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# **Information on home prices and the situation in the residential and commercial real estate market in Poland in 2014 Q2.**

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## The analysis of the situation in the Polish real estate market in 2014 Q2 leads to the following conclusions:

- The residential real estate sector remained balanced and reported no signs of mounting tensions. At the same time, the commercial real estate market, especially the office and retail estate market, posted a growing imbalance between demand for space and space supply resulting from the implementation of new investment projects. This resulted in growing vacancy rates.
- Transaction prices per square meter of housing in the primary and secondary markets of the seven largest cities were stable. There was a slight increase in the prices per square meter of housing in the primary markets of 9 other voivodship capitals. The Warsaw market, after price increases seen in 2013, reported stabilization in transaction prices per square meter of housing in the primary market and a slight decrease in the secondary market. The differences between the levels of offer and transaction prices per square meter of housing in Warsaw have diminished. This points to the flexible adjustment of prices by real estate developers to the market situation. In all cities, prices in the primary market are higher than those in the secondary market. In Warsaw, the secondary market saw a continuing decline in hedonic<sup>1</sup> prices, i.e. prices taking into account qualitative changes of the analysed sample of housing units in subsequent quarters. This means that the prices of comparable housing showed a slight downward trend. Other markets recorded price stability. Rents have remained stable in all the cities.
- The construction output indicator<sup>2</sup> increased during the analysed period. This was primarily driven by the growing number of new investment projects (about 2.6 thousand more as compared to the corresponding period of the previous year), especially real estate development projects in the largest cities, with a stable number of completed dwellings. The observed sale of home construction contracts, after previous increases, stabilized at a high level, discounting reductions of interest rate on mortgage loans. As a result of a higher number of new investment projects, the largest markets saw a growing number of unsold home construction contracts. The number of issued building permits also increased (by 4.1 thousand as compared to the corresponding period of the previous year).

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1 The hedonic price of housing reflects the "pure" price, that is the price that results from other factors than the quality of housing. In this study, the hedonic price is an average price from the base period multiplied by the hedonic index. The price reflects an average level of prices of a specific housing sample from the base period (fixed housing basket), after inclusion of the "pure" change in the price of homes sold in consecutive periods. The hedonic price stated in the report says what the average price of the fixed home sample from a specific reference period would be, considering the real "pure" change in transaction prices. The difference between the hedonic index used to determine the hedonic price and the average or the median price growth is that the index does not react strongly to any change in the quality of homes sold over a certain period, (for instance the hedonic index should respond less to a larger number of small apartments with a higher price per square meter than the average or median price index). For more information, see article by M. Widłak (2010) entitled „Metody wyznaczania hedonicznych indeksów cen jako sposób kontroli zmian jakości dóbr”, in *Wiadomości Statystyczne* no. 9.

2 The construction output index is the moving number, for the subsequent four quarters, of dwellings under construction (commenced construction of housing less completed dwellings).

- Although stock exchange investors have a relatively low assessment of the prospects for real estate development companies<sup>3</sup>, the estimated profitability of developers' residential projects has remains high and amounts to least 20%. Developers keep housing prices at an unchanged level which amidst falling prices of the factors of production brings them a high rate of return. This is confirmed by the analysis of the actual margins of real estate developers on residential projects in the major markets. Developers manage to adjust their offer to the structure of demand by offering small housing units below 50 square meters, highly sought after by buyers. This is corroborated by the estimated short (4-5 quarter long) period of time necessary to sell housing offered by them. High profitability of development projects is threatened by the existing housing stock (secondary market), whose prices keep falling gradually, and are now in all the cities lower than in the primary market. The second risk factor is the growing number of new investment projects, which may also be conducive to price reductions.
- The financial situation of the surveyed real estate developers is satisfactory, as confirmed by the relatively low number of bankruptcies as for such a high-risk business activity.
- Nominal interest rates on housing loans are historically low, which results in high loan availability. Loan availability in the analysed quarter was stable due to the absence of significant changes in home prices, banks' lending policies, including interest on loans and stable nominal wages in the enterprise sector as compared with 2014 Q1. Similarly to housing availability also loan-financed housing availability has not changed. The average availability of housing in the major cities remained at the level of 0.8 square meters per average monthly wages in the enterprise sector, i.e. posting a 0.3 square meter increase as compared to the 2007 Q3 minimum.
- Historically high profitability of home rental as compared to the interest rate on household deposits or yields on 10-year treasury bonds, continues. However, the risk for the landlord, resulting from the provisions of the Law on the protection on tenants' rights is high. It should also be remembered that withdrawal of funds invested in a property can be a long process, burdened with additional costs.
- The number of new mortgage loan contracts has increased slightly, yet lending as measured with actual loan disbursements continues at a stable level - both on the national level as well as in the major markets.
- The commercial real estate market has seen a gradual decline in the value of real estate, which is reflected in falling valuations of shares in closed-end investment funds investing in commercial real estate in Poland.

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<sup>3</sup> Stock indices of real estate developers and construction companies decreased significantly in 2011 and then have not improved ever since. At the same time, the WIG-20 increased during this period (see Figure 29).

The figures below present the most important developments in the housing market in Poland's major cities in 2014 Q2.<sup>4</sup> Charts and figures present:

- 1) home prices (Figures 1–13),
- 2) housing availability, loan availability, availability of loan-financed housing, profitability of housing investment (Figures 14–19),
- 3) mortgage loan disbursements and interest rates (Figures 20–28),
- 4) operating profitability of housing and real estate development projects, costs of construction and assembly output and economic situation of real estate developers in Poland (Figures 29–44),
- 5) housing construction and the residential market in Poland (Figures 45–57).

The analysis of housing prices, offer prices, transaction prices and hedonic prices in the primary and secondary markets relies on the data from the housing market survey of the Real Estate Market Database (BaRN)<sup>5</sup>. As part of the survey of the commercial real estate market, Commercial Real Estate Market Database (BaNK) data on rent, offer prices and transaction prices of commercial real estate are collected and analyzed.

Also data from PONT Info Nieruchomości (PONT), AMRON, SARFIN Polish Banks' Association and Comparables.pl were used in the analyses. We also relied on the analyses and reports of the Polish Financial Supervision Authority (KNF) and the aggregate credit data from the Credit Information Bureau (BIK). For the structural market analysis, data published by the Central Statistical Office (GUS) and many studies containing sector data were used.

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<sup>4</sup> The information was prepared by the Financial Stability Department for the needs of the authorities of NBP and it presents the authors' opinions. This document should not be read as an advisory material, nor should it be the basis for any investment decisions.

<sup>5</sup> See Programme for Surveys in Public Statistics for 2014. Annex to the Decree of the Council of Ministers of 9 August 2013 on the Programme for Surveys in Public Statistics for 2014 (Journal of Laws of 2013, item 1159), symbol 1.26.09 (078). The survey of residential and commercial real estate prices in Poland's selected cities is conducted by the President of Narodowy Bank Polski. The reporting forms were announced in the Decree of the Prime Minister of 5 February 2014 on reporting forms, completion instructions and statistical questionnaires and survey forms used in surveys of public statistics for 2013 (Journal of Laws of 2013 item 1223). Since the survey is carried out by NBP, the Bank publishes the surveys on its website.

1. Transaction, hedonic, and offer prices of housing, the primary market (PM), and the secondary market (SM)

Figure 1 Transaction prices per square meter of housing – PM (PLN/sq. m)

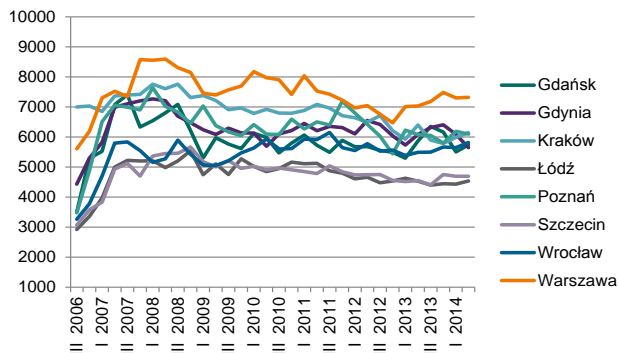
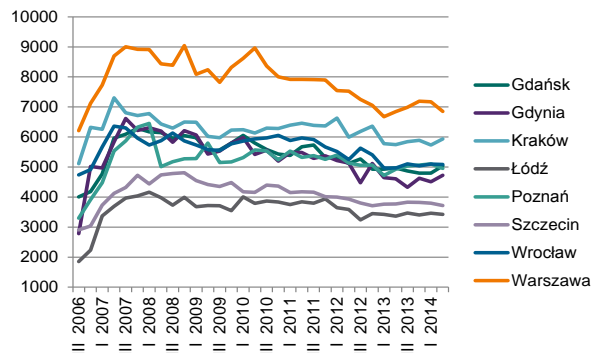


