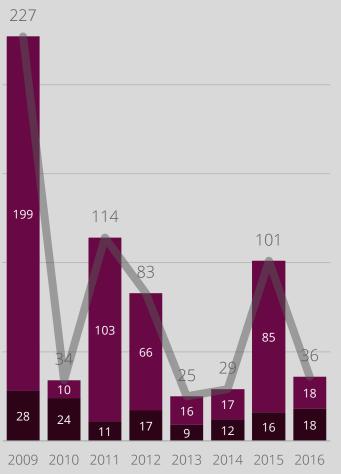
Gdańsk

Gdynia



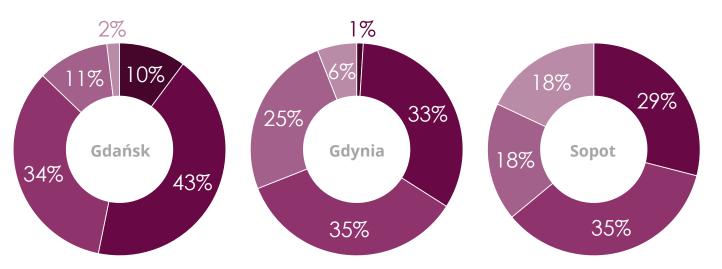






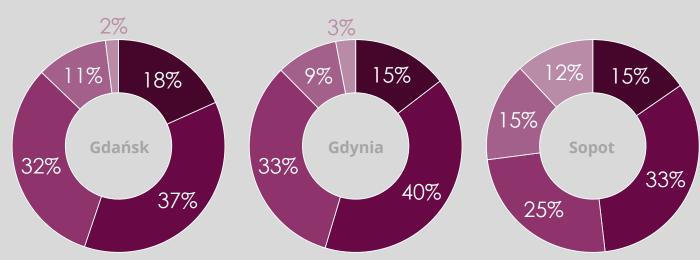
Tri-City

SALES STRUCTURE OF APARTMENTS ACCORDING TO USABLE AREA ON THE PRIMARY MARKET





SALES STRUCTURE OF APARTMENTS ACCORDING TO USABLE AREA ON THE SECONDARY MARKET



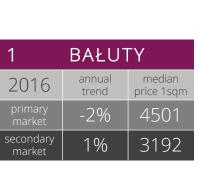
ANALYSIS OF TRANSACTION PRICES AND FORECASTS FOR THE RESIDENTIAL MARKET PRIMARY AND SECONDARY MARKET



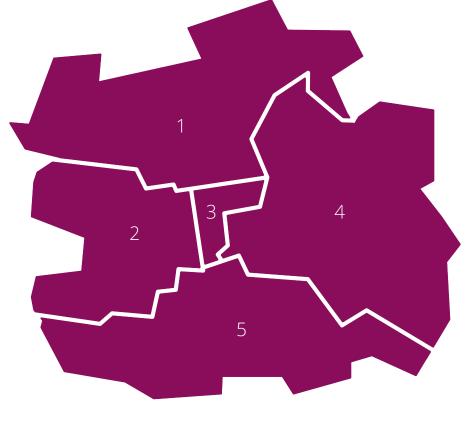
03.2017

Łódź

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS ANNUAL PRICE CHANGE TREND



| 2 | POLESIE | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 1% | 4561 |
| secondary market | 2% | 3172 |



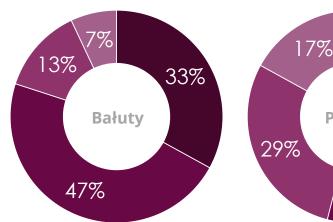
| 3 ŚRÓDMIEŚCIE | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 1% | 4753 |
| secondary market | 1% | 2998 |

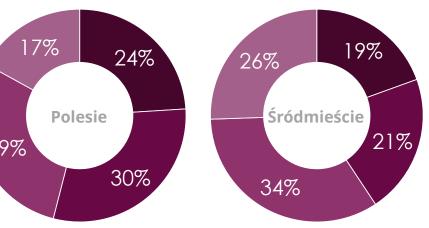
| 4 | WIDZEW | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 1% | 4354 |
| secondary market | -1% | 3284 |

| 5 | GÓRNA | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | -2% | 4145 |
| secondary market | 1% | 3182 |

