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Information on home prices and the situation in the housing and commercial real estate market in Poland in 2019 Q3

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The analysis of the situation in the real estate market in Poland in 2019 Q3¹ leads to the following conclusions:

- **In 2019 Q3, the housing market continued to experience heightened activity and price growth.** The number of sold contracts for the construction of dwellings in the largest primary markets remained high, albeit was below the level recorded in the corresponding periods the previous year. The observed increase in home prices was largely driven by growing construction costs, which was a consequence of a strong construction demand in the entire economy. Faced with insufficient supply in the primary market, housing demand was shifted to the secondary market adding to price growth in this market.
- **According to the NBP data the analysed period saw a growth in both average offer and transaction prices per square metre of developer housing² in the primary markets (PM) in the analysed cities and in average prices per square meter of housing in the secondary markets (SM).** Yet, prices determined with the use of the hedonic index³ increased, which means a further increase in prices per square meter of comparable housing. In 6 cities they increased by approx. 1.8% q/q and by 11.0% y/y, in 10 cities by 4.0% q/q and by 12.9 y/y and in Warsaw by 5.5% y/y and by 12.8% y/y. Asking prices grew faster than transaction prices, which means that sellers expected faster price increases. Average transaction and asking prices continue to differ, which may suggest that buyers do not accept too high offer prices. Average (asking and transaction) rental rates per square meter of housing (excluding service charges and fees for utilities) saw an increase for another consecutive quarter. The supply of new housing in the local rental market continues to follow an upward trend.
- **The index of the estimated availability of housing in large cities** (based on average wages in the enterprise sector) **remained close to the level recorded in the previous quarter** and stood at 0.80 square metre in the analysed quarter; consequently, it was higher by 0.32 square metre (i.e. by 66%) against the record low observed in 2007 Q3. The index of the estimated maximum availability of a residential mortgage loan⁴ remained stable the same as the loan-financed availability of housing for an average

¹ The analysis carried out in this issue of the Information is based on data available till 2019 Q3. Due to delays in access to certain data some charts contain information until 2019 Q2 (inclusive). Data series with average prices per square metre of housing, commercial rents and transaction prices per square metre of retail space reflect the pool of data available at that time. Historical data are subject to revision. Price quotations (BaRN database) for 2019 Q3 include approx. 109 thousand records, including approx. 27.9% concerning transactions and 72.1% concerning offers. The total of 3.4 million records have been gathered in the database, of which 23.7% concerning transactions and 76.3% 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 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.

⁴ 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.

household. Similar growth in wages and home prices was the main factor that helped availability indicators to stabilise.

- **Housing investment** (excluding transaction costs) **continued to be profitable in the short term** (profitability calculated as interest rate differential). Assuming the average rent likely to be negotiated in the Warsaw market and in six cities (6M), the profitability of housing investment continued to be high as compared to interest on bank deposits, slightly below the yields on 10-year government bonds and remained close to the capitalization rate likely to be achieved in the commercial property market. The relation of residential loan servicing costs to rental costs makes it possible to finance credit costs with rental income.
- **In the analysed quarter the value of newly granted residential mortgage loans⁵ in PLN⁶** (excluding renegotiated agreements) **stood at approx. 14.4 billion⁷**, i.e. was 1.9% lower as compared with the figures recorded in the previous quarter and 10.4% lower as compared with the 2018 Q2 figures. The results of NBP survey on the situation in the credit market⁸ show that after two quarters of stabilisation of credit policy, banks again tightened mortgage lending criteria without changing credit policy conditions. At the same time, banks recorded a pick up in the demand for residential mortgage loans. Banks declare further credit policy tightening and expect a decline in demand for lending in 2019 Q4.
- **Since 2012 the share of FX denominated loans in the currency structure of residential mortgage loans at banks has been on a steady decline, supporting financial and macroeconomic stability.** The decreasing share of FX loans is both due to the fact that banks ceased to grant such loans to persons not 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.
- **Despite the minor downward trend in the estimated ROE on investment observed since 2016, this indicator continues at a high level** – in 2018 Q3 it stood at 20% (see Figure 38). Lower return on equity is

⁵ 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.

⁶ According to BIK, mortgage loans granted in the three quarters of 2019 by banks and credit unions SKOK exceeded by 2.9% the level recorded in the corresponding period of the previous year and in terms of value by 14.4%. Positive growth in the sale of housing loans both in terms of volume and value was observed mainly in mortgage loans in excess of PLN 250 thousand, in particular mortgage loans exceeding PLN 350 thousand. The quality index of the housing loan portfolio confirms the long-term low level of credit risk associated with granting housing loans. According to AMRON report, in 2019 Q4 the average amount of granted mortgage loans exceeded PLN 282 thousand, posting a growth of approx. 8.8% in year-on-year terms. The share of loans with LtV between 50 and 80% has not changed, while loans with LtV ratio from 80% have gained popularity. In the structure of new loan agreements, compared to 2019 Q3, the share of residential mortgage loans with a maturity of 25 to 35 years increased, while the share of loans with different maturities decreased. At the end of 2019 Q3, the number of active loan agreements exceeded 2.35 million i.e. increased in quarter-on-quarter terms by 34.3 thousand contracts and their value amounted to PLN 439.2 billion.

⁷ „Situation in the credit market results of the senior loan officer opinion surveys, 2019 Q4, NBP, October 2019 https://www.nbp.pl/home.aspx?f=aktualnosci/wiadomosci_2019/kredytowy2019_3.html. The main factors behind changing demand for residential mortgage loans was improvement in household's economic situation. https://www.nbp.pl/home.aspx?f=aktualnosci/wiadomosci_2019/kredytowy2019_3.html

⁸ 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 28.7% as compared to 28.8% in the preceding quarter and the peak 71.3% share recorded in 2009 Q1. According to BIK data, the value of residential mortgage loans portfolio as at 30.10.2019 stood at PLN 100.9 billion (451 698 loans). Residential mortgage loans in CHF, similarly to those in PLN, perform well which is due to, apart from the income aspect (rising household income), negative interest rates in Switzerland (LIBOR CHF).

the result of growing costs of home-builders on account of growing prices of construction materials⁹, increasing wages and growing prices of developable land. This has a lesser impact on real estate development sector which operates on large margins, yet poses higher risk in the construction sector¹⁰. In accordance with BIK analysis,¹¹ the decline in the number of development projects in the recent months had a stabilising effect on the prices of materials, services and wages in the construction sector, which improved the financial condition of companies. According to Coface experts¹² the number of bankruptcies and restructuring proceedings in the construction industry in three quarters of 2019 slightly declined compared to the corresponding period of 2018. At the same time, the share of the construction sector in the total number of bankruptcy and restructuring proceedings decreased by 1.4 percentage points in year-on-year terms, mainly as a result of growing number of bankruptcies in transport, trade and agriculture.

- **2019 Q3 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 rates of return on housing development projects and strong demand urged real estate developers to apply for subsequent home building permits¹⁵ which may be started within two years.
- **Annual sale of dwellings and home construction contracts in Poland's six largest primary markets¹⁶ remained at the level recorded in the previous quarter and reached approx. 64.3 thousand.** The stock of unsold completed dwellings (and contracts for their construction) in those markets increased by approx. 1 thousand dwellings as compared with the preceding quarter to reach approx. 50.2 thousand at the end of 2019 Q3. The offer of completed dwellings ready for occupancy increased slightly as compared to the

⁹ Real estate developers claim that in the current situation, the fact of having their own labour force enables them to control costs more effectively and meet construction deadlines. Developers cope with the situation in different ways. Some of them have their own general contractors in their group. Others have gained new competencies and extended their area of operation. There are also some who break down construction works into smaller stages in order to reduce costs. Optimisation of investment costs has become a significant issue in the real estate market.

¹⁰ Profitability of construction companies employing from 9 to 49 persons stood at approx. 8% in 2019 Q2 (a decline of approx. 50% compared to 2018 Q4) (see Figure 103). On the other hand, profitability of construction companies employing more than 49 persons in 2019 Q3 increased to the level of approx. 5% from 2% recorded in the previous quarter (see Figure 104).

¹¹ <https://media.bik.pl/informacje-prasowe/475609/slabnaca-koniunktura-przynosi-poprawe-finansow-firm-budowlanych>

¹² According to Coface experts (Corporate bankruptcies and restructuring in Poland in the three quarters of 2019) the share of construction in the total number of bankruptcy and restructuring proceedings decreased to 12.9% which is half lower as compared to the record 2012 figures when every fourth decision rendered by the court concerned a construction company. Construction industry developed in correlation with low GDP, low unemployment and growing wages in the economy; yet, at the same time the number of building permits declined noticeably and the costs of production factors such as human resources or construction materials increased considerably, posing a growing threat to the construction industry. The situation of companies which concluded contracts for infrastructure construction before cost rises and now face problems with price indexation raises particular concerns.

¹³ According to the GUS data, in 2019 Q3 the total of 50.9 thousand dwellings were completed and made ready for occupancy i.e. approx. 4.0 thousand more than in 2018 Q3 and approx. 3.5 thousand less as compared to the previous quarter. In the period 2018 Q4 to 2019 Q3 the total of approx. 200.7 thousand permits were issued, i.e. 17.0 thousand more than in the period 2017 Q4 to 2018 Q3 (a 9.2% y/y increase).

¹⁴ According to the GUS data, in 2019 Q3 the construction of approx. 63.1 thousand of dwellings was launched, i.e. by approx. 2.8 thousand less as compared to 2018 Q3 and by 1.5 thousand more as compared to the previous quarter. In the period 2018 Q4 to 2019 Q3 the total of approx. 226.4 thousand permits were issued, i.e. 7.3 thousand more than in the period 2017 Q4 to 2018 Q3 (a 3.3% y/y increase).

¹⁵ According to the GUS data, in 2019 Q3 approx. 72.5 thousand home building permits were issued in Poland, i.e. approx. 11.6 thousand more than in 2018 Q3 and approx. 1.1 thousand more than in the previous quarter. In the period 2018 Q4 to 2019 Q3 the total of approx. 265.1 thousand permits were issued, i.e. 12.1 thousand more than in the period 2017 Q4 to 2018 Q3 (a 4.8% y/y increase).

¹⁶ Based on JLL/REAS data.

previous quarter (+0.1 thousand). The home selling time in the primary market in the six largest markets dropped to the 3.1 quarter level. This still means that new offers sell more quickly and home buyers have limited opportunities to choose housing. The home selling time in the secondary market estimated by NBP decreased in Warsaw and remained unchanged in 10 analysed 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 slightly declined, mainly as a result of a considerable number of completed dwellings made ready for occupancy.** The persisting difference between transaction prices in the primary market and the secondary market in six cities (6M) and in Warsaw means that home buyers do not accept higher prices offered by developers and shift their demand to the secondary market. Also, the structure of dwellings on offer fails to meet buyers' preferences - not enough relatively small dwellings to meet the demand.
- High demand for housing continued to be accompanied by a strong demand for building land for development construction, especially in districts with good transportation links, well-developed urban infrastructure and retail facilities, especially in Warsaw, Kraków and Poznań. Consequently, developable land prices continued to rise. Cheaper plots in poorer locations and with poorer infrastructure are also being purchased. The phenomenon of crowding out infrastructure and commercial (office) construction by residential construction has been observed - usually the mechanism works the other way around.
- **As of 1 January 2019 the perpetual usufruct right to the land on which apartment buildings and single-family houses are built, changed, by operation of law, into ownership right¹⁸.** Implementation of this Act means that significant amounts of assets will be transferred to households which may have a positive impact on consumer demand (wealth effect). Yet, payment formalities are not very progressing¹⁹.

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.

¹⁹ By the end of 2019 large agglomerations will not issue certificates of transfer of usufruct right into ownership right. In accordance with the communication of the Municipal Office of the capital city of Warsaw as at the end of October 2019, 62% of land located in Warsaw underwent transformation. Although the year 2019 is over, residents may still benefit from rebates applicable in 2019.

Table 1 Housing programmes implemented in Poland

Programmes	Legal basis for the operation of the programme	Programme launch	Anticipated expenditure	Expected effects	Effects until now
National Housing Scheme (NHS)					
1) Housing Plus Packet					
1.1) Scheme supporting the creation of dwellings for rent, protected housing, dormitories, shelters for the homeless, heating rooms and temporary dwellings	Journal of Laws of 2018 item 2321	2007	PLN 6,210 million in the years 2018-2025		Under the scheme 1636 development projects worth approx. PLN 4.04 billion were qualified for financing. The scheme assumes the creation of over 29 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 a period of 10 years	30 thousand dwellings over a period of 10 years	Under the scheme: - 212 applications have been submitted for the total amount of PLN 1.2 billion, for the construction of 9747 dwellings, - 99 loan agreements have been signed for the total amount of PLN 513 million intended to finance the construction of 4425 dwellings, - 2261 dwellings in 53 development projects were completed and made ready for occupancy.
1.3) Housing Plus - equity (PFR Nieruchomości)	Resolution of the Council of Ministers No. 115/2016 of 27 September 2016	2016			A total of 695 dwellings were completed and made ready for occupancy under the scheme; 663 dwellings are under construction and approx. 15.5 thousand dwellings are at the pre-construction stage.
2) "Housing for the start" scheme	Journal of Laws of 2018, item 1540 and Journal of Laws of 2019, item 1309	2019	Maximum limit of expenditure in 2019-2028 - PLN 16 billion	Total subsidy to be disbursed in the years 2019-2034 amounted to PLN 34.5 million, PLN 1.5 million is planned to be spent in 2019	Under the scheme: - 8 municipalities submitted 26 applications for the conclusion of agreements for the construction of 1086 dwellings, - 5 municipalities signed 14 agreements for subsidies for 578 dwellings, - total subsidies forecast to be paid out under agreements signed in the next 15 years: PLN 35.1 million, of which almost PLN 1.6 million in 2019; - until now, BGK has paid out rental subsidies amounting to approx. PLN 166.55 thousand.
Other (besides NHS)					
Housing for the Young	Journal of Laws of 2019, item 1116	2014	PLN 3.45 billion in the years 2014-2018		In 2014-2018 subsidies were granted to 110.4 thousand home buyers in the amount of PLN 2.9 billion, of which approx. PLN 0.85 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 monitored.
Borrowers' Support Fund	Journal of Laws of 2015, item 1925	19 February 2016	PLN 593.8 million		In total, 945 agreements granting support in the amount of 20.9 million have been concluded. Until 19 December subsidies in the total amount of PLN 16.4 million have been disbursed.
Rental Housing Fund (BGK Nieruchomości)		2014			The offer comprises 1820 dwellings in 16 development projects developed in 6 cities.

- **Imbalances in the office real estate markets resulting from the previously observed excess supply of space for rent as compared to the demand have started to decrease.** The favourable economic situation, including the creation of new jobs, also by international companies, is a factor boosting demand. New trends related to the use of office space (e.g. coworking offices) can also contribute to the sustained strong

demand for such space. The supply of new space and space under construction continues on a high level. According to market information, at the end of 2019 Q3, the stock of office space in the nine largest office markets²⁰ exceeded 11 million square meters; approx. 1.7 million square meters of office space was under construction. The vacancy rate in the nine largest office markets recorded a slight drop to 8.6% against 9%²¹ at the end of 2019 Q2. In Warsaw at the end of 2019 Q3 it was 8.2%²² (compared to 8.5% in 2019 Q2). The vacancy rate of office space depends on the age²³ and mainly on the location of the office building²⁴.

- **The retail space market continues to see a slight oversupply of space**, whereas the vacancy rate all over Poland at the end of 2018 Q3 remained at a level of approx. 3.6%²⁵. At the end of 2019 Q3 the total stock of modern commercial space exceeded 12 million square metres²⁶. A low increase in new retail space may indicate, that investors consider the market to be saturated, which is confirmed by the launch of projects transforming commercial centres into commercial and entertainment centres.
- High availability of foreign financing has contributed and will continue to favour further growth in office space and, to a lesser extent, retail real estate. This phenomenon may be largely attributed to a low level of interest rates in developed countries, and thus a low opportunity cost.
- **The modern warehouse market in Poland continues in the expansion phase.** Demand for warehouse space continues to be high. Demand for warehouse space comes from logistic and courier companies as well as retail networks which is the natural consequence of e-commerce development. High demand also comes from industry. At the end of 2019 Q3, the total stock of the warehouse space exceeded 18 million square metres and the warehouse space under construction totals more than 1.8 million square meters. The vacancy rate in the nine largest office markets recorded a slight drop to 6.2% against 5.1%²⁷ at the end of 2019 Q2.
- **The estimated value of investment transactions²⁸** in the commercial real estate market at the end of 2019 Q3 amounted to EUR 3.9 billion, with office space accounting for 68% of the value of transactions, retail space for 18% and warehouse space for 12%.
- **The value of loans granted by domestic banks to enterprises for real estate development at the end of 2019 Q3 amounted to approx. PLN 65.3 billion**, which comprised loans granted to real estate developers

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

²¹ See: Raport Colliers International: Market Insights, 2019 Q3, Poland.

²² See: Raport Colliers International: Market Insights, 2019 Q3, Poland.

²³ Cushman & Wakefield, Marketing as one of the key factors supporting the modernisation process of older office buildings , 2018.

²⁴ See: Knight Frank, Report: Poland, Commercial Market, 1st half of 2018.

²⁵ See: Raport Colliers International: Market Insights, 2019 Q3, Poland.

²⁶ See: Raport Colliers International: Market Insights, 2019 Q3, Poland.

²⁷ See: Raport Colliers International: Market Insights, 2019 Q3, Poland.

²⁸ 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.

for residential real estate, office space, retail space, warehouse space and industrial space and other real estate²⁹. Corporate debt resulting from residential real estate at the end of 2019 Q3 remained stable at the level of PLN 5.2 billion. The value of loans granted for office real estate totalled PLN 16.2 as against PLN 16.1 billion in 2019 Q2. The value of loans granted for retail real estate totalled PLN 18.1 as against PLN 17.5 billion in 2019 Q2. The value of loans granted for warehouse and industrial real estate totalled PLN 8.8 as against PLN 0.4 billion in 2019 Q2. The value of loans granted for other real estate³⁰ decreased slightly to PLN 16.7 as against PLN 16.9 billion in 2019 Q2. Changes in debt levels at the beginning of 2018 stem partially from the fact that banks adjust their reporting standards to the requirements of the new FINREP.

- **The ratio of impaired loans in the total corporate debt for real estate declined was close that recorded in the previous quarter.** The share of impaired loans in the total loans for office real estate at the end of 2019 Q3 stood at 6.7% against 6.8% in 2019 Q2 and the share of loans granted for retail space stood at 11.3% as compared to 11.2% in 2019 Q2. The same indicator for loans for warehouse and industrial space amounted to 7.3% as compared to 7.6% recorded in 2019 Q2 and for other real estate amounted to 8.8% as compared to 8.6% in 2019 Q2. The ratio of non-performing loans among loans granted for residential real estate amounted to 21.8%, which is mainly due to banks' loan portfolio comprising loans from previous years³¹.
- **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 cities³² and in seven other smaller voivodship cities.** The highest rents in A class office buildings were quoted in Warsaw where they reached approx. EUR 19/sq. m./month. In other analysed voivodship cities those prices ranged from EUR 11 to 14/sq. m./month. **Rents in B class office buildings in the largest markets also remain stable.** In 2019 Q2 the hedonic index of rents³³, which is resistant to the change in the analysed sample, remained stable for Warsaw. However, for Poznań and 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. This may be driven by strong demand for office space in those cities.
- **Transaction rents for retail space in shopping centres in Warsaw increased slightly and remained stable or declined somewhat in the markets of other cities³⁴.** In 2019 Q2 the hedonic index of rents for Warsaw, Poznań and Tri-City Agglomeration declined slightly as compared to 2018 Q4. In the market of small retail real estate the median of the offer price all over Poland remained stable all over Poland.

²⁹ 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.

³⁰ 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)“.

³¹ See: Financial Stability Report, NBP, December 2018. On the other hand, a rise in this indicator recorded at the beginning of 2018 was probably the result of the changes in bank accounting and reporting standards.

³² In the case of commercial real estate, the breakdown of the analysed cities is different than in the case of residential real estate. Eight cities include: Katowice, Kraków, Łódź, Poznań, Tri-City Agglomeration, Wrocław. Seven cities include: Białystok, Bydgoszcz, Kielce, Olsztyn, Opole, Rzeszów, Zielona Góra.

³³ 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.

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

The figures below describe the key developments in the housing market in Poland's major cities in 2019 Q3. The figures present:

- 1) home prices (Figures 1-15),
- 2) availability of loan-financed housing, loan availability, profitability of housing investment (Figures 16 - 23),
- 3) housing loan disbursements and interest rates (Figures 24-33),
- 4) operating profitability of housing and real estate development projects, costs of construction and assembly output and economic situation of real estate developers in Poland (Figures 34-49),
- 5) housing construction and the residential market in selected cities in Poland (Figures 50-63),
- 6) rents and transaction prices of commercial real estate (Figures 64-70),
- 7) in-depth analysis of the situation of real estate developers and construction companies involved in the construction of buildings, sale of building materials and manufacturing of building materials (Figures 71-151).

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

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

List of abbreviations:

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

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

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

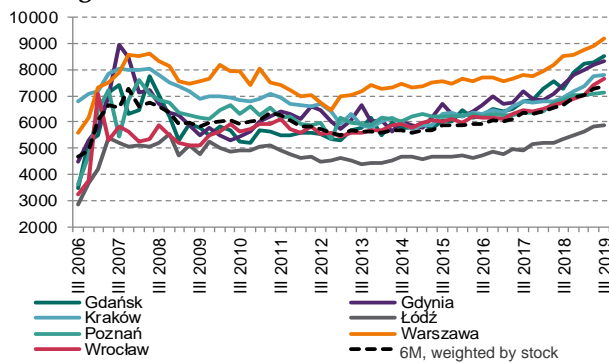
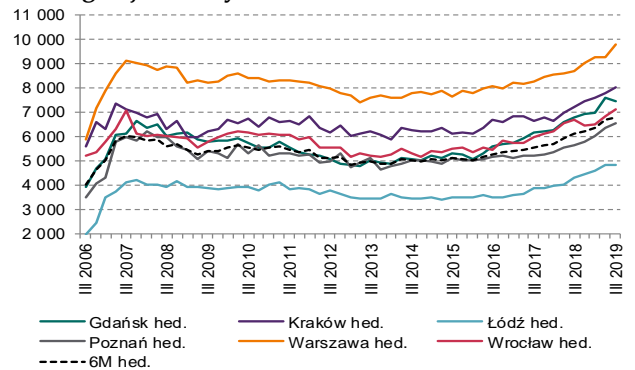


Figure 2 Transaction prices per square metre of housing adjusted by the hedonic index in 6M- SM



Note: the home price database of NBP (BaRN) has existed since 2006 Q3; description of the database may be found in the “Report on home prices and the situation in housing and commercial real estate market in Poland in 2018” available on the bank’s website.