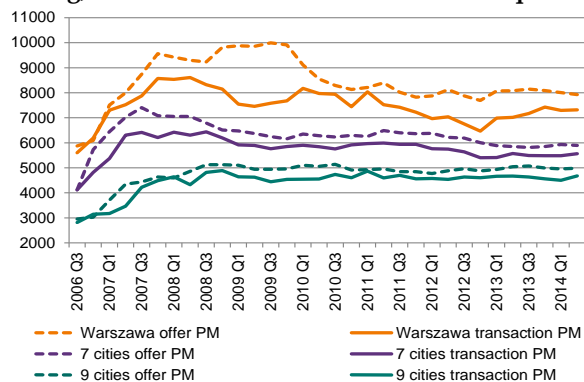
Figure 2 Transaction prices per square meter of housing – SM (PLN/sq. m)



Note: the home price database of NBP (BaRN) has existed since 2006 Q3;

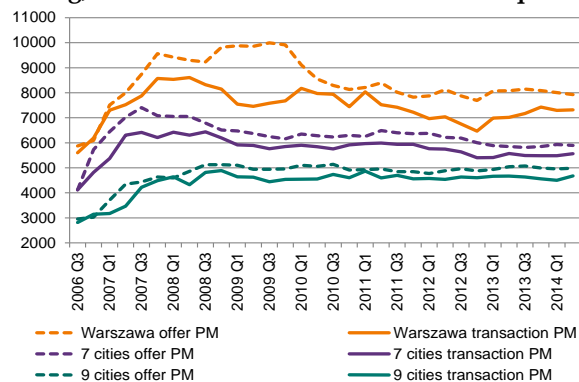
Source: NBP.

Figure 3 Weighted average price per square meter of housing, offers and transactions – PM (PLN/sq. m)



Source: NBP.

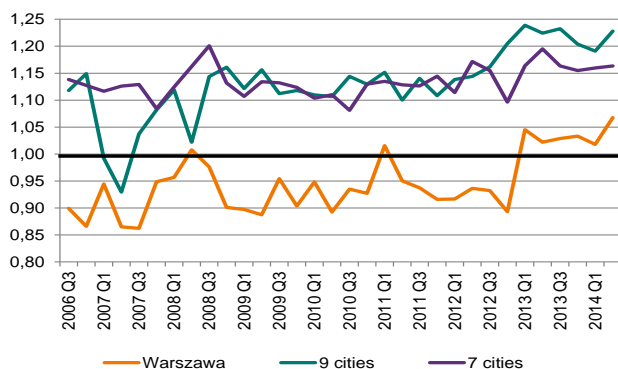
Figure 4 Weighted average price per square meter of housing, offers and transactions – SM (PLN/sq. m)



Note to figures 3–13: the price weighted with the share of housing in the market stock, the average price for Warsaw. Prices collected from developers and real estate agents and included in the BaRN database; description of the database in the 2012 annual report; 7 cities: Gdańsk, Gdynia, Kraków, Łódź, Poznań, Szczecin, Wrocław; 9 cities: Białystok, Bydgoszcz, Katowice, Kielce, Lublin, Olsztyn, Opole, Rzeszów, Zielona Góra.

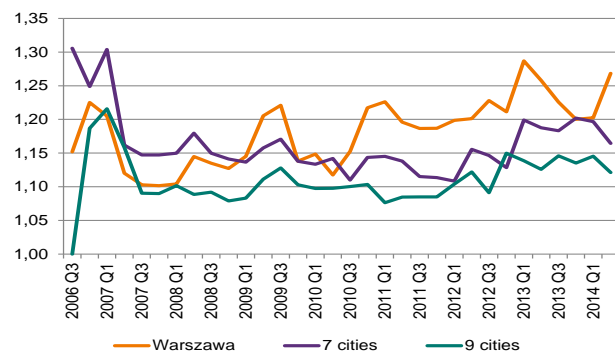
Source: NBP.

Figure 5 Ratio of the average weighted transaction price per square meter of housing – PM to SM



Source: NBP.

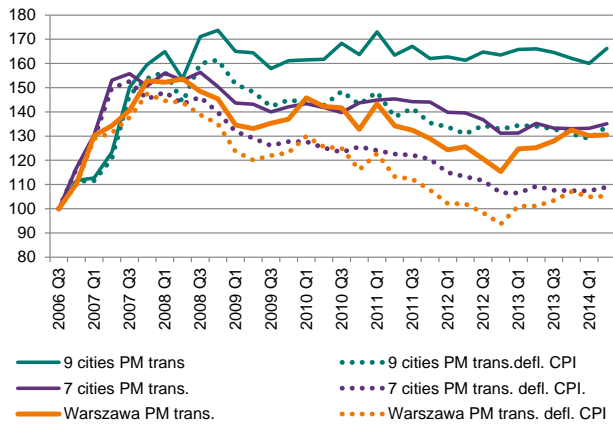
Figure 6 Ratio of the average weighted transaction price per square meter of housing, offer price to transaction price – SM



Source: NBP.

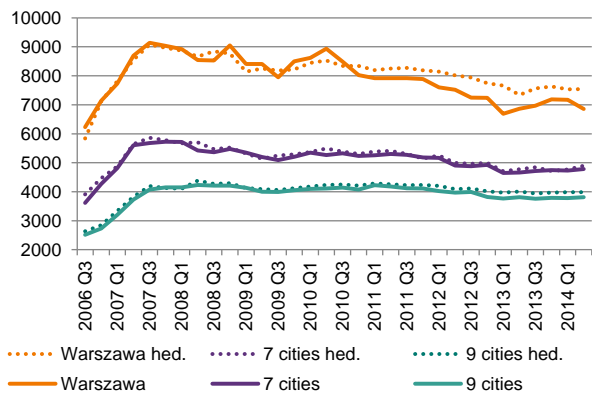
Source: NBP.

**Figure 7 Weighted average price per square meter of housing and CPI-deflated price (2006 Q3 = 100) – PM, transactions**



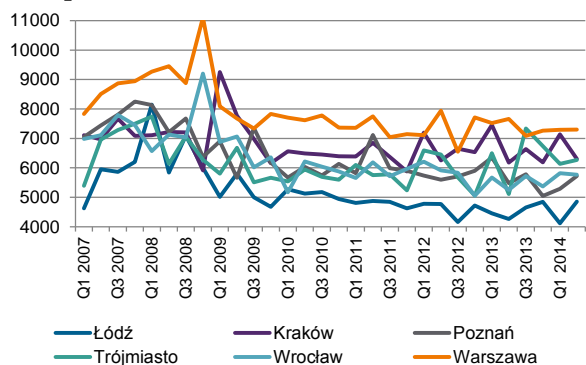
Source: NBP, AMRON, GUS.

**Figure 9 Weighted average price per square meter of housing adjusted by the hedonic price index\* / – SM, transactions (PLN/sq. m)**



Source: NBP.

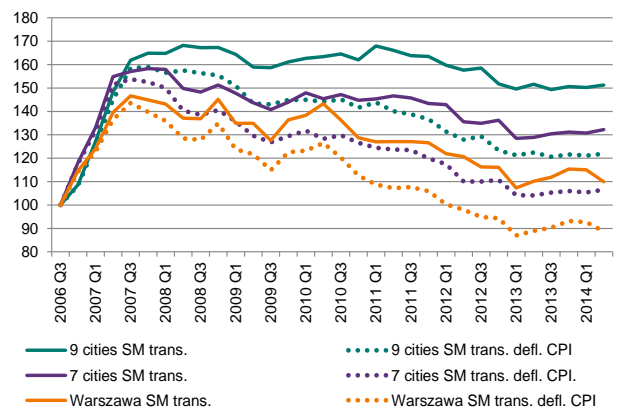
**Figure 11 Average offer prices per square meter, new launched housing contracts – PM, selected markets (PLN/sq. m)**



Note: prices refer only to new contracts put on the market for the first time.

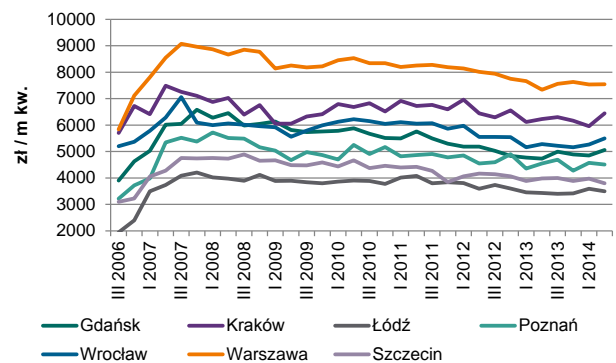
Source: REAS.

