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Information on home prices and the situation in the housing and commercial real estate market in Poland in 2019 Q2

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The analysis of the situation in the real estate market in Poland in 2019 Q2¹ leads to the following conclusions:

- **In 2019 Q2, the housing market continued to experience heightened activity and price growth.** The number of sold contracts for the construction of dwellings in the largest primary markets remained high, albeit dropped slightly against the level recorded in the previous quarter. The observed increase in home prices was largely driven by growing construction costs, which was a consequence of a strong construction demand in the entire economy. Faced with insufficient supply in the developer market, housing demand was partly shifted to the secondary market adding to price growth in this market.
- **According to the NBP data the analysed period saw a growth in both average offer and transaction prices per square metre of developer housing² in the primary markets (PM) in the analysed cities and in average prices per square meter of housing in the secondary markets (SM). Growth was also observed in average offer prices per square meter of housing in the secondary markets (SM)³.** The majority of transactions in the Warsaw secondary market involved the sale of cheaper suburban housing, hence lower price growth was recorded. Yet, prices determined with the use of the hedonic index⁴ in 6 cities (6M) increased by approx. 5.1% in quarter-on-quarter terms and by 13.5% in year-on-year terms, which means a further increase in prices per square meter of comparable housing. In 10 cities (10M) hedonic prices remained at similar levels (3.0% q/q and 10.4% y/y) and in Warsaw, hedonic prices, determined on the basis of a significantly smaller sample, decreased by 0.2% in q/q terms, yet increased by 7.8% in y/y terms. Asking prices grew faster than transaction prices, which means that sellers expected faster price increases. The difference in average transaction and asking prices has increased, which may suggest that buyers do not accept high offer prices. Average (asking and transaction) rental rates per square meter of housing (excluding service charges and fees for utilities) saw an increase for another consecutive quarter. Also the supply of new housing in the local rental market has been on a rise.
- **The index of the estimated availability of housing in large cities** (based on average wages in the enterprise sector) **remained close to the level recorded in the previous quarter** and stood at 0.82 square metre in the analysed quarter; consequently, it was higher by 0.33 square metre (i.e. by 70%) against the record low observed in 2007 Q3. The index of the estimated maximum availability of a residential

¹ The analysis carried out in this issue of the Information is based on data available till 2019 Q2. Due to delays in access to certain data some charts contain information until 2019 Q1 (inclusive). Data series with average prices per square metre of housing, commercial rents and transaction prices per square metre of retail space reflect the pool of data available at that time. Historical data are subject to revision. Price quotations (BaRN database) for 2019 Q2 include approx. 116 thousand records, including approx. 28.9% concerning transactions and 71.2% concerning offers. The total of 3.3 million records have been gathered in the database, of which 23.6% concerning transactions and 76.4% concerning offers.

² As regards transactions in the primary market the period of the past three years saw an increase in the number of dwellings ready for occupation sold in the so-called turn-key standard, especially among housing purchased for investment purposes. This concerns in particular real estate developers quoted on the Warsaw Stock Exchange. This issue of the information analyses the features and prices of dwelling in a "core and shell" (developer's) standard.

³ Sellers increased their price expectations anticipating limited home supply in the primary market due to tensions seen on the side of project execution

⁴ The hedonic index of home prices is adjusted for differences in various attributes of dwellings (e.g. location, usable area, standard of finishing) sold in particular periods. The hedonic index is calculated with the imputed method. A hedonic price is an average transaction price from the base period multiplied by the hedonic index.

mortgage loan⁵ remained stable the same as the loan-financed availability of housing for an average household. Similar growth in wages and home prices was the main factor that helped availability indicators to stabilise.

- **Housing investment** (excluding transaction costs) **continued to be profitable in the short term** (profitability calculated as interest rate differential). Assuming the average rent likely to be negotiated in the Warsaw market and in six cities (6M), the profitability of housing investment continued to be high as compared to interest on bank deposits, slightly decreased in relation to yields on 10-year government bonds and remained close to the return likely to be achieved in the commercial property market. The relation of housing debt servicing costs to rent still enables to finance the cost of credit with income from rent.
- **In the analysed quarter the value of newly granted residential mortgage loans⁶ in PLN⁷** (excluding renegotiated agreements) **stood at approx. 14.7 billion**, i.e. was 23.5% lower as compared with the figures recorded in the previous quarter and 12.5% lower as compared with the 2018 Q2 figures. The NBP survey addressing the situation in the credit market⁸ has found that banks have not changed the criteria of granting residential mortgage loans, yet, have slightly changed certain lending terms (i.e. higher credit margin and non-interest cost of credit). At the same time, banks recorded a pick up in the demand for residential mortgage loans. In 2019 Q3, banks anticipate a tightening of mortgage lending policy and a slight increase in demand.
- **Since 2012 the share of FX denominated loans⁹ in the currency structure of residential mortgage loans at banks has been on a steady decline, supporting financial and macroeconomic stability.** The decreasing share of FX loans is both due the fact that banks ceased to grant such loans to persons not being

⁵ The maximum residential mortgage loan available in a particular market is a measure expressed in PLN thousand, taking into account banks' lending requirements and loan parameters (i.e. interest rate, amortisation period of 25 years, minimum wage understood as the minimum income after the repayment of loan instalments). The assessment does not take into consideration changes in banks' lending policy, including lending terms and criteria.

⁶ The data concerning the interest rate and the value of new residential mortgage loans based on the NBP data available in the "4OPN2PLN" tab on the NBP site: http://www.nbp.pl/home.aspx?f=statystyka/pieniezna_i_bankowa/oprocentowanie.html

⁷ According to BIK data, banks and SKOK credit unions granted 1.3% less residential mortgage loans than in the same period last year, in value terms by 10.9% more than in the first half of 2018. In the past three years, the share of residential mortgage loans in the amounts exceeding PLN 350 thousand increased (from 29% in 2016 to 41% in mid-2019), while the share of loans up to PLN 150 thousand decreased (from 18% to 9%). The quality index of the housing loan portfolio confirms the long-term low level of credit risk associated with granting housing loans. According to the AMRON report in 2019 Q2, the average amount of granted housing loan increased by approx. 8.3% y / y. The share of loans with LtV between 50 and 80% has not changed, while loans with LtV ratio from 80% to 30% have gained popularity. In the structure of new loan agreements, compared to 2018 Q2, the share of residential mortgage loans with a maturity of 15 to 25 years increased, while the share of loans with other maturities decreased. At the end of 2019 Q2, the number of active loan agreements exceeded 2.31 million i.e. increased in quarter-on-quarter terms by 36.3 thousand contracts and their value amounted to PLN 426.2 billion.

⁸ „Situation in the credit market – results of the senior loan officer opinion surveys, 2019 Q3, NBP, August 2019 https://www.nbp.pl/home.aspx?f=aktualnosci/wiadomosci_2019/kredytowy2019_3.html. The main factors behind changing demand for residential mortgage loans was improvement in household's economic situation.

⁹ According to the NBP data, the share of foreign currency denominated loans in the currency structure of residential mortgage loans extended by banks as at the end of 2019 Q1 decreased to 29% as compared to 30% in the preceding quarter and the peak 71% share recorded in 2009 Q1. According to BIK data, the value of residential mortgage loans portfolio as at 30 June 2019 stood at PLN 102.8 billion. Residential mortgage loans in CHF, similarly to those in PLN, perform well which is due to, apart from the income aspect (rising household income) to negative interest rates in Switzerland (LIBOR CHF).

in receipt of a regular income in a given currency and due to regular amortisation, earlier repayments and the fact that those loans are refinanced with PLN denominated loans.

- **Despite the minor downward trend in the estimated ROE on investment observed since 2016, this indicator continues at a high level – in 2018 Q2 it stood at 20%** (see Figure 38). Lower return on equity is the result of growing costs of homebuilders on account of growing prices of construction materials¹⁰, increasing wages and growing prices of developable land. Consequently, budgets planned a year ahead for development projects become obsolete even after a lapse of several months. This has a lesser impact on real estate development sector which operates on large margins, yet poses higher risk in the construction sector¹¹. According to BIK data¹² the number of defaulting payers (both to banks and contracting parties) in the construction sector rose by 900 in 2019 Q2 and the amount of outstanding payments reached PLN 5.4 billion (posting an increase of PLN 0.5 billion as compared to the previous quarter). According to Coface experts¹³ the number of bankruptcies and restructuring proceedings in the construction industry in the analysed quarter remained at the level recorded in the first half of 2018. At the same time, the share of the construction sector in the total number of bankruptcy and restructuring proceedings decreased by 2.5 percentage points in year-on-year terms, mainly as a result of a growth in the number of bankruptcies in transport, trade and agriculture.
- **2019 Q2 saw a record high number of both completed dwellings made ready for occupancy¹⁴, as well as the number of home construction starts¹⁵.** The estimated high rates of return on housing development projects and strong demand urged real estate developers to apply for subsequent home building permits¹⁶.
- **Annual sale of dwellings and home construction contracts in Poland's six largest primary markets¹⁷ remained at the level recorded in the previous quarter and reached approx. 62.4 thousand. The stock of unsold completed dwellings (and contracts for their construction) in those markets increased by approx. 0.1 thousand dwellings as compared with the preceding quarter to reach approx. 51.3 thousand**

¹⁰ Real estate developers claim that in the current situation, the fact of having their own labour force enables them to control costs more effectively and meet construction deadlines. Developers cope with the situation in different ways. Some of them have their own general contractors in their group. Others have gained new competencies and extended their area of operation. There are also some who focus on creating packages, i.e. breaking down construction works into smaller portions in order to reduce costs. Optimisation of investment costs has become a significant issue in the real estate market.

¹¹ Profitability of construction companies employing more than 49 persons stands at approx. 2% in 2019 Q2 (see Figure 103).

¹² <http://media.bik.pl/informacje-prasowe/455959/zaleglosci-firm-wynosza-juz-ponad-31-mld-zl-najwyzszy-wzrost-tym-razem>

¹³ According to Coface experts (Bankruptcy and restructuring proceedings of firms in Poland in the first half of 2019) the number of bankruptcies in the construction sector has been on a decline (in year-on-year terms). Yet, construction has already seen certain signs of deterioration with declining demand for construction materials and falling number of commenced investment projects.

¹⁴ According to the GUS data, in 2019 Q2 the total of 47.3 thousand dwellings were completed and made ready for occupancy i.e. approx. 9.3 thousand more than in 2018 Q2 and approx. 0.1 thousand less as compared to the previous quarter. In the period from 2018 Q3 to 2019 Q2 the number of issued building permits totalled approx. 196.7 thousand i.e. 13.9 thousand more than in the period from 2017 Q3 to 2018 Q2 (a 7.6% rise in year-on-year terms).

¹⁵ According to the GUS data, in 2019 Q2 the construction of approx. 61.5 thousand of dwellings was launched, i.e. by approx. 4.2 thousand less as compared to 2018 Q2 and by 7.6 thousand more as compared to the previous quarter. In the period from 2018 Q3 to 2019 Q2, the total of 223.6 thousand permits were issued i.e. 10.0 thousand more than in the period from 2017 Q3 to 2018 Q2 (increase by 4.7% y/y).

¹⁶ According to the GUS data, in 2019 Q2 approx. 71.5 thousand home building permits were issued in Poland, i.e. approx. 5.4 thousand more than in 2018 Q2 and approx. 14.2 thousand more than in the previous quarter. In the period 2018 Q3 to 2019 Q2 the total of approx. 253.5 thousand permits were issued, i.e. 1.7 thousand more than in the period 2017 Q3 to 2018 Q2 (a 0.7% y/y increase).

¹⁷ Based on JLL/REAS data.

at the end of 2019 Q2. On the other hand, the number of completed dwellings put on sale decreased. The home selling time in the primary market in the six largest markets remained at the 3.3 quarter level. This still means that new offers sell quickly and home buyers have limited opportunities to choose housing. The home selling time in the secondary market estimated by NBP decreased in all the analysed cities which means that demand was shifted into this currently cheaper market.

- **In the analysed period, the number of new home constructions under way¹⁸ in Poland slightly declined, mainly as a result of a larger number of dwellings whose construction was launched.** The persisting difference between transaction prices in the primary market and the secondary market in six cities (6M) and in Warsaw means that home buyers do not accept higher developers' prices and shift their demand to the secondary market. Also, the structure of dwellings on offer fails to meet buyers' preferences - not enough relatively small dwellings to meet the demand.
- High demand for housing continued to be accompanied by a strong demand for building land for development construction, especially in well-connected districts with developed urban infrastructure and retail facilities, especially in Wrocław and Kraków. Consequently, developable land prices continued to rise. Cheaper plots in poorer locations and with poorer infrastructure are also being purchased. The phenomenon of crowding out commercial (office) construction by residential construction has been observed - usually the mechanism works the other way around.
- **As of 1 January 2019 the perpetual usufruct right to the land on which apartment buildings and single-family houses are built, changed, by operation of law, into ownership right¹⁹ to such land.** Implementation of this Act means that significant amounts of assets will be transferred to households which may have a positive impact on consumer demand (proprietary effect). Yet, payment formalities are not very progressing.

¹⁸ The indicator calculated on the basis of GUS data, as the sum of the last four quarters difference between the number of dwellings whose construction was started in the quarter and dwellings completed and made ready for occupancy in the quarter.

¹⁹ Journal of Laws of 2018, item 1716 (the Act of 20 July 2018, amended on 4 December 2018). The total of 2.5 million home owners will be granted this ownership right. Transfer of ownership fee may be repaid during a period of 20 years. The amount of the fee equals the annual fee for perpetual usufruct right. In the case of land held by the State Treasury, the Law provides for obligatory rebates (in the case of a single-time payment); in the case of municipal real estate the amount of rebates is fixed by municipalities. In the cooperative apartment buildings after the right to the land is changed into ownership right, the fees will be included in home maintenance fees; if the transfer of ownership fee includes rebates, the cooperative will have to take them into account and reduce the cooperative owner's fee proportionally to the dwelling's area to which the cooperative owner holds cooperative ownership right. Transactions involving dwellings constituting a separate real estate, whose ownership grants share in land granted for long-term use under perpetual usufruct right cause problems - some land and mortgage registry courts demand certificates attesting ownership transformation when making entries to the land and mortgage registers which is a time-consuming procedure, often hindering the possibility to conclude the home purchase contract.

Table 1 Housing programmes implemented in Poland

Programmes	Legal basis for the operation of the programme	Programme launch	Anticipated expenditure	Expected effects	Effects until now
National Housing Scheme (NHS)					
1) Housing Plus packet					
1.1) Scheme supporting the creation of dwellings for rent, protected housing, dormitories, shelters for the homeless, heating rooms and temporary dwellings	Journal of Laws of 2018 item 2321	2007	PLN 6.2 billion in the years 2018- 2025		Under the scheme 1612 projects worth approx. PLN 3.8 billion were qualified for financing. The scheme assumes the creation of over 28 thousand dwellings/ accommodation places.
1.2) Support scheme for the construction of social rental dwellings (government programme supporting housing construction in the form of debt financing, on preferential terms, of development and construction projects aimed to create dwellings for rental or dwellings to which occupiers will be given a cooperative housing tenancy right)	Journal of Laws of 2018, item 1020, as amended	2016	PLN 4.5 billion over a period of 10 years	30 thousand dwellings over a period of 10 years	Under the scheme: -212 applications have been submitted for the total amount of PLN 1.2 billion, for the construction of 9747 dwellings, - 94 loan agreements have been signed for the total amount of PLN 468 million intended to finance the construction of 4041 dwellings, - 2261 dwellings in 53 development projects were completed and made ready for occupancy.
1.3) Housing Plus - equity (PFR Nieruchomości)	Resolution of the Council of Ministers No. 115/2016 of 27 September 2016	2016			A total of 695 dwellings were completed and made ready for occupancy under the scheme; 663 dwellings are under construction and approx. 15.5 thousand dwellings are at the pre-construction stage.
2) "Housing for the start" scheme	Journal of Laws of 2018, item 1540 and Journal of Laws of 2019, item 1309	2019	Maximum limit of expenditure in 2019-2028 - PLN 16 billion	Total subsidy to be disbursed in the years 2019-2034 amounted to PLN 34.5 million	Under the scheme: - 6 municipalities submitted 19 applications for the conclusion of agreements for the construction of 710 dwellings, - 2 municipalities signed 7 agreements for subsidies for 378 dwellings, Total subsidies forecast to be paid out under agreements signed in the next 15 years: over PLN 35 million, of which almost PLN 1.5 million in 2019; BGK paid out rental subsidies amounting to approx. PLN 65.5 thousand.
Other (besides NHS)					
Housing for the Young	Journal of Laws of 2019, item 1116	2014	PLN 3.45 billion in the years 2014-2018		In 2014-2018 subsidies were granted to 110.4 thousand home buyers in the amount of PLN 2.9 billion, of which approx. PLN 0.9 billion for secondary market housing. Financial support allocated for the partial repayment of the loan is still granted. Loans with co-financing of home buyers' down payment granted in 2014-2018 will continue to be controlled.
Borrowers' Support Fund	Journal of Laws of 2015, item 1925	19 February 2016	PLN 593.8 million		In total, 920 agreements granting support in the amount of 20.1 million have been concluded. Subsidies in the amount of PLN 15.8 million have been disbursed
Rental Housing Fund (BGK Nieruchomości)		2014			The offer comprises 1820 dwellings in 16 development projects developed in 6 cities.

- **Imbalances resulting from the previously observed excess supply of space for rent as compared to the demand for it have started to decrease in the office real estate markets.** The favourable economic situation, including the creation of new jobs, also by international companies, is a factor boosting demand. New trends related to the use of office space (e.g. coworking offices) can also contribute to the sustained strong demand for such space. The supply of new space and space under construction continues on a high level. According to market information, at the end of 2019 Q2, the stock of office space in the nine largest office markets²⁰ exceeded 10.8 million square meters; approx. 1.7 million square meters of office space was under construction. The vacancy rate in the nine largest office markets recorded a slight drop to 9% against 9.2%²¹ at the end of 2019 Q1.
- **The retail space market continues to see a slight oversupply of space,** whereas the vacancy rate all over Poland at the end of 2018 Q2 remained at a level of approx. 3,6%²². At the end of 2019 Q2 the total stock of modern commercial space exceeded 12 million square metres²³. A minor increase in new retail space may indicate that investors consider the market to be saturated, which is confirmed by the launch of projects transforming commercial centres into commercial and entertainment centres.
- High availability of foreign financing has contributed and will continue to favour further growth in office space and, to a lesser extent, retail real estate. This phenomenon may be largely attributed to a low level of interest rates in developed countries, and thus a low opportunity cost.
- **The warehouse market in Poland continues in the expansion phase.** Demand for warehouse space continues to be high. Demand for warehouse space comes from logistic, courier and manufacturing companies, which is a natural consequence of the development of e-commerce. At the end of 2019 Q2, the total stock of the warehouse space exceeded 17 million square metres and the vacancy rate all over Poland remained at the level of 5.1%²⁴.
- **The estimated value of investment transactions²⁵ in the commercial real estate market at the end of 2019 Q2 amounted to EUR 3 billion, with office space accounting for 59.9% of the value of transactions, retail space for 23.4% and warehouse space for 9.1%.**
- **The value of loans granted by domestic banks to enterprises for real estate development at the end of 2019 Q2 amounted to approx. PLN 64.12 billion,** which comprised loans granted to real estate developers for residential real estate, office space, retail space, warehouse space and industrial space and other real

²⁰ The nine office real estate markets include: Warsaw, Kraków, Wrocław, Tri-City Agglomeration of Gdańsk, Sopot and Gdynia, Katowice, Łódź, Poznań, Szczecin, Lublin.

²¹ See Report Colliers International: Market Insights, 1st half of 2019, Poland

²² See Report Colliers International: Market Insights, 1st half of 2019,, Poland.

²³ See Report Colliers International: Market Insights, 1st half of 2019, Poland

²⁴ See Report Colliers International: Market Insights, 1st half of 2019, Poland

²⁵ The above investments concern the sale of the entire operating company which rents the building and derives income from it. Such transactions are concluded between: 1/ the real estate developer who has commercialized the property and sells it to the investor, or 2 / two investors. However, it should be emphasized that these data do not make it possible to draw conclusions as to the participation of foreign investors in possession of commercial real estate in Poland. There is a very large stock of real estate that the owner has built for their own purposes, sometimes even decades ago. Moreover, some domestic investors set up real estate development companies that build rental property for them and then manage it. The above economic events are not accounted for in the statistics on commercial investment.

estate²⁶. Corporate debt resulting from residential real estate at the end of 2019 Q2 amounted to PLN 5.2 billion against PLN 5.1 billion in 2019 Q1. The value of loans for office real estate declined to PLN 16.1 billion as compared to PLN 16.6 billion in 2019 Q1. The value of loans for retail real estate amounted to PLN 17.5 billion (remained at the 2019 Q1 level) and for warehouse and industrial real estate totalled PLN 8.4 billion (a PLN 0.4 billion decline as compared to 2019 Q1.). The value of loans granted for other real estate²⁷ totaled PLN 16.9 as against PLN 16.7 billion in 2019 Q1. Changes in debt levels in 2019 stem partially from the fact that banks adjust their reporting standards to the requirements of the new FINREP.

- **The ratio of impaired loans in the total corporate debt for real estate declined in relation to the previous quarter.** The share of impaired loans in the total loans for office real estate at the end of 2019 Q2 stood at 6.8% against 7.0% in 2019 Q1 and the share of loans granted for retail space stood at 11.2% as compared to 11.4% in 2019 Q1. The same indicator for loans for warehouse and industrial space amounted to 7.6% as compared to 7.8% recorded in 2019 Q1 and for other real estate - to 8.6% as compared to 8.9% in 2019 Q1. The ratio of non-performing loans among loans granted for residential real estate amounted to 21.6%, which is mainly due to banks holding in their loan portfolio the loans from previous years²⁸.
- **Transaction rents for A class office space in Warsaw, quoted in EUR per square metre per month, slightly declined, remaining stable in the remaining eight large cities²⁹ and in seven other smaller voivodship cities.** The highest rents in A class office buildings were quoted in Warsaw where they reached approx. EUR 19/sq. m./month. In other analysed voivodship cities those prices ranged from EUR 11 to 14/sq. m./month. **Rents in B class office buildings in the largest markets also remain stable.** In 2018 Q4 the hedonic index of rents³⁰, which is resistant to the change in the analysed sample, remained stable for Warsaw and declined for Poznań. However, for Tri-City Agglomeration, this index showed a slight increase which means that space of similar quality is leased at a higher rent than half a year ago. At the end of 2019 Q2 the vacancy rate in Warsaw stood at 8,5%³¹. The vacancy rate of office space depends on the age³² and mainly on the location of the office building³³.
- **Transaction rents for retail space in shopping centres in Warsaw remained stable, yet, they followed a slight upward trend in the markets of other cities³⁴.** In 2018 Q4 the hedonic index of rents for Warsaw and Poznań remained stable, and increased slightly for Tri-City Agglomeration as compared to 2018 Q2. In the market of small retail real estate the median of the offer price all over Poland showed a slight

²⁶ As of 2018 the category of loans granted for other real estate was divided into three categories, namely loans for warehouse and industrial space, loans for retail premises and loans for other real estate

²⁷ See the 2018 FINREP definition: „Loans for other real estate - loans for real estate other than residential, office, retail, industrial and warehouse premises (sub-category of loans for other real estate)“.

²⁸ See: Business Stability Report, NBP, December 2018. On the other hand, a rise in this indicator recorded at the beginning of 2018 was probably the result of the changes in bank accounting and reporting standards.

²⁹ In the case of commercial real estate, the breakdown of the analysed cities is different than in the case of residential real estate. Eight cities include: Katowice, Kraków, Łódź, Poznań, Tri-City Agglomeration, Wrocław. Seven cities include: Białystok, Bydgoszcz, Kielce, Olsztyn, Opole, Rzeszów, Zielona Góra.

³⁰ The hedonic index of rents for commercial space includes an adjustment taking into account differences in attributes of buildings and space of the leased premises (e.g. location, usable area, finishing standard) in particular periods. The hedonic index is calculated with the imputed method.

³¹ See Report Colliers International: Market Insights, 1st half of 2019, Poland.

³² Cushman & Wakefield, Marketing as one of the key factors supporting the modernisation process of older office buildings, 2018.

³³ See: Knight Frank, Report: Poland, Commercial Market, 1st half of 2018.

³⁴ The analysis refers to premises with an area ranging from 100 to 500 square metres located in shopping centres in economically significant parts of cities.

decline, whereas in the market of office real estate the median of the offer price all over Poland remained stable.

The figures below describe the key developments in the housing market in Poland's major cities in 2019 Q2.

The figures present:

- 1) home prices (Figures 1-15),
- 2) availability of loan-financed housing, loan availability, profitability of housing investment (Figures 16 - 23),
- 3) housing loan disbursements and interest rates (Figures 24-33),
- 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 34-49),
- 5) housing construction and the residential market in selected cities in Poland (Figures 50-63),
- 6) rents and transaction prices of commercial real estate (Figures 64-70),
- 7) in-depth analysis of the situation of real estate developers and construction companies involved in the construction of buildings, sale of building materials and manufacturing of building materials (Figures 71-148).

The analysis of home prices (offer, transaction and hedonic) in the primary and secondary markets as well as housing rents relies on the data derived from the housing market survey of the Real Estate Market Database (BaRN, NBP). On the other hand, as part of the survey of the commercial real estate market, the Commercial Real Estate Market Database (BaNK, NBP) data on rent, offer prices and transaction prices of commercial real estate are collected and analysed.

