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Information on home prices and the situation in the housing and commercial real estate market in Poland in 2019 Q1

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The analysis of the situation in the real estate market in Poland in 2019 Q1¹ leads to the following conclusions:

- **In 2019 Q1, the housing market continued to experience heightened activity amid accelerating price growth.** Housing demand measured by the number of sold contracts for the construction of dwellings in the largest primary markets (including the estimated investment demand) remained at the level recorded in the previous quarter. The increase in home prices was to a large extent driven by growing construction costs, which was a consequence of high construction demand in the entire economy. The housing demand was partly shifted to the secondary market (lower home prices than in the primary market), causing a faster price growth in this market.
- **In the analysed period the average offer and transaction prices per square metre of developer housing² grew in the primary markets (PM) in the analysed cities. Growth was also observed in the average offer prices per square meter of housing in the secondary markets (SM)³.** The majority of transactions in the secondary market of large cities involved the sale of cheaper housing, hence lower price growth was recorded. Yet, prices determined with the use of the hedonic index⁴ increased in 6M (by approx. 1.8% q/q and by 12.5% y/y terms), which means an increase in prices per square meter of comparable housing. In Warsaw, hedonic prices, determined on the basis of a significantly smaller sample, increased by 3.3% q/q and by 13.3% y/y terms. Offer prices grew faster than transaction prices, i.e. sellers expected a faster price increase. The difference in average transaction and offer prices has increased, which means that buyers do not accept high offer prices. Average (offer and transaction) rental rates per square meter of housing (excluding administration fees and fees for utilities) saw an increase for another consecutive quarter.
- **The index of the estimated availability of housing in large cities** (based on average wages in the enterprise sector) **slightly increased as compared to the previous quarter** and stood at 0.83 square metre in the analysed quarter; consequently it was higher by 0.32 square metre (i.e. by 70%) against the record low observed in 2007 Q3. The index of the estimated maximum availability of a residential mortgage

¹ The analysis carried out in this issue of the Information is based on data available till 2019 Q1. Due to delays in access to certain data some charts contain information until 2018 Q4 (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. Historic data are subject to revision. In price listings (BaRN database) concerning 2019 Q1, approx. 107.3 thousand records were collected, including approx. 29.3% records concerning transactions and 70.7% records concerning offers. Altogether over 3.2 million records were collected in the database, including 23.4% records concerning transactions and 76.6% records 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. More information in the article by M. Widłak (2010), Metody wyznaczania hedonicznych indeksów cen jako sposób kontroli zmian jakości dóbr [Methods of determining hedonic price indices as a method to control quality changes of goods], „Wiadomości Statystyczne” no. 9.

loan⁵ increased; a rise was also seen in the loan-financed availability of housing for an average household. The growth in wages was the main driver behind the changes in the above mentioned indices.

- **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 the six cities (6M), the profitability of housing investment continued to exceed the 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 the 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 loans in PLN⁶** (excluding renegotiated agreements) **stood at approx. PLN 11.9 billion⁷**, i.e. was 5.7% lower as compared with the figures recorded in the previous quarter and 0.4% lower as compared with the 2018 Q1 figures. The NBP survey concerning the situation in the credit market⁸ has found that banks have not changed the criteria of granting residential mortgage loans, yet, slightly changed certain lending terms (i.e. increased credit margin for loans burdened with increased risk while, at the same time, decreasing credit margins for other loans). At the same time, banks recorded a slight increase in the demand for residential mortgage loans. In 2019 Q2, banks anticipate a slight tightening of mortgage lending policy and do not expect any major change in demand.
- **Since 2012 the share of FX denominated loans⁹ in the currency structure of residential mortgage loans in 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

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 According to the BIK data, in 2019 Q1 banks and SKOK credit unions granted the total of 52.0 thousand residential mortgage loans worth PLN 13.6 billion (a 12.9% y/y decrease as expressed in figures and a 1.1% y/y increase in terms of value). BIK experts point out the high sale of mortgage contracts was driven by growing wages of households, continuing low interests and growing real estate prices. According to AMRON report, 2019 Q1 saw a growth, as compared with 2018 Q4, in the average amount of granted residential mortgage loans (by approx. 14.5% y/y), whereas the percentage of new loans with LtV ranging from 50% to 80% decreased by 3.05%; on the other hand, loans with LtV of 80% and above enjoyed greater popularity. The share of residential mortgage loans with maturity from 15 to 25 years and up to 15 years in the total structure of new loan agreements slightly increased as compared with 2018 Q1. The share of loans with other maturities decreased. At the end of 2019 Q1 there were approx. 2.28 million active mortgage contracts i.e. their number increased by 31.4 thousand in quarter-on-quarter terms (by 1.4%).

⁷ 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.

⁸ "Situation in the credit market - results of the senior loan officer opinion survey, 2019 Q2" NBP, April 2019 https://www.nbp.pl/home.aspx?f=aktualnosci/wiadomosci_2019/kredytowy2019_2.html. The main reasons behind changes in mortgage lending policy included the forecasts of the situation in the housing market, improved financial standing of households and easing of the terms and conditions of granting residential mortgage loans.

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 30% as compared to 31% at the end of 2018 and the peak 71% share recorded in 2009 Q1.

being 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.

- **The estimated profitability of residential development projects continues to be high, despite its slight decline in the second half of 2018.** Falling margins result from growing costs of home producers as a result of growing prices of construction materials¹⁰, increasing wages and growing prices of building sites. Consequently, budgets planned a year ahead for development projects become obsolete even after the 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 sector. According to the BIK data¹¹ the number of defaulting payers in the construction sector rose by 5.6% in 2019 Q1 and the amount of outstanding payments reached PLN 4.9 billion (posting an increase of 5.6% as compared to the previous quarter). According to Coface¹² the number of bankruptcies and restructuring proceedings in the construction industry in the analysed quarter remained at the 2018 Q1 level. At the same time, the share of the construction sector in the total number of bankruptcy and restructuring proceedings decreased by 0.1 percentage points in year-on-year terms, mainly as a result of growth in the number of bankruptcies in trade.
- **2019 Q1 saw a record high number of both completed dwellings made ready for occupancy¹³, as well as the number of home construction starts¹⁴.** The estimated high margins on developers' profits, rates of return on housing projects and high demand urged real estate developers to apply for subsequent home building permits¹⁵, **although the number of issued home building permits was lower as compared with the previous quarter.** Yet, it should be remembered that real estate developers have building permits already issued to them which they start to use as their production capacity allows. This means that supply responds elastically to price growth which limits the risk of excessive tensions in the market.

¹⁰ Real estate developers claim that in the current situation, the fact of having own labour force enables to control costs more effectively and meet construction deadlines. Developers cope with the situation in different ways. Some of them have own general contractors in their group. Others have extended their competence. Still others 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 <https://media.bik.pl/informacje-prasowe/442796/zaleglosci-sektorow-po-i-kwartale-2019-w-handlu-przybylo-ponad-0-5-mld>

¹² According to Coface report (Bankruptcy and restructuring proceedings of firms in Poland in 2019 Q1) growing costs of labour and construction materials increase the risk of loss of liquidity or add to problems with profitability. So far the scale of insolvency has not increased considerably, especially in the case of larger real estate developers. Among smaller developers liquidity problems are quite common. In the opinion of Coface experts, the situation should remain largely unchanged at least during the first half of 2019. How the situation develops will depend mainly on the level of investment.

¹³ According to the GUS data, in 2019 Q1 the total of 47.4 thousand dwellings were completed and made ready for occupancy i.e. approx. 2.5 thousand more than in 2018 Q1 and approx. 7.7 thousand less as compared to the previous quarter. In the period from 2018 Q1 to 2019 Q1 the number of completed dwellings totaled approx. 187.3 thousand i.e. 4.4 thousand more than in the period from 2017 Q1 to 2018 Q1 (a 2.4% rise in year-on-year terms).

¹⁴ According to the GUS data, in 2019 Q1 the construction of approx. 53.9 thousand of apartments, i.e. more by over 5.9 thousand in relation to the first quarter of 2018 and more by 5.9 thousand compared to the previous quarter. In total, in the period of Q1 2018 - Q1 2019, construction began around 227.8 thous. dwellings, i.e. 18.0 thous. more than in the period of Q1 2017 - Q1 2018 (increase by 8.6% y / y).

¹⁵ According to the GUS data, in 2019 Q1 approx. 57.2 thousand home building permits were issued in Poland, i.e. approx. 9.5 thousand less than in 2018 Q1 and approx. 6.6 thousand less than in the previous quarter. In the period 2018 Q to 2019 Q1 the total of approx. 247.5 thousand permits were issued, i.e. 9.2 thousand less than in the period 2017 Q1 to 2018 Q1 (a 3.6% y/y decline).

- **The sale of dwellings and home construction contracts in Poland's six largest primary markets¹⁶ remained at the level recorded in the previous two quarters and reached approx. 16.5 thousand. The stock of unsold completed dwellings and contracts for their construction in the largest markets increased by approx. 0.3 thousand dwellings as compared with the preceding quarter to reach approx. 51.1 thousand at the end of 2019 Q1. On the other hand, the number of completed dwellings put on sale decreased again.** The home selling time in the primary market in the six largest markets slightly increased in the analysed period to reach the 3.3 quarter level. It 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 slightly decreased in all cities which means that demand was shifted into this currently cheaper market.
- **In the analysed period, the number of new home constructions under way¹⁷ in Poland rose, mainly as a result of a higher number of dwellings whose construction was launched.** A growing difference between transaction prices in the primary market and the secondary market in the 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 home sales and construction of dwellings in the primary market make it necessary to replenish land banks. **High demand for construction land boosted prices of land for developer construction,** particularly in city districts with good transport links, with well-developed urban infrastructure and retail facilities, especially in Wrocław, Warsaw and Poznań. This resulted from high activity in the construction sector and the simultaneous introduction of new legal regulations and the fact that construction land owned by the State Treasury was "blocked" for residential development under the government-subsidized scheme "Housing Plus". Also cheaper land in poorer location and with less developed infrastructure is purchased. Maintaining flexible supply amid such a high demand is the main challenge for economic policy and the condition to curb excessive inflation in this market.
- **As of 1 January 2019 the perpetual usufruct right to the land underneath apartment buildings and single-family houses changed, by operation of law, into ownership right¹⁸ to such land.** Implementation of this Act means that significant amounts of assets will be transferred to households

¹⁶ Based on REAS / JLL data, dwellings in Poland are sold at various stages of production, from the so-called "holes in the ground" („dziury w ziemi") to the premises ready for occupancy. Hence, the data on the number of dwellings sold are not comparable to the number of dwellings completed (definition by GUS - dwellings, whose acceptance and takeover has been confirmed by the investor and the contractor in the acceptance and takeover report).

¹⁷ 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.

¹⁸ 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 paid over 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.

which may have a positive impact on consumer demand. Yet, formalities involving transformation of this right take longer than anticipated, due to poor employee performance in administration offices.

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 756 poz. 756	2017	PLN 6.210 billion in 2018-2025		Under the Scheme, 1,591 projects worth over PLN 3.6 billion were qualified for financing. The scheme assumes the creation of over 27 thousand dwellings/ accommodation places.
1.2) Support scheme for the construction of social rental dwellings	Journal of Laws of 2018, item 1020, as amended	2016	PLN 4.5 billion over 10 years	30 thousand dwellings over 10 years	Under the scheme: - 212 applications have been submitted for the total amount of PLN 1.2 billion, for the construction of 9,747 dwellings, - 82 loan agreements have been signed for the total amount of PLN 438 million intended to finance 3,759 dwellings, - 1,659 dwellings in 40 development projects were completed.
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; 663 dwellings are under construction and approx. 15,500 are at the pre-construction stage.
2) "Housing for the start" scheme	Journal of Laws of 2018, item 1540	2019	Maximum limit of expenditure in 2019-2028 - PLN 16 billion	Total subsidy in 2019-2034 amounted to PLN 34.5 million, of which almost PLN 1.5 million is planned to be paid out in 2019	Under the scheme: - 7 boroughs submitted 17 applications for the conclusion of an agreement, covering the construction of 678 dwellings, - 2 boroughs signed 5 agreements for subsidies covering 282 dwellings, Total subsidies forecast to be paid out under agreements signed in the next 15 years: PLN 12 million, of which almost PLN 600,000 is in 2019, - BGK paid out rental subsidies amounting to PLN 38,900 to the tenants of 124 dwellings.
Other (besides NHS)					
Housing for the Young	Journal of Laws of 2018, item 604	2014	PLN 3.45 billion in 2014-2018		In 2014-2018 subsidies were granted to 110.4 thousand home buyers in the amount of PLN 2.9 billion, including PLN 0.85 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		Cumulatively, 915 agreements granting support for the total of PLN 20.1 million have been concluded. Subsidies in the amount of PLN 15.6 million have been disbursed.
Rental Housing Fund (BGK Nieruchomości)		2014			The offer comprises over 1820 dwellings in 16 projects developed in 6 cities. In 2019 Q1 investment was completed in Gdańsk.

- **On 16 May 2019 the Polish Sejm adopted the amendment of the Act on the National Real Estate Stock (Ustawa o Krajowym Zasobie Nieruchomości (KZN)). On 28 May 2019 the Senate made certain improvements to this Act. The draft Act was submitted to the Infrastructure Commission and Commission for the Local Government Units and Regional Policy on 30 May 2019.** The amended Act is supposed to allow, among other things, to increase the land stock to be used for residential construction¹⁹.
- **The office real estate market continues to see imbalances resulting from oversupply of rental space as compared to demand.** High supply has been accompanied by a high demand. This was fostered by the favorable economic situation, including the creation of new jobs, also by multinational companies. New trends connected with the use of office space (i.e. coworking offices) may also contribute to continued high demand for such space. According to market estimates, at the end of 2019 Q1 the office space supply in the nine largest office markets²⁰ exceeded 10.7 million square metres with approx. 2 million square metres of office space under construction. The vacancy rate in the nine largest office space markets slightly increased to the level of 9.2%²¹ as compared to 8.5 % at the end of 2018.
- **The retail space market continues to see a slight oversupply of space,** whereas the vacancy rate all over Poland at the end of 2018 Q4 remained at a level of approx. 3.3%²². At the end of 2019 Q1 the total stock of modern commercial space reached 12 million square metres.²³ Low increase in new retail space may indicate that investors consider the market to be saturated (this is confirmed by the projects transforming commercial centres into commercial and entertainment centres).
- High availability of foreign financing has contributed and will continue to favor a rapid 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 to grow rapidly.** Demand for warehouse space continues to be high. Demand for warehouse space comes from logistics, courier and manufacturing companies, which is a natural consequence of the development of trade and e-commerce. At the end of 2019 Q1, the

¹⁹ The purpose of the proposed solutions is to increase the supply of land that could potentially be used by the National Real Estate Stock. The legislator introduced restrictions in the purchase of agricultural real estate, which will not apply to properties with an area smaller than 1 ha. The pre-emptive right to purchase shares in a company and, respectively, the right to repurchase such property from a partnership, will be granted to the National Support Centre for Agriculture (Krajowy Ośrodek Wsparcia Rolnictwa - KOWR) acting for the benefit of the State Treasury in case the company owns agricultural land with a total area of at least 5 ha (previously 0, 3 ha). It was proposed that the list of real estate owned by State Treasury-owned companies and research institutes should be transferred to KZN. In consideration for the transferred real estate, companies are to be paid fees corresponding to the market price of the property. At the same time, the amendment provides that the Act will not apply to the land managed by the State Forests. The draft Act also abandons the so-called standard rent (its amount is supposed to depend, among other things, on the type of lease agreement and the location of the buildings constructed under the Housing + government-subsidies housing scheme). Consequently, the rent is to be more flexible, so that housing construction under this scheme becomes profitable.

²⁰ The nine cities include: Warsaw, Kraków, Wrocław, Tri-city (Gdańsk, Gdynia and Sopot agglomeration), Katowice, Łódź, Poznań, Szczecin, Lublin.

²¹ See: Report Colliers International: Market Insights, Annual Report 2019, Poland.

²² See Report Colliers International: Market Insights, 2019 Q1, Poland.

²³ See Report Colliers International: Market Insights, 2019 Q1, Poland.

total stock of the warehouse space exceeded 16.6 million square metres and the vacancy rate all over Poland remained at the level of 5.3%²⁴.

- The estimated value of development transactions²⁵ in the commercial real estate market at the end of 2019 Q1 amounted to EUR 1.09 billion, with office space accounting for 74.5% of the value of transactions, retail space for 7.6% and warehouse space for 10%.
- **The value of loans granted by domestic banks to enterprises for real estate development at the end of 2019 Q1 amounted to approx. PLN 65.4 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 estate²⁶. The debt of real estate developers resulting from residential real estate at the end of 2019 Q1 amounted to PLN 5.1 billion against PLN 5.2 billion in 2018 Q4. The value of loans for office real estate decline to PLN 16.6 billion as compared to PLN 16.7 billion, 2018 Q4. The value of loans for retail real estate amounted to PLN 17.5 billion (a PLN 0.2 billion growth as compared to 2018 Q4) and for warehouse and industrial real estate totaled PLN 8.8 billion (a PLN 0.7 billion growth as compared to 2018 Q4). The value of loans granted for other real estate²⁷ totaled PLN 16.7 as against PLN 16.2 billion in 2018 Q4. Changes in debt levels in 2019 stem partially from the fact that banks adjust their reporting to the requirements of the new FINREP. In 2018 the previously used category of “other real estate” was divided into “retail real estate”, “warehouse and industrial real estate” and “other real estate”.
- **The ratio of impaired loans in the total corporate loans for real estate was stable in relation to the previous quarter.** The share of impaired loans in the total loans for office real estate at the end of 2019 Q1 stood at 7% against 6.9% in 2018 Q4 and the share of loans granted for retail space stood at 11.4% as compared to 11% in 2018 Q4. The same indicator for loans for warehouse and industrial space amounted to 7.8% as compared to 7.3% recorded in 2018 Q4 and for other real estate - to 8.4% as compared to 9.2% in 2018 Q4. The ratio of non-performing loans among loans granted to residential real estate amounted to 24%, which is mainly due to banks having in their portfolio loans from previous years. The increase in this ratio observed at the beginning of 2018 probably resulted from changes in banks’ accounting and reporting standards.
- **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 cities²⁸ and in the seven other smaller**

²⁴ See Report Colliers International: Market Insights, 2019 Q1, 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.

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 In the case of commercial real estate, the breakdown of the analysed cities is different than in the case of residential real estate. The six large cities include: Katowice, Kraków, Łódź, Poznań, Tri-City agglomeration of Gdańsk, Sopot and Gdynia, Wrocław. The seven cities include: Białystok, Bydgoszcz, Kielce, Olsztyn, Opole, Rzeszów, Zielona Góra.

voivodship cities. The highest rents in A class office buildings were quoted in Warsaw where they reached approx. EUR 20/sq. m/month. In other analysed voivodship cities those prices ranged from EUR 12 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 rents²⁹, 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 Q1 the vacancy rate in Warsaw stood at 9.1%³⁰. The vacancy rate of office space depends on the age³¹ and mainly on the location of the office building³².
- **Transaction rents for retail space in shopping centres in Warsaw remained stable, yet, they followed a slight upward trend in the markets of other cities³³.** 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 slightly increased, whereas in the market of office real estate the median of the offer price all over Poland remained stable.

²⁹ 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.

³⁰ See Report Colliers International: Market Insights, 2019 Q1, Poland.

³¹ Cushman & Wakefield, Marketing as one of the key factors supporting the modernisation process of older office buildings, 2018

³² See: Knight Frank, Report: Poland, Commercial Market, 1st half of 2018.

³³ 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.

The figures below describe the key developments in the housing market in Poland's major cities in 2019 Q1. Charts and 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 24-32),
- 4) operating profitability of housing and real estate development projects, costs of construction and assembly output and economic situation of real estate developers in Poland (Figures 33-46),
- 5) housing construction and the residential market in selected cities in Poland (Figures 47-60),
- 6) rents and transaction prices of commercial real estate (Figures 61-67),
- 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 68-131).