**Figure 8 Weighted average price per square meter of housing and CPI-deflated price (2006 Q3 = 100) – SM, transactions**



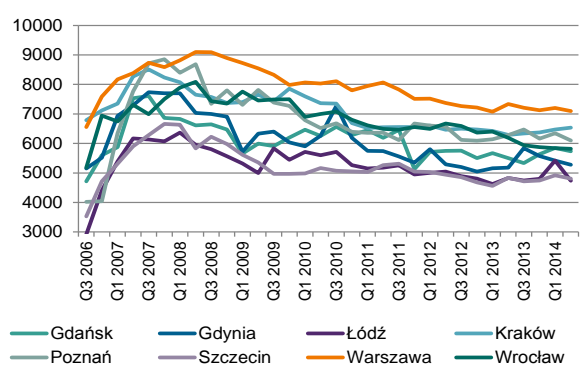
Source: NBP, AMRON, GUS.

**Figure 10 Transaction price per square meter of housing in SM, adjusted by the hedonic price index\* /, in the largest cities (PLN/sq. m)**



Source: NBP.

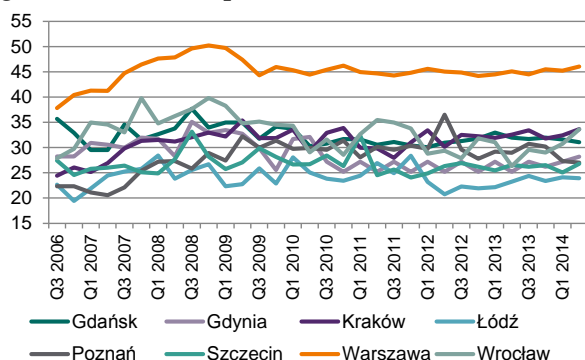
**Figure 12 Average offer prices per square meter, new housing contracts – PM in 8 cities (PLN/sq. m)**



Note: prices are collected from all available sources.

Source: PONT Info Nieruchomości.

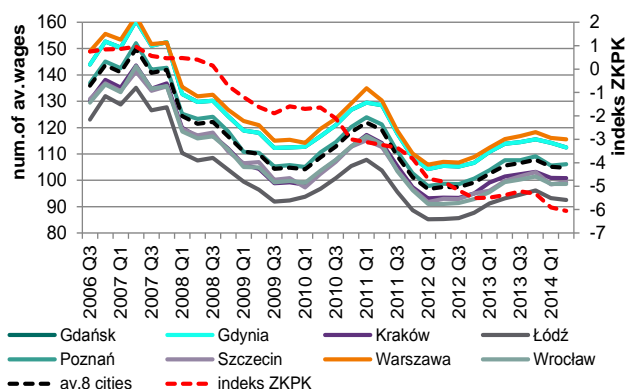
**Figure 13 Average rent rates per square meter of housing in 8 cities (PLN/sq. m)**



Source: NBP.

## 2. Housing availability, loan availability, availability of loan-financed housing, profitability of housing investment

**Figure 14 Available weighted\* mortgage loans and accumulated index of banks' housing loan policy (ZKPK)**



Note: weighting with the currency structure of the quarterly housing loan increase; since the beginning of 2012, practically only zloty mortgage loans have been granted.

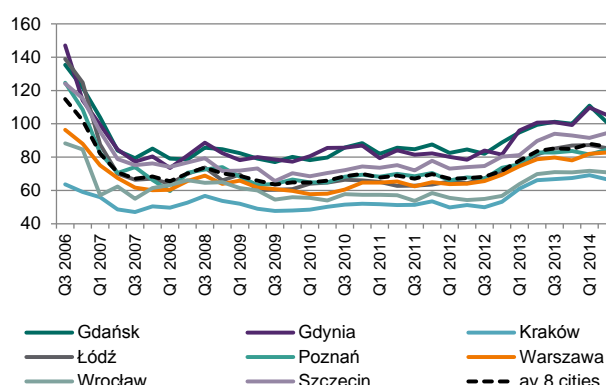
**Available housing loan** – a measure specifying the potential maximum housing loan; expressed as multiplication of the monthly wage in the enterprise sector in a particular market, taking into account banks' lending requirements and loan parameters (interest rate, amortization period, minimum wage, as the minimum income after payment of loan instalments).

**Availability of loan-financed housing** – a measure specifying how many square meters of housing may be purchased at an average offer price in a particular market (BaRN) with a mortgage loan obtained basing on an average monthly wage in the enterprises sector in a particular market (GUS), in view of bank's lending requirements and loan parameters (interest rate, depreciation period, social minimum understood as the minimum income after payment of loan instalments). The pace of changes of the index and differences between particular markets provide important information.

**ZKPK Index** – accumulated index of changes in banks' lending policy criteria; positive values mean easing, and negative values tightening of lending policy as compared to the initial period i.e. 2003 Q4. Computing methods are described in the *Financial stability report, December 2012, NBP*.

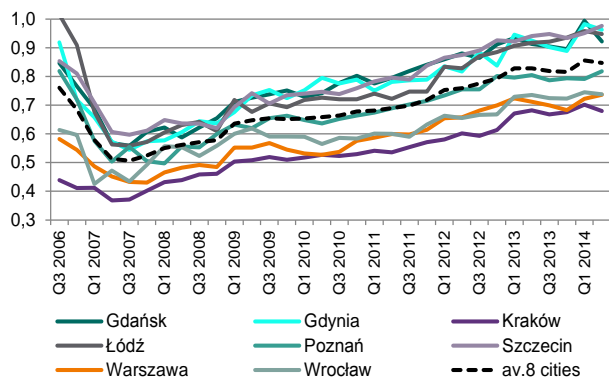
Source: NBP, GUS.

**Figure 15 Availability of loan-financed housing per one square meter (weighted loans\*)**



Source: NBP, GUS.

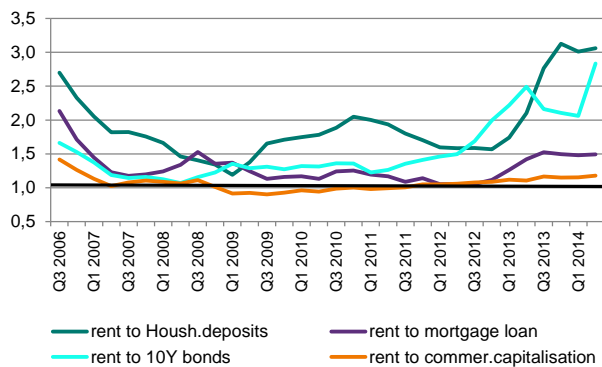
**Figure 16 Housing availability in terms of one square meter of housing for an average wage in the enterprise sector**



**Housing availability** – a measure of potential availability to purchase housing space at the offer price for an average wage in a particular city. It expresses the number of square meters of housing that can be purchased for an average wage in the enterprise sector in a particular city (GUS), at an average transaction price in a particular market (40% in the PM and 60% in the SM) (NBP).

Source: NBP, GUS.

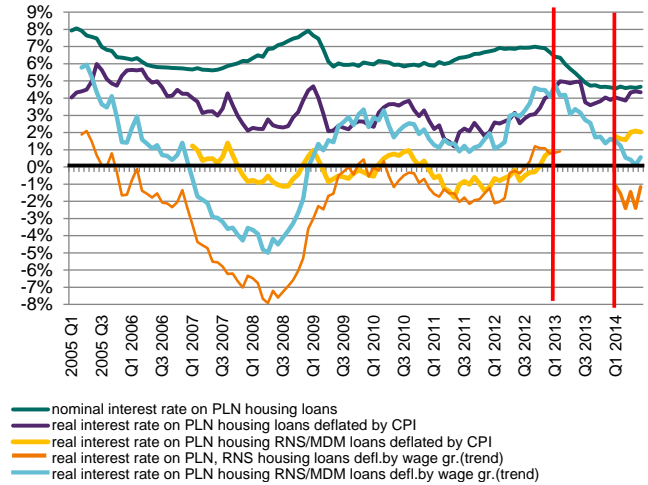
**Figure 18 Profitability of home rental (average in 8 cities) as compared with bank deposits and loans, 5-year Treasury bonds and rate of capitalization of commercial property (offices and retail space)**



Note: values exceeding 1 denote higher profitability of purchasing property for rental than other capital investment. This analysis does not take into account high transaction costs in the housing market and potentially long payback periods.

Source: NBP, CSO.