In addition, data from PONT Info Nieruchomości, AMRON and SARFIN Polish Banks' Association and Comparables.pl were used in the analyses. The analyses and reports of REAS/JLL, the Polish Financial Supervision Authority and the aggregate credit data from the Credit Information Bureau were also used. For the structural market analysis, data published by the Central Statistical Office and many studies containing sector data were used.

List of abbreviations:

5M	5 largest cities: Gdańsk, Kraków, Łódź, Poznań, Wrocław
6M	6 largest cities: Gdańsk, Gdynia, Kraków, Łódź, Poznań, Wrocław
7M	7 largest cities: Gdańsk, Gdynia, Kraków, Łódź, Poznań, Warszawa, Wrocław
10M	10 large cities: Białystok, Bydgoszcz, Katowice, Kielce, Lublin, Olsztyn, Opole, Rzeszów, Szczecin, Zielona Góra
BaNK	Commercial Real Estate Market Database, created by NBP
BaRN	Real Estate Market Database, created by NBP
BIK	Credit Information Bureau
CPI	Consumer Price Index
DFD	Large real estate developer
GD	Households
GUS	Statistics Poland
EURIBOR	Euro Interbank Offer Rate
KNF	Polish Financial Supervision Authority
LIBOR	London Interbank Offered Rate
LTV	Loan-to-Value
MDM	Government-subsidised housing scheme Mieszkanie dla Młodych (Housing for the Young)
NBP	Narodowy Bank Polski
PONT	PONT Info Nieruchomości
RNS	Government-subsidized housing scheme Rodzina na Swoim (Family on their Own)
RP	Primary housing market
RW	Secondary housing market
ROE	Return on equity
WIBOR	Warsaw Interbank Offered Rate
WIG20	Index including top 20 companies listed on the Warsaw Stock Exchange with the highest value of publicly traded shares
ZBP	Polish Bank Association
ZKPK	Accumulated index of changes in banks' credit policy criteria

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

Figure 1 Transaction prices per square metre of housing in Warsaw and in 6M- PM

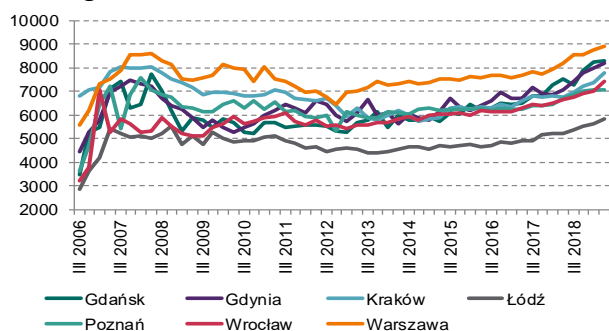
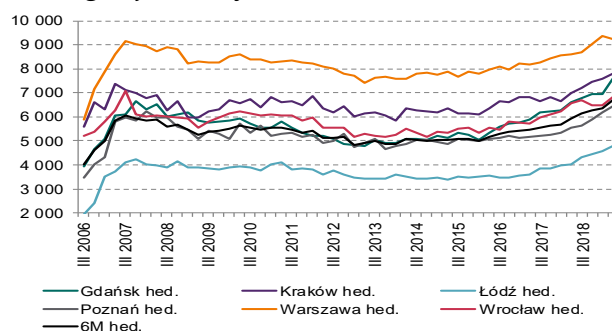


Figure 2 Transaction prices per square metre of housing adjusted by the hedonic index in 6M- SM



Note: the home price database of NBP (BaRN) has existed since 2006 Q3; description of the database may be found in the “Report on home prices and the situation in housing and commercial real estate market in Poland in 2017” available on the bank’s website.

Source: NBP

Source: NBP

Figure 3 Weighted average price per square metre of housing, offers (O) and transactions (T) - PM

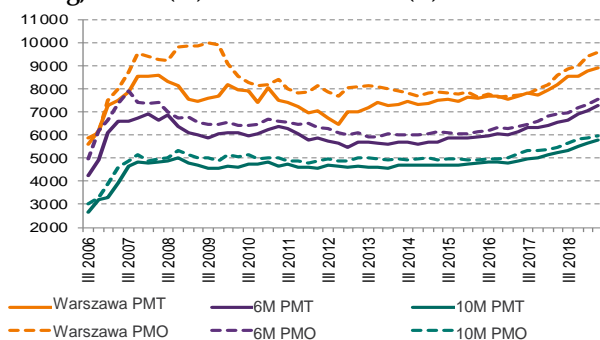
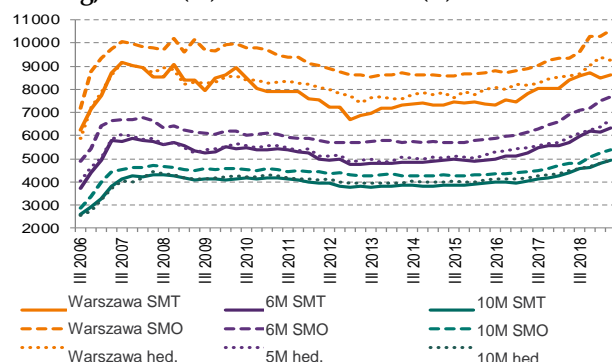


Figure 4 Weighted average price per square metre of housing, offers (O) and transactions (T)- SM



Note to Figures 3-15: the price weighted with the share of housing stock, the average price for Warsaw

Source: NBP

Source: NBP

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

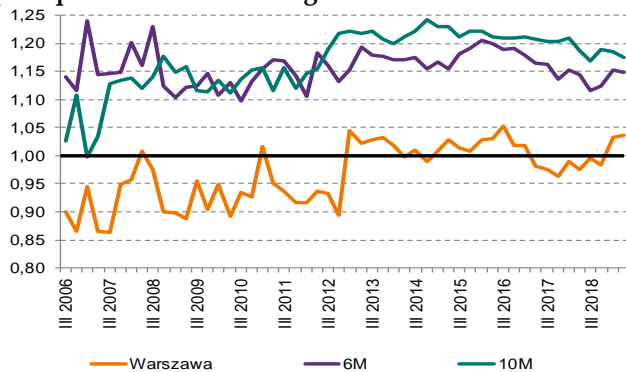
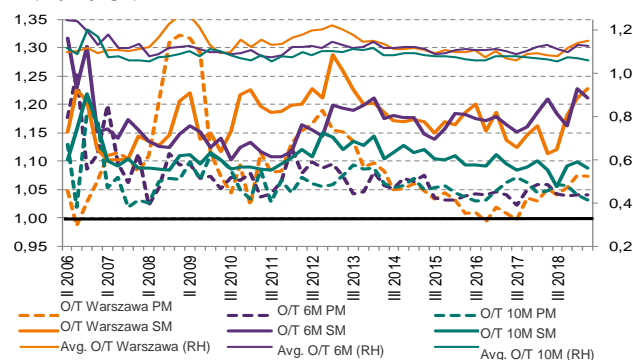


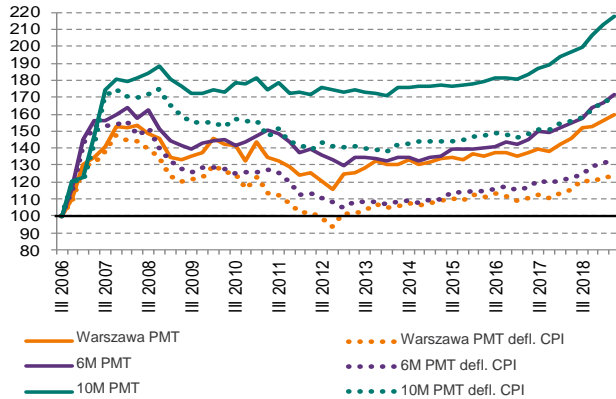
Figure 6 Ratio of the average weighted offer price (O) to transaction price (T) per square metre of housing – PM and SM



Source: NBP

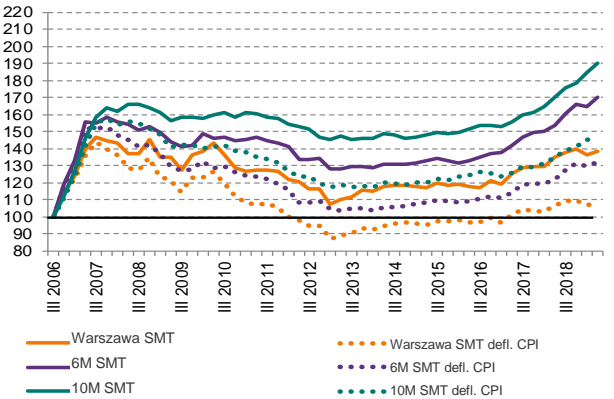
Source: NBP

Figure 7 Index of the average weighted transaction price per square metre of housing in PM, real to CPI deflated price (2006 Q3 = 100)



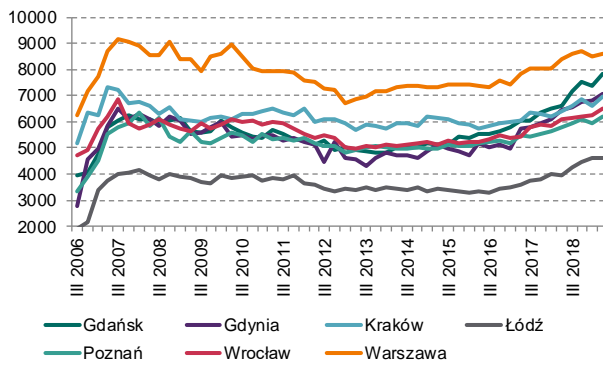
Source: NBP, ZBP (AMRON), Statistics Poland (GUS)

Figure 8 Index of the average weighted transaction price per square metre of housing in SM, real to CPI deflated price (2006 Q3 = 100)



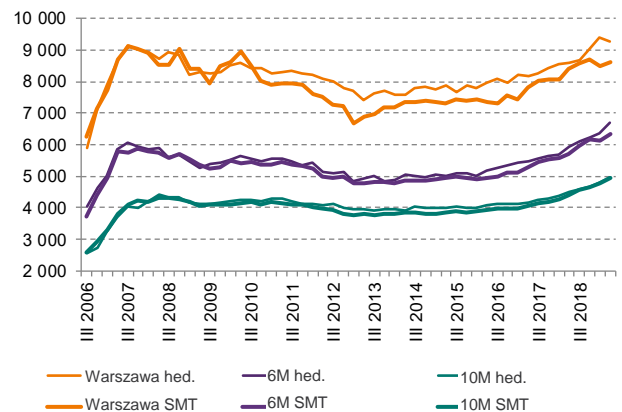
Source: NBP, ZBP (AMRON), Statistics Poland (GUS)

Figure 9 Transaction price per square meter of housing in SM in Warsaw and in 6M



Source: NBP

Figure 10 Weighted average transaction price per square metre of housing in SM and average price adjusted by the hedonic price index, in selected markets



Source: NBP

Figure 11 Average offer prices per square metre of housing in PM, selected markets

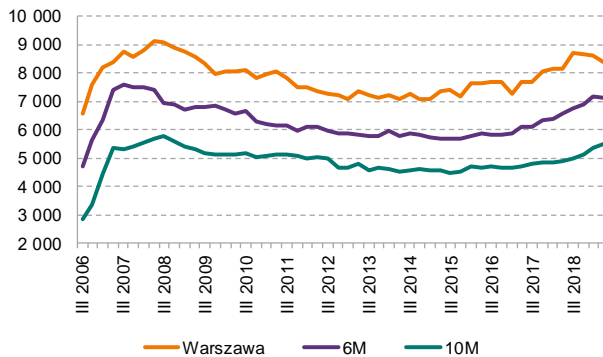
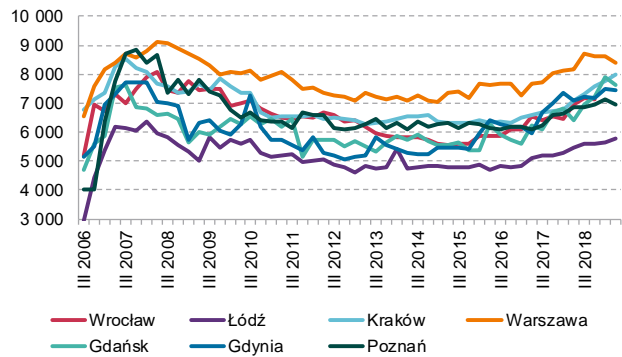


Figure 12 Average offer prices per square metre of housing in PM (Warsaw and 6M)

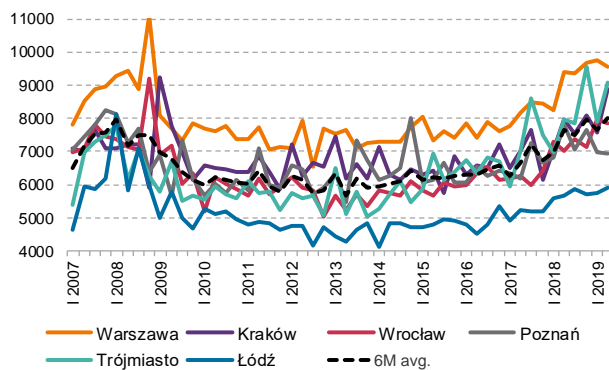


Note to Figures 11-12: prices are collected from all available sources.

Source: PONT Info Nieruchomości

Source: PONT Info Nieruchomości

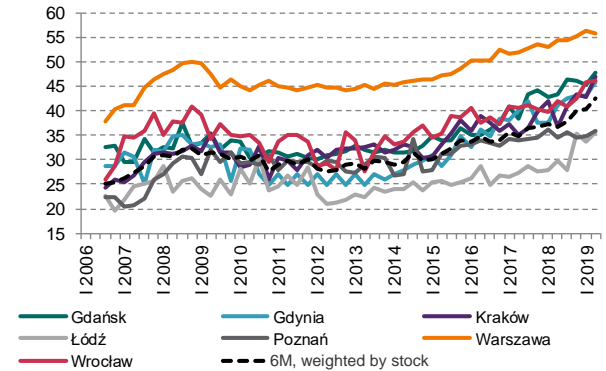
Figure 13 Average offer prices per square metre of housing, new home construction contracts launched – PM, selected markets



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

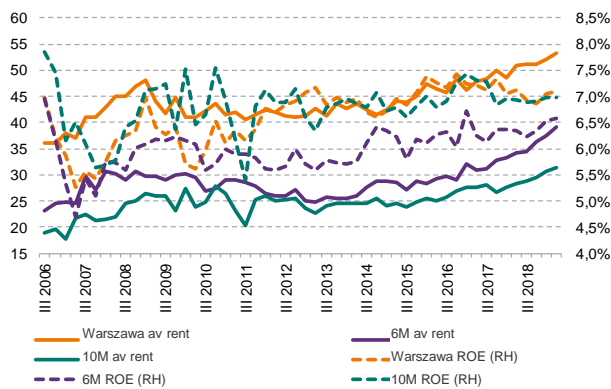
Source: JLL/REAS

Figure 14 Average rent rates (offers and transactions) per square metre of housing - SM, selected markets



Source: NBP

Figure 15 Average rent rates (transactions) per square metre of housing in the SM (left-hand scale) and the estimated profitability of housing rental (right-hand scale) in selected cities

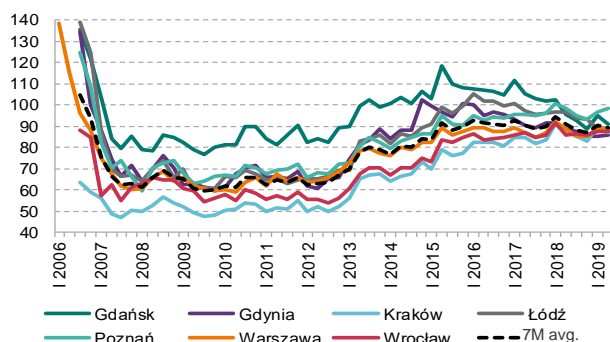


Source: NBP

Note to Figure 15: price per square metre of housing 40% SM and 60% SM; the price per square metre of housing in the PM was increased to include the average costs of home finishing; the analysis does not take into account the high transaction costs in the housing market and the potentially long time needed to exit from such an investment.

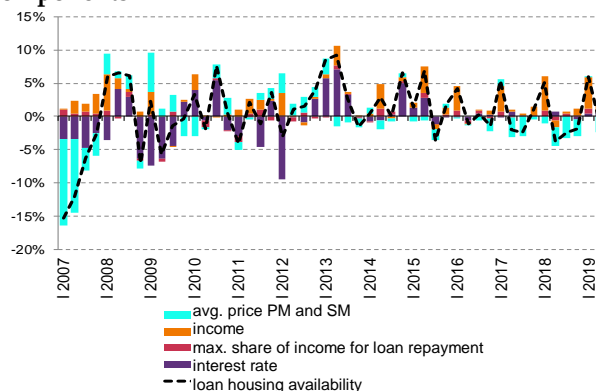
2. Availability of loan-financed housing, loan availability, profitability of housing investment

Figure 16 Estimated availability of loan-financed housing (average for 7M)



Source: NBP, GUS

Figure 17 Quarterly changes in the estimated availability of loan-financed housing in 7M and the force and directions of the impact of particular components



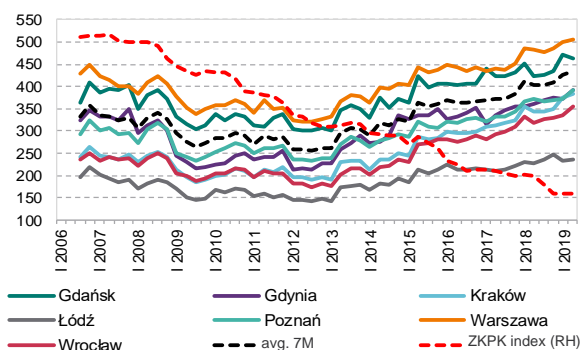
Source: NBP, GUS

Available residential mortgage loan – a measure specifying the potential maximum residential mortgage loan; expressed in PLN thousand 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 metres of housing may be purchased with a residential mortgage loan obtained basing on the average monthly wage in the enterprises sector in a particular market (CSO), in view of bank’s lending requirements and loan parameters (interest rate, depreciation period, social minimum wage understood as the minimum income after payment of loan instalments) at an average transaction price of housing (40% in the primary market and 60% in the secondary market) in a particular market (BaRN). 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 the lending policy as compared to the initial period i.e. 2003 Q4. Computing methods of the index are described in the Financial Stability Report, December 2012, NBP

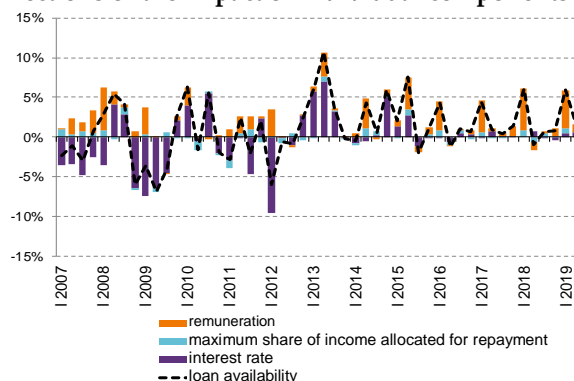
Figure 18 Estimated availability of residential mortgage loan and accumulated index of banks’ mortgage lending policy (ZKPK, right-hand scale)



Note: positive values of ZKPK mean easing and negative values - tightening of the banks’ lending policy in relation to the initial period, i.e. 2003 Q4

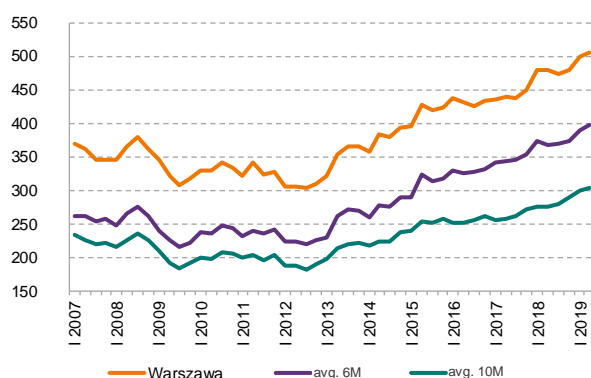
Source: NBP, GUS

Figure 19 Quarterly changes in the of an average residential mortgage loan in 7M and the force and directions of the impact of individual components



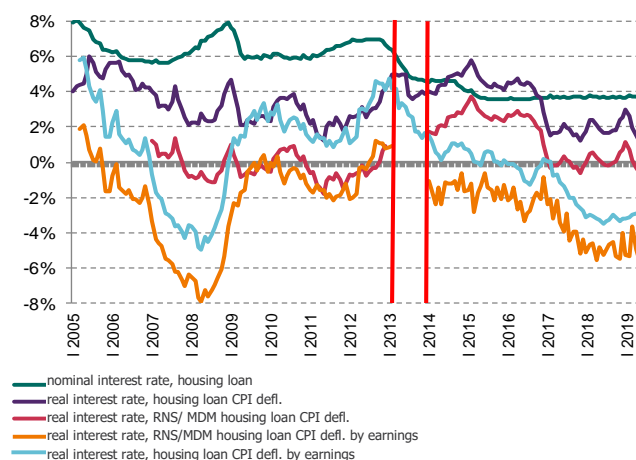
Source: NBP, GUS

Figure 20 Estimated available mortgage loan for average gross wage in the enterprise sector in selected cities



Source: NBP, GUS, BGK

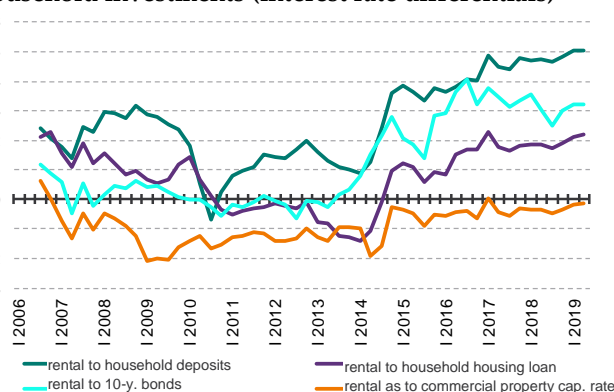
Figure 21 Residential mortgage loan burden for consumer deflated with CPI or wage growth in the enterprise sector



Note: values below 0 denote negative real interest rate for the borrower; red lines separate the period of the absence of the government subsidised housing scheme, i.e. RNS scheme (operating in the years 2007- 2012) and MDM scheme (operating in years 2014- 2018)

Source: NBP, GUS, BGK

Figure 22 Profitability of home rental (average in Warsaw and 6M) as compared with alternative household investments (interest rate differentials)

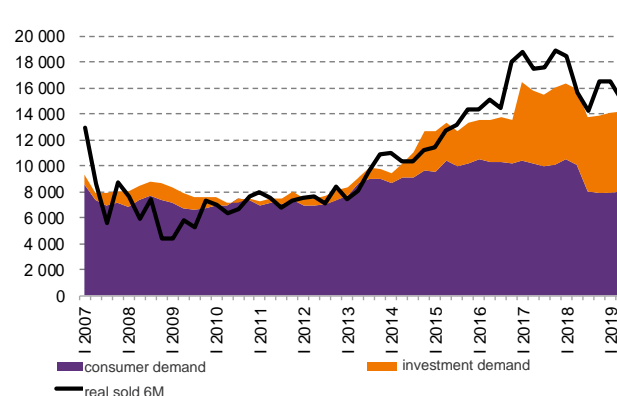


Note to Figure 22: values exceeding 0 denote higher profitability of purchasing property for rental than other household investment. This analysis does not take into account high transaction costs in the housing market and potentially long payback periods.

Note to Figure 23: the estimated total demand is composed of consumer demand and investment demand; no speculative demand. Consumer demand means the average number of dwellings sold in a quarter (the 2010 average) multiplied by the growth of weighted availability of loan-financed housing. Investment demand means the number of dwellings sold in a quarter (2010 average) multiplied by 10% (in the period from 2007 Q1 - 2013 Q3), 20% (2013 Q3 to 2016 Q4) and 30% (beyond 2017 Q1), multiplied by the growth (2010 Q1=100) of rental profitability against cash investment (90% - interest rate on deposits, 10% - interest rate on Treasury bonds).