Source NBP

Source NBP

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

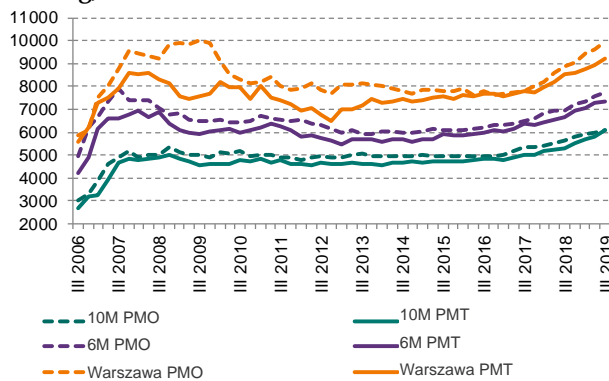
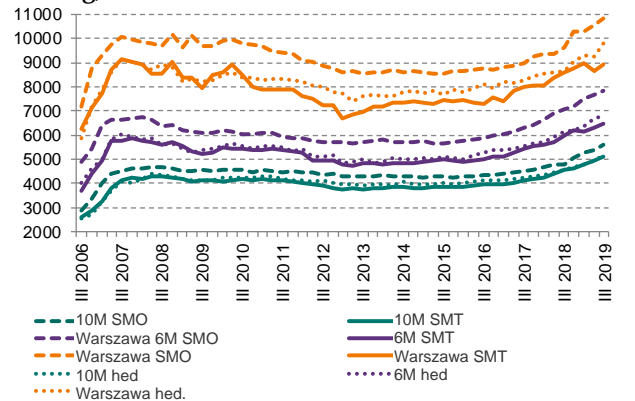


Figure 4 Weighted average price per square metre of housing, offers (O) and transactions (T)- SM



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

Source NBP

Source NBP

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

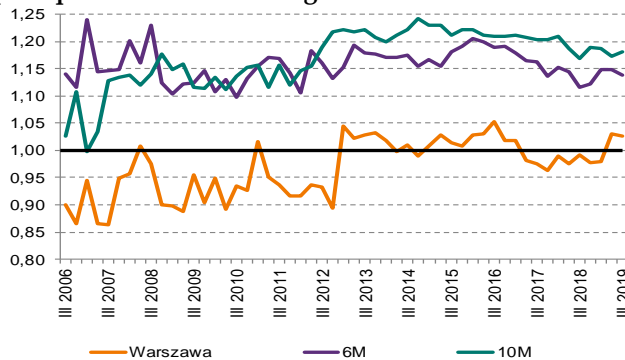
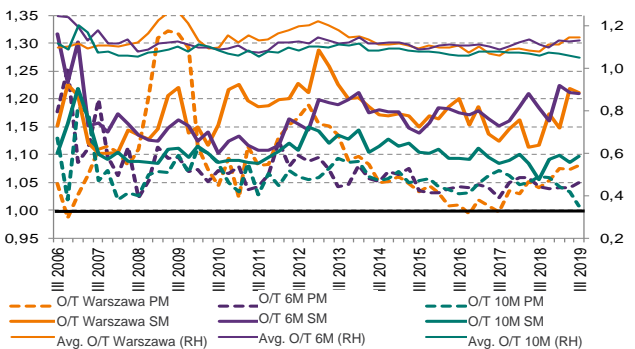


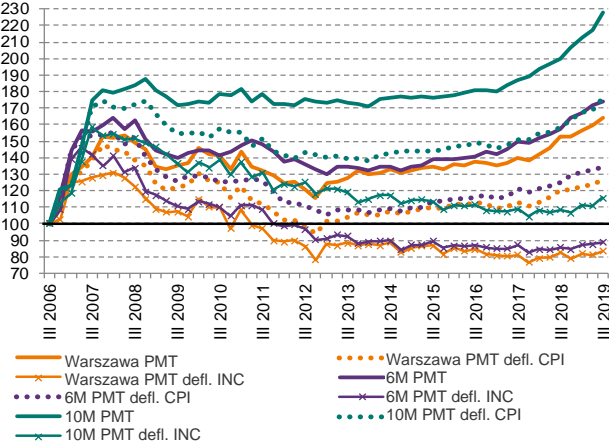
Figure 6 Ratio of the average weighted offer price (O) to transaction price (T) per square metre of housing – PM and SM



Source NBP

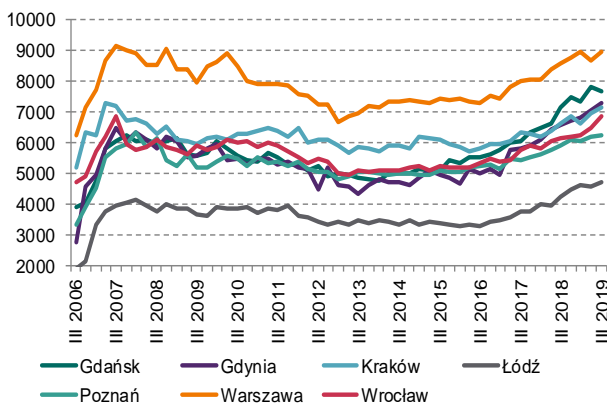
Source NBP

Figure 7 Index of the average weighted transaction price per square metre of housing in PM and deflated by CPI and wage gr. in the enterprise sector (2006 Q3 = 100)



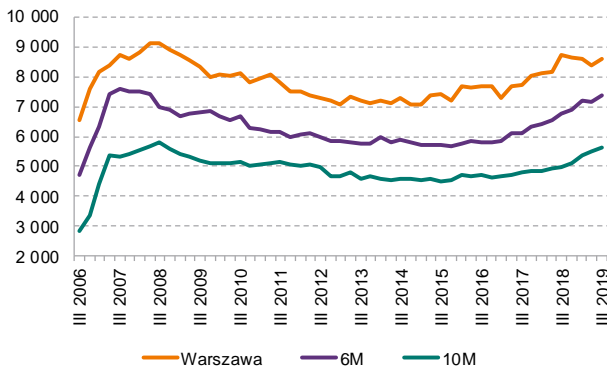
Source NBP, ZBP (AMRON), Statistics Poland (GUS)

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



Source NBP

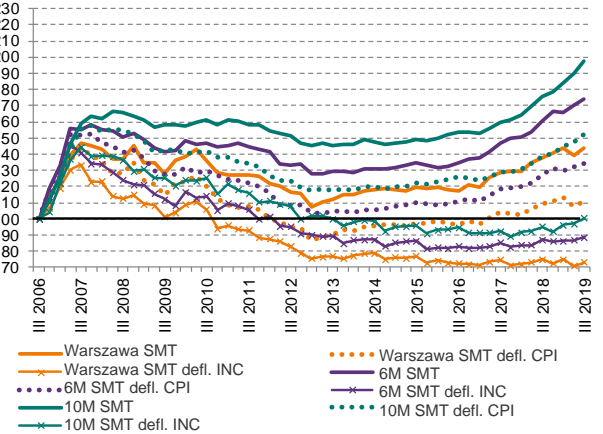
Figure 11 Average offer prices per square metre of housing in PM, selected markets



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

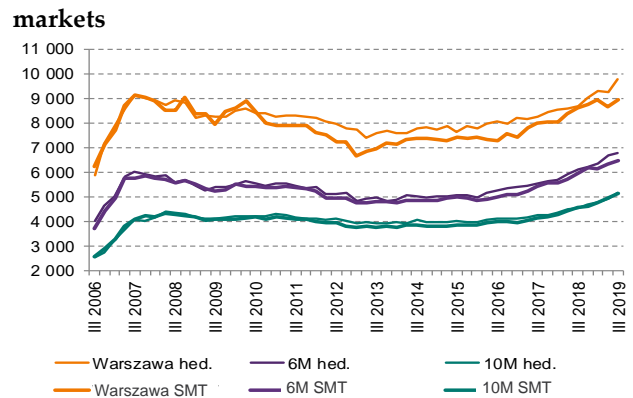
Source PONT Info Nieruchomości

Figure 8 Index of the average weighted transaction price per square metre of housing in SM, deflated by CPI and wage gr. in the enterprise sector (2006 Q3 = 100)



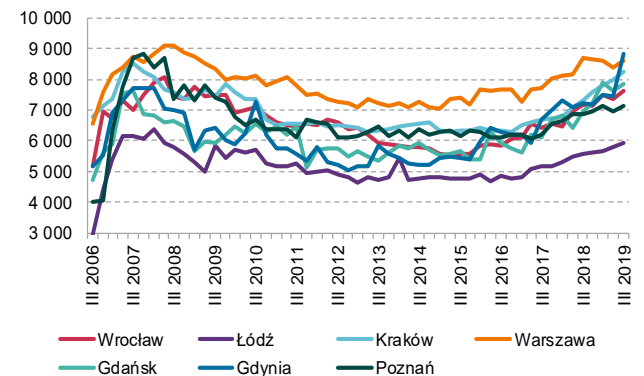
Source NBP, ZBP (AMRON), Statistics Poland (GUS)

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



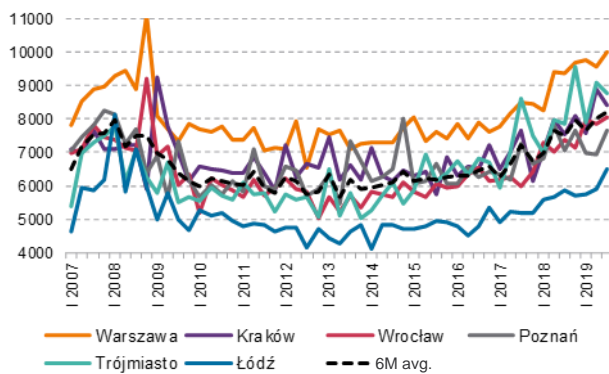
Source NBP

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



Source PONT Info Nieruchomości

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



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

Source JLL/REAS

Figure 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

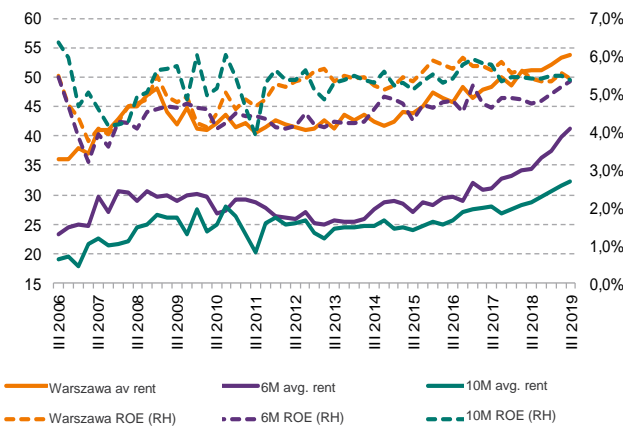
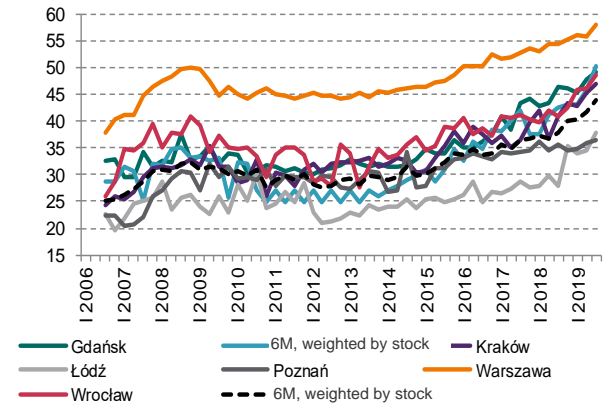


Figure 14 Average rent rates (offers and transactions) per square metre of housing - SM, selected markets



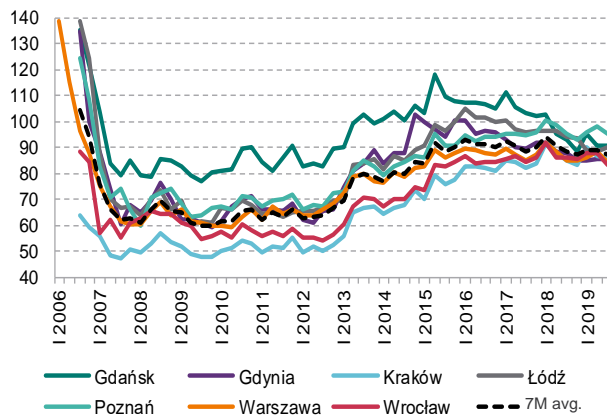
Source NBP

Note to Figure 15: price per square metre of housing 50% SM and 50% 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.

Source NBP

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

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



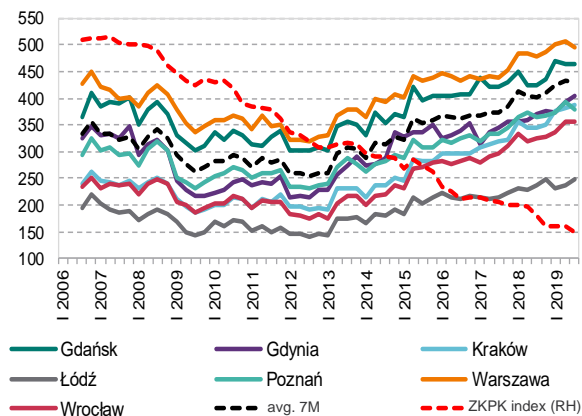
Source NBP, GUS

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 (Statistics Poland), 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.

ZPKK 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. Description of the method of index computation in the “Financial Stability Report, December 2012, NBP.

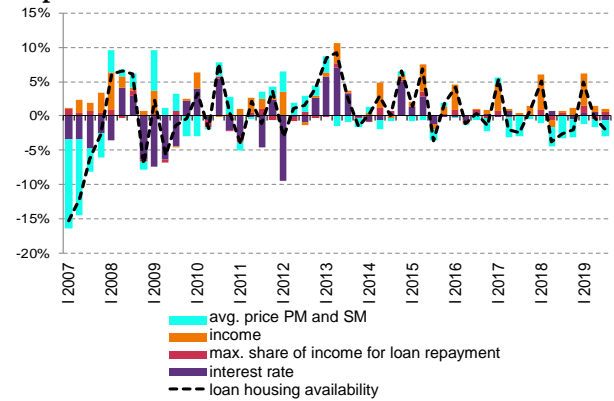
Figure 18 Estimated availability of residential mortgage loan and accumulated index of banks’ mortgage lending policy (ZPKK, right-hand scale)



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

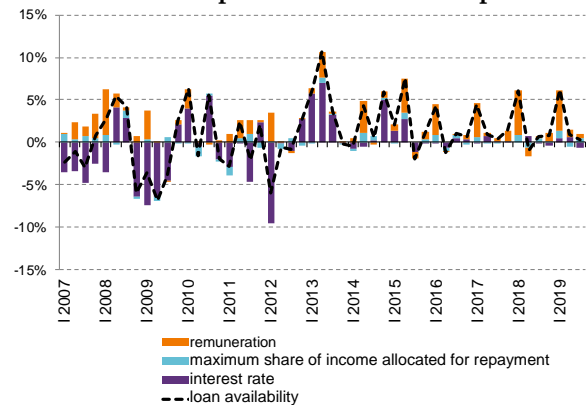
Source NBP, GUS

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



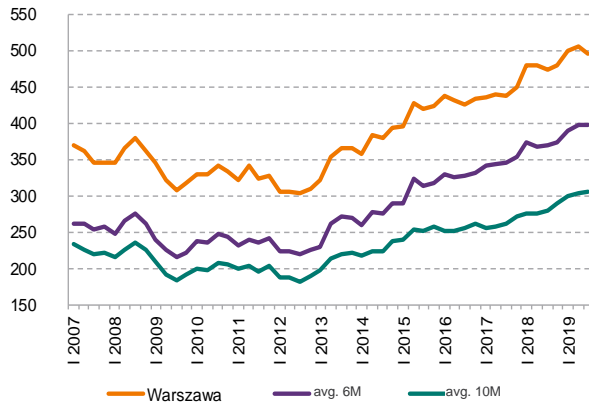
Source NBP, GUS

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



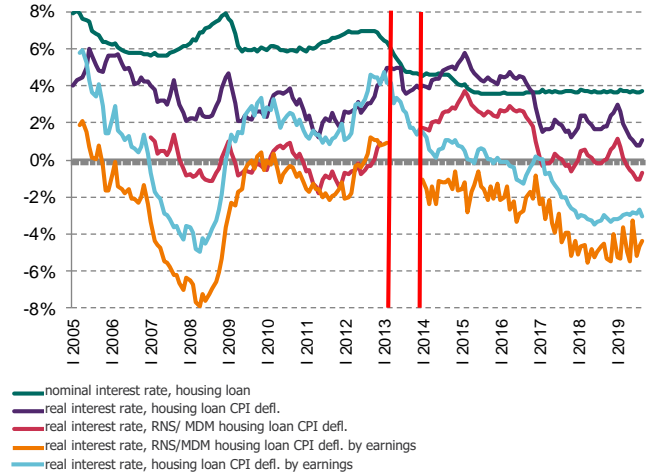
Source NBP, GUS

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



Source NBP, GUS, BGK

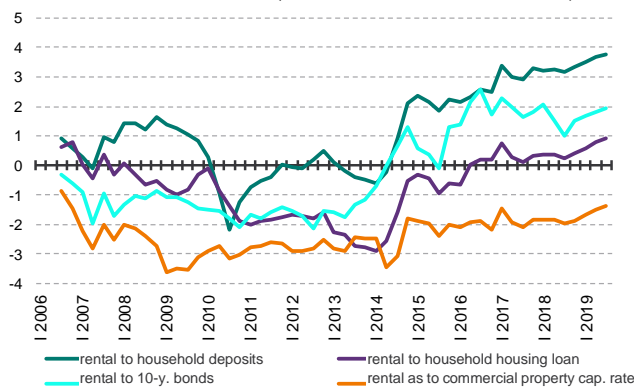
Figure 21 Residential mortgage loan burden for consumer deflated with CPI or wage growth in the enterprise sector



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

Source NBP, GUS, BGK

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

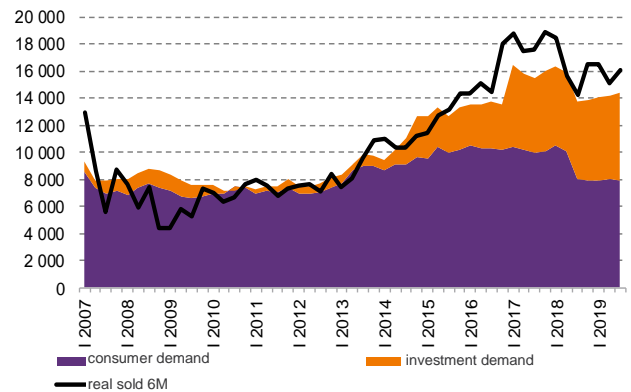


Note to Figure 22: values exceeding 0 denote higher profitability of purchasing property for rental than other household investment. Amortisation of 1.5 p.p. was deducted. This analysis does not take into account high transaction costs in the housing market and potentially long payback periods.

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

Source NBP, GUS

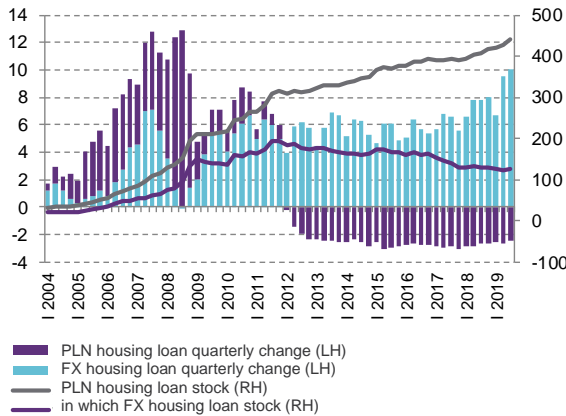
Figure 23 Estimated housing demand in PM (average in Warsaw and 6M) and its components



Source NBP, JLL/REAS, GUS

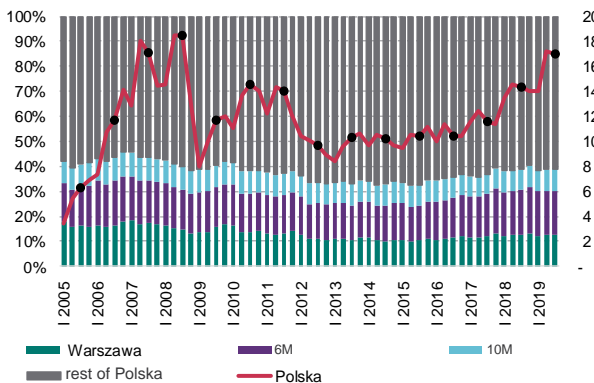
3. Disbursement of residential mortgage loans, interest rates

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



Source: NBP

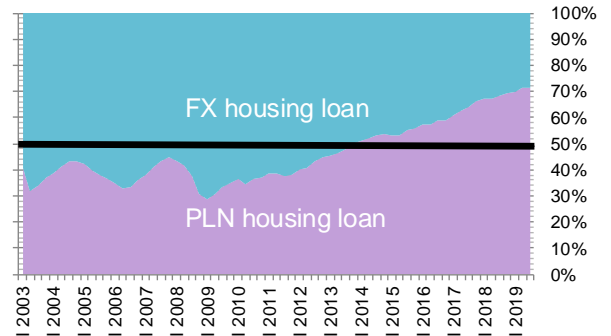
Figure 26 Geographical structure of the value of new residential mortgage loan contracts in Poland's selected cities



Note to Figures 26 and 27: 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 third quarters are marked by red points in Figure 26.

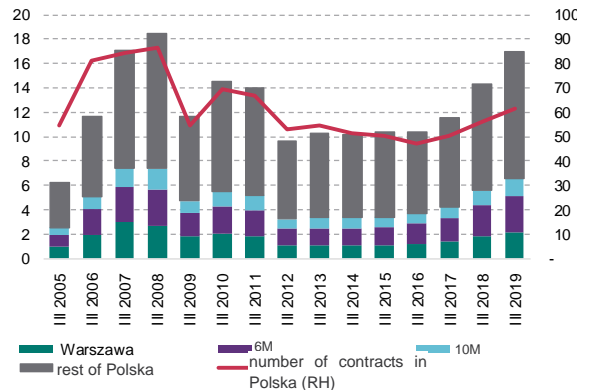
Source BIK

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



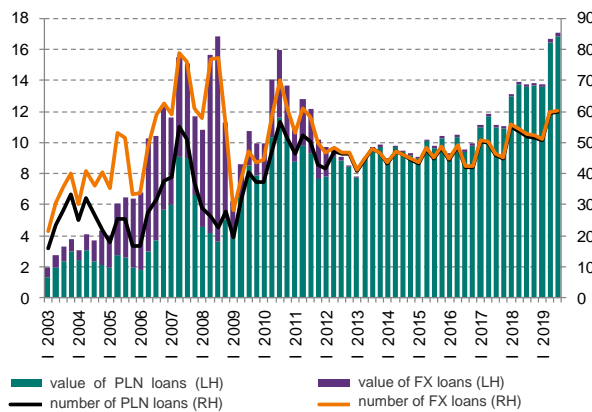
Source NBP

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



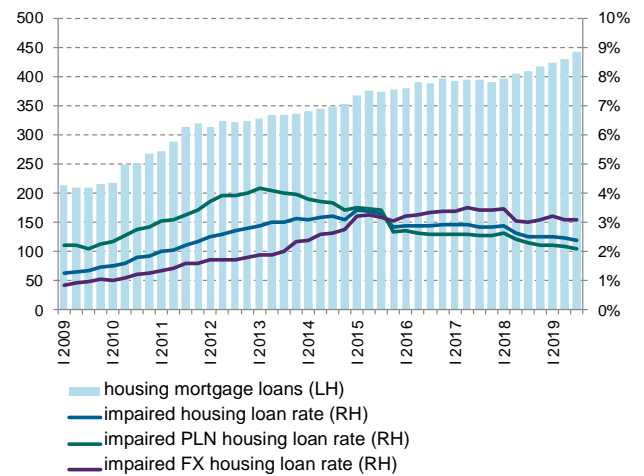
Source BIK

Figure 28 New residential mortgage loans: value and number



Source ZBP (AMRON)

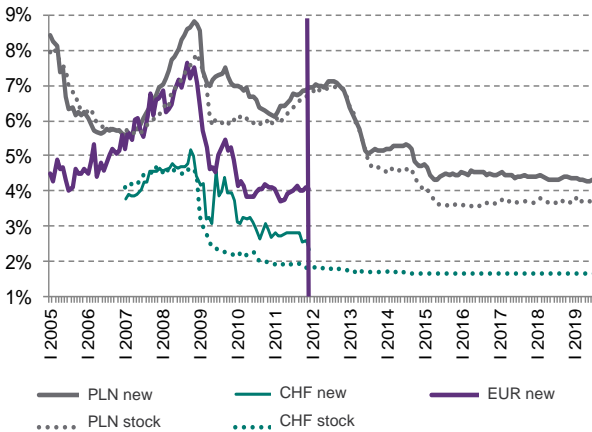
Figure 29 Household loans for housing real estate and loans recognised as impaired



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

Source NBP

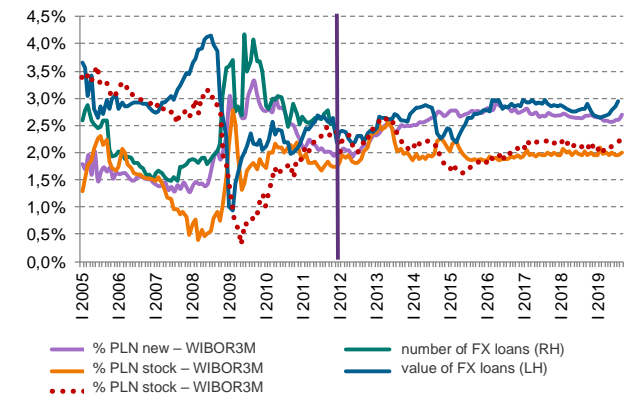
Figure 30 Interest rates on residential mortgage loans for households in Poland



Note to Figure 30 and 31: the violet vertical line separates a period with no FX loans which have not been practically granted since 2012. Note to Figure 31: bank margin is the difference between housing loan rate (NBP data) and the WIBOR3M rate or the LIBORCHF3M rate.

