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Information on home prices and the situation in the residential and commercial real estate market in Poland in 2013 Q4.

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Summary

The analysis of the situation in the Polish real estate market in 2013 Q4 leads to the following conclusions:

- In 2013 Q4, offer prices of homes, both of newly put on the market and of those already on offer, in the primary markets of all cities were stable. Developers do increasingly better at adjusting the sizes and prices of offered homes to clients' needs. Stabilization of transaction prices was observed in the primary markets of 7 and 9 cities. In the analyzed period, the downward trend in transaction prices in the secondary markets was significantly halted. On the other hand, the Warsaw primary market reported an increase in transaction prices for another consecutive quarter.
- In the secondary market of Warsaw and the 7 major cities the selling time is becoming longer, which results from unadjusted offer prices in relation to transaction prices.
- In 2013 Q4, the level of interest rates for new zloty denominated mortgage loans remained steady. Together with increasing wages, it contributed to an improvement in the availability of loan-financed housing. The estimated value of mortgage loan disbursements was higher than in the previous quarter and in the corresponding period of the previous year. Home sale in the primary and secondary market was supported by cash purchases.
- Home sales in the primary market of the major cities have been rapidly increasing for the last four quarters, and the surplus of unsold dwellings is approaching the level which may be considered as balanced. This trend continued in 2013 Q4.
- In 2013, the number of completed dwellings was by 6.8 thousand lower than in the previous year, but historically speaking, this number is still high. The last year's number of issued building permits was the lowest since 2006. The number of commenced investments in 2013 was lowest in the past 8 years, however, in the second half of 2013, its level was higher than in the corresponding period of 2012. Should this trend continue, then, in two years' time, the market will see more housing, and price growth will be limited.
- Housing production is profitable for real estate developers. The number of bankruptcies of developers declined as compared to the previous year.
- The amount of corporate loans for real estate financing decreased slightly. The amount of real estate developer loans for home construction increased slightly, while their quality slightly improved.
- The commercial real estate market saw a continued upward trend of the volume of investment transactions, which in 2013 amounted to EUR 3.5 billion.

The study provides a synthetic description of key developments affecting the housing market in Poland's largest cities in 2013 Q4.¹ It also contains an appendix with charts and figures presenting:

- 1) home prices (Figures 1–17),
- 2) housing availability, loan availability and availability of loan-financed housing (Figures 18–21),
- 3) mortgage loan disbursements and real interest rates (Figures 22–32),
- 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 33–58),
- 5) housing construction and the residential market in Poland (Figures 59–72).

The analysis of housing prices in the primary and secondary markets, offer prices, transaction prices and hedonic prices² relies on data from the housing market survey of the Real Estate Market Database (BaRN)³. As part of the new 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 and SARFIN were used in the analysis. 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.

1 The information was prepared by the Economic Institute 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.

2 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 samples from the base period (a 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. Widlak (2010) entitled „Metody wyznaczania hedonicznych indeksów cen jako sposób kontroli zmian jakości dóbr”, in *Wiadomości Statystyczne* no. 9.

3 See Programme for Surveys in Public Statistics for 2013. Annex to the Decree of the Council of Ministers of 9 November 2012 on the Programme for Surveys in Public Statistics for 2013 (*Journal of Laws* of 2013, item 1391). The survey of residential and commercial real estate prices in Poland's selected cities, survey symbol 1.26.09 (073) is run by the President of Narodowy Bank Polski. The reporting forms are announced in the Decree of the Prime Minister of 13 September 2013 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.

In 2013 Q4, the major trends observed in the previous quarter continued. The number of real estate development dwelling pending sale in Poland's largest housing markets was reduced (see Figure 64). This was a result of a growing number of home sale transactions and rationalization of developers' behaviour after the slight construction boom caused by the entry into force of the Real Estate Development Act⁴. Based on market information and own calculations we assume that the stabilization of interest rates on housing loans, with simultaneous slight increase in wages in the enterprises sector, translated into growing demand for housing loans in the largest markets⁵ (see estimates in Table 1). At the same time, signs of a gradual improvement in the economic situation led to an increase in the demand for housing financed by cash (see estimates in Table 1). Rising demand and falling surplus of housing in the primary market of the six largest cities halted the downward trend in home prices in the primary market in these cities. This also resulted in the stabilization of housing prices in the secondary market in these cities. However, in Warsaw, the most developed of the housing markets in Poland, since the beginning of 2013, we have observed an increase in average transaction prices in the primary market. A study conducted on the basis of BaRN database indicates that the average housing prices in most of ranges of usable area have increased in Warsaw (see figures 11-12).

According to REAS, the number of transactions in the primary market of all the six largest housing markets in Poland increased in the last quarter of 2013 as compared to the previous quarter by over 14% and amounted to almost 10.6 thousand sold dwellings. In year-on-year terms, sales growth exceeded 17%. This figure is comparable with the 2007/2008 housing boom. This was driven by housing demand and housing supply factors. On the supply side, real estate developers adjusted their offer to the market's needs in terms of the usable area, i.e. they offered more housing with a usable area of up to 50 square meters, which was largely in demand (see Figures 67 and 68). There is still some surplus of larger homes (above 50 square meters) pending sale, with a shortage of smaller dwellings actually in demand (below 50 square meters). At the same time, persons looking for larger dwellings had a sufficient choice of offers (see figure 68). The estimates in Table 1 lead to a conclusion that about 44% of the value of housing transactions is financed with loans, and the remaining 56% with cash.

4 On 29 April, 2012, the Law on the protection of the rights of the buyer of a dwelling or a detached house, the so-called "Real Estate Developer Act" (Journal of Laws of 2011 No. 232, item. 1377) came into force. The legislator has introduced, inter alia, an obligation for housing developers to establish escrow account, to which purchasers money will be transferred. The anticipating investment activities of real estate developers in 2011 Q4 - 2012 Q2 were related to the provision of a portfolio of legal favourable orders for the coming years.

5 The estimated value of the primary market in the 7 cities (Gdańsk, Gdynia, Cracow, Łódź, Poznań, Warsaw, Wrocław) was calculated by multiplying the average price of a square meter of housing by its average size in square meters and the number of sold dwellings (based on REAS data). On the basis of ZBP (Polish Bank Association) data it was assumed that the value of new loans for the purchase of dwellings in the primary markets of 7 cities in 2012 accounted for 50% of the value of mortgage loans in these cities, and at the end of 2013, the share was approx. 57%. The estimate of cash transactions was obtained as the difference of transactions in the market of the 7 cities and loan disbursements, together with client's down-payment.

Growing demand for loans is a result of historically low interest rates on housing loans (see Figure 30) and falling real cost of housing loans to households (see Figure 19). We can observe a growing availability of loans (see Figure 20) and of loan-financed housing (see Figure 21).

Yet, banks⁶ have tightened their mortgage loan granting criteria in the analyzed period and expect a further tightening in 2014 Q1 due to the requirement to limit the maximum LtV ratio⁷. Information about the future more conservative approach of banks to extend housing loans could have pushed purchasers to take out loans and buy dwellings in the analyzed period.

The condition of the real estate developer sector is improving, which results from the halt in the downward trend of home prices, decline in construction costs, falling number of unsold contracts for housing construction and growing demand for housing. As the number of dwellings pending sale is gradually decreasing, financial costs incurred by developers are decreasing. The market continues to see a concentration of production (see Figure 45), however, it is slowly decreasing. Furthermore, as a result of the large competition in the construction sector and a relatively bad financial situation of entities in this sector, a further mild downward trend in the costs of construction and assembly production may be observed (see figures 44 and 46). The above factors should lower the costs of completing started investments as well as increase the profitability of new investment projects of real estate developers. As a result, real estate developers continue to launch new housing projects (see Figure 51).

The number of bankruptcies of real estate developers in 2013 was low as compared to other sectors of the economy (see figure 34). The overall condition of the real estate development sector is assessed as stable against the background of the whole economy. Stock market indices of companies listed on the Warsaw Stock Exchange have remained, since 2011, at a stable low level showing a slight upward trend in the last four quarters (see Figure 33).

The value and the number of loans of real estate development companies facing difficulties ceased to grow, however, due to the reclassification of accounts receivable, it is difficult to determine the scale of the improvement (see Figure 55). As a result of growing sales of developer housing, the quality of loans granted to developers has slightly improved (see Figure 57), while the amount of corporate loans for real estate financing has slightly decreased.

Other developments in the housing market continued in line with the previously observed trends. The share of foreign currency loans in the total loan portfolio dropped below 50%

6 See „Situation in the credit market. Results of the senior loan officer opinion survey, 2014 Q1”, NBP 2014.

7 LtV (- Loan to Value, an indicator of the amount of credit or loan granted to the value of its collateral

and continued to show a downward trend. Banks had virtually ceased to grant foreign currency denominated loans and loan repayments continued (see Figure 26). Interest rates on zloty denominated mortgage loans were at historically low levels (see Figure 30), which supported the demand for loans.

The number of completed dwellings in Poland in 2013 was by 6.8 thousand lower than in 2012, but historically speaking it was still high (see Figures 59-60). The total number of newly commenced home constructions in 2013 was by 14.4 thousand lower as compared to the previous year, however, in the second half of 2013 the downward trend was reversed (see Figure 61). Should this trend continue, then, in two years' time, the market will see more housing, and price growth will be limited. This phenomenon should be further monitored. In 2013 the number of housing construction permits was by 26.6 thousand lower than in the previous year, and it was the lowest over the last 8 years (see Figure 62). This may indicate adjusting new investments to the demand for housing. It must be noted, however, that developers may start new constructions based on previously obtained permits.

Despite the absence of official and easily available data on housing transactions in local secondary markets, the data gathered in the NBP database (BaRN) allow to assess the most important phenomena in these markets. NBP's studies show that the major secondary markets in Poland saw longer home selling time in 2013 (see figure 71).