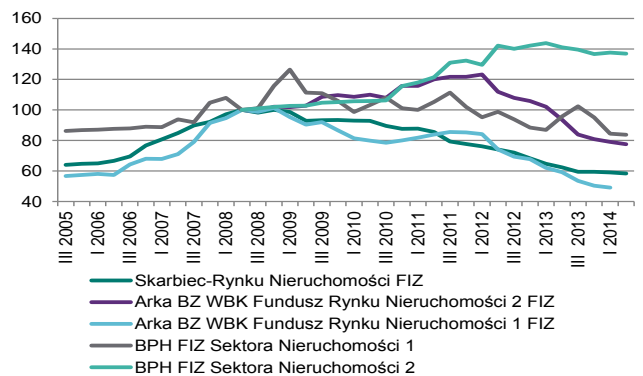
**Figure 17 Costs of PLN housing loans for consumer as deflated with CPI or wage growth in the enterprise sector**



Note: Values below 0 denote negative real interest rate for the borrower; the red line separates the termination of the government subsidy scheme (RNS till Dec. 2012, MDM since Jan.2014).

Source: NBP, GUS, BGK.

**Figure 19 Performance indicators of closed-end real estate investment funds operating on the commercial real estate market (Q2 2008 = 100)**



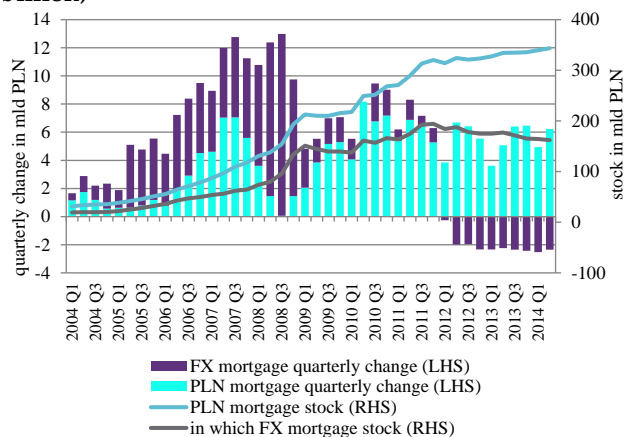
Note: for the investment funds Arka BZ WBK and Skarbiec the valuation is for the end of January, April, July and October, while for the remaining ones the valuation as for the end of the quarter.

Source: internet pages of closed-end investment funds.



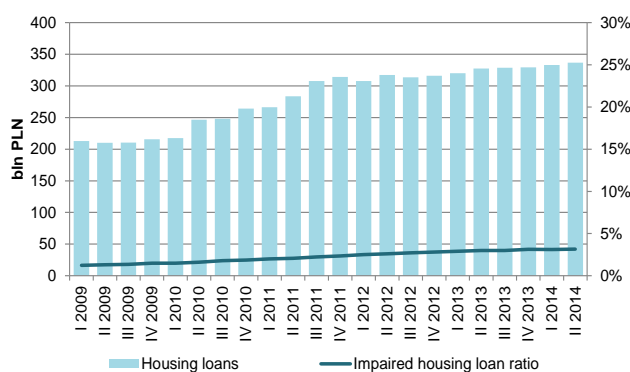
### 3. Disbursement of housing loans, interest rates

**Figure 20 Balance and quarter-on-quarter changes in housing loan receivables from households after adjustments and the currency structure of quarter-on-quarter increases in housing loan receivables (in PLN billion)**



Source: NBP.

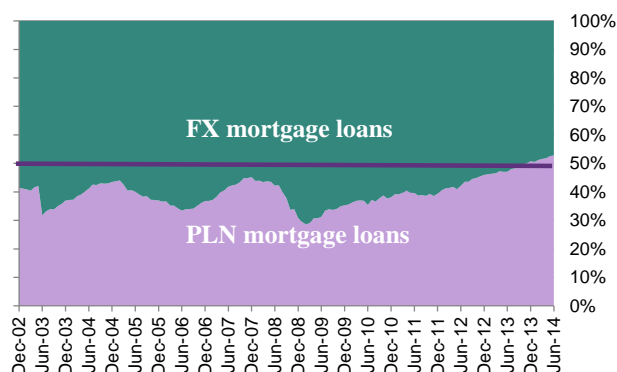
**Figure 22 Housing loans to households (in PLN billion, left-hand axis) and the indicator of doubtful loans (% , right-hand axis)**



Note to figure 25 and 58: receivables (loans) with determined loss of value – receivables from portfolio B, in relation to which objective premises of loss in value were observed and a decrease in the expected value of future cash flows (in banks using the IFRS) or which were deemed as doubtful receivables in accordance with the Ordinance of the Minister of Finance on establishing provisions against the risk associated with banking activities (in banks using the Polish Accounting Standards)

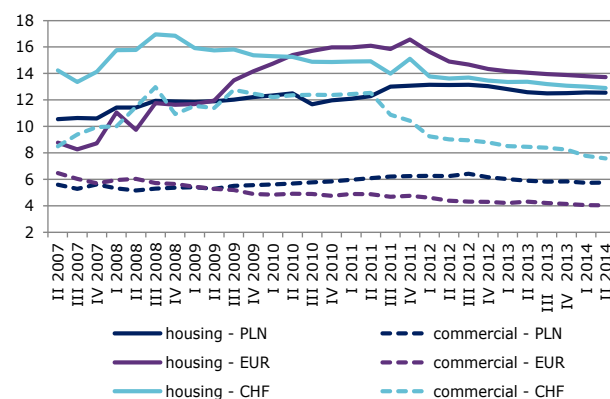
Source: NBP.

**Figure 21 Structure of housing loan receivables from households resulting from housing loans (in %)**

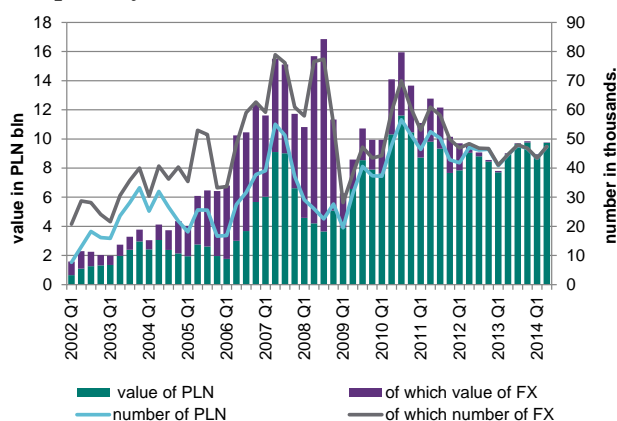
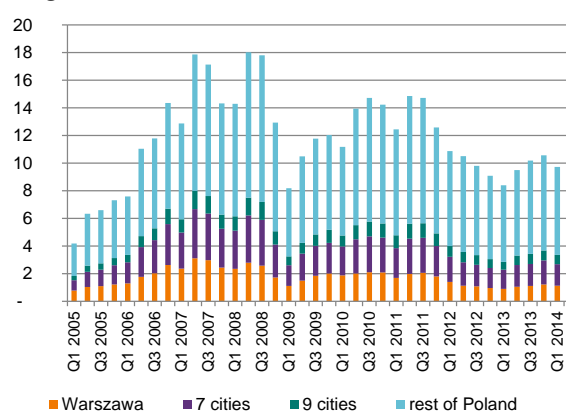


Source: NBP.

**Figure 23 Average maturity of residential and commercial real estate loans weighted by the total value of loans in a particular quarter**



Source: NBP.

**Figure 24 New housing loan contracts: quarterly value and quantity**

**Figure 25 Geographical structure of value of new housing loan contracts in Poland**


Note: the data inform about signed housing loan contracts and not the actual disbursement of housing loans. Source: BIK.

Source: ZBP.