The analysis of housing 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, Warsaw, 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 ratio
MDM	Government-subsidised housing scheme Mieszkanie dla Młodych (Housing for the Young)
NBP	Narodowy Bank Polski
PONT	PONT Info Nieruchomości
REAS/JLL	REAS, JLL Residential Advisory
RNS	Government-subsidized housing scheme Rodzina na Swoim (Family on their Own)
RP	Primary housing market
RW	Secondary housing market (existing housing stock)
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	The 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 6M- PM

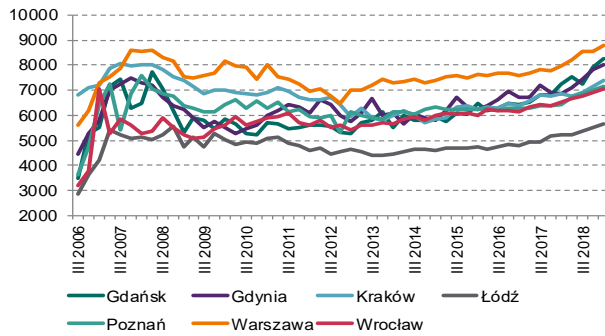
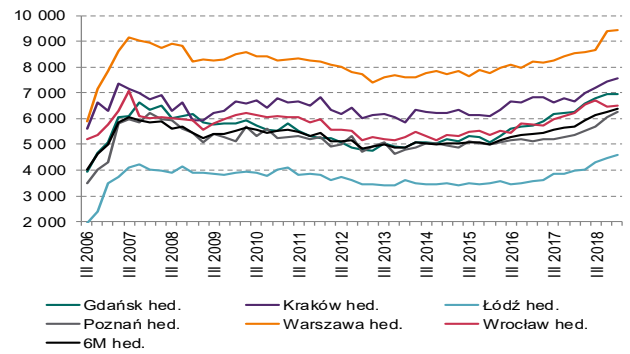


Figure 2 Transaction prices per square metre of housing adjusted by the hedonic index in 6M- SM



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

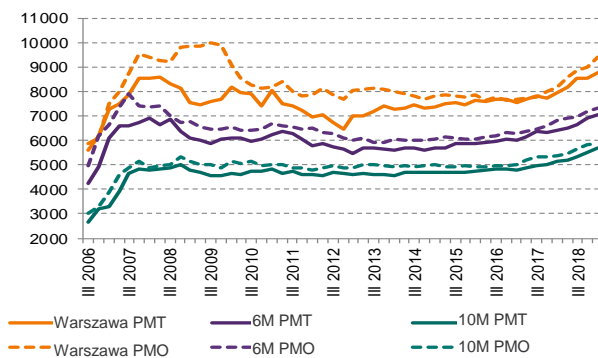
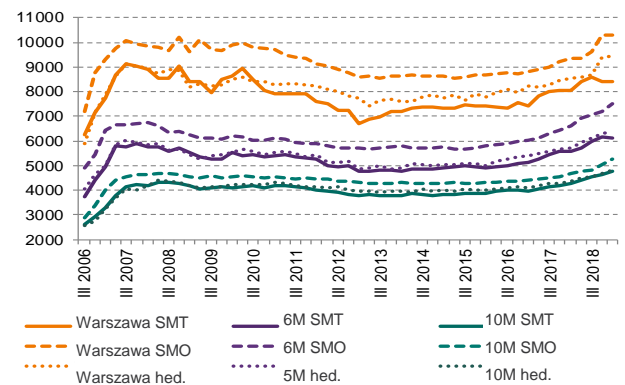


Figure 4 Weighted average price per square metre of housing, offers (O) and transactions (T)- SM



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

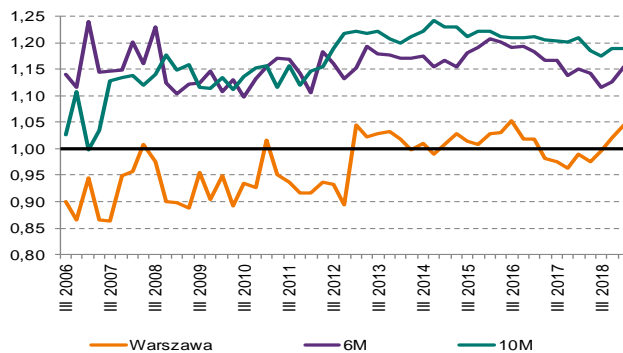
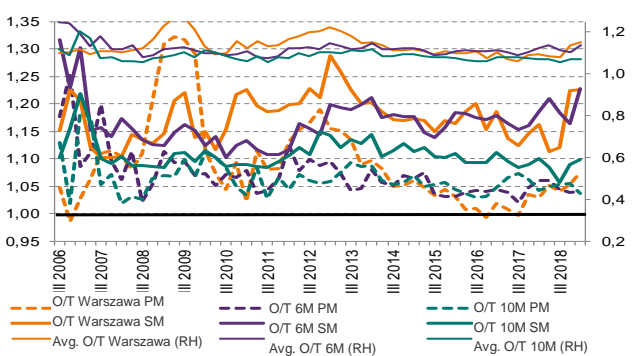


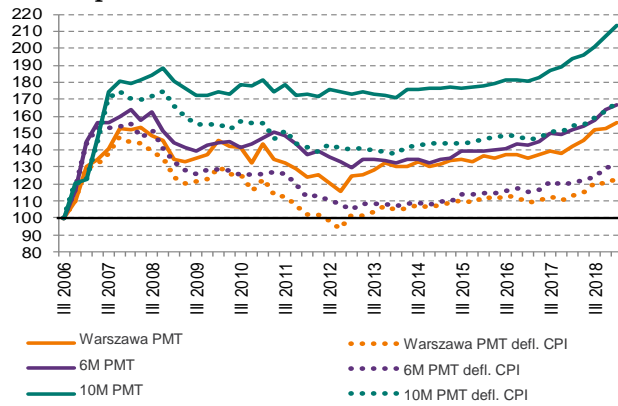
Figure 6 Ratio of the average weighted offer price (O) to transaction price (T) per square metre of housing – PM and SM



Source: NBP

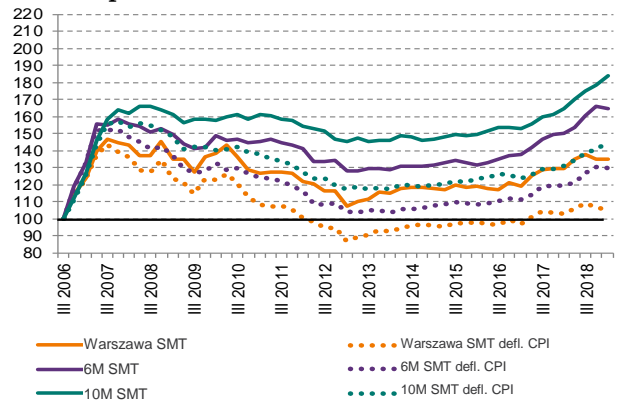
Source: NBP

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



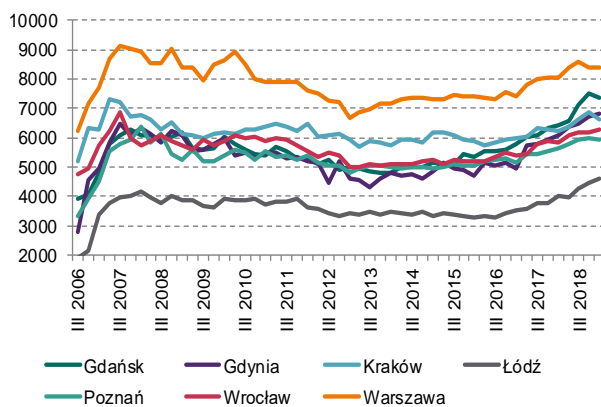
Source: NBP, ZBP (AMRON), GUS

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



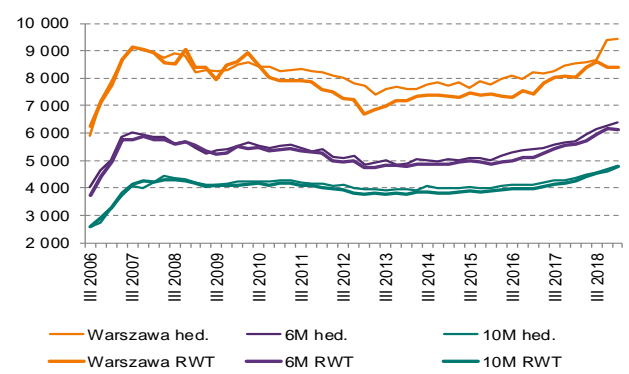
Source: NBP, ZBP (AMRON), GUS

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



Source: NBP

Figure 10 Weighted average transaction price per square metre of housing in the SM, 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

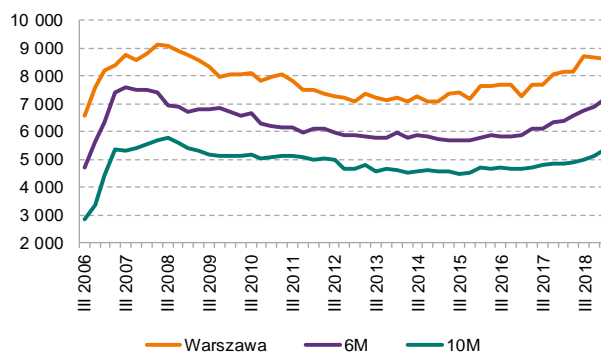
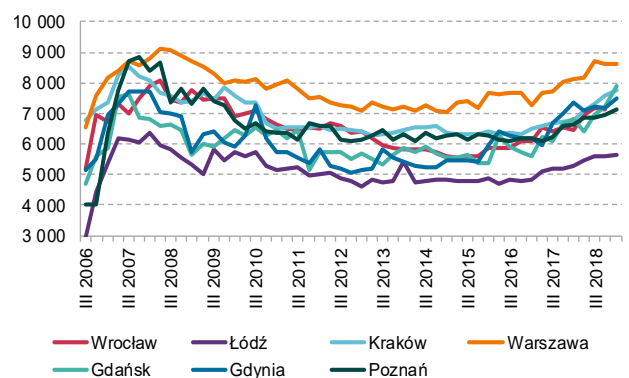


Figure 12 Average offer prices per square metre of housing in PM (Warsaw and 6M)

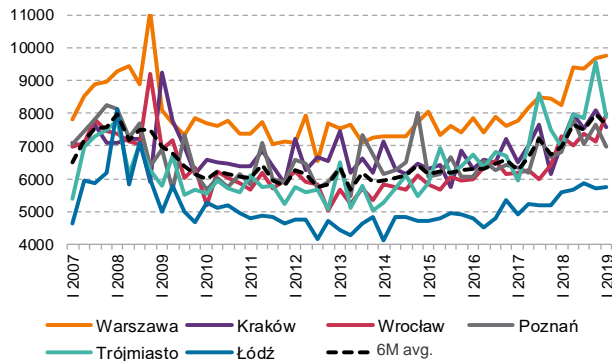


Note to Figures 11-12: prices are collected from all available sources.

Source: PONT Info Nieruchomości

Source: PONT Info Nieruchomości

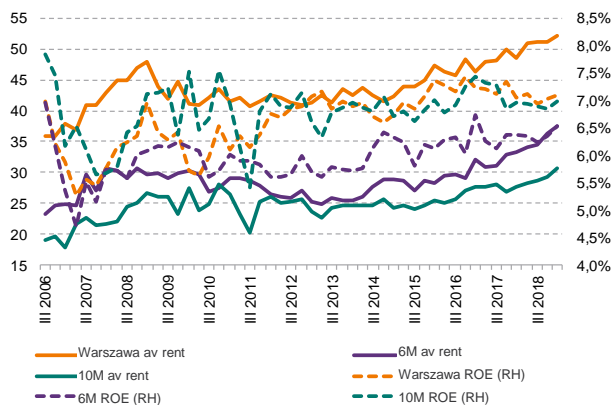
Figure 13 Average offer prices per square metre of housing, new home construction contracts launched—PM, selected markets



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

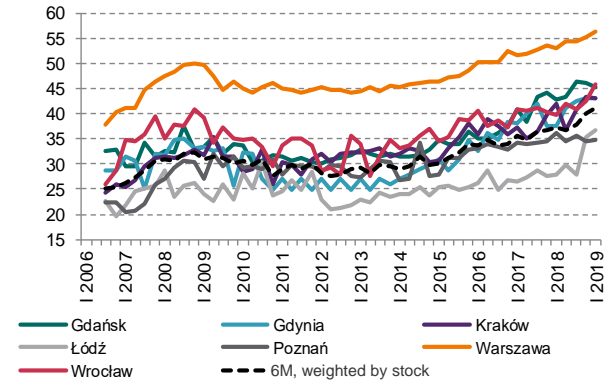
Source: REAS/JLL

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

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

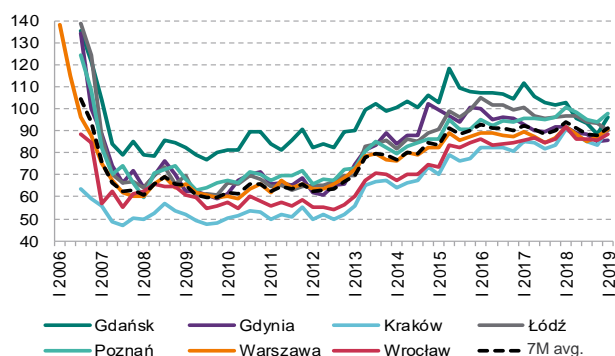


Source: NBP

Note to Figure 15: price per square metre of housing 40% SM and 60% PM; 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. A more detailed analysis in Table 4 on page 28.

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

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



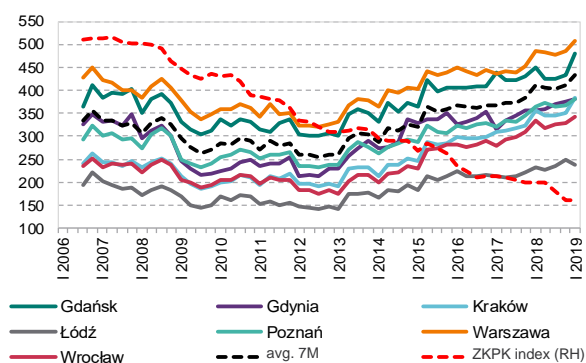
Source: NBP, GUS

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

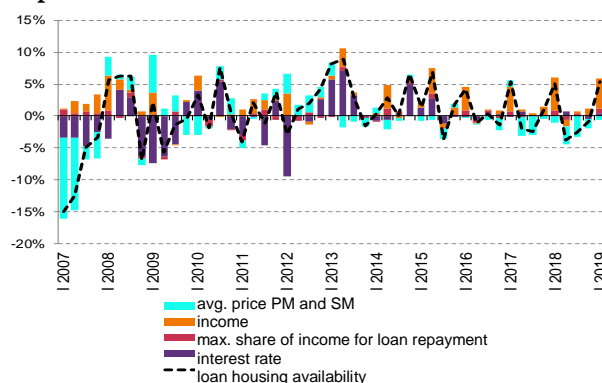
Figure 18 Estimated availability of residential mortgage loan and accumulated index of banks’ mortgage lending policy (ZKPK, right-hand scale)



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

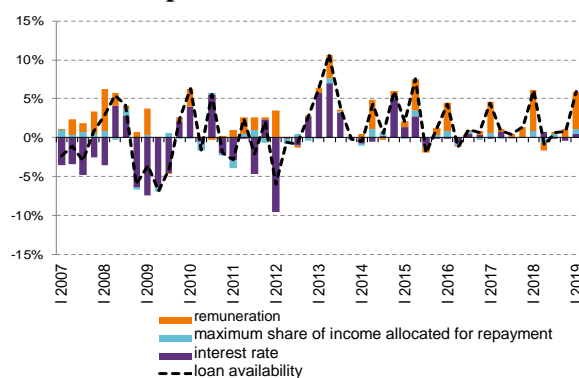
Source: NBP, GUS

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



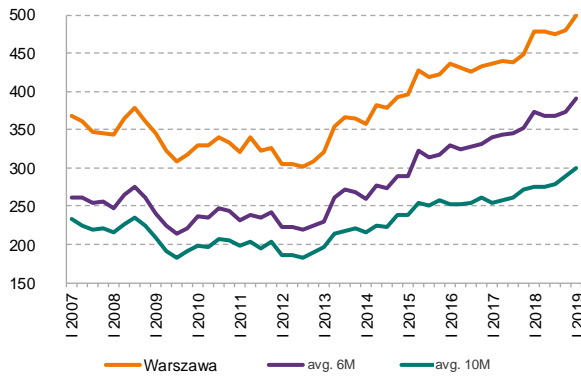
Source: NBP, GUS

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



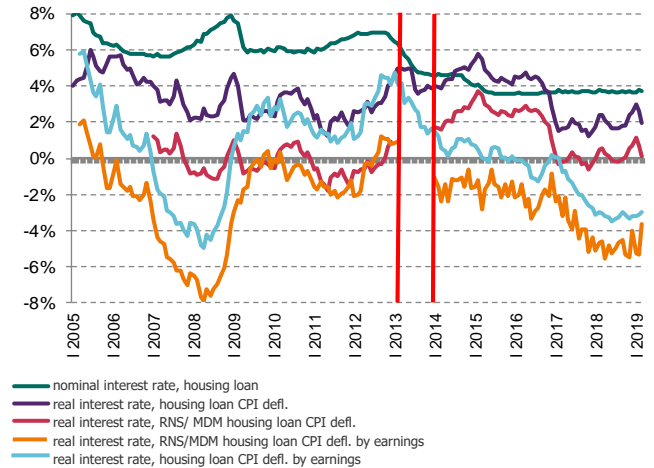
Source: NBP, GUS

Figure 20 Estimated available residential mortgage loan in selected cities



Source: NBP, GUS, BGK

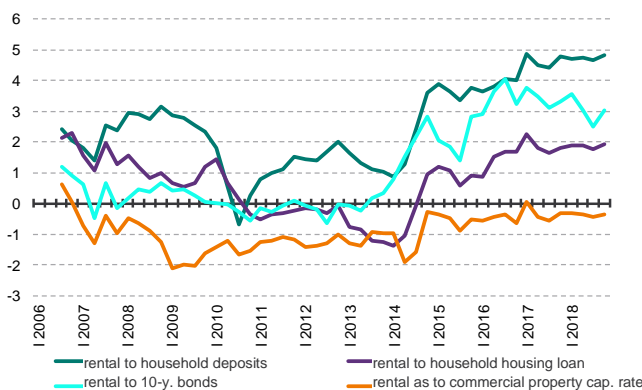
Figure 21 Residential mortgage loan burden for consumer deflated with CPI or wage growth in the enterprise sector



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)

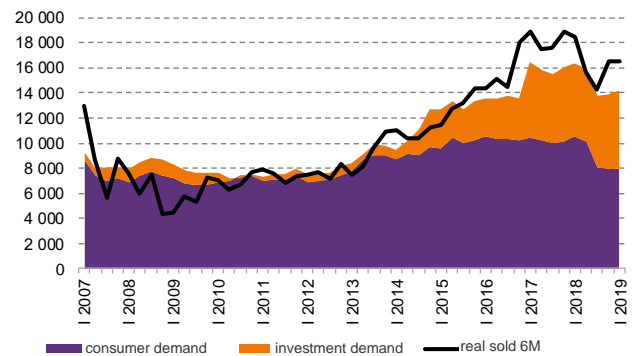


Note to Figure 22: values exceeding 0 denote higher profitability of purchasing property for rental than other household investment. This analysis does not take into account high transaction costs in the housing market and potentially long payback periods.

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

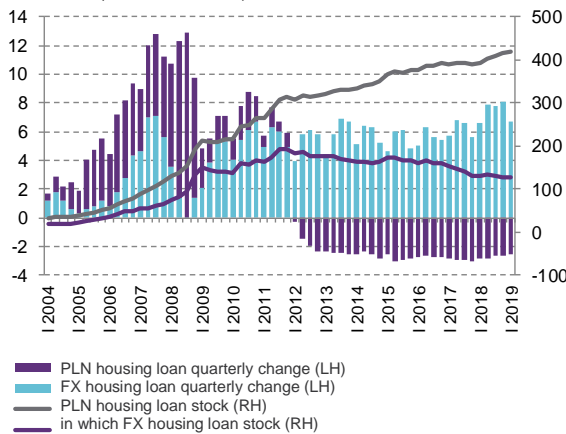
Figure 23 Estimated housing demand in the PM (average in Warsaw and 6M) and its components



Source: NBP, REAS/JLL, GUS

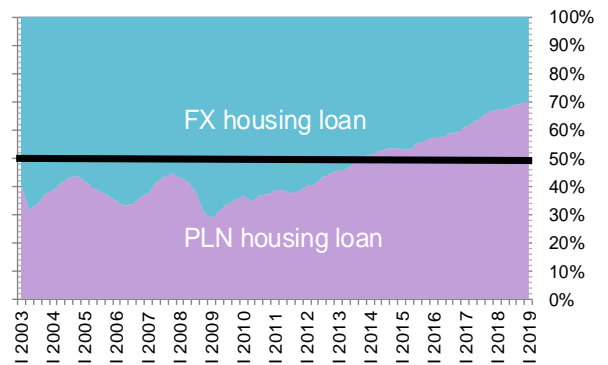
3. Disbursement of residential mortgage loans, interest rates

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)



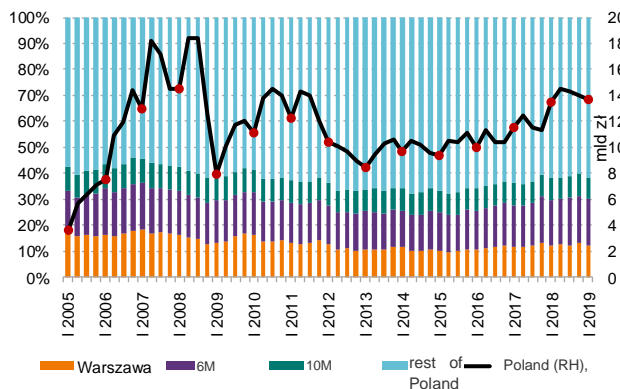
Source: NBP

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



Source: NBP

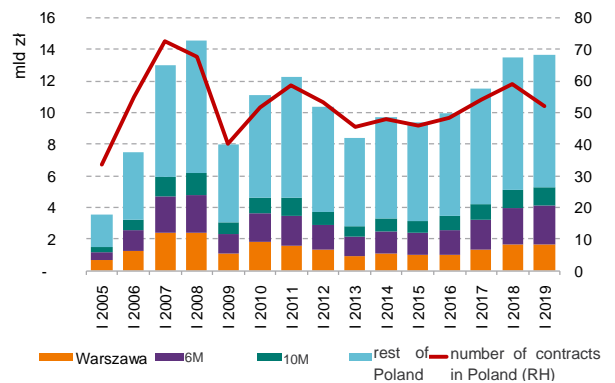
Figure 26 Geographical structure of the value of new residential mortgage loan contracts in Poland's selected cities



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.