The secondary markets in Warsaw and the seven largest cities may have observed a growing gap between offer and transaction prices (see Figure 6). On the other hand, in the markets of the 9 cities the discrepancy is lower and remains stable. In the largest cities, home sellers expect higher prices than purchasers are willing to pay. It may be also noted that in Warsaw and the 7 largest cities, there is a shortage of small dwellings, i.e. up to 60 square meters in the secondary market (see Figure 69 and 70), while the offer of housing in excess of 60 square meters is higher than the demand for it (see Figure 71). An analysis of the primary market shows that developers adjust their offer to the clients' needs, and the structures of sold housing in both markets are similar to each other in terms of usable area.

The commercial real estate market (office, retail and warehouse space) sees a continuing upward trend in the volume of transactions, observed since 2010. According to Comparables.pl data, investment transactions amounting to EUR 3.5 billion were recorded in 2013, which means an increase by over 10% as compared to 2012. It is worth noting that transactions in the warehouse space market accounted for 10% of the total volume of transactions and were two times higher than in 2012. Investments in office and commercial space continue to have the largest share in the volume of investment transactions (approx. 40% each). International investors account for the majority of all transactions, and a considerable part of transactions involved the change of ownership of already operating and rented commercial buildings.

Capitalization rates in the office space market were in the range of 6-7% and around 7% in the commercial space market.

At the end of 2013, Poland had 6.3 million square meters of office space. The majority of office space is offered in Warsaw (4.11 million square meters). The vacancy rate in the major office markets stood at 10.9%, as compared to 9.1% at the end of 2012⁸. Approximately 1 million square meters of office space is under construction and according to a report by Colliers International, approximately 600 thousand square meters of office space will be commissioned this year. Basing on the above data and the general economic situation it may be concluded that the vacancy rate will continue to rise, especially in older or poorly located buildings. Rents in the office space market all over Poland remain stable (in Warsaw the highest asking rents in prime locations are approx. EUR 25 per square meter per month)⁹. The growing supply of office space could exert a downward rent pressure on some markets. It may be concluded that investors constructing new office space should reckon with growing competition.

In 2013, in the commercial real estate market, approximately 640 thousand square meters of retail space were commissioned, and the total supply of retail space was 9.84 million square meters¹⁰. Nearly 70% of newly commissioned commercial space is located in the eight major cities. Retail rents in prime locations around the country remain stable, while in Warsaw, as a result of the recommercialization¹¹ of best shopping malls, asking rents have increased in year-on-year terms by approx. 5% and amounted to EUR 85-100 per square meter per month at the end of 2013¹². On the basis of a report by Jones Lang LaSalle it can be concluded that tenant demand for space in prime locations in large cities is maintained, whereas buildings located in cities with high saturation of retail space are likely to see a downward pressure on rents.

8 See Colliers International Report „Przegląd Rynku Nieruchomości – Podsumowanie 2013 r.” [“Real Estate Market Report - Summary 2013”].

9 See Cushman&Wakefield Report „MarketBeat Office Snapshot Q4 2013”.

10 See Colliers International Report „Przegląd Rynku Nieruchomości – Podsumowanie 2013 r.” [“Real Estate Market Report - Summary 2013”].

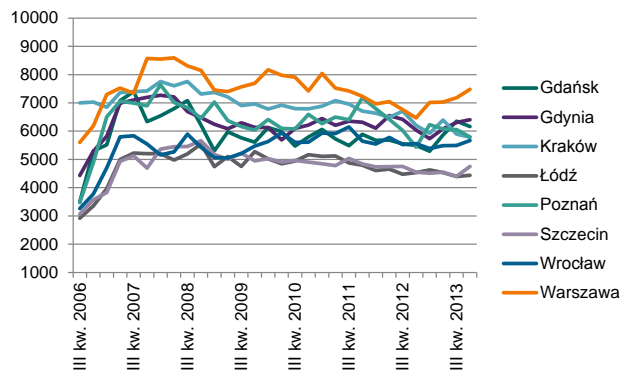
11 Renewed rental of previously rented buildings.

12 See Jones Lang LaSalle Report „Rynek Handlowy w Polsce w IV kw. 2013”. [“Commercial Market in Poland in 2013 Q4”]

Statistical annex

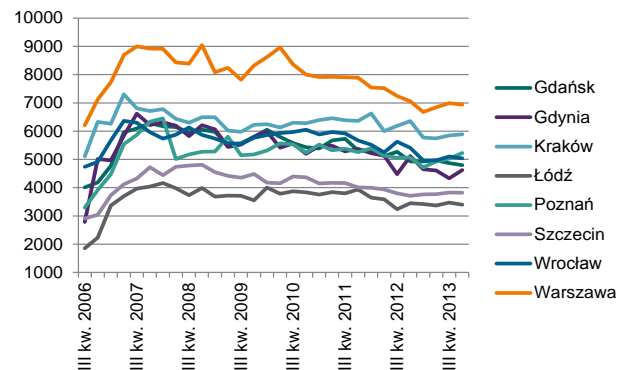
1. Transaction, hedonic¹³, and offer prices of housing, the primary market (PM), and the secondary market (SM)

Figure 1 Transaction prices per square meter of housing – PM



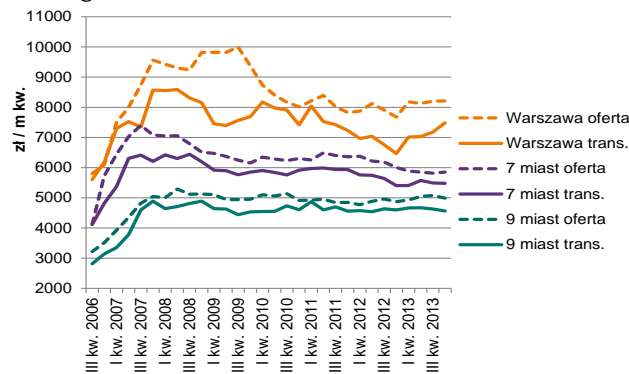
Source: NBP.

Figure 2 Transaction prices per square meter of housing – SM



Source: NBP.

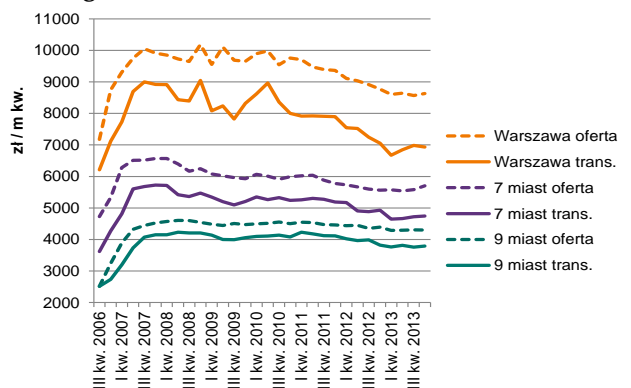
Figure 3 Weighted average price per square meter of housing, offers and transactions – PM



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, Cracow, Łódź, Poznań, Szczecin, Wrocław; [9 cities](#): Białystok, Bydgoszcz, Katowice, Kielce, Lublin, Olsztyn, Opole, Rzeszów, ZielonaGóra.

Source: NBP.

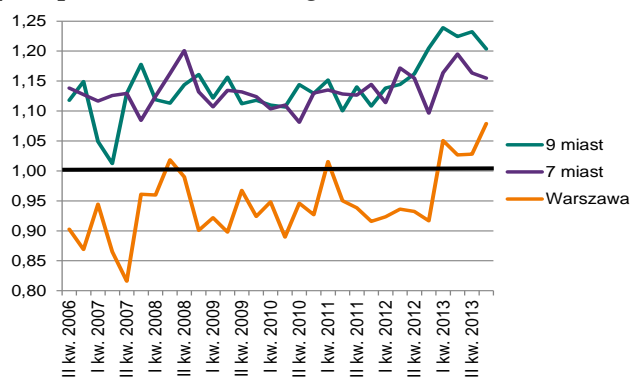
Figure 4 Weighted average price per square meter of housing, offers and transactions – SM



Source: NBP.

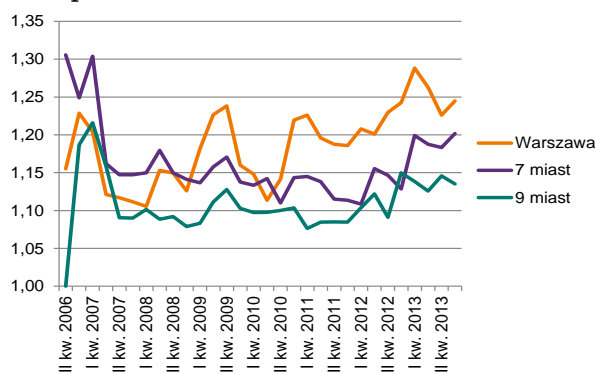
13 The hedonic price of housing reflects the "pure" price, that is the price that results from other factors than the quality of housing. The analysis always pertains to the price of a standardized apartment constructed on the basis of the econometric model. It adjusts the average price from the sample taking into account the change in the quality of housing from a given sample in each quarter. It is different from the average or the median price growth, which would react strongly to any change in the sample's composition, for instance a larger number of small apartments with a higher price per square meter. For more information, see M. Wiślak's (2010) article entitled "Metody wyznaczania hedonicznych indeksów cen jako sposób kontroli zmian jakości dóbr", in *Wiadomości Statystyczne* no. 9.

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



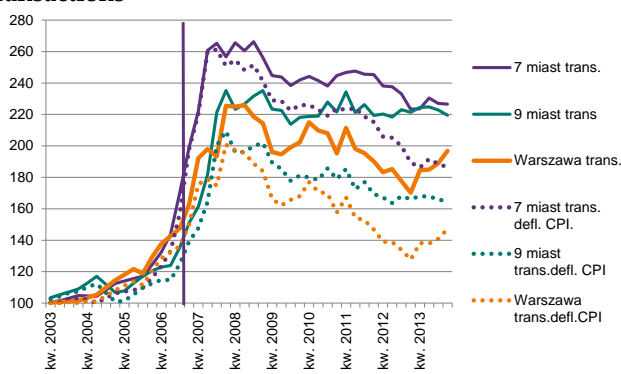
Source: NBP.

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



Source: NBP.