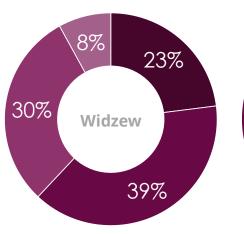
Łódź

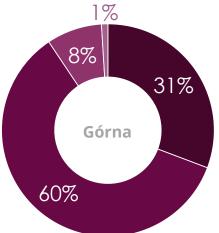








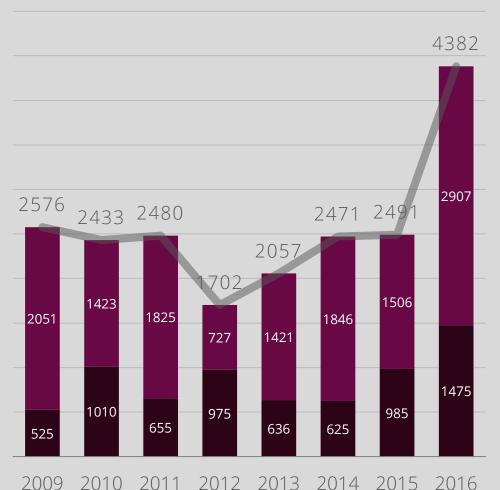




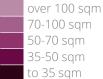
Łódź

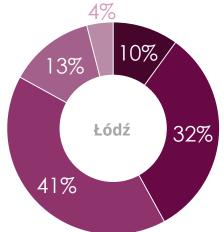
ANALYSIS OF THE BUILDING PERMITS ISSUED IN THE YEARS 2009-2016



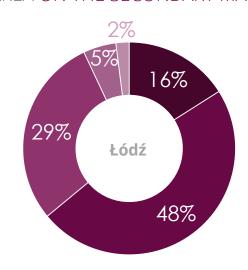


SALES STRUCTURE OF APARTMENTS ACCORDING TO USABLE AREA ON THE PRIMARY MARKET





SALES STRUCTURE OF APARTMENTS ACCORDING TO USABLE AREA ON THE SECONDARY MARKET



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



EMMERSON EVALUATION

Katowice + selected cities of Silesian Agglomeration

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS ANNUAL PRICE CHANGE TREND

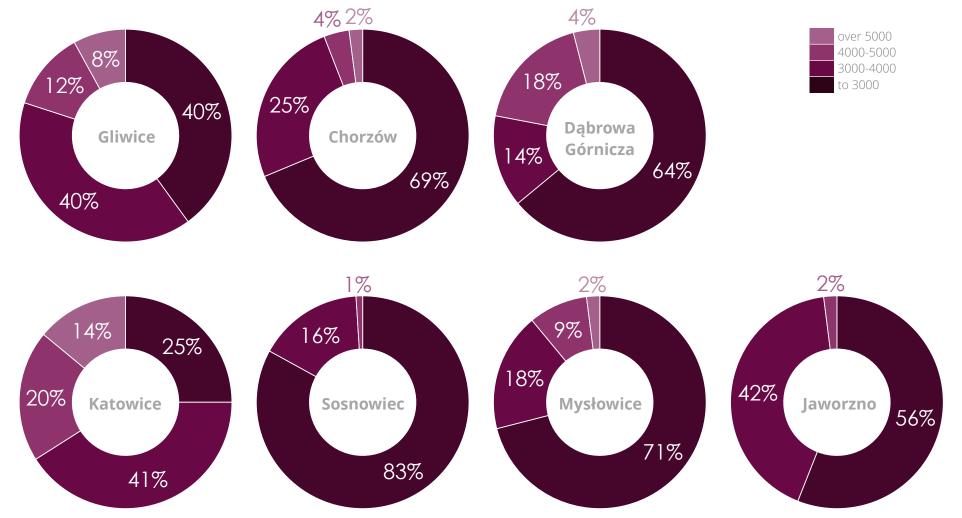


| KATOWICE | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 2% | 4957 |
| secondary market | 5% | 3395 |

| AGGLOMERATION WITHOUT KATOWICE | | |
|--------------------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 0% | 3938 |
| secondary market | 4% | 2691 |