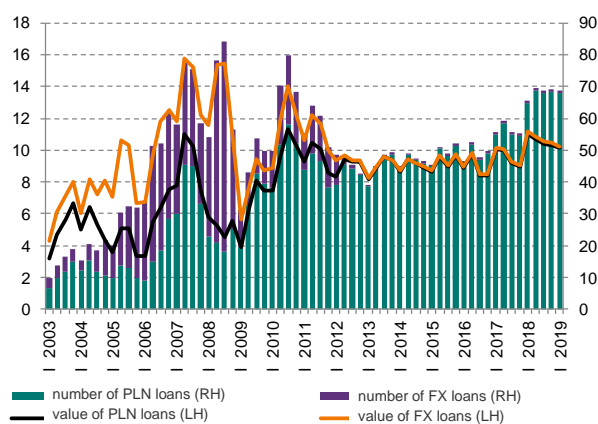
Source:

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

Figure 29 Interest rates on residential mortgage loans for households in Poland

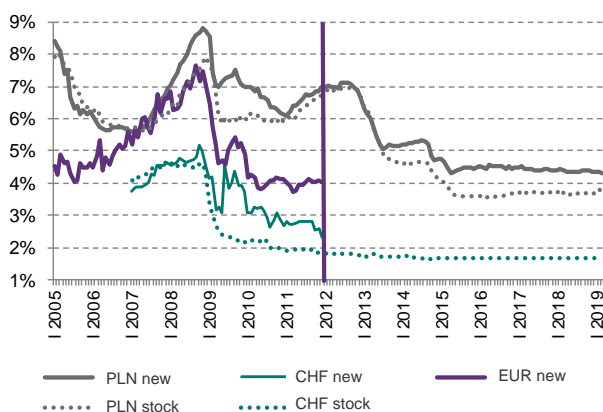
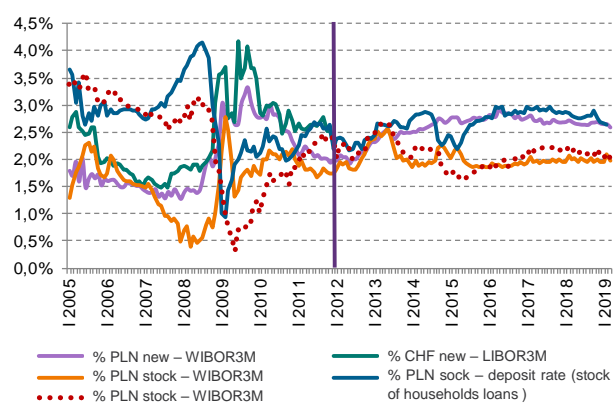


Figure 30 Bank margins (for WIBOR, LIBOR, EURIBOR 3M) in the case of residential mortgage loans



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
2014 Q1	7 571	3 870	1 726	432	2 144	67%
2014 Q2	8 899	3 673	2 029	507	1 644	59%
2014 Q3	8 894	3 709	2 028	507	1 681	59%
2014 Q4	8 416	3 953	1 919	480	2 034	64%
2015 Q1	8 996	3 980	2 051	513	1 929	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	5 142	2 221	555	2 921	68%
2016 Q2	11 661	5 409	2 659	665	2 750	63%
2016 Q3	9 632	5 218	2 196	549	3 022	68%
2016 Q4	9 933	6 617	2 265	566	4 352	74%
2017 Q1	10 945	6 958	2 495	624	4 463	73%
2017 Q2	12 139	6 582	2 768	692	3 815	68%
2017 Q3	11 794	6 781	2 689	672	4 092	70%
2017 Q4	10 652	7 259	2 429	607	4 830	75%
2018 Q1	11 914	7 219	2 716	679	4 502	72%
2018 Q2	12 807	6 240	2 920	730	3 320	65%
2018 Q3	13 024	5 855	2 969	742	2 886	62%
2018 Q4	12 584	6 916	2 869	717	4 047	69%
2019 Q1	11 865	6 979	2 705	676	4 274	71%

Note to Table 1: the estimates are based on the following assumptions:

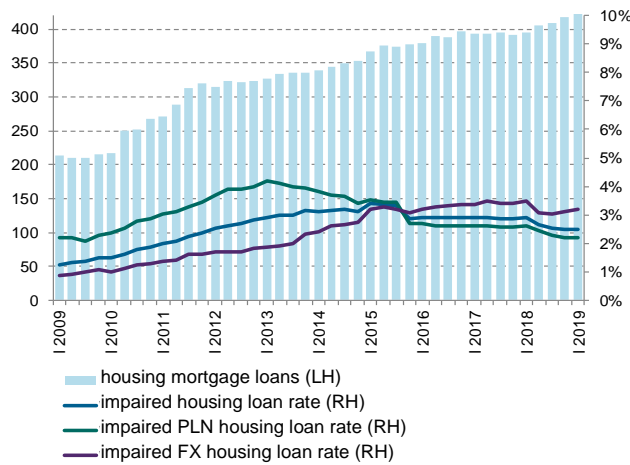
In the period 2014 I-IV, the estimated value of newly granted loans in Poland in particular quarters was based on increases in the volume of loans to households adjusted for loan amortization and flows between the foreign currency loan portfolio and the zloty loan portfolio, available in the NBP reporting. The entire banking system was taken into account, including SKOK credit unions. As of 2015 Q1, the value of disbursements is based on data collected 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, REAS/JLL, ZBP, GUS

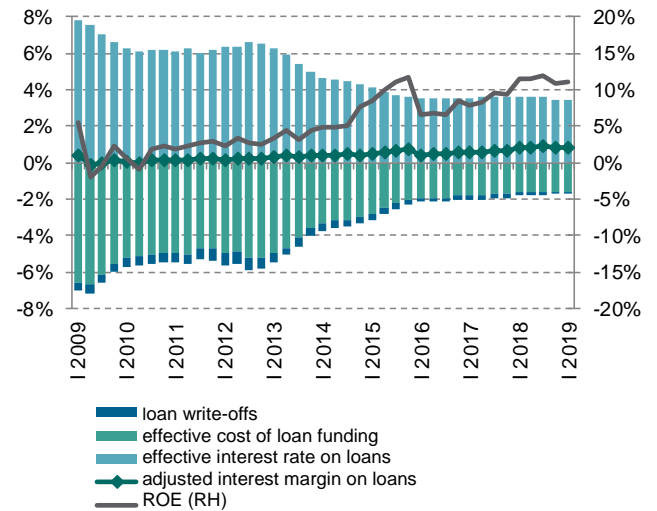
Figure 31 Household loans for housing real estate and indicator of loans recognised as non-performing loans



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 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

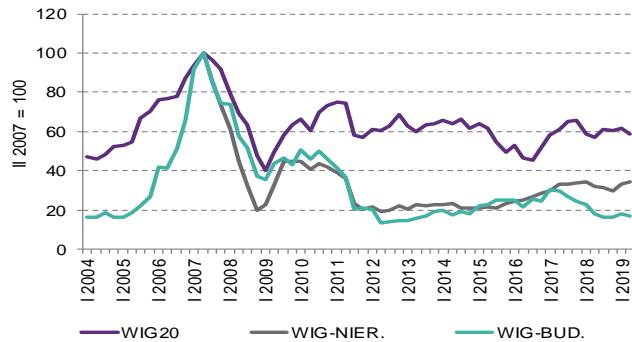


Note: for calculation, interest and non-interest income as well as operating costs were taken into account. The estimated RORAC (Return On Risk-Adjusted Capital) is calculated as the adjusted interest margin plus the non-interest result less operating cost for housing loans in relation to the required own capital. 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

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

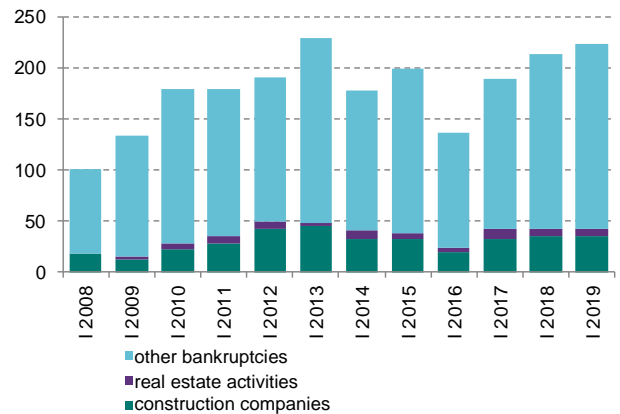
Figure 33 Rescaled exchange indices: WIG20 and for real estate developers and construction companies (2007 Q2=100)



Note: harmonized data, 2007 Q2 = 100. The WIG index for real estate developers has been recorded since 2007 Q2; 2019 Q2 as at 30 May 2019

Source: Warsaw Stock Exchange

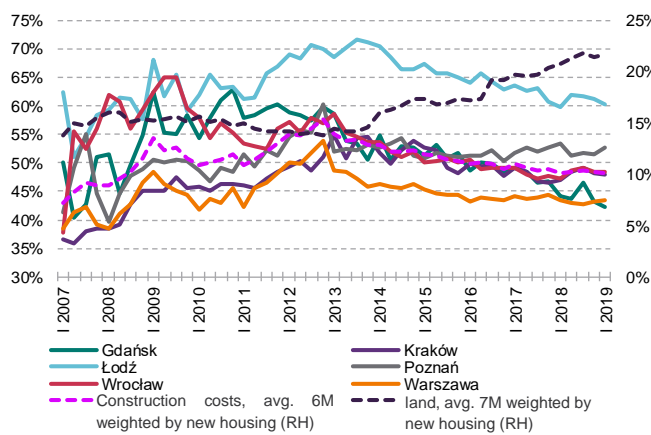
Figure 34 Number of bankruptcies in particular sectors (as at the end of the first quarters)



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

Source: Coface Poland

Figure 35 Estimated share of direct construction costs per square metre of the residential building's usable area (type 1122-302³⁴) in net transaction price in the PM

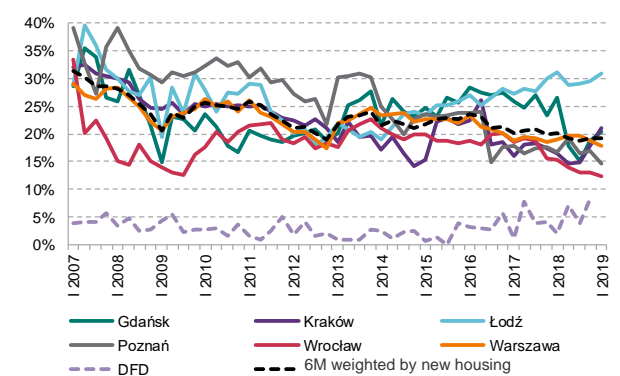


Note to Figure 36: the estimated rate of return on equity from typical new investment projects assuming the currently applicable interest rates, banks' requirements and production costs; calculated on the basis of the diagram included in Annex 3 of the Report on the situation of the Polish market of residential and commercial real estate in 2011. Since 2014, NBP's own appraisal of land for housing construction has been used, which has changed the previous estimates.

*/DFD – ROE of an average large real development company according to GUS data (employment =>50 persons).

Source: NBP na podstawie Sekocenbud

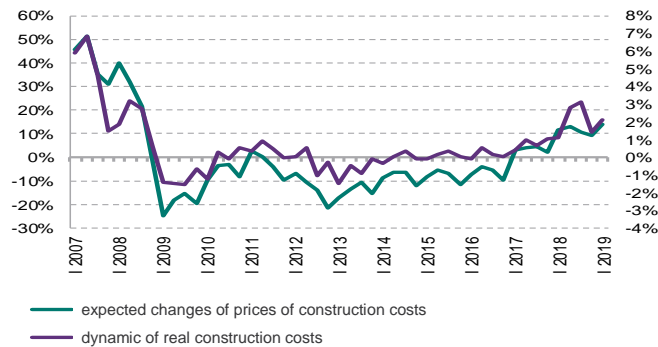
Figure 36 Estimated rate of return from investment projects (type 1122-302³⁴) in the largest cities and the reported rate of return of real estate developers (DFD^{*}/



Source: NBP na podstawie Sekocenbud, GUS (F01)

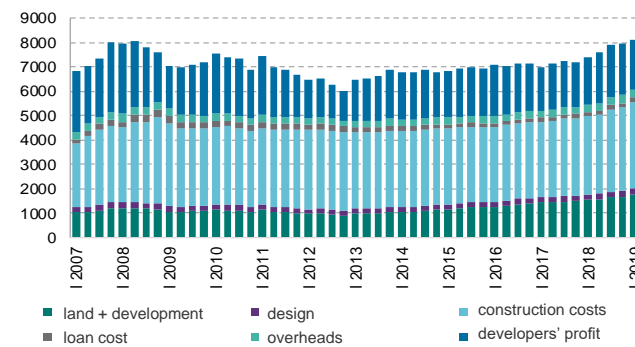
³⁴ Half of the building (type 1122-302) monitored by NBP since 2016 Q2 based on Sekocenbud data: An average residential multifamily building, with an underground garage constructed in the technology: foundation footings, construction walls and ceilings - monolithic reinforced concrete, curtain walling - 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 37 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^{35/})



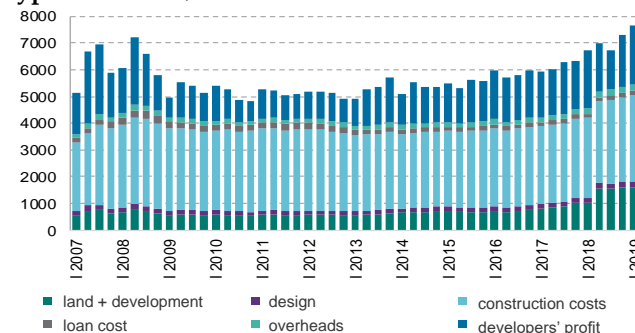
Source: NBP based on GUS data (business conditions survey), Sekocenbud

Figure 39 Warsaw – estimated structure of price per square metre of housing usable area in the PM (building type 1122-302^{35/}) for consumer



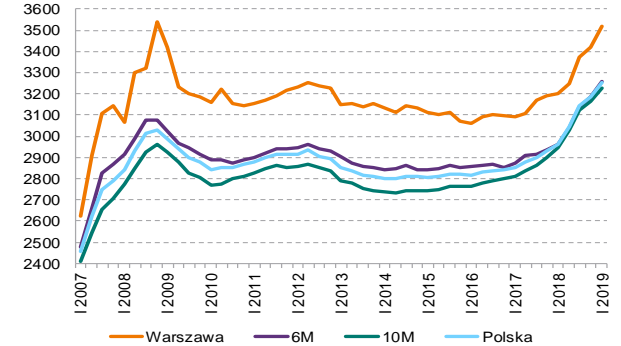
Source: NBP based on Sekocenbud, REAS/JLL

Figure 41 Gdańsk – estimated structure of price per square metre of housing usable area in PM (building type 1122-302^{35/}) for consumer



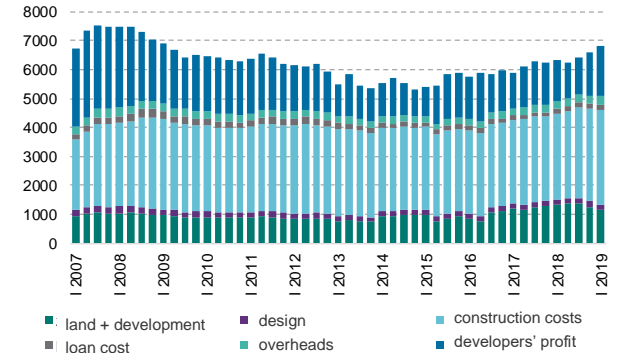
Source: NBP based on Sekocenbud, REAS/JLL

Figure 38 Average cost of construction of square metre of the residential building's usable area (type 1122-302^{35/}) in selected markets (PLN/sq.m)



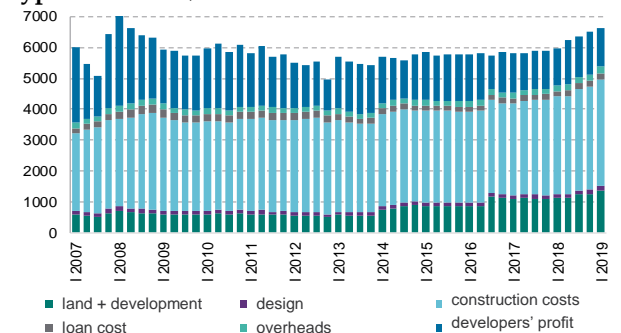
Source: NBP based on Sekocenbud

Figure 40 Cracow - estimated structure of price per square metre of housing usable area in the PM (building type 1122-302^{35/}) for consumer



Source: NBP based on Sekocenbud, REAS/JLL

Figure 42 Poznań – estimated structure of price per square metre of housing usable area in PM (building type 1122-302^{35/}) for consumer



Source: NBP based on Sekocenbud, REAS/JLL

Figure 43 Wrocław – estimated structure of price per square metre of housing usable area in PM (building type 1122-302^{35/}) for consumer

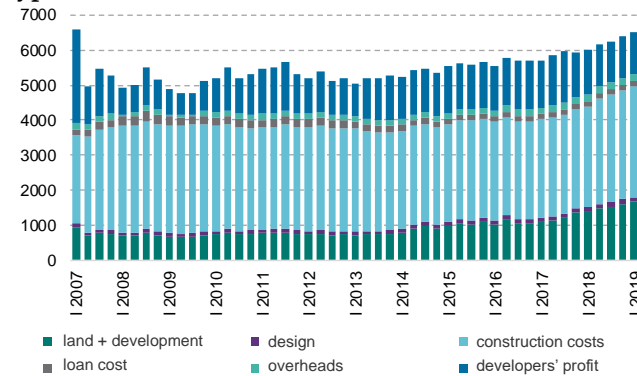
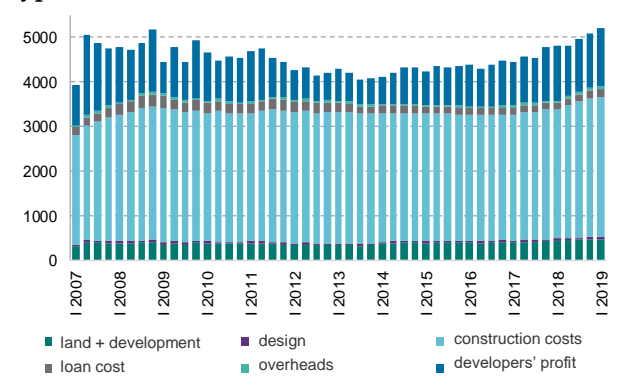


Figure 44 Łódź – estimated structure of price per square metre of housing usable area in PM (building type 1122-302^{35/}) for consumer



Source: NBP based on Sekocenbud, REAS/JLL

Source: NBP based on Sekocenbud, REAS/JLL

Figure 45 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)

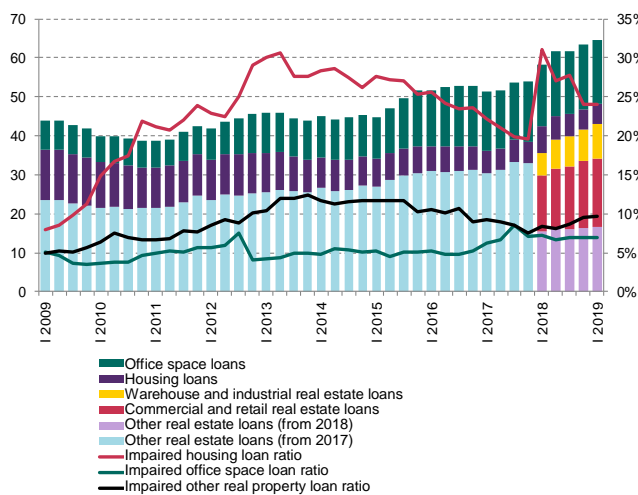
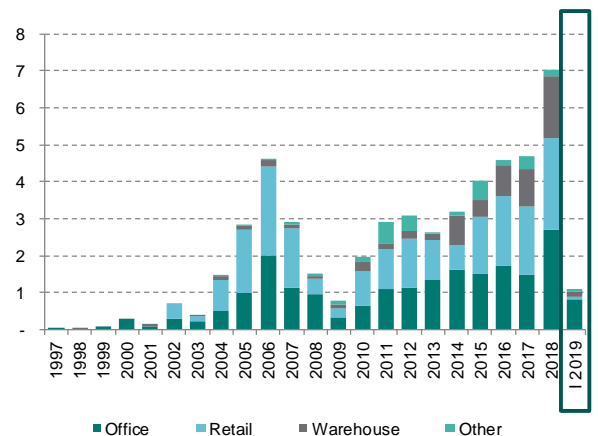


Figure 46 Value of investment transactions (in EUR billion)



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

Source: Comparables.pl

Source: NBP

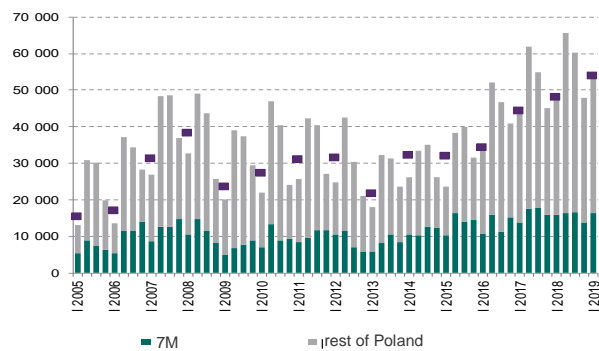
5. Residential construction and the housing market in Poland's selected cities

Figure 47 Structure of investors in residential construction in Poland in the years 2015-2019 (in thousand housing units)



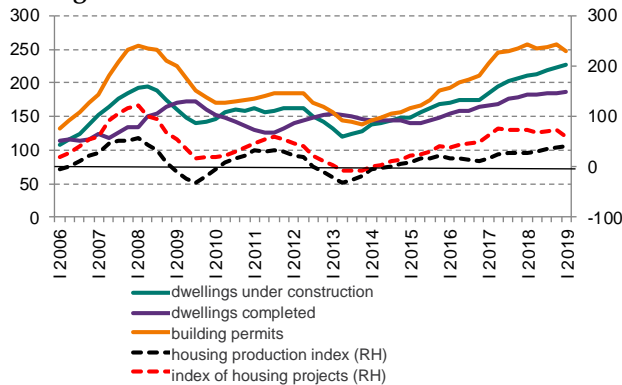
Source: GUS

Figure 49 Dwellings under construction in Poland, in quarter-on-quarter terms



Source: GUS

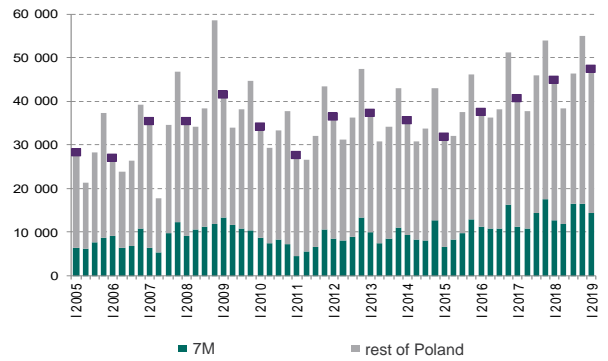
Figure 51 Housing construction (thousand housing units) and home construction indicator in Poland (housing units under construction minus completed housing units)



Note: rolling averages for four subsequent quarters.

Source: NBP based on PABB and GUS

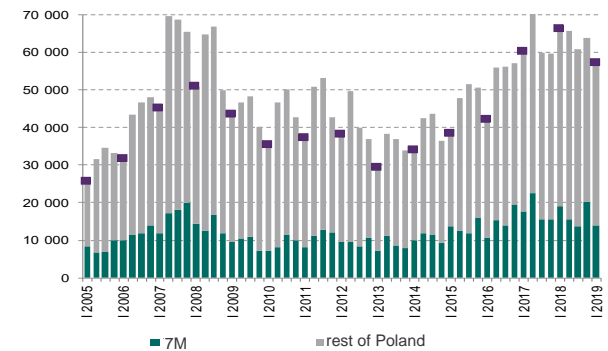
Figure 48 Dwellings completed in Poland, in quarter-on-quarter terms



Note to Figures 48-50: in violet colour only first quarters have been marked.