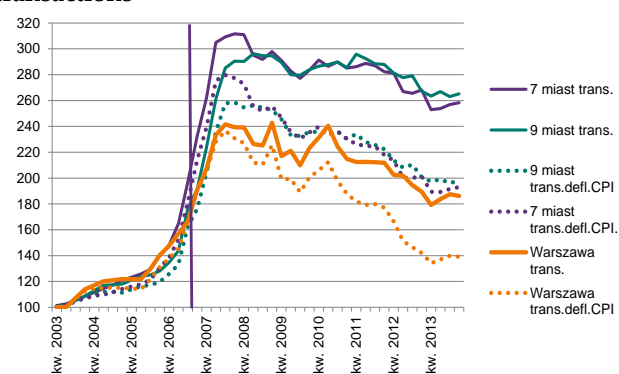
Figure 7 Weighted average price per square meter of housing and CPI-deflated price (2002 Q4 = 100) – PM, transactions



Note: the home price database of NBP (BaRN) has existed since 2006 Q3; the purple line separates BaRN data from PONT Info price estimates.

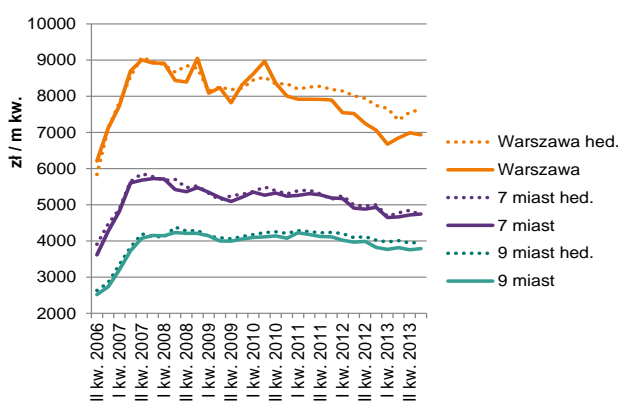
Source: NBP, PONT Info, AMRON, GUS.

Figure 8 Weighted average price per square meter of housing and CPI-deflated price (2002 Q4 = 100) – SM, transactions



Source: NBP, PONT Info, AMRON, GUS.

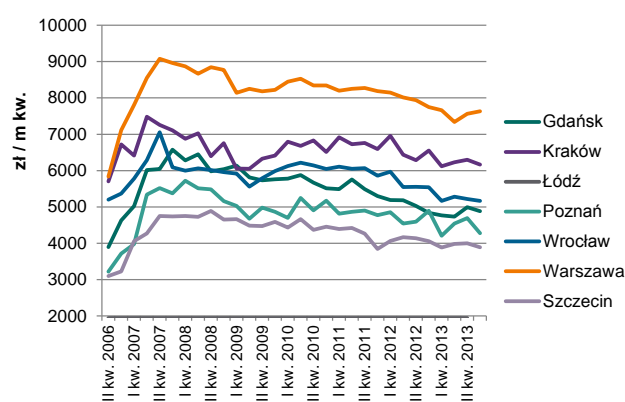
Figure 9 Weighted average price per square meter of housing adjusted by the hedonic price index* / – SM, transactions



* / price of one square meter of housing in the reference period adjusted for the price growth index accounting for changes in housing quality in subsequent quarters.

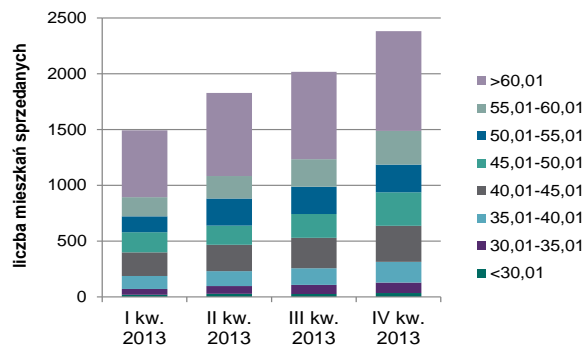
Source: NBP.

Figure 10 Housing transaction price per square meter in SM, adjusted by the hedonic price index* /, in 8 cities



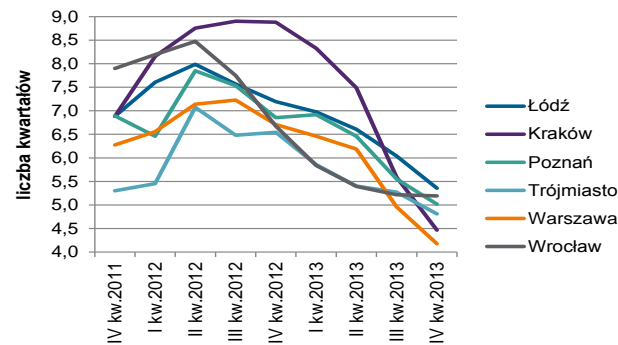
Source: NBP.

Figure 11 Number of housing transactions in PM by usable area in Warsaw, in NBP database



Source: NBP

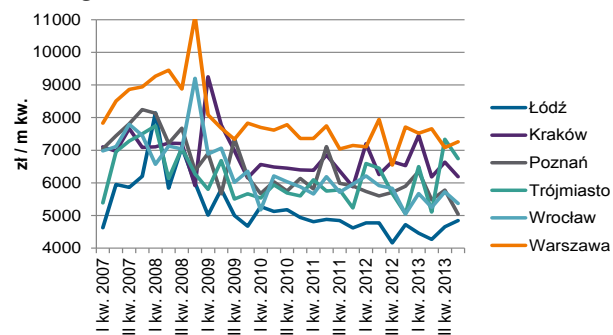
Figure 13 Home selling time in PM in 7 cities



Note: selling time calculated in quarters as the number of housing on offer as of the end of the quarter in relation to average sales in the previous year.

Source: NBP based on REAS.

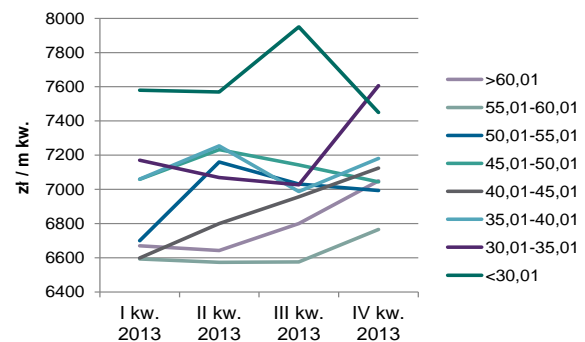
Figure 15 Average offer prices per square meter, new housing contracts – PM, selected markets



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

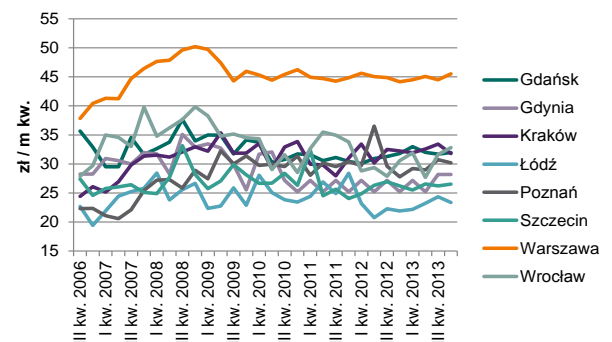
Source: REAS.

Figure 12 Average transaction prices per square meter of housing in PM by usable area in Warsaw, in NBP database



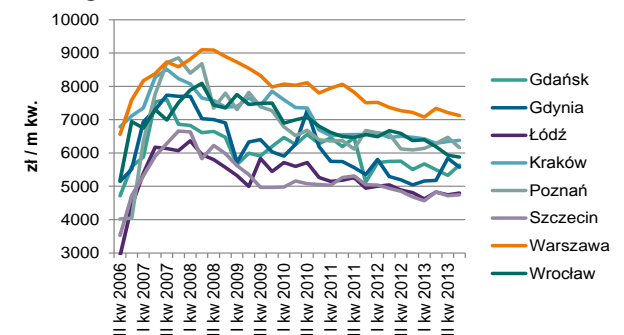
Source: NBP.

Figure 14 Average rent rates per square meter of housing in 8 cities



Source: NBP.

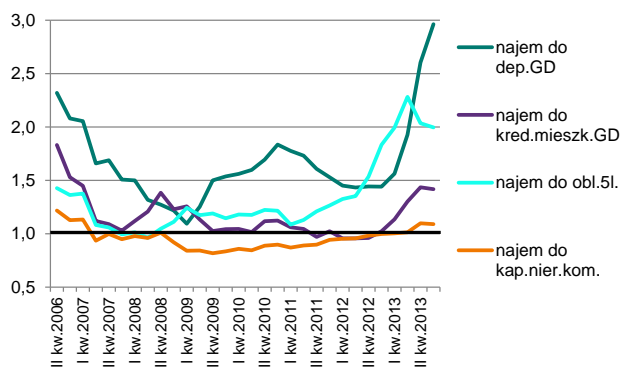
Figure 16 Average offer prices per square meter, new housing contracts – PM in 8 cities



Note: prices are collected from all available sources.

Source: PONT Info Nieruchomości.

Figure 17 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)

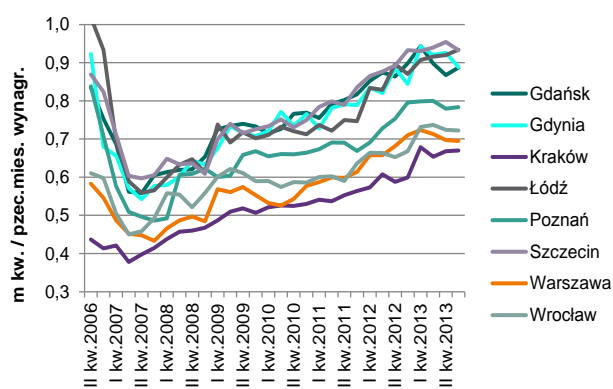


Note: values exceeding 1 denote higher profitability of purchasing property for rental than other capital investment. This analysis does not take into account high transaction costs in the housing market and potentially long payback periods.

Source: NBP, GUS.