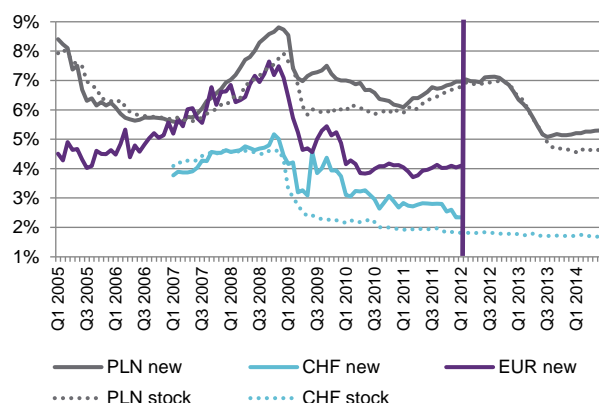
**Table 1 Estimated gross mortgage loan disbursements to households in Poland and estimated value of cash and loan-financed purchase transactions involving real estate developer housing in the 7 largest markets (in PLN million)**

Date	Estimated amount of disbursed housing loan in Poland	Estimated value of housing transactions in the PM in 7 cities	Estimated amount of disbursed housing loans with client's down-payment for home purchase in the PM in 7 cities	Estimated amount of cash home purchases in the PM in 7 cities	Estimated share of cash home purchases in the PM in 7 cities
2012 Q1	5 354	2 726	917	1 809	0.66
2012 Q2	8 231	2 783	1 409	1 374	0.49
2012 Q3	8 036	2 510	1 376	1 134	0.45
2012 Q4	7 268	2 839	1 244	1 595	0.56
2013 Q1	5 530	2 610	985	1 624	0.62
2013 Q2	7 191	2 899	1 305	1 594	0.55
2013 Q3	8 645	3 438	1 599	1 839	0.53
2013 Q4	8 810	3 947	1 720	2 227	0.56
2014 Q1	7 360	3 971	1 437	2 535	0.64
2014 Q2	8 699	3 779	1 698	2 081	0.55

Note: The estimates are based on the following assumptions: the estimated value of newly granted loans in Poland in particular quarters was based on increases in the volume of loans to households adjusted for loan amortization and flows between the foreign currency loan portfolio and the zloty loan portfolio, available in the NBP reporting. The entire banking system was taken into account, including credit unions SKOK. In order to calculate the estimated value of the primary market in 7 cities (Gdańsk, Gdynia, Cracow, Łódź, Poznań, Warsaw, Wrocław), the average home price was multiplied by the average home size in square meters and the number of housing units sold (based on REAS data). Based on BIK data it was assumed that in 2012 50% and at the end of 2013 57% of the volume of housing loans for home purchases in 7 cities were granted for primary market transactions. The estimated value of cash transactions was calculated as the differences between transactions in 7 markets and disbursements of loan with down-payment. 7 cities: Gdańsk, Gdynia, Cracow, Łódź, Poznań, Warsaw, Wrocław.

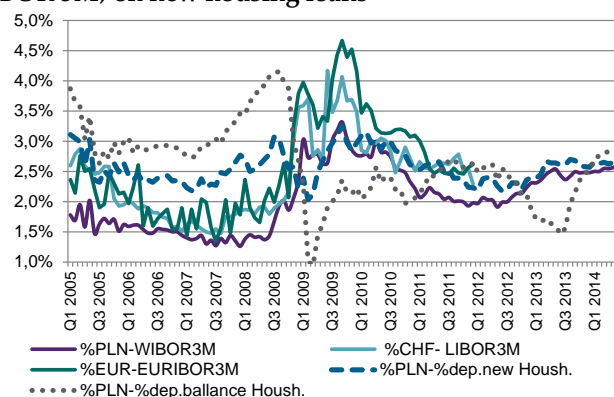
Source: NBP.

**Figure 26 Interest rates on housing loans for households in Poland**



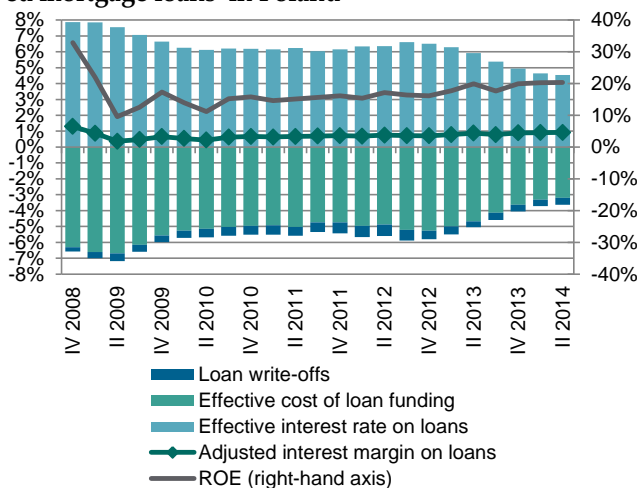
Note: Foreign currency loans ceased to be granted in 2012.  
Source: NBP.

**Figure 27 Bank margins (to WIBOR, LIBOR, EURIBOR 3M) on new housing loans**



Note: Bank margin is the difference between housing loan rate (NBP data) and the LIBORCHF3M rate, the EURIBOR3M rate or WIBOR3M rate.  
Source: NBP.

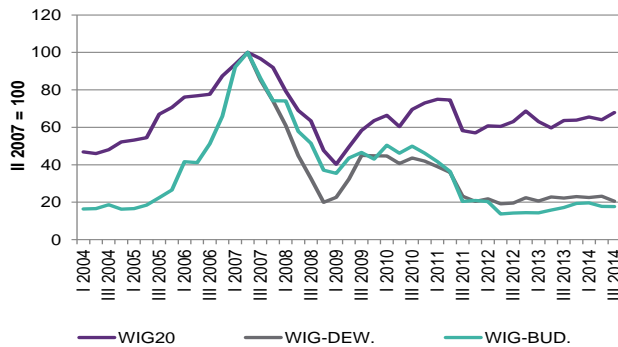
**Figure 28 Estimated banks' yield on zloty denominated mortgage loans in Poland**



Note: Income and costs related to the mortgage loan portfolio. Estimated ROE (Return on Equity) is calculated as the adjusted interest margin on mortgage loans with respect to the minimum required down-payment. The minimum down-payment requirement is assessed on the basis of LTV estimate derived from the AMRON data and capital requirement for mortgage loans as set by the Polish Financial Supervision Authority (KNF). The adjusted interest margin is the result of all income being added and all costs being deducted. The effective cost of financing was computed based on the WIBOR rates by adding estimative costs related to bank's own financing.  
Source: NBP, ZBP.

#### 4. Operating rate of return on housing and real estate development projects, costs of construction and assembly production and economic situation of real estate developers in Poland

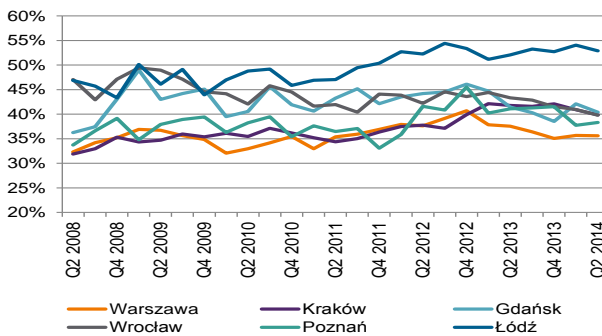
**Figure 29 Stock exchange indices: WIG20 and for real estate developers (WIG-DEW) and construction companies (WIG-BUD) (2007 Q2 =100)**



Note: harmonized data, 2007 Q2 = 100. The WIG index for real estate developers has been recorded since 2007 Q2.

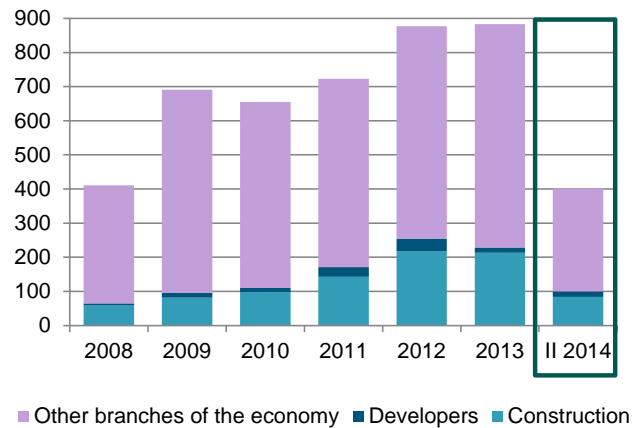
Source: Warsaw Stock Exchange.

**Figure 31 Share of direct construction costs per square meter of the residential building's usable area (type 1121<sup>6</sup>) in the transaction price in the primary market**



Source: NBP based on Sekocenbud.

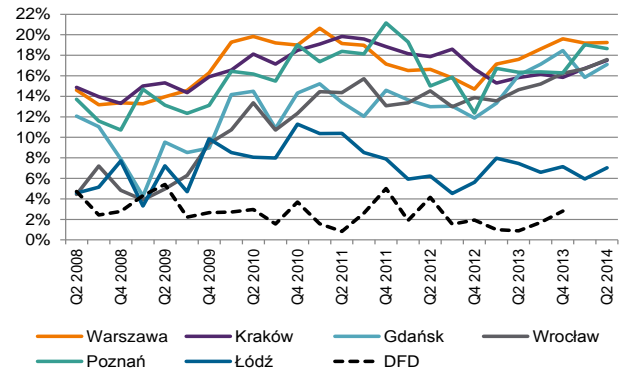
**Figure 30 Number of bankruptcies in the sectors**



Note: Breakdown according to the first entry into the National Court Register (KRS).