Source: NBP, GUS

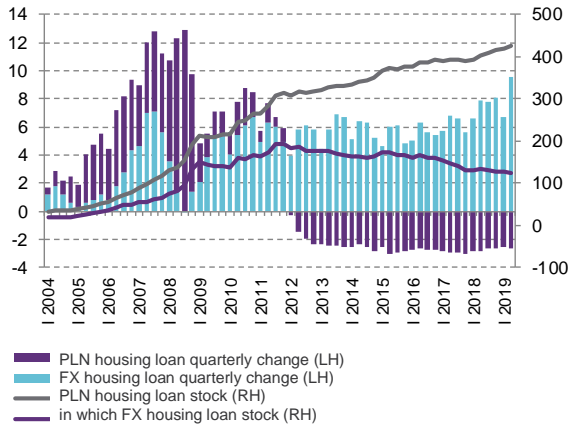
Figure 23 Estimated housing demand in PM (average in Warsaw and 6M) and its components



Source: NBP, JLL/REAS, GUS

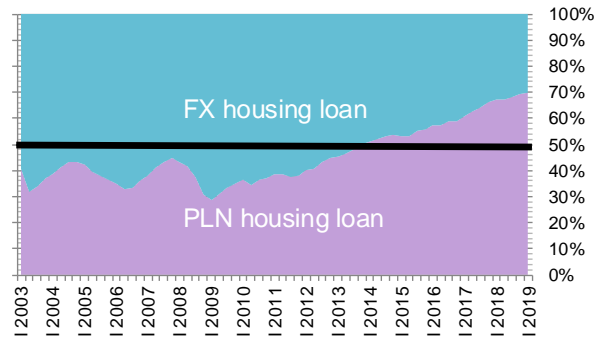
3. Disbursement of residential mortgage loans, interest rates

Figure 24 Balance and quarter-on-quarter changes in housing loan receivables from households after adjustments and the currency structure of quarter-on-quarter changes in residential mortgage loan receivables (PLN billion)



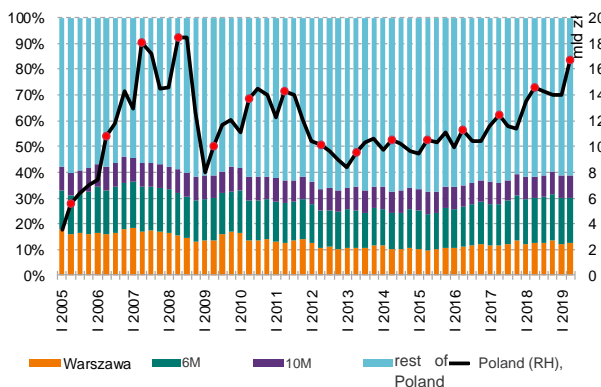
Source: NBP

Figure 25 Currency structure of housing loan receivables from households resulting from residential mortgage loans (%)



Source: NBP

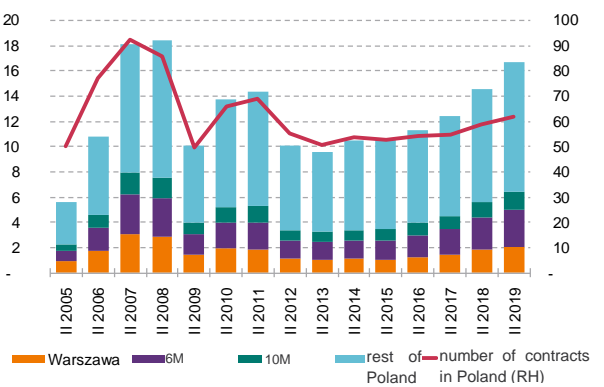
Figure 26 Geographical structure of the value of new residential mortgage loan contracts in Poland's selected cities



Note to Figures 26 and 28: the data inform about the residential mortgage loan contracts signed and not the actual disbursement of residential mortgage loans. PP means "the rest of Poland". Only first quarters are marked by red points in Figure 26.

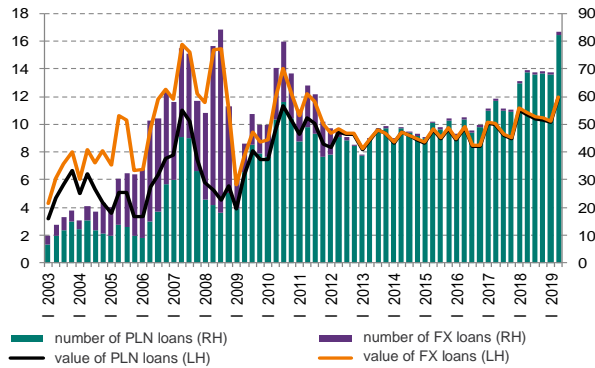
Source: BIK

Figure 27 Value and number of new residential mortgage loans in first quarters in Poland's selected cities (in PLN billion)



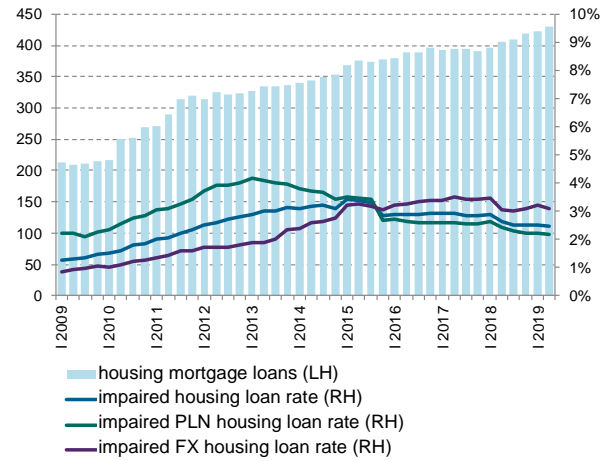
Source: BIK

Figure 28 New residential mortgage loans: value and number



Source: ZBP (AMRON)

Figure 29 Household loans for housing real estate and loans recognised as impaired



Note: 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 recognized as impaired 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 PAS).

Source: NBP

Figure 30 Interest rates on residential mortgage loans for households in Poland

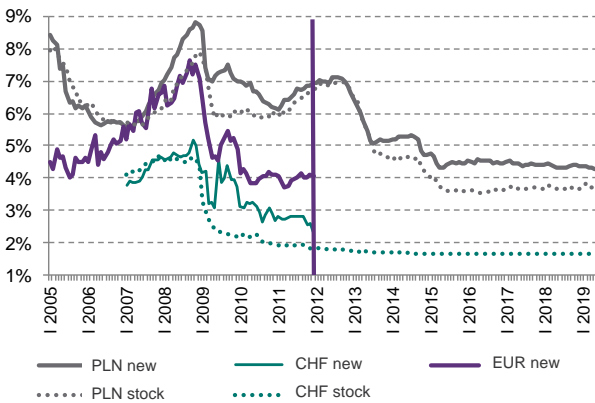
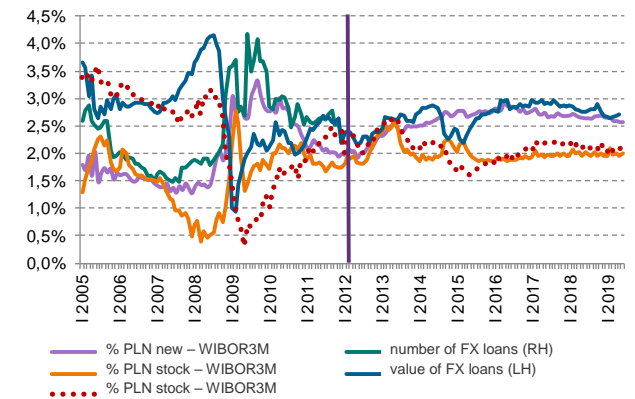


Figure 31 Bank margins (for WIBOR, LIBOR, EURIBOR 3M) in the case of residential mortgage loans



Note to Figure 29 and 30: the violet vertical line separates a period with no FX loans which have not been practically granted since 2012.

Note to Figure 30: bank margin is the difference between housing loan rate (NBP data) and the WIBOR3M rate or the LIBORCHF3M rate.

Source: NBP

Source: NBP

Table 2 Estimated gross residential mortgage loan disbursements to households in Poland and the estimated value of cash and loan-financed*/ purchases of developer housing in 7 cities (7M; in PLN million)

Date	Estimated value of residential loan disbursements in Poland	Estimated value of home purchase transactions in PM in 7M	Demand for loan-financed housing with client's down payment in PM in 7M	Client's down payment to loans in PLN in 7M	Demand for Cash financed housing (without down payment) in PM in 7M	Estimated share of cash-financed home purchases with buyer's down payment in PM in 7M
2015 Q1	8 996	3 981	2 051	513	1 930	61%
2015 Q2	10 640	4 437	2 426	606	2 011	59%
2015 Q3	10 341	4 712	2 358	589	2 354	62%
2015 Q4	11 237	5 115	2 562	641	2 553	62%
2016 Q1	9 742	5 160	2 221	555	2 938	68%
2016 Q2	11 661	5 427	2 659	665	2 768	63%
2016 Q3	9 632	5 235	2 196	549	3 039	69%
2016 Q4	9 933	6 639	2 265	566	4 374	74%
2017 Q1	10 945	6 857	2 495	624	4 361	73%
2017 Q2	12 139	6 486	2 768	692	3 718	68%
2017 Q3	11 794	6 682	2 689	672	3 993	70%
2017 Q4	10 652	7 153	2 429	607	4 724	75%
2018 Q1	11 914	7 009	2 716	679	4 293	71%
2018 Q2	12 807	6 069	2 920	730	3 149	64%
2018 Q3	13 024	5 688	2 969	742	2 719	61%
2018 Q4	12 584	6 760	2 869	717	3 891	68%
2019 Q1	11 865	6 978	2 705	676	4 272	71%
2019 Q2	14 653	6 549	3 341	835	3 208	62%

Note to Table 2: the estimates are based on the following assumptions:

Since 2015 Q1 the value of loan disbursements has been based on data gathered from banks.

*/ Loan-financed home purchases comprise purchases made based on a loan and the minimum cash contribution (a down payment of 25% was assumed; in large cities, down-payment of 20% more prudently than the requirement of the amended S Recommendation), whereas cash-financed home purchases make a difference between the value of transactions and credit funds. In order to calculate the estimated value of primary market transactions in 7M (Gdańsk, Gdynia, Kraków, Łódź, Poznań, Warsaw, Wrocław), the average home price (NBP) was multiplied by the average home size in square metres (GUS data) and the number of housing units sold (REAS/JLL). On the basis of ZBP data it was assumed that the value of newly granted loans for the purchase of housing in the primary markets of 7M has amounted to approx. 57% since 2014. The estimated value of cash transactions was calculated as the difference between transactions in 7M and disbursements of loans, including buyer's down payment. Data concerning prices for all the periods have been updated.

Source: NBP, JLL/REAS, ZBP, GUS

Figure 32 Estimated RORAC on residential mortgage loans denominated in PLN for banks in Poland, taking into account interest income and non-interest profit and operating costs

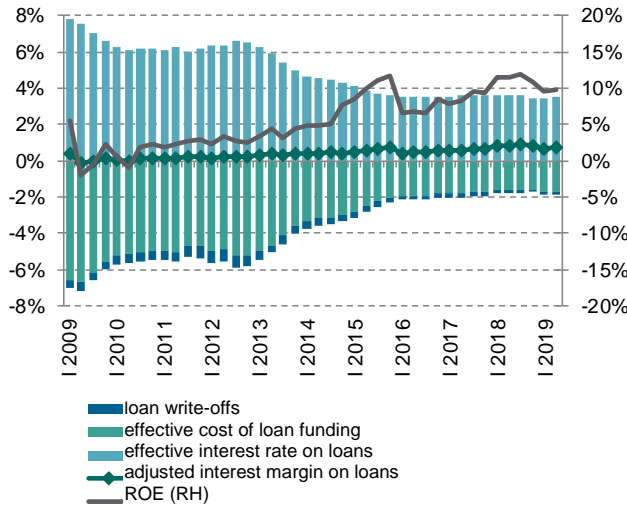
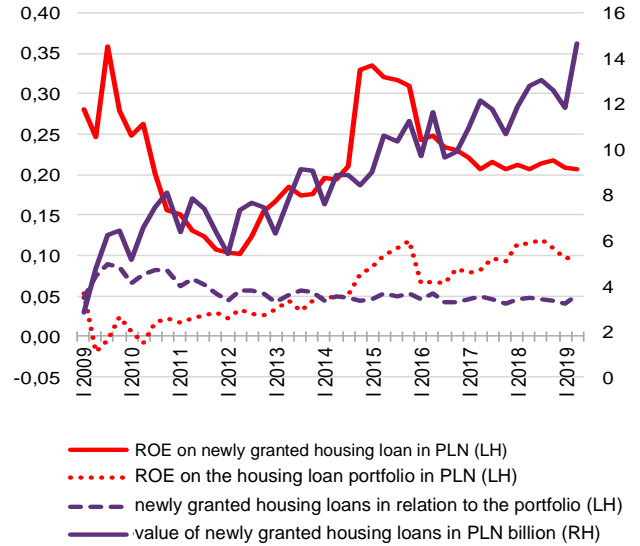


Figure 33 Estimated RORAC on new residential mortgage loans denominated in PLN for banks in Poland, taking into account interest income and non-interest profit and operating costs and bank tax



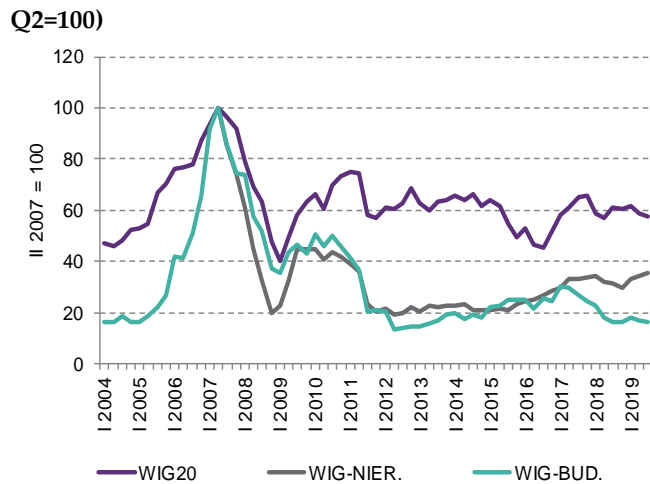
Note to Figures 32 and 33: for calculation, interest income, non-interest income and operating costs were taken into account. The estimated RORAC (Return On Risk-Adjusted Capital) is calculated as the adjusted interest less operating cost plus non-interest income with residential mortgage loans less bank tax in relation to the required own contribution. Operating costs less non-interest income was estimated at 0.5% of the value of the credit portfolio. Calculation based on KNF publication, Solvency ratio - until 2014, Total capital ratio - as of 2014. 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 WIBOR3M rates by adding estimative costs related to bank's own financing.

Source: NBP, KNF

Source: NBP, KNF

4. Operating profitability of dwellings and real estate development projects, costs of construction and assembly output and economic situation of real estate developers in Poland

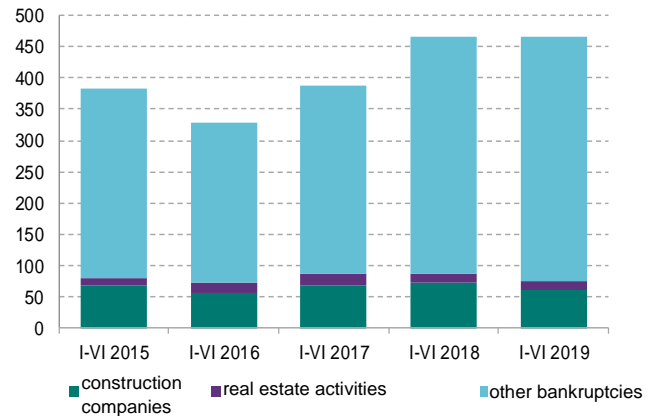
Figure 34 Rescaled exchange indices: WIG20 and for real estate developers and construction companies (2007 Q2=100)



Note: harmonized data, 2007 Q2 = 100. The WIG index for real estate developers has been recorded since 2007 Q2; 2019Q 3 as at 25 September 2019.

Source: Warsaw Stock Exchange

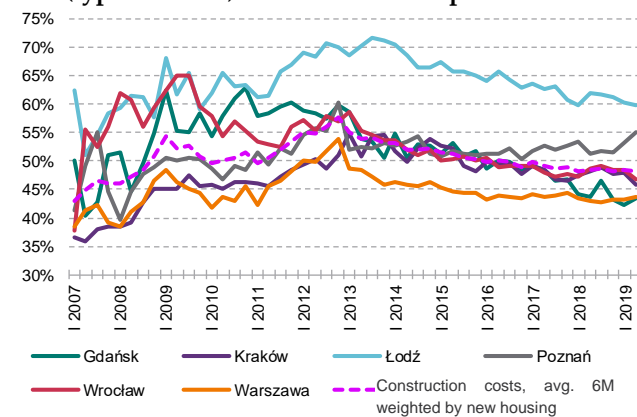
Figure 35 Number of bankruptcies in construction industry (as at the end of the first half of the year)



Note: breakdown according to the first entry into the KRS.

Source: Coface Poland

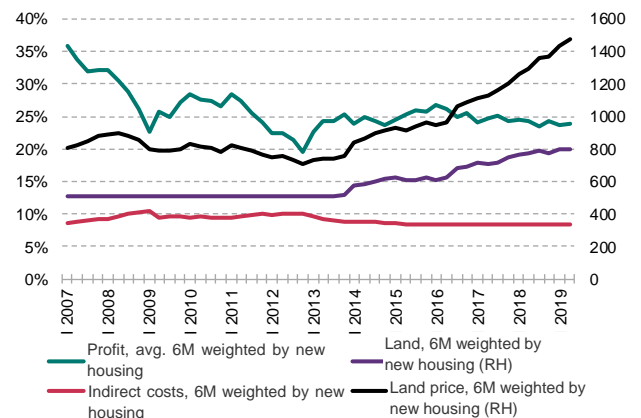
Figure 36 Estimated share of direct construction costs per square meter of the residential building's usable area (type 1122-302) in net transaction price in PM



Note to Figure 36: Since 2014 NBP has used its own appraisal of land for residential multifamily construction.

Source: NBP based on Sekocenbud

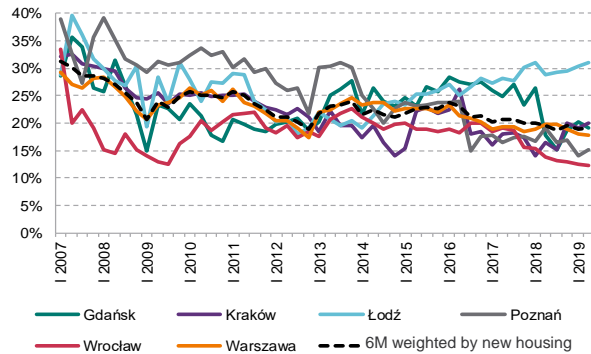
Figure 37 Estimated share of various construction costs per square meter of the residential building's usable area (type 1122-302³⁵) in net transaction price in PM



Source: NBP based on Sekocenbud

³⁵ Half of the building (type 1122-302) monitored by NBP since 2016 Q2 based on Sekocenbud data: An average residential multifamily building, with an underground garage constructed in the technology: foundation footings, construction walls and ceilings - monolithic reinforced concrete, curtain walling - bricked walls of hollow MAX blocks. Change of the type of the analysed building is related to closing of the cost estimation of facility 1121. Analytical assumptions related to building 1121 have been maintained.

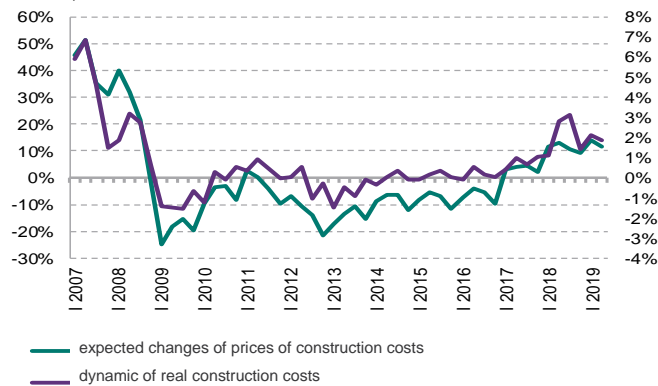
Figure 38 Estimated rate of return on investment projects (type 1122-302^{34/}) in the largest cities



*/ROE modified = net financial result/ (income from sale – net result from sale); **/ DFD – average large real estate development company (according to GUS employment =>50 persons), MFD – average small real estate development company (employment 9-49 persons).

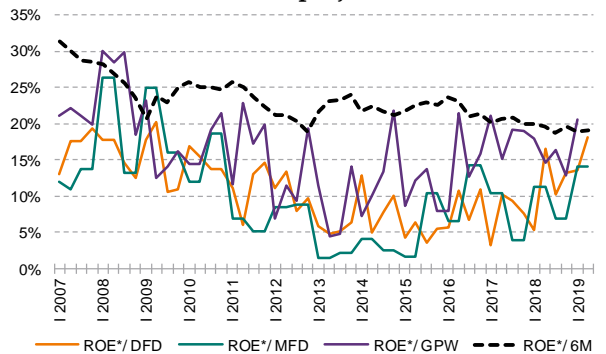
Source: NBP based on Sekocenbud, GUS (F01)

Figure 40 Predicted changes in prices of construction and assembly works (+3M) and growth in construction costs of usable area of a residential building (type 1122-302^{34/})



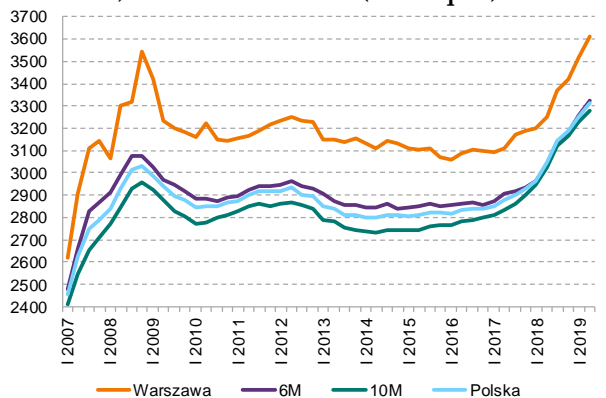
Source: NBP based on GUS (business conditions survey), Sekocenbud

Figure 39 Estimated profitability indicators of development projects ROE* of real estate developers listed on the Stock Exchange, of large real estate developers (DFD) and small real estate developers (MFD)/ and investment projects in 6 cities (6M)**



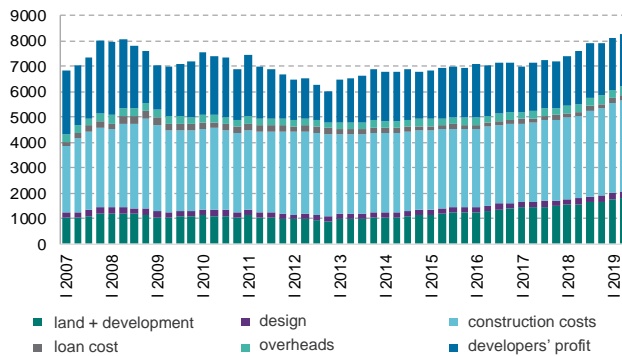
Source: NBP based on Sekocenbud, Financial Statements, GUS (F01)

Figure 41 Average cost of construction of square metre of the residential building's usable area (type 1122-302^{34/}) in selected markets (PLN/sq.m.)



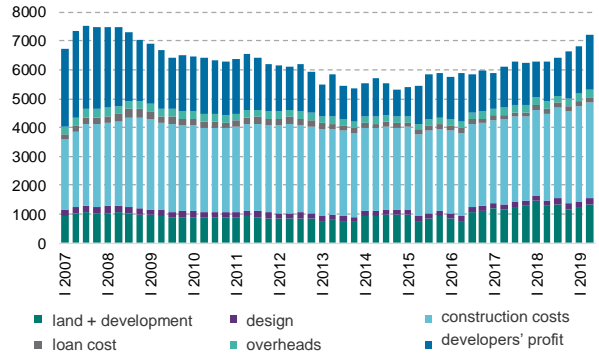
Source: NBP based on Sekocenbud

Figure 42 Warsaw – estimated structure of price per square meter of housing usable area in PM (building type 1122-302^{34/}) for consumer



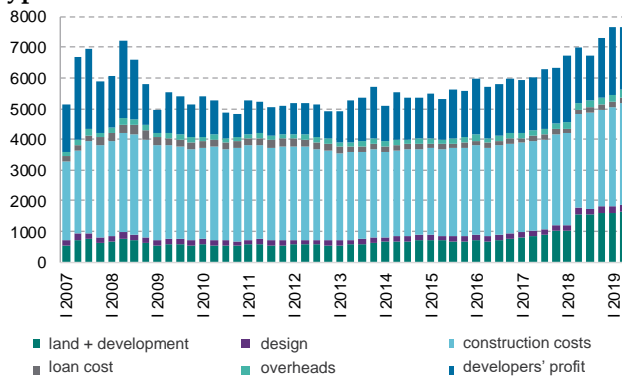
Source: NBP based on Sekocenbud, JLL/REAS

Figure 43 Kraków - estimated structure of price per square meter of housing usable area in PM (building type 1122-30234/) for consumer



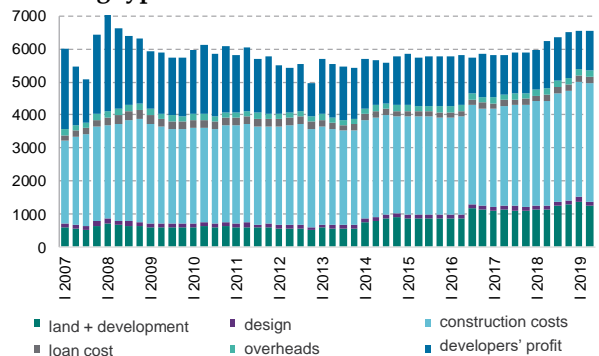
Source: NBP based on Sekocenbud, JLL/REAS

Figure 44 Gdańsk – estimated structure of price per square meter of housing usable area in PM (building type 1122-302^{34/}) for consumer



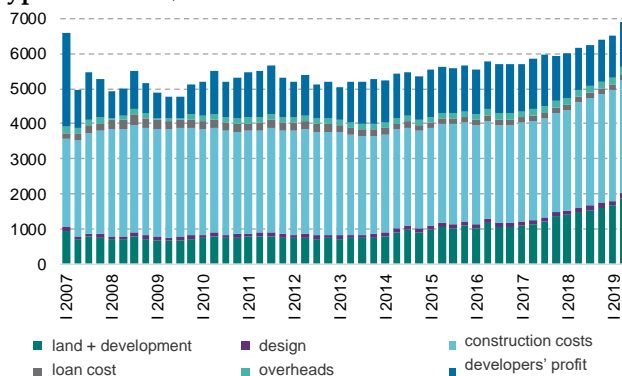
Source: NBP based on Sekocenbud, JLL/REAS

Figure 45 Poznań – estimated structure of price per square meter of housing usable area in PM (building type 1122-302^{34/}) for consumer



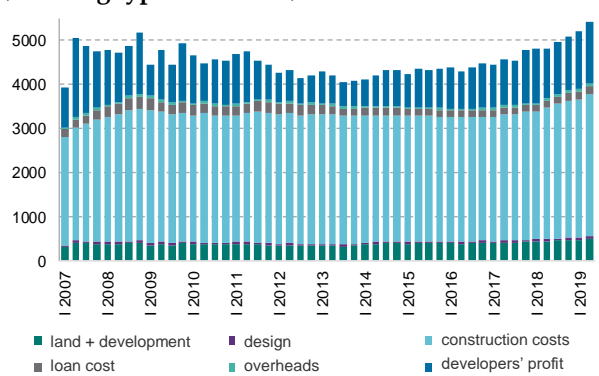
Source: NBP based on Sekocenbud, JLL/REAS

Figure 46 Wrocław – estimated structure of price per square meter of housing usable area in PM (building type 1122-302^{34/}) for consumer



Source: NBP based on Sekocenbud, JLL/REAS

Figure 47 Łódź – estimated structure of price per square meter of housing usable area in PM (building type 1122-302^{34/}) for consumer



Source: NBP based on Sekocenbud, JLL/REAS

Figure 48 Loans to corporations for real estate purchases (in PLN billion, left-hand scale) and the share of loans recognised as impaired loans (in % right-hand scale)

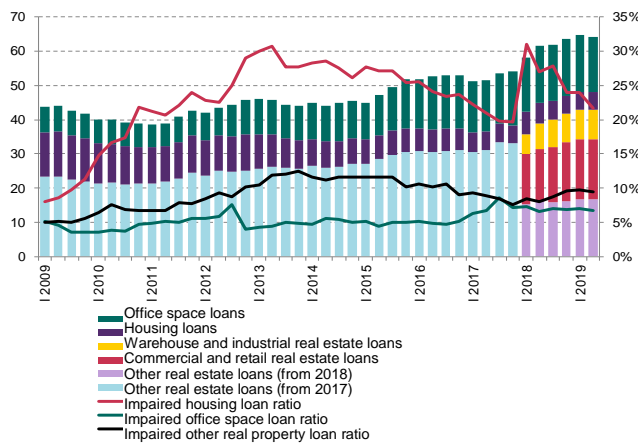
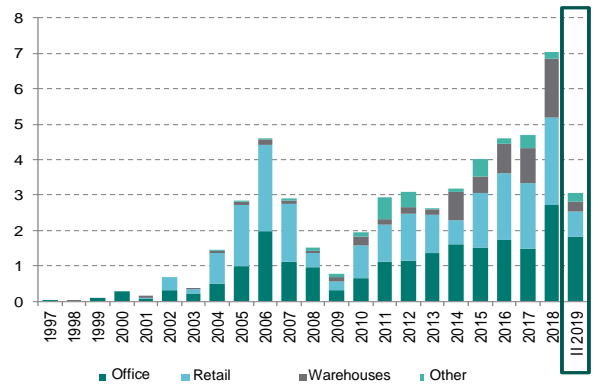


Figure 49 Value of investment transactions (in EUR billion)



Note: Data exclusive of BGK. Since the beginning of 2018, new accounting standards have been in place.