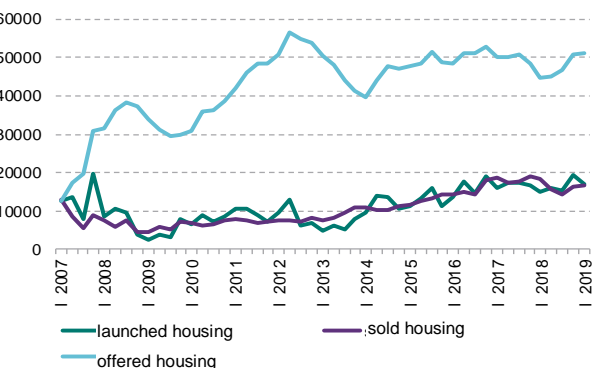
Source: GUS

Figure 50 Issued home building permits in Poland, in quarter-on-quarter terms



Source: GUS

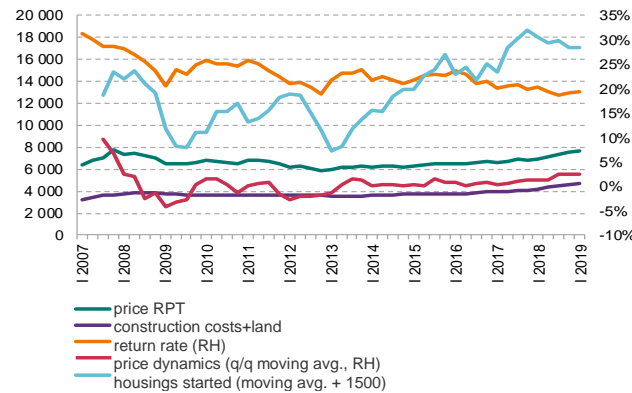
Figure 52 Number of dwellings put on the market, both sold and offered for sale in Poland's 6 largest markets*/



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

Source: REAS/JLL

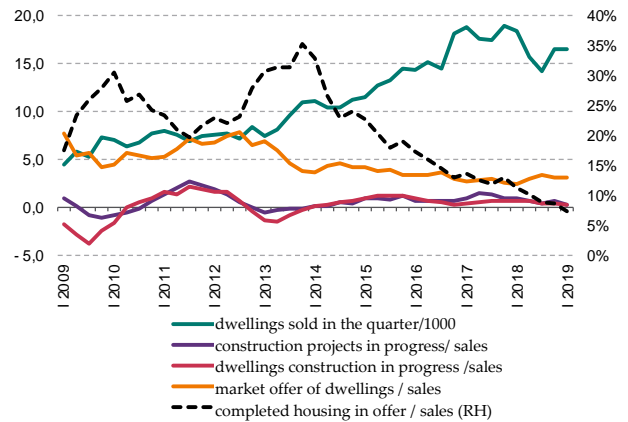
Figure 53 Housing supply and the estimated rate of return on housing development projects in the PM in 7M



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

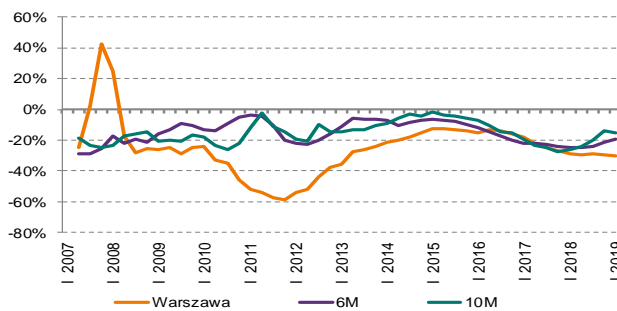
Source: NBP, GUS, REAS/JLL, Sekocenbud

Figure 54 Housing projects and dwellings under construction and dwellings offered for sale in 7M



Source: NBP based on GUS

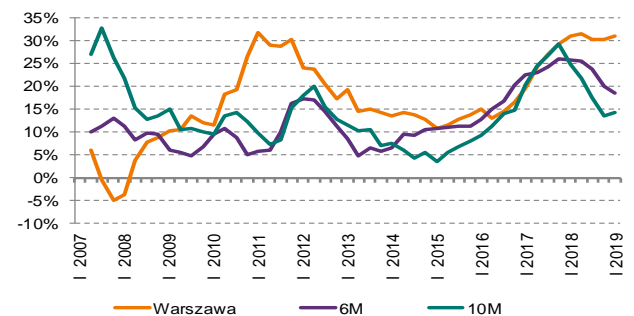
Figure 55 Measure of adjustment of housing units on offer to demand in terms of area ≤ 50 sq. m, PM in selected cities in Poland



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 ratio of 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 thereof. Figure 56 is parallel for the space above 50 sq.m. Figures 57-58 are parallel, but they concern the SM only.

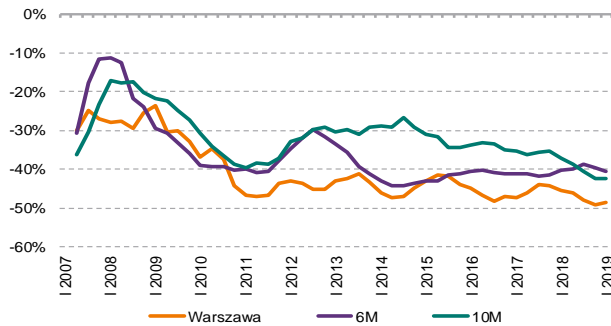
Source: NBP

Figure 56 Measure of adjustment of housing units on offer to demand in terms of area > 50 sq. m, PM in selected cities in Poland



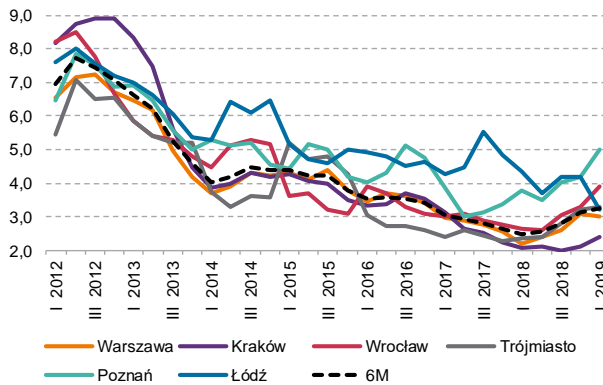
Source: NBP

Figure 57 Measure of adjustment of housing units on offer to demand* in terms of area ≤ 50 sq. m, SM in selected cities



Source: NBP

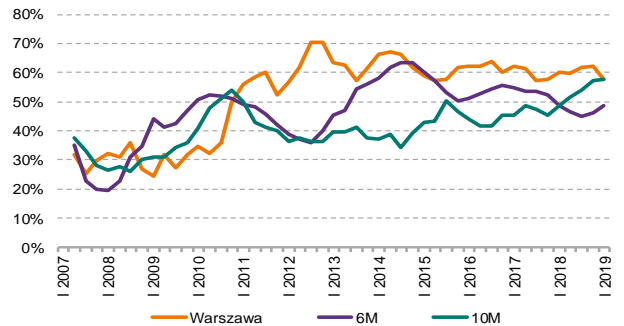
Figure 59 Selling time of dwellings on offer in PM selected cities (number of quarters)



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.

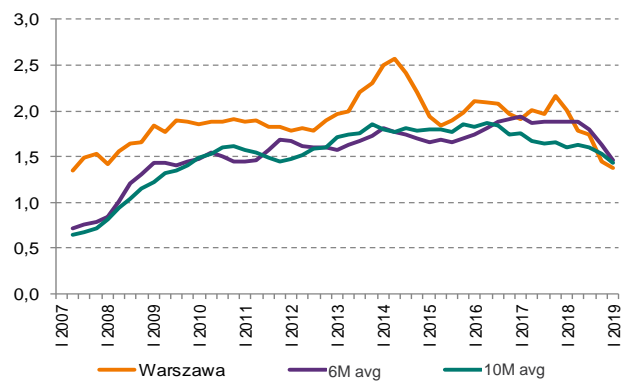
Source: NBP based on REAS/JLL

Figure 58 Measure of adjustment of housing units on offer to demand* in terms of area > 50 sq. m, SM in selected cities



Source: NBP

Figure 60 Selling time of dwellings in the SM in selected cities (number of quarters)

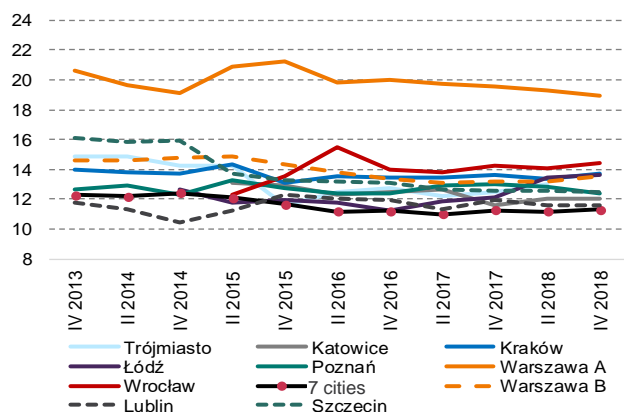


Note: the actual selling time, average of the last four quarters; data are not comparable with Figure 59. Selling time of housing in the secondary real estate market takes into account only transactions closed with a sales deal. The data are underestimated since they do not contain offers entered but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

Source: NBP

6. Rents and transaction prices of commercial real estate

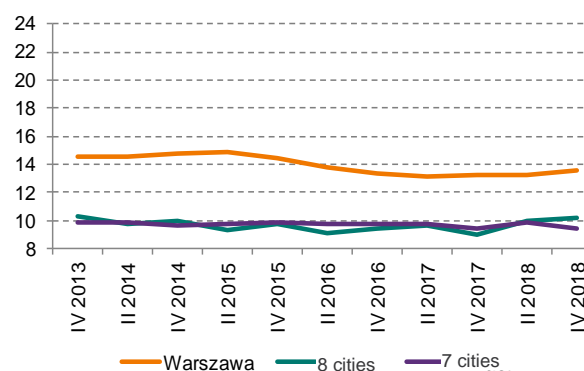
Figure 61 Transaction rents for A class office space (average prices in EUR/sq.m./month)



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

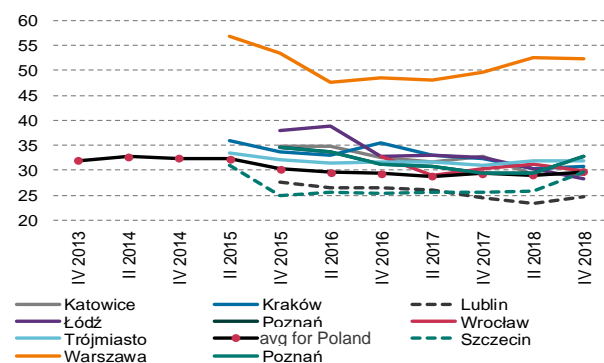
Figure 62 Transaction rents for B class office space (average prices in EUR/sq.m./month)



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

Source: NBP

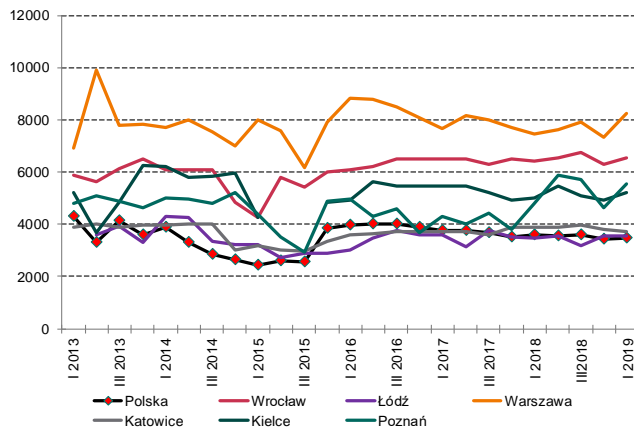
Figure 63 Transaction rents for retail space in shopping centres (shopping malls) with an area of 100-500 sq. m (EUR/sq.m./month)



Source: NBP

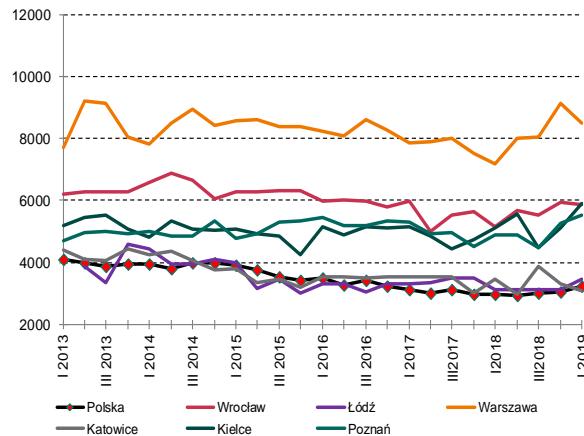
Note to Figure 63: as of the beginning of 2015 Q4, the number of records in the base, including respondents, has increased significantly, consequently changing the analysed sample. Rents for facilities located in economically significant parts of the city are analysed.

Figure 64 Median of offer selling price of small retail premises in SM (PLN/sq.m)



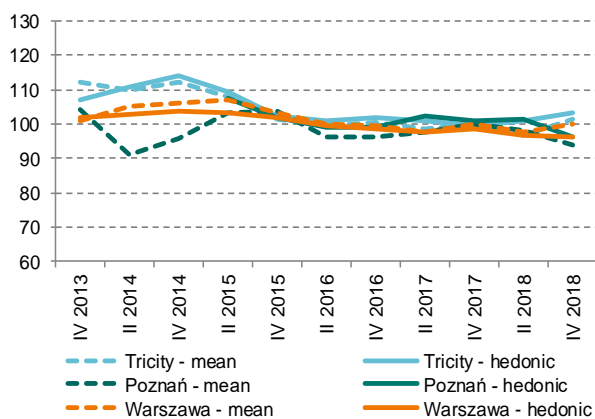
Source: PONT, NBP's study

Figure 65 Median of offer selling price of small retail premises in SM (PLN/sq.m)



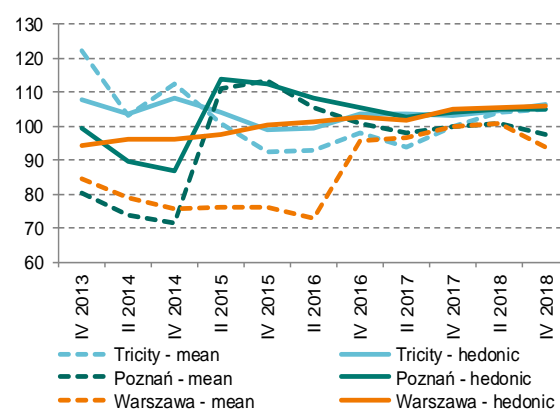
Source: PONT, NBP's study

Figure 66 Index of rents for offices, average and hedonic index (2017 IV = 100)



Source: NBP

Figure 67 Index of rents for shopping centres, average and hedonic index (2017 IV = 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%	5.1%	10.0%	2.8%
2015 Q4	15.0	2496	7.2%	7.0%	3.4%	4.9%	9.5%	2.8%
2016 Q2	14.8	2489	7.1%	6.5%	3.3%	4.8%	9.3%	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%	7.7%	3.3%
2017 Q4	15.0	2700	6.6%	6.0%	3.2%	4.5%	8.1%	3.4%
2018 Q2	14.8	2600	6.8%	6.0%	3.3%	4.6%	8.5%	3.2%
2018 Q4	15.3	2600	7.0%	6.0%	3.4%	4.9%	9.3%	3.1%

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 rent (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	7989	6.4%	3.8%	2.4%	-0.4%	4.4%
2014 Q2	43.4	8132	6.3%	3.6%	1.6%	-0.7%	3.4%
2014 Q4	41.4	8187	5.9%	3.4%	1.5%	-0.5%	2.6%
2015 Q2	43.8	8108	6.3%	3.7%	2.6%	0.3%	2.8%
2015 Q4	45.0	8201	6.4%	3.8%	2.7%	0.3%	2.8%
2016 Q2	46.4	8155	6.7%	4.0%	3.0%	0.5%	3.0%
2016 Q4	48.4	8356	6.8%	4.1%	3.3%	0.7%	3.3%
2017 Q2	47.9	8621	6.5%	3.9%	2.9%	0.5%	3.3%
2017 Q4	49.7	8854	6.6%	3.9%	3.1%	0.6%	3.4%
2018 Q2	51.2	9120	6.6%	4.0%	3.2%	0.6%	3.2%
2018 Q4	52.2	8259	6.8%	4.1%	3.4%	0.8%	3.1%

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 housing sq. m in the PM in Gdańsk

specification	I Q 2018		II Q 2018		III Q 2018		IV Q 2018		I Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	8 054	7 255	8 422	7 543	8 293	7 257	8 602	7 916	8 259	8 262
growth (q-o-q)	109,3	106,2	104,6	104,0	98,5	96,2	103,7	109,1	96,0	104,4
growth (y-o-y)	124,6	112,8	124,3	116,0	113,2	106,5	116,7	115,9	102,5	113,9
dwelling price range	3 990	1 566	3 371	1 524	4 337	1 463	4 168	1 350	3 967	1 309
<=4 000 PLN/sq.m	3	5	5	5	8	7	1	8	27	0
(4 001; 6 000] PLN/sq.m	1 042	611	884	516	1 377	491	1 062	294	994	327
(6 001; 8 000] PLN/sq.m	1 373	427	1 096	502	1 285	567	1 068	535	1 056	447
(8 001; 10 000] PLN/sq.m	950	405	741	353	636	278	1 037	351	1 057	287
>10 001 PLN/sq.m	622	118	645	148	1 031	120	1 000	162	833	248
dwelling space range	3 990	1 566	3 371	1 524	4 333	1 463	4 168	1 350	3 967	1 309
<= 40 sq.m	630	398	468	437	667	340	626	280	553	349
(40,1; 60] sq.m	1675	694	1392	664	1851	646	1830	630	1755	550
(60,1; 80] sq.m	1367	392	1212	346	1420	402	1336	367	1289	318
> 80,1 sq.m	318	82	299	77	395	75	376	73	370	92
average price of 1 sq.m. of dwelling	8 054	7 255	8 422	7 543	8 293	7 257	8 602	7 916	8 259	8 262
<=4 000 sq.m	9 322	7 939	10 883	8 747	9 483	7 395	9 872	9 506	9 181	9 527
(40,1; 60] sq.m	7 738	6 952	8 044	6 815	8 018	7 133	8 309	7 405	8 084	7 661
(60,1; 80] sq.m	7 500	7 007	7 570	7 147	7 698	7 126	8 020	7 460	7 714	7 630
> 80,1 sq.m	9 587	7 683	9 779	8 775	9 712	8 397	9 979	8 524	9 604	9 246
average offer price deviation	11,0%	x	11,6%	x	14,3%	x	8,7%	x	0,0%	x
<= 40 sq.m	17,4%	x	24,4%	x	28,2%	x	3,8%	x	-3,6%	x
(40,1; 60] sq.m	11,3%	x	18,0%	x	12,4%	x	12,2%	x	5,5%	x
(60,1; 80] sq.m	7,0%	x	5,9%	x	8,0%	x	7,5%	x	1,1%	x
> 80,1 sq.m	24,8%	x	11,4%	x	15,7%	x	17,1%	x	3,9%	x

Source: NBP

Table 6 Average prices of housing sq. m in the SM in Gdańsk

specification	I Q 2018		II Q 2018		III Q 2018		IV Q 2018		I Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	7 712	6 448	8 570	6 563	8 593	7 115	8 856	7 508	9 415	7 351
growth (q-o-q)	105,0	101,8	111,1	101,8	100,3	108,4	103,1	105,5	106,3	97,9
growth (y-o-y)	117,5	111,6	123,0	108,8	122,1	117,3	120,6	118,5	122,1	114,0
dwelling price range	1 043	723	744	857	1 833	1 258	1 769	1 035	1 467	863
<=4 000 PLN/sq.m	27	25	10	39	11	34	4	20	4	16
(4 001; 6 000] PLN/sq.m	306	293	144	320	320	345	240	253	129	187
(6 001; 8 000] PLN/sq.m	362	310	256	360	650	561	621	434	450	413
(8 001; 10 000] PLN/sq.m	141	58	124	94	377	218	431	196	394	166
>10 001 PLN/sq.m	207	37	210	44	475	100	473	132	490	81
dwelling space range	1 043	723	744	857	1 833	1 258	1 769	1 035	1 467	863
<= 40 sq.m	164	174	101	190	300	316	268	238	238	211
(40,1; 60] sq.m	362	321	247	374	668	558	624	463	534	376
(60,1; 80] sq.m	299	163	216	178	529	308	558	209	418	181
> 80,1 sq.m	218	65	180	115	336	76	319	125	277	95
average price of 1 sq.m. of dwelling	7 712	6 448	8 570	6 563	8 593	7 115	8 856	7 508	9 415	7 351
<=4 000 sq.m	8 459	7 078	9 143	7 206	9 161	7 653	9 808	7 986	10 469	8 134
(40,1; 60] sq.m	7 882	6 447	8 831	6 609	8 900	7 098	9 034	7 506	9 652	7 323
(60,1; 80] sq.m	7 234	5 930	7 998	6 120	8 027	6 742	8 242	7 144	8 641	6 875
> 80,1 sq.m	7 523	6 064	8 577	6 035	8 366	6 519	8 784	7 219	9 222	6 628
average offer price deviation	19,6%	x	30,6%	x	20,8%	x	18,0%	x	28,1%	x
<= 40 sq.m	19,5%	x	26,9%	x	19,7%	x	22,8%	x	28,7%	x
(40,1; 60] sq.m	22,3%	x	33,6%	x	25,4%	x	20,4%	x	31,8%	x
(60,1; 80] sq.m	22,0%	x	30,7%	x	19,1%	x	15,4%	x	25,7%	x
> 80,1 sq.m	24,1%	x	42,1%	x	28,3%	x	21,7%	x	39,1%	x