Source: Coface Poland.

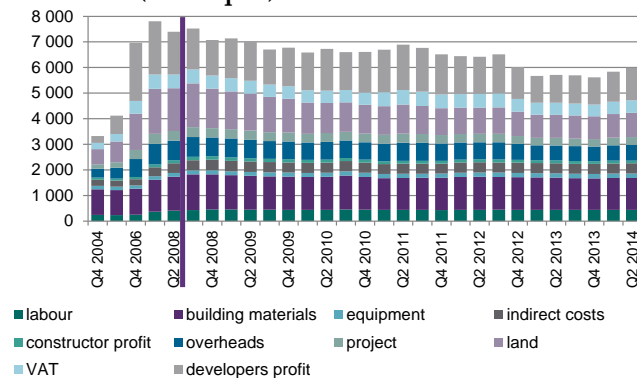
**Figure 32 Rate of return on equity in investment projects in 6 cities and the actual rate of return of real estate developers (DFD)**



Note: The rate of return on equity from typical new investment projects assuming the currently applicable interest rates, banks' requirements and production costs; calculated on the basis of the diagram included in Annex 3 of the "Report on the situation of the Polish market of residential and commercial real estate in 2011".

<sup>6</sup> Building (type 1121) monitored by NBP since the second half of 2004 as an average residential multi-family five-storey building with an underground parking space and retail premises on the ground-floor; traditional construction (overground part made from ceramic bricks). For the sake of convenience, it has been assumed that construction costs of one square meter of parking space and retail space are close to the costs of housing sold in shell condition; Real price of 1 square meter of housing, based on construction costs, depends on the share of outer space [building's common area], different for various buildings; when calculating the price of 1 square meter of usable housing area to be paid by consumer, we have assumed 20% share of outer space [building's common area] with respect to housing area and by this figure we have adjusted upward the price of 1 square meter of housing. Data adapted to the new developer's model of the construction process described further in Article 3 of the "Report on the situation of the Polish market of residential and commercial real estate in 2011".

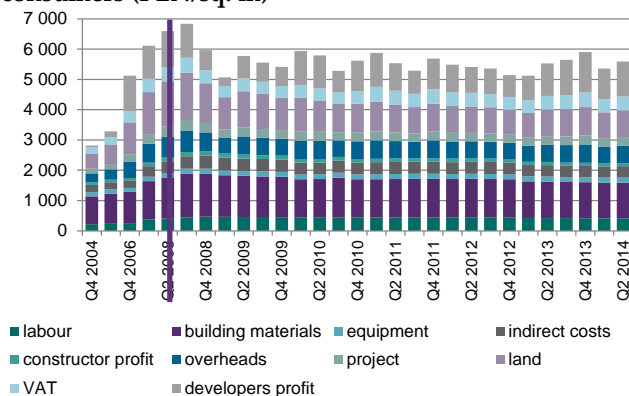
**Figure 33 Warszawa – structure of price per one square meter of housing usable area (type 1121<sup>6)</sup> to be paid by consumers (PLN/sq. m)**



Note to figures 33-38 since 2008 Q2 in quarter-on-quarter terms, previously annual data.

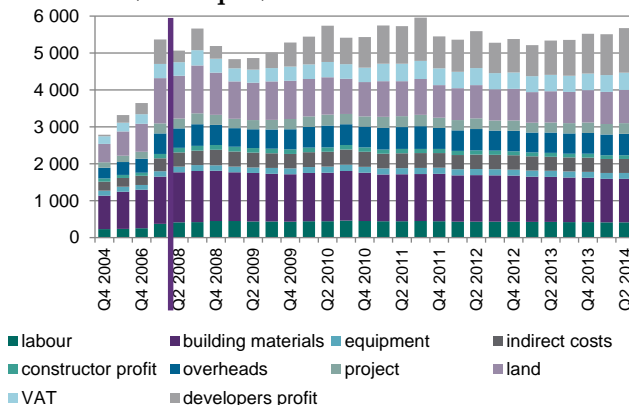
Source: NBP based on Sekocenbud, REAS.

**Figure 35 Gdańsk – structure of price per one square meter of housing usable area (type 1121<sup>6)</sup> to be paid by consumers (PLN/sq. m)**



Source: NBP based on Sekocenbud, REAS.

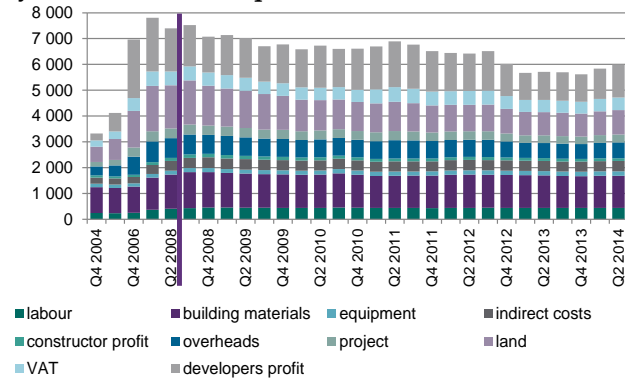
**Figure 37 Wrocław – structure of price per one square meter of housing usable area (type 1121<sup>6)</sup> to be paid by consumers (PLN/sq. m)**



Source: NBP based on Sekocenbud, REAS.

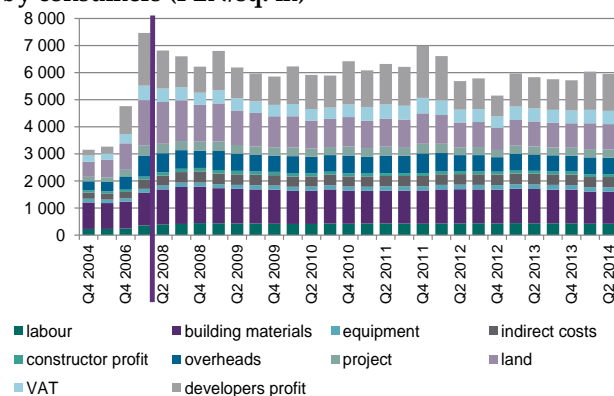
LD – ROE of an average large real estate developer (CSO).

**Figure 34 Kraków - structure of price per one square meter of housing usable area (type 1121<sup>6)</sup> to be paid by consumers (PLN/sq. m)**



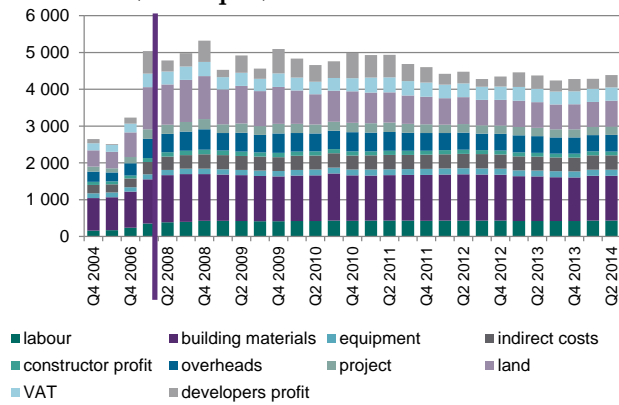
Source: NBP based on Sekocenbud, REAS.

**Figure 36 Poznań – structure of price per one square meter of housing usable area (type 1121<sup>6)</sup> to be paid by consumers (PLN/sq. m)**



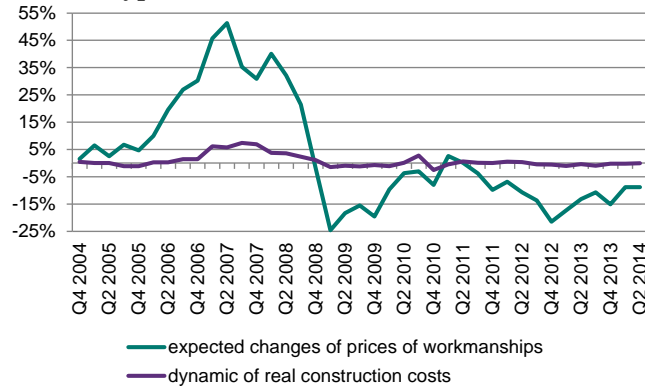
Source: NBP based on Sekocenbud, REAS.