Source NBP

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



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 (without down payment) in PM in 7M.	Estimated share of cash-financed home purchases with buyer's down payment in PM in 7M
2015 Q1	8,996	3,981	2,051	513	1,930	61%
2015 Q2	10,640	4,437	2,426	606	2,011	59%
2015 Q3	10,341	4,712	2,358	589	2,354	62%
2015 Q4	11,237	5,115	2,562	641	2,553	62%
2016 Q1	9,742	5,160	2,221	555	2,938	68%
2016 Q2	11,661	5,427	2,659	665	2,768	63%
2016 Q3	9,632	5,235	2,196	549	3,039	69%
2016 Q4	9,933	6,639	2,265	566	4,374	74%
2017 Q1	10,945	6,857	2,495	624	4,361	73%
2017 Q2	12,139	6,486	2,768	692	3,718	68%
2017 Q3	11,794	6,682	2,689	672	3,993	70%
2017 Q4	10,652	7,153	2,429	607	4,724	75%
2018 Q1	11,914	7,009	2,716	679	4,293	71%
2018 Q2	12,807	6,069	2,920	730	3,149	64%
2018 Q3	13,024	5,688	2,969	742	2,719	61%
2018 Q4	12,584	6,760	2,869	717	3,891	68%
2019 Q1	11,865	6,978	2,705	676	4,272	71%
2019 Q2	14,653	6,549	3,341	835	3,208	62%
2019 Q3	14,374	7,100	3,277	819	3,823	65%

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

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

*/ Loan-financed home purchases comprise purchases made based on a loan and the minimum cash contribution (a down payment of 25% was assumed; in large cities, down-payment of 20% more prudently than the requirement of the amended S Recommendation), whereas cash-financed home purchases make a difference between the value of transactions and credit funds.

In order to calculate the estimated value of primary market transactions in 7M (Gdańsk, Gdynia, Kraków, Łódź, Poznań, Warsaw, Wrocław), the average home price (NBP) was multiplied by the average home size in square metres (GUS data) and the number of housing units sold (REAS/JLL). On the basis of ZBP data it was assumed that the value of newly granted loans for the purchase of housing in the primary markets of 7M has amounted to approx. 57%. The estimated value of cash transactions was calculated as the difference between transactions in 7M and disbursements of loans, including buyer's down payment. Data concerning prices for all the periods have been updated.

Source NBP, JLL/REAS, ZBP, GUS

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

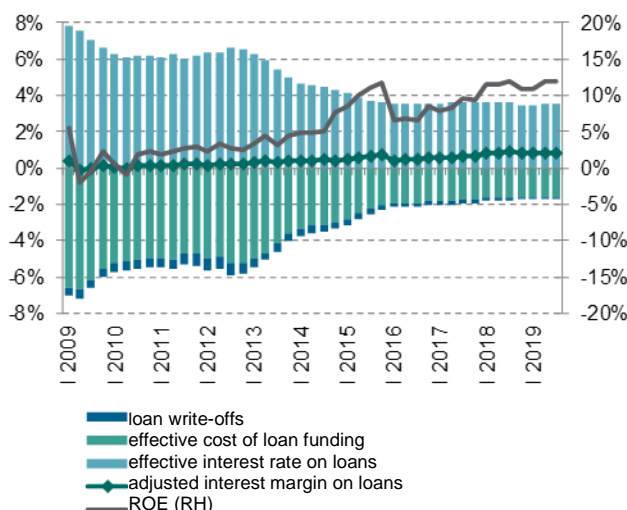
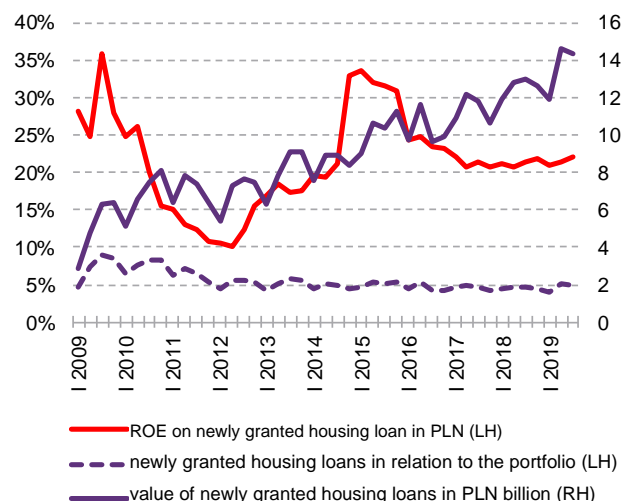


Figure 33 Estimated RORAC on residential mortgage loans denominated in PLN for banks in Poland, taking into account interest income and non-interest profit and operating costs and bank tax



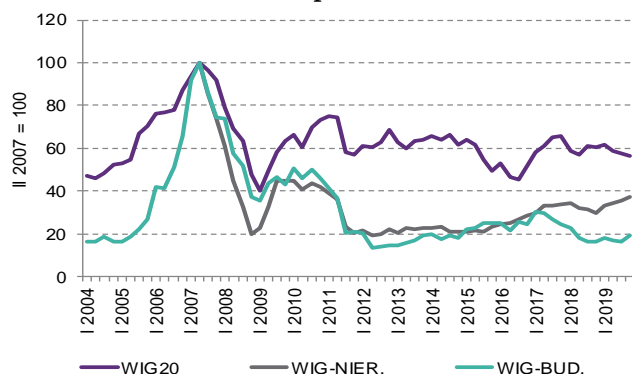
Note to Figures 32 and 33: for calculation, interest income, non-interest income and operating costs were taken into account. The estimated RORAC (Return On Risk-Adjusted Capital) is calculated as the adjusted interest less operating cost plus non-interest income with residential mortgage loans less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

Source NBP, KNF

Source NBP, KNF

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

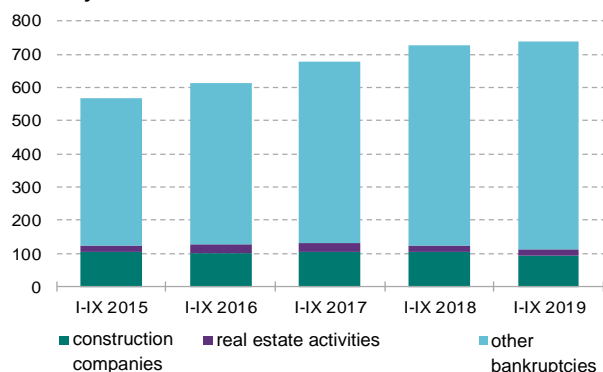
Figure 34 Rescaled exchange indices: WIG20 for real estate and construction companies (2007Q2 = 100)



Note: the data have been harmonized, 2007 Q2 = 100. (WIG for real estate developers has been quoted since 2007 Q2); 2019 Q3 as at 25 September 2019.

Source Warsaw Stock Exchange

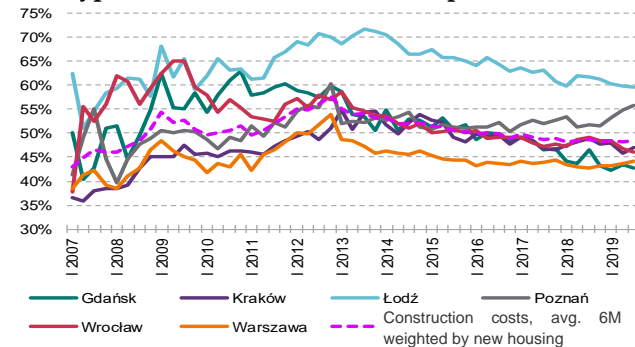
Figure 35 Number of bankruptcies in construction industry (as at the end of Q3)



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

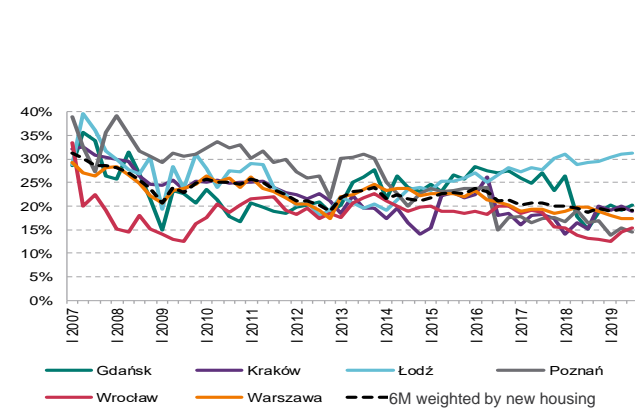
Source Coface Poland

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



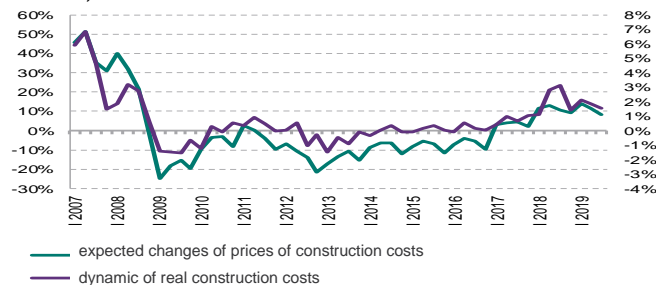
Note to Figure 36: Since 2014 NBP has used its own appraisal of land for residential multi-family construction.
Source NBP based on Sekocenbud

Figure 38 Estimated rate of return on investment projects (type 1122-302^{35/}) in the largest cities



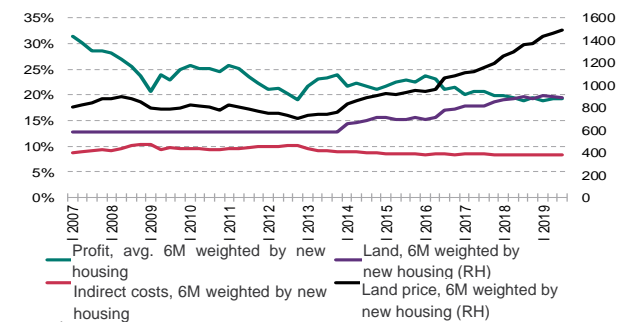
* /ROE modified = net financial result/ (income from sale – net result from sale); ** / DFD – average large real estate development company (according to GUS employment =>50 persons), MFD – average small real estate development company (employment 9-49 persons).
Source NBP based on Sekocenbud, GUS (F01)

Figure 40 Anticipated 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/)



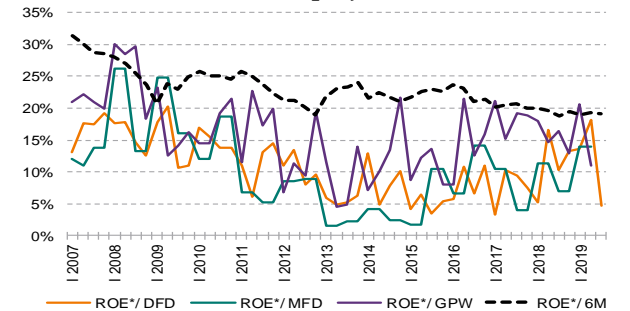
Source NBP based on GUS (business conditions survey), Sekocenbud

Figure 37 Estimated share of various construction costs per square meter of the residential building's usable area (type 1122-302) in net transaction price in PM



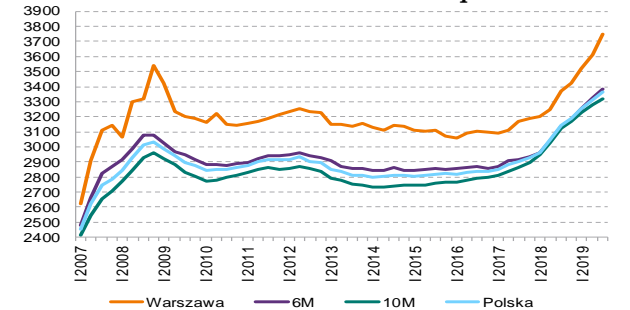
Source NBP based on Sekocenbud

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



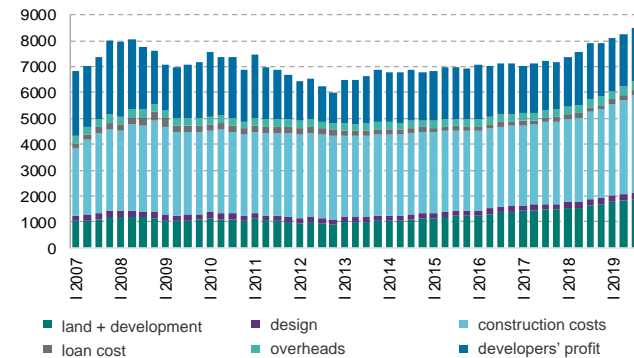
Source NBP based on Sekocenbud, Financial Statements, GUS (F01)

Figure 41 Average cost of construction of square metre of the residential building's usable area (type 1122-302 35) in selected markets (PLN/sq.m.)



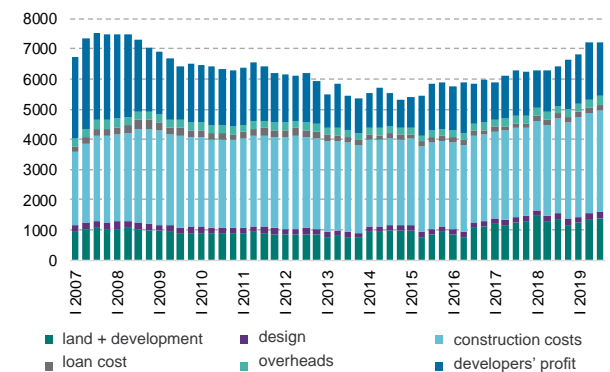
Source NBP based on Sekocenbud

Figure 42 Warsaw – estimated structure of price per square meter of housing usable area in PM (building type 1122-30235/) for consumer



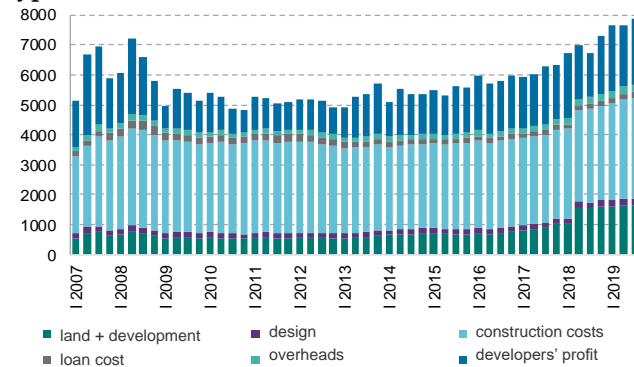
Source NBP based on Sekocenbud, JLL/REAS

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



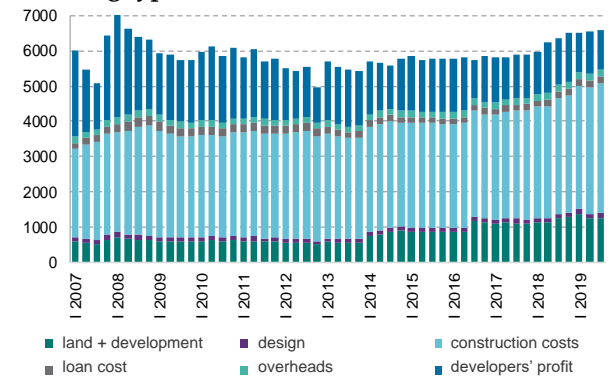
Source NBP based on Sekocenbud, JLL/REAS

Figure 44 Gdańsk – estimated structure of price per square meter of housing usable area in PM (building type 1122-30235/) for consumer



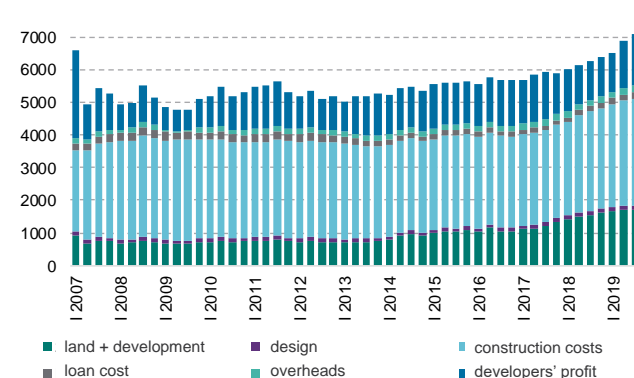
Source NBP based on Sekocenbud, JLL/REAS

Figure 45 Poznań – estimated structure of price per square meter of housing usable area in PM (building type 1122-30235/) for consumer



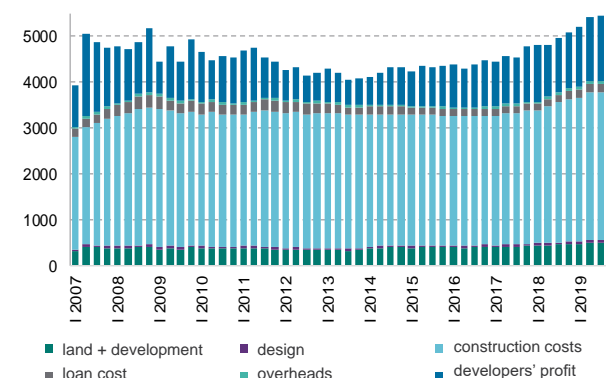
Source NBP based on Sekocenbud, JLL/REAS

Figure 46 Wrocław – estimated structure of price per square meter of housing usable area in PM (building type 1122-30235/) for consumer



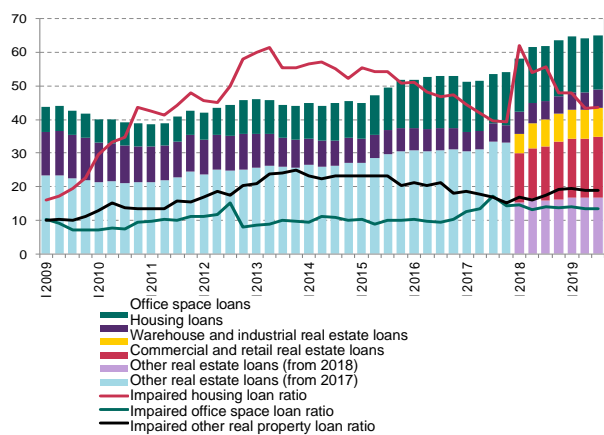
Source NBP based on Sekocenbud, JLL/REAS

Figure 47 Łódź – estimated structure of price per square meter of housing usable area in PM (building type 1122-30235/) for consumer



Source NBP based on Sekocenbud, JLL/REAS

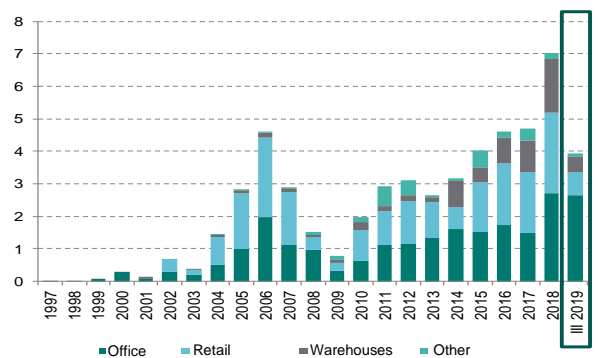
Figure 48 Loans to corporations for real estate purchases (in PLN billion, left-hand scale) and the share of loans recognised as impaired loans (in % right-hand scale)



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

Source NBP

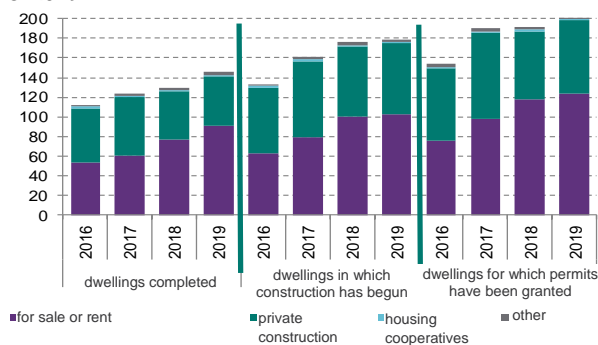
Figure 49 Value of development transactions in commercial real estate (in EUR billion)



Source Comparables.pl

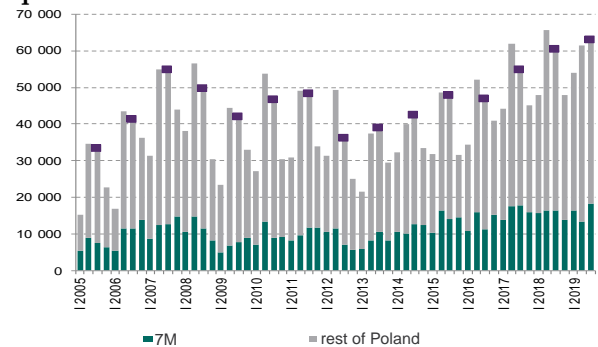
5. Residential construction and the housing market in Poland's selected cities

Figure 50 Structure of investors in residential construction in Poland in three quarters in the years 2015-2019