Source: NBP

Table 7 Average prices of housing sq. m in the PM in Kraków

specification	I Q 2018		II Q 2018		III Q 2018		IV Q 2018		I Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	6 907	6 840	6 901	6 744	7 042	6 915	7 384	7 136	7 630	7 370
growth (q-o-q)	99,8	101,3	99,9	98,6	102,0	102,5	104,9	103,2	103,3	103,3
growth (y-o-y)	104,4	107,3	102,3	102,4	101,6	101,5	101,6	101,5	110,5	107,8
dwelling price range	4 195	1 942	4 192	1 772	3 864	1 629	3 856	1 572	4 860	1 586
<=4 000 PLN/sq.m	8	2	7	4	1	2	0	0	0	0
(4 001; 6 000] PLN/sq.m	1 162	646	1 020	498	870	356	495	264	445	254
(6 001; 8 000] PLN/sq.m	2 322	928	2 494	1 024	2 226	986	2 336	956	2 891	860
(8 001; 10 000] PLN/sq.m	536	309	568	216	610	249	870	308	1 174	351
>10 001 PLN/sq.m	167	57	103	30	157	36	155	44	350	121
dwelling space range	4 195	1 942	4 192	1 772	3 864	1 629	3 856	1 572	4 860	1 586
<= 40 sq.m	610	493	608	404	561	410	583	418	1017	449
(40,1; 60] sq.m	2312	1052	2293	960	2062	888	2033	780	2440	794
(60,1; 80] sq.m	979	321	1018	331	980	252	979	311	1095	297
> 80,1 sq.m	294	76	273	77	261	79	261	63	308	46
average price of 1 sq.m. of dwelling	6 907	6 840	6 901	6 744	7 042	6 915	7 384	7 136	7 630	7 370
<=4 000 sq.m	7592	7424	7487	7017	7559	7218	7943	7618	8074	7998
(40,1; 60] sq.m	6681	6571	6735	6596	6919	6765	7339	6887	7539	7134
(60,1; 80] sq.m	6902	6755	6904	6773	6936	6850	7168	7084	7458	7059
> 80,1 sq.m	7278	7140	6981	7026	7299	7240	7299	7272	7493	7336
average offer price deviation	1,0%	x	2,3%	x	1,8%	x	3,5%	x	3,5%	x
<= 40 sq.m	2,3%	x	6,7%	x	4,7%	x	4,3%	x	0,9%	x
(40,1; 60] sq.m	1,7%	x	2,1%	x	2,3%	x	6,6%	x	5,7%	x
(60,1; 80] sq.m	2,2%	x	1,9%	x	1,3%	x	1,2%	x	5,7%	x
> 80,1 sq.m	1,9%	x	-0,6%	x	0,8%	x	0,4%	x	2,1%	x

Source: NBP

Table 8 Average prices of housing sq. m in the SM in Kraków

specification	IV Q 2017		I Q 2018		II Q 2018		III Q 2018		IV Q 2018		I Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	7 593	6 276	7 767	6 215	8 006	6 400	8 059	6 621	8 466	6 849	8 697	6 626
growth (q-o-q)	105,4	98,9	102,3	99,0	103,1	103,0	100,7	103,5	105,0	103,4	102,7	96,8
growth (y-o-y)	109,9	105,5	113,2	103,9	114,5	106,0	111,9	104,3	111,5	109,1	112,0	106,6
dwelling price range	1 505	402	906	361	1 245	278	1 115	318	722	340	597	303
<=4 000 PLN/sq.m	1	12	0	2	1	3	0	0	0	0	0	3
(4 001; 6 000] PLN/sq.m	341	186	160	177	211	123	153	127	79	123	49	107
(6 001; 8 000] PLN/sq.m	700	157	442	142	554	119	501	144	284	158	217	154
(8 001; 10 000] PLN/sq.m	287	36	190	31	285	27	298	36	218	41	204	33
>10 001 PLN/sq.m	176	11	114	9	194	6	163	11	141	18	127	6
dwelling space range	1 505	402	906	361	1 245	278	1 115	318	722	340	597	303
<= 40 sq.m	305	164	203	116	255	107	232	130	146	137	124	120
(40,1; 60] sq.m	591	159	365	178	474	108	442	145	280	148	240	141
(60,1; 80] sq.m	380	69	229	55	309	51	264	35	177	45	136	35
> 80,1 sq.m	229	10	109	12	207	12	177	8	119	10	97	7
average price of 1 sq.m. of dwelling	7 593	6 276	7 767	6 215	8 006	6 399	8 059	6 621	8 466	6 849	8 697	6 626
<=4 000 sq.m	8 837	6 761	8 881	6 768	9 037	7 148	8 678	7 026	9 366	7 284	9 520	7 084
(40,1; 60] sq.m	7 173	5 905	7 427	6 055	7 623	6 007	7 857	6 400	8 108	6 652	8 476	6 415
(60,1; 80] sq.m	7 229	6 112	7 167	5 668	7 554	5 847	7 814	6 240	8 094	6 321	8 232	5 975
> 80,1 sq.m	7 626	5 348	8 093	5 745	8 288	5 605	8 120	5 716	8 757	6 157	8 844	6 300
average offer price deviation	21,0%	x	25,0%	x	25,1%	x	21,7%	x	23,6%	x	31,2%	x
<= 40 sq.m	30,7%	x	31,2%	x	26,4%	x	23,5%	x	28,6%	x	34,4%	x
(40,1; 60] sq.m	21,5%	x	22,6%	x	26,9%	x	22,8%	x	21,9%	x	32,1%	x
(60,1; 80] sq.m	18,3%	x	26,4%	x	29,2%	x	25,2%	x	28,1%	x	37,8%	x
> 80,1 sq.m	42,6%	x	40,9%	x	47,9%	x	42,0%	x	42,2%	x	40,4%	x

Source: NBP

Table 9 Average prices of housing sq. m in the PM in Łódź

specification	I Q 2018		II Q 2018		III Q 2018		IV Q 2018		I Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	5 524	5 211	5 475	5 206	5 528	5 355	5 599	5 507	5 796	5 631
growth (q-o-q)	103,6	101,2	99,1	99,9	101,0	102,9	101,3	102,8	103,5	102,3
growth (y-o-y)	111,8	108,7	105,7	105,4	107,4	109,0	105,0	107,0	104,9	108,1
dwelling price range	1 574	328	1 457	475	1 902	483	1 753	397	1 253	254
<=4 000 PLN/sq.m	2	1	2	1	2	4	6	1	2	0
(4 001; 4 500] PLN/sq.m	65	31	67	27	18	6	64	5	6	0
(4 501; 5 000] PLN/sq.m	268	122	275	195	225	111	143	67	34	25
(5 001; 5 500] PLN/sq.m	626	69	595	130	953	208	620	151	308	94
(5 501; 6 000] PLN/sq.m	291	73	211	54	322	100	549	85	525	76
> 6 001 PLN/sq.m	322	32	307	68	382	54	371	88	378	59
dwelling space range	1 574	328	1 457	475	1 903	482	1 753	397	1 253	254
<= 40 sq.m	166	54	129	79	268	89	200	79	138	49
(40,1; 60] sq.m	742	166	692	213	928	263	874	182	564	148
(60,1; 80] sq.m	527	88	500	145	575	109	563	104	476	35
> 80,1 sq.m	139	20	136	38	132	21	116	32	75	22
average price of 1 sq.m. of dwelling	5 524	5 211	5 475	5 206	5 527	5 356	5 599	5 512	5 796	5 631
<=4 000 sq.m	6 024	5 566	6 071	5 783	5 848	5 462	6 033	5 794	6 252	6 028
(40,1; 60] sq.m	5 546	5 126	5 539	5 234	5 492	5 343	5 567	5 551	5 805	5 592
(60,1; 80] sq.m	5 344	5 121	5 253	4 918	5 433	5 303	5 520	5 300	5 656	5 507
> 80,1 sq.m	5 489	5 354	5 402	4 950	5 524	5 350	5 482	5 284	5 772	5 198
average offer price deviation	6,0%	x	5,2%	x	3,2%	x	1,7%	x	2,9%	x
<= 40 sq.m	8,2%	x	5,0%	x	7,1%	x	4,1%	x	3,7%	x
(40,1; 60] sq.m	8,2%	x	5,8%	x	2,8%	x	0,3%	x	3,8%	x
(60,1; 80] sq.m	4,4%	x	6,8%	x	2,4%	x	4,2%	x	2,7%	x
> 80,1 sq.m	2,5%	x	9,1%	x	3,2%	x	3,8%	x	11,0%	x

Source: NBP

Table 10 Average prices of housing sq. m in the SM in Łódź

specification	I Q 2018		II Q 2018		III Q 2018		IV Q 2018		I Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	4 432	4 022	4 642	3 959	4 711	4 256	4 811	4 465	5 053	4 616
growth (q-o-q)	102,7	106,3	104,7	98,4	101,5	107,5	102,1	104,9	105,0	103,4
growth (y-o-y)	106,8	114,6	110,4	110,3	111,1	113,1	111,5	118,0	114,0	114,8
dwelling price range	631	115	598	112	892	123	422	76	610	88
<= 3 000 PLN/sq.m	27	13	19	11	32	9	9	1	9	1
(3 001; 3 500] PLN/sq.m	71	16	50	17	75	11	27	7	32	4
(3 501; 4 000] PLN/sq.m	133	35	95	35	109	32	46	14	50	10
(4 001; 4 500] PLN/sq.m	149	18	127	26	180	28	81	15	85	29
(4 500; 5 000] PLN/sq.m.	112	19	125	16	199	19	113	27	144	21
> 5 001 PLN/sq.m	139	14	182	7	297	24	146	12	290	23
dwelling space range	631	115	598	112	892	123	422	76	610	88
<= 40 sq.m	62	32	66	30	114	33	51	22	77	27
(40,1; 60] sq.m	243	52	214	51	318	60	161	39	226	37
(60,1; 80] sq.m	154	20	153	18	203	21	76	11	140	13
> 80,1 sq.m	172	11	165	13	257	9	134	4	167	11
average price of 1 sq.m. of dwelling	4 432	4 022	4 642	3 959	4 711	4 256	4 811	4 465	5 053	4 616
<=4 000 sq.m	4 208	4 114	4 821	4 307	4 820	4 541	5 002	4 791	5 436	4 809
(40,1; 60] sq.m	4 576	4 157	4 775	3 896	4 777	4 287	4 923	4 398	5 188	4 527
(60,1; 80] sq.m	4 508	3 908	4 618	3 959	4 837	3 957	4 962	4 518	5 200	4 582
> 80,1 sq.m	4 243	3 320	4 420	3 406	4 480	3 700	4 516	3 193	4 570	4 478
average offer price deviation	10,2%	x	17,3%	x	10,7%	x	7,7%	x	9,5%	x
<= 40 sq.m	2,3%	x	11,9%	x	6,1%	x	4,4%	x	13,0%	x
(40,1; 60] sq.m	10,1%	x	22,6%	x	11,4%	x	12,0%	x	14,6%	x
(60,1; 80] sq.m	15,4%	x	16,6%	x	22,2%	x	9,8%	x	13,5%	x
> 80,1 sq.m	27,8%	x	29,8%	x	21,1%	x	41,5%	x	2,0%	x

Source: NBP

Table 11 Average prices of housing sq. m in the PM in Poznań

specification	I Q 2018		II Q 2018		III Q 2018		IV Q 2018		I Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	6 676	6 430	6 866	6 735	6 931	6 854	7 032	7 020	7 336	7 141
growth (q-o-q)	101,9	100,7	102,8	104,8	100,9	101,8	101,5	102,4	104,3	101,7
growth (y-o-y)	103,8	102,7	106,7	107,6	107,0	107,4	107,4	110,0	109,9	111,1
dwelling price range	4 070	1 049	4 319	1 102	4 898	1 014	5 367	1 300	6 094	1 069
<=4 000 PLN/sq.m	7	3	5	4	6	5	2	4	1	1
(4 001; 6 000] PLN/sq.m	1 132	429	1 068	305	1 125	233	1 004	245	810	140
(6 001; 8 000] PLN/sq.m	2 537	532	2 714	650	3 057	645	3 600	849	3 943	719
(8 001; 10 000] PLN/sq.m	359	68	416	96	592	101	676	167	1 182	178
>10 001 PLN/sq.m	35	17	116	47	118	30	85	35	158	31
dwelling space range	4 070	1 049	4 319	1 102	4 898	1 014	5 367	1 300	6 094	1 069
<= 40 sq.m	578	200	756	222	827	241	943	390	1207	321
(40,1; 60] sq.m	2419	593	2470	602	2661	555	2870	662	3141	502
(60,1; 80] sq.m	823	192	847	187	1063	168	1198	183	1391	184
> 80,1 sq.m	250	64	246	91	347	50	356	65	355	62
average price of 1 sq.m. of dwelling	6 676	6 430	6 866	6 735	6 931	6 854	7 032	7 020	7 336	7 141
<=4 000 sq.m	6 912	6 733	6 837	7 239	7 069	7 153	7 246	7 414	7 655	7 542
(40,1; 60] sq.m	6 606	6 342	6 839	6 571	6 899	6 755	7 009	6 857	7 277	6 930
(60,1; 80] sq.m	6 658	6 279	6 935	6 720	6 820	6 605	6 861	6 805	7 134	6 796
> 80,1 sq.m	6 870	6 752	6 993	6 622	7 182	7 341	7 227	6 923	7 553	7 796
average offer price deviation	3,8%	x	1,9%	x	1,1%	x	0,2%	x	2,7%	x
<= 40 sq.m	2,7%	x	-5,6%	x	-1,2%	x	-2,3%	x	1,5%	x
(40,1; 60] sq.m	4,2%	x	4,1%	x	2,1%	x	2,2%	x	5,0%	x
(60,1; 80] sq.m	6,0%	x	3,2%	x	3,3%	x	0,8%	x	5,0%	x
> 80,1 sq.m	1,7%	x	5,6%	x	-2,2%	x	4,4%	x	-3,1%	x

Source: NBP

Table 12 Average prices of housing sq. m in the SM in Poznań

specification	I Q 2018		II Q 2018		III Q 2018		IV Q 2018		I Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	6 525	5 618	6 652	5 778	6 763	5 920	6 939	6 005	6 967	5 913
growth (q-o-q)	102,8	101,2	101,9	102,8	101,7	102,5	102,6	101,4	100,4	98,5
growth (y-o-y)	109,6	109,0	109,4	105,7	111,7	109,0	109,3	108,2	106,8	105,2
dwelling price range	374	985	316	1119	249	960	208	543	1465	417
<=4 000 PLN/sq.m	11	67	9	53	8	34	7	10	32	16
(4 001; 6 000] PLN/sq.m	148	605	121	635	87	516	61	295	376	214
(6 001; 8 000] PLN/sq.m	159	278	131	373	110	358	96	210	775	172
(8 001; 10 000] PLN/sq.m	45	29	42	49	27	47	27	23	212	15
>10 001 PLN/sq.m	11	6	13	9	17	5	17	5	70	
dwelling space range	374	985	316	1119	249	960	208	543	1465	417
<= 40 sq.m	52	283	40	328	33	309	20	174	261	136
(40,1; 60] sq.m	141	431	116	492	88	421	71	243	605	181
(60,1; 80] sq.m	93	203	92	209	67	178	58	100	333	80
> 80,1 sq.m	88	68	68	90	61	52	59	26	266	20
average price of 1 sq.m. of dwelling	6525	5618	6652	5778	6763	5920	6939	6005	6967	5913
<=4 000 sq.m	7165	5991	7475	6294	7754	6420	8297	6515	7759	6403
(40,1; 60] sq.m	6823	5667	6734	5750	6654	5885	6966	5946	7015	5961
(60,1; 80] sq.m	6279	5213	6481	5308	6843	5307	6962	5414	6687	5211
> 80,1 sq.m	5927	4967	6257	5139	6295	5341	6425	5406	6433	4950
average offer price deviation	16,1%	x	15,1%	x	14,2%	x	15,6%	x	17,8%	x
<= 40 sq.m	19,6%	x	18,8%	x	20,8%	x	27,3%	x	21,2%	x
(40,1; 60] sq.m	20,4%	x	17,1%	x	13,1%	x	17,1%	x	17,7%	x
(60,1; 80] sq.m	20,4%	x	22,1%	x	28,9%	x	28,6%	x	28,3%	x
> 80,1 sq.m	19,3%	x	21,8%	x	17,9%	x	18,9%	x	30,0%	x

Source: NBP

Table 13 Average prices of housing sq. m in the PM in Warsaw

specification	I Q 2018		II Q 2018		III Q 2018		IV Q 2018		I Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	8 201	7 965	8 611	8 185	8 887	8 539	9 018	8 567	9 420	8 762
growth (q-o-q)	102,3	102,8	105,0	102,8	103,2	104,3	101,5	100,3	104,5	102,3
growth (y-o-y)	106,4	105,3	111,3	106,5	114,1	109,2	112,4	110,5	118,3	101,8
dwelling price range	11 797	4 914	13 079	4 463	13 878	3 992	13 404	4 275	12 783	4 201
<=4 000 PLN/sq.m	0	0	0	0	0	0	0	0	0	0
(4 001; 6 000] PLN/sq.m	691	265	598	211	507	112	318	152	142	172
(6 001; 8 000] PLN/sq.m	6 186	2 618	5 615	2 144	5 062	1 678	4 961	1 684	3 818	1 412
(8 001; 10 000] PLN/sq.m	3 649	1 628	4 694	1 691	5 325	1 557	5 285	1 750	5 373	1 820
>10 001 PLN/sq.m	1 271	403	2 172	417	2 984	645	2 840	689	3 450	797
dwelling space range	11 797	4 914	13 079	4 463	13 878	3 992	13 404	4 275	12 783	4 201
<= 40 sq.m	1 364	977	1 563	872	1 788	853	1 509	865	1 398	980
(40,1; 60] sq.m	5 066	2 404	5 557	2 150	5 837	1 877	5 862	2 015	5 465	1 922
(60,1; 80] sq.m	3 944	1 125	4 377	1 078	4 550	926	4 383	1 052	4 219	992
> 80,1 sq.m	1 423	408	1 582	363	1 703	336	1 650	343	1 701	307
average price of 1 sq.m. of dwelling	8 201	7 965	8 611	8 185	8 887	8 539	9 018	8 567	9 420	8 762
<=4 000 sq.m	9 596	8 369	10 033	8 578	10 394	9 168	10 639	9 150	11 635	9 354
(40,1; 60] sq.m	7 906	7 753	8 364	7 984	8 614	8 332	8 753	8 384	9 097	8 523
(60,1; 80] sq.m	7 940	7 853	8 201	8 080	8 461	8 128	8 518	8 313	8 779	8 508
> 80,1 sq.m	8 639	8 554	9 204	8 741	9 380	9 228	9 800	8 947	10 223	9 186
average offer price deviation	3,0%	x	5,2%	x	4,1%	x	5,3%	x	7,5%	x
<= 40 sq.m	14,7%	x	17,0%	x	13,4%	x	16,3%	x	24,4%	x
(40,1; 60] sq.m	2,0%	x	4,8%	x	3,4%	x	4,4%	x	6,7%	x
(60,1; 80] sq.m	1,1%	x	1,5%	x	4,1%	x	2,5%	x	3,2%	x
> 80,1 sq.m	1,0%	x	5,3%	x	1,7%	x	9,5%	x	11,3%	x

Source: NBP

Table 14 Average prices of housing sq. m in the SM in Warsaw

specification	I Q 2018		II Q 2018		III Q 2018		IV Q 2018		I Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	9 346	8 047	9 347	8 393	9 612	8 583	10 277	8 395	10 294	8 392
growth (q-o-q)	101,2	99,9	100,0	104,3	102,8	102,3	106,9	97,8	100,2	100,0
growth (y-o-y)	106,0	108,3	105,2	107,3	106,7	107,0	111,3	104,2	110,1	104,3
dwelling price range	3 312	2 733	3 338	3 729	2 996	3 722	2 755	1 449	2 349	1 103
<=4 000 PLN/sq.m	0	1	0	2	0	1	0	0	0	0
(4 001; 6 000] PLN/sq.m	190	370	146	366	144	276	69	109	51	70
(6 001; 8 000] PLN/sq.m	1 019	1 158	1 033	1 472	799	1 366	594	595	461	475
(8 001; 10 000] PLN/sq.m	1 118	800	1 136	1 199	1 020	1 292	858	502	800	362
>10 001 PLN/sq.m	985	404	1 023	690	1 033	787	1 234	243	1 037	196
dwelling space range	3 312	2 733	3 338	3 729	2 996	3 722	2 755	1 449	2 349	1 103
<= 40 sq.m	449	965	474	1 132	363	1 129	403	451	306	339
(40,1; 60] sq.m	1 187	1 163	1 268	1 628	1 050	1 616	929	628	795	462
(60,1; 80] sq.m	801	415	821	619	740	635	660	267	608	204
> 80,1 sq.m	875	190	775	350	843	342	763	103	640	98
average price of 1 sq.m. of dwelling	9 346	8 047	9 347	8 393	9 612	8 583	10 277	8 395	10 294	8 392
<=4 000 sq.m	9 923	8 587	10 139	9 022	10 435	9 137	11 447	9 133	11 300	9 248
(40,1; 60] sq.m	9 098	7 720	9 111	8 058	9 437	8 194	10 077	8 079	10 173	8 082
(60,1; 80] sq.m	8 930	7 430	8 780	7 785	9 072	8 304	9 672	7 706	9 699	7 877
> 80,1 sq.m	9 768	8 657	9 849	8 993	9 950	9 113	10 426	8 884	10 530	7 967
average offer price deviation	16,1%	x	11,4%	x	12,0%	x	22,4%	x	22,7%	x
<= 40 sq.m	15,6%	x	12,4%	x	14,2%	x	25,3%	x	22,2%	x
(40,1; 60] sq.m	17,8%	x	13,1%	x	15,2%	x	24,7%	x	25,9%	x
(60,1; 80] sq.m	20,2%	x	12,8%	x	9,2%	x	25,5%	x	23,1%	x
> 80,1 sq.m	12,8%	x	9,5%	x	9,2%	x	17,4%	x	32,2%	x

Source: NBP

Table 15 Average prices of housing sq. m in the PM in Wrocław

specification	I Q 2018		II Q 2018		III Q 2018		IV Q 2018		I Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	6 745	6 508	7 020	6 651	7 145	6 750	7 230	6 905	7 457	7 032
growth (q-o-q)	103,4	101,9	104,1	102,2	101,8	101,5	101,2	102,3	103,1	101,8
growth (y-o-y)	104,4	106,1	108,7	105,3	111,8	104,9	110,8	108,1	110,6	108,0
dwelling price range	5 538	1 633	5 777	1 676	5 510	1 614	5 662	1 272	5 939	1 695
<=4 000 PLN/sq.m	0	1	7	1	0	7	0	0	0	0
(4 001; 6 000] PLN/sq.m	2 125	583	1 955	653	1 568	498	1 384	342	906	391
(6 001; 8 000] PLN/sq.m	2 482	901	2 469	787	2 503	874	2 775	716	3 319	905
(8 001; 10 000] PLN/sq.m	731	131	1 018	172	1 124	212	1 112	172	1 285	348
>10 001 PLN/sq.m	200	17	328	63	315	23	391	42	429	51
dwelling space range	5 538	1 633	5 777	1 676	5 510	1 614	5 662	1 272	5 939	1 695
<= 40 sq.m	752	289	949	292	921	302	906	217	961	362
(40,1; 60] sq.m	2752	824	2739	821	2621	828	2636	657	2837	829
(60,1; 80] sq.m	1694	442	1753	474	1643	400	1700	325	1709	418
> 80,1 sq.m	340	78	336	89	325	84	420	73	432	86
average price of 1 sq.m. of dwelling	6 745	6 508	7 020	6 651	7 145	6 750	7 230	6 905	7 457	7 032
<=4 000 sq.m	7469	6945	8279	7152	8397	7419	8416	7547	8613	7971
(40,1; 60] sq.m	6713	6420	6861	6573	7008	6579	7125	6781	7289	6825
(60,1; 80] sq.m	6469	6377	6566	6474	6613	6626	6729	6659	7055	6509
> 80,1 sq.m	6774	6564	7136	6674	7396	6626	7359	7207	7586	7624
average offer price deviation	3,6%	x	5,5%	x	5,9%	x	4,7%	x	6,0%	x
<= 40 sq.m	7,5%	x	15,7%	x	13,2%	x	11,5%	x	8,0%	x
(40,1; 60] sq.m	4,6%	x	4,4%	x	6,5%	x	5,1%	x	6,8%	x
(60,1; 80] sq.m	1,4%	x	1,4%	x	-0,2%	x	1,1%	x	8,4%	x
> 80,1 sq.m	3,2%	x	6,9%	x	11,6%	x	2,1%	x	-0,5%	x