**Figure 38 Łódź – structure of price per one square meter of housing usable area (type 1121<sup>6)</sup> to be paid by consumers (PLN/sq. m)**



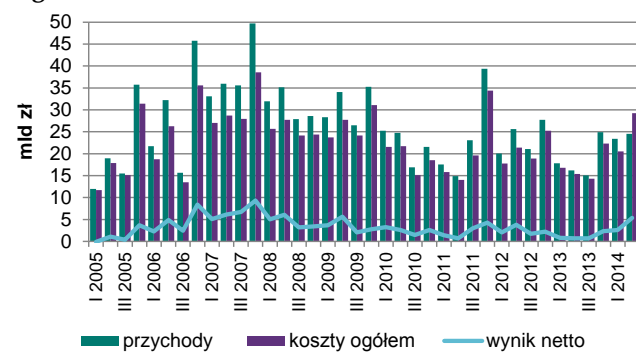
Source: NBP based on Sekocenbud, REAS.

**Figure 39 Anticipated changes in the price of construction and assembly production (+M3) and growth in the costs of construction of the residential building's usable area (type 1121<sup>6)</sup>)**



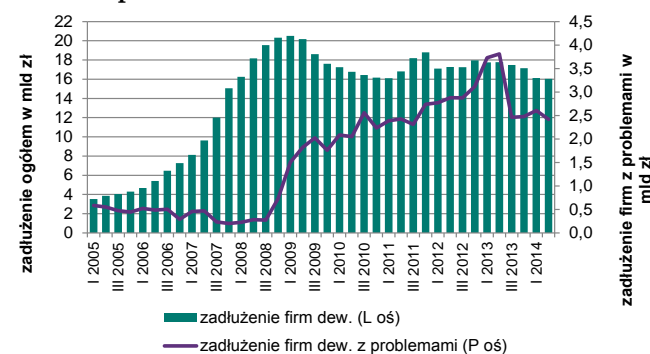
Source: NBP based on CSO data (business conditions survey), Sekocenbud.

**Figure 41 Economic indicators of LDs**



Source: NBP based on CSO (F01).

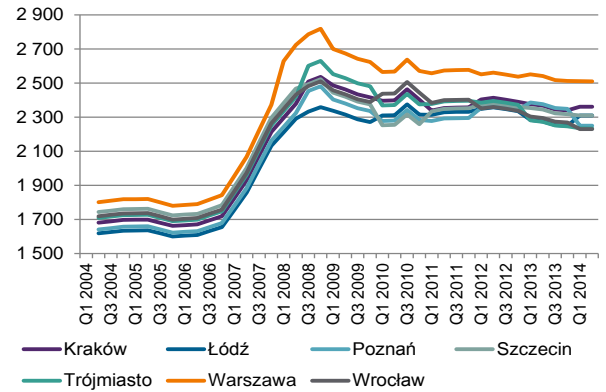
**Figure 43 Value of real estate developers' debt (commercial banks) and debt of real estate developers facing financial problems (bIn PLN)**



Note: companies whose debt has been classified by banks as doubtful debt (this refers to large-scale exposure, exceeding the value of PLN 500 thousand); starting from 2013 Q3, apart from slight decline in the exposure of indebted companies, the data may differ from the previous ones due to changes in large exposure reporting.

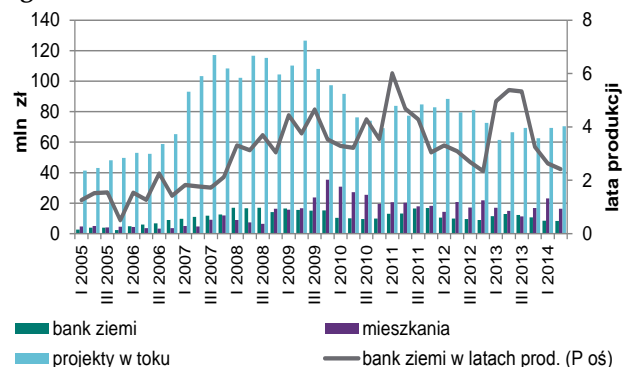
Note: data exclusive of BGK. Source: NBP.

**Figure 40 Cost of construction of one square meter of the residential building's usable area (type 1121<sup>6)</sup>) (PLN/sq. m)**



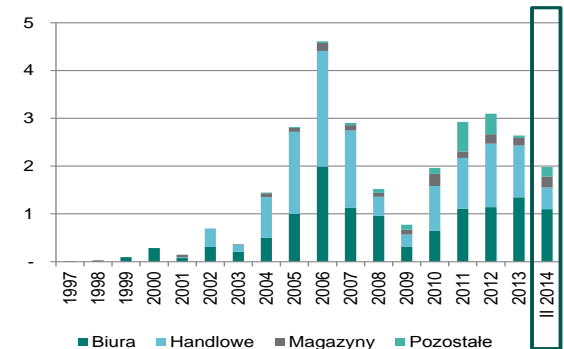
Source: NBP based on Sekocenbud.

**Figure 42 Situation of LDs**



Source: NBP based on CSO (F01).

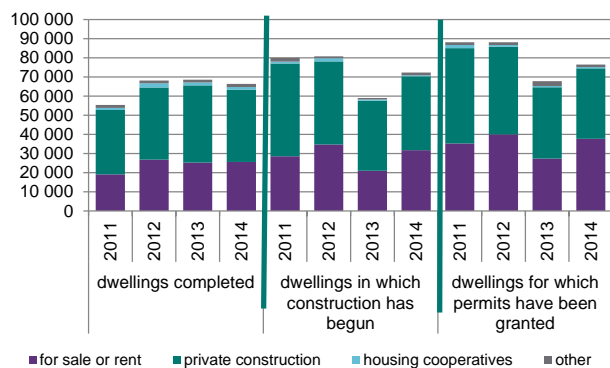
**Figure 44 Value of investment transactions (EUR billion)**



Source: Comparables.pl

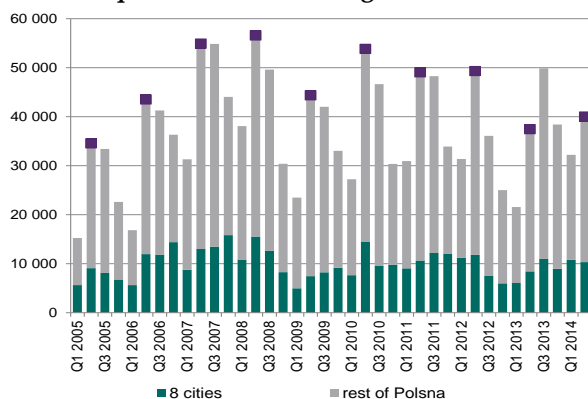
## 5. Residential construction and housing market in Poland in selected cities

**Figure 45 Poland – structure of residential construction investors in I quarters in 2011–2014 (housing units)**



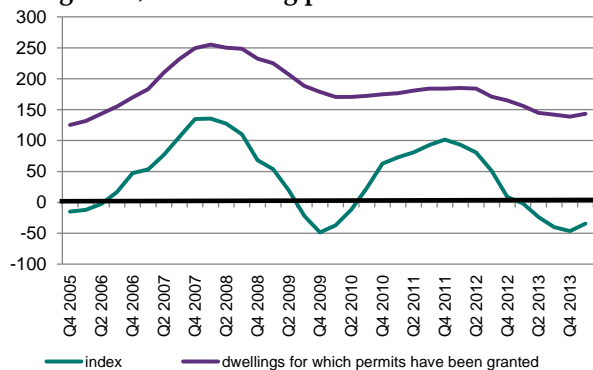
Source: CSO.

**Figure 47 Poland –housing under construction , in quarter-on-quarter terms (housing units)**



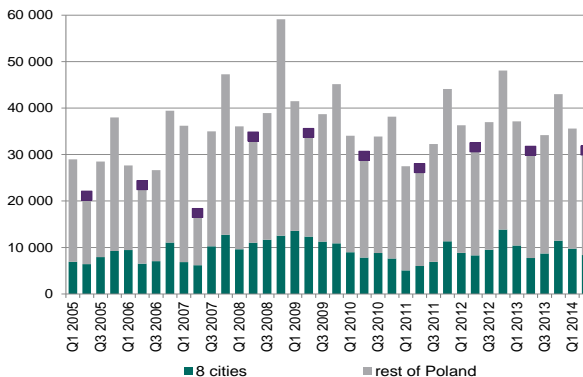
Source: CSO.