2. Housing availability, loan availability, availability of loan-financed housing

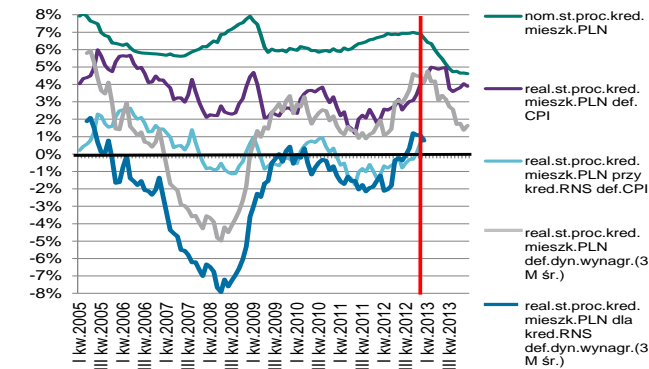
Figure 18 Housing availability in terms of one square meter of housing for an average wage in the enterprise sector



Housing availability – a measure of potential availability to purchase housing space at the offer price for an average wage. 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). Note: The red line separates the termination of the RNS scheme.

Source: NBP, GUS.

Figure 19 Costs of PLN housing loans for consumer as deflated with CPI or wage growth in the enterprise sector



Source: NBP, GUS.

Figure 20 Available weighted* mortgage loans and accumulated index of banks' housing loan policy (ZKPK)

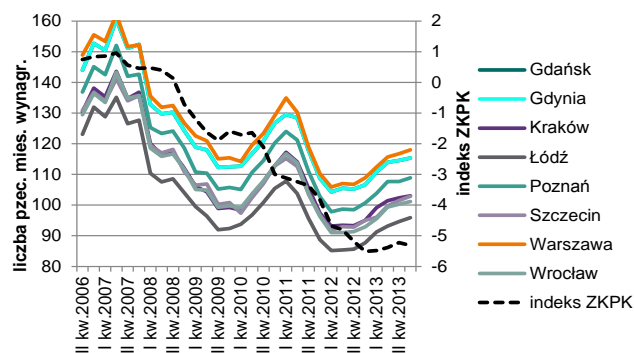
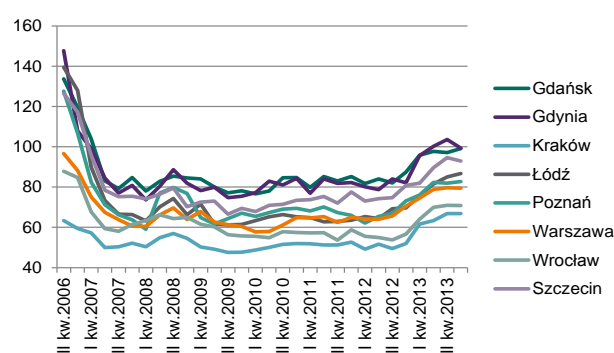


Figure 21 Availability of loan-financed housing per one square meter (weighted loans*)



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.

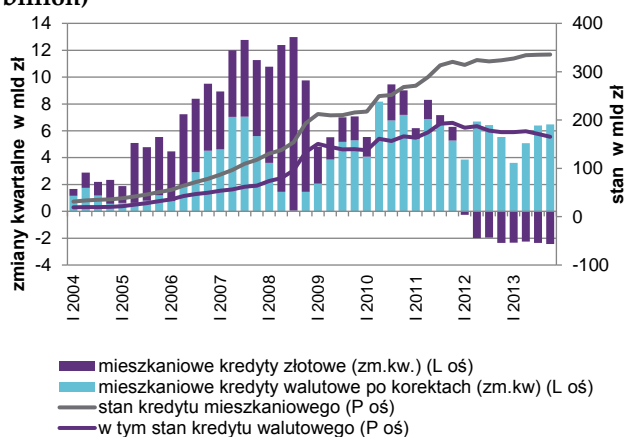
Note: weighting with the currency structure of the quarterly loan increase: the purple line separates weighted values from values expressed in PLN only recorded since the beginning of 2012.

Source: NBP, GUS.

Source: NBP, GUS.

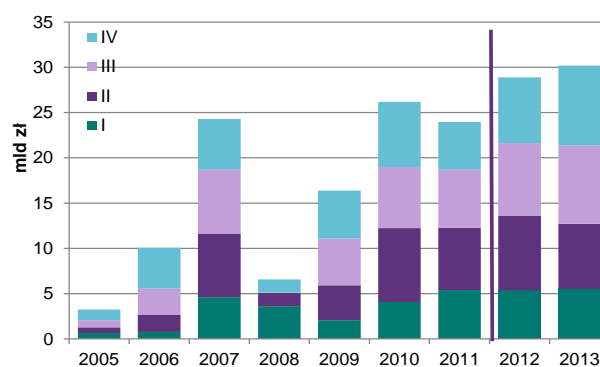
3. Disbursement of housing loans, interest rates

Figure 22 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.

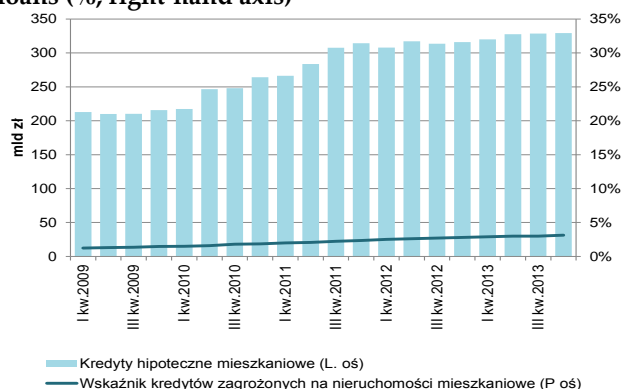
Figure 23 Estimation of quarterly disbursements of housing loans in PLN (in PLN billion)



Note: estimation of disbursements of newly granted loans in Poland in particular quarters is based on increases in the volume of housing loans to households. Since 2012 it has been adjusted for loan amortization and flows between the foreign currency loan portfolio and the zloty loan portfolio, available in the NBP reports. The entire banking system was taken into account, including credit unions (SKOK).

Source: NBP.

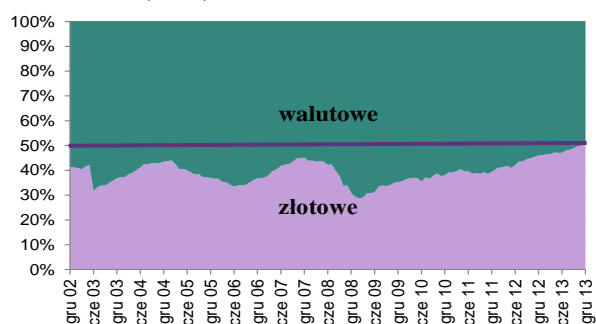
Figure 24 Housing loans to households (in PLN billion, left-hand axis) and the indicator of doubtful loans (% , right-hand axis)



Note to figure 24 and 57: 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)

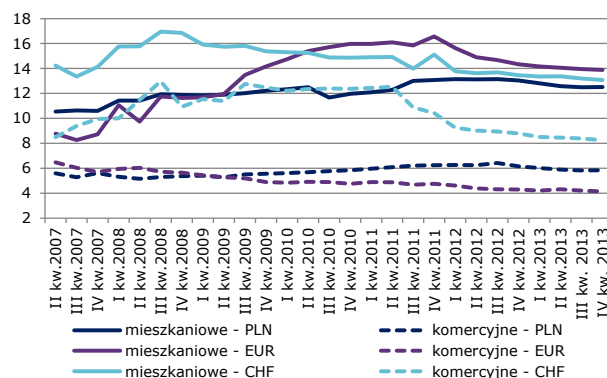
Source: NBP.

Figure 26 Structure of housing loan receivables from households (in %)



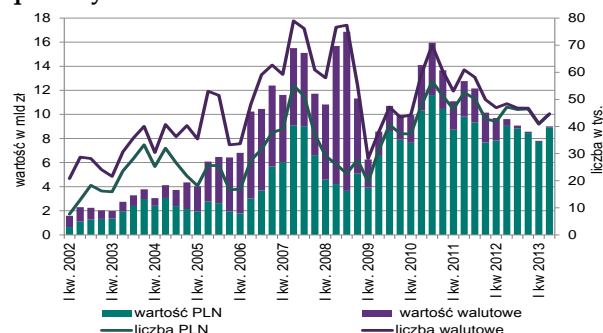
Source: NBP.

Figure 25 Average maturity of residential and commercial real estate loans weighted by the total value of loans in a particular quarter



Source: NBP.

Figure 27 New loan contracts: quarterly value and quantity



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

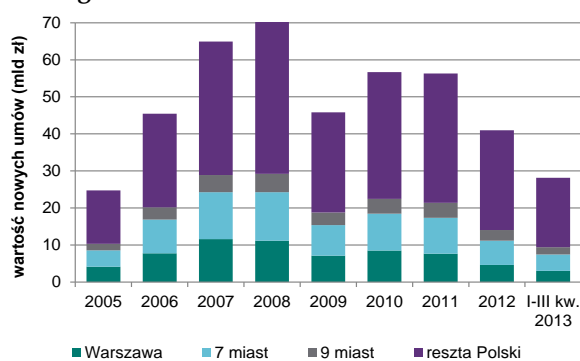
Source: ZBP.

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)

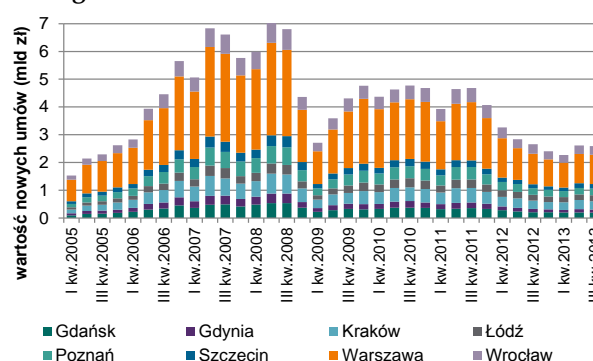
Date	Estimated amount of disbursed housing loan in Poland	Estimated value of housing transactions in the PM in 7 cities	Estimated amount of disbursed housing loans with client's down-payment for home purchase in the PM in 7 cities	Estimated amount of cash home purchases in the PM in 7 cities	Estimated 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	8 838	3 947	1 725	2 221	0.56

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 half of the volume of mortgage 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.