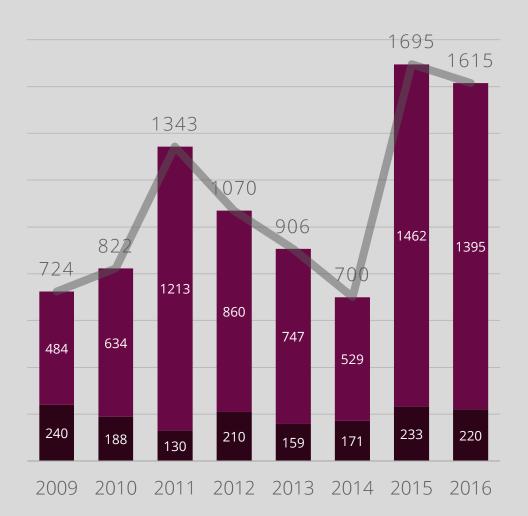
Katowice + Silesian Agglomeration



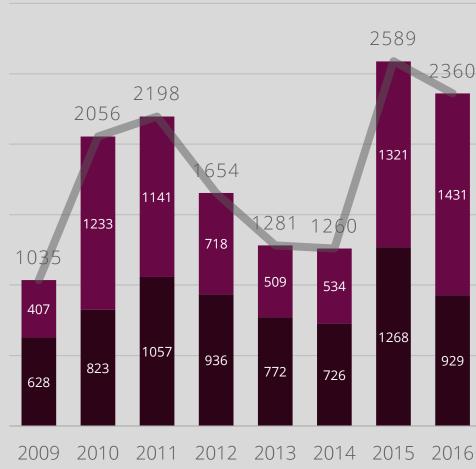




Katowice

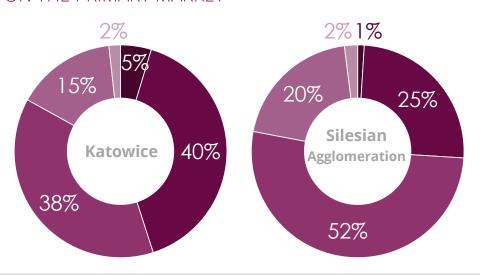


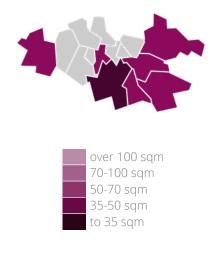
Silesian Agglomeration*



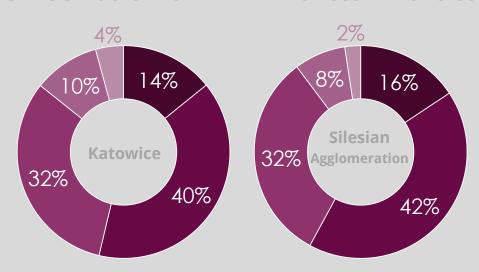
^{*} Silesian Agglomeration: Chorzów, Jaworzno, Dąbrowa Górnicza, Gliwice, Sosnowiec, Mysłowice

SALES STRUCTURE OF APARTMENTS ACCORDING TO USABLE AREA ON THE PRIMARY MARKET





SALES STRUCTURE OF APARTMENTS ACCORDING TO USABLE AREA ON THE SECONDARY MARKET



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



03.2017

MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS, ANNUAL PRICE CHANGE TREND

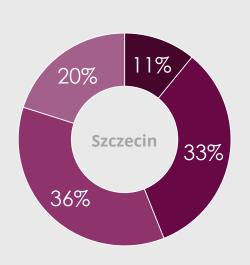
| SZCZECIN | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 2% | 4571 |
| secondary market | 2% | 3927 |

| GORZÓW WLKP. | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 3% | 3400 |
| secondary market | 2% | 2848 |

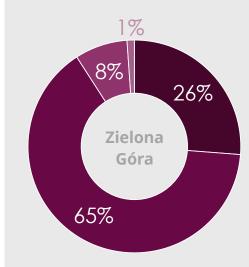
| ZIEL | ZIELONA GÓRA | | |
|---------------------|-----------------|----------------------|--|
| 2016 | annual trend | median price 1sqm | |
| primary market | 4% | 3657 | |
| secondary market | 0% | 3108 | |

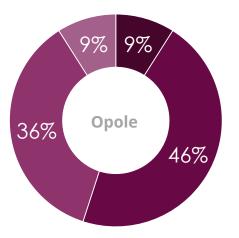
| OPOLE | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 5% | 4089 |
| secondary market | 4% | 3818 |











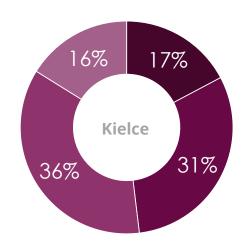
MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS, ANNUAL PRICE CHANGE TREND

| KIELCE | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | -2% | 4618 |
| secondary market | 0% | 3522 |