Source: *Comparables.pl*

Source: *NBP*

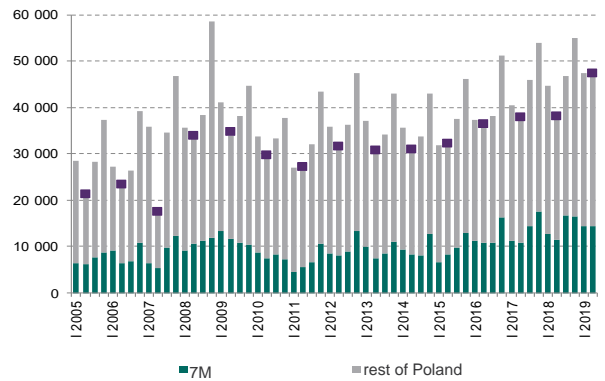
5. Residential construction and the housing market in Poland's selected cities

Figure 50 Structure of investors in residential construction in Poland in the years 2015-2019 (in thousands of dwellings)



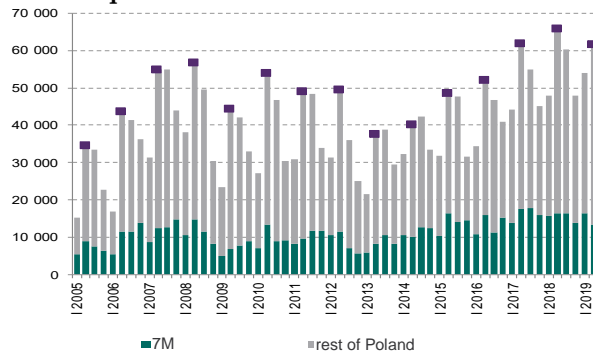
Source: *GUS*

Figure 51 Dwellings completed and made ready for occupancy in Poland, in quarter-on-quarter terms



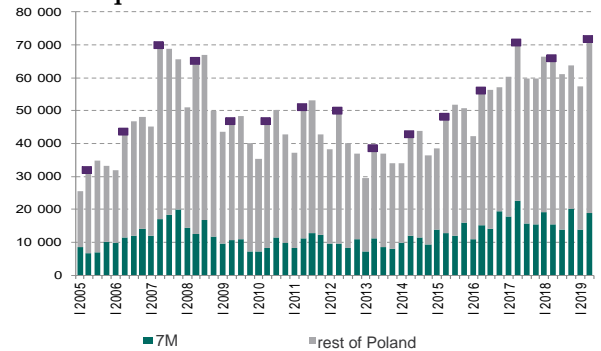
Note to Figures 51–53: in violet colour only second quarters have been market. Source: *GUS*

Figure 52 Dwellings under construction in Poland, in quarter-on-quarter terms



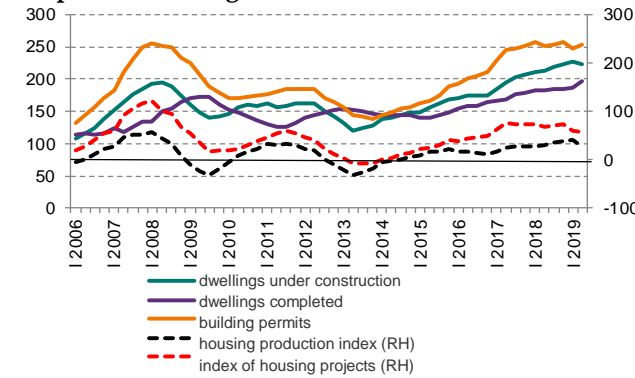
Source: GUS

Figure 53 Issued home building permits in Poland, in quarter-on-quarter terms



Source: GUS

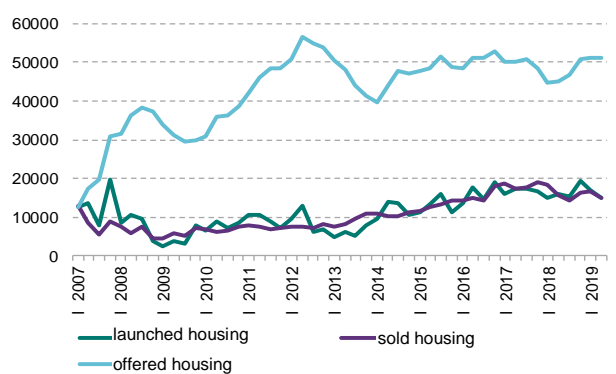
Figure 54 Housing construction in Poland (in thousands of dwellings) and home construction indicator (dwellings under construction minus completed dwelling)



Note: rolling averages for four subsequent years

Source: NBP based on PABB and GUS

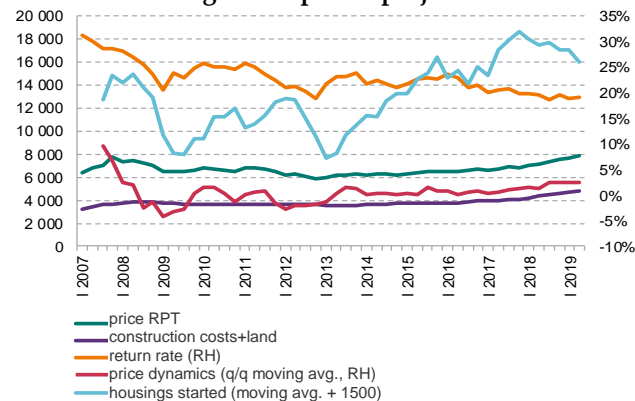
Figure 55 Number of dwellings put on the market, both sold and offered for sale in Poland's 6 largest markets.* /



*/Warsaw, Kraków, Tri-City Agglomeration, Wrocław, Poznań, Łódź.

Source: JLL/REAS

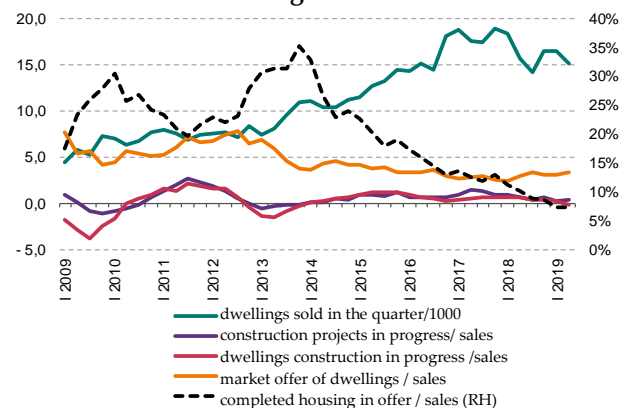
Figure 56 Housing supply and the estim. rate of return on housing development projects in PM in 7M



Note to Figure 54: Housing projects under construction = building permits for dwellings minus completed dwellings; dwellings under construction = dwellings whose construction has begun minus completed dwellings; cumulative values of the last 4 quarters, divided by sales in the given period.

Source: NBP, GUS, JLL/REAS, Sekocenbud

Figure 57 Housing projects and dwellings under construction and dwellings offered for sale in 7M



Source: NBP based on GUS

Figure 58 Measure of adjustment of housing units on offer to demand in terms of area ≤ 50 sq. m., PM in selected cities in Poland

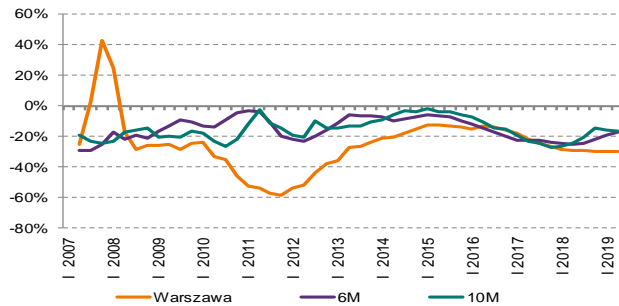
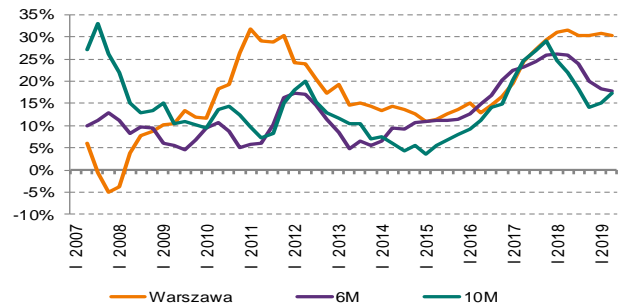


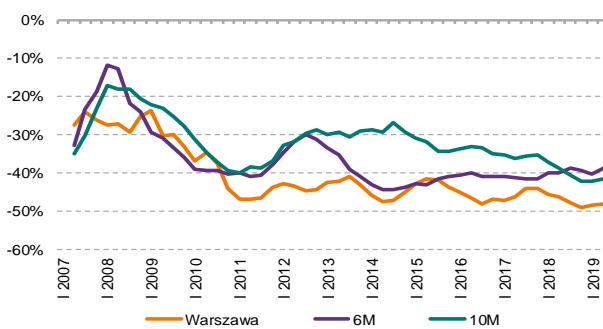
Figure 59 Measure of adjustment of housing units on offer to demand in terms of area > 50 sq. m., PM in selected cities in Poland



Note: figure 55 presents, in percentage terms, a short-term mismatch in the 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 share of dwellings with a usable area of up to 50 square metres offered for sale to the number of transactions involving dwellings with a total area of up to 50 square metres (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 of such housing. Figure 56 is parallel for the space above 50 sq.m. Figures 57-58 are parallel, but they concern the secondary market only.

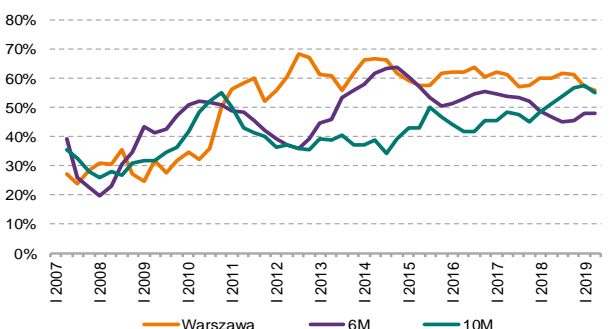
Source: NBP

Figure 60 Measure of adjustment of housing units on offer to demand* in terms of area ≤ 50 sq. m, SM in selected cities of Poland



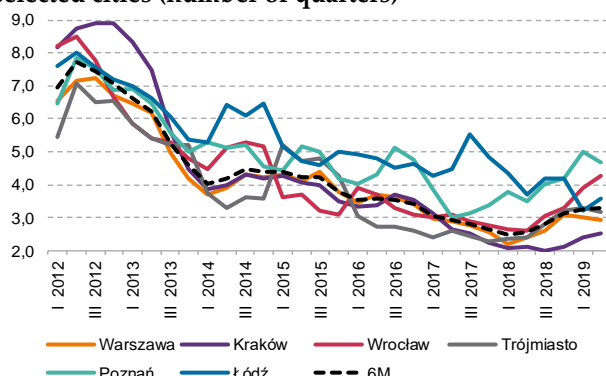
Source: NBP

Figure 61 Measure of adjustment of housing units on offer to demand* in terms of area > 50 sq. m, SM in selected cities of Poland



Source: NBP

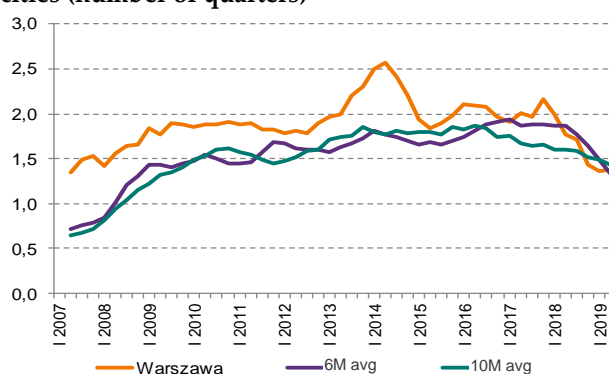
Figure 62 Selling time of dwellings on offer in PM selected cities (number of quarters)



Note: selling time is the relation of the number of housing units on offer at the end of the current quarter in relation to the number of housing units sold in the last four quarters.

Source: NBP based on JLL/REAS

Figure 63 Selling time of dwellings in SM in selected cities (number of quarters)

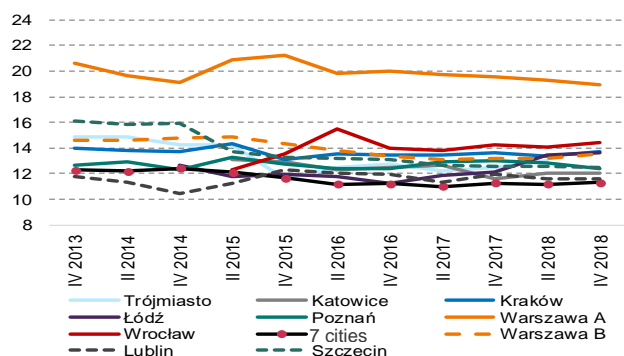


Note: the actual selling time, average of the last four quarters; data are not comparable with Figure 59. Selling time of housing in the secondary real estate market takes into account only transactions closed with a sales deal. The data are underestimated since they do not contain offers entered but not sold yet.

Source: NBP

6. Rents and transaction prices of commercial real estate

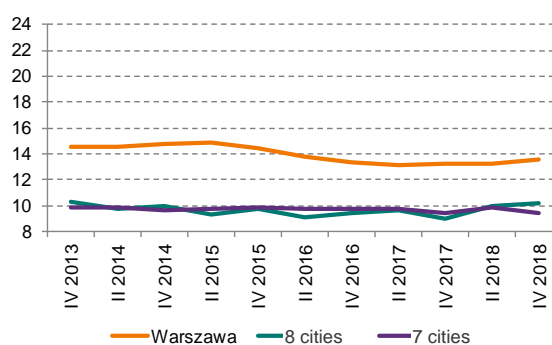
Figure 64 Transaction rents for A class office space (average prices in EUR/sq.m./month)



Note: Warsaw A - A class office buildings, Warsaw B – B class office buildings. 7 cities include: Białystok, Bydgoszcz, Kielce, Olsztyn, Opole, Rzeszów, Zielona Góra

Source: NBP

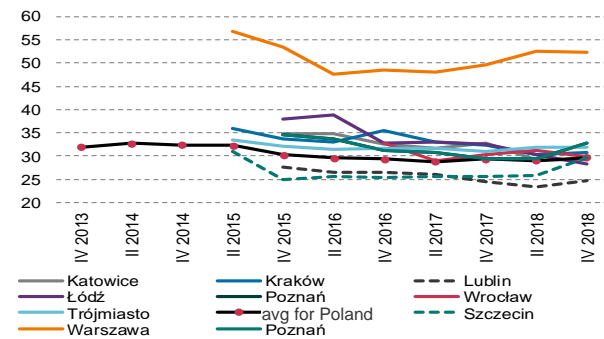
Figure 65 Transaction rents for B class office space (average prices in EUR/sq.m./month)



Note: 8 cities include: Katowice, Kraków, Lublin, Łódź, Poznań, Szczecin, Tri-City Agglomeration, Wrocław. 7 cities include: Białystok, Bydgoszcz, Kielce, Olsztyn, Opole, Rzeszów, Zielona Góra.

Source: NBP

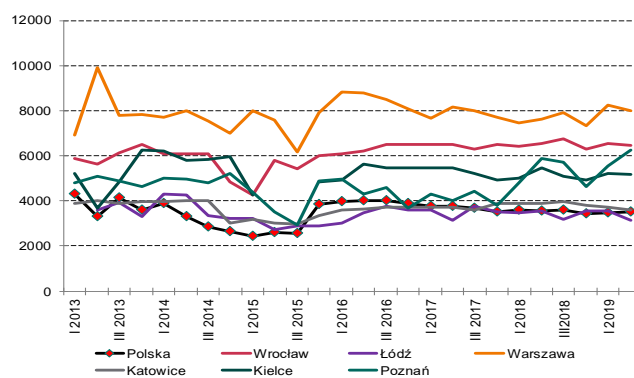
Figure 66 Transaction rents for retail space in shopping centres (shopping malls) with an area of 100-500 sq. m (EUR/ sq.m. /month)



Source: NBP

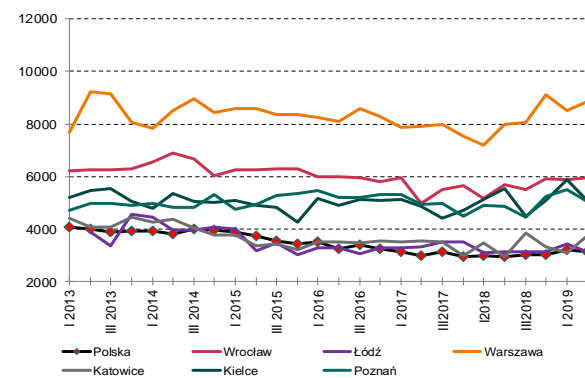
Note to Figure 63: as of the beginning of 2015 Q4, the number of records in the base, including respondents, has increased significantly, consequently changing the analysed sample. Rents for facilities located in economically significant parts of the city are analysed.

Figure 67 Median of offer selling price of small office premises in SM (PLN/sq.m.)



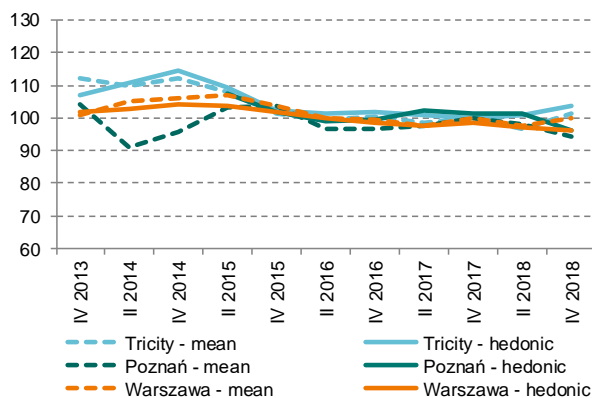
Source: PONT, NBP's study

Figure 68 Median of offer selling price of small retail premises in SM (PLN/sq.m.)



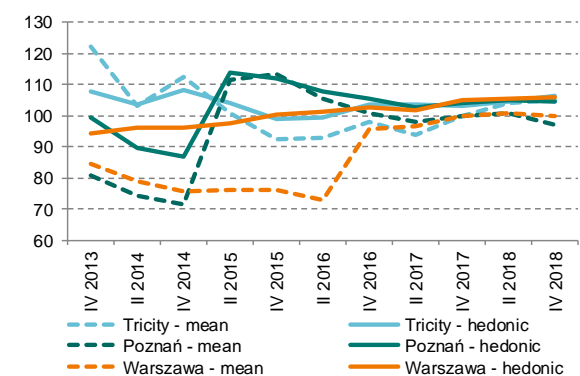
Source: PONT, NBP's study

Figure 69 Index of rents for offices, average and hedonic index (2017 IV = 100)



Source: NBP

Figure 70 Index of rents for shopping centres, average and hedonic index (2017 IV = 100)100)



Source: NBP

Table 3 Estimated rate of return on equity from investment in B class office space in Warsaw

Date	Hedonic rent per sq.m. of space in EUR	Hedonic price per sq.m. of space in EUR	Calculated capitalisation rate (yield)	Market capitalisation rate (yield)	ROE with LTC = 0%	ROE with LTC = 50%	ROE with LTC = 80%	Average market rates of return on 10-year Treasury bonds
2013 Q4	14.6	2309	7.6%	7.0%	3.4%	5.1%	10.1%	4.4%
2014 Q2	15.0	2163	8.3%	7.0%	3.7%	5.7%	11.9%	3.4%
2014 Q4	15.0	2163	8.3%	7.0%	3.7%	5.7%	11.9%	2.6%
2015 Q2	15.2	2496	7.3%	7.0%	3.5%	5.0%	9.8%	2.8%
2015 Q4	15.0	2496	7.2%	7.0%	3.4%	4.8%	9.3%	2.8%
2016 Q2	14.8	2489	7.1%	6.5%	3.3%	4.8%	9.2%	3.0%
2016 Q4	14.9	2489	7.2%	6.5%	3.4%	4.9%	9.4%	3.3%
2017 Q2	14.7	2700	6.5%	6.0%	3.1%	4.3%	7.8%	3.3%
2017 Q4	15.0	2700	6.6%	6.0%	3.2%	4.5%	8.2%	3.4%
2018 Q2	14.8	2600	6.8%	6.0%	3.3%	4.6%	8.6%	3.2%
2018 Q4	15.3	2600	7.0%	6.0%	3.4%	4.9%	9.4%	3.1%
2019 Q2	15.3	2700	6.8%	6.0%	3.4%	4.7%	8.8%	2.7%

Assumptions: Loan in EUR granted for 25 years, equal instalments payable four times a year. Amortization of 2.5%, standard for commercial real estate. The calculated capitalization rate includes amortization costs. Taxable with CIT. ROE – net income/ equity.

Source: NBP (data and calculations), Colliers International (market capitalization rate), MF (rate of return on 10-year bonds)

Table 4 Estimated rate of return on investment in housing of 50 sq. m. in Warsaw

Date	Transaction rate (PLN/sq.m.)	Transaction price (PLN/sq.m.)	Calculated capitalisation rate	ROE with LTV = 0%	ROE with LTV = 50%	ROE with LTV = 80%	Average market rates of return on 10-year Treasury bonds
2013 Q4	43.5	7189	7.3%	4.5%	3.9%	1.8%	4.4%
2014 Q2	43.4	7332	7.1%	4.3%	2.9%	0.6%	3.4%
2014 Q4	41.4	7387	6.7%	4.0%	2.8%	1.0%	2.6%
2015 Q2	43.8	7308	7.2%	4.4%	4.0%	4.7%	2.8%
2015 Q4	45.0	7401	7.3%	4.5%	4.0%	4.6%	2.8%
2016 Q2	46.4	7355	7.6%	4.7%	4.4%	5.4%	3.0%
2016 Q4	48.4	7556	7.7%	4.8%	4.7%	6.3%	3.3%
2017 Q2	47.9	7821	7.4%	4.6%	4.2%	5.1%	3.3%
2017 Q4	49.7	8054	7.4%	4.6%	4.4%	5.5%	3.4%
2018 Q2	51.2	8320	7.4%	4.6%	4.4%	5.7%	3.2%
2018 Q4	52.2	8259	7.6%	4.8%	4.7%	6.4%	3.1%
2019 Q2	53.3	8932	7.2%	4.4%	4.1%	5.0%	2.7%

Assumptions: Transaction price per square metre of housing in the primary market increased by finishing costs (+PLN 800.00/sq.m.). Loan in PLN granted for 25 years, equal instalments payable four times a year. Amortization of 1.5% (two complete renovations in the period of 100 years). Occupancy 95%. Taxable with lump-sum tax of 8.5%. The calculated capitalization rate includes amortization costs. CIT. ROE – net income/ equity.