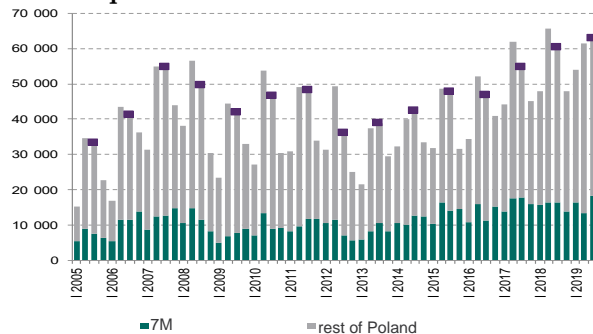
Source GUS

Figure 51 Dwellings completed in Poland, in quarter-on-quarter terms



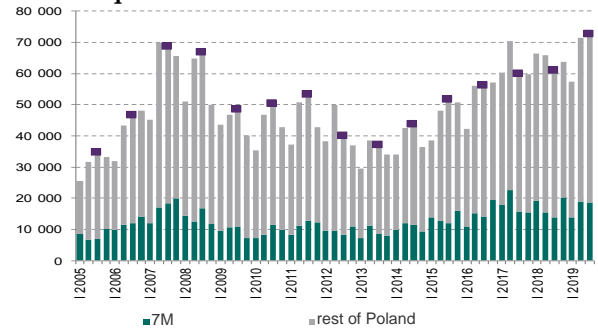
Note to Figures 51–53: in violet colour only third quarters have been marked Source GUS

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



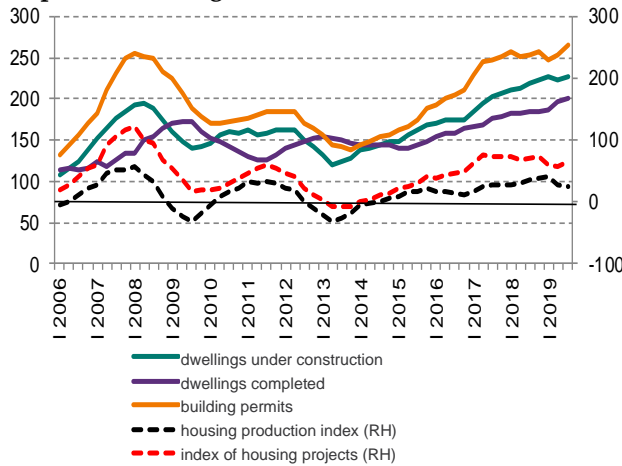
Source GUS

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



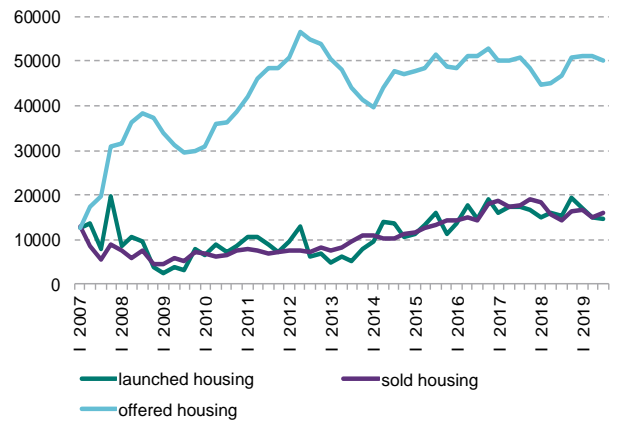
Source GUS

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



Note: rolling averages for four subsequent years
Source NBP based on PABB and GUS

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



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

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

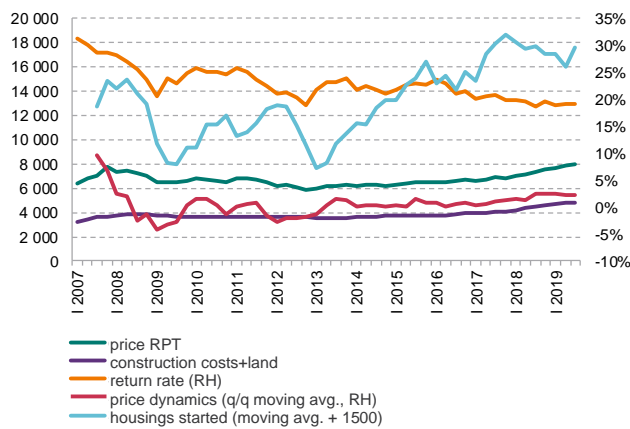
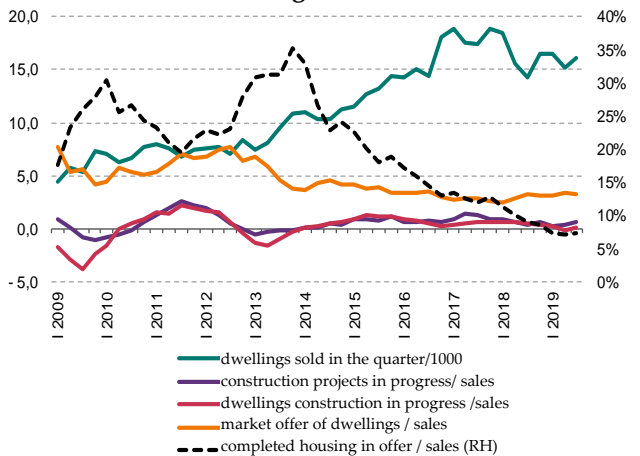


Figure 57 Housing projects and dwellings under construction and dwellings offered for sale in 7M



Note to Figure 57: Housing projects under construction = building permits for dwellings minus completed dwellings; dwellings under construction = dwellings whose construction has begun minus completed dwellings; cumulative values of the last 4 quarters, divided by sales in the given period.

Source NBP, GUS, JLL/REAS, Sekocenbud

Source NBP based on GUS

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

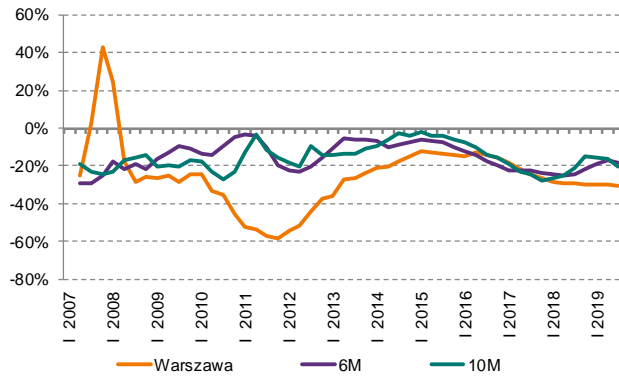
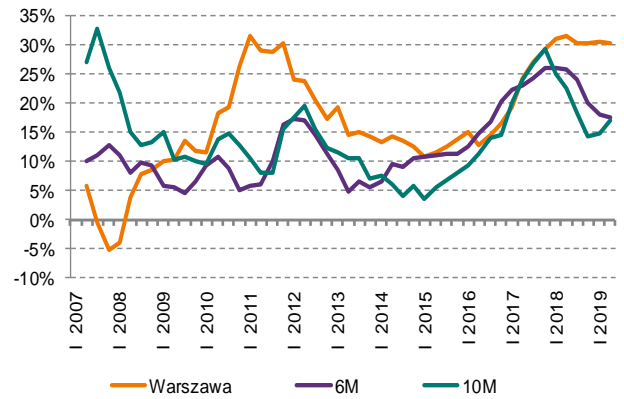


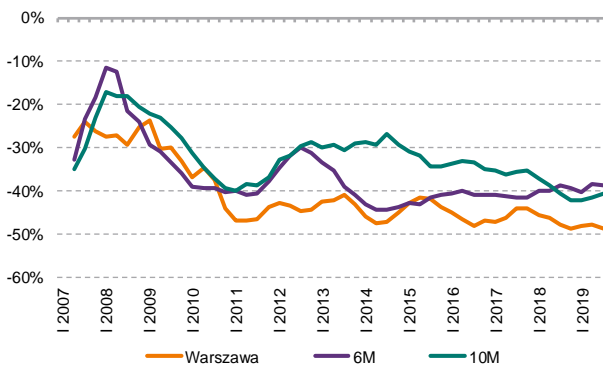
Figure 59 Measure of adjustment of housing units on offer to demand in terms of area > 50 sq. m., PM in selected cities in Poland



Note: figure 58 presents, in percentage terms, a short-term mismatch in the primary market between supply (developers' housing offer) and the estimated demand (housing transactions) in terms of the dwelling's size, according to the data from the BaRN database. The mismatch is calculated as the share of dwellings with a usable area of up to 50 square metres offered for sale to the number of transactions involving dwellings with a total area of up to 50 square metres (the average figure for the last four quarters). The positive result (above the black line) indicates a surplus of housing of this particular size, whereas the negative result indicates a shortage of such housing. Figure 59 is parallel for the space above 50 sq.m. Figures 60-61 are parallel, but they concern the secondary market only.

Source NBP

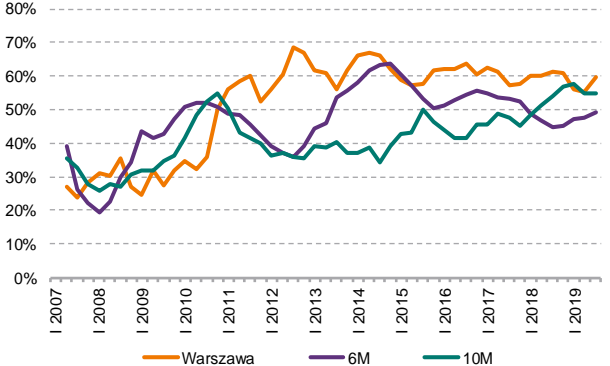
Figure 60 Measure of adjustment of housing units on offer to demand* in terms of area ≤ 50 sq. m, SM in selected cities of Poland



Source NBP

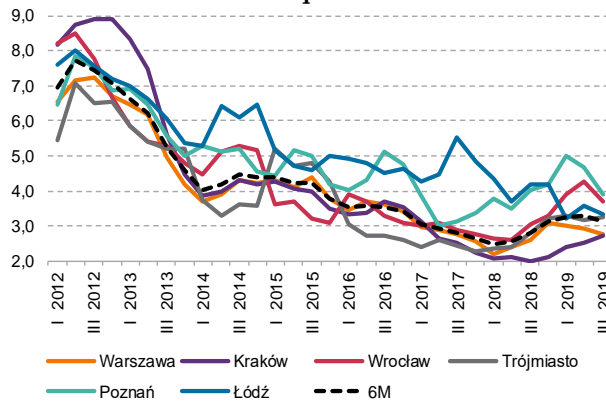
Source NBP

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



Source NBP

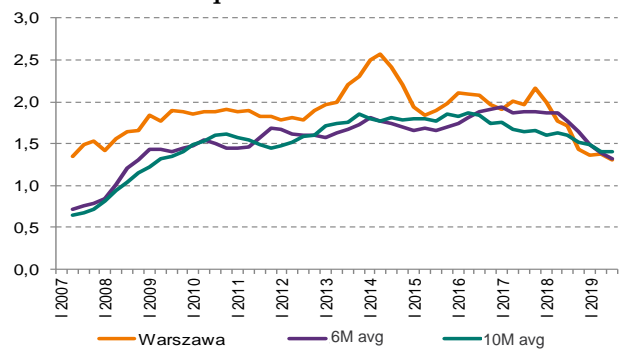
Figure 62 Selling time of dwellings on offer in PM selected cities (number of quarters)



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

Source NBP based on JLL/REAS

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

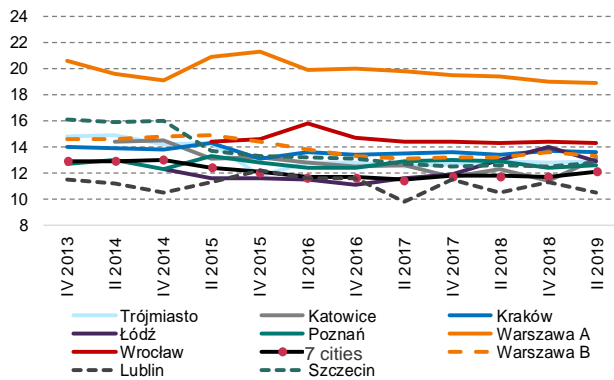


Note: the actual selling time, average of the last four quarters; data are not comparable with Figure 62. Selling time of housing in the secondary real estate market takes into account only transactions closed with a sales deal. The data are underestimated since they do not contain offers entered but not sold yet.

Source NBP

6. Rents and transaction prices of commercial real estate

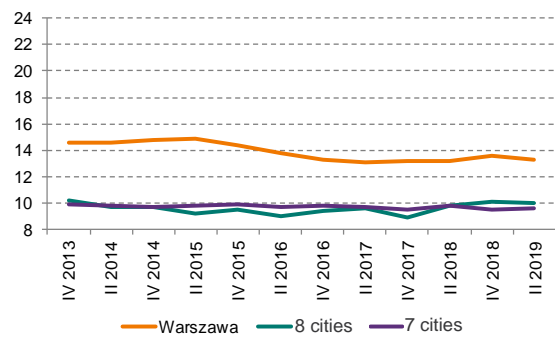
Figure 64 Transaction rents for A class office space (average prices in EUR/sq.m./month)



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

Source NBP

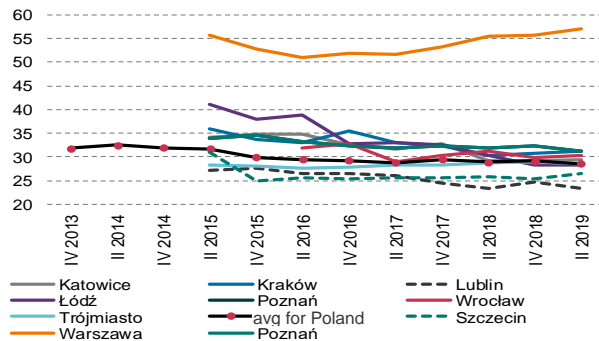
Figure 65 Transaction rents for B class office space (average prices in EUR/sq.m./month)



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

Source: NBP

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



Note to Figure 66: 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.

Source NBP

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

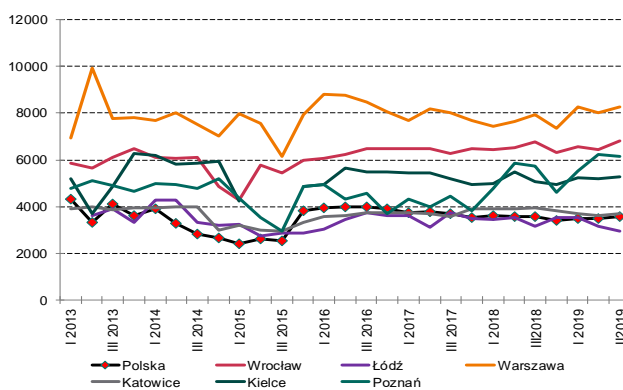
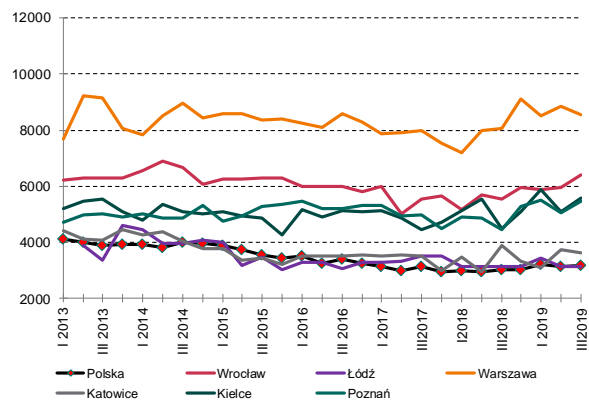


Figure 68 Median of offer selling price of small retail premises in SM (PLN/sq.m.)



Source PONT, NBP's study

Source PONT, NBP's study

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

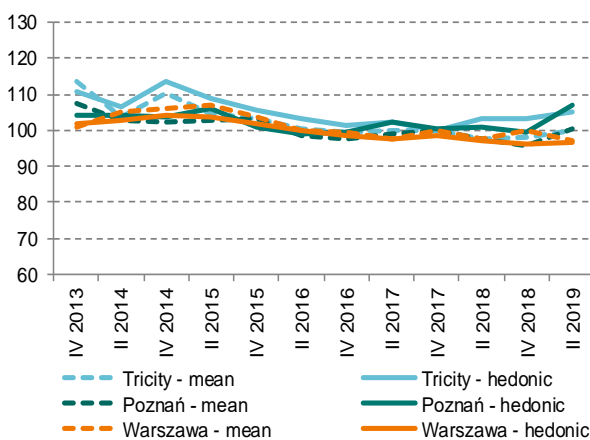
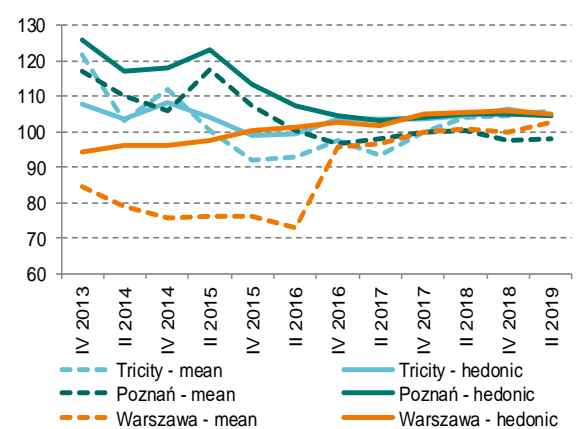


Figure 70 Index of rents for shopping centres, average and hedonic index (2017 IV = 100)100)



Source NBP

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	ROE with LTC = 0% for the EZ
IV 2013	14,6	2309	7,6%	7,0%	3,9%	5,9%	11,7%	4,4%	2,9%
II 2014	15,0	2163	8,3%	7,0%	4,5%	7,1%	14,7%	3,4%	3,5%
IV 2014	15,0	2163	8,3%	7,0%	4,5%	7,1%	14,7%	2,6%	3,5%
II 2015	15,2	2496	7,3%	7,0%	3,7%	5,4%	10,4%	2,8%	2,7%
IV 2015	15,0	2496	7,2%	7,0%	3,6%	5,2%	9,9%	2,8%	2,6%
II 2016	14,8	2489	7,1%	6,5%	3,6%	5,2%	10,0%	3,0%	2,6%
IV 2016	14,9	2489	7,2%	6,5%	3,6%	5,3%	10,2%	3,3%	2,6%
II 2017	14,7	2700	6,5%	6,0%	3,1%	4,3%	7,8%	3,3%	2,1%
IV 2017	15,0	2700	6,6%	6,0%	3,2%	4,5%	8,2%	3,4%	2,2%
II 2018	14,8	2600	6,8%	6,0%	3,4%	4,8%	8,9%	3,2%	2,4%
IV 2018	15,3	2600	7,0%	6,0%	3,5%	5,1%	9,7%	3,1%	2,5%
II 2019	15,3	2700	6,8%	6,0%	3,4%	4,7%	8,8%	2,7%	2,4%

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

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

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

Date	Transaction rate (PLN/sq.m.)	Average transaction price (50%RP,50%RW) (PLN/sq.m.)	Calculated capitalisation rate (yield)	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	7558	6.9%	4.3%	3.4%	0.9%	4.4%
2014 Q2	43.4	7574	6.9%	4.3%	2.7%	0.2%	3.4%
2014 Q4	41.4	7601	6.5%	4.0%	2.6%	0.8%	2.6%
2015 Q2	43.8	7659	6.9%	4.2%	3.6%	3.8%	2.8%
2015 Q4	45.0	7682	7.0%	4.4%	3.8%	4.1%	2.8%
2016 Q2	46.4	7719	7.2%	4.5%	4.0%	4.5%	3.0%
2016 Q4	48.4	7871	7.4%	4.7%	4.4%	5.6%	3.3%
2017 Q2	47.9	8002	7.2%	4.5%	4.1%	5.0%	3.3%
2017 Q4	49.7	8202	7.3%	4.6%	4.3%	5.4%	3.4%
2018 Q2	51.2	8638	7.1%	4.5%	4.2%	5.0%	3.2%
2018 Q4	52.2	9013	7.0%	4.4%	3.9%	4.2%	3.1%
2019 Q2	53.3	9151	7.0%	4.4%	4.0%	4.8%	2.7%

Assumptions: Transaction price per square meter of housing (50% from the primary market, increased by finishing costs and 50% from the secondary market). Average transaction rent. Loan in PLN granted for 25 years, equal instalments payable four times a year. Occupancy 95%. Calculated capitalization rate includes amortization costs (1.5% (two complete renovations in the period of 100 years)). Taxable with lump-sum tax of 8.5%. ROE – net income/equity.

Revised ROE calculations (compared to the previously presented ones).