Source: NBP

Table 16 Average prices of housing sq. m in the SM in Wrocław

specification	I Q 2018		II Q 2018		III Q 2018		IV Q 2018		I Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	6 423	5 841	6 485	6 077	6 491	6 159	6 571	6 191	7 339	6 267
growth (q-o-q)	100,9	98,9	101,0	104,0	100,1	101,3	101,2	100,5	111,7	101,2
growth (y-o-y)	102,7	108,4	103,5	111,6	103,1	106,9	103,2	104,8	114,3	107,3
dwelling price range	1 406	289	1 544	272	1 554	248	1 290	242	321	236
<=4 000 PLN/sq.m	20	12	18	7	19	4	18	8	2	10
(4 001; 6 000] PLN/sq.m	648	159	686	141	676	113	539	109	73	94
(6 001; 8 000] PLN/sq.m	580	105	649	103	667	113	558	100	147	106
(8 001; 10 000] PLN/sq.m	99	12	125	19	131	14	118	22	75	22
>10 001 PLN/sq.m	59	1	66	2	61	4	57	3	24	4
dwelling space range	1 406	289	1 544	272	1 554	248	1 290	242	321	236
<= 40 sq.m	206	48	231	41	233	37	213	50	45	53
(40,1; 60] sq.m	561	123	592	122	606	111	505	107	127	98
(60,1; 80] sq.m	418	80	477	83	482	78	384	58	94	54
> 80,1 sq.m	221	38	244	26	233	22	188	27	55	31
average price of 1 sq.m. of dwelling	6 423	5 841	6 485	6 077	6 491	6 159	6 571	6 191	7 339	6 267
<=4 000 sq.m	7 236	6 607	7 330	7 079	7 338	7 023	7 344	6 782	8 152	7 150
(40,1; 60] sq.m	6 464	5 985	6 498	6 248	6 502	6 325	6 574	6 364	7 345	6 182
(60,1; 80] sq.m	6 143	5 366	6 220	5 611	6 256	5 638	6 313	5 811	7 099	5 821
> 80,1 sq.m	6 090	5 410	6 170	5 184	6 101	5 724	6 215	5 229	7 071	5 801
average offer price deviation	10,0%	x	6,7%	x	5,4%	x	6,1%	x	17,1%	x
<= 40 sq.m	9,5%	x	3,5%	x	4,5%	x	8,3%	x	14,0%	x
(40,1; 60] sq.m	8,0%	x	4,0%	x	2,8%	x	3,3%	x	18,8%	x
(60,1; 80] sq.m	14,5%	x	10,9%	x	11,0%	x	8,6%	x	21,9%	x
> 80,1 sq.m	12,6%	x	19,0%	x	6,6%	x	18,9%	x	21,9%	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 developers³⁵

In 2019 Q1, home sales and the number of dwellings available for sale decreased in the majority of voivodeship capitals. Sales decline was recorded by over a dozen or so largest developers holding bonds on the Catalyst market (by 19.8% and 16.7% respectively as compared to 2018 Q1 and 2017 Q1). Reduced home sales and smaller number of dwellings available for sale resulted mainly from problems on the supply side (lack of construction sites and high costs of construction and prices of construction materials). Analysis of GUS data for the period from January to March 2019 shows, however, the signs of recovery in the housing market. In this period, as compared to the corresponding period of 2017, the number of dwellings whose construction was launched increased by over 12%, which proves that supply is on the recovery path. Increasing home production combined with the already fully used productive capacity, however, generates a number of tensions on the supply side.

In 2018, as compared to 2017, according to the accounting entries, the average value of total revenues and expenses as well as completed projects and dwellings made ready for occupancy decreased, with a slight increase in the average net financial result. Return on sales (ROS), return on assets (ROA) and return on equity (ROE) remained at a high, safe level, while the profitability of smaller real estate developers was lower than that of large developers. Efforts to maintain a satisfactory level of profitability, while limiting the supply and growth of home prices, could be, among other things, the effect of prudential approach of real estate developers in the event of a collapse in demand.

In 2019 Q1, in the group of large real estate developers, the value of dwellings under construction increased, after they have taken a prudential approach to the launch of new housing projects in 2018. Return on sales (ROS), return on assets (ROA) and return on equity (ROE) of companies remained at a safe level. Considering the accounting standards applied by real estate developers, the growing number of developers recording a negative financial result is largely the effect of a greater number of dwellings under construction. The launch of new projects and problems with the purchase of construction sites have depleted the supply of land. The offer of dwellings ready for occupancy has slightly increased, yet their stock still remains at a low level.

In all groups of the analysed real estate developers, the ratio of operating expenses to return on sales is at a safe level. This ratio is the most advantageous in the group of developers listed on the Warsaw Stock Exchange. In the group of large developers, this ratio continues to see an improvement, whereas in the case of smaller real estate developers we observe significant volatility. In 2019 Q1, the share of third party services decreased in the group of large real estate developers, which may point to the fact that they rely on their own production capacities. The number of employees and payroll expenses

³⁵ Calculations and conclusions in this edition of the Information are based on data resulting from F01 reports submitted to GUS, broken down into two groups of companies: those employing from 9 to 49 persons (data available until the second half of 2018) and those whose staff exceeds 49 persons (data available until 2019 Q1), 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 2018 Q4. 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 2019 Q1", Nawigator Dom Maklerski, Warsaw, May 2019).

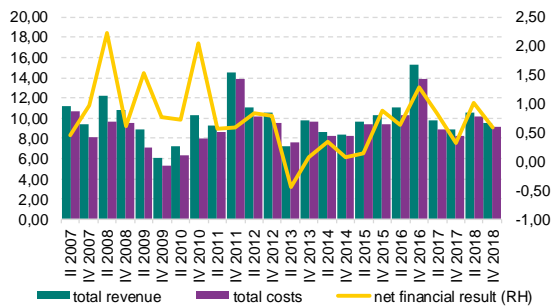
increased. The group of smaller developers, largely relying on third party services in the second half of 2018, with a simultaneous decrease in payroll expenses may indicate that they implement projects largely resorting to contractors. Their activity in the first half of 2018 was focused on the implementation of the previously launched projects. The land stock after the 2017 increase, declined in the first half of 2018, which may indicate problems with the purchase of construction sites in this group of entrepreneurs.

Equity plays an important role in financing the operations of real estate developers. Home buyers' down payments are one of the most important sources of external financing for real estate developers listed on the Warsaw Stock Exchange and for the group of large development companies. In the structure of liabilities, their share exceeded 17% in 2018 Q4 in the group of developers listed on the Warsaw Stock Exchange and totaled approx. 16% in 2019 Q1 in the group of large development companies. In both analysed groups, their value decreased in the past two quarters, whereas liabilities from bank loans increased. The subsequent quarters may bring an increase in home buyers' down payments when launched investment and development projects reach a more advanced stage of construction. In the group of smaller real estate developers, home buyers' down payments play a lesser role, and their share in the structure of liabilities in the second half of 2018 increased slightly - to approx. 10%. In this group of real estate developers, in both half-year periods of 2018, the debt resulting from bank loans decreased. The level of other liabilities remains high (at approx. 23% in the structure of liabilities in the second half of 2018), which may point to delays in the payment of liabilities to contractors of construction works. In particular quarters of 2018, debt resulting debt securities increased in the group of developers listed on the Warsaw Stock Exchange. During this period, low activity of residential developers holding bonds on the Catalyst market continued, with a further slight decline in the average interest rate on bond coupons.

In all groups of the analysed real estate developers, total debt ratio and equity-to-debt ratio as well as the level of equity/assets pledged as collateral for financial liabilities are at a safe level. This makes it possible to ensure appropriate conditions when examining loan applications and security of funds entrusted by creditors.

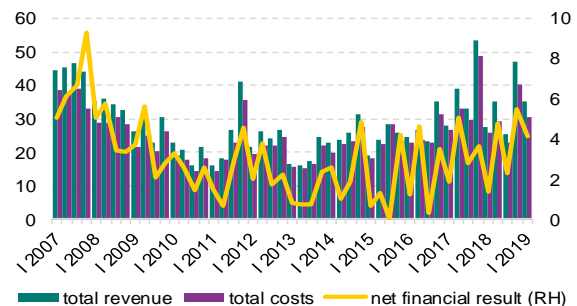
Return on sales (ROS), return on equity (ROE) and return on assets (ROA) in both groups of real estate developers remain at a safe level, with certain improvement recorded in the group of smaller developers due to the increase in the average net financial result. Profitability deteriorated in the group of large development companies whereas in the case of real estate developers listed on the Warsaw Stock Exchange deterioration was not so significant.

Figure 68 Economic indicators of real estate developers employing from 9 to 49 persons



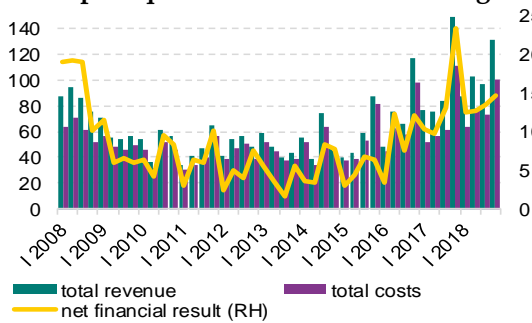
Source: NBP based on GUS (F01)

Figure 69 Economic indicators of real estate developers employing more than 49 persons



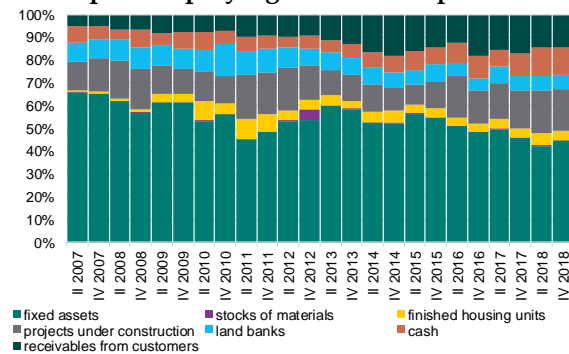
Source: NBP based on GUS (F01)

Figure 70 Economic indicators of real estate developers quoted on the Stock Exchange



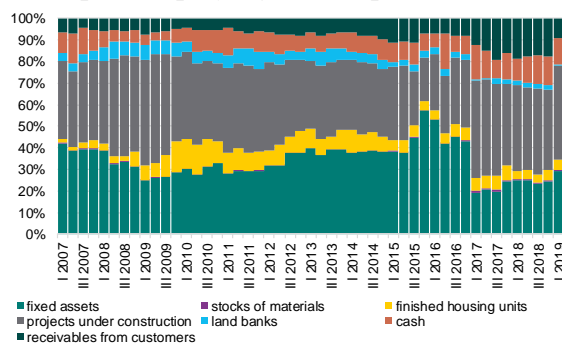
Source: NBP based on Financial Statements

Figure 71 Structure of assets of real estate developers employing from 9 to 49 persons



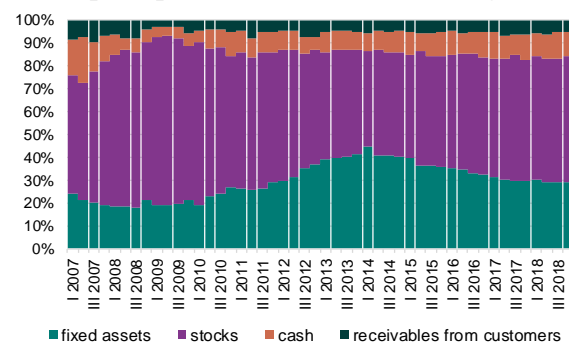
Source: NBP based on GUS (F01)

Figure 72 Structure of assets of real estate developers employing over 49 persons



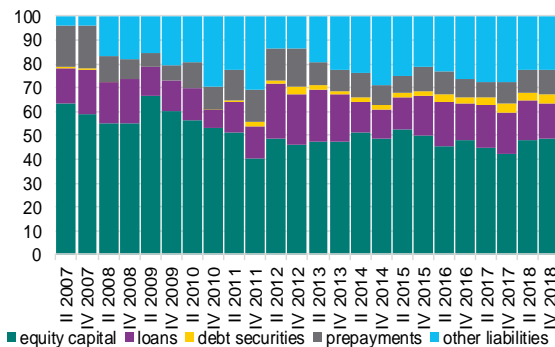
Source: NBP based on GUS (F01)

Figure 73 Structure of assets of real estate developers quoted on the Stock Exchange



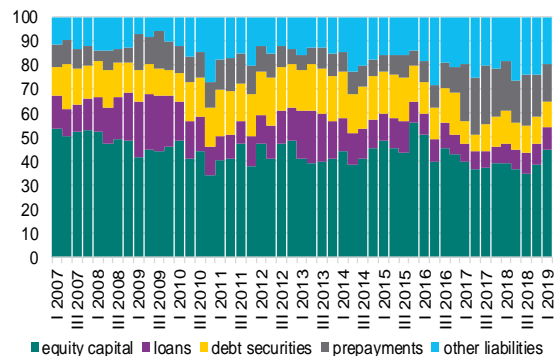
Source: NBP based on the Financial Statements

Figure 74 Structure of liabilities of real estate developers employing from 9 to 49 persons



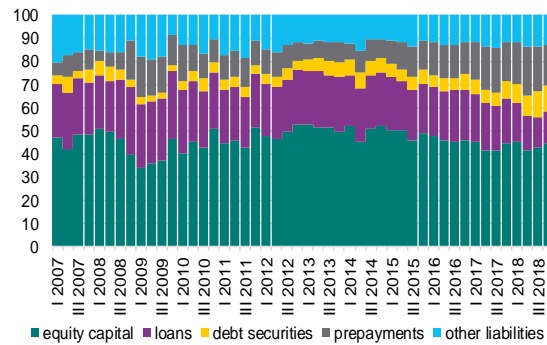
Source: NBP based on GUS (F01)

Figure 75 Structure of liabilities of real estate developers employing more than 49 persons



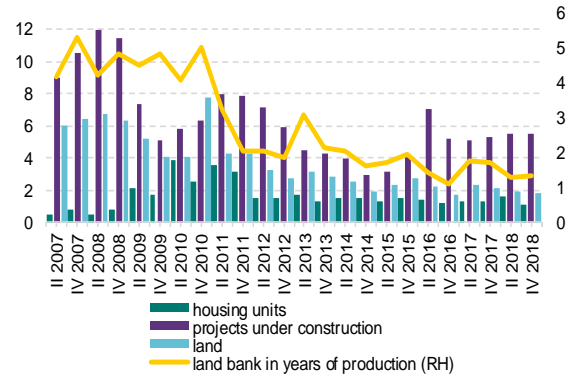
Source: NBP based on the Financial Statements

Figure 76 Structure of liabilities of real estate developers quoted on the Stock Exchange



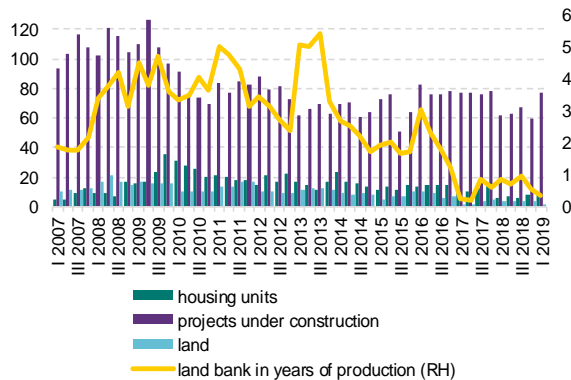
Source: NBP based on the Financial Statements

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



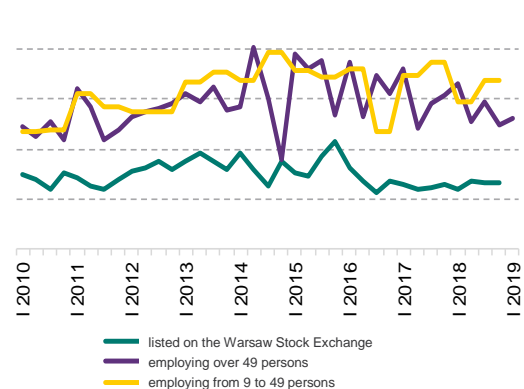
Source: NBP based on GUS (F01)

Figure 78 Situation of real estate developers employing over 49 persons



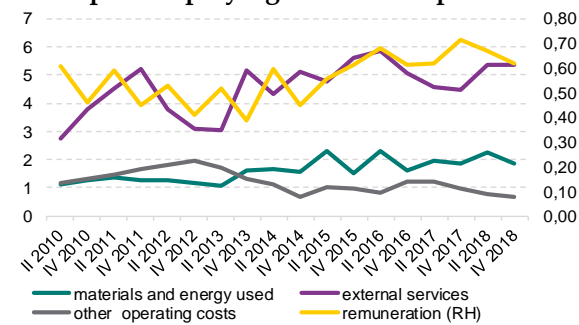
Source: NBP based on GUS (F01)

Figure 79 Operating expenses in particular groups of real estate developers



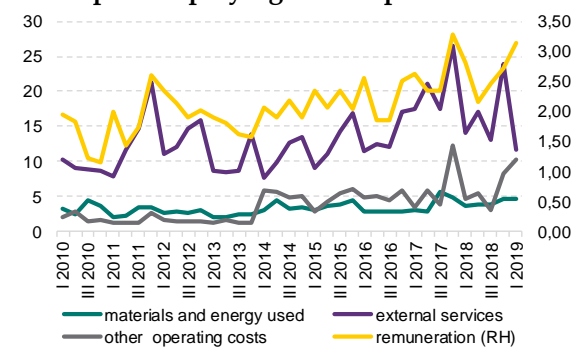
Source: NBP based on GUS (F01) and on the Financial Statements

Figure 80 Operating expenses of real estate developers employing from 9 to 49 persons



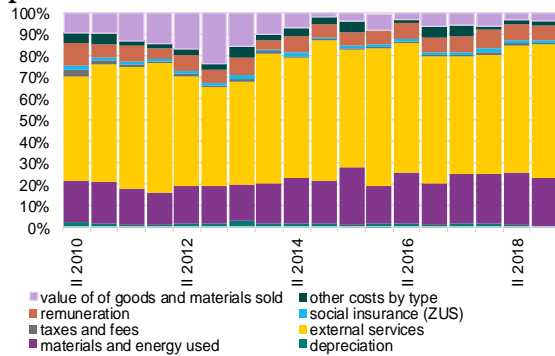
Source: NBP based on GUS (F01)

Figure 81 Operating expenses of real estate developers employing over 49 persons



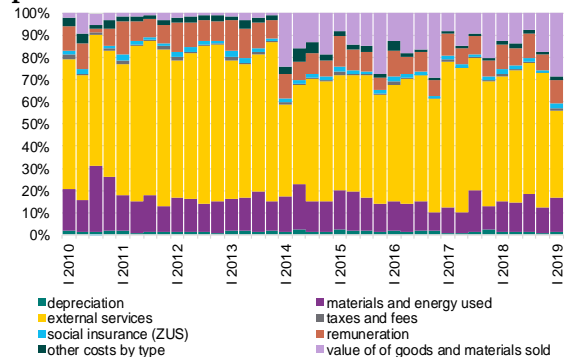
Source: NBP based on GUS (F01)

Figure 82 Structure of operating expenses of real estate developers employing from 9 to 49 persons



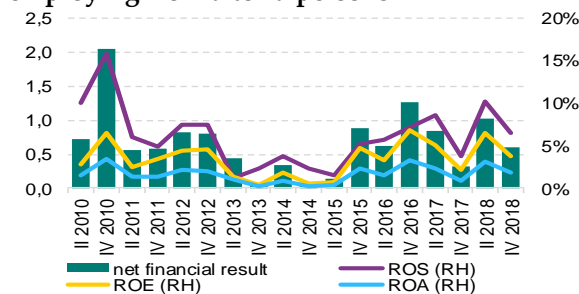
Source: NBP based on GUS (F01) and on the Financial Statements

Figure 83 Structure of operating expenses of real estate developers employing more than 49 persons



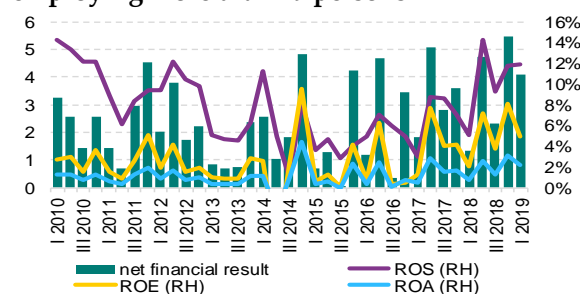
Source: NBP based on GUS (F01) and on the Financial Statements

Figure 84 Profitability of real estate developers employing from 9 to 49 persons



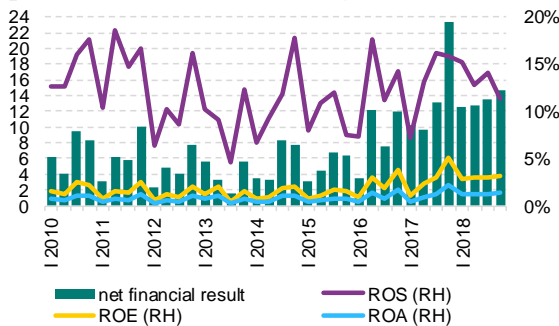
Source: NBP based on GUS (F01)