Source: NBP (data and calculations), MF (rate of return on 10-year bonds)

Table 5 Average prices of a square meter of housing in the primary market in Gdańsk

specification	II Q 2018		III Q 2018		IV Q 2018		I Q 2019		II Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	8 417	7 454	8 269	7 210	8 602	7 916	8 259	8 262	9 033	8 288
growth (q-o-q)	104,6	102,8	98,2	96,7	104,0	109,8	96,0	104,4	109,4	100,3
growth (y-o-y)	124,2	114,7	112,8	105,8	116,7	115,9	102,6	114,0	107,3	111,2
dwelling price range	3 373	1 481	4 359	1 480	4 168	1 350	3 967	1 309	3 780	1 424
<=4 000 PLN/sq.m	5	5	7	4	1	8	27	0	10	4
(4 001; 6 000] PLN/sq.m	887	495	1 377	515	1 062	294	994	327	594	262
(6 001; 8 000] PLN/sq.m	1 096	508	1 315	566	1 068	535	1 056	447	940	494
(8 001; 10 000] PLN/sq.m	741	354	641	278	1 037	351	1 057	287	1 137	392
>10 001 PLN/sq.m	644	119	1 019	117	1 000	162	833	248	1 099	272
dwelling space range	3 373	1 481	4 359	1 480	4 168	1 350	3 967	1 309	3 780	1 424
<= 40 sq.m	468	399	665	356	626	280	553	349	512	388
(40,1; 60] sq.m	1390	656	1859	650	1830	630	1755	550	1710	596
(60,1; 80] sq.m	1215	349	1437	402	1336	367	1289	318	1160	356
> 80,1 sq.m	300	77	398	72	376	73	370	92	398	84
average price of 1 sq.m. of dwelling	8 417	7 454	8 269	7 210	8 602	7 916	8 259	8 262	9 033	8 288
<=4 000 sq.m	10 883	8 666	9 470	7 223	9 872	9 506	9 181	9 527	9 794	8 772
(40,1; 60] sq.m	8 042	6 711	7 982	7 103	8 309	7 405	8 084	7 661	8 936	8 010
(60,1; 80] sq.m	7 564	7 175	7 688	7 118	8 020	7 460	7 714	7 630	8 382	8 067
> 80,1 sq.m	9 766	8 775	9 696	8 632	9 979	8 524	9 604	9 246	10 364	8 964
average offer price deviation	12,9%	x	14,7%	x	8,7%	x	0,0%	x	9,0%	x
<= 40 sq.m	25,6%	x	31,1%	x	3,8%	x	-3,6%	x	11,7%	x
(40,1; 60] sq.m	19,8%	x	12,4%	x	12,2%	x	5,5%	x	11,6%	x
(60,1; 80] sq.m	5,4%	x	8,0%	x	7,5%	x	1,1%	x	3,9%	x
> 80,1 sq.m	11,3%	x	12,3%	x	17,1%	x	3,9%	x	15,6%	x

Source: NBP

Table 6 Average prices of a square meter of housing in the secondary market in Gdańsk

specification	II Q 2018		III Q 2018		IV Q 2018		I Q 2019		II Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	8 567	6 625	8 740	7 149	8 856	7 508	9 415	7 351	9 345	7 823
growth (q-o-q)	110,9	102,2	102,0	107,9	101,3	105,0	106,3	97,9	99,3	106,4
growth (y-o-y)	122,9	109,9	124,2	117,9	120,6	118,5	121,8	113,4	109,1	118,1
dwelling price range	736	842	1 941	1 255	1 769	1 035	1 467	863	1 314	1 008
<=4 000 PLN/sq.m	9	25	11	27	4	20	4	16	1	2
(4 001; 6 000] PLN/sq.m	141	320	314	344	240	253	129	187	86	156
(6 001; 8 000] PLN/sq.m	255	360	675	561	621	434	450	413	491	458
(8 001; 10 000] PLN/sq.m	124	94	396	219	431	196	394	166	319	252
>10 001 PLN/sq.m	207	43	545	104	473	132	490	81	417	140
dwelling space range	736	842	1 941	1 255	1 769	1 035	1 467	863	1 314	1 008
<= 40 sq.m	101	183	300	313	268	238	238	211	289	260
(40,1; 60] sq.m	246	369	703	557	624	463	534	376	471	443
(60,1; 80] sq.m	216	178	571	305	558	209	418	181	335	206
> 80,1 sq.m	173	112	367	80	319	125	277	95	219	99
average price of 1 sq.m. of dwelling	8 567	6 625	8 740	7 149	8 856	7 508	9 415	7 351	9 345	7 823
<=4 000 sq.m	9 143	7 391	9 179	7 660	9 808	7 986	10 469	8 134	9 658	8 607
(40,1; 60] sq.m	8 846	6 664	9 081	7 131	9 034	7 506	9 652	7 323	9 421	7 723
(60,1; 80] sq.m	7 998	6 120	8 161	6 796	8 242	7 144	8 641	6 875	9 010	7 396
> 80,1 sq.m	8 546	6 044	8 629	6 619	8 784	7 219	9 222	6 628	9 280	7 100
average offer price deviation	29,3%	x	22,3%	x	18,0%	x	28,1%	x	19,5%	x
<= 40 sq.m	23,7%	x	19,8%	x	22,8%	x	28,7%	x	12,2%	x
(40,1; 60] sq.m	32,7%	x	27,3%	x	20,4%	x	31,8%	x	22,0%	x
(60,1; 80] sq.m	30,7%	x	20,1%	x	15,4%	x	25,7%	x	21,8%	x
> 80,1 sq.m	41,4%	x	30,4%	x	21,7%	x	39,1%	x	30,7%	x

Source: NBP

Table 7 Average prices of a square meter of housing in the primary market in Kraków

specification	II Q 2018		III Q 2018		IV Q 2018		I Q 2019		II Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	6 902	6 778	7 040	6 945	7 356	7 199	7 630	7 370	7 968	7 775
growth (q-o-q)	99,8	99,7	102,0	102,5	104,5	103,7	103,7	102,4	104,4	105,5
growth (y-o-y)	102,3	103,0	101,6	102,0	106,2	106,6	110,3	108,5	115,4	114,7
dwelling price range	4 059	2 113	3 795	1 815	3 973	1 749	4 860	1 586	5 247	1 720
<=4 000 PLN/sq.m	7	4	1	2	0	0	0	0	0	0
(4 001; 6 000] PLN/sq.m	1 004	568	864	376	574	270	445	254	496	176
(6 001; 8 000] PLN/sq.m	2 384	1 237	2 166	1 114	2 324	1 048	2 891	860	2 419	864
(8 001; 10 000] PLN/sq.m	562	270	609	280	921	386	1 174	351	1 819	557
>10 001 PLN/sq.m	102	34	155	43	154	45	350	121	513	123
dwelling space range	4 059	2 113	3 795	1 815	3 973	1 749	4 860	1 586	5 247	1 720
<= 40 sq.m	553	496	536	436	594	472	1017	449	937	494
(40,1; 60] sq.m	2193	1140	2019	995	2109	862	2440	794	2768	812
(60,1; 80] sq.m	1027	390	969	299	1001	338	1095	297	1196	315
> 80,1 sq.m	286	87	271	85	269	77	308	46	346	99
average price of 1 sq.m. of dwelling	6 902	6 778	7 040	6 945	7 356	7 199	7 630	7 370	7 968	7 775
<=4 000 sq.m	7506	7064	7550	7267	7961	7697	8074	7998	8389	8302
(40,1; 60] sq.m	6734	6647	6917	6807	7278	6962	7539	7134	7901	7605
(60,1; 80] sq.m	6906	6739	6941	6838	7167	7090	7458	7059	7777	7420
> 80,1 sq.m	7005	7049	7302	7283	7326	7268	7493	7336	8031	7673
average offer price deviation	1,8%	x	1,4%	x	2,2%	x	3,5%	x	2,5%	x
<= 40 sq.m	6,3%	x	3,9%	x	3,4%	x	0,9%	x	1,0%	x
(40,1; 60] sq.m	1,3%	x	1,6%	x	4,5%	x	5,7%	x	3,9%	x
(60,1; 80] sq.m	2,5%	x	1,5%	x	1,1%	x	5,7%	x	4,8%	x
> 80,1 sq.m	-0,6%	x	0,3%	x	0,8%	x	2,1%	x	4,7%	x

Source: NBP

Table 8 Average prices of a square meter of housing in the secondary market in Kraków

specification	II Q 2018		III Q 2018		IV Q 2018		I Q 2019		II Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	8 006	6 400	8 059	6 621	8 466	6 849	8 697	6 626	8 899	6 956
growth (q-o-q)	103,1	103,0	100,7	103,5	105,0	103,4	102,7	96,8	102,3	105,0
growth (y-o-y)	114,5	106,0	111,9	104,3	111,5	109,1	112,0	106,6	111,2	108,7
dwelling price range	1 245	278	1 115	318	722	340	597	303	656	316
<=4 000 PLN/sq.m	1	3	0	0	0	0	0	3	0	2
(4 001; 6 000] PLN/sq.m	211	123	153	127	79	123	49	107	35	86
(6 001; 8 000] PLN/sq.m	554	119	501	144	284	158	217	154	231	161
(8 001; 10 000] PLN/sq.m	285	27	298	36	218	41	204	33	229	62
>10 001 PLN/sq.m	194	6	163	11	141	18	127	6	161	5
dwelling space range	1 245	278	1 115	318	722	340	597	303	656	316
<= 40 sq.m	255	107	232	130	146	137	124	120	160	135
(40,1; 60] sq.m	474	108	442	145	280	148	240	141	252	135
(60,1; 80] sq.m	309	51	264	35	177	45	136	35	142	38
> 80,1 sq.m	207	12	177	8	119	10	97	7	102	8
average price of 1 sq.m. of dwelling	8 006	6 399	8 059	6 621	8 466	6 849	8 697	6 626	8 899	6 956
<=4 000 sq.m	9 037	7 148	8 678	7 026	9 366	7 284	9 520	7 084	9 591	7 403
(40,1; 60] sq.m	7 623	6 007	7 857	6 400	8 108	6 652	8 476	6 415	8 600	6 671
(60,1; 80] sq.m	7 554	5 847	7 814	6 240	8 094	6 321	8 232	5 975	8 407	6 297
> 80,1 sq.m	8 288	5 605	8 120	5 716	8 757	6 157	8 844	6 300	9 238	7 366
average offer price deviation	25,1%	x	21,7%	x	23,6%	x	31,2%	x	27,9%	x
<= 40 sq.m	26,4%	x	23,5%	x	28,6%	x	34,4%	x	29,6%	x
(40,1; 60] sq.m	26,9%	x	22,8%	x	21,9%	x	32,1%	x	28,9%	x
(60,1; 80] sq.m	29,2%	x	25,2%	x	28,1%	x	37,8%	x	33,5%	x
> 80,1 sq.m	47,9%	x	42,0%	x	42,2%	x	40,4%	x	25,4%	x

Source: NBP

Table 9 Average prices of a square meter of housing in the primary market in Łódź

specification	II Q 2018		III Q 2018		IV Q 2018		I Q 2019		II Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	5 475	5 206	5 528	5 355	5 599	5 507	5 796	5 631	6 010	5 853
growth (q-o-q)	99,1	99,9	101,0	102,9	101,3	102,8	103,5	102,3	103,7	103,9
growth (y-o-y)	105,7	105,4	107,4	109,0	105,0	107,0	104,9	108,1	109,8	112,4
dwelling price range	1 457	475	1 902	483	1 753	397	1 253	254	1 442	408
<=4 000 PLN/sq.m	2	1	2	4	6	1	2	0	0	0
(4 001; 4 500] PLN/sq.m	67	27	18	6	64	5	6	0	11	1
(4 501; 5 000] PLN/sq.m	275	195	225	111	143	67	34	25	31	26
(5 001; 5 500] PLN/sq.m	595	130	953	208	620	151	308	94	257	102
(5 501; 6 000] PLN/sq.m	211	54	322	100	549	85	525	76	526	133
> 6 001 PLN/sq.m	307	68	382	54	371	88	378	59	617	146
dwelling space range	1 457	475	1 903	482	1 753	397	1 253	254	1 442	408
<= 40 sq.m	129	79	268	89	200	79	138	49	207	87
(40,1; 60] sq.m	692	213	928	263	874	182	564	148	663	204
(60,1; 80] sq.m	500	145	575	109	563	104	476	35	486	94
> 80,1 sq.m	136	38	132	21	116	32	75	22	86	23
average price of 1 sq.m. of dwelling	5 475	5 206	5 527	5 356	5 599	5 512	5 796	5 631	6 010	5 853
<=4 000 sq.m	6 071	5 783	5 848	5 462	6 033	5 794	6 252	6 028	6 538	6 254
(40,1; 60] sq.m	5 539	5 234	5 492	5 343	5 567	5 551	5 805	5 592	6 044	5 886
(60,1; 80] sq.m	5 253	4 918	5 433	5 303	5 520	5 300	5 656	5 507	5 779	5 481
> 80,1 sq.m	5 402	4 950	5 524	5 350	5 482	5 284	5 772	5 198	5 782	5 571
average offer price deviation	5,2%	x	3,2%	x	1,7%	x	2,9%	x	2,7%	x
<= 40 sq.m	5,0%	x	7,1%	x	4,1%	x	3,7%	x	4,5%	x
(40,1; 60] sq.m	5,8%	x	2,8%	x	0,3%	x	3,8%	x	2,7%	x
(60,1; 80] sq.m	6,8%	x	2,4%	x	4,2%	x	2,7%	x	5,4%	x
> 80,1 sq.m	9,1%	x	3,2%	x	3,8%	x	11,0%	x	3,8%	x

Source: NBP

Table 10 Average prices of a square meter of housing in the secondary market in Łódź

specification	II Q 2018		III Q 2018		IV Q 2018		I Q 2019		II Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	4 642	3 959	4 711	4 256	4 811	4 465	5 053	4 616	5 116	4 596
growth (q-o-q)	104,7	98,4	101,5	107,5	102,1	104,9	105,0	103,4	101,2	99,6
growth (y-o-y)	110,4	110,3	111,1	113,1	111,5	118,0	114,0	114,8	110,2	116,1
dwelling price range	598	112	892	123	422	76	610	88	503	98
<= 3 000 PLN/sq.m	19	11	32	9	9	1	9	1	15	4
(3 001; 3 500] PLN/sq.m	50	17	75	11	27	7	32	4	17	8
(3 501; 4 000] PLN/sq.m	95	35	109	32	46	14	50	10	51	10
(4 001; 4 500] PLN/sq.m	127	26	180	28	81	15	85	29	69	23
(4 500; 5 000] PLN/sq.m.	125	16	199	19	113	27	144	21	109	33
> 5 001 PLN/sq.m	182	7	297	24	146	12	290	23	242	20
dwelling space range	598	112	892	123	422	76	610	88	503	98
<= 40 sq.m	66	30	114	33	51	22	77	27	93	30
(40,1; 60] sq.m	214	51	318	60	161	39	226	37	171	42
(60,1; 80] sq.m	153	18	203	21	76	11	140	13	112	11
> 80,1 sq.m	165	13	257	9	134	4	167	11	127	15
average price of 1 sq.m. of dwelling	4 642	3 959	4 711	4 256	4 811	4 465	5 053	4 616	5 116	4 596
<=4 000 sq.m	4 821	4 307	4 820	4 541	5 002	4 791	5 436	4 809	5 604	4 835
(40,1; 60] sq.m	4 775	3 896	4 777	4 287	4 923	4 398	5 188	4 527	5 180	4 644
(60,1; 80] sq.m	4 618	3 959	4 837	3 957	4 962	4 518	5 200	4 582	5 294	4 722
> 80,1 sq.m	4 420	3 406	4 480	3 700	4 516	3 193	4 570	4 478	4 514	3 892
average offer price deviation	17,3%	x	10,7%	x	7,7%	x	9,5%	x	11,3%	x
<= 40 sq.m	11,9%	x	6,1%	x	4,4%	x	13,0%	x	15,9%	x
(40,1; 60] sq.m	22,6%	x	11,4%	x	12,0%	x	14,6%	x	11,5%	x
(60,1; 80] sq.m	16,6%	x	22,2%	x	9,8%	x	13,5%	x	12,1%	x
> 80,1 sq.m	29,8%	x	21,1%	x	41,5%	x	2,0%	x	16,0%	x

Source: NBP

Table 11 Average prices of a square meter of housing in the primary market in Poznań

specification	II Q 2018		III Q 2018		IV Q 2018		I Q 2019		II Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	6 866	6 735	6 931	6 849	7 033	7 017	7 349	7 067	7 228	7 061
growth (q-o-q)	102,8	104,8	100,9	101,7	101,5	102,5	104,5	100,7	98,3	99,9
growth (y-o-y)	106,7	107,6	107,0	107,4	107,4	109,9	110,1	109,9	105,3	104,8
dwelling price range	4 317	1 102	4 894	1 012	5 362	1 295	6 123	1 034	6 818	1 286
<=4 000 PLN/sq.m	5	4	6	5	2	4	1	1	1	0
(4 001; 6 000] PLN/sq.m	1 068	305	1 125	233	1 004	245	807	143	732	282
(6 001; 8 000] PLN/sq.m	2 712	650	3 053	645	3 595	845	3 938	719	4 803	776
(8 001; 10 000] PLN/sq.m	416	96	592	99	676	166	1 212	145	1 150	192
>10 001 PLN/sq.m	116	47	118	30	85	35	165	26	132	36
dwelling space range	4 317	1 102	4 894	1 012	5 362	1 295	6 123	1 034	6 818	1 286
<= 40 sq.m	756	222	826	239	943	386	1243	297	1334	354
(40,1; 60] sq.m	2467	602	2657	556	2866	661	3128	497	3369	661
(60,1; 80] sq.m	848	187	1064	168	1197	183	1394	184	1760	193
> 80,1 sq.m	246	91	347	49	356	65	358	56	355	78
average price of 1 sq.m. of dwelling	6 866	6 735	6 931	6 849	7 033	7 017	7 349	7 067	7 228	7 061
<=4 000 sq.m	6 837	7 239	7 070	7 136	7 246	7 412	7 698	7 427	7 719	7 129
(40,1; 60] sq.m	6 838	6 571	6 899	6 755	7 010	6 855	7 277	6 899	7 168	6 941
(60,1; 80] sq.m	6 937	6 720	6 822	6 605	6 862	6 804	7 142	6 754	6 953	7 083
> 80,1 sq.m	6 993	6 622	7 182	7 343	7 227	6 923	7 573	7 673	7 302	7 713
average offer price deviation	1,9%	x	1,2%	x	0,2%	x	4,0%	x	2,4%	x
<= 40 sq.m	-5,6%	x	-0,9%	x	-2,2%	x	3,6%	x	8,3%	x
(40,1; 60] sq.m	4,1%	x	2,1%	x	2,3%	x	5,5%	x	3,3%	x
(60,1; 80] sq.m	3,2%	x	3,3%	x	0,9%	x	5,7%	x	-1,8%	x
> 80,1 sq.m	5,6%	x	-2,2%	x	4,4%	x	-1,3%	x	-5,3%	x

Source: NBP

Table 12 Average prices of a square meter of housing in the secondary market in Poznań

specification	II Q 2018		III Q 2018		IV Q 2018		I Q 2019		II Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	6 652	5 781	6 763	5 933	6 939	6 074	6 960	5 953	7 073	6 194
growth (q-o-q)	101,9	102,9	101,7	102,6	102,6	102,4	100,3	98,0	101,6	104,0
growth (y-o-y)	109,4	105,8	111,7	109,2	109,3	109,4	106,7	106,0	106,3	107,1
dwelling price range	316	1105	249	1152	208	840	1454	488	1127	432
<=4 000 PLN/sq.m	9	53	8	50	7	30	32	22	22	9
(4 001; 6 000] PLN/sq.m	121	625	87	594	61	428	374	246	279	190
(6 001; 8 000] PLN/sq.m	131	370	110	444	96	319	772	197	575	202
(8 001; 10 000] PLN/sq.m	42	48	27	56	27	53	206	23	197	28
>10 001 PLN/sq.m	13	9	17	8	17	10	70		54	3
dwelling space range	316	1105	249	1152	208	840	1454	488	1127	432
<= 40 sq.m	40	325	33	354	20	264	260	155	202	137
(40,1; 60] sq.m	116	486	88	517	71	363	600	214	453	201
(60,1; 80] sq.m	92	206	67	207	58	152	331	91	276	81
> 80,1 sq.m	68	88	61	74	59	61	263	28	196	13
average price of 1 sq.m. of dwelling	6652	5781	6763	5933	6939	6074	6960	5953	7073	6194
<=4 000 sq.m	7475	6300	7754	6442	8297	6589	7758	6497	7957	6924
(40,1; 60] sq.m	6734	5748	6654	5920	6966	6058	7005	5968	7302	5987
(60,1; 80] sq.m	6481	5311	6843	5355	6962	5514	6672	5294	6576	5568
> 80,1 sq.m	6257	5140	6295	5204	6425	5331	6431	4966	6334	5588
average offer price deviation	15,1%	x	14,0%	x	14,3%	x	16,9%	x	14,2%	x
<= 40 sq.m	18,6%	x	20,4%	x	25,9%	x	19,4%	x	14,9%	x
(40,1; 60] sq.m	17,2%	x	12,4%	x	15,0%	x	17,4%	x	22,0%	x
(60,1; 80] sq.m	22,0%	x	27,8%	x	26,3%	x	26,0%	x	18,1%	x
> 80,1 sq.m	21,7%	x	21,0%	x	20,5%	x	29,5%	x	13,4%	x

Source: NBP

Table 13 Average prices of a square meter of housing in the primary market in Warsaw

specification	II Q 2018		III Q 2018		IV Q 2018		I Q 2019		II Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	8 611	8 183	8 888	8 538	9 020	8 565	9 427	8 771	9 591	8 932
growth (q-o-q)	105,0	102,7	103,2	104,3	101,5	100,3	104,5	102,4	101,7	101,8
growth (y-o-y)	111,3	106,5	114,1	109,2	112,5	110,5	118,4	101,9	117,2	100,5
dwelling price range	13 079	4 462	13 876	3 994	13 381	4 296	12 709	4 296	14 945	4 348
<=4 000 PLN/sq.m	0	0	0	0	0	0	0	0	0	0
(4 001; 6 000] PLN/sq.m	598	211	507	112	318	152	142	172	108	121
(6 001; 8 000] PLN/sq.m	5 615	2 144	5 060	1 680	4 951	1 688	3 797	1 422	4 109	1 535
(8 001; 10 000] PLN/sq.m	4 694	1 691	5 325	1 556	5 272	1 767	5 320	1 886	6 139	1 804
>10 001 PLN/sq.m	2 172	416	2 984	646	2 840	689	3 450	816	4 589	888
dwelling space range	13 079	4 462	13 876	3 994	13 381	4 296	12 709	4 296	14 945	4 348
<= 40 sq.m	1 563	872	1 788	853	1 508	866	1 393	989	1 835	911
(40,1; 60] sq.m	5 557	2 150	5 835	1 879	5 855	2 020	5 443	1 964	6 532	2 004
(60,1; 80] sq.m	4 377	1 077	4 550	926	4 375	1 060	4 189	1 023	4 710	1 053
> 80,1 sq.m	1 582	363	1 703	336	1 643	350	1 684	320	1 868	380
average price of 1 sq.m. of dwelling	8 611	8 183	8 888	8 538	9 020	8 565	9 427	8 771	9 591	8 932
<=4 000 sq.m	10 033	8 578	10 394	9 168	10 641	9 149	11 646	9 358	11 400	9 675
(40,1; 60] sq.m	8 364	7 984	8 615	8 330	8 756	8 382	9 104	8 538	9 332	8 694
(60,1; 80] sq.m	8 201	8 072	8 461	8 128	8 519	8 313	8 782	8 527	8 920	8 542
> 80,1 sq.m	9 204	8 741	9 380	9 228	9 807	8 935	10 242	9 166	10 407	9 487
average offer price deviation	5,2%	x	4,1%	x	5,3%	x	7,5%	x	7,4%	x
<= 40 sq.m	17,0%	x	13,4%	x	16,3%	x	24,4%	x	17,8%	x
(40,1; 60] sq.m	4,8%	x	3,4%	x	4,5%	x	6,6%	x	7,3%	x
(60,1; 80] sq.m	1,6%	x	4,1%	x	2,5%	x	3,0%	x	4,4%	x
> 80,1 sq.m	5,3%	x	1,7%	x	9,8%	x	11,7%	x	9,7%	x