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

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

specification	III Q 2018		IV Q 2018		I Q 2019		II Q 2019		III Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	8 269	7 210	8 602	7 916	8 259	8 262	9 033	8 288	9 474	8 534
growth (q-o-q)	98,2	96,7	104,0	109,8	96,0	104,4	109,4	100,3	104,9	103,0
growth (y-o-y)	112,8	105,8	116,7	115,9	102,6	114,0	107,3	111,2	114,6	118,4
dwelling price range	4 359	1 480	4 168	1 350	3 967	1 309	3 780	1 424	4 118	1 331
<=4 000 PLN/sq.m	7	4	1	8	27	0	10	4	9	2
(4 001; 6 000] PLN/sq.m	1 377	515	1 062	294	994	327	594	262	412	168
(6 001; 8 000] PLN/sq.m	1 315	566	1 068	535	1 056	447	940	494	1 209	441
(8 001; 10 000] PLN/sq.m	641	278	1 037	351	1 057	287	1 137	392	945	410
>10 001 PLN/sq.m	1 019	117	1 000	162	833	248	1 099	272	1 543	310
dwelling space range	4 359	1 480	4 168	1 350	3 967	1 309	3 780	1 424	4 118	1 331
<= 40 sq.m	665	356	626	280	553	349	512	388	607	341
(40,1; 60] sq.m	1 859	650	1 830	630	1 755	550	1 710	596	1 838	588
(60,1; 80] sq.m	1 437	402	1 336	367	1 289	318	1 160	356	1 225	334
> 80,1 sq.m	398	72	376	73	370	92	398	84	448	68
average price of 1 sq.m. of dwelling	8 269	7 210	8 602	7 916	8 259	8 262	9 033	8 288	9 474	8 534
<=4 000 sq.m	9 470	7 223	9 872	9 506	9 181	9 527	9 794	8 772	10 112	9 303
(40,1; 60] sq.m	7 982	7 103	8 309	7 405	8 084	7 661	8 936	8 010	9 398	8 141
(60,1; 80] sq.m	7 688	7 118	8 020	7 460	7 714	7 630	8 382	8 067	8 754	8 320
> 80,1 sq.m	9 696	8 632	9 979	8 524	9 604	9 246	10 364	8 964	10 890	9 128
average offer price deviation	14,7%	x	8,7%	x	0,0%	x	9,0%	x	11,0%	x
<= 40 sq.m	31,1%	x	3,8%	x	-3,6%	x	11,7%	x	8,7%	x
(40,1; 60] sq.m	12,4%	x	12,2%	x	5,5%	x	11,6%	x	15,4%	x
(60,1; 80] sq.m	8,0%	x	7,5%	x	1,1%	x	3,9%	x	5,2%	x
> 80,1 sq.m	12,3%	x	17,1%	x	3,9%	x	15,6%	x	19,3%	x

Source NBP

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

specification	III Q 2018		IV Q 2018		I Q 2019		II Q 2019		III Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	8 740	7 149	8 856	7 508	9 415	7 351	9 345	7 823	9 958	7 687
growth (q-o-q)	102,0	107,9	101,3	105,0	106,3	97,9	99,3	106,4	106,6	98,3
growth (y-o-y)	124,2	117,9	120,6	118,5	121,8	113,4	109,1	118,1	113,9	107,5
dwelling price range	1 941	1 255	1 769	1 035	1 467	863	1 314	1 008	1 080	904
<=4 000 PLN/sq.m	11	27	4	20	4	16	1	2	1	9
(4 001; 6 000] PLN/sq.m	314	344	240	253	129	187	86	156	47	139
(6 001; 8 000] PLN/sq.m	675	561	621	434	450	413	491	458	295	431
(8 001; 10 000] PLN/sq.m	396	219	431	196	394	166	319	252	306	231
>10 001 PLN/sq.m	545	104	473	132	490	81	417	140	431	94
dwelling space range	1 941	1 255	1 769	1 035	1 467	863	1 314	1 008	1 080	904
<= 40 sq.m	300	313	268	238	238	211	289	260	204	224
(40,1; 60] sq.m	703	557	624	463	534	376	471	443	409	406
(60,1; 80] sq.m	571	305	558	209	418	181	335	206	279	191
> 80,1 sq.m	367	80	319	125	277	95	219	99	188	83
average price of 1 sq.m. of dwelling	8 740	7 149	8 856	7 508	9 415	7 351	9 345	7 823	9 958	7 687
<=4 000 sq.m	9 179	7 660	9 808	7 986	10 469	8 134	9 658	8 607	10 691	8 618
(40,1; 60] sq.m	9 081	7 131	9 034	7 506	9 652	7 323	9 421	7 723	10 198	7 705
(60,1; 80] sq.m	8 161	6 796	8 242	7 144	8 641	6 875	9 010	7 396	9 224	7 043
> 80,1 sq.m	8 629	6 619	8 784	7 219	9 222	6 628	9 280	7 100	9 728	6 571
average offer price deviation	22,3%	x	18,0%	x	28,1%	x	19,5%	x	29,5%	x
<= 40 sq.m	19,8%	x	22,8%	x	28,7%	x	12,2%	x	24,1%	x
(40,1; 60] sq.m	27,3%	x	20,4%	x	31,8%	x	22,0%	x	32,4%	x
(60,1; 80] sq.m	20,1%	x	15,4%	x	25,7%	x	21,8%	x	31,0%	x
> 80,1 sq.m	30,4%	x	21,7%	x	39,1%	x	30,7%	x	48,0%	x

Source NBP

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

specification	III Q 2018		IV Q 2018		I Q 2019		II Q 2019		III Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	7 040	6 945	7 356	7 199	7 630	7 370	7 968	7 775	8 021	7 787
growth (q-o-q)	102,0	102,5	104,5	103,7	103,7	102,4	104,4	105,5	100,7	100,2
growth (y-o-y)	101,6	102,0	106,2	106,6	110,3	108,5	115,4	114,7	113,9	112,1
dwelling price range	3 795	1 815	3 973	1 749	4 860	1 586	5 247	1 720	5 459	1 572
<=4 000 PLN/sq.m	1	2	0	0	0	0	0	0	0	0
(4 001; 6 000] PLN/sq.m	864	376	574	270	445	254	496	176	506	186
(6 001; 8 000] PLN/sq.m	2 166	1 114	2 324	1 048	2 891	860	2 419	864	2 485	772
(8 001; 10 000] PLN/sq.m	609	280	921	386	1 174	351	1 819	557	1 988	480
>10 001 PLN/sq.m	155	43	154	45	350	121	513	123	480	134
dwelling space range	3 795	1 815	3 973	1 749	4 860	1 586	5 247	1 720	5 459	1 572
<= 40 sq.m	536	436	594	472	1017	449	937	494	980	420
(40,1; 60] sq.m	2019	995	2109	862	2440	794	2768	812	2803	807
(60,1; 80] sq.m	969	299	1001	338	1095	297	1196	315	1319	264
> 80,1 sq.m	271	85	269	77	308	46	346	99	357	81
average price of 1 sq.m. of dwelling	7 040	6 945	7 356	7 199	7 630	7 370	7 968	7 775	8 021	7 787
<=4 000 sq.m	7550	7267	7961	7697	8074	7998	8389	8302	8528	8237
(40,1; 60] sq.m	6917	6807	7278	6962	7539	7134	7901	7605	8020	7672
(60,1; 80] sq.m	6941	6838	7167	7090	7458	7059	7777	7420	7694	7499
> 80,1 sq.m	7302	7283	7326	7268	7493	7336	8031	7673	7840	7536
average offer price deviation	1,4%	x	2,2%	x	3,5%	x	2,5%	x	3,0%	x
<= 40 sq.m	3,9%	x	3,4%	x	0,9%	x	1,0%	x	3,5%	x
(40,1; 60] sq.m	1,6%	x	4,5%	x	5,7%	x	3,9%	x	4,5%	x
(60,1; 80] sq.m	1,5%	x	1,1%	x	5,7%	x	4,8%	x	2,6%	x
> 80,1 sq.m	0,3%	x	0,8%	x	2,1%	x	4,7%	x	4,0%	x

Source NBP

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

specification	III Q 2018		IV Q 2018		I Q 2019		II Q 2019		III Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	8 059	6 621	8 466	6 849	8 697	6 626	8 899	6 956	8 913	7 135
growth (q-o-q)	100,7	103,5	105,0	103,4	102,7	96,8	102,3	105,0	100,2	102,6
growth (y-o-y)	111,9	104,3	111,5	109,1	112,0	106,6	111,2	108,7	110,6	107,8
dwelling price range	1 115	318	722	340	597	303	656	316	493	344
<=4 000 PLN/sq.m	0	0	0	0	0	3	0	2	0	0
(4 001; 6 000] PLN/sq.m	153	127	79	123	49	107	35	86	19	66
(6 001; 8 000] PLN/sq.m	501	144	284	158	217	154	231	161	175	200
(8 001; 10 000] PLN/sq.m	298	36	218	41	204	33	229	62	181	65
>10 001 PLN/sq.m	163	11	141	18	127	6	161	5	118	13
dwelling space range	1 115	318	722	340	597	303	656	316	493	344
<= 40 sq.m	232	130	146	137	124	120	160	135	113	154
(40,1; 60] sq.m	442	145	280	148	240	141	252	135	199	147
(60,1; 80] sq.m	264	35	177	45	136	35	142	38	122	38
> 80,1 sq.m	177	8	119	10	97	7	102	8	59	5
average price of 1 sq.m. of dwelling	8 059	6 621	8 466	6 849	8 697	6 626	8 899	6 956	8 913	7 135
<=4 000 sq.m	8 678	7 026	9 366	7 284	9 520	7 084	9 591	7 403	9 894	7 674
(40,1; 60] sq.m	7 857	6 400	8 108	6 652	8 476	6 415	8 600	6 671	8 579	6 888
(60,1; 80] sq.m	7 814	6 240	8 094	6 321	8 232	5 975	8 407	6 297	8 426	6 052
> 80,1 sq.m	8 120	5 716	8 757	6 157	8 844	6 300	9 238	7 366	9 168	6 009
average offer price deviation	21,7%	x	23,6%	x	31,2%	x	27,9%	x	24,9%	x
<= 40 sq.m	23,5%	x	28,6%	x	34,4%	x	29,6%	x	28,9%	x
(40,1; 60] sq.m	22,8%	x	21,9%	x	32,1%	x	28,9%	x	24,6%	x
(60,1; 80] sq.m	25,2%	x	28,1%	x	37,8%	x	33,5%	x	39,2%	x
> 80,1 sq.m	42,0%	x	42,2%	x	40,4%	x	25,4%	x	52,6%	x

Source NBP

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

specification	III Q 2018		IV Q 2018		I Q 2019		II Q 2019		III Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	5 528	5 355	5 599	5 507	5 796	5 631	6 010	5 853	6 027	5 881
growth (q-o-q)	101,0	102,9	101,3	102,8	103,5	102,3	103,7	103,9	100,3	100,5
growth (y-o-y)	107,4	109,0	105,0	107,0	104,9	108,1	109,8	112,4	109,0	109,8
dwellings price range	1 902	483	1 753	397	1 253	254	1 442	408	1 465	467
<=4 000 PLN/sq.m	2	4	6	1	2	0	0	0	2	0
(4 001; 4 500] PLN/sq.m	18	6	64	5	6	0	11	1	5	0
(4 501; 5 000] PLN/sq.m	225	111	143	67	34	25	31	26	25	1
(5 001; 5 500] PLN/sq.m	953	208	620	151	308	94	257	102	233	106
(5 501; 6 000] PLN/sq.m	322	100	549	85	525	76	526	133	492	214
> 6 001 PLN/sq.m	382	54	371	88	378	59	617	146	708	146
dwellings space range	1 903	482	1 753	397	1 253	254	1 442	408	1 465	467
<= 40 sq.m	268	89	200	79	138	49	207	87	167	91
(40,1; 60] sq.m	928	263	874	182	564	148	663	204	701	240
(60,1; 80] sq.m	575	109	563	104	476	35	486	94	472	79
> 80,1 sq.m	132	21	116	32	75	22	86	23	125	57
average price of 1 sq.m. of dwelling	5 527	5 356	5 599	5 512	5 796	5 631	6 010	5 853	6 027	5 881
<=4 000 sq.m	5 848	5 462	6 033	5 794	6 252	6 028	6 538	6 254	6 610	6 215
(40,1; 60] sq.m	5 492	5 343	5 567	5 551	5 805	5 592	6 044	5 886	6 084	5 875
(60,1; 80] sq.m	5 433	5 303	5 520	5 300	5 656	5 507	5 779	5 481	5 812	5 679
> 80,1 sq.m	5 524	5 350	5 482	5 284	5 772	5 198	5 782	5 571	5 742	5 656
average offer price deviation	3,2%	x	1,7%	x	2,9%	x	2,7%	x	2,5%	x
<= 40 sq.m	7,1%	x	4,1%	x	3,7%	x	4,5%	x	6,4%	x
(40,1; 60] sq.m	2,8%	x	0,3%	x	3,8%	x	2,7%	x	3,6%	x
(60,1; 80] sq.m	2,4%	x	4,2%	x	2,7%	x	5,4%	x	2,3%	x
> 80,1 sq.m	3,2%	x	3,8%	x	11,0%	x	3,8%	x	1,5%	x

Source NBP

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

specification	III Q 2018		IV Q 2018		I Q 2019		II Q 2019		III Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	4 711	4 256	4 811	4 465	5 053	4 616	5 116	4 596	5 203	4 708
growth (q-o-q)	101,5	107,5	102,1	104,9	105,0	103,4	101,2	99,6	101,7	102,4
growth (y-o-y)	111,1	113,1	111,5	118,0	114,0	114,8	110,2	116,1	110,4	110,6
dwellings price range	892	123	422	76	610	88	503	98	425	179
<= 3 000 PLN/sq.m	32	9	9	1	9	1	15	4	3	10
(3 001; 3 500] PLN/sq.m	75	11	27	7	32	4	17	8	12	14
(3 501; 4 000] PLN/sq.m	109	32	46	14	50	10	51	10	41	10
(4 001; 4 500] PLN/sq.m	180	28	81	15	85	29	69	23	49	44
(4 500; 5 000] PLN/sq.m.	199	19	113	27	144	21	109	33	96	41
> 5 001 PLN/sq.m	297	24	146	12	290	23	242	20	224	60
dwellings space range	892	123	422	76	610	88	503	98	425	179
<= 40 sq.m	114	33	51	22	77	27	93	30	68	67
(40,1; 60] sq.m	318	60	161	39	226	37	171	42	148	76
(60,1; 80] sq.m	203	21	76	11	140	13	112	11	91	25
> 80,1 sq.m	257	9	134	4	167	11	127	15	118	11
average price of 1 sq.m. of dwelling	4 711	4 256	4 811	4 465	5 053	4 616	5 116	4 596	5 203	4 708
<=4 000 sq.m	4 820	4 541	5 002	4 791	5 436	4 809	5 604	4 835	5 692	4 804
(40,1; 60] sq.m	4 777	4 287	4 923	4 398	5 188	4 527	5 180	4 644	5 295	4 653
(60,1; 80] sq.m	4 837	3 957	4 962	4 518	5 200	4 582	5 294	4 722	5 187	4 739
> 80,1 sq.m	4 480	3 700	4 516	3 193	4 570	4 478	4 514	3 892	4 817	4 436
average offer price deviation	10,7%	x	7,7%	x	9,5%	x	11,3%	x	10,5%	x
<= 40 sq.m	6,1%	x	4,4%	x	13,0%	x	15,9%	x	18,5%	x
(40,1; 60] sq.m	11,4%	x	12,0%	x	14,6%	x	11,5%	x	13,8%	x
(60,1; 80] sq.m	22,2%	x	9,8%	x	13,5%	x	12,1%	x	9,5%	x
> 80,1 sq.m	21,1%	x	41,5%	x	2,0%	x	16,0%	x	8,6%	x

Source NBP

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

specification	III Q 2018		IV Q 2018		I Q 2019		II Q 2019		III Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	6 931	6 849	7 033	7 017	7 349	7 051	7 228	7 083	7 380	7 133
growth (q-o-q)	100,9	101,7	101,5	102,5	104,5	100,5	98,3	100,4	102,1	100,7
growth (y-o-y)	107,0	107,4	107,4	109,9	110,1	109,7	105,3	105,2	106,5	104,2
dwellings price range	4 894	1 012	5 362	1 295	6 123	1 057	6 816	1 422	6 652	1 303
<=4 000 PLN/sq.m	6	5	2	4	1	1	1	0	0	0
(4 001; 6 000] PLN/sq.m	1 125	233	1 004	245	807	151	732	312	564	231
(6 001; 8 000] PLN/sq.m	3 053	645	3 595	845	3 938	731	4 801	830	4 585	844
(8 001; 10 000] PLN/sq.m	592	99	676	166	1 212	148	1 150	244	1 344	209
>10 001 PLN/sq.m	118	30	85	35	165	26	132	36	159	19
dwellings space range	4 894	1 012	5 362	1 295	6 123	1 057	6 816	1 422	6 652	1 303
<= 40 sq.m	826	239	943	386	1243	301	1334	368	1328	321
(40,1; 60] sq.m	2657	556	2866	661	3128	509	3367	751	3098	733
(60,1; 80] sq.m	1064	168	1197	183	1394	188	1760	218	1823	198
> 80,1 sq.m	347	49	356	65	358	59	355	85	403	51
average price of 1 sq.m. of dwelling	6 931	6 849	7 033	7 017	7 349	7 051	7 228	7 083	7 380	7 133
<=4 000 sq.m	7 070	7 136	7 246	7 412	7 698	7 408	7 719	7 165	7 873	7 479
(40,1; 60] sq.m	6 899	6 755	7 010	6 855	7 277	6 901	7 169	6 993	7 350	7 036
(60,1; 80] sq.m	6 822	6 605	6 862	6 804	7 142	6 726	6 953	7 079	7 089	7 011
> 80,1 sq.m	7 182	7 343	7 227	6 923	7 573	7 568	7 302	7 532	7 309	6 832
average offer price deviation	1,2%	x	0,2%	x	4,2%	x	2,0%	x	3,5%	x
<= 40 sq.m	-0,9%	x	-2,2%	x	3,9%	x	7,7%	x	5,3%	x
(40,1; 60] sq.m	2,1%	x	2,3%	x	5,5%	x	2,5%	x	4,5%	x
(60,1; 80] sq.m	3,3%	x	0,9%	x	6,2%	x	-1,8%	x	1,1%	x
> 80,1 sq.m	-2,2%	x	4,4%	x	0,1%	x	-3,1%	x	7,0%	x

Source NBP

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

specification	III Q 2018		IV Q 2018		I Q 2019		II Q 2019		III Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	6 763	5 934	6 939	6 113	6 960	6 058	7 073	6 198	7 188	6 230
growth (q-o-q)	101,7	102,7	102,6	103,0	100,3	99,1	101,6	102,3	101,6	100,5
growth (y-o-y)	111,7	109,2	109,3	110,2	106,7	107,8	106,3	107,3	106,3	105,0
dwellings price range	249	1166	208	1070	1454	628	1127	520	1530	473
<=4 000 PLN/sq.m	8	51	7	41	32	25	22	10	21	6
(4 001; 6 000] PLN/sq.m	87	602	61	524	374	304	279	231	325	195
(6 001; 8 000] PLN/sq.m	110	448	96	422	772	254	575	240	815	247
(8 001; 10 000] PLN/sq.m	27	56	27	69	206	42	197	36	288	23
>10 001 PLN/sq.m	17	9	17	14	70	3	54	3	81	2
dwellings space range	249	1166	208	1070	1454	628	1127	520	1530	473
<= 40 sq.m	33	357	20	329	260	186	202	161	267	154
(40,1; 60] sq.m	88	521	71	459	600	284	453	241	652	209
(60,1; 80] sq.m	67	210	58	193	331	120	276	95	357	85
> 80,1 sq.m	61	78	59	89	263	38	196	23	254	25
average price of 1 sq.m. of dwelling	6763	5934	6939	6113	6960	6058	7073	6198	7188	6230
<=4 000 sq.m	7754	6443	8297	6633	7758	6551	7957	6951	8169	6938
(40,1; 60] sq.m	6654	5918	6966	6121	7005	6157	7302	6011	7295	6062
(60,1; 80] sq.m	6843	5395	6962	5567	6672	5306	6576	5605	6742	5608
> 80,1 sq.m	6295	5159	6425	5333	6431	5275	6334	5336	6509	5379
average offer price deviation	14,0%	x	13,5%	x	14,9%	x	14,1%	x	15,4%	x
<= 40 sq.m	20,3%	x	25,1%	x	18,4%	x	14,5%	x	17,7%	x
(40,1; 60] sq.m	12,4%	x	13,8%	x	13,8%	x	21,5%	x	20,3%	x
(60,1; 80] sq.m	26,8%	x	25,1%	x	25,7%	x	17,3%	x	20,2%	x
> 80,1 sq.m	22,0%	x	20,5%	x	21,9%	x	18,7%	x	21,0%	x

Source NBP

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

specification	III Q 2018		IV Q 2018		I Q 2019		II Q 2019		III Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	8 888	8 538	9 020	8 565	9 427	8 771	9 591	8 932	9 935	9 188
growth (q-o-q)	103,2	104,3	101,5	100,3	104,5	102,4	101,7	101,8	103,6	102,9
growth (y-o-y)	114,1	109,2	112,5	110,5	118,4	101,9	117,2	100,5	116,4	101,9
dwellings price range	13 876	3 994	13 381	4 296	12 709	4 296	14 945	4 348	13 824	4 128
<=4 000 PLN/sq.m	0	0	0	0	0	0	0	0	0	0
(4 001; 6 000] PLN/sq.m	507	112	318	152	142	172	108	121	61	28
(6 001; 8 000] PLN/sq.m	5 060	1 680	4 951	1 688	3 797	1 422	4 109	1 535	3 574	1 285
(8 001; 10 000] PLN/sq.m	5 325	1 556	5 272	1 767	5 320	1 886	6 139	1 804	5 278	1 790
>10 001 PLN/sq.m	2 984	646	2 840	689	3 450	816	4 589	888	4 911	1 025
dwellings space range	13 876	3 994	13 381	4 296	12 709	4 296	14 945	4 348	13 824	4 128
<= 40 sq.m	1 788	853	1 508	866	1 393	989	1 835	911	1 657	799
(40,1; 60] sq.m	5 835	1 879	5 855	2 020	5 443	1 964	6 532	2 004	5 898	1 997
(60,1; 80] sq.m	4 550	926	4 375	1 060	4 189	1 023	4 710	1 053	4 554	986
> 80,1 sq.m	1 703	336	1 643	350	1 684	320	1 868	380	1 715	346
average price of 1 sq.m. of dwelling	8 888	8 538	9 020	8 565	9 427	8 771	9 591	8 932	9 935	9 188
<=4 000 sq.m	10 394	9 168	10 641	9 149	11 646	9 358	11 400	9 675	12 060	9 829
(40,1; 60] sq.m	8 615	8 330	8 756	8 382	9 104	8 538	9 332	8 694	9 706	9 022
(60,1; 80] sq.m	8 461	8 128	8 519	8 313	8 782	8 527	8 920	8 542	9 136	8 804
> 80,1 sq.m	9 380	9 228	9 807	8 935	10 242	9 166	10 407	9 487	10 790	9 769
average offer price deviation	4,1%	x	5,3%	x	7,5%	x	7,4%	x	8,1%	x
<= 40 sq.m	13,4%	x	16,3%	x	24,4%	x	17,8%	x	22,7%	x
(40,1; 60] sq.m	3,4%	x	4,5%	x	6,6%	x	7,3%	x	7,6%	x
(60,1; 80] sq.m	4,1%	x	2,5%	x	3,0%	x	4,4%	x	3,8%	x
> 80,1 sq.m	1,7%	x	9,8%	x	11,7%	x	9,7%	x	10,5%	x

Source NBP

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

specification	III Q 2018		IV Q 2018		I Q 2019		II Q 2019		III Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	9 612	8 604	10 277	8 762	10 291	8 960	10 564	8 670	10 841	8 955
growth (q-o-q)	102,8	102,5	106,9	101,8	100,1	102,3	102,7	96,8	102,6	103,3
growth (y-o-y)	106,7	107,3	111,3	108,8	110,1	111,3	113,0	103,3	112,8	104,1
dwellings price range	2 996	3 895	2 755	3 714	2 347	3 119	2 575	1 488	2 161	1 327
<=4 000 PLN/sq.m	0	0	0	0	0	0	0	0	0	0
(4 001; 6 000] PLN/sq.m	144	282	69	228	51	156	37	74	32	36
(6 001; 8 000] PLN/sq.m	799	1 435	594	1 295	461	1 032	468	540	333	425
(8 001; 10 000] PLN/sq.m	1 020	1 348	858	1 355	800	1 083	818	555	659	540
>10 001 PLN/sq.m	1 033	830	1 234	836	1 035	848	1 252	319	1 137	326
dwellings space range	2 996	3 895	2 755	3 714	2 347	3 119	2 575	1 488	2 161	1 327
<= 40 sq.m	363	1 165	403	1 104	306	891	347	458	286	425
(40,1; 60] sq.m	1 050	1 685	929	1 597	794	1 341	881	636	719	600
(60,1; 80] sq.m	740	671	660	657	607	544	641	275	528	219
> 80,1 sq.m	843	374	763	356	640	343	706	119	628	83
average price of 1 sq.m. of dwelling	9 612	8 604	10 277	8 762	10 291	8 960	10 564	8 670	10 841	8 955
<=4 000 sq.m	10 435	9 138	11 447	9 278	11 300	9 501	11 728	9 500	11 925	9 987
(40,1; 60] sq.m	9 437	8 192	10 077	8 411	10 168	8 741	10 249	8 368	10 784	8 519
(60,1; 80] sq.m	9 072	8 338	9 672	8 361	9 690	8 460	10 019	8 108	10 247	8 385
> 80,1 sq.m	9 950	9 270	10 426	9 477	10 530	9 201	10 879	8 391	10 913	8 326
average offer price deviation	11,7%	x	17,3%	x	14,9%	x	21,8%	x	21,1%	x
<= 40 sq.m	14,2%	x	23,4%	x	18,9%	x	23,5%	x	19,4%	x
(40,1; 60] sq.m	15,2%	x	19,8%	x	16,3%	x	22,5%	x	26,6%	x
(60,1; 80] sq.m	8,8%	x	15,7%	x	14,5%	x	23,6%	x	22,2%	x
> 80,1 sq.m	7,3%	x	10,0%	x	14,4%	x	29,6%	x	31,1%	x