Figure 85 Profitability of real estate developers employing more than 49 persons



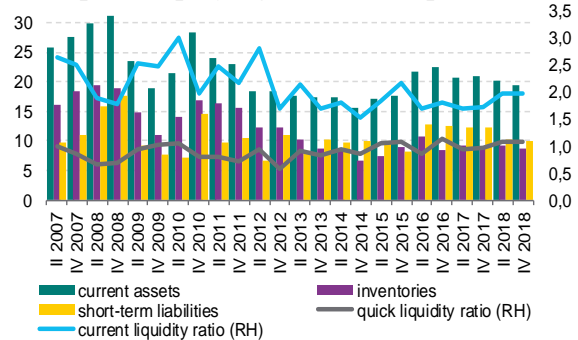
Source: NBP based on GUS (F01)

Figure 86 Profitability of real estate developers quoted on the Stock Exchange



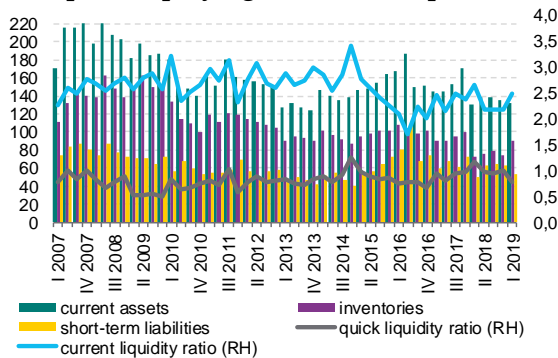
Source: NBP based on Financial Statements

Figure 87 Liquidity ratios of real estate developers employing from 9 to 49 persons



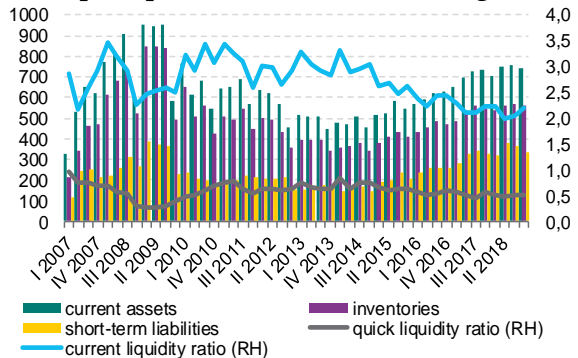
Source: NBP based on GUS (F01)

Figure 88 Liquidity ratios of real estate developers employing more than 49 persons



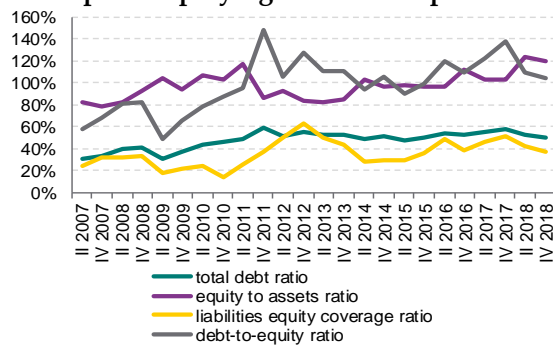
Source: NBP based on GUS (F01)

Figure 89 Liquidity ratios of real estate developers quoted on the Stock Exchange



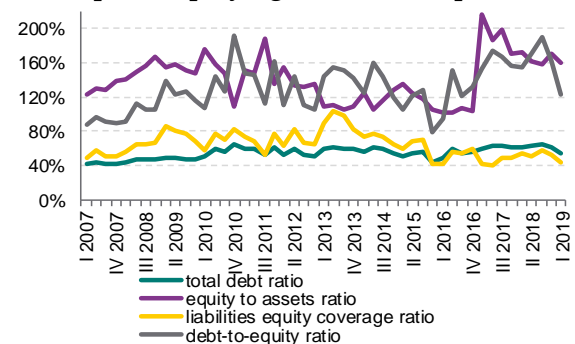
Source: NBP based on the Financial Statements

Figure 90 Debt ratios and assets pledged as collateral for liabilities of real estate developers employing from 9 to 49 persons



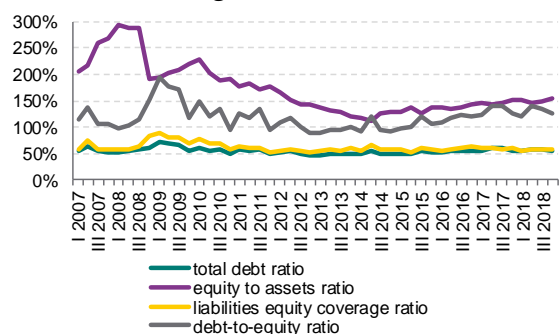
Source: NBP based on GUS (F01)

Figure 91 Debt ratios and assets pledged as collateral for liabilities of real estate developers employing more than 49 persons



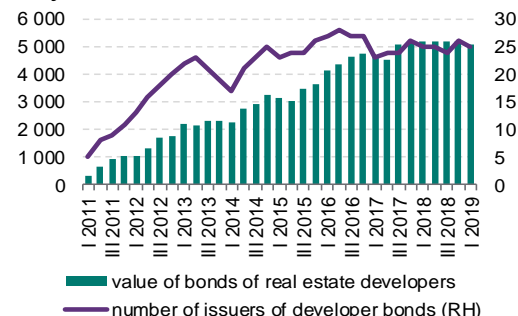
Source: NBP based on GUS (F01)

Figure 92 Debt ratios and assets pledged as collateral for liabilities of real estate quoted on the Stock Exchange



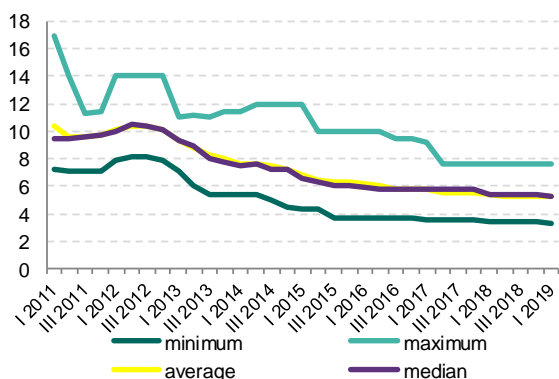
Source: NBP based on the Financial Statements

Figure 93 Value of developer bonds and number of issuers of developer bonds on the Catalyst market



Source: NBP based on Catalyst data

Figure 94 Interest income on bond coupons held by real estate developers quoted on the Catalyst market



Source: NBP based on Catalyst data

7.2. Analysis of the financial standing of construction companies³⁶

The housing and commercial real estate markets are directly affected by the situation in the entire construction sector, where half of the production concerns construction of infrastructure under programs financed from EU funds. As a consequence, there are strong tensions and competition for production factors between residential, commercial and infrastructural real estate sectors.

According to GUS data in 2018 as compared to 2017, the demand for construction services increased. During this period, the value of sold construction production at current prices increased by over 25%, and in 2019 Q1, as compared to the corresponding period of 2018, grew by another 20%. As a result, the construction industry faces a number of challenges, mainly due to rising costs and a shortage of production capacity.

³⁶ Calculations and conclusions in this edition of the Information are based on data resulting from F01 reports submitted to GUS, broken down into two groups of companies: those employing from 9 to 49 persons (data available until the second half of 2018) and those with staff exceeding 49 persons (data available until 2019 Q1), involved in the execution of construction works related to the construction of residential and non-residential buildings (PKD 41.10).

According to the data reported in the F-01 financial statements, in 2018 the situation of large companies in the construction industry (employing over 49 people) was stable; on the other hand, the situation in the group of smaller companies (employing from 10 to 49 people) improved. The average value of financial result as well as total revenues and expenses increased, which may point to the rising number of contracts performed and their improved profitability. Total revenues generated by smaller construction companies in the second half of 2018 increased by an average of 4% as compared to the corresponding period of 2017. Amid the unchanged growth in total expenses, the average net financial result increased by 13%. In the first months of 2019, the financial condition of large companies improved. Average sales revenues generated in 2019 Q1 by larger enterprises were 14.6% higher as compared to the same quarter of 2018 and operating expenses grew by 14.2%. Slightly higher growth of revenues than that of expenses allowed to achieve a 24% increase in financial result.

In 2018, in both groups of construction companies, return on sales (ROS), return on equity (ROE) and return on assets (ROA) were at a safe level, however the profitability of large entities was much lower than that of smaller companies, despite the improvement in year-on-year terms. Return on sales increased twice (to over 18%) in the group of small companies in the second half of 2018 as compared to the one recorded a year ago (over 9%). Return on assets and return on equity improved to a lesser extent. In 2019 Q1 as compared to the corresponding period of the last year, profitability ratios of large companies in the sector continued to improve. During this period, return on sales in this group reached approx. 5%.

In both groups of construction companies, return on equity which continued to be twice as high as return on assets may point to the fact that profitability of companies largely depends on external financing. The persistently high share of funding from amounts payable to contractors is a characteristic feature of the entire construction sector. In the group of smaller construction companies, a slight decline in the scale of payment lags was observed in 2018, which may indicate a slight decrease in the share of accounts payable to contractors and subcontractors, amid a slight decrease in receivables, despite significantly higher turnover. As regards external sources of financing, the group of large companies have seen a slight increase in the value of liabilities from bank loans since 2017, however their share in the structure of liabilities of both groups of companies is similar (at the end of 2019 Q1, 12% in the group of large construction companies and 13% in the group of smaller construction companies). Equity is still an important source of financing, whose share in both groups is high and has slightly increased (from 48% to 52%) in 2019 Q1 in the group of large companies and from 59% to 60% in the second half of 2018 in the group of smaller companies as compared to the previous periods.

High activity of companies as regards construction of buildings is confirmed by the growing nominal value and growing share in the structure of production assets in progress (at the end of 2019 Q1, 14% share in the structure of assets of large companies and at the end of 2018 15% in the structure of small companies).

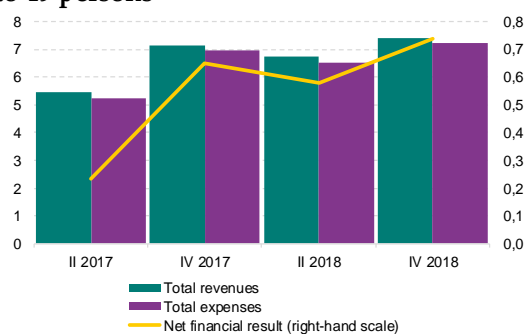
In 2018, the structure of operating expenses of medium-size and large construction companies did not see any significant changes. In both groups, the share of third party services prevailed (accounting for 58% in the group of large enterprises at the end of 2019 Q1 and 54% in the group of smaller companies

at the end of 2018). The remaining part are the costs borne directly by the analysed construction companies. More than a quarter of those expenses are costs of materials and electricity consumed. Payroll expenses decreased slightly (to 7%) in smaller companies in the second half of 2018 as compared to the second half of 2017, and in the group of large companies they remained at 11% in 2019 Q1 as compared this the corresponding period of 2018.

In 2018, financial liquidity remained at a low, but safe level, which means companies' ability to timely pay their current liabilities. Financial liquidity deteriorated slightly in the group of smaller construction companies. In 2019 Q1, in the group of large companies, financial liquidity ratios did not change significantly, and their value does not differ from the 2017-2018 average.

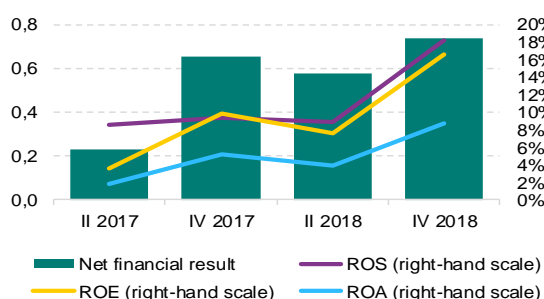
In both groups of the analysed companies, the total debt ratio and the equity to debt ratio as well as the level of equity/assets pledged as collateral for financial liabilities remain at a safe level, which affects decisions when granting credit applications and ensures the security of funds entrusted by creditors. In 2019 Q1 as compared to the previous quarter and to the corresponding period of 2018, in the group of large construction companies the equity coverage ratio and the debt to equity ratio slightly improved, which points to improved financial stability of large companies.

Figure 95 Economic indicators of construction companies employing from 9 to 49 persons



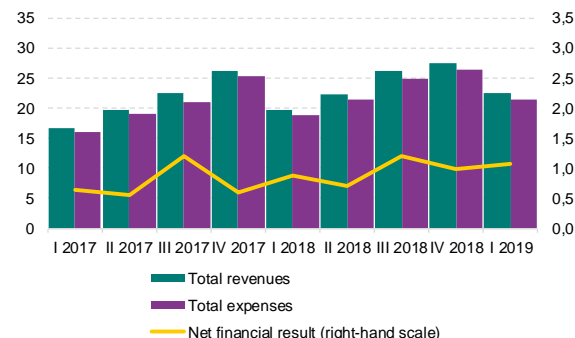
Source: NBP based on GUS

Figure 97 Profitability of construction companies employing from 9 to 49 persons



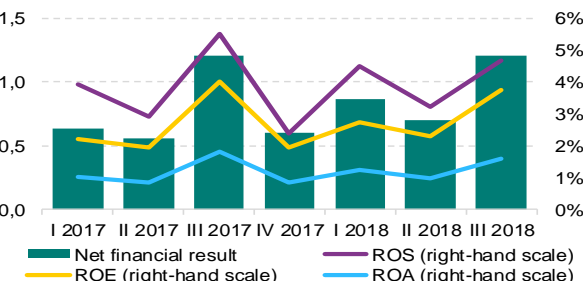
Source: NBP based on GUS

Figure 96 Economic indicators of construction companies employing more than 49 persons



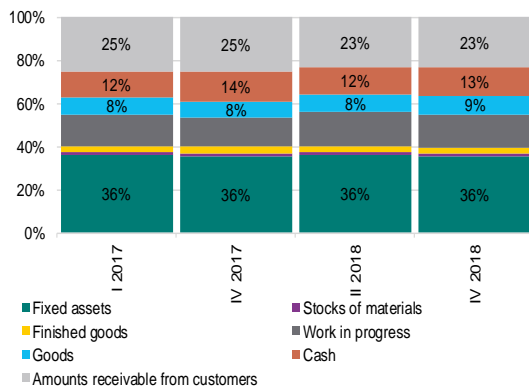
Source: NBP based on GUS

Figure 98 Profitability of construction companies employing more than 49 persons



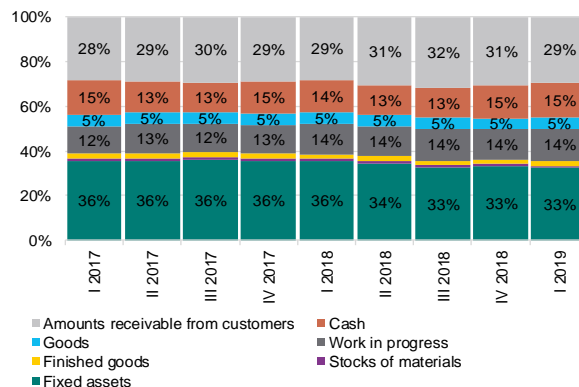
Source: NBP based on GUS

Figure 99 Structure of assets of construction companies employing from 9 to 49 persons



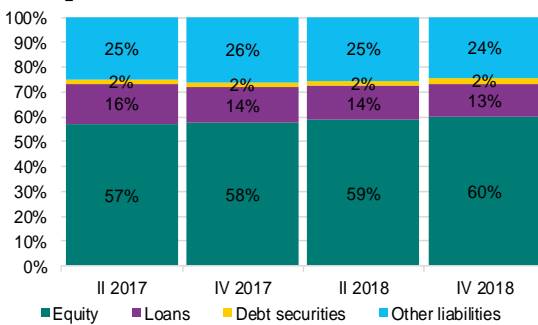
Source: NBP based on GUS

Figure 100 Structure of assets of construction companies employing more than 49 persons



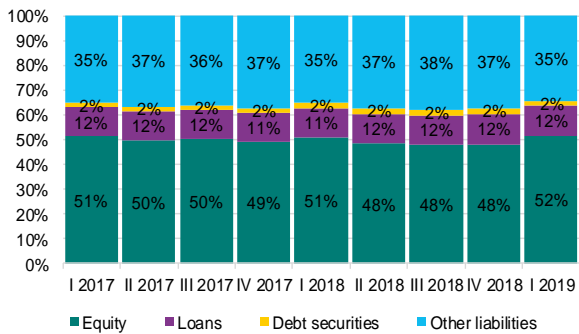
Source: NBP based on GUS

Figure 101 Structure of liabilities of construction companies employing from 9 to 49 persons



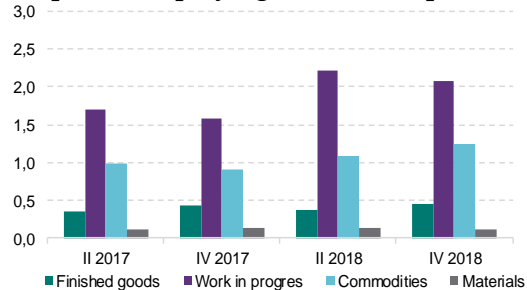
Source: NBP based on GUS

Figure 102 Structure of liabilities of construction companies employing more than 49 persons



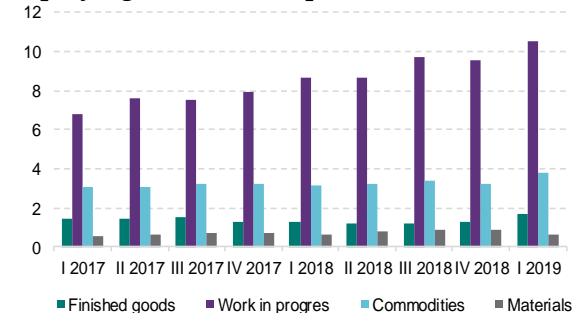
Source: NBP based on GUS

Figure 103 Situation of construction companies employing from 9 to 49 persons



Source: NBP based on GUS

Figure 104 Situation of construction companies employing more than 49 persons



Source: NBP based on GUS

7.3. Analysis of financial situation of companies involved in the sale of construction materials³⁷

The increase in the prices of construction materials is one of the main problems faced by the construction industry and largely results from the large number of orders for construction materials and rising costs of their production. According to the data of Polskie Składy Budowlane Group, the prices of construction materials in the period from 2019 Q1 to 2019 Q4, in comparison with the corresponding period of 2018, increased in all commodity groups. The largest increase in prices was seen in the following groups: walls, chimneys (+18.2%), cement, lime (+9.3%), house surroundings (+5.9%), OSB boards (+5.5%), waterproofing insulation (+5.2%), paints, varnishes (+4.4%), roofs, gutters (+ 4.1%), construction chemicals (+ 4.0%), drywalls (+ 4.0%).

The group of large wholesalers (employing more than 49 persons) in 2018 and in 2019 Q1, as compared to the corresponding periods of the last year, recorded an increase in revenues and expenses with a much higher increase in the financial result, which attests the continued demand for building and construction materials and improving profitability of intermediation in the sale of construction materials. In 2019 Q1, as compared to the 2018 Q1, revenues were higher by 8%, total expenses by 6% and the financial result by 69%. In the group of smaller wholesalers, in the second half of 2018 as compared to the second half of 2017, the increase in total revenues and expenses was lower. Particular companies in the group generate a 10% higher average financial result, despite higher growth in costs than in revenues.

At the end of 2019 Q1, the share of unprofitable companies in the group of large wholesalers declined and reached 32% (against 42% at the end of 2018 Q1). In the group of smaller wholesalers the share of unprofitable companies stood at 11% at the end of 2018 (against 13% at the end 2017). Return on sales (ROS) recorded by companies involved in the trade of construction materials in 2019 Q1 in the group of large wholesalers exceeded the 2017 and 2016 figures, which points to improving operational performance. In this group, since 2018 Q1, return on assets (ROA) and return on equity (ROE) have been on the decline, but still remain at a satisfactory level. In the group of smaller wholesalers, in particular half-year periods of 2018, return on sales (ROS) declined amid a slight improvement in return on assets (ROA) and return on equity (ROE). Profitability ratios of smaller wholesalers are at a higher level than in the group of large companies.

The main source of financing in enterprises involved in the trade of construction materials is equity, whose share in the structure of liabilities was high (approx. 50% in the group of large companies at the end of 2019 Q1 and 54% in the group of smaller companies at the end of 2018). A significant

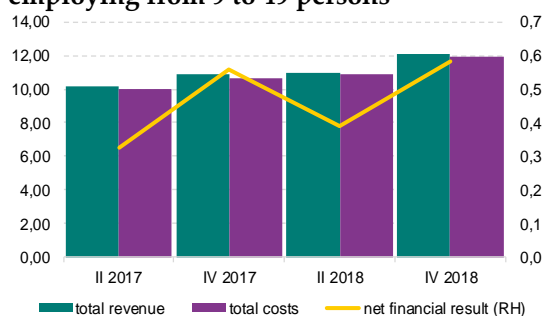
³⁷ The calculations and conclusions presented in this edition of the Information were based on data resulting from F01 reports submitted to GUS (Statistics Poland) broken down into two groups of companies: employing from 9 to 49 persons - data available until 2018 Q4 and those with staff exceeding 49 persons - data available until 2019 Q1, 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).

improvement in the net financial result and a slight decrease in financial liabilities throughout the year increased the level of assets/equity pledged as collateral for liabilities.

As regards external sources of financing, in both groups, accounts payable to producers of construction materials are the main item. Both groups also recorded an increase in accounts receivable and short-term liabilities, which points to a persistent problem with debt collection and timely payment of liabilities. The level of bank loans has decreased. Debt securities constitute an insignificant source of financing. The level of financial liquidity indicates that enterprises are able to settle their current liabilities.

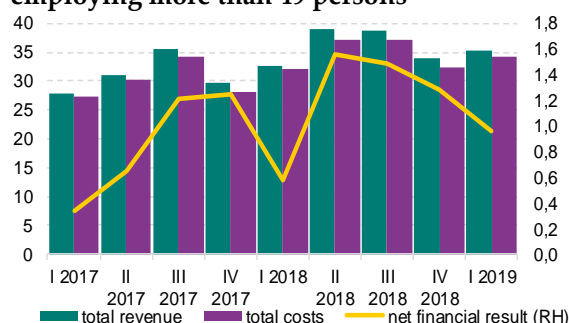
In 2019 Q1 as compared to 2018 Q1 large wholesalers recorded an increase in operating expenses (by 4%), including an increase in third party services (by 5%), payroll expenses (by 4%) and the value of goods sold (by 2%). On the other hand, smaller companies in the second half of 2018 as compared to the corresponding period in 2017 noted a 10% increase in operating expenses, including a 12% increase in the value of third party services, a 9% increase in the value of goods sold and a 7% increase in payroll expenses.