Source: NBP

Table 14 Average prices of a square meter of housing in the secondary market in Warsaw

specification	II Q 2018		III Q 2018		IV Q 2018		I Q 2019		II Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	9 347	8 393	9 612	8 578	10 277	8 712	10 294	8 501	10 567	8 610
growth (q-o-q)	100,0	104,3	102,8	102,2	106,9	101,6	100,2	97,6	102,6	101,3
growth (y-o-y)	105,2	107,3	106,7	107,0	111,3	108,2	110,1	105,6	113,1	102,6
dwelling price range	3 338	3 729	2 996	3 782	2 755	3 566	2 349	1 384	2 578	1 371
<=4 000 PLN/sq.m	0	2	0	0	0	0	0	0	0	0
(4 001; 6 000] PLN/sq.m	146	366	144	278	69	218	51	80	38	70
(6 001; 8 000] PLN/sq.m	1 033	1 472	799	1 397	594	1 263	461	561	468	506
(8 001; 10 000] PLN/sq.m	1 136	1 199	1 020	1 312	858	1 312	800	485	818	522
>10 001 PLN/sq.m	1 023	690	1 033	795	1 234	773	1 037	258	1 254	273
dwelling space range	3 338	3 729	2 996	3 782	2 755	3 566	2 349	1 384	2 578	1 371
<= 40 sq.m	474	1 132	363	1 140	403	1 070	306	412	347	417
(40,1; 60] sq.m	1 268	1 628	1 050	1 646	929	1 542	795	590	882	589
(60,1; 80] sq.m	821	619	740	647	660	635	608	249	641	259
> 80,1 sq.m	775	350	843	349	763	319	640	133	708	106
average price of 1 sq.m. of dwelling	9 347	8 393	9 612	8 578	10 277	8 712	10 294	8 501	10 567	8 610
<=4 000 sq.m	10 139	9 022	10 435	9 123	11 447	9 231	11 300	9 298	11 728	9 445
(40,1; 60] sq.m	9 111	8 058	9 437	8 194	10 077	8 370	10 173	8 214	10 256	8 320
(60,1; 80] sq.m	8 780	7 785	9 072	8 294	9 672	8 334	9 699	7 982	10 019	8 050
> 80,1 sq.m	9 849	8 993	9 950	9 133	10 426	9 375	10 530	8 273	10 881	8 305
average offer price deviation	11,4%	x	12,1%	x	18,0%	x	21,1%	x	22,7%	x
<= 40 sq.m	12,4%	x	14,4%	x	24,0%	x	21,5%	x	24,2%	x
(40,1; 60] sq.m	13,1%	x	15,2%	x	20,4%	x	23,8%	x	23,3%	x
(60,1; 80] sq.m	12,8%	x	9,4%	x	16,1%	x	21,5%	x	24,5%	x
> 80,1 sq.m	9,5%	x	9,0%	x	11,2%	x	27,3%	x	31,0%	x

Source: NBP

Table 15 Average prices of a square meter of housing in the primary market in Wrocław

specification	II Q 2018		III Q 2018		IV Q 2018		I Q 2019		II Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	7 020	6 651	7 145	6 750	7 230	6 905	7 457	7 032	7 636	7 435
growth (q-o-q)	104,1	102,2	101,8	101,5	101,2	102,3	103,1	101,8	102,4	105,7
growth (y-o-y)	108,7	105,3	111,8	104,9	110,8	108,1	110,6	108,0	108,8	111,8
dwelling price range	5 777	1 676	5 510	1 614	5 662	1 272	5 939	1 695	6 360	1 464
<=4 000 PLN/sq.m	7	1	0	7	0	0	0	0	0	0
(4 001; 6 000] PLN/sq.m	1 955	653	1 568	498	1 384	342	906	391	807	222
(6 001; 8 000] PLN/sq.m	2 469	787	2 503	874	2 775	716	3 319	905	3 477	833
(8 001; 10 000] PLN/sq.m	1 018	172	1 124	212	1 112	172	1 285	348	1 552	316
>10 001 PLN/sq.m	328	63	315	23	391	42	429	51	524	93
dwelling space range	5 777	1 676	5 510	1 614	5 662	1 272	5 939	1 695	6 360	1 464
<= 40 sq.m	949	292	921	302	906	217	961	362	1235	289
(40,1; 60] sq.m	2739	821	2621	828	2636	657	2837	829	2946	695
(60,1; 80] sq.m	1753	474	1643	400	1700	325	1709	418	1685	394
> 80,1 sq.m	336	89	325	84	420	73	432	86	494	86
average price of 1 sq.m. of dwelling	7 020	6 651	7 145	6 750	7 230	6 905	7 457	7 032	7 636	7 435
<=4 000 sq.m	8279	7152	8397	7419	8416	7547	8613	7971	8683	8513
(40,1; 60] sq.m	6861	6573	7008	6579	7125	6781	7289	6825	7498	7192
(60,1; 80] sq.m	6566	6474	6613	6626	6729	6659	7055	6509	7076	7077
> 80,1 sq.m	7136	6674	7396	6626	7359	7207	7586	7624	7749	7415
average offer price deviation	5,5%	x	5,9%	x	4,7%	x	6,0%	x	2,7%	x
<= 40 sq.m	15,7%	x	13,2%	x	11,5%	x	8,0%	x	2,0%	x
(40,1; 60] sq.m	4,4%	x	6,5%	x	5,1%	x	6,8%	x	4,3%	x
(60,1; 80] sq.m	1,4%	x	-0,2%	x	1,1%	x	8,4%	x	0,0%	x
> 80,1 sq.m	6,9%	x	11,6%	x	2,1%	x	-0,5%	x	4,5%	x

Source: NBP

Table 16 Average prices of a square meter of housing in the secondary market in Wrocław

specification	II Q 2018		III Q 2018		IV Q 2018		I Q 2019		II Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	6 485	6 077	6 491	6 159	6 571	6 191	7 339	6 267	7 441	6 482
growth (q-o-q)	101,0	104,0	100,1	101,3	101,2	100,5	111,7	101,2	101,4	103,4
growth (y-o-y)	103,5	111,6	103,1	106,9	103,2	104,8	114,3	107,3	114,7	106,7
dwelling price range	1 544	272	1 554	248	1 290	242	321	236	1 703	201
<=4 000 PLN/sq.m	18	7	19	4	18	8	2	10	5	3
(4 001; 6 000] PLN/sq.m	686	141	676	113	539	109	73	94	301	75
(6 001; 8 000] PLN/sq.m	649	103	667	113	558	100	147	106	926	103
(8 001; 10 000] PLN/sq.m	125	19	131	14	118	22	75	22	324	13
>10 001 PLN/sq.m	66	2	61	4	57	3	24	4	147	7
dwelling space range	1 544	272	1 554	248	1 290	242	321	236	1 703	201
<= 40 sq.m	231	41	233	37	213	50	45	53	221	38
(40,1; 60] sq.m	592	122	606	111	505	107	127	98	656	95
(60,1; 80] sq.m	477	83	482	78	384	58	94	54	529	51
> 80,1 sq.m	244	26	233	22	188	27	55	31	297	17
average price of 1 sq.m. of dwelling	6 485	6 077	6 491	6 159	6 571	6 191	7 339	6 267	7 441	6 482
<=4 000 sq.m	7 330	7 079	7 338	7 023	7 344	6 782	8 152	7 150	8 796	7 592
(40,1; 60] sq.m	6 498	6 248	6 502	6 325	6 574	6 364	7 345	6 182	7 502	6 447
(60,1; 80] sq.m	6 220	5 611	6 256	5 638	6 313	5 811	7 099	5 821	7 066	5 947
> 80,1 sq.m	6 170	5 184	6 101	5 724	6 215	5 229	7 071	5 801	6 967	5 807
average offer price deviation	6,7%	x	5,4%	x	6,1%	x	17,1%	x	14,8%	x
<= 40 sq.m	3,5%	x	4,5%	x	8,3%	x	14,0%	x	15,9%	x
(40,1; 60] sq.m	4,0%	x	2,8%	x	3,3%	x	18,8%	x	16,4%	x
(60,1; 80] sq.m	10,9%	x	11,0%	x	8,6%	x	21,9%	x	18,8%	x
> 80,1 sq.m	19,0%	x	6,6%	x	18,9%	x	21,9%	x	20,0%	x

Source: NBP

7. In-depth analysis of the situation of real estate developers and construction companies

7.1. Analysis of the financial situation of real estate developers³⁶

According to NBP estimates, in 2019 Q2 as compared to the previous quarter, the most cities being voivodship capitals saw further increase in home sales and in the number of dwellings available for sale in the primary market. Developers with bonds on the Catalyst market, after weaker sales figures in 2019 Q1, achieved better results in home sales in 2019 Q2 (a 4.9% increase as compared to the previous quarter and a 1.8% increase as compared to the corresponding period in 2018).

The analysis of the Public Statistics data points to a persistently high activity in the housing market as regards the supply side. The comparison of the Public Statistics data from the first half-year periods of the last four years (from 2016 to 2019) points to a systematic increase in the number of dwellings completed and dwellings under construction. The growing performance in the first half of 2019 is driven by strong performance in the construction sector in 2019Q1. After an increase in home construction starts in 2019 Q1 (an increase by over 12% in y/y and q/q terms), the 2019 Q2 saw a decrease in home construction starts by over 6% as compared to 2018 Q2, which is also confirmed by the analysis of entries in the financial statements of large real estate developers (F-01). According to the accounting records, in the group of large real estate developers, after a significant increase in dwellings under construction in the first three months, these figures declined significantly in 2019 Q2 (a 42% decline as compared to the preceding quarter and a 30% decline as compared with the corresponding quarter a year ago). In 2019 Q2 the activity of large real estate developers focused on the implementation of previously started development projects. A significant number of developers embark on new projects after completing an average of 75% of the already launched projects, which results from their cautious approach in the event of a collapse in demand. The cautious policy adopted by real estate developers in new project starts may result in a considerable volatility of reported financial data in the analysed periods and is currently not a reason to forecast a significant decrease in developer activity.

In the group of large real estate developers, in 2019 Q2 the value of basic economic indicators dropped significantly, with a lower decline in the net financial result than in the value of total income and expenditure, which allowed them to generate a higher net margin on sales as compared to the results in the previous quarter. A significant decrease in the value of income from sales (by over 40%), despite increases in home prices in the primary market is the result of a smaller number of dwellings completed in 2019 Q2, after a record high number of home sales in the previous quarter and a year ago, which was possibly due to, among others, mild weather conditions.

The group of real estate developers listed on the WSE also saw a significant decrease in sales revenues (by over 20%) compared to the previous quarter. However, the value of the net financial result increased, and thus the

³⁶ Calculations and conclusions in this edition of the Information are based on data resulting from F01 reports submitted to the Statistics Poland (GUS), broken down into two groups of companies: those employing from 9 to 49 persons (data available until the first half of 2019, in half-a-year periods) and those whose staff exceeds 49 persons (data available until 2019 Q2 in quarterly periods), involved in the execution of construction projects related to the construction of buildings (PKD 41.10). As some data were disclosed at a later date, the analysis of accounting entries in the financial statements of real estate developers listed on the Warsaw Stock Exchange was based on the data covering the period up to 2019 Q1. The analysis of the accounting entries was supplemented with the information on a dozen or so real estate developers specializing in residential development listed on the Catalyst market (report "Situation of the largest residential real estate developers listed on the Catalyst market in the first half of 2019", Nawigator Dom Maklerski, Warsaw, July 2019).

net sales margin improved. Its level in 2019 Q2 increased and was more satisfactory than in the previous quarter and the year before and the highest in the three groups of analysed companies.

Smaller real estate developers posted a slight increase in home production in progress in the first half of 2019 as compared to the levels recorded in particular half-year periods of 2018 and 2017, as well as an improvement in return on sales, equity and assets, generating much higher average financial results, with a slight increase in total revenues and a slight decrease in total expenses.

In all three groups of analysed real estate developers, rates of return on sales, equity and corporate assets remained a safe, satisfactory level in the first half of 2019.

Both in the group of smaller and larger real estate developers, the stock of completed dwellings ready for occupancy decreased and their condition remains at a very low level. The decline in the number of new development projects implemented by large real estate developers curbed down growth in the prices of land for residential construction, thus allowing them to replenish, to some extent, the depleted stock of developable land.

The operating cost ratio has improved and is most favourable in the group of real estate developers listed on the WSE. On the other hand, the operating cost to sales income ratio has reached unfavourable levels. The unfavourable level of this ratio continuing in the subsequent periods may be indicative of the tensions in the basic area of corporate operations. In 2019 Q1 and Q2 this group of companies recorded a significant reduction in trade accounts payable towards contractors, which is partly due to lower production in progress and the shift to the implementation of housing development projects on their own, which, according to real estate developers, reduces costs resulting from the general contractor's margin and ensures direct control of the implemented project. The group of smaller real estate developers posted a slight increase in the cost of third party services in the first half of 2019 as compared to two half-years periods of 2018 which is mainly the result of an increase in the number of commenced projects. Both groups of developers reported an increase in wages in the first half of 2019 as an important condition to retain the labour force employed to carry out construction works.

Equity plays the main role in financing the operations of real estate developers (on average from 42% to 44% in the structure of liabilities of the analysed groups of companies). As regards external sources of financing, buyers' down payment play a significant role. In the group of smaller real estate developers the share of down payments increased to over 20% in the structure of liabilities. The share of down payments in the structure of liabilities of large real estate developers listed on the WSE is smaller (approx. 15% each).

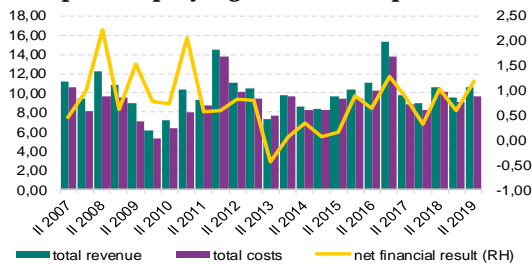
In 2019 Q2, the average value of liabilities resulting from bank loans and debt securities decreased in the group of large real estate developers. The value of debt securities dropped significantly by 45%. Smaller companies and companies listed on the WSE reported an increase in the value of financial liabilities resulting from loans and debt securities. Housing developers holding bonds on the Catalyst market continued to see low activity, with a slight increase in the average interest rate on bond coupons.

All groups of companies reported an increase in the value of other liabilities. Along with a decline in production in the group of large real estate developers this may attest to persisting delays in the payment of accounts payable to building contractors. At the end of 2019 Q2, accounts payable to service providers accounted for approx. 21% in the liability structure in the group of large enterprises and over 23% in the group of smaller real

estate developers. The lowest share of accounts payable to service providers, accounting for over 15%, was recorded in the group of real estate developers listed on the WSE.

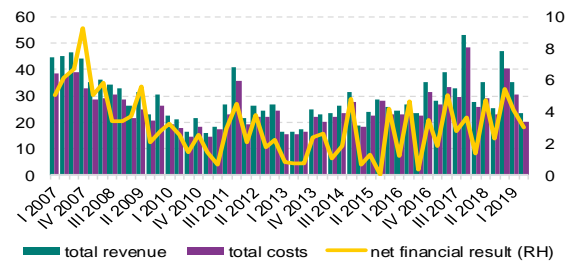
In the group of large companies and companies listed on the WSE, financial liquidity remains at a low, albeit stable level. However, in the group of real estate developers listed on the WSE, a slight decrease in the quick ratio may be indicative of the company not being able to instantly meet its current liabilities. The debt ratio (the total debt-to-income ratio) and the debt-to-equity ratio remain at a safe level. This gives companies a good position when applying for a loan and ensures security of funds entrusted by creditors.

Figure 71 Economic indicators of real estate developers employing from 9 to 49 persons



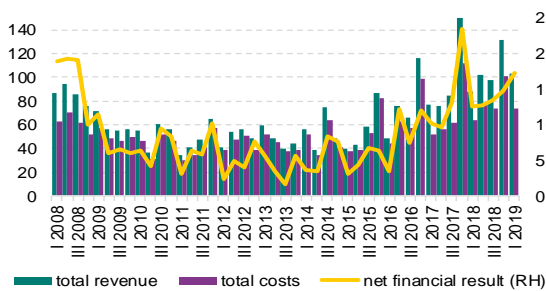
Source: NBP based on GUS (F01)

Figure 72 Economic indicators of real estate developers employing more than 49 persons



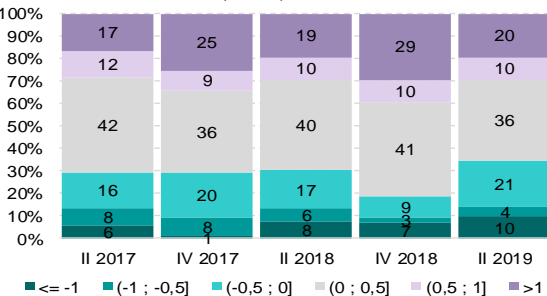
Source: NBP based on GUS (F01)

Figure 73 Economic indicators of real estate developers listed on the Stock Exchange



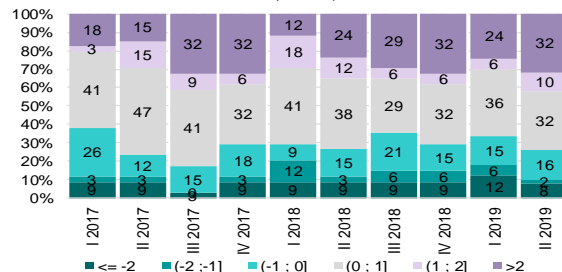
Source: NBP based on Financial Statements

Figure 74 Structure of real estate developers employing from 9 to 49 persons depending on the net financial result (in %)



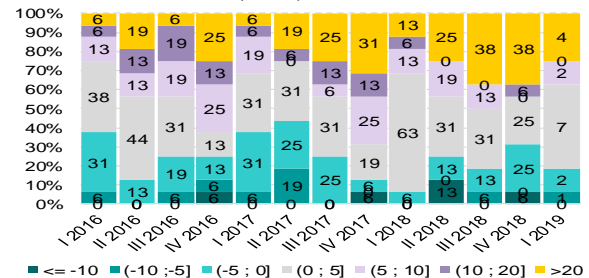
Source: NBP based on GUS (F01)

Figure 75 Structure of real estate developers employing more than 49 persons depending on the net financial result (in %)



Source: NBP based on GUS (F01)

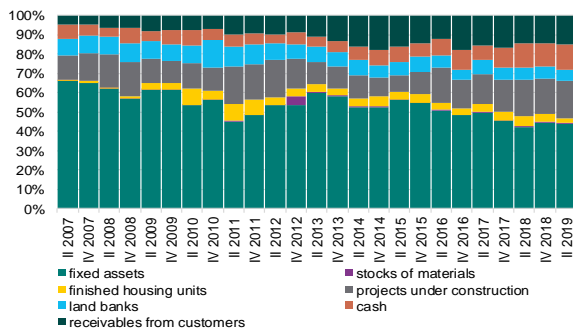
Figure 76 Structure of real estate developers listed on the Stock Exchange depending on the net financial result (in %)



Source: NBP based on Financial Statements

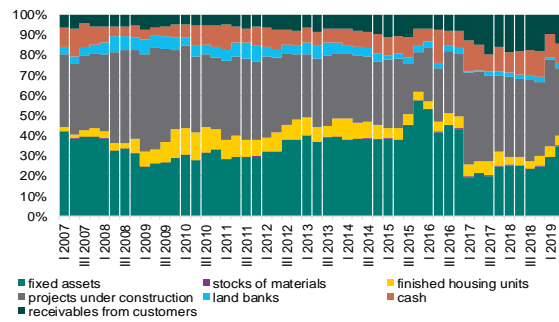
Figure 77 Structure of assets of real estate developers employing from 9 to 49 persons

Figure 78 Structure of assets of real estate developers employing more than 49 persons



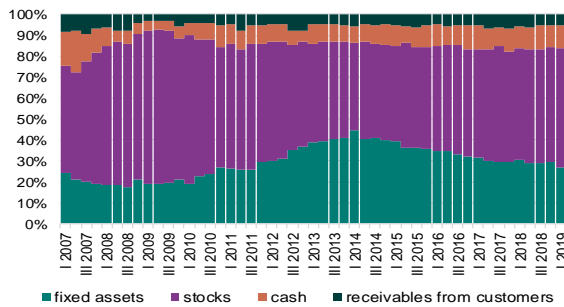
Source: NBP based on GUS (F01)

Figure 79 Structure of assets of real estate developers listed on the Stock Exchange



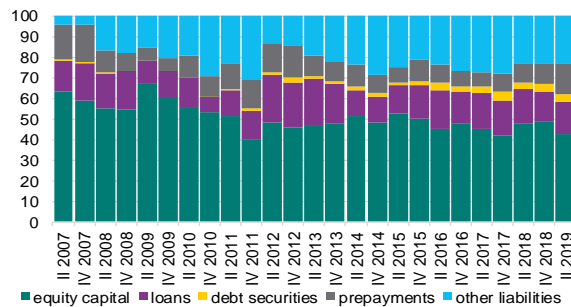
Source: NBP based on GUS (F01)

Figure 80 Structure of liabilities of real estate developers employing from 9 to 49 persons



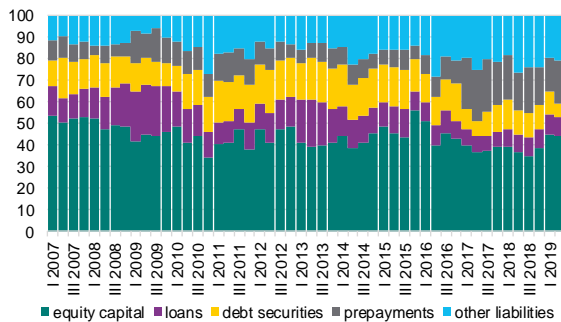
Source: NBP based on Financial Statements

Figure 81 Structure of liabilities of real estate developers employing more than 49 persons



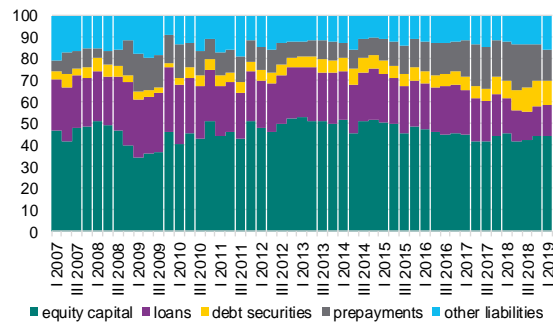
Source: NBP based on GUS (F01)

Figure 82 Structure of liabilities of real estate developers listed on the Stock Exchange



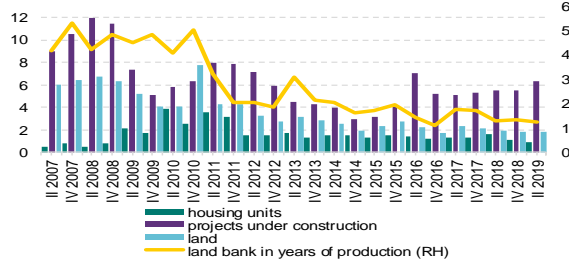
Source: NBP based on GUS (F01)

Figure 83 Situation of real estate developers employing from 9 to 49 persons



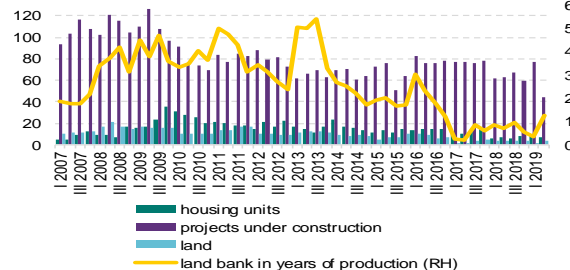
Source: NBP based on Financial Statements

Figure 84 Situation of real estate developers employing more than 49 persons



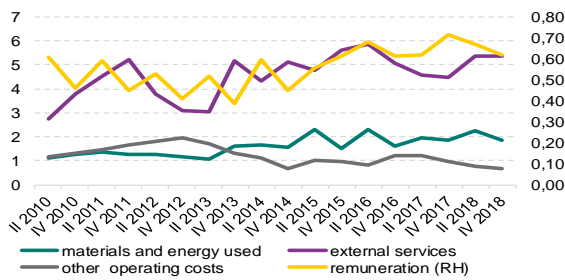
Source: NBP based on GUS (F01)

Figure 85 Operating expenses of real estate developers employing from 9 to 49 persons



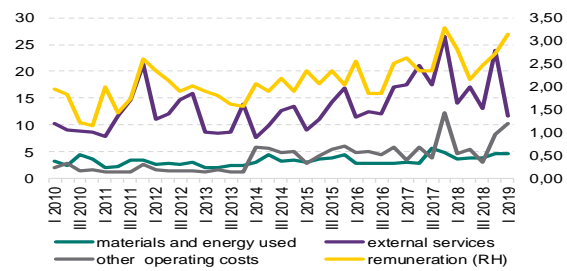
Source: NBP based on GUS (F01)

Figure 86 Operating expenses of real estate developers employing more than 49 persons



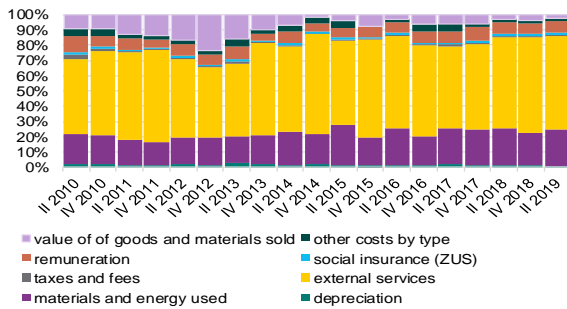
Source: NBP based on GUS (F01)

Figure 87 Structure of operating expenses of real estate developers employing from 9 to 49 persons



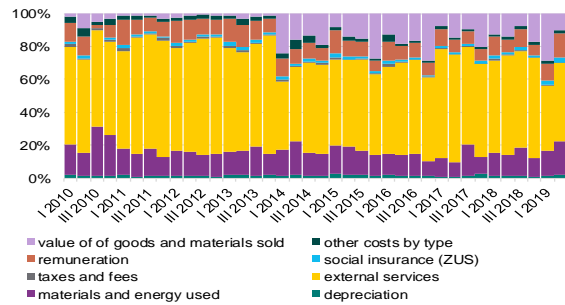
Source: NBP based on GUS (F01)

Figure 88 Structure of operating expenses of real estate developers employing more than 49 persons



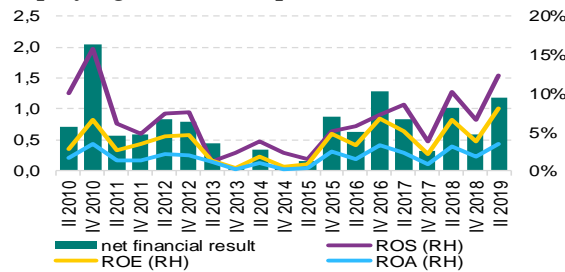
Source: NBP based on GUS (F01) and Financial Statements

Figure 89 Profitability of real estate developers employing from 9 to 49 persons



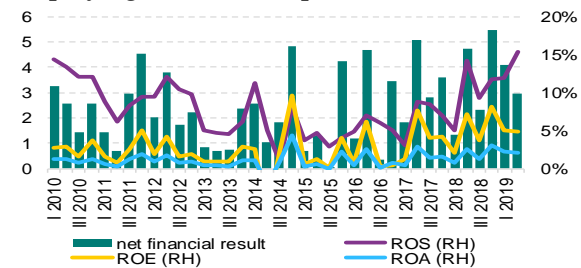
Source: NBP based on GUS (F01) and Financial Statements

Figure 90 Profitability of real estate developers employing more than 49 persons



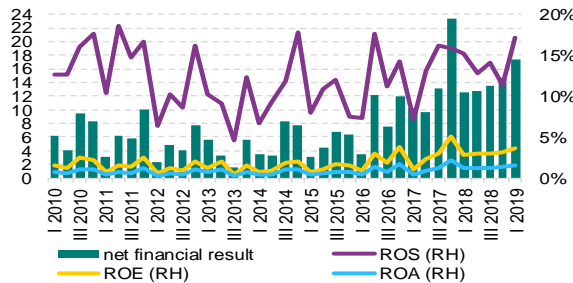
Source: NBP based on GUS (F01)

Figure 91 Profitability of real estate developers listed on the Stock Exchange



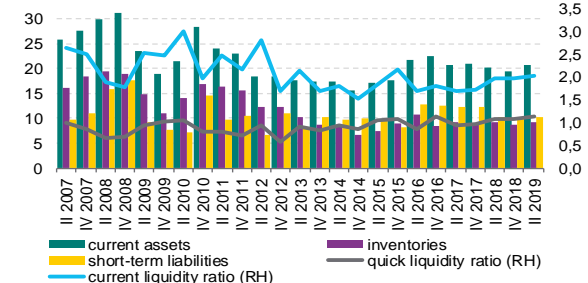
Source: NBP based on GUS (F01).