Source NBP

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

specification	III Q 2018		IV Q 2018		I Q 2019		II Q 2019		III Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	7 145	6 750	7 230	6 905	7 457	7 032	7 636	7 435	7 909	7 661
growth (q-o-q)	101,8	101,5	101,2	102,3	103,1	101,8	102,4	105,7	103,6	103,0
growth (y-o-y)	111,8	104,9	110,8	108,1	110,6	108,0	108,8	111,8	110,7	113,5
dwellings price range	5 510	1 614	5 662	1 272	5 939	1 695	6 360	1 464	6 747	1 563
<=4 000 PLN/sq.m	0	7	0	0	0	0	0	0	0	0
(4 001; 6 000] PLN/sq.m	1 568	498	1 384	342	906	391	807	222	498	160
(6 001; 8 000] PLN/sq.m	2 503	874	2 775	716	3 319	905	3 477	833	3 595	838
(8 001; 10 000] PLN/sq.m	1 124	212	1 112	172	1 285	348	1 552	316	1 981	467
>10 001 PLN/sq.m	315	23	391	42	429	51	524	93	673	98
dwellings space range	5 510	1 614	5 662	1 272	5 939	1 695	6 360	1 464	6 747	1 563
<= 40 sq.m	921	302	906	217	961	362	1235	289	1213	383
(40,1; 60] sq.m	2621	828	2636	657	2837	829	2946	695	3241	672
(60,1; 80] sq.m	1643	400	1700	325	1709	418	1685	394	1820	426
> 80,1 sq.m	325	84	420	73	432	86	494	86	473	82
average price of 1 sq.m. of dwelling	7 145	6 750	7 230	6 905	7 457	7 032	7 636	7 435	7 909	7 661
<=4 000 sq.m	8397	7419	8416	7547	8613	7971	8683	8513	8948	8604
(40,1; 60] sq.m	7008	6579	7125	6781	7289	6825	7498	7192	7771	7339
(60,1; 80] sq.m	6613	6626	6729	6659	7055	6509	7076	7077	7389	7262
> 80,1 sq.m	7396	6626	7359	7207	7586	7624	7749	7415	8192	7964
average offer price deviation	5,9%	x	4,7%	x	6,0%	x	2,7%	x	3,2%	x
<= 40 sq.m	13,2%	x	11,5%	x	8,0%	x	2,0%	x	4,0%	x
(40,1; 60] sq.m	6,5%	x	5,1%	x	6,8%	x	4,3%	x	5,9%	x
(60,1; 80] sq.m	-0,2%	x	1,1%	x	8,4%	x	0,0%	x	1,7%	x
> 80,1 sq.m	11,6%	x	2,1%	x	-0,5%	x	4,5%	x	2,9%	x

Source NBP

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

specification	III Q 2018		IV Q 2018		I Q 2019		II Q 2019		III Q 2019	
	offer	trans.	offer	trans.	offer	trans.	offer	trans.	offer	trans.
average price (PLN/sq.m.)	6 491	6 159	6 571	6 191	7 339	6 267	7 441	6 482	7 572	6 858
growth (q-o-q)	100,1	101,3	101,2	100,5	111,7	101,2	101,4	103,4	101,8	105,8
growth (y-o-y)	103,1	106,9	103,2	104,8	114,3	107,3	114,7	106,7	116,7	111,3
dwellings price range	1 554	248	1 290	242	321	236	1 703	201	1 154	233
<=4 000 PLN/sq.m	19	4	18	8	2	10	5	3	0	3
(4 001; 6 000] PLN/sq.m	676	113	539	109	73	94	301	75	144	61
(6 001; 8 000] PLN/sq.m	667	113	558	100	147	106	926	103	666	124
(8 001; 10 000] PLN/sq.m	131	14	118	22	75	22	324	13	266	39
>10 001 PLN/sq.m	61	4	57	3	24	4	147	7	78	6
dwellings space range	1 554	248	1 290	242	321	236	1 703	201	1 154	233
<= 40 sq.m	233	37	213	50	45	53	221	38	117	41
(40,1; 60] sq.m	606	111	505	107	127	98	656	95	441	114
(60,1; 80] sq.m	482	78	384	58	94	54	529	51	387	57
> 80,1 sq.m	233	22	188	27	55	31	297	17	209	21
average price of 1 sq.m. of dwelling	6 491	6 159	6 571	6 191	7 339	6 267	7 441	6 482	7 572	6 858
<=4 000 sq.m	7 338	7 023	7 344	6 782	8 152	7 150	8 796	7 592	8 840	8 021
(40,1; 60] sq.m	6 502	6 325	6 574	6 364	7 345	6 182	7 502	6 447	7 666	6 736
(60,1; 80] sq.m	6 256	5 638	6 313	5 811	7 099	5 821	7 066	5 947	7 165	6 393
> 80,1 sq.m	6 101	5 724	6 215	5 229	7 071	5 801	6 967	5 807	7 415	6 510
average offer price deviation	5,4%	x	6,1%	x	17,1%	x	14,8%	x	10,4%	x
<= 40 sq.m	4,5%	x	8,3%	x	14,0%	x	15,9%	x	10,2%	x
(40,1; 60] sq.m	2,8%	x	3,3%	x	18,8%	x	16,4%	x	13,8%	x
(60,1; 80] sq.m	11,0%	x	8,6%	x	21,9%	x	18,8%	x	12,1%	x
> 80,1 sq.m	6,6%	x	18,9%	x	21,9%	x	20,0%	x	13,9%	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

According to NBP estimates, in 2019 Q3, compared to the previous quarter, the sale of dwellings in the primary market decreased in the vast majority of voivodship cities, which is the result of the continued increase in home prices and reduced availability of new dwellings on sale. On the other hand, the continued high level of sales was reported by real estate developers holding bonds on the Catalyst market. In 2019 Q3 they achieved sales volume at the level of 4806 dwellings (a 2.4% increase compared to the previous quarter and a 4.7% increase compared to the corresponding period in 2018).

The analysis of the Public Statistics (GUS) data points to a persistently high activity in the housing market as regards the supply side. Comparison of the data for the first three quarters of 2019 with the figures for the corresponding periods of 2018 shows an increase in the number of completed dwellings (by 12.2%), dwellings under construction (by 2.6%) and dwellings for which buildings permits have been issued or construction design documentation has been submitted (by 4.1%). The analysis of the entries in the financial statements of large real estate developers (F-01) also confirms a large number of dwellings completed and made ready for occupancy in 2019 Q3 and a decline in the number of dwellings whose construction was launched as compared to the corresponding periods in 2018.

According to the accounting records, in the group of larger real estate developers (employing more than 49 people), after a significant increase in the value of dwellings under construction in 2019 Q1, which was higher than in any quarter of 2018, these figures declined considerably in 2019 Q2 and Q3 as compared to the corresponding quarters of 2018 (declines by 30% and 27% respectively). In 2019 Q2 and Q3 large real estate developers focused on the implementation of the already started development projects. Weaker production is a result of developers' cautious policy in launching new development projects in the event of a collapse in demand due to the continued increase in home prices and due to visible tensions on the supply side (continued increase in prices of building materials, prices of contractors and labour costs). In this group, in 2019 Q3, basic economic indicators increased significantly compared to the previous quarter and to the corresponding quarter of 2018. High total revenues and total costs confirm that a significant number of dwellings were completed and made ready for occupancy in this period. The increase in total costs outpacing the increase in total revenues are indicative of growing construction costs and price pressure of contractors. This resulted in a much lower average net financial result and a decline in profitability ratios, including a significant decline in sales margin, which in quarter-on-quarter terms fell from the double-digit values to several percentage and was the lowest among the margins recorded in the last two years.

According to the entries in the financial statements reported by a dozen or so real estate developers listed on the WSE the period of 2019 Q2 also saw a significant decrease in the generated financial result and profitability ratios. At the same time, sales profitability in this group is much higher than in the group of larger real estate

³⁵ Calculations and conclusions in this edition of the Information are based on data resulting from F01 reports submitted to the Statistics Poland (GUS), broken down into two groups of companies: those employing from 9 to 49 persons (data available until the first half of 2019, in half-a-year periods) and those whose staff exceeds 49 persons (data available until 2019 Q3 in quarterly periods), involved in the execution of construction projects related to the construction of buildings (PKD 41.10). The analysis of accounting entries in the financial statements of real estate developers listed on the Warsaw Stock Exchange was based on the data covering the period up to 2019 Q2. 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 after 2019 Q3", Nawigator Dom Maklerski, Warsaw, October 2019).

developers analysed on the basis of F-01 data for 2019 Q3. High average inventory level in the balance sheet data as at the end of 2019 Q2 per one developer listed on the WSE indicates that the level of housing under construction will be comparable to that recorded in the previous quarter and in particular quarters of 2018.

Smaller real estate developers (employing from 9 to 49 persons) posted a slight increase in home production in progress in the first half of 2019 as compared to the levels recorded in particular half-year periods of 2018 and 2017, as well as an improvement in return on sales, equity and assets, generating higher financial results, with a slight increase in total revenues and a slight decrease in total expenses.

Both in the group of smaller and larger real estate developers, the stock of completed dwellings ready for occupancy decreased and their number remains at a record low level. The decline in the number of new development projects implemented by large real estate developers curbed down growth in the prices of land for residential construction.

The operating cost ratio is most favourable in the group of real estate developers listed on the WSE. On the other hand, the operating cost to sales income ratio has reached unfavourable levels. In the group of large real estate developers in 2019 Q3, compared to the previous quarter and the same period of 2018, the value of almost all items of operating expenses (energy consumption, wages and social security contributions) increased; a significant increase was also recorded in the average value of costs of third party services, and their share in the structure of operating costs amounted to approximately 69%. Higher value of costs related to the services of development contractors results from growing costs of project implementation and thus from the need to allocate larger budgets for their implementation. The group of smaller real estate developers posted a slight increase in the cost of third party services in the first half of 2019 as compared to two halves of 2018 which is mainly the result of the growing number of commenced projects and growing prices of contracting services. Wage increases reported by real estate developers are an important condition for maintaining the workforce employed to carry out construction works.

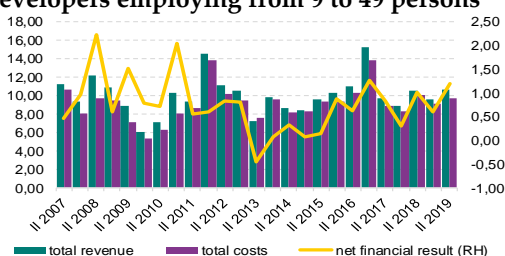
Equity plays the main role in financing the operations of real estate developers (on average from 42% to 44% in the structure of liabilities of the analysed groups of companies). Buyers' down payments are an important item of external sources of financing. The largest share of down payments in the structure of liabilities was reported by larger developers (over 21%), followed by developers listed on the WSE (approx. 17%) and smaller developers (approx. 15%). In 2019 Q3 the group of large real estate developers recorded continued slight decline in the average value of liabilities resulting from bank loans and debt securities in year-on-year terms (to approx. 9% and approx. 5% in the structure of liabilities at the end of September 2019, respectively). In the first half of 2019 smaller companies and companies listed on the WSE in both quarters of 2019 reported a slight decline in the value of financial liabilities resulting from bank loans (to 16% and 15% in the structure of liabilities at the end of June 2019, respectively) and debt securities (to 4% and 12% in the structure of liabilities at the end of June 2019, respectively). Housing developers holding bonds on the Catalyst market continued to see low activity, with a slight increase in the average interest rate on bond coupons. Funds raised from bond issues are largely allocated to the purchase of land and own contribution when financing the investment with a bank loan. Interviews conducted among real estate developers and opinions presented by securities markets analysts suggest that most of large real estate developers, including those listed on the Catalyst market, have stable land banks that give them possibility to carry out construction projects for a period of several years or longer. Consequently, this does not urge them to purchase new land in the face of high prices of land and shortage of land in attractive locations.

The balance of liabilities towards building contractors remained at the same level (approximately 23% in the structure of liabilities at the end of 2019 Q3) in the group of large real estate developers, which, along with weaker production in the last two quarters, may confirm the continuing delays in the payment of liabilities towards contractors for construction works. In the group of smaller real estate developers accounts payable to service providers were at a similar level (over 23% in the structure of liabilities at the end of 2019 Q2), which results from both growing work in progress and delays in payments. The significantly lower level of accounts payable to contractors (over 16% in the structure of liabilities at the end of 2019 Q2) points that the group of real estate developers listed on the WSE has fewer problems with settling liabilities.

Financial liquidity in the group of large real estate developers remained at a low but stable level. The group of smaller real estate developers has reported better liquidity due to the increase in the value of current assets, amid unchanged level of short-term liabilities. In all groups of the analysed real estate developers, the total debt ratio, the equity to assets ratio and the debt to equity ratio remain at a safe level, which creates appropriate conditions for examining loan applications and guarantees security of funds entrusted by creditors.

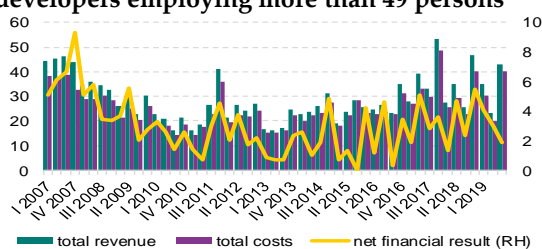
The positive financial situation of developers listed on the WSE is evidenced by positive cash flows from operating activities recorded for the last three years. In two quarters of 2019, decrease in cash flows from operating activities and, at the same time, lower averaged negative cash flows from investing and financing activities suggests cuts in profit allocation to investments and the repayment of financial liabilities.

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



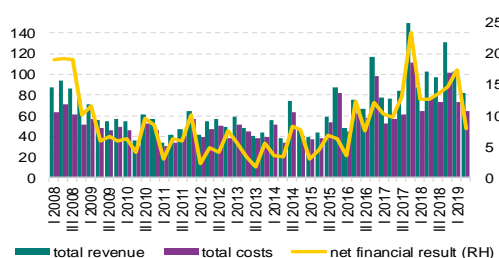
Source: NBP based on GUS (F01)

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



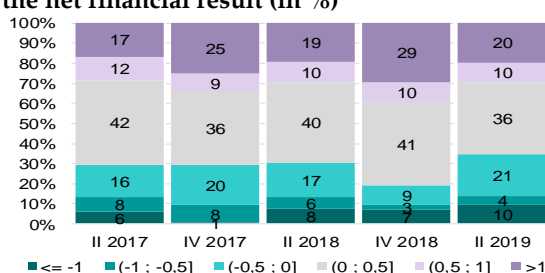
Source NBP based on GUS (F01)

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



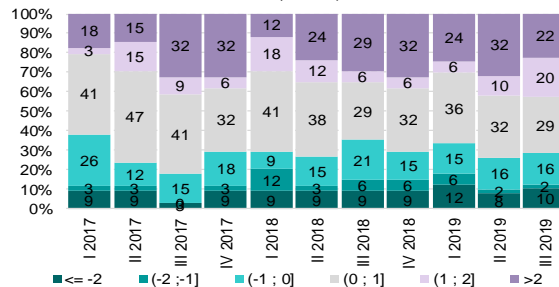
Source NBP based on Financial Statements

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



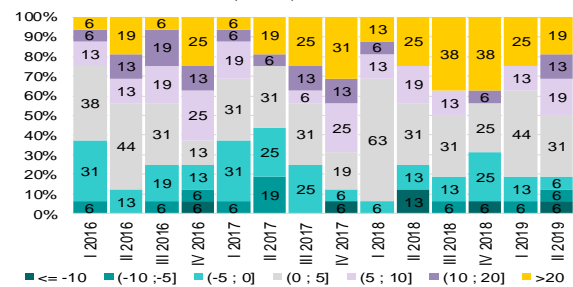
Source NBP based on GUS (F01)

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



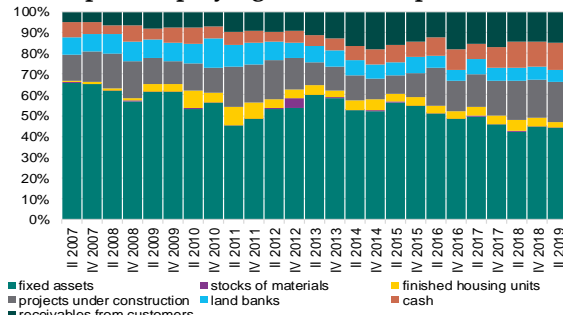
Source NBP based on GUS (F01)

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



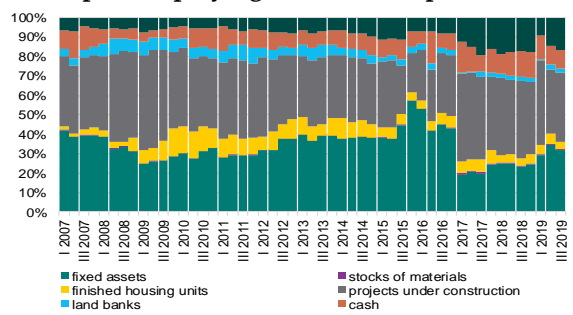
Source NBP based on Financial Statements

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



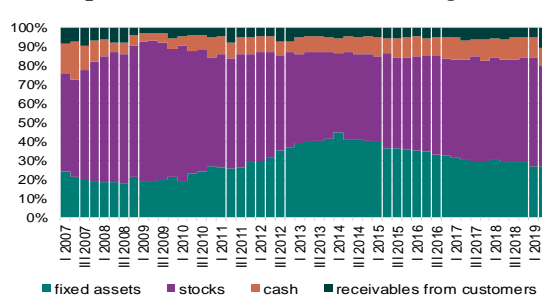
Source NBP based on GUS (F01)

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



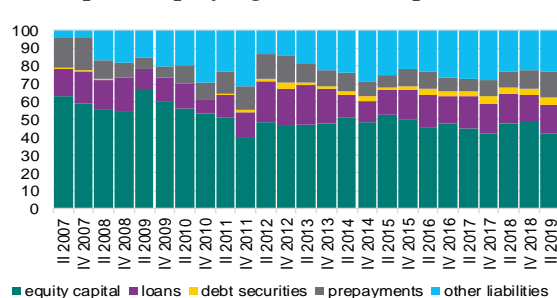
Source NBP based on GUS (F01)

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



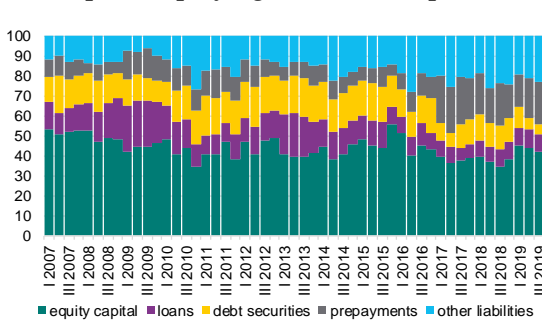
Source NBP based on Financial Statements

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



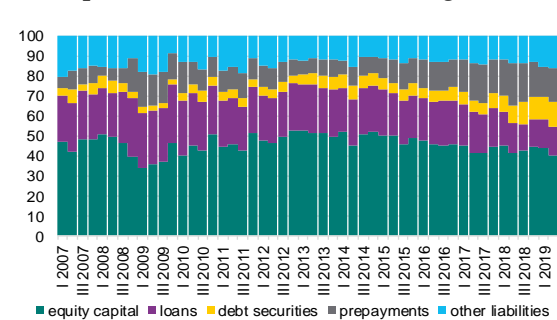
Source NBP based on GUS (F01)

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



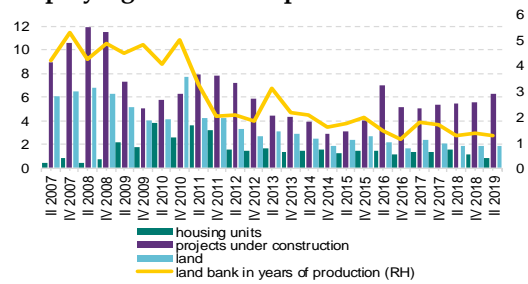
Source NBP based on GUS (F01)

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



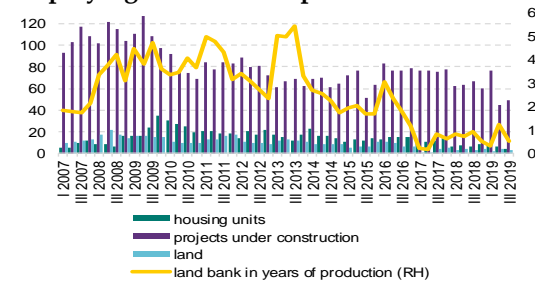
Source NBP based on Financial Statements

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



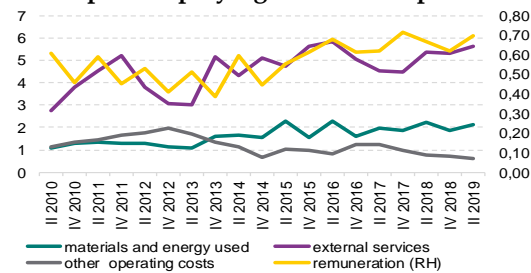
Source NBP based on GUS (F01)

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



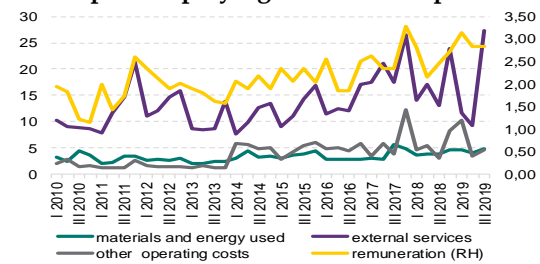
Source NBP based on GUS (F01)

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



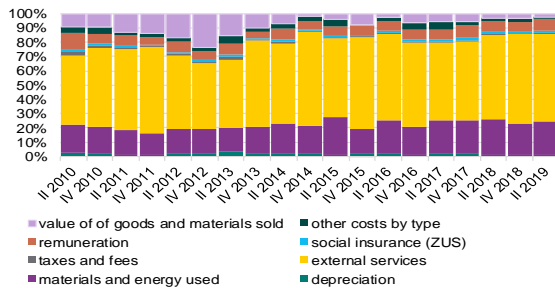
Source NBP based on GUS (F01)

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



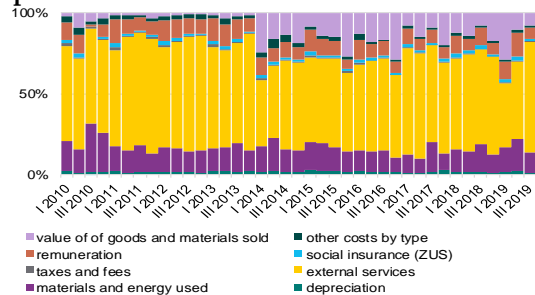
Source NBP based on GUS (F01)

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



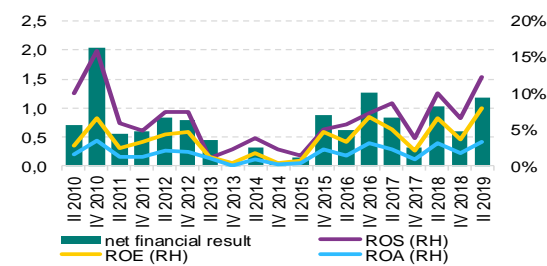
Source NBP based on GUS (F01) and Financial Statements

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



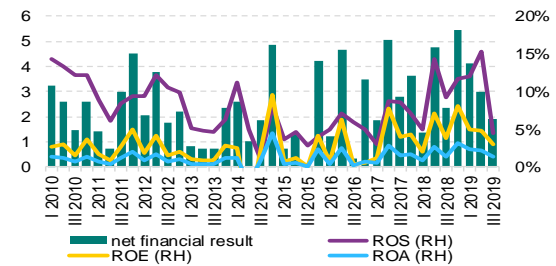
Source NBP based on GUS (F01) and Financial Statements

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



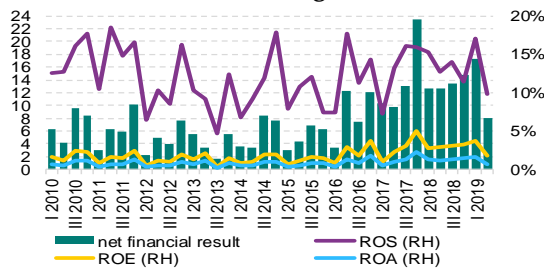
Source NBP based on GUS (F01)

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



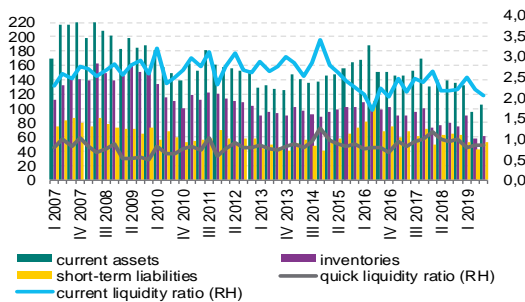
Source NBP based on GUS (F01).