Figure 105 Economic indicators of companies involved in the sale of construction materials employing from 9 to 49 persons



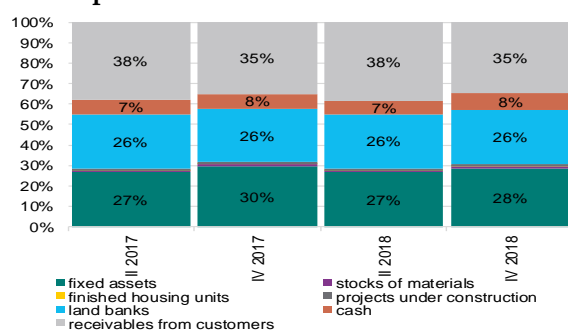
Source: NBP based on GUS (F01)

Figure 106 Economic indicators of companies involved in the sale of construction materials employing more than 49 persons



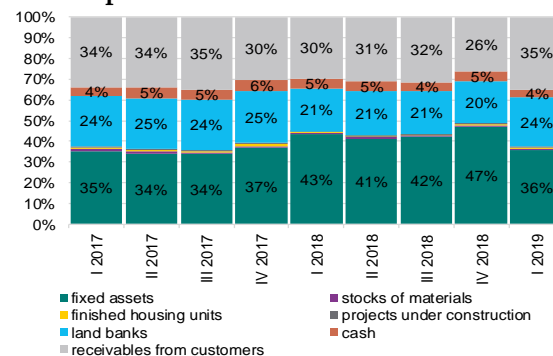
Source: NBP based on GUS (F01)

Figure 107 Structure of asset involved in the sale of construction materials employing from 9 to 49 persons



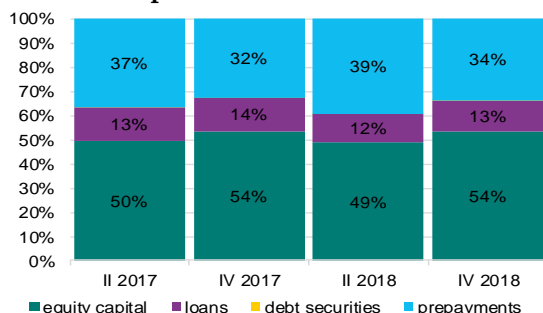
Source: NBP based on GUS (F01)

Figure 108 Structure of asset involved in the sale of construction materials employing more than 49 persons



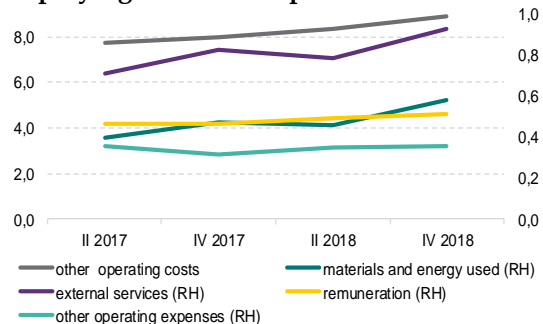
Source: NBP based on GUS (F01)

Figure 109 Structure of liabilities involved in the sale of construction materials employing from 9 to 49 persons



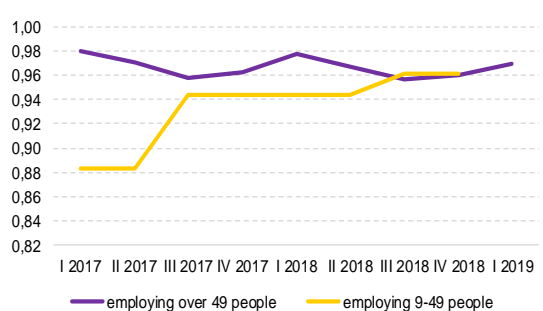
Source: NBP based on GUS (F01)

Figure 111 Operating expenses of companies involved in the sale of construction materials employing from 9 to 49 persons



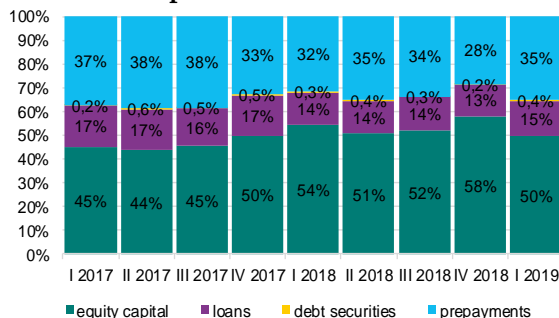
Source: NBP based on GUS (F01) and on the Financial Statements

Figure 113 The level of operating expenses in particular groups of companies involved in the sale of construction materials



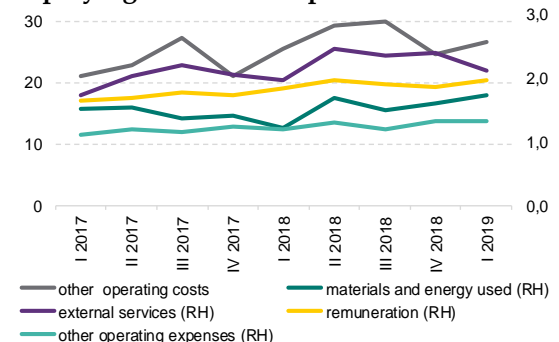
Source: NBP based on GUS (F01)

Figure 110 Structure of liabilities involved in the sale of construction materials employing more than 49 persons



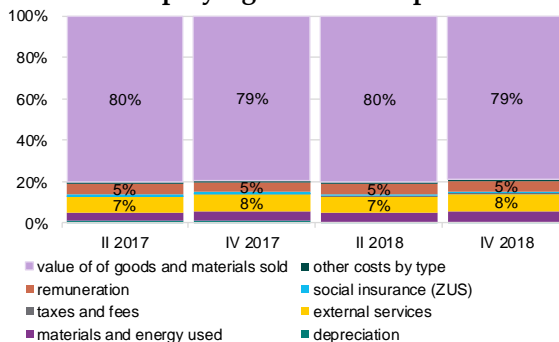
Source: NBP based on GUS (F01)

Figure 112 Operating expenses of companies involved in the sale of construction materials employing more than 49 persons



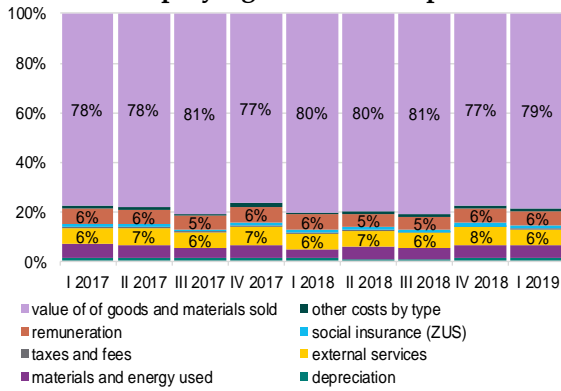
Source: NBP based on GUS (F01)

Figure 114 Structure of operating expenses of companies involved in the sale of construction materials employing from 9 to 49 persons



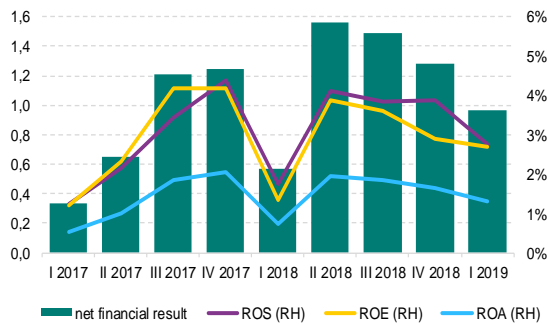
Source: NBP based on GUS (F01)

Figure 115 Structure of operating expenses of companies involved in the sale of construction materials employing more than 49 persons



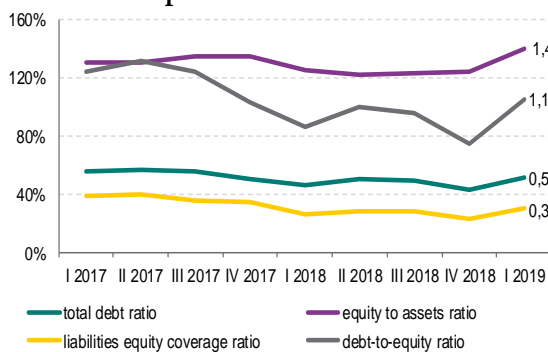
Source: NBP based on GUS (F01)

Figure 117 Profitability of companies involved in the sale of construction materials employing more than 49 persons



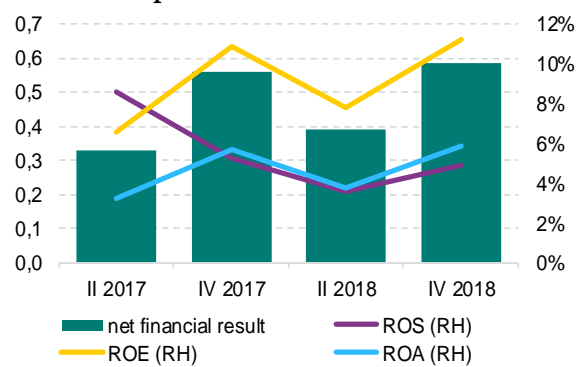
Source: NBP based on GUS (F01)

Figure 119 Debt ratios and assets pledged as collateral for liabilities of companies involved in the sale of construction materials employing more than 49 persons



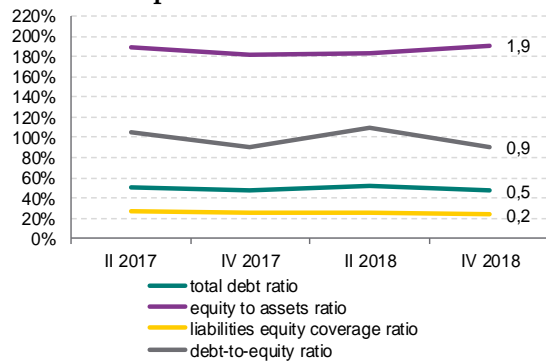
Source: NBP based on GUS (F01)

Figure 116 Profitability of companies involved in the sale of construction materials employing from 9 to 49 persons



Source: NBP based on GUS (F01)

Figure 118 Debt ratios and assets pledged as collateral for liabilities of companies involved in the sale of construction materials employing from 9 to 49 persons



Source: NBP based on GUS (F01)

7.4. Analysis of financial situation of manufacturers of construction materials³⁸

The situation of manufacturers of construction materials directly depends on the activity in construction and demand for construction materials. The continued demand for housing resulted directly in the improvement of the financial situation of manufacturers of construction materials. The year 2018 ended with the sales level and net financial result exceeding the last year's figures - the average financial result recorded by particular companies increased by approx. 23% in the case of large wholesalers and by approx. 31% in the group of smaller companies. On the other hand, companies in this sector employing from 9 to 49 persons generated a 35% higher net profit in this period, although only 66% of companies generated positive net results in 2018 Q3.

Average sales revenues of large manufacturers of construction materials (employing more than 49 persons) earned in the first quarter of 2019 were higher by 13% as compared to the corresponding period of 2018 and reached a record-high level as compared to the revenues yielded in the first quarters. At the same time, amid lower growth in expenses, high demand for construction materials allowed companies to achieve higher margins. As a result, a highly satisfactory net financial result for 2019 Q1 was achieved - it was by over 123% higher than in 2018 Q1. Approximately 70% of companies achieved positive financial result in 2019 Q1 and approx. 85% of large companies in 2018. In the group of smaller companies in the industry (employing from 9 to 49 persons), over 85% of companies ended the year 2018 with positive net financial result. Profitability ratios in the industry are at a several percent level which means a slight improvement in 2018 on the 2017 figures. Liquidity ratios are at optimal levels whereas debt ratios continue at a similar level as in the previous periods, which ensures creditworthiness and security of funds entrusted by creditors.

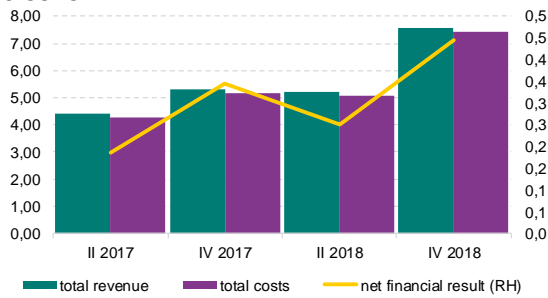
Equity plays an important role in financing companies' operations. Its share in the structure of liabilities in both groups remains high (approx. 62% in the case of large companies in the industry and 57% in the group of smaller companies). Positive financial results made it possible for large companies to significantly reduce external financing in 2018 and in 2019 Q1. On the other hand, in the group of smaller manufacturing companies the value of bank loans increased by 33% (up to 16% share in the liabilities structure) in the second half of 2018 as compared to the corresponding period of 2017. Manufacturers of construction materials barely rely on financing with debt securities.

In both groups, the high and growing level of accounts payable to suppliers of commodities and subcontractors, amid high level of unpaid receivables from creditors and rising operating expenses attest the high level of production and the continuing difficulties in the timely settlement of payments. In both groups, materials and electricity consumed account for the majority of operating expenses. In the group of smaller producers, the costs of third party services increased to a much greater extent than in the case of large manufacturers. The information obtained during the survey interviews shows that some large producers have permanent staff and the problem of the shortage of competent staff affects

³⁸ The calculations and conclusions in this edition of the Information were based on data resulting from F01 reports submitted to GUS (Statistics Poland) broken down into two groups of companies: those employing from 9 to 49 persons (data available until the second half of 2018 Q4) and those with staff exceeding 49 persons (data available until 2019 Q1), which are involved in the manufacturing of construction materials (PKD 1623, 2223, 2320, 2332, 2351, 2352, 2361, 2362, 2363, 2364).

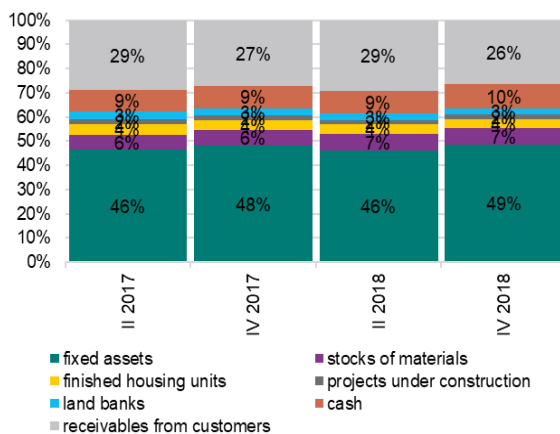
them to a lesser extent; on the other hand, smaller companies more often rely on the services of subcontractors.

Figure 120 Economic indicators of producers of construction materials employing from 9 to 49 persons



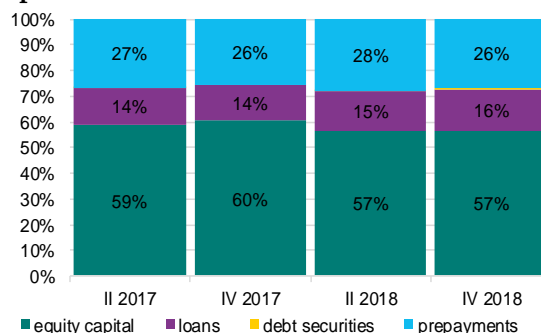
Source: NBP based on GUS (F01)

Figure 122 Structure of assets of producers of construction materials employing from 9 to 49 persons



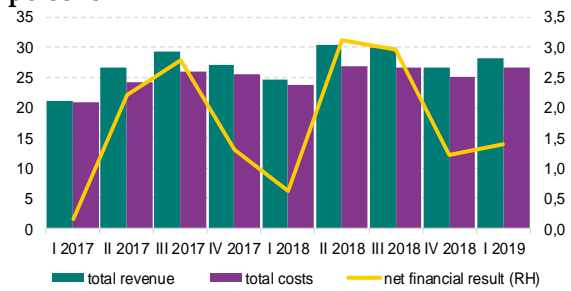
Source: NBP based on GUS (F01)

Figure 124 Structure of liabilities of producers of construction materials employing from 9 to 49 persons



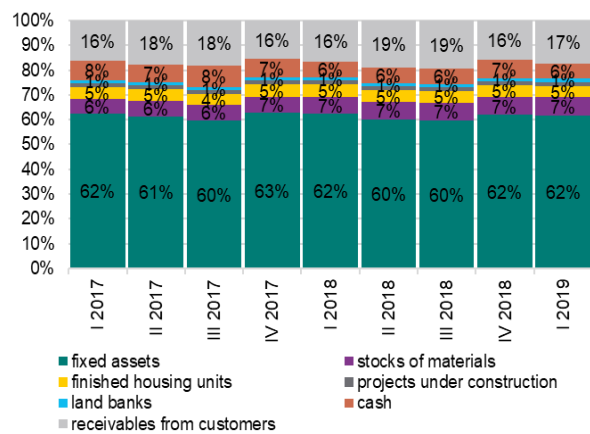
Source: NBP based on GUS (F01)

Figure 121 Economic indicators of producers of construction materials employing more than 49 persons



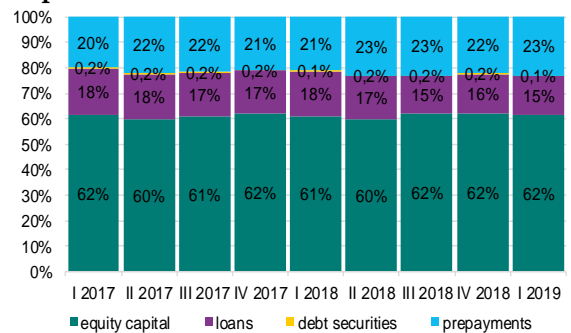
Source: NBP based on GUS (F01)

Figure 123 Structure of assets of producers of construction materials employing more than 49 persons



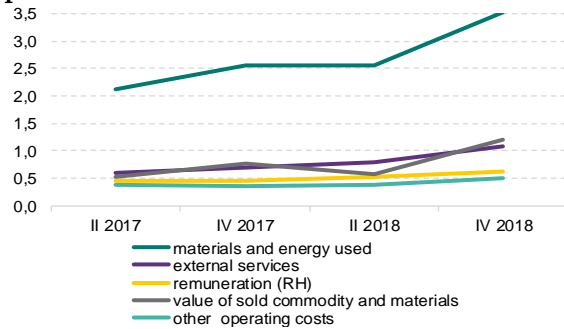
Source: NBP based on GUS (F01)

Figure 125 Structure of liabilities of producers of construction materials employing more than 49 persons



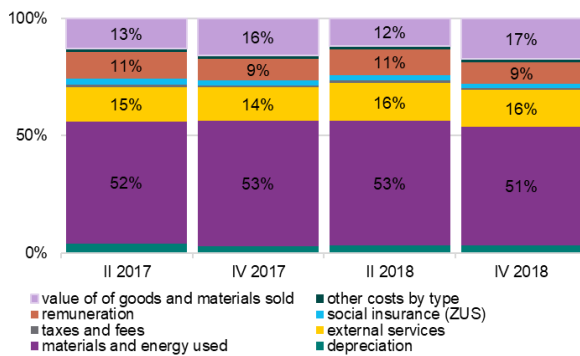
Source: NBP based on GUS (F01)

Figure 126 Operating expenses of producers of construction materials employing from 9 to 49 persons



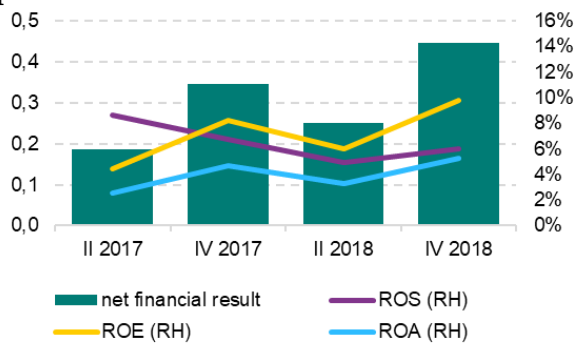
Source: NBP based on GUS (F01) and on the Financial Statements

Figure 128 Structure of operating expenses of producers of construction materials employing from 9 to 49 persons



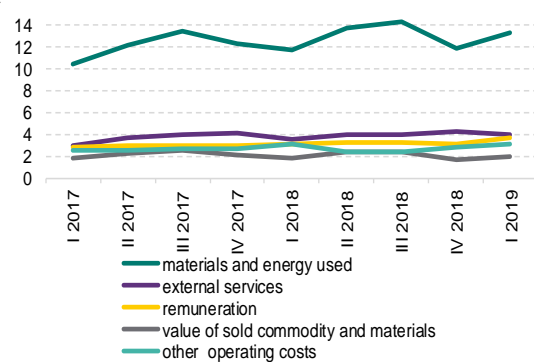
Source: NBP based on GUS (F01)

Figure 130 Profitability of producers of construction materials employing from 9 to 49 persons



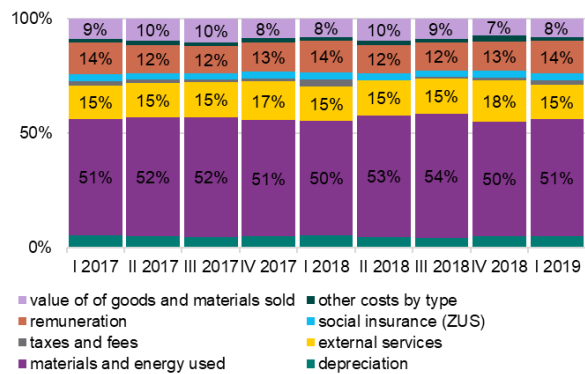
Source: NBP based on GUS (F01)

Figure 127 Operating expenses of producers of construction materials employing more than 49 persons



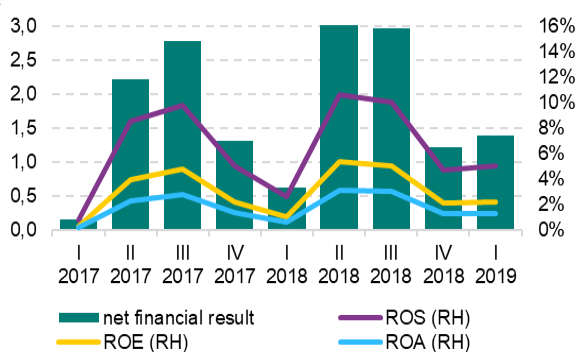
Source: NBP based on GUS (F01)

Figure 129 Structure of operating expenses of producers of construction materials employing more than 49 persons



Source: NBP based on GUS (F01)

Figure 131 Profitability of producers of construction materials employing more than 49 persons



Source: NBP based on GUS (F01)

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