Figure 92 Liquidity ratios of real estate developers employing from 9 to 49 persons



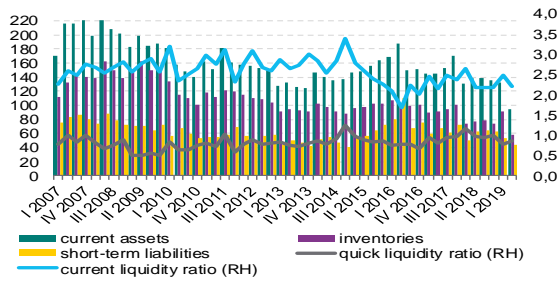
Source: NBP based on Financial Statements

Figure 93 Liquidity ratios of real estate developers employing more than 49 persons



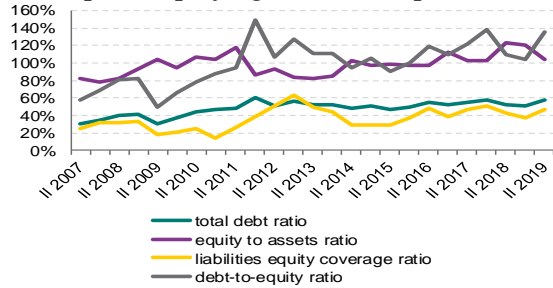
Source: NBP based on GUS (F01)

Figure 94 Liquidity ratios of real estate developers listed on the Stock Exchange



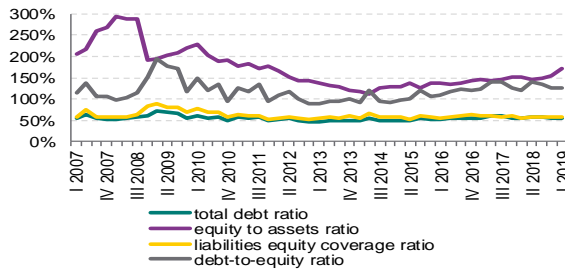
Source: NBP based on GUS (F01)

Figure 95 Debt ratios of real estate developers employing from 9 to 49 persons



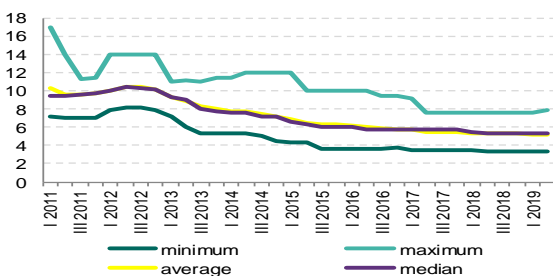
Source: NBP based on GUS (F01)

Figure 97 Debt ratios of real estate listed on the Stock Exchange

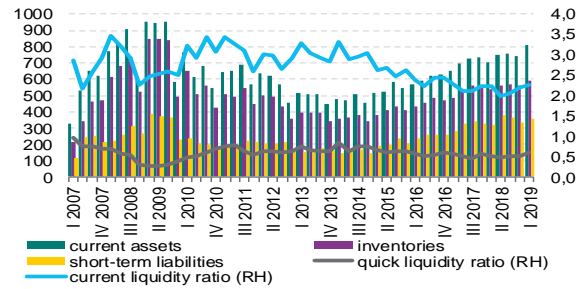


Source: NBP based on Financial Statements

Figure 99 Interest income on bond coupons held by real estate developers listed on the Catalyst market

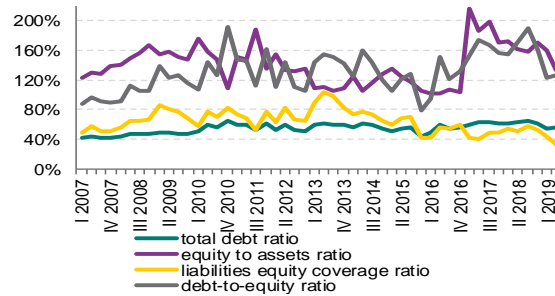


Source: NBP based on Catalyst data



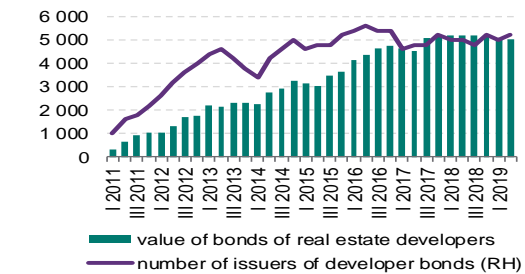
Source: NBP based on Financial Statements

Figure 96 Debt ratios of real estate developers employing more than 49 persons



Source: NBP based on GUS (F01)

Figure 98 Value of developer bonds and number of issuers of developer bonds on the Catalyst market



Source: NBP based on Catalyst data

7.2. Analysis of financial standing of construction companies ³⁷

According to GUS data, in the first half of 2019, compared to the corresponding period of 2018, the demand for services in building construction increased (an increase of over 10% in the value of sold construction and assembly production in the residential and non-residential sector). In quarter-on-quarter terms (in 2019 Q2 as compared to the corresponding period of 2018) this was an increase of 11%. On the other hand, as regards the construction of residential buildings, the growth in the value of sold construction and assembly production slowed down (in 2019 there was an increase of over 4% y/y, whereas in the previous quarter this increase reached approx. 14% y/y). In 2019 Q2, sales of construction and assembly production for residential buildings accounted for approx. 18% of the total value of domestic construction and assembly production.

On the one hand, the continuing strong demand for housing services creates the opportunity for construction companies to generate high revenues, but, on the other hand, the lack of sufficient production capacity and high costs associated with the implementation of signed contracts (rising prices of materials and wages) poses a serious challenge. According to the data reported in the F-01 reports in 2019 Q2, the average total revenues of large construction companies (employing over 49 people) were 24% higher than those recorded in the corresponding period of 2018, which was achieved with a slightly higher increase in total costs (a 25% increase). Costs growing at a pace higher than the increase in generated revenues resulted in a 21% y/y decrease in the achieved financial result. Along with the deterioration of the financial result, the profitability of sales, equity and assets deteriorated significantly. The return on sales ratio amounted to 2.1% against 3.2% a year earlier, the return on assets ratio to 0.7% against 1.0%, and the return on equity ratio to 1.6% against 2.3%.

In the group of smaller companies (employing up to 49 people), turnover figures and profitability of operations were maintained. In the first half of 2019, compared to the first half of 2018, the average value of total revenues in this group of companies was higher by 1% y/y, which, with overheads lower by 3% y/y, allowed to generate a 26% higher net financial result. Return on sales (11.5%), equity (8.6%) and assets (4.7%) improved and are much higher than in the group of large companies carrying out construction works in building construction.

The data reported on F-01 reports point to a high activity of companies engaged in building construction, which is confirmed by the growing nominal value and the growing share in the structure of productive assets in progress (at the end of June 2019, a 15% share in the structure of large companies' assets and 17% in the structure of small entities, due to the increase in nominal value in year-on-year terms by 28% and 10% respectively). In the structure of operating expenses incurred by medium and large companies, the share of third party services expenses increased and costs of materials and electricity consumed got reduced. The relation of costs of materials and electricity consumed to net income from sales in both groups is favourable and indicates efficient management ensuring profitability of operations.

Equity is the main source of financing of construction companies with significant share in both groups of companies. At the end of June 2019, in the group of large companies, the share of equity remained at a level similar to that recorded a year before and reached 48%. In the group of smaller companies, satisfactory financial results allowed to increase the share of equity in the structure of liabilities in year-on-year terms from 59% to

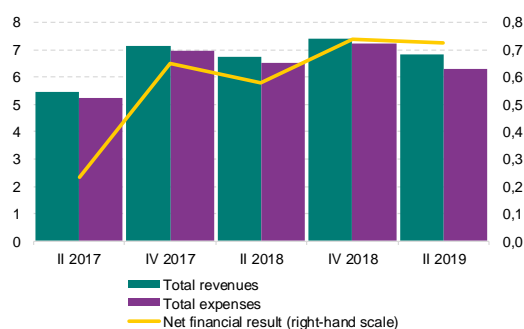
³⁷ Calculations and conclusions in this edition of the Information are based on data resulting from F01 reports submitted to the Statistics Poland (GUS), broken down into two groups of companies: those employing from 9 to 49 persons (data available until the first half of 2019 in half-year intervals) and those whose staff exceeds 49 persons (data available until 2019 Q2, in half-year intervals), involved in the execution of construction projects related to the construction of buildings (PKD 41.10).

61%. In both groups of construction companies, liabilities to third-party service providers are an important source of financing, and their share increased in the group of large companies by 7% at the end of 2019 Q2 as compared to the figures recorded a year before and by 13% as compared to the figures recorded in the previous quarter. In the group of smaller companies, the value of non-bank liabilities decreased and their share in the structure of liabilities at the end of June 2019 was significantly lower (22%) than in the group of large construction companies (37%).

At the end of June 2019, large companies reported a increase in bank debt (by 10% compared to the previous quarter and by 20% compared to 2018 Q2, which means a 13% share in the structure of liabilities). Smaller enterprises cut their bank loan financing. In this group, the value of bank debt at the end of the first half of 2019 decreased by 10% compared to the end of 2018 and by 11% compared to the end of the first half of 2018, reaching a 11% share in the structure of liabilities. Debt securities are a less significant source of financing, however their share in the structure of liabilities of small entities increased to 5.5% at the end of June 2019 against 2.5% at the end of 2018.

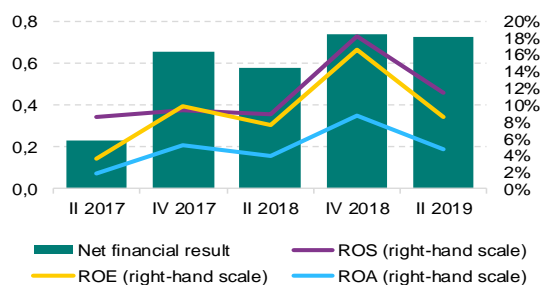
Financial liquidity remains at a similar, safe level, ensuring an amount sufficient to meet current liabilities. The total debt ratio and the debt-to-equity ratio are relatively stable and ensure the safety of funds entrusted by creditors and financial institutions.

Figure 100 Economic indicators of construction companies employing from 9 to 49 persons



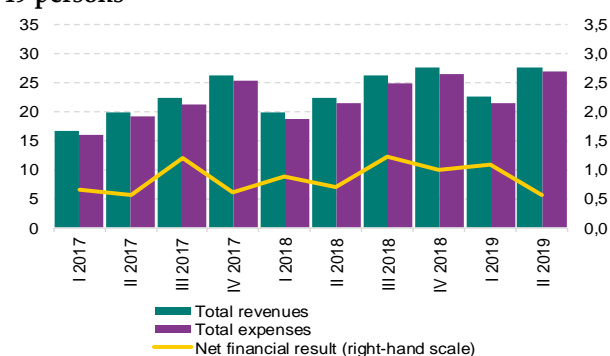
Source: NBP based on GUS

Figure 102 Profitability of construction companies employing from 9 to 49 persons



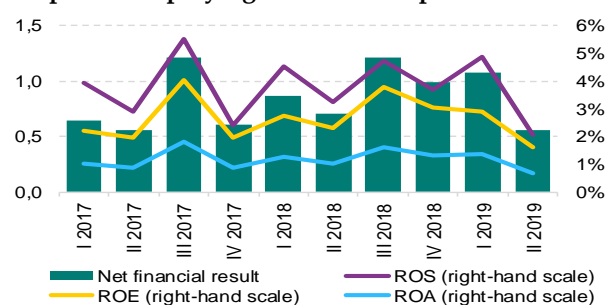
Source: NBP based on GUS

Figure 101 Economic indicators of construction companies employing more than 49 persons



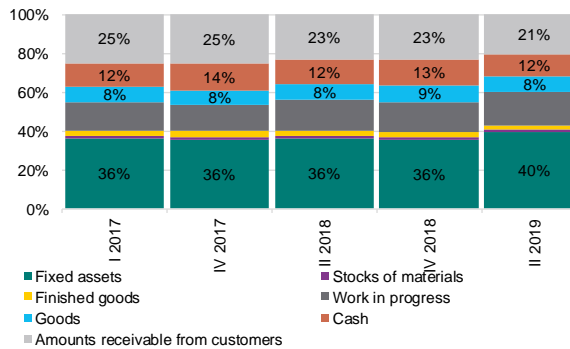
Source: NBP based on GUS

Figure 103 Profitability of construction companies employing more than 49 persons



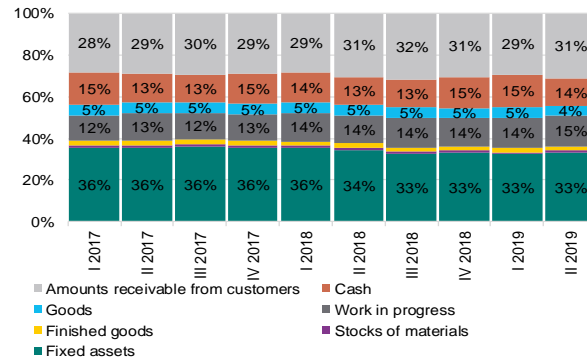
Source: NBP based on GUS

Figure 104 Structure of assets of construction companies employing from 9 to 49 persons



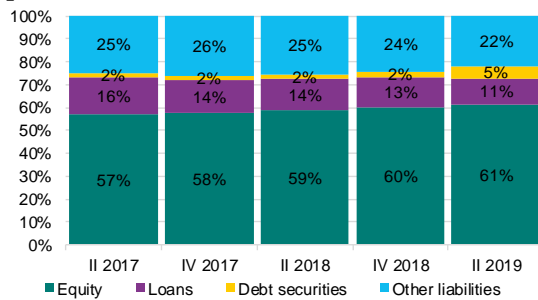
Source: NBP based on GUS

Figure 105 Structure of assets of construction companies employing more than 49 persons



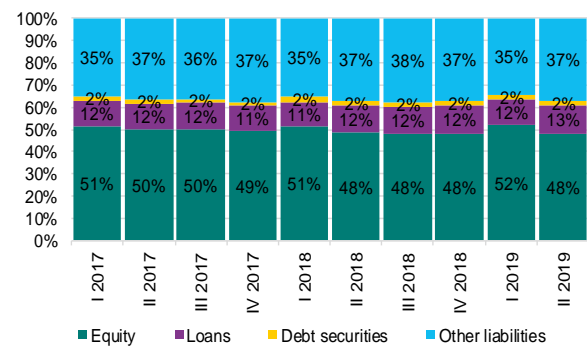
Source: NBP based on GUS

Figure 106 Structure of liabilities of construction companies employing from 9 to 49 persons



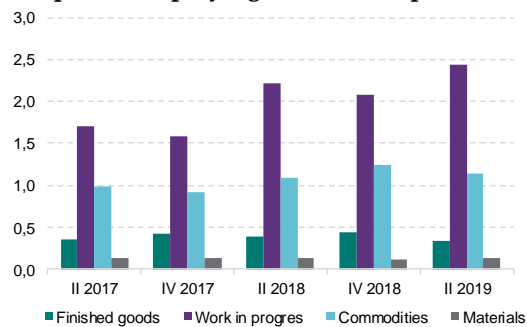
Source: NBP based on GUS

Figure 107 Structure of liabilities of construction companies employing more than 49 persons



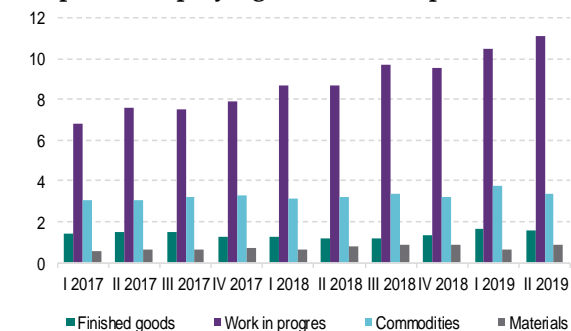
Source: NBP based on GUS

Figure 108 Situation of construction companies employing from 9 to 49 persons



Source: NBP based on GUS

Figure 109 Situation of construction companies employing more than 49 persons



Source: NBP based on GUS

7.3. Analysis of financial situation of construction material suppliers ³⁸

The analysis of the supply side of the residential real estate market involved the analysis of the economic and financial condition of suppliers of construction materials. The continuing rise in the prices of materials is one of the main problems in the construction industry and is largely due to the large order portfolio of construction materials. According to the data of the Polskie Składy Budowlane Group, prices of materials in the period from January to July 2019 compared to the corresponding period of 2018 increased in all product groups. The largest price increases were noted in the following product groups: walls, chimneys (by 18.3%), cement, lime (by 9.6%), house surroundings (by 6.4%), waterproofing (by 4.7%), construction chemicals (by 4.4%), dry construction (by 4.2%), paints, varnishes (by 4.1%).

In the group of large wholesalers (employing over 49 people) in 2019 Q2, the growth rate of total revenues and expenses and net financial result, which was observed in 2018 and in 2019 Q1, slowed down as compared to the same period of the previous year. In 2019 Q2, as compared to 2018 Q2, both total revenues and total expenses were lower by 8%, while the net financial result decreased by 10%. In the group of smaller wholesalers, a constant, slight increase in turnover has been observed since 2018. In the first half of 2019, as compared to the corresponding period of the previous year, total revenues increased by 12%, total expenses by 13% and net financial result rose by as much as 25%.

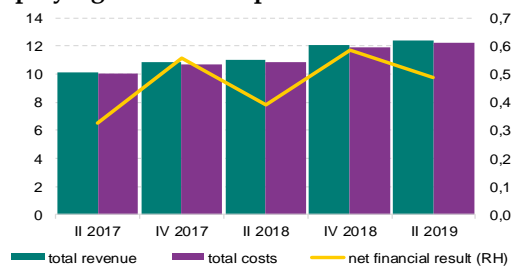
At the end of June 2019, the share of unprofitable companies in the group of large wholesalers of construction materials decreased and accounted for 17%, against 23% at the end of the first half of 2018. Among smaller companies this percentage was slightly higher and reached 19% (25% at the end of the first half of 2018). In both groups of companies, the return on equity ratio and the return on assets ratio improved against the levels recorded in the corresponding periods of the previous year. Their twofold increase in the group of smaller companies may indicate a more favourable situation of smaller wholesalers and more efficient use of capital and asset management. The average return on sales in both groups is at a similar, satisfactory level.

Equity is the main source of financing of companies involved in the sale of construction materials. Its share in the structure of liabilities is high (approx. 49% in the group of large companies and 51% in the group of smaller companies as at the end of June 2019). As regards external sources of financing in both groups of companies, accounts payable to producers of construction materials still account for their major part. In the group of large wholesalers, in year-on-year terms, the value of accounts receivables remained unchanged and the value of accounts payable dropped by 8% which, combined with lower turnover figures, may be indicative of difficulties in the receivables collection from construction companies. In this group of companies, bank debt decreased by several percent. Smaller wholesalers, along with an increase in turnover figures, posted an increase in short-term receivables and liabilities. Debt securities are a minor source of funding. Financial liquidity in both groups fluctuates at a high, stable level ensuring their ability to meet current liabilities.

³⁸ The calculations and conclusions presented in this edition of the Information were based on data resulting from F01 reports submitted to the Statistics Poland (GUS) broken down into two groups of companies: employing from 9 to 49 persons (data available until the first half of 2019, in half-year intervals) and those with staff exceeding 49 persons (data available until 2019 Q2, in half-year intervals), which are involved in the sale of wood and constructions materials (PKD 46.13) and in the wholesale of construction materials and sanitary equipment (PKD 46.73). The accounting entries were supplemented with information on changes in the prices of construction materials („Zmiana cen materiałów dla budownictwa oraz domu i ogrodu w kwietniu 2019 r. – analiza PSB”, Grupa PSB Handel S.A., - "Change in prices of construction materials and home and garden equipment in April 2019 - PSB analysis", PSB Handel SA Group, May 2019).

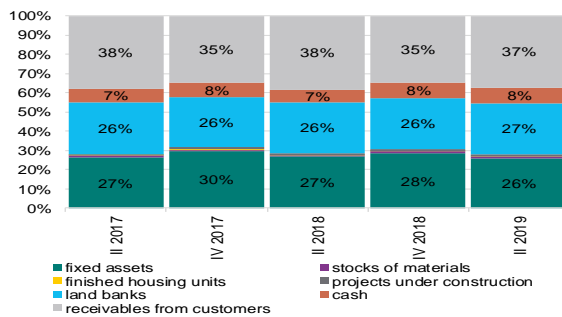
In 2019 Q2, as compared to 2018 Q2, large wholesalers noted a 8% decrease in operating expenses, with a 9% drop in the value of services provided by other entities, a 9% drop in the value of goods sold and a 3% decline in payroll expenses, which confirms lower turnover figures in the sector of construction materials. On the other hand, in the group of smaller companies in 2019 Q1, as compared to the corresponding period of 2018, operating expenses increased by 11%, with a 18% increase in the value of services provided by other entities, a 12% increase in the value of goods sold and a 11% increase in payroll. In both groups of companies, the inventory turnover period is short.