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



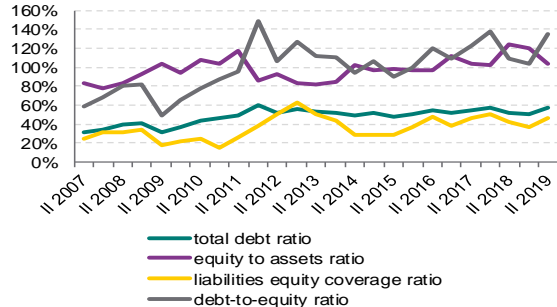
Source NBP based on Financial Statements

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



Source NBP based on GUS (F01)

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



Source NBP based on GUS (F01)

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

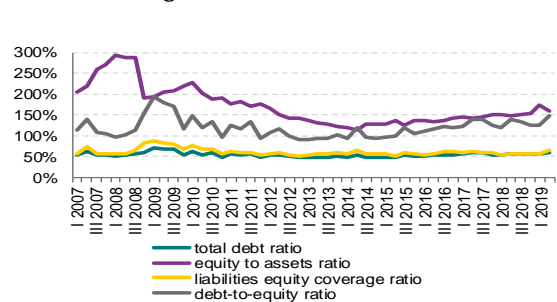
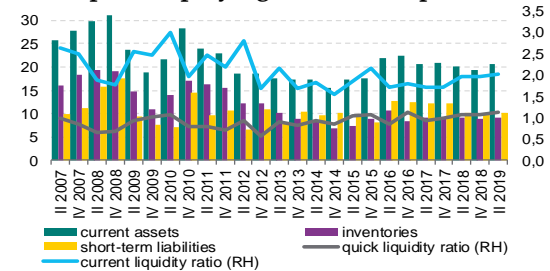
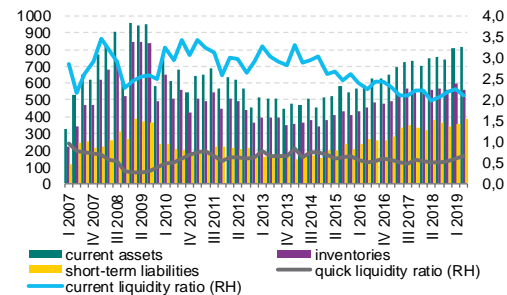


Figure 92 Liquidity ratios of real estate developers employing from 9 to 49 persons



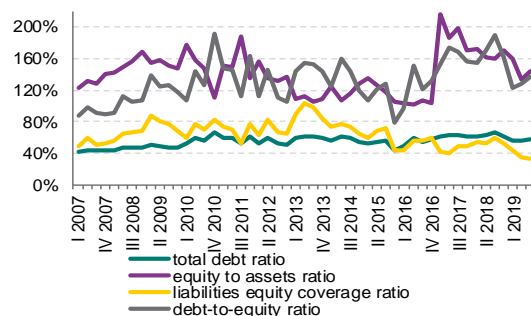
Source NBP based on GUS (F01)

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



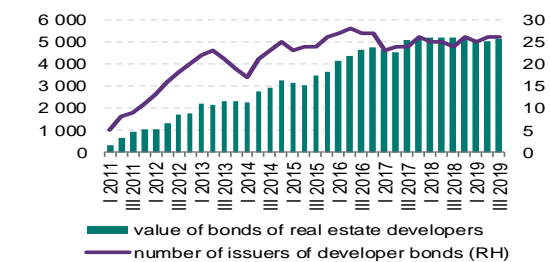
Source NBP based on Financial Statements

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



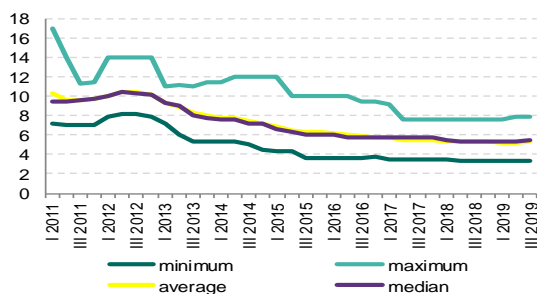
Source NBP based on GUS (F01)

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



Source NBP based on Financial Statements

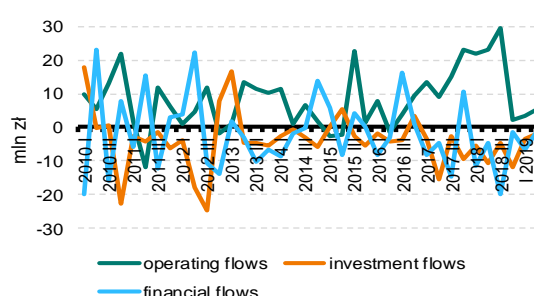
Figure 99 Interest income on bond coupons held by real estate developers listed on the Catalyst market



Source NBP based on Catalyst data

Source NBP based on Catalyst data

Figure 100 Cash flows of real estate developers listed on the Stock Exchange



Source NBP based on Financial Statements

7.2. Analysis of financial situation of construction companies³⁶

According to the Statistics Poland (GUS) in 2019 Q3, over 47% of the total sales of construction and assembly production in Poland accounted for residential and non-residential construction, with over 16% of the sales of construction and assembly production of residential buildings. In the nine-month period of 2019, as compared to the corresponding period of 2018, the demand for services in building construction and residential construction creased (an increase of over 10% and 13%, respectively, in the value of sold construction and assembly production). On the other hand, in 2019 Q3, compared to the corresponding quarter of 2018, the growth in the value of sold construction and assembly production as regards residential buildings increased (increase by over 21%); in 2019 Q2 this growth was lower and amounted to over 4% y/y.

The financial situation of larger construction companies carrying out construction works involving buildings construction is improving, however, economic indicators of smaller construction companies are more satisfactory. According to the data from the F-01 reports of larger companies providing services in building construction (employing over 49 people), total average revenues in 2019 Q3 were higher by 7% than the figures recorded in 2018 Q3, while total operating expenses increased by 5% y/y. During this period, the operating expenses to sales revenues ratio slightly improved. With no significant changes in the structure of operating expenses and the growth rate of operating expenses running below the growth rate of sales revenues, these companies generated a 39% higher net financial result which indicates that the increase in revenues resulted from the increase in prices of sold services.

In the group of smaller companies (employing from 9 to 49 people), in the first half of 2019 compared to the first half of 2018, the level of turnover remained similar and, as in the case of large companies, the profitability of the conducted activity improved. In this period, the averaged value of total revenues in the group of smaller companies was higher by 1% y/y, which, combined with overheads lower by 3% y/y, allowed to generate a 26% higher net financial result.

³⁶ Calculations and conclusions in this edition of the Information are based on data resulting from F01 reports submitted to the Statistics Poland (GUS), broken down into two groups of companies: those employing from 9 to 49 persons (data available until the first half of 2019 in half-year intervals) and those whose staff exceeds 49 persons (data available until 2019 Q3, in half-year intervals), involved in the execution of construction projects related to the construction of buildings (PKD 41.10).

In both groups of companies involved in the construction of buildings growth in financial results improved the sales profitability ratio, the return on equity (ROE) ratio and the return on assets ratio (ROA), at the same time, significantly boosting the profitability of sales in the group of large companies. Notwithstanding the above, sales profitability of large companies (over 6% in 2019 Q3) was lower than sales profitability of smaller companies (over 11% in the first half of 2019). After slight changes in the structure of assets and equity in year-on-year terms, the return on assets (ROA) ratio in the group of large companies in 2019 Q3 amounted to 2.02%, and the return on equity (ROE) ratio to 4.7%. In the first half of 2019, a higher return on assets (4.7%) and equity (8.6%) was recorded in the group of small companies.

The continuing high activity in building construction, including residential construction, is confirmed by the increase in the average nominal value of work in progress reported by the analysed construction companies. However, in 2019 in both groups of construction companies, the increase in the value of work in progress was lower than in 2017-2018.

The main source of financing is equity - 48% in the structure of liabilities of large companies and 61% in the structure of liabilities of smaller companies. Lower share of equity in the group of larger companies than in the group of smaller entities results from high share of liabilities to subcontractors of construction services in the group of large companies (37% in the structure of liabilities of large companies and 22% in the structure of liabilities of smaller companies), which suggests that large companies are in arrears with the settlement of liabilities. In 2019, the average period of payment of liabilities is longer than in 2017-2018, which confirms the deepening payment gridlocks. Construction companies pay their liabilities after having collected the amounts receivable, as evidenced by the high and growing - from quarter to quarter - nominal value of receivables from clients in the group of large construction companies, observed over the last two years (an increase by 32% in 2019 Q3 compared to 2017 Q3). In the group of smaller companies, receivables collections has slightly improved. Despite the steady increase in turnover in this group, the amount of receivables recorded at the end of the first half of 2019 was comparable to the figure recorded at the end of the first half of 2017 and much lower than at the end of both halves of 2018.

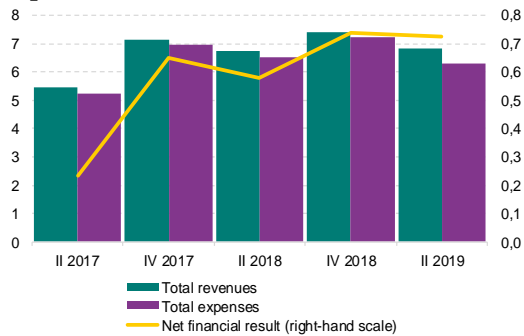
As regards external sources of financing, in both groups of companies, bank loans account for 11% to 12% in the structure of liabilities. Debt securities are the least important source of financing (from 2% to 5% in the structure of liabilities).

The reduction in the scale of the increase of costs for external services to the level of 5% as compared to the 15% increase in the value of work in progress in the group of large companies in 2019 Q3 as compared to 2018 Q3 may be indicative of lesser price pressure of subcontractors. A similar trends was observed in the group of smaller construction companies in the first half of 2019.

2019 Q3 saw the highest level of capital expenditure, in quarter-on-quarter terms, incurred since the beginning of 2017 by larger companies in the analysed sector.

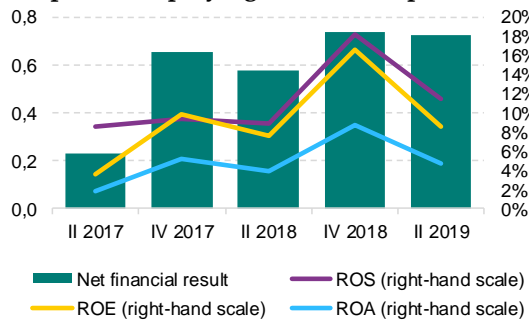
Financial liquidity remains at a similar, safe level, ensuring an amount sufficient to meet current liabilities. The total debt ratio and the debt-to-equity ratio are relatively stable and ensure the safety of funds entrusted by creditors and financial institutions.

Figure 101 Economic indicators of construction companies employing from 9 to 49 persons



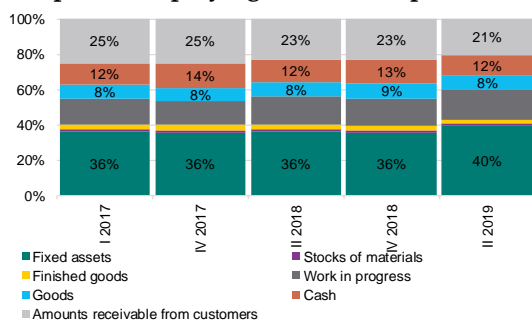
Source NBP based on GUS

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



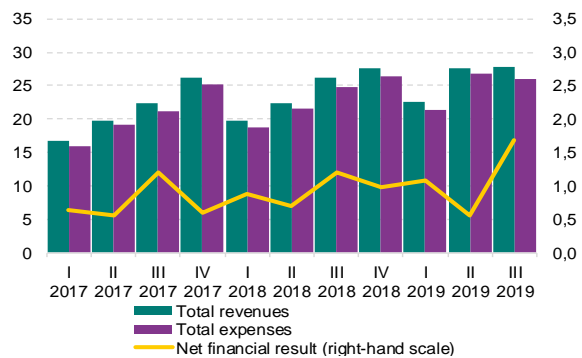
Source NBP based on GUS

Figure 105 Structure of assets of construction companies employing from 9 to 49 persons



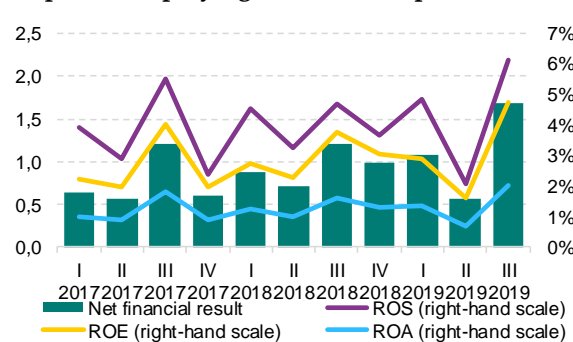
Source NBP based on GUS

Figure 102 Economic indicators of construction companies employing more than 49 persons



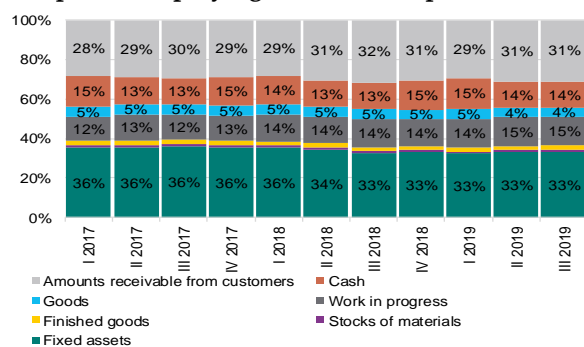
Source NBP based on GUS

Figure 104 Profitability of construction companies employing more than 49 persons



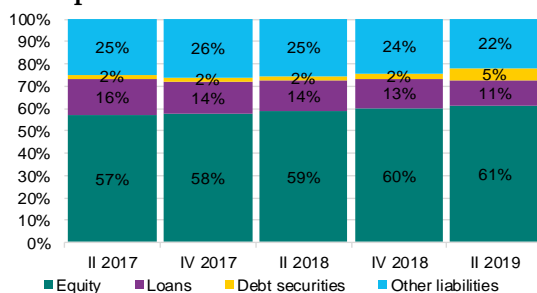
Source NBP based on GUS

Figure 106 Structure of assets of construction companies employing more than 49 persons



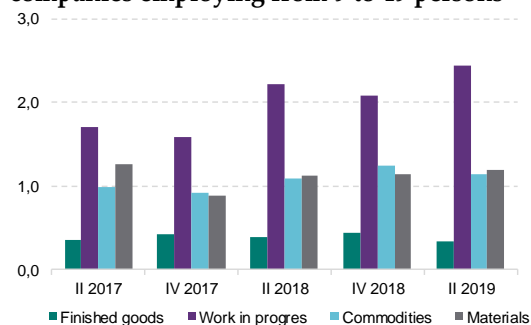
Source NBP based on GUS

Figure 107 Structure of liabilities of construction companies employing from 9 to 49 persons



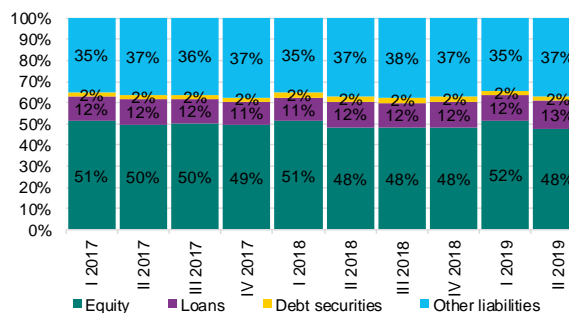
Source NBP based on GUS

Figure 109 Situation of construction companies employing from 9 to 49 persons



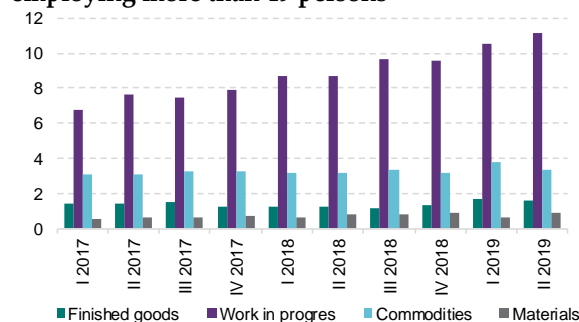
Source NBP based on GUS

Figure 108 Structure of liabilities of construction companies employing more than 49 persons



Source NBP based on GUS

Figure 110 Situation of construction companies employing more than 49 persons



Source NBP based on GUS

7.3. Analysis of financial situation of construction material suppliers ³⁷

In order to have a deeper overview of the residential real estate market the analysis **involved** the economic and financial condition of companies engaged in the sale of construction materials. The rise in the prices of materials continues to be one of the major problems in the construction industry and is largely due to growing prices of raw materials used in the production and a large order portfolio of construction materials. According to the data of the Polskie Składy Budowlane Group, prices of materials in the period from January to October 2019 compared to the corresponding period of 2018 increased by an average of 4% in eighteen product groups. The largest price increases were noted in the following product groups: walls, chimneys (by 16.7%), cement, lime (by 8.6%), house surroundings (by 6.1%), construction chemicals (by 4.3%), dry construction (by 4.0%), waterproofing (by 3.9%) paints, varnishes (by 3.4%). Price declines were observed in two product groups: thermal insulation (by 1.5%) and OSB boards (by 2.9%).

³⁷ The calculations and conclusions presented in this edition of the Information were based on data resulting from F01 reports submitted to the Statistics Poland (GUS) broken down into two groups of companies: employing from 9 to 49 persons (data available until the first half of 2019, in half-year intervals) and those with staff exceeding 49 persons (data available until 2019 Q3, in half-year intervals), which are involved in the sale of wood and construction 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 październiku 2019 r. – analiza PSB”, Grupa PSB Handel S.A., - "Change in prices of construction materials and home and garden equipment in October 2019 - PSB analysis", PSB Handel SA Group, November 2019).

The financial situation of construction materials wholesalers remains at a level similar to that recorded in the previous periods, with a slight improvement in the profitability of trading in building materials in the group of smaller companies. According to financial data, in 2019 Q3, the group of larger construction materials wholesalers (employing more than 49 people) recorded, for the second consecutive quarter, compared to the corresponding periods of 2018, a declining trend in total revenues and costs and in the net financial result, which is indicative of falling turnover. Yet, this decline was lower than in the preceding quarter (by 4% in the case of revenues and costs and 13% in the case of the financial result, respectively) than in the previous quarter (by 8% in the case of revenues and costs and 10% in the case of the financial result, respectively).

The group of smaller construction materials wholesalers (employing from 9 to 49 people), in both halves of 2018 and in the first half of 2019, saw an increase in the growth of both total revenues and costs as well as net financial result as compared to the corresponding periods a year ago. In the first half of 2019, compared to the first half of 2018, the increase in total revenues (by 12%) was slightly lower than the increase in total costs (by 13%), which allowed to generate a 26% higher net financial result.

At the end of 2019 Q3, the share of unprofitable companies in the group of large construction materials wholesalers decreased and amounted to 10% (12% at the end of 2018 Q3). Among smaller companies, the share of entities that generated losses in the first half of 2019 was 19% (25% at the end of the first half of 2018). Sales profitability ratios in both groups of companies involved in the sale of construction materials were at a similar level of approx. 4%. Smaller companies involved in the sale of construction materials records a steady improvement in the return on equity ratios which mean that enterprises use internal sources of financing more efficiently. Return on equity (ROE) and return on assets (ROA) ratios of smaller construction materials wholesalers are higher than those of large companies. Equity is the primary source of financing in companies involved in the sale of construction materials. Its share in the structure of liabilities is high and has remained at a similar level for over two years (approximately 50% in the group of large companies at the end of 2019 Q3 and 51% in the group of smaller companies at the end of the first half of 2019).

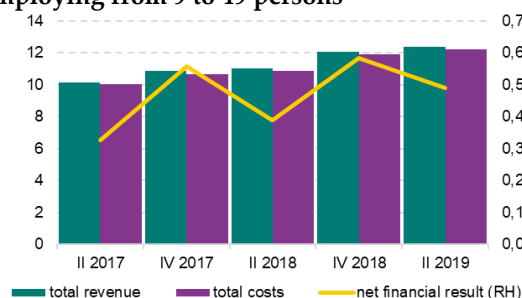
As regards external sources of financing in both groups of companies, accounts payable to producers of construction materials still account for their major part of liabilities (36%-38% shares in the structure of liabilities). The increase in the value of average receivables and their share in the structure of assets (36% in the group of large construction materials wholesalers at the end of 2019 Q3 and 37% in the group of smaller wholesalers at the end of the first half of 2019) may indicate growing problems in the timely collection of receivables from construction companies and in the payment of accounts payable to producers of construction materials. After a slight decline in the averaged value of liabilities resulting from bank loans in both groups of companies, their share in the structure of liabilities is slightly smaller and similar in both groups (14% in the group of large construction materials wholesalers at the end of 2019 Q3 and 12% in the group of smaller wholesalers at the end of the first half of 2019). Debt securities are a minor source of funding.

Financial liquidity remains at a level ensuring companies' ability to meet current liabilities.

In 2019 Q3, as compared to 2018 Q3, large construction materials wholesalers noted a 5% decrease in operating expenses, with a 8% drop in the value of goods sold and a 2% drop in the value of third party services. Wage expenses also rose (by 7%). Smaller construction materials wholesalers in the first half of 2019, compared to the corresponding period of 2018, reported an increase in operating expenses by 12%, including a 11% increase in the value of goods sold, a 18% increase in the value of third party services and a 11% increase in wage expenses.

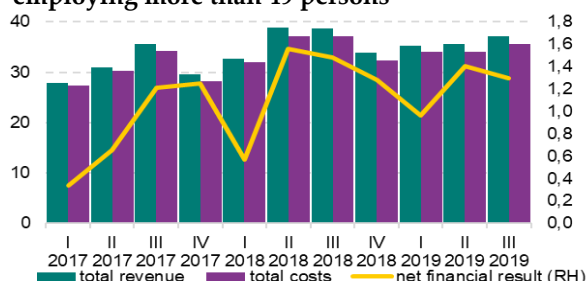
The ratio of costs from operating activities to net sales revenues in both groups remains at a hardly satisfactory but stable level.