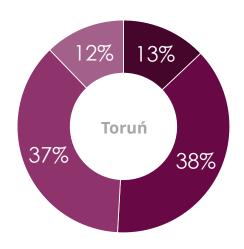
| BYDGOSZCZ | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 1% | 4650 |
| secondary market | 5% | 3625 |

| TORUŃ | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 0% | 5200 |
| secondary market | 4% | 3806 |









MEDIAN PRICES ON PRIMARY AND SECONDARY MARKETS, ANNUAL PRICE CHANGE TREND

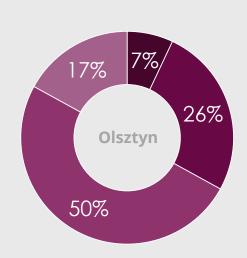
| OLSZTYN | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 2% | 4560 |
| secondary market | 4% | 4197 |

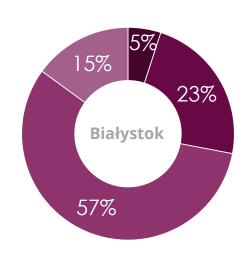
| BIAŁYSTOK | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 2% | 4416 |
| secondary market | 5% | 4039 |

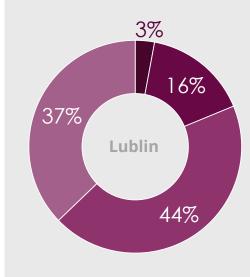
| l | LUBLIN | | |
|---------------------|-----------------|----------------------|--|
| 2016 | annual trend | median price 1sqm | |
| primary market | 5% | 4913 | |
| secondary market | 4% | 4527 | |

| RZESZÓW | | |
|---------------------|-----------------|----------------------|
| 2016 | annual trend | median price 1sqm |
| primary market | 1% | 4384 |
| secondary market | 2% | 4345 |











2016 - THE MARKET OF NEW APARTMENTS TO LET



As noted in the summary of 2016, rental income was the main driving force for a significant portion of buyers; hence, we decided to develop a chart showing the BTL investments in apartments in Poland.

This chapter covers rental rates data. The data under analysis was obtained from residential lease proposals. To examine whether it is profitable to invest in new apartments to let, only the units delivered in 2014-2016 were analysed.

The report outlines the span and medians of rental rates depending on location and the number of rooms in the apartments, the distribution of apartments to let depending on their location in the cities and the structure of the rooms, and, finally, the returns from renting residential units.

The rental apartment market in Poland is highly fragmented compared to Western Europe. It is dominated by retail investors. Currently, large investment projects for rent, which have been growing increasingly, are not in competition with retail investors. Thus the structure of rental market players is not going to change considerably in the nearest future.

A major factor encouraging retail investors to buy apartments for rent is their relatively high yield rate vis-a-vis safer bank deposits which currently bear very low interest rates. Based on our analysis, an average rental yield can be as much as three times higher than the interest rates earned on bank deposits.

We estimate that the BTL demand among retail investors will continue to be very high in 2017. However, it may decline if NBP base rates are increased, which will result in the rate of return from bank deposits approximating the rental yield.

In the long run, it can be expected that more and more institutional players with portfolios of several dozens or hundreds of apartments will appear on the market. The first such large-scale project was the BGKN Fund. The fact that investors from abroad have been looking to block purchases of apartments proves that market development is going in that direction. Some developers have also been considering investment projects that are built entirely for rent rather than for sale.