Figure 110 Economic indicators of companies involved in the sale of construction materials employing from 9 to 49 persons



Source: NBP based on GUS (F01)

Figure 112 Structure of assets of construction material suppliers employing from 9 to 49 persons



Source: NBP based on GUS (F01)

Figure 114 Structure of liabilities of construction material suppliers employing from 9 to 49 persons

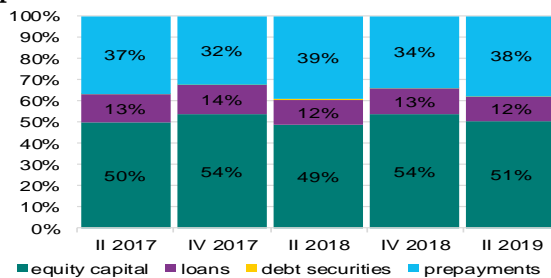
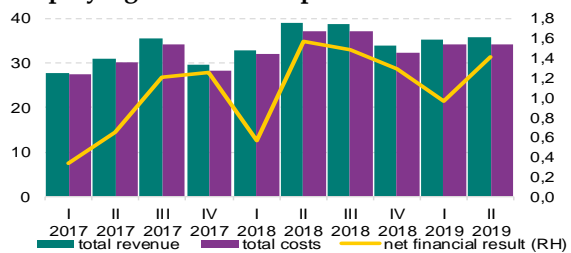
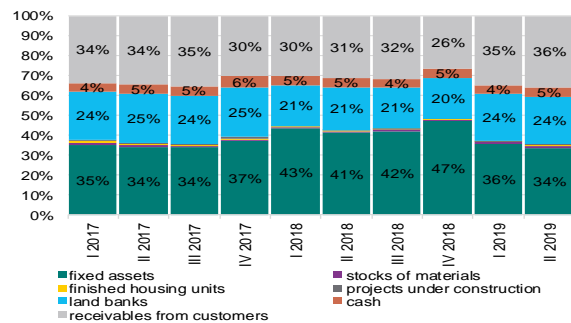


Figure 111 Economic indicators of companies involved in the sale of construction materials employing more than 49 persons



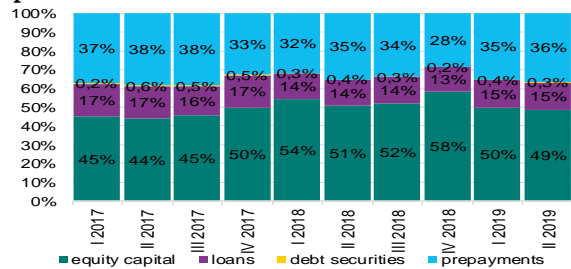
Source: NBP based on GUS (F01)

Figure 113 Structure of assets of construction material suppliers employing more than 49 persons



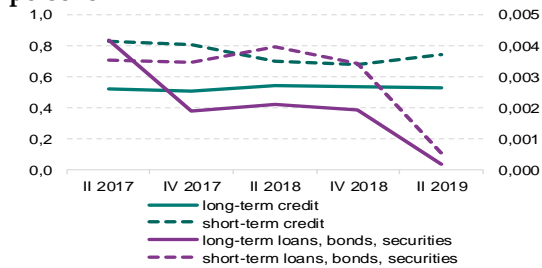
Source: NBP based on GUS (F01)

Figure 115 Structure of liabilities of construction material suppliers employing more than 49 persons



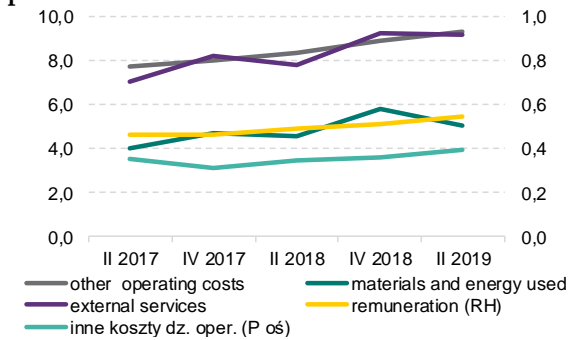
Source: NBP based on GUS (F01)

Figure 116 Sources of financing of construction material suppliers employing from 9 to 49 persons



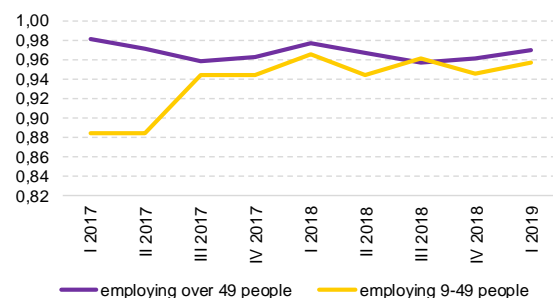
Source: NBP based on GUS (F01)

Figure 118 Operating expenses of construction material producers employing from 9 to 49 persons



Source: NBP based on GUS (F01)

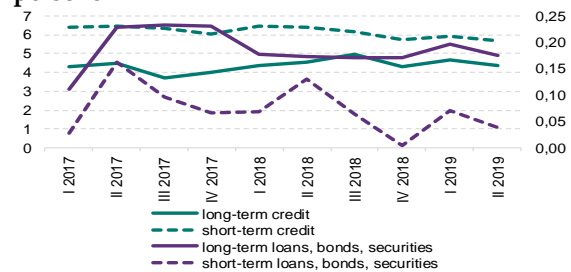
Figure 120 The level of operating expenses by groups of construction material producers



Source: NBP na podstawie GUS (F01)

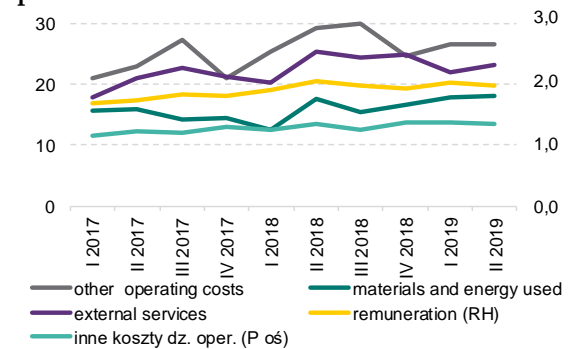
Source: NBP based on GUS (F01)

Figure 117 Sources of financing of construction material suppliers employing more than 49 persons



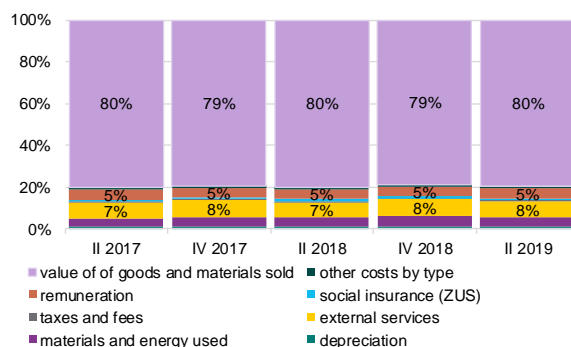
Source: NBP based on (F01)

Figure 119 Operating expenses of construction material producers employing more than 49 persons



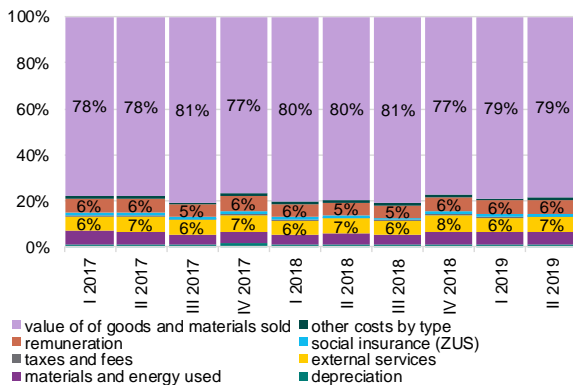
Source: NBP based on GUS (F01)

Figure 121 Structure of operating costs of construction material producers employing from 9 to 49 persons



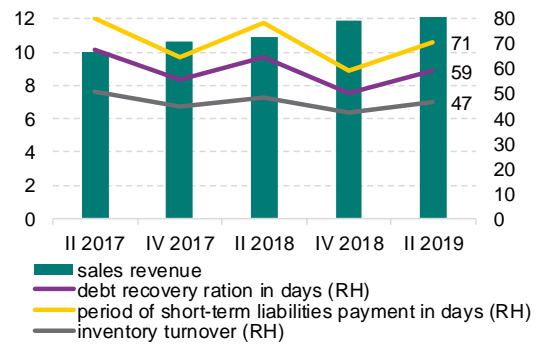
Source: NBP na podstawie GUS (F01)

Figure 122 Structure of operating costs of construction material producers employing more than 49 persons



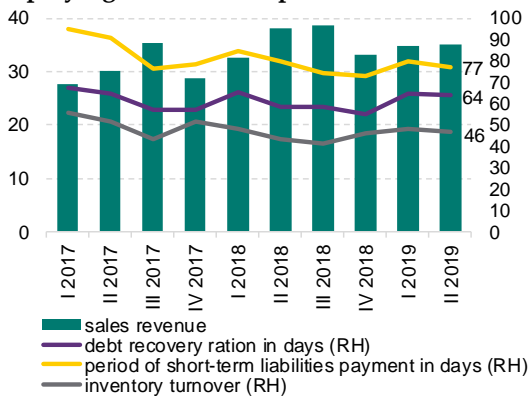
Source: NBP based on GUS (F01)

Figure 123 Turnover of stock, receivables and liabilities of construction material producers employing from 9 to 49 persons



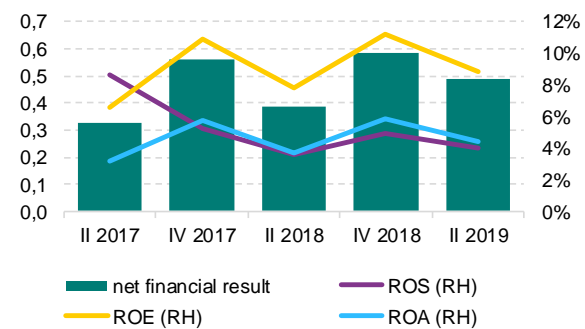
Source: NBP based on GUS (F01)

Figure 124 Turnover of stock, receivables and liabilities of construction material producers employing more than 49 persons



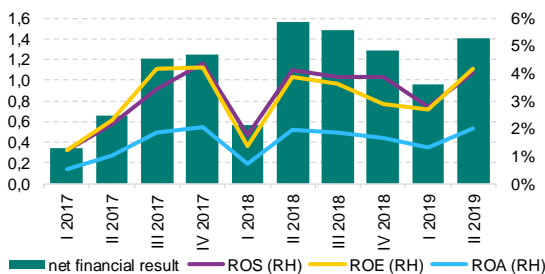
Source: NBP based on GUS (F01)

Figure 125 Profitability of construction material producers employing from 9 to 49 persons



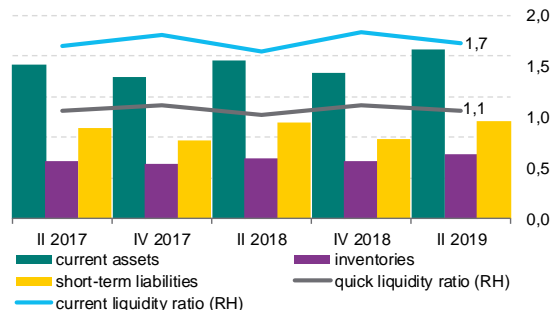
Source: NBP based on GUS (F01)

Figure 126 Profitability of construction material producers employing more than 49 persons



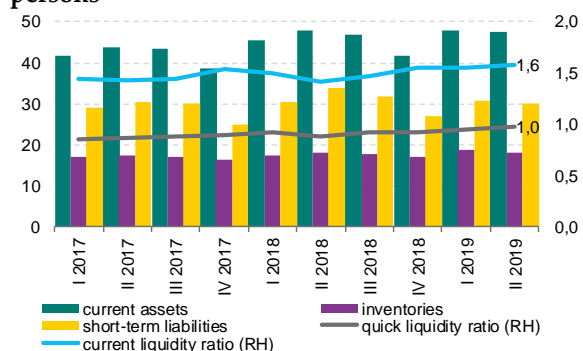
Source: NBP based on GUS (F01)

Figure 127 Liquidity ratios of construction material producers employing from 9 to 49 persons



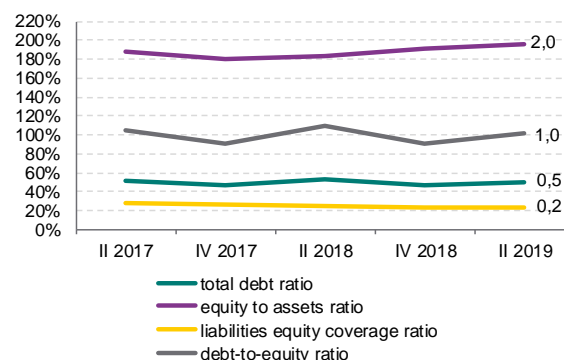
Source: NBP based on GUS (F01)

Figure 128 Liquidity ratios of construction material producers employing more than 49 persons



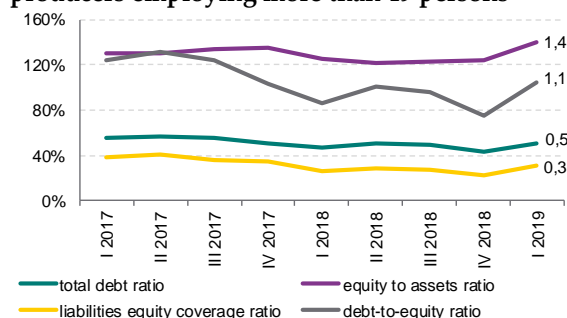
Source: NBP based on GUS (F01)

Figure 129 Debt ratios of construction material producers employing from 9 to 49 persons



Source: NBP based on GUS (F01)

Figure 130 Debt ratios of construction material producers employing more than 49 persons



Source: NBP based on GUS (F01)

7.4. Analysis of financial situation of construction material producers ³⁹

The persisting demand for housing and strong activity of real estate developers and construction companies directly translate into higher turnover and an improvement in the financial standing of manufacturers of construction materials. Income from sales increased by 3% in 2019 Q2 in the group of large producers and by 14% in the first half of 2019 in the group of smaller companies as compared to the corresponding periods in 2018. At the same time, amid operating expenses growing slower than income on sales and a much higher increase in the net financial result, both groups saw their return on sales, assets and equity improve, which points to a relatively high productivity.

³⁹ The calculations and conclusions in this edition of the Information were based on data resulting from F01 reports submitted to the Statistics Poland (GUS) broken down into two groups of companies: those employing from 9 to 49 persons (data available until the second half of 2019, in half-year intervals) and those with staff exceeding 49 persons (data available until 2019 Q2, in half-year intervals), being manufacturers of constructions materials (PKD 1623, 2223, 2320, 2332, 2351, 2352, 2361, 2362, 2363, 2364)

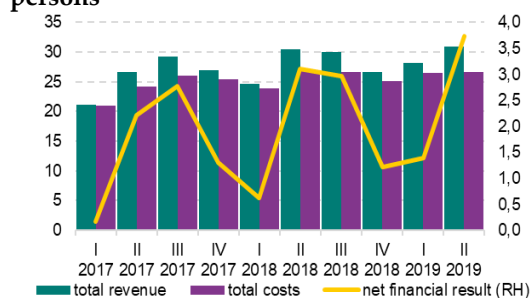
The high level of demand for construction materials translates into short periods of collection and payment of liabilities. Materials turnover is relatively short (at 44 days in large companies and 42 days in small ones).

Financial liquidity remains stable and profitable, which ensures that enterprises can meet their current liabilities with assets held. Debt ratios remain, as in the previous periods, at a stable, favourable level. The high share of equity in liabilities provides enterprises with independence and financial stability (at the end of June 2019, a 62% share in the structure of liabilities of large producers of construction materials and 56% in the group of smaller ones).

Positive financial results enabled companies to reduce their bank debt (a 15% share in the structure of liabilities of both groups as at the end of June 2019). Reduced level of accounts receivable from customers translated into declining level of accounts payable to services providers and suppliers of materials in the group of large companies. In the group of smaller producers of construction materials, along with the rise in turnover in the first half of 2019, as compared to the second half of 2018, both receivables from customers and liabilities to service contractors posted a 3% increase.

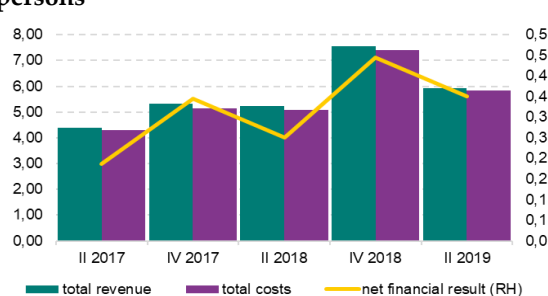
In both groups, in the first half of 2019, as compared to the corresponding period of 2018, similar growth was recorded in the value of materials and electricity consumed (6% -7%), costs of services to contractors (5% -9%) and payroll (12% -16%).

Figure 131 Economic indicators of construction material producers employing from 9 to 49 persons



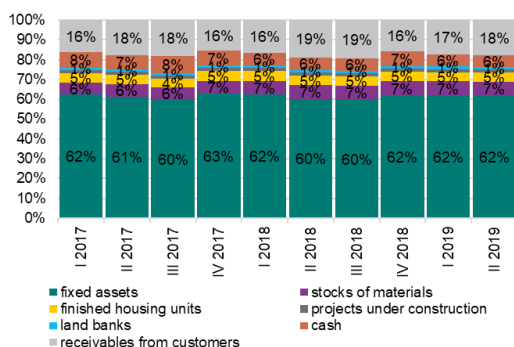
Source: NBP based on GUS (F01)

Figure 132 Economic indicators of construction material producers employing more than 49 persons



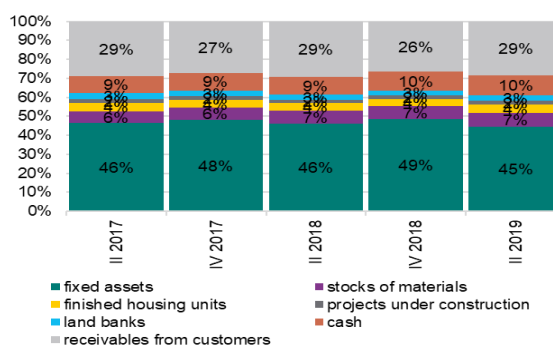
Source: NBP based on GUS (F01)

Figure 133 Structure of assets of construction material producers employing more than 49 persons



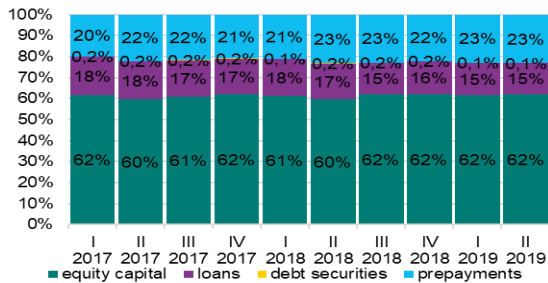
Source: NBP based on GUS (F01)

Figure 134 Structure of assets of construction material producers employing from 9 to 49 persons



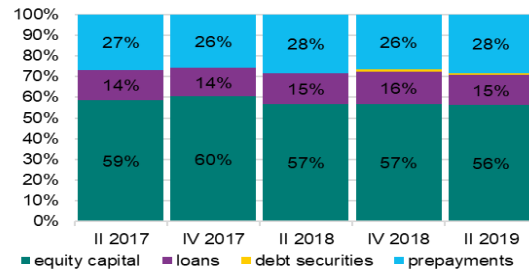
Source: NBP based on GUS (F01)

Figure 135 Structure of liabilities of construction material producers employing more than 49 persons



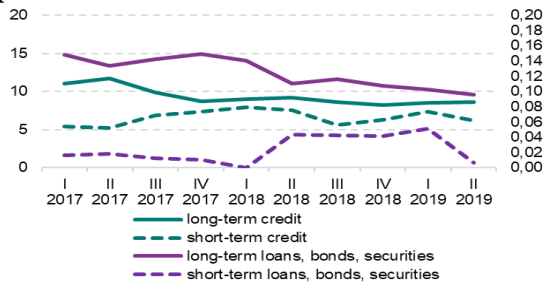
Source: NBP based on GUS (F01)

Figure 136 Structure of liabilities of construction material producers employing from 9 to 49 persons



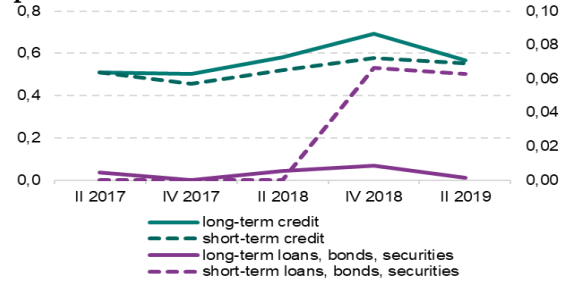
Source: NBP based on GUS (F01)

Figure 137 Sources of financing of construction material producers employing more than 49 persons



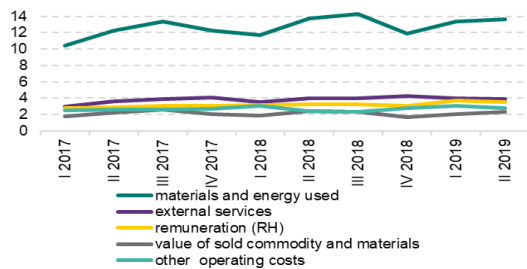
Source: NBP based on GUS (F01)

Figure 138 Sources of financing of construction material producers employing from 9 to 49 persons



Source: NBP based on GUS (F01)

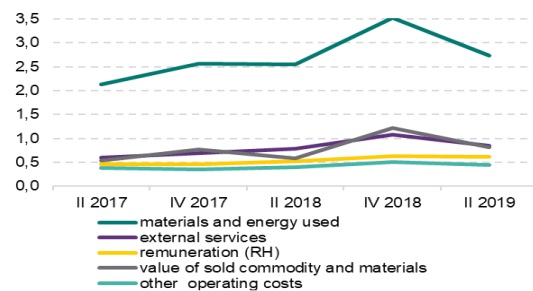
Figure 139 Operating expenses of construction material producers employing more than 49 persons



Source: NBP based on GUS (F01)

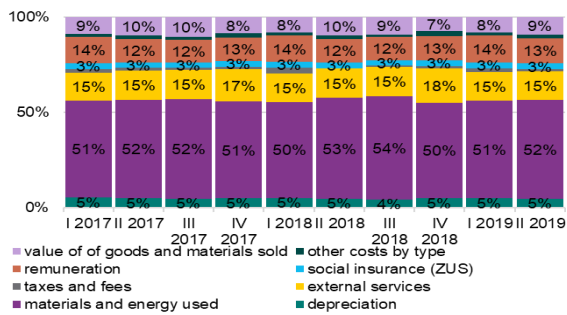
Figure 141 Structure of operating expenses of construction material producers employing more than 49 persons

Figure 140 Operating expenses of construction material producers employing from 9 to 49 persons



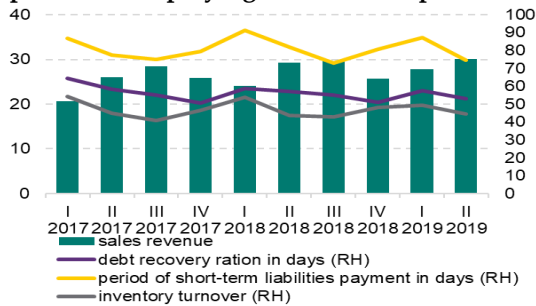
Source: NBP based on GUS (F01)

Figure 142 Structure of operating expenses of construction material producers employing from 9 to 49 persons



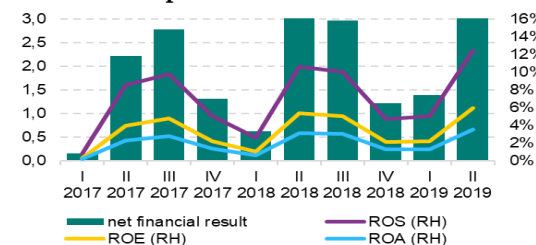
Source: NBP based on GUS (F01)

Figure 143 Turnover of inventory, receivables and liabilities of construction material producers employing more than 49 persons



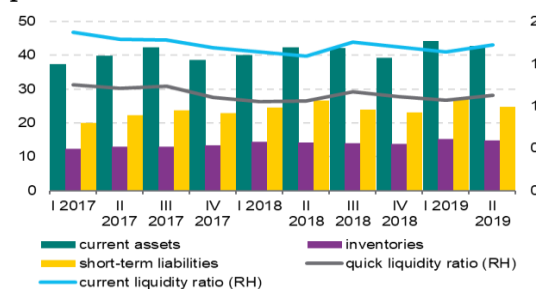
Source: NBP based on GUS (F01)

Figure 145 Profitability of operations of construction material producers employing more than 49 persons

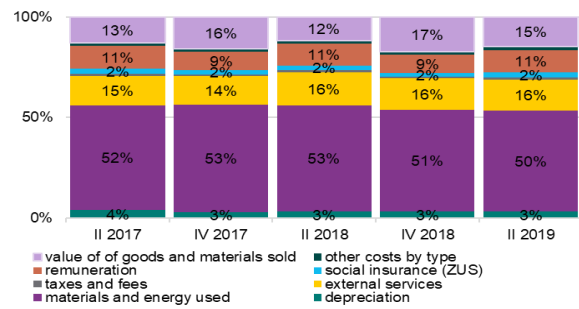


Source: NBP based on GUS (F01)

Figure 147 Liquidity ratios of construction material producers employing more than 49 persons

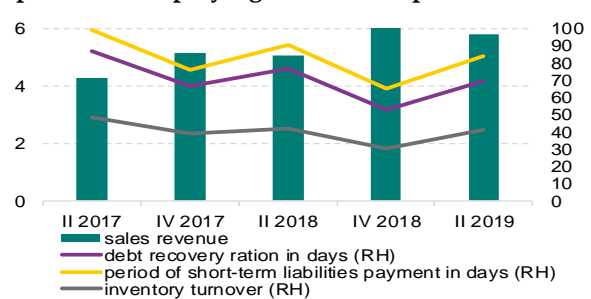


Source: NBP based on GUS (F01)



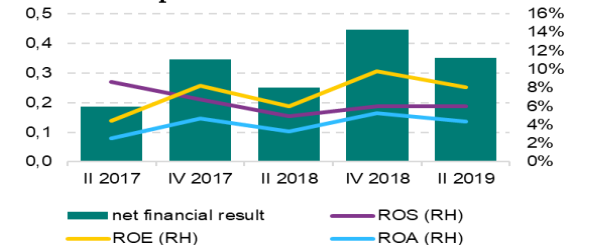
Source: NBP based on GUS (F01)

Figure 144 Turnover of inventory, receivables and liabilities of construction material producers employing from 9 to 49 persons



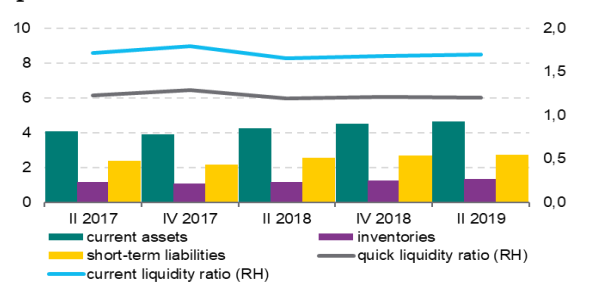
Source: NBP based on GUS (F01)

Figure 146 Profitability of operations of construction material producers employing from 9 to 49 persons



Source: NBP based on GUS (F01)

Figure 148 Liquidity ratios of construction material producers employing from 9 to 49 persons



Source: NBP based on GUS (F01)

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