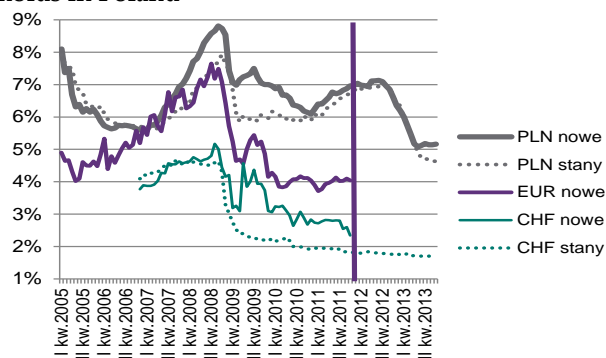
Figure 28 Geographical breakdown of value by new housing loan contracts in Poland

Source: NBP based on BIK data.

Figure 29 Geographical breakdown of value by new housing loan contracts in Poland's 8 cities

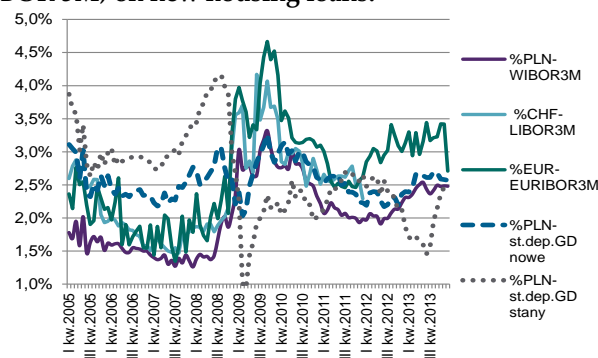
Source: NBP based on BIK data.

Figure 30 Interest rates on housing loans for households in Poland



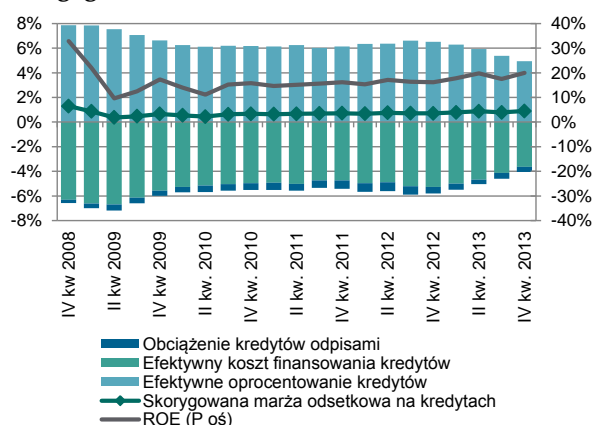
Note: Foreign currency loans ceased to be granted in 2012.
Source: NBP.

Figure 31 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.

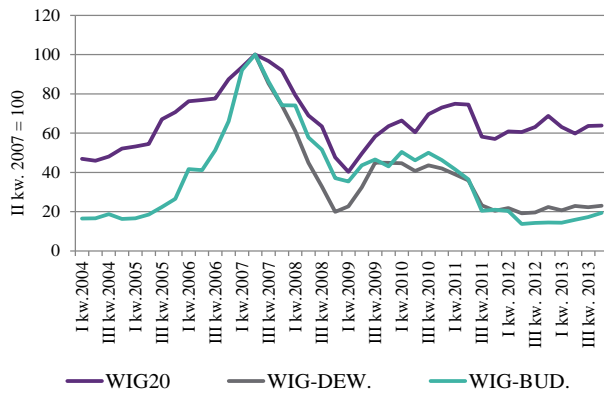
Figure 32 Estimated banks' yield on zloty denominated mortgage loans in Poland



Note to figure 32: 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, AMRON.

5. 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

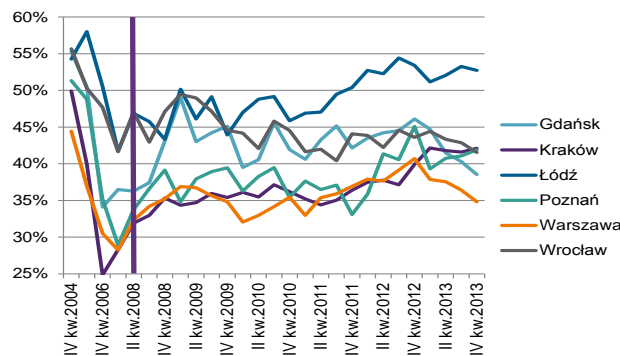
Figure 33 Growth in stock exchange indices: WIG20 and for real estate developers and construction companies (2007 Q2 =100)



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

Source: Warsaw Stock Exchange

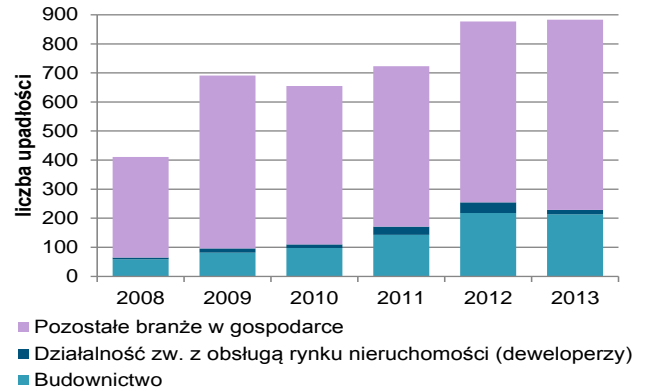
Figure 34 Share of direct construction costs per square meter of the residential building's usable area (type 1121¹⁴) in the transaction price



Note: up to 2008 Q2 - annual data

Source: NBP based on Sekocenbud.

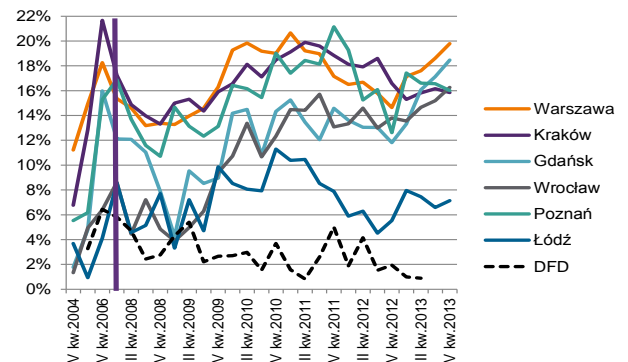
Figure 33 Number of bankruptcies in the sectors



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

Source: Coface Poland.

Figure 35 Rate of return on equity in investment projects in 6 cities and the actual rate of return of real estate developers

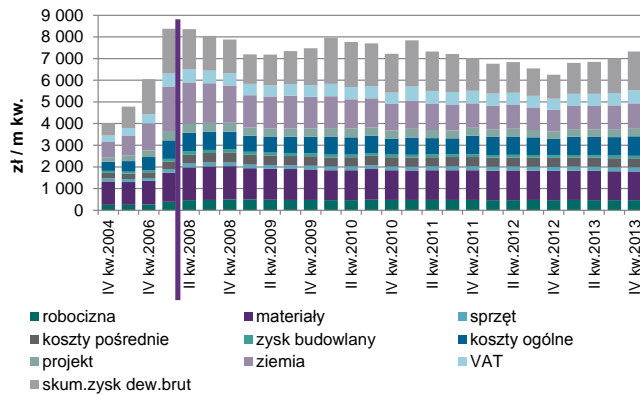


Note: The rate of return on equity from typical new investment projects assuming the currently applicable interest rates, banks' requirements and production costs; calculated on the basis of the diagram included in Annex 3 of the "Report on the situation of the Polish market of residential and commercial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

Source: NBP based on Sekocenbud, GUS (F01).

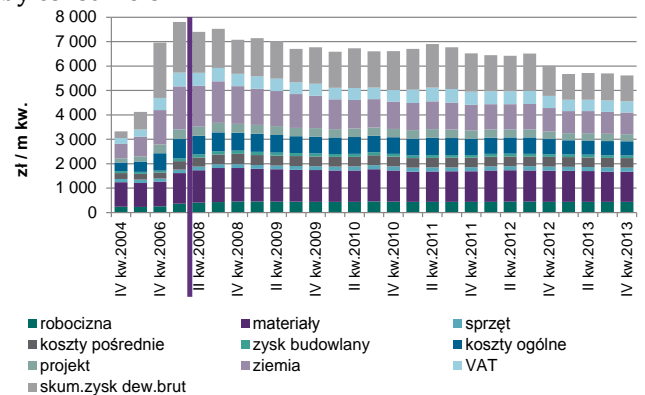
¹⁴Building (type 1121) monitored by NBP since the second half of 2004 as an average residential multi-family five-storey building with an underground parking space and retail premises on the ground-floor; traditional construction (overground part made from ceramic bricks). For the sake of convenience, 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 36 Warsaw – structure of price per one square meter of housing usable area (type 1121^{15/}) to be paid by consumers



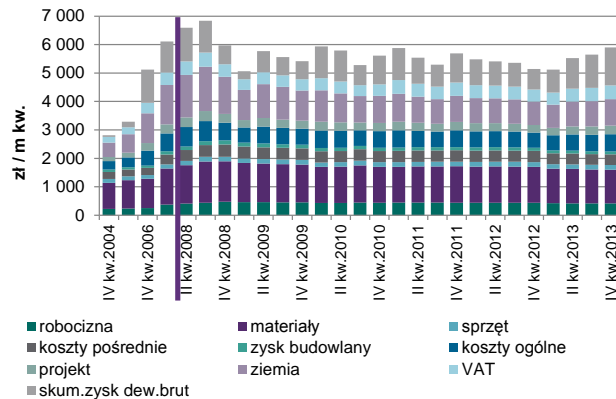
Note: data in figures 37-42 since 2008 Q2 in quarter-on-quarter terms, previously annual data.
Source: NBP based on Sekocenbud, REAS.