GLOSSARY

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

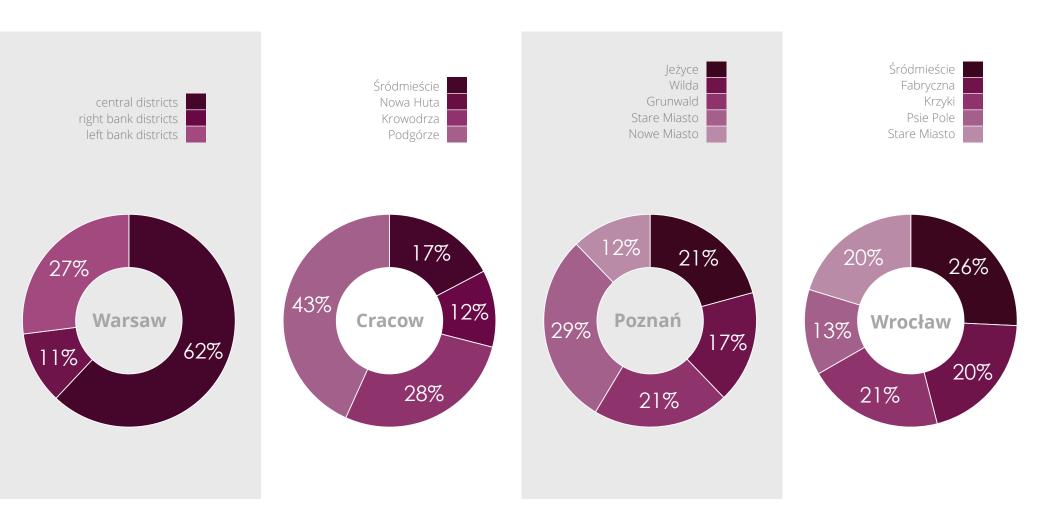
The rate of return for rent was calculated as the ratio of annual obtainable rental income to an apartment transaction price in eight Polish cities. An estimated cost of administrative charges in individual locations, a flat-rate tax on income from rent at 8.5% and losses of income related to a void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

| Returns on rent of apartments | | |
|-------------------------------|----------|--|
| WARSAW | 4,6-5,4% | |
| CRACOW | 4,3-5,8% | |
| POZNAŃ | 4,5-5,7% | |
| WROCŁAW | 4,7-5,8% | |
| REGIONAL CITIES* | 5,0-6,1% | |

^{*}Lublin, Białystok, Łódź, Szczecin

The market of new apartments to let

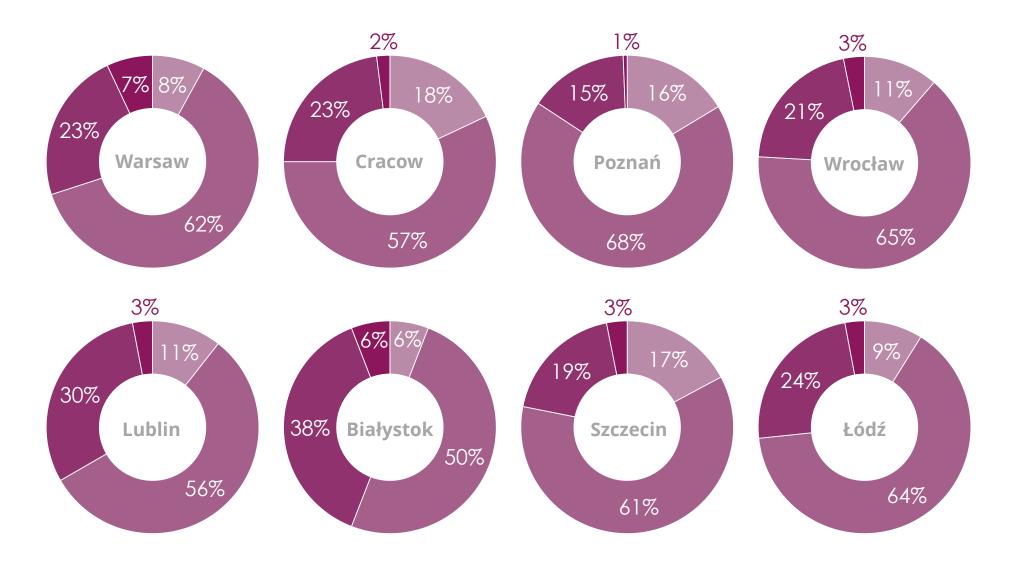
DISTRIBUTION OF THE APARTMENTS BY LOCATION