**Figure 49 Housing market indicator in Poland (housing under construction minus completed housing, in housing units) and housing permits**



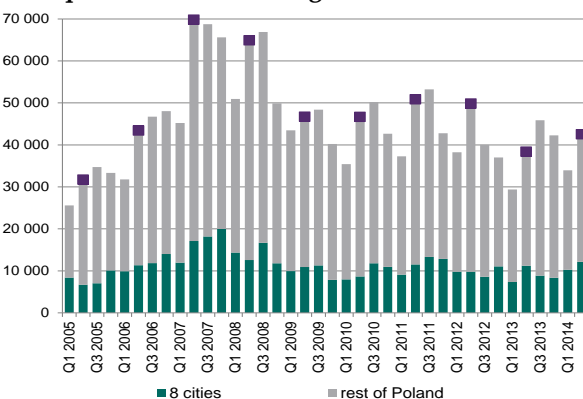
Note: The index is a 12-month rolling figure.  
Source: NBP based on PABB and CSO.

**Figure 46 Poland – completed housing, in quarter-on-quarter terms (housing units)**



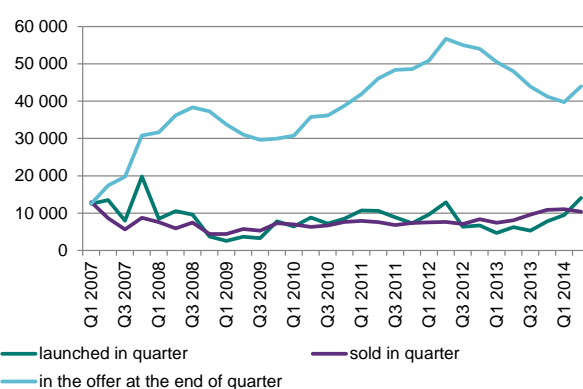
Note to figures 46–48: in violet color only first quarters have been marked; Source: CSO.

**Figure 48 Poland – issued building permits, in quarter-on-quarter terms (housing units)**



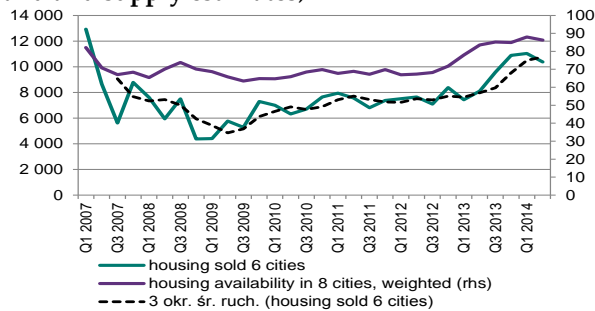
Source: CSO.

**Figure 50 Number of housing units put on the market, both sold and offered for sale in Poland's 6 largest markets\***



\* Warszawa, Kraków, Tri-city agglomeration of Gdańsk-Sopot-Gdynia, Wrocław, Poznań, Łódź. Source: REAS

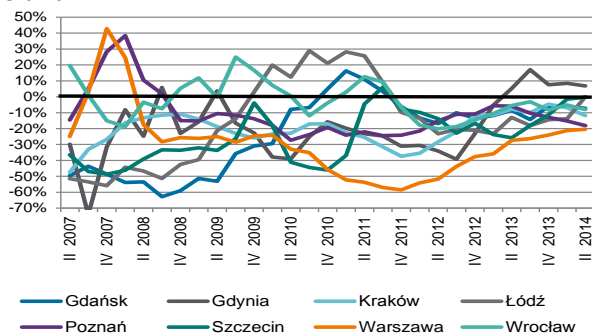
**Figure 51 Availability of loan-financed housing versus housing units sold in Poland's 8 largest cities \* (demand and supply estimates)**



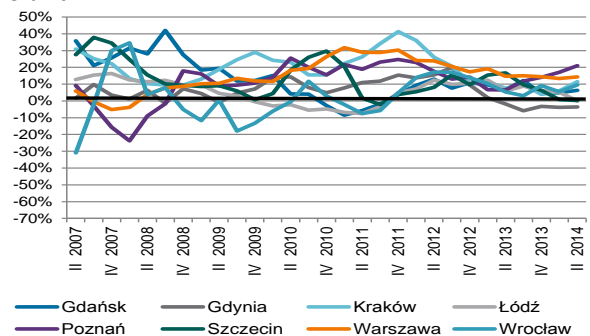
\* Gdańsk, Gdynia, Łódź, Kraków, Poznań, Szczecin, Warszawa, Wrocław. Availability of loan-financed housing weighted with the currency structure of the quarterly rise in mortgage loan.

Source: NBP based on REAS.

**Figure 52 Structure of supply and demand \* for housing with an area ≤ 50 sq. m, PM in selected cities in Poland**



**Figure 53 Structure of supply and demand \* for housing with an area >50 sq. m, PM in selected cities in Poland**

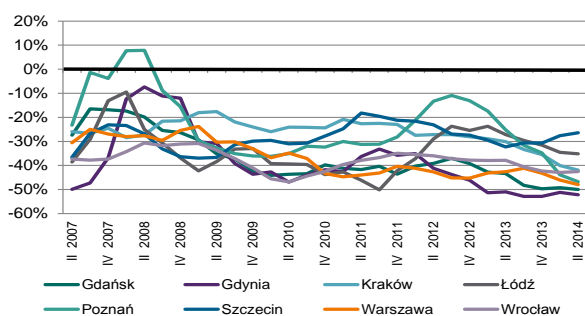


Note: Figure 52 presents, in percentage terms, a short-term mismatch in primary market between supply (developers' housing offer) and the estimated demand (housing transactions) in terms of the dwelling's size, according to the data from the BaRN database. The mismatch is calculated as the ratio of the share of housing units with usable area of up to 50 square meters offered for sale to the number of transactions involving housing units with a total area of up to 50 square meters (the average figure for the last four quarters). The positive result (above the black line) indicates a surplus of housing of this particular size, whereas the negative result indicates a shortage thereof. Figure 53 is parallel. Figures 54-55 are parallel, only for the secondary market.

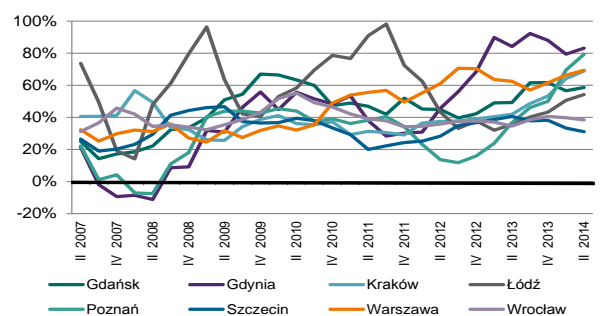
Source: NBP.

Source: NBP.

**Figure 54 Structure of supply and demand \* for housing with an area ≤ 50 sq. m, SM in selected cities in Poland**



**Figure 55 Structure of supply and demand \* for housing with an area >50 sq. m, SM in selected cities in Poland**

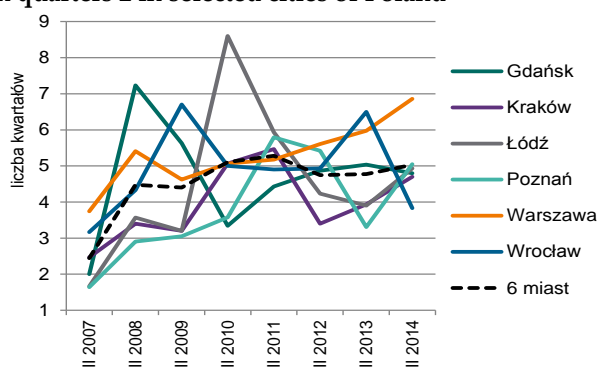


Source: NBP.

Source: NBP.

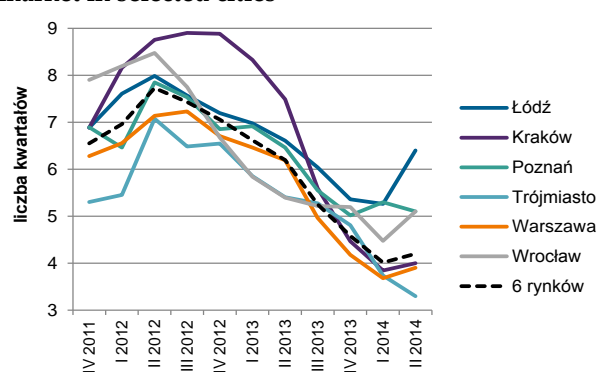


**Figure 56 Housing sale time in the secondary market in quarters 2 in selected cities of Poland**



Source: NBP.

**Figure 57 Sale time of housing offered in the primary market in selected cities**



Note: sale time calculated in quarters as the number of housing units on offer at the end of the quarter in relation to the average sales recorded in the previous year

Source: NBP based on REAS.



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