Figure 37 Cracow - structure of price per one square meter of housing usable area (type 1121^{15/}) to be paid by consumers



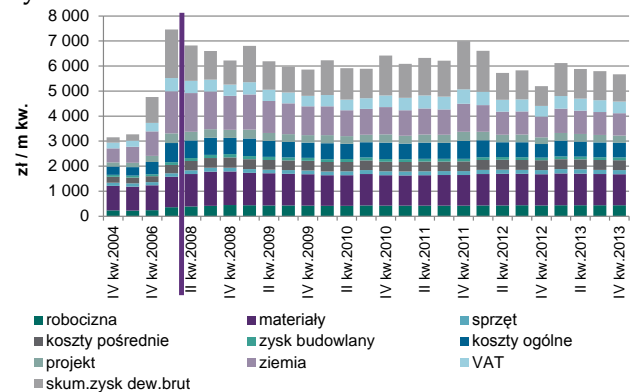
Source: NBP based on Sekocenbud, REAS.

Figure 38 Gdańsk – structure of price per one square meter of housing usable area (type 1121^{15/}) to be paid by consumers



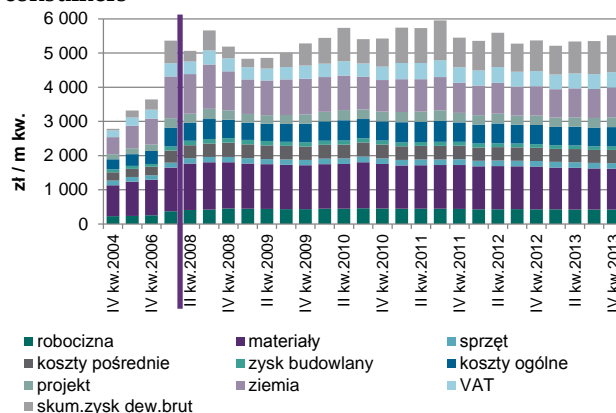
Source: NBP based on Sekocenbud, REAS.

Figure 39 Poznań – structure of price per one square meter of housing usable area (type 1121^{15/}) to be paid by consumers



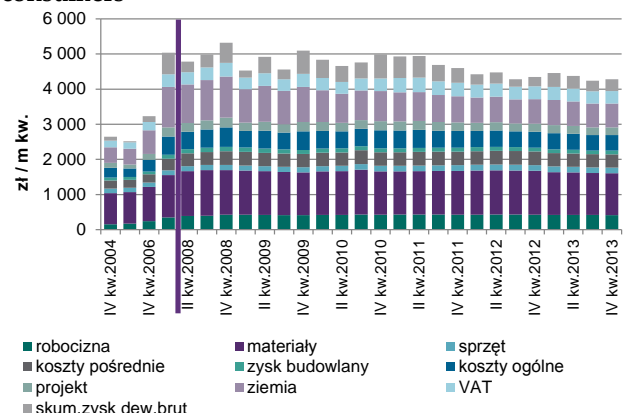
Source: NBP based on Sekocenbud, REAS.

Figure 40 Wrocław – structure of price per one square meter of housing usable area (type 1121^{15/}) to be paid by consumers



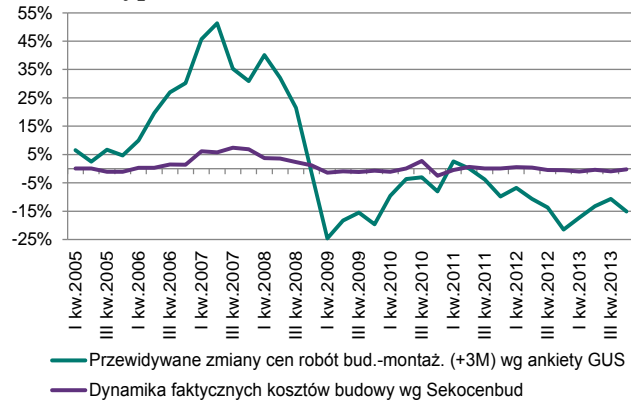
Source: NBP based on Sekocenbud, REAS.

Figure 41 Łódź – structure of price per one square meter of housing usable area (type 1121^{15/}) to be paid by consumers



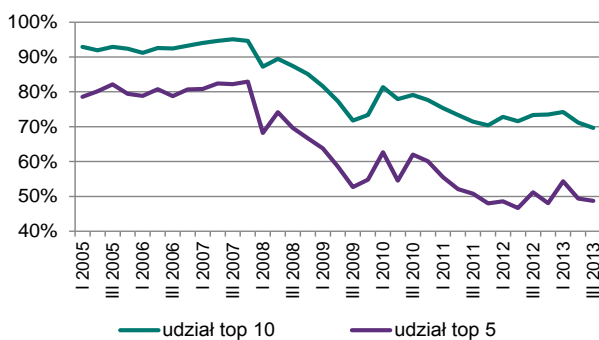
Source: NBP based on Sekocenbud, REAS.

Figure 42 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^{15/})



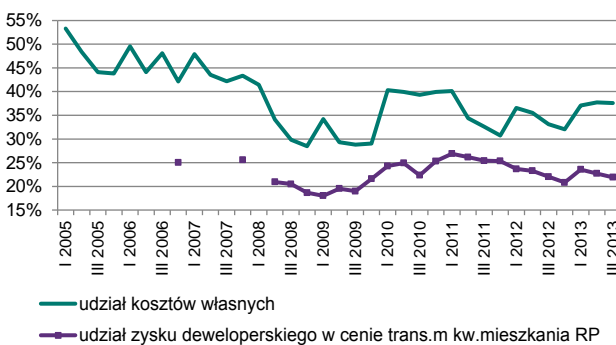
Source: NBP based on GUS data (business conditions survey), Sekocenbud.

Figure 44 Share of sales of 5 and 10 largest real estate development companies in total sales (calculations based on financial reports)



Source: NBP.

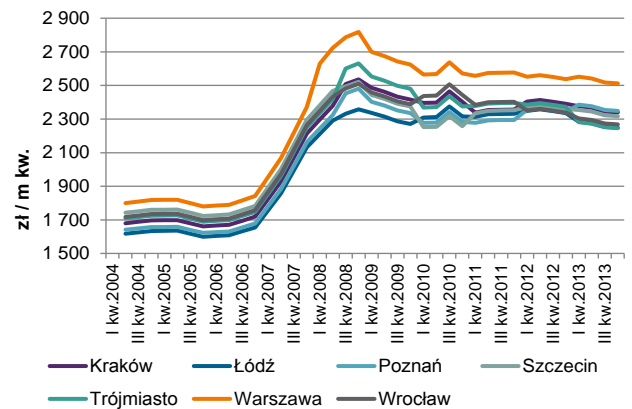
Figure 46 Share of own costs in the costs incurred by a large real estate development company (LD) and the share of real estate developer's return in the price per square meter of housing in PM



Note: share of the real estate developer's return until 2007, in relation to the fourth quarters only.

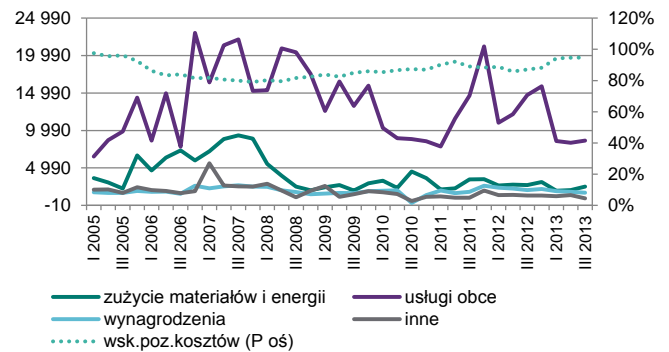
Source: NBP based on GUS (F01) and Sekocenbud.

Figure 43 Cost of construction of one square meter of the residential building's usable area (type 1121^{15/})



Source: NBP based on Sekocenbud.

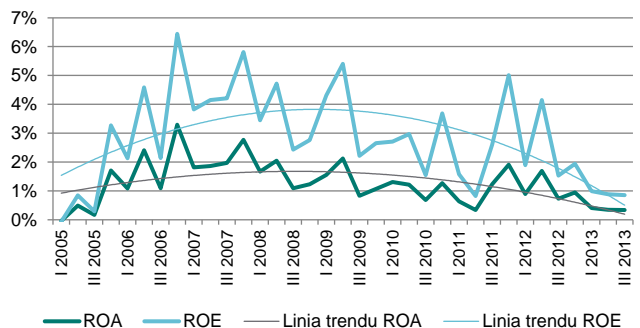
Figure 45 Costs incurred by a standard, large real estate development company (LD)



Note: according to the GUS, a large company employs an average of more 50 persons; related to Figures 46–53.

Source: NBP based on GUS (F01).

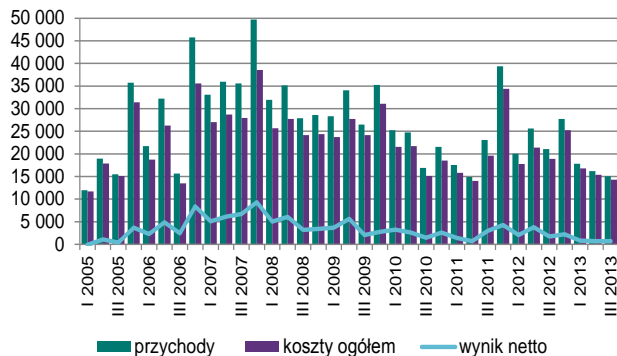
Figure 47 ROE and ROA of large real estate developers



Note: net result in a given quarter as compared to assets (equity) at the end of a given quarter.

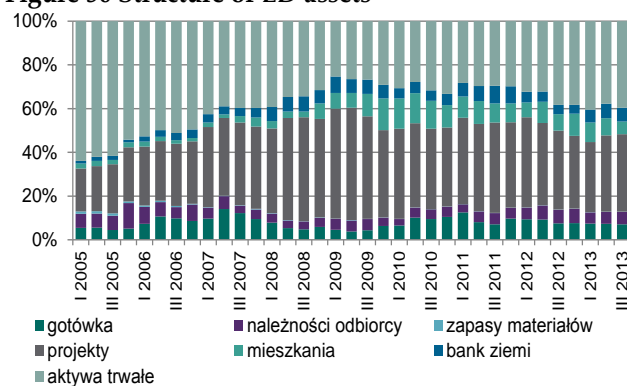
Source: NBP based on GUS (F01).