The market of new apartments to let

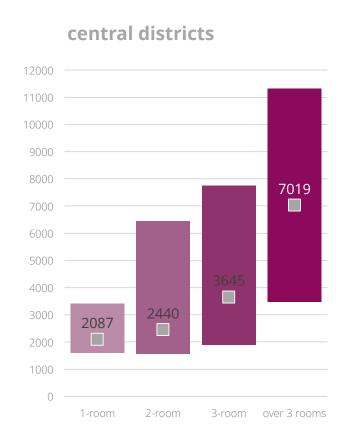
THE STRUCTURE OF THE APARTMENTS BY TYPE

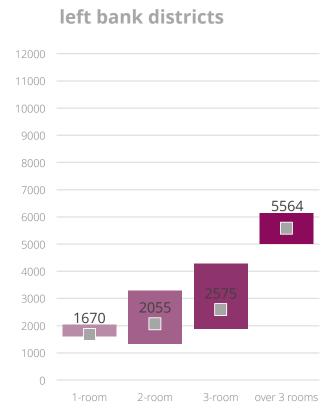


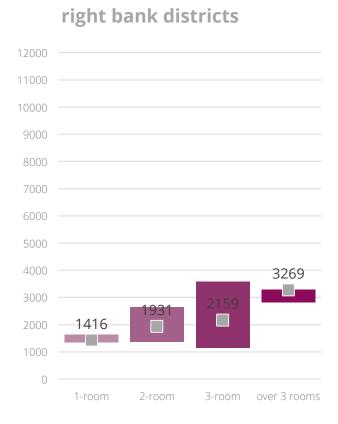


Warsaw



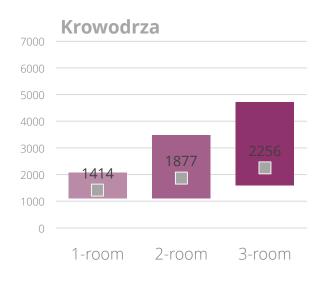


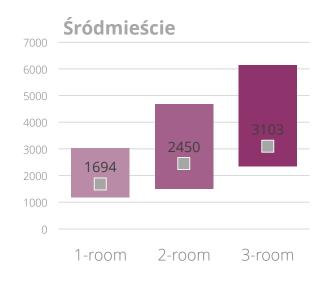


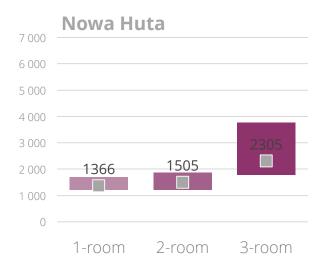


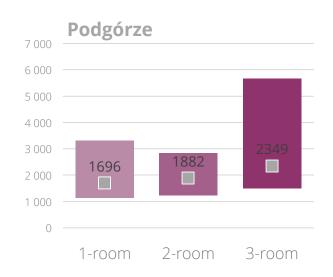
Cracow



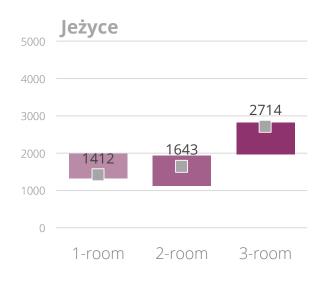




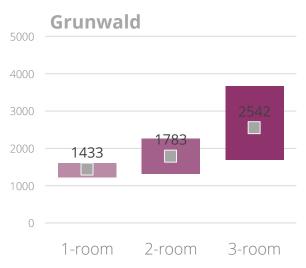


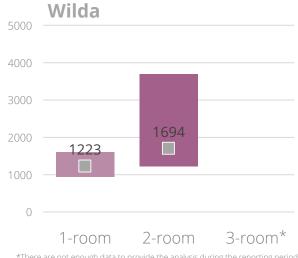


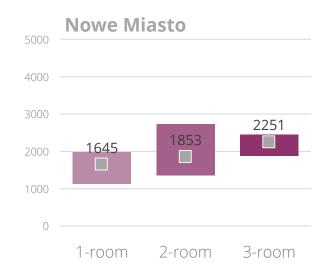








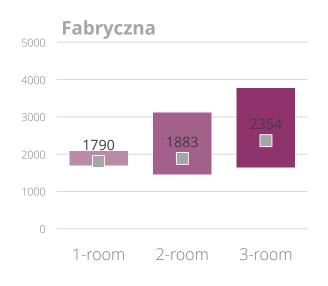


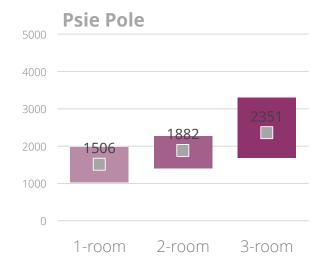


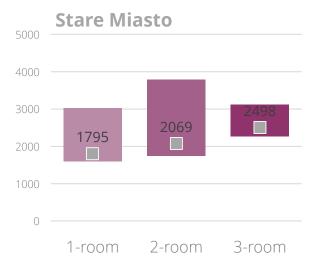
^{*}There are not enough data to provide the analysis during the reporting period