Figure 48 Economic indicators of LDs



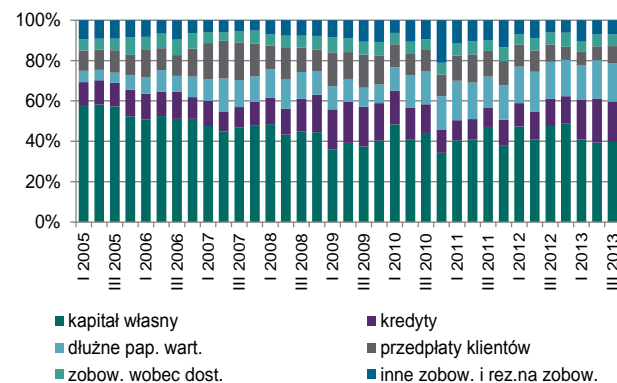
Source: NBP based on GUS (F01).

Figure 50 Structure of LD assets



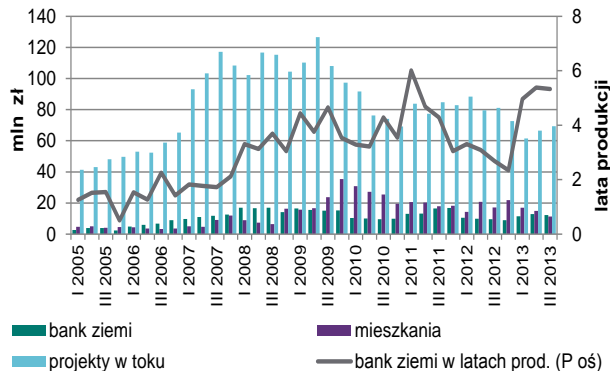
Source: NBP based on GUS (F01).

Figure 52 Structure of LD financing



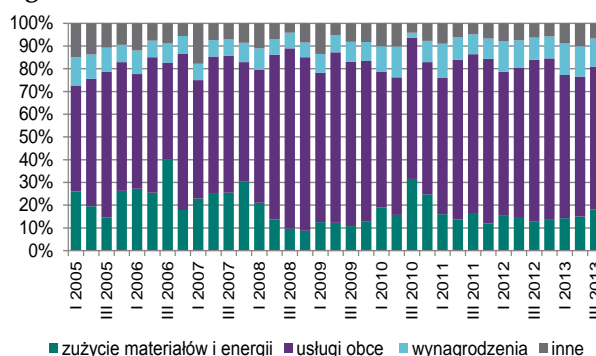
Source: NBP based on GUS (F01).

Figure 49 Situation of LDs



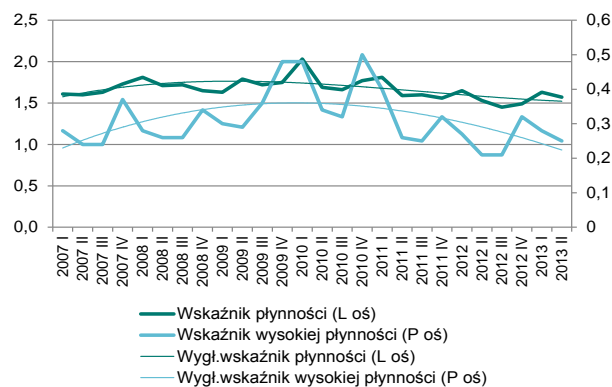
Source: NBP based on GUS (F01).

Figure 51 Structure of LD costs



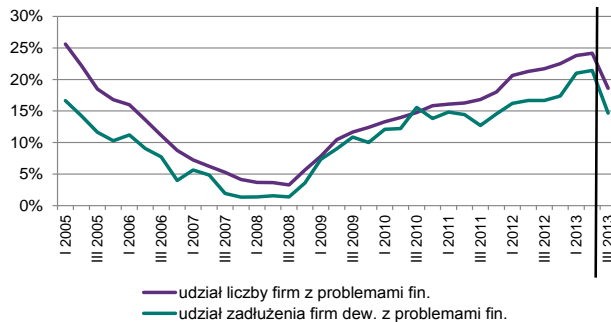
Source: NBP based on GUS (F01).

Figure 53 Liquidity of real estate development companies



Source: NBP based on GUS (F01).

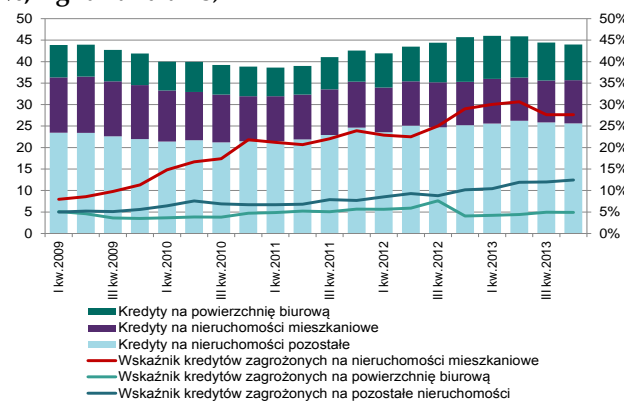
Figure 54 Real estate development companies facing financial problems



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.

Source: B300; only large loans exceeding PLN 500

Figure 56 Real estate loans to corporations (in PLN billion, left-hand axis) and share of doubtful loans (in %, right-hand axis)

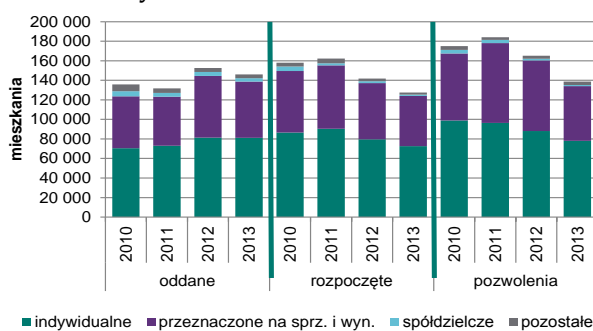


Note: data exclusive of BGK.

Source: NBP.

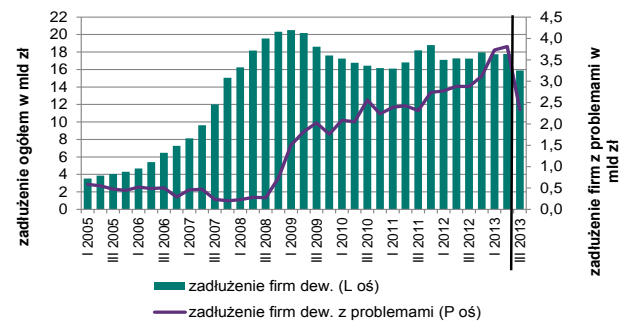
6. Residential construction and housing market in Poland in selected cities

Figure 58 Poland – structure of residential construction investors in years in 2011–2013



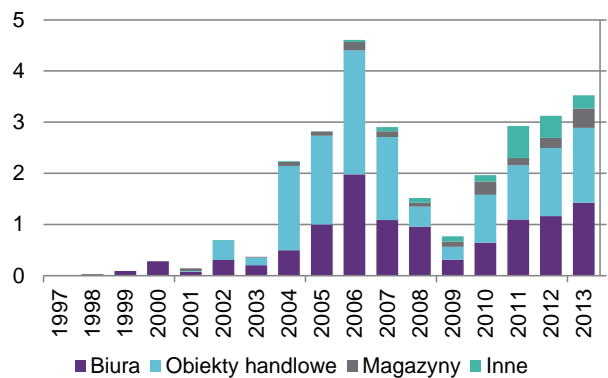
Source: GUS.

Figure 55 Value of real estate developers' debt (commercial banks) and debt of real estate developers facing financial problems



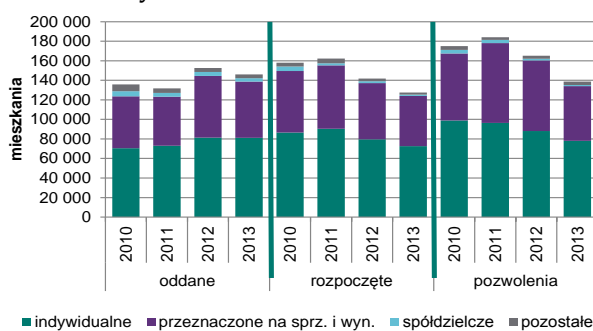
Source: B300; only large loans exceeding PLN 500

Figure 57 Value of investment transactions (EUR billion)



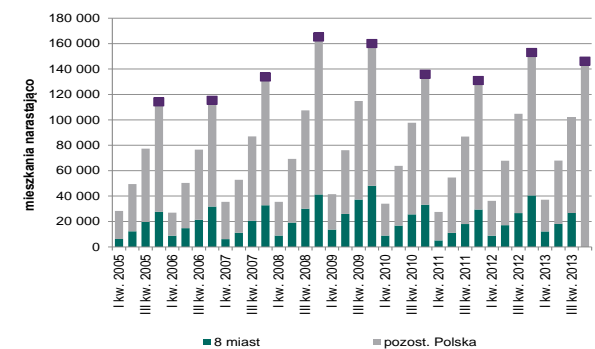
Source: Comparables.pl

Figure 58 Poland – structure of residential construction investors in years in 2011–2013



Source: GUS.

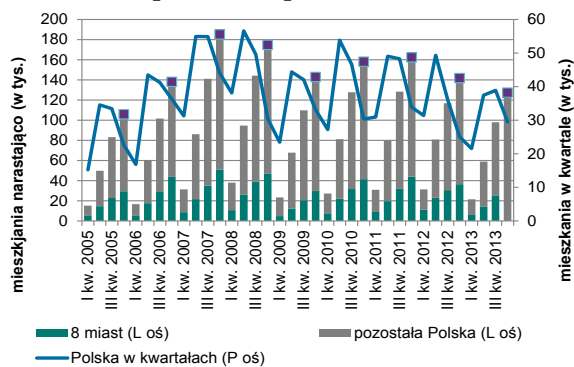
Figure 59 Poland – completed housing, in growing order



Note to figures 60-62: in violet colour only second quarters have been marked;

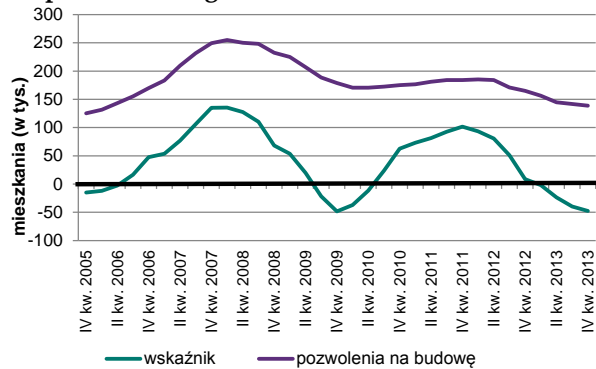
Source: GUS.

Figure 60 Poland – completed housing, in growing order and in quarter-on-quarter terms



Source: GUS.

Figure Housing market indicator in Poland and Poland's 8 cities* (housing under construction minus completed housing)

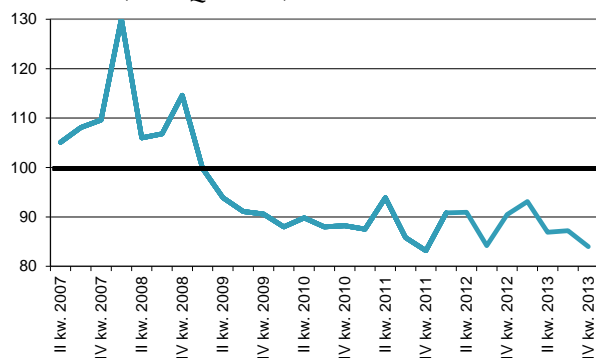


Note: The index is a 12-month rolling figure.

*Gdańsk, Gdynia, Łódź, Cracow, Poznań, Szczecin, Warsaw, Wrocław.

Source: NBP based on PABB and GUS.

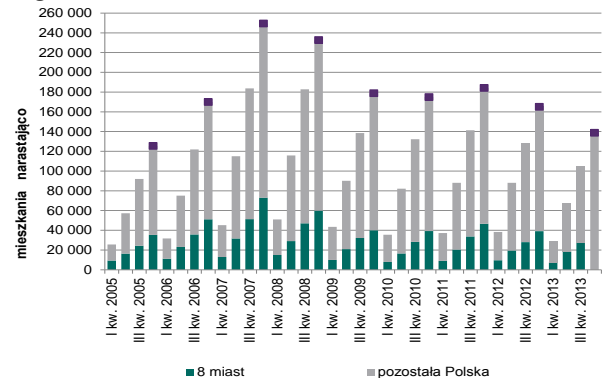
Figure 63 Growth in the average price per one square meter of housing put on sale in PM in Poland's 6 largest cities * (2007 Q1 = 100)



* Warsaw, Cracow, Gdańsk-Sopot-Gdynia, Wrocław, Poznań, Łódź.

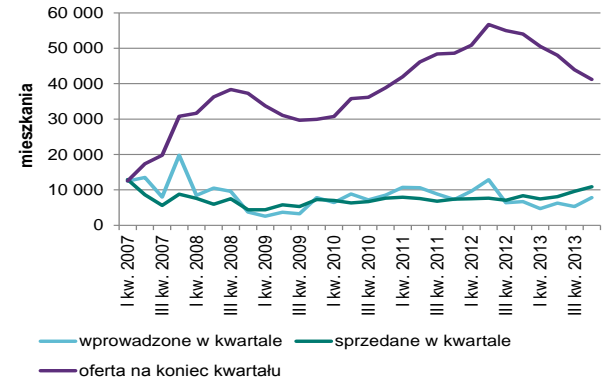
Source: REAS.

Figure 61 Poland – issued building permits, in growing order



Source: GUS.

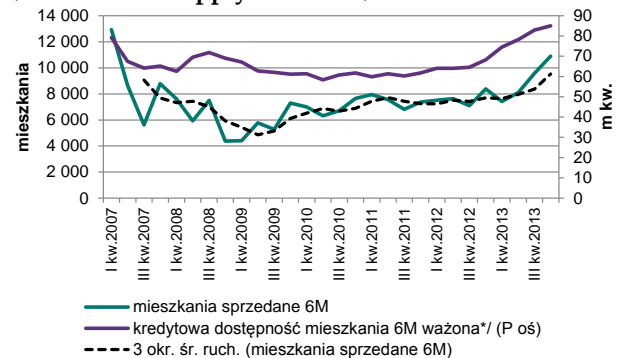
Figure 62 Number of housing units put on the market, both sold and offered for sale in Poland's 6 largest markets*



*Warsaw, Cracow, Gdańsk-Sopot-Gdynia, Wrocław, Poznań, Łódź.

Source: REAS.

Figure 64 Availability of loan-financed housing versus housing units sold in Poland's 8 largest cities * (demand and supply estimates)



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

Source: NBP based on REAS.

Figure 65 Structure of supply and demand * for housing with an area ≤ 50 square meters, PM in selected cities in Poland

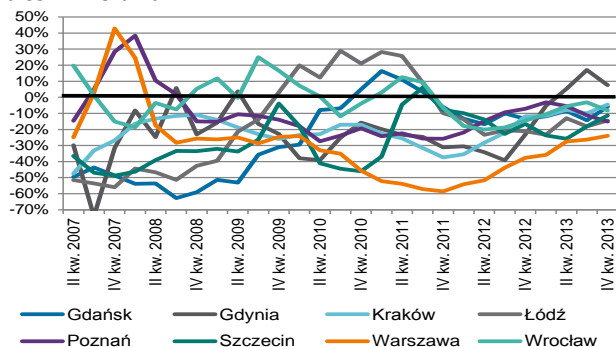
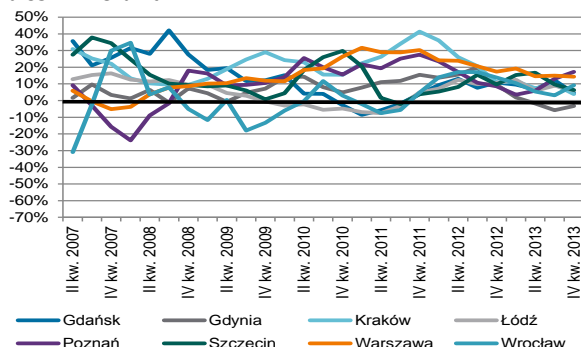


Figure 66 Structure of supply and demand * for housing with an area >50 square meters, PM in selected cities in Poland

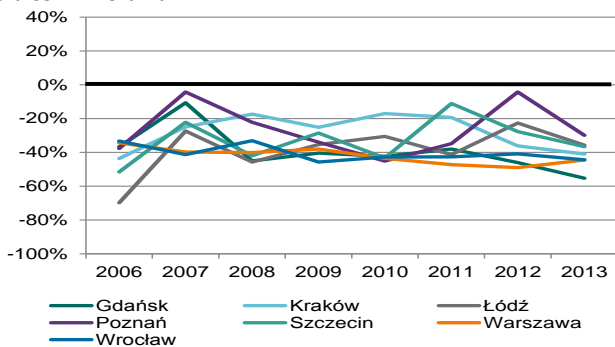


Note: Figure 67 presents a short-term mismatch between supply (developers' housing offer) and the estimated demand (housing transactions) in terms of the dwelling's size, according to the data from the BaRN database. The mismatch is calculated as the ratio of the share of housing units with usable area 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 68 is parallel. Figures 69-71 are parallel, only for other ranges of housing usable area.

Source: NBP.

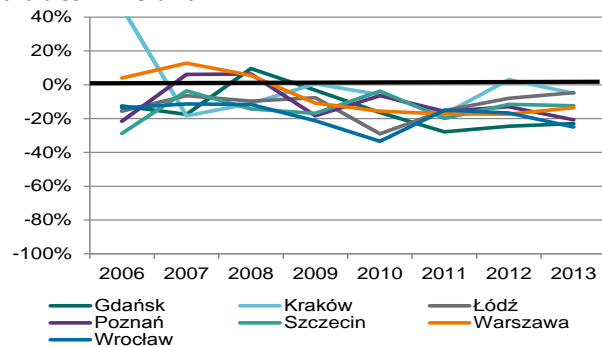
Source: NBP.

Figure 67 Structure of supply and demand * for housing with an area ≤ 39 square meters, SM in selected cities in Poland



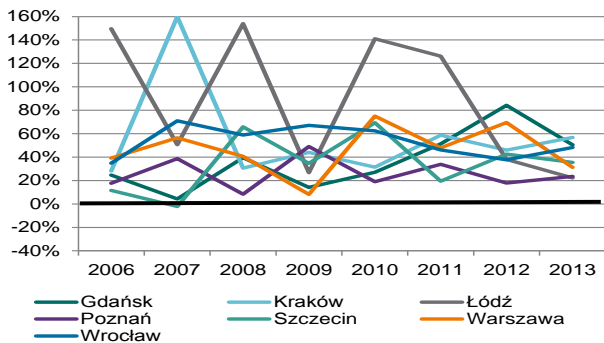
Source: NBP.

Figure 68 Structure of supply and demand * for housing with an area >40 ≤ 59 square meters, SM in selected cities in Poland



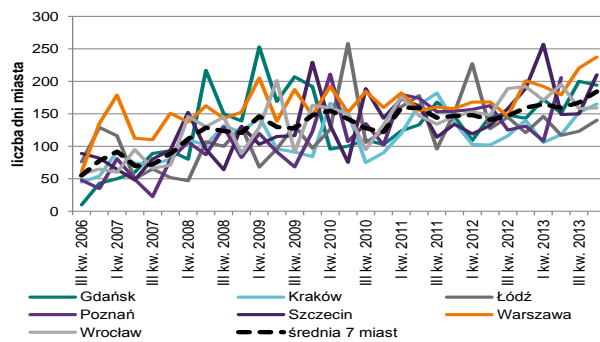
Source: NBP.

Figure 69 Structure of supply and demand * for housing with an area >60 ≤ 80 square meters, SM in selected cities in Poland



Source: NBP.

Figure 70 Housing sale time in SM in 6 cities



Source: NBP.

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