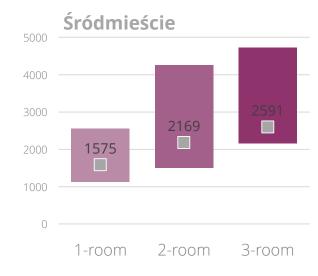
Wrocław

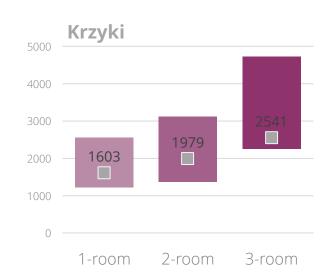






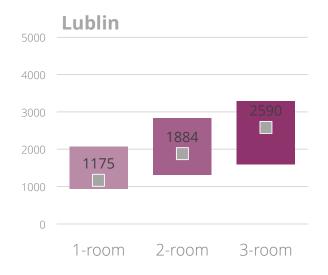


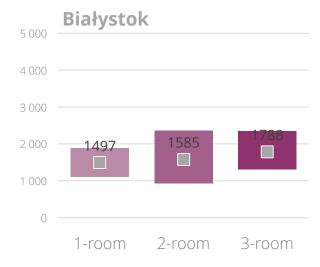


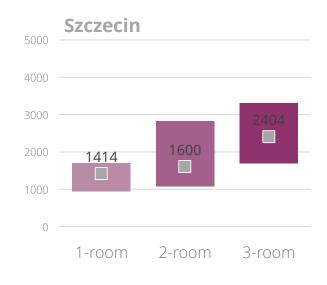


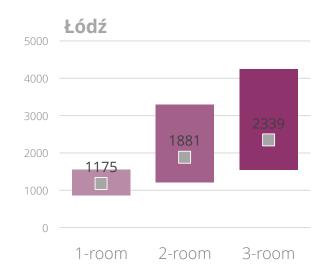
Regional towns













forecast

In the coming year, the trend for BTL apartment purchases will continue to drive sales up. This will persist as long as bank deposit interest rates remain low. Investment buyers will mostly be buying property for cash. We think that this trend could be reversed if the interest rates on bank deposits are increased twofold vis-a-vis current rates. In such case, the returns on bank deposits will be similar to the returns on rent which, depending on the location and the area of apartments, mostly range from 4% to 6%.

The required own contribution for mortgage loans will total 20% as of 2017. The amount of the contribution, both in the current and in the previous year, could be decreased to 10% provided that additional insurance is purchased. In our view, it cannot be expected that the increase in the amount of the borrower's own contribution from 15% to 20% will significantly help reduce the demand for apartments. Such additional insurance, if taken, only changes the cost of the loan, which is currently still insignificant. We expect that the availability of loans will not be significantly affected in the prices compared to the previous year. Moreover, the threshold of the required own contribution for the mortgage loan is clearly no longer important if the market is dominated by cash purchases.

Given such high supply of apartments on the primary market now, there are virtually no reasons for the prices to go up in a noticeable way. However, we expect that, at the final stage of the cycle, which, in our view, is going to occur on the cusp of 2017 and 2018, the prices can be expected to go up slightly by a few per cent, which is a phenomenon that typically occurs in the last months of a business cycle.

Given such large supply of modern development apartments, older housing tissue of a poorer standard may lose value, especially units in blocks of prefab concrete panels.

2017 is the last year of the MdM Programme. The 2018 resources are likely to run out in the first half of the year. MdM has annually driven the sales of apartments; hence we can expect a dip in demand in 2018 and in the prices of apartments which were positioned in the MdM price range both on the primary and secondary market.

We also expect that, in subsequent years, the demand will gradually shift towards bigger apartments with three or four rooms. The financial situation of Poles has improved, salaries have been rising and the unemployment rate has declined. Housing preferences have changed as well – we want more rooms, better locations and parking lots. Dwellings that satisfy those criteria will be less susceptible to value loss. Baby boomers of the 1980s have just stabilised their financial situation and will want to change apartments. The 500+ Programme can be an additional stimulus here. It has helped increase consumption and can be an important long-term factor for many families, contributing to their financial security. This could also help increase the demand for larger apartments. An extra allowance of PLN 500 per child paid over the years can be used to pay off a mortgage loan.

In our view, the large number of projects that are already under way and the considerable number of plots purchased by developers in recent years support the thesis that the supply of apartments in 2017 will remain

at a level similar to that recorded in the previous year. However, we do not see any potential for further growth in the price of land to be used for housing investments. In our opinion, in view of the expected dip in demand in the long run, developers will not be able to afford to further lower margins on their projects. In the year to come, that should cool down the recent heat on the development land market.

In our previous report, we mentioned that Fundusz Mieszkań na Wynajem, administered by BGKN, would become another important factor affecting the residential market; the fund has been making significant block purchases of apartments on the primary market. It should be emphasised that developers were successful in breaking the said records, despite the fact that, due to a change of strategy, the Fund clearly reduced the purchases of apartments in the second half of the year and, throughout 12-month' period, bought a much lower number of apartments than we assumed. At present, BGKN's strategy is focused on the implementation of the governmental Apartment Plus Programme, as part of which it is going to be a major investor in rental apartments at an affordable price. The Programme will be implemented in partnership with local governments and other State Treasury companies which will donate land to the programme. The Apartment Plus Programme is to be one of the pillars of the National Housing Programme, which is intended to be a commercial programme playing an important social role. A basic assumption underlying the Programme is the construction of apartments for people who currently cannot afford to buy their own apartment for cash or credit. Instead, they can rent the apartments which belong to the Fund's resources at lower rates than the current market rates (based on initial projections, rents would be approx. 20% lower). Based on the Programme's assumptions, lower rents would be obtained with ROI comparable to that which is currently obtained on the market, thanks to less expensive technological solutions applied in the course of the construction of the apartments covered by the Programme. In the case of apartments with a lower rent, it will not be possible to acquire an ownership title thereto, although the Programme allows for such option as well. Those tenants who are ultimately interested in acquiring the ownership title to the rented apartments would pay slightly higher rents. Those funds could then be counted towards a later acquisition price.

At present, areas to be developed have been selected in Biała Podlaska, Chorzów, Dębica, Gliwice, Katowice, Kobyłka, Nowa Dęba, Pelplin, Poznań, Radom, Skawina, Stalowa Wola, Starogard Gdański, Trzebinia, Tychy, Wałbrzych and Września. It should be stressed that the investment project in Biała Podlaska has already begun and is a pilot stage of the Programme.

BGKN is opting for the Programme's investment projects to be implemented in the form of REITs (Real Estate Investment Trust). REITs are investment funds operating in many different countries and they enjoy a special tax status (in the majority of the countries where they operate, they are exempt from a significant portion of corporate taxes); they invest in property in both a direct and indirect manner. The Ministry of Finance has been working on the introduction of REITs in Poland. As part of the initial assumptions of the REIT Act, those entities were to invest on the commercial real estate market only; however, the Ministry of Finance has recently been leaning towards the proposed extension of their business to include the residential market as well. It is planned that the REIT Act will have been adopted by the end of 2017. If REITs are indeed introduced in early 2018 and will be able to invest on the residential market, then even minor retail investors could acquire shares in REITs, in that way co-financing the development of the Programme in exchange for annual profits paid for renting the properties out.

The boom on the residential market started more than three years ago. In view of likely increases in interest rates at the end of the year, it can be forecast that 2017 will be the last year of the boom for developers, as two major factors driving the market in that period will lose their importance if the interest rates go up. Firstly, investments in real estate will no longer be attractive compared to other forms of investments, especially bank deposits. Secondly, if the interest rates go up, loans will become more expensive and, thus, less accessible. Practically, the increase in interest rates will coincide with the expiry of the MdM Programme. The Apartment Plus Programme planned by the government and aimed at supporting housing construction is completely different than MdM and will not contribute to the growing demand for apartments built by developers. Given the fact that the residential market responds to macroeconomic changes with some delay, we cannot expect a change in the trend to be seen until early 2018.

Key factors affecting the residential market in 2017:

- consistently low interest rates of bank deposits encouraging investments in other assets, especially on the real estate market;
- continuing low interest rates of mortgage loans and their fairly high availability; the threshold of the required own contribution at 20% should not be a material barrier;
- cash purchases outnumbering purchases with loans;
- launching the Apartment Plus Programme on a bigger scale;
- increased activity of development companies in niche market segments, such as condo-hotels, dormitories;
- likely adoption of the REIT Act and the launch of REITs in Poland.



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 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 nearly 1 000 000 transactional data described in great detail.

The Company has regional offices in 7 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

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