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



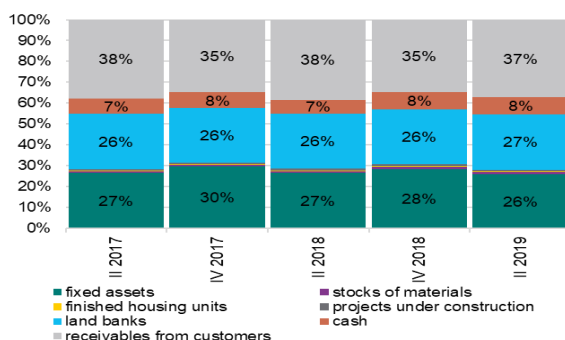
Source NBP based on GUS (F01)

Figure 112 Economic indicators of companies involved in the sale of construction materials employing more than 49 persons



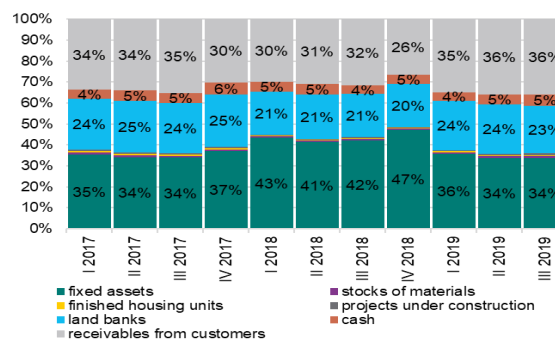
Source NBP based on GUS (F01)

Figure 113 Structure of assets of construction material suppliers employing from 9 to 49 persons



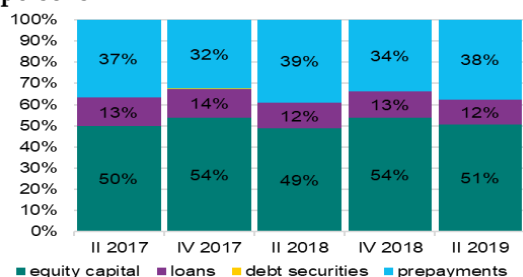
Source NBP based on GUS (F01)

Figure 114 Structure of assets of construction material suppliers employing more than 49 persons



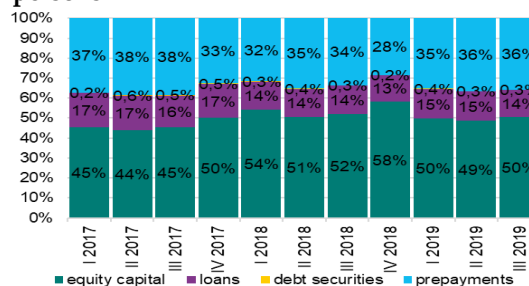
Source NBP based on GUS (F01)

Figure 115 Structure of liabilities of construction material suppliers employing from 9 to 49 persons



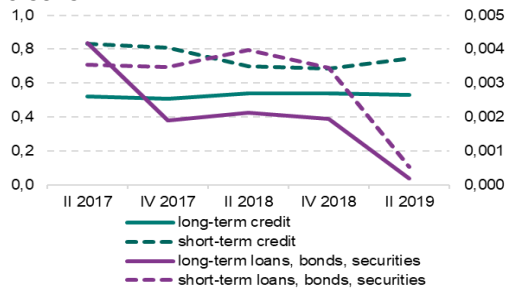
Source NBP based on GUS (F01)

Figure 116 Structure of liabilities of construction material suppliers employing more than 49 persons



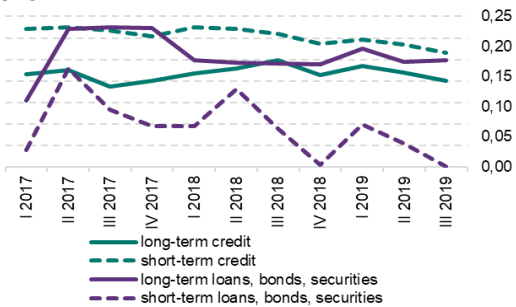
Source NBP based on GUS (F01)

Figure 117 Sources of financing of construction material suppliers employing from 9 to 49 persons



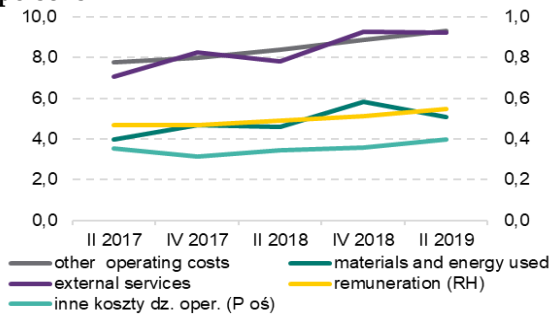
Source NBP based on GUS (F01)

Figure 118 Sources of financing of construction material suppliers employing more than 49 persons



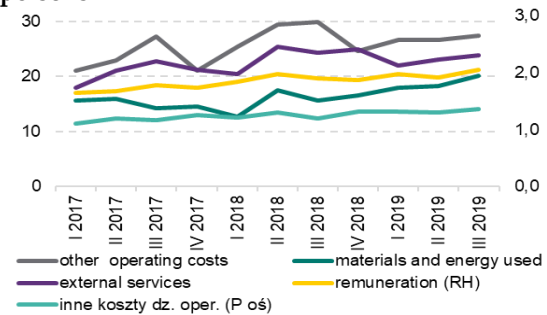
Source NBP based on GUS (F01)

Figure 119 Operating expenses of construction material producers employing from 9 to 49 persons



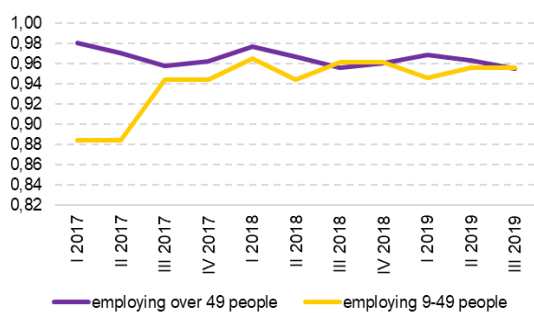
Source NBP based on GUS (F01)

Figure 120 Operating expenses of construction material producers employing more than 49 persons



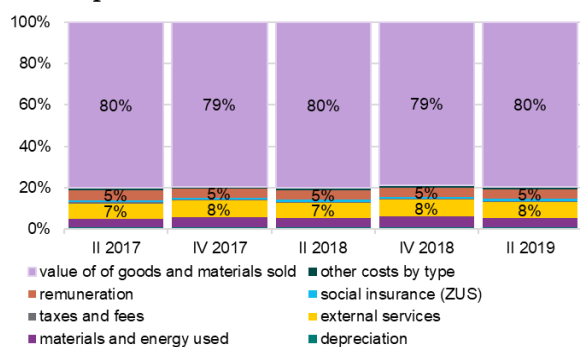
Source NBP based on GUS (F01)

Figure 121 The level of operating expenses by groups of construction material producers



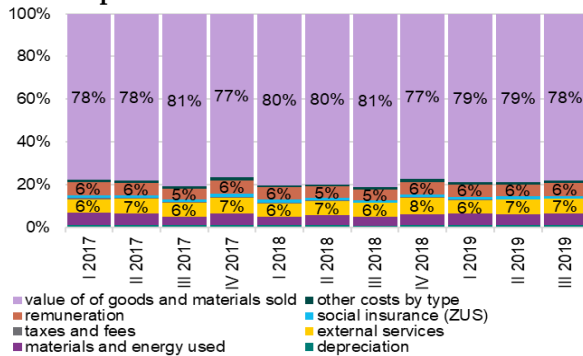
Source NBP based on GUS (F01)

Figure 122 Structure of operating costs of construction material producers employing from 9 to 49 persons



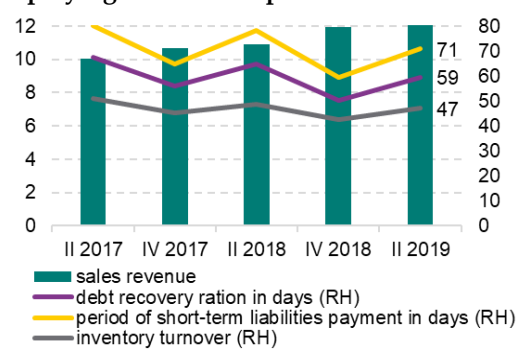
Source NBP based on GUS (F01)

Figure 123 Structure of operating costs of construction material producers employing more than 49 persons



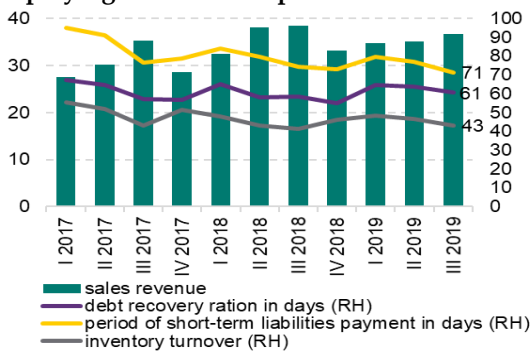
Source NBP based on GUS (F01)

Figure 124 Turnover of stock, receivables and liabilities of construction material producers employing from 9 to 49 persons



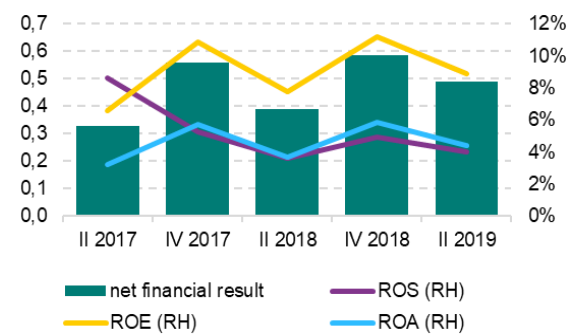
Source NBP based on GUS (F01)

Figure 125 Turnover of stock, receivables and liabilities of construction material producers employing more than 49 persons



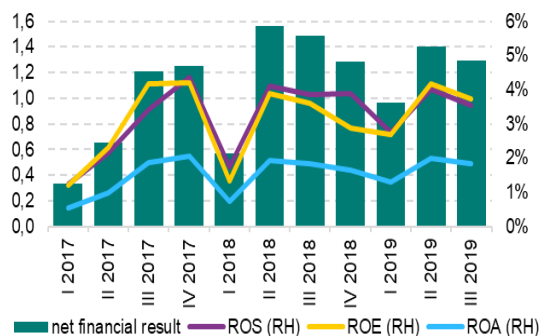
Source NBP based on GUS (F01)

Figure 126 Profitability of construction material producers employing from 9 to 49 persons



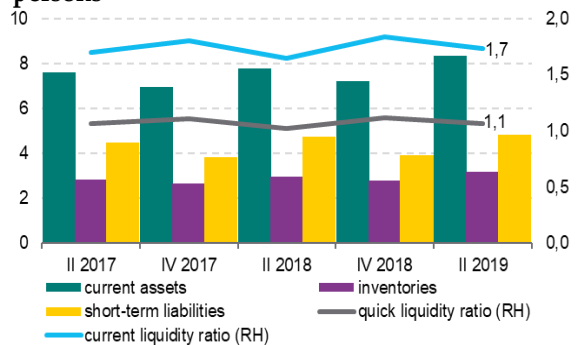
Source NBP based on GUS (F01)

Figure 127 Profitability of construction material producers employing more than 49 persons



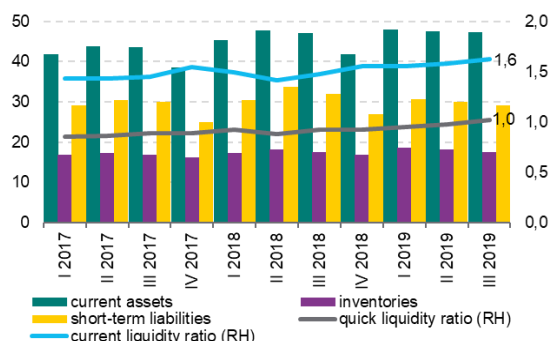
Source NBP based on GUS (F01)

Figure 128 Liquidity ratios of construction material producers employing from 9 to 49 persons



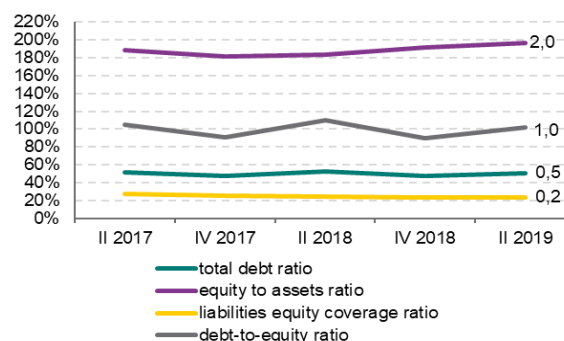
Source NBP based on GUS (F01)

Figure 129 Liquidity ratios of construction material producers employing more than 49 persons



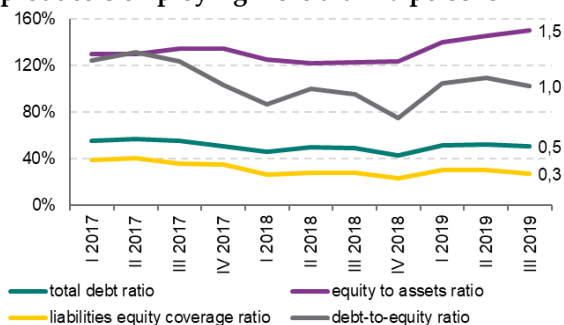
Source NBP based on GUS (F01)

Figure 130 Debt ratios of construction material producers employing from 9 to 49 persons



Source NBP based on GUS (F01)

Figure 131 Debt ratios of construction material producers employing more than 49 persons



Source NBP based on GUS (F01)

7.4. Analysis of financial situation of construction material producers ³⁸

High demand for construction materials translates into persistent growth in sales revenues, in operating expenses and in the net financial result of construction materials manufacturers. Large producers have noticeably better economic situation and achieve greater profitability on conducted operations than smaller companies.

In 2019 Q3, compared to 2018 Q3, the group of larger construction materials producers (employing over 49 people) recorded continued growth in sales revenues (by over 4%) and at a similar, slightly lower level, rise in operating expenses (approx. %), including a 4% rise in the costs of subcontracting services and a 12% rise in wage expenses. On the other hand, the averaged costs of materials and energy consumption, which account for the majority of operating costs (over 52%), decreased slightly (by over 1%). The net financial result increased by approx. 9%, which made it possible to achieve a sales profitability ratio of approx. 11% - the level similar to

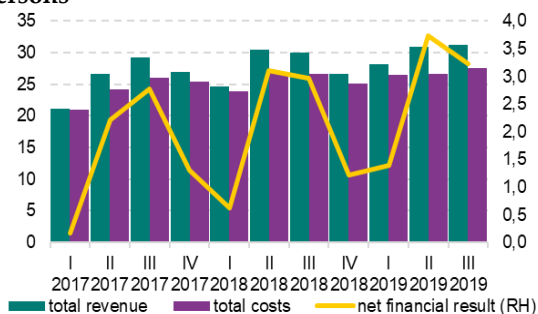
³⁸ The calculations and conclusions in this edition of the Information were based on data resulting from F01 reports submitted to the Statistics Poland (GUS) broken down into two groups of companies: those employing from 9 to 49 persons (data available until the first half of 2019, in half-year intervals) and those with staff exceeding 49 persons (data available until 2019 Q3 in half-year intervals), being manufacturers of constructions materials (PKD 1623, 2223, 2320, 2332, 2351, 2352, 2361, 2362, 2363, 2364)

the previous year's figure, the ROE ratio of 5% and ROA ratio of 3%. In this group of producers, investment outlays have continued to increase significantly for three quarters, which in 2019 Q3 increased the value of financial liabilities resulting from bank loans. The stable structure of liabilities, including stable accounts payable to service providers (22%), whose average level is lower than in other groups of the analysed companies, and a relatively low and stable share of accounts receivable from clients in the structure of assets (17%) helped to reduce the period for settling liabilities to 71 days and collecting receivables to 51 days.. Financial liquidity remains at a stable level, ensuring that current liabilities are timely settled.

In the first half of 2019 smaller companies in the industry (employing 9-49 people) recorded a much higher growth in revenues, costs and financial result compared to the same half of 2018. With an increase in sales revenues by approximately 15% and a slightly lower increase in operating expenses (by 13%), the generated net financial result was approximately 40% higher. The averaged value of all components of operating expenses increased. This included an approx. 7% increase due to the consumption of materials and energy, which is the major item in the structure of producers' costs (50%). A significant increase was recorded in wages (by approximately 16%), costs of materials and energy consumed (by approximately 7%) and third party services (by approximately 9%).

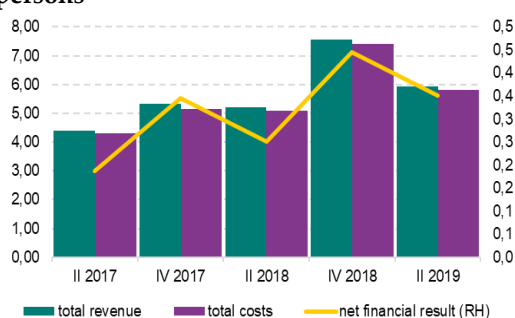
The increase in the financial result translated into an improvement in the sales profitability ratio (6%), the return on equity (ROE) ratio (8.1%) and the return on assets (ROA) ratio (4.3%). Still, sales profitability in this group is almost 50% lower than in the group of large producers. The main source of financing is equity, which persistently remain at a similar level in the structure of liabilities (56%). The larger share of liabilities to suppliers and service providers (28%) and the balance of receivables from buyers of construction materials (29%) than in the case of large producers may indicate greater payment problems in this group of companies, as evidenced by the longer average time of collecting debts (69 days) and settling short-term liabilities (84 days). The debt resulting from bank loans remains at a similar, slightly higher level (15% in the structure of liabilities). A significant reduction in the averaged value of investment outlays is indicative of reduced investment activity of smaller producers. Financial liquidity in this group as well as the equity to assets ratio and the debt to equity ratio remain at a stable and safe level.

Figure 132 Economic indicators of construction material producers employing from 9 to 49 persons



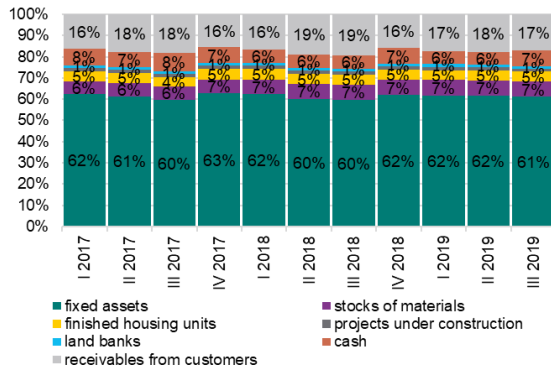
Source NBP based on GUS (F01)

Figure 133 Economic indicators of construction material producers employing more than 49 persons



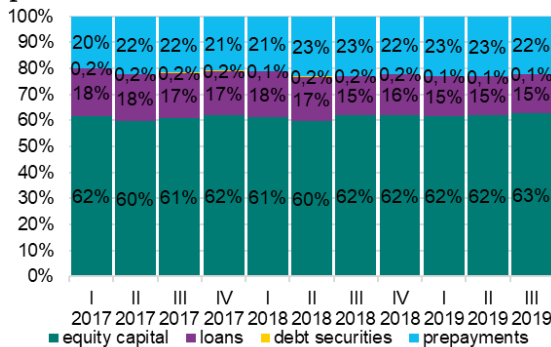
Source NBP based on GUS (F01)

Figure 134 Structure of assets of construction material producers employing more than 49 persons



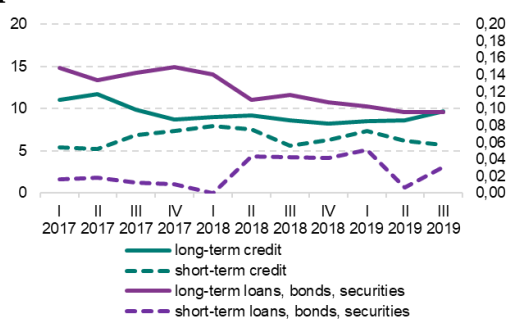
Source NBP based on GUS (F01)

Figure 136 Structure of liabilities of construction material producers employing more than 49 persons



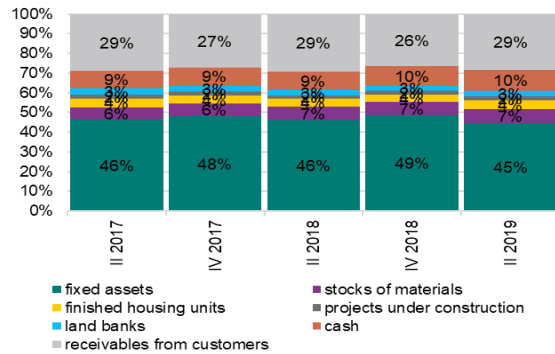
Source NBP based on GUS (F01)

Figure 138 Sources of financing of construction material producers employing more than 49 persons



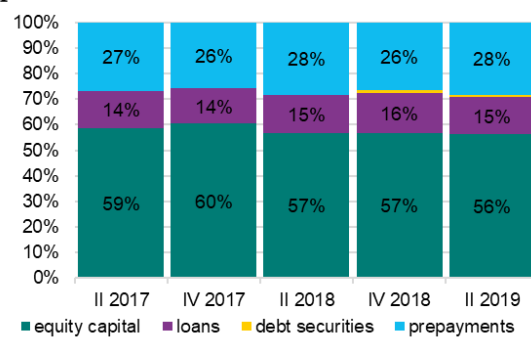
Source NBP based on GUS (F01)

Figure 135 Structure of assets of construction material producers employing from 9 to 49 persons



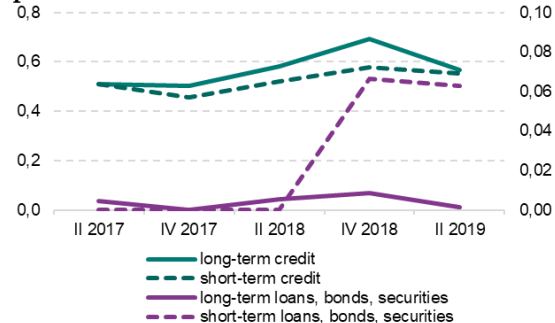
Source NBP based on GUS (F01)

Figure 137 Structure of liabilities of construction material producers employing from 9 to 49 persons



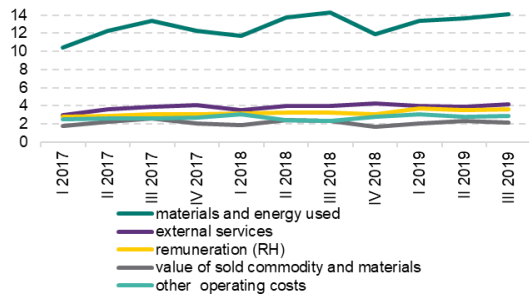
Source NBP based on GUS (F01)

Figure 139 Sources of financing of construction material producers employing from 9 to 49 persons



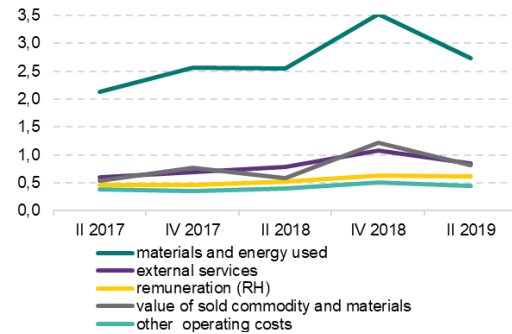
Source NBP based on GUS (F01)

Figure 140 Operating expenses of construction material producers employing more than 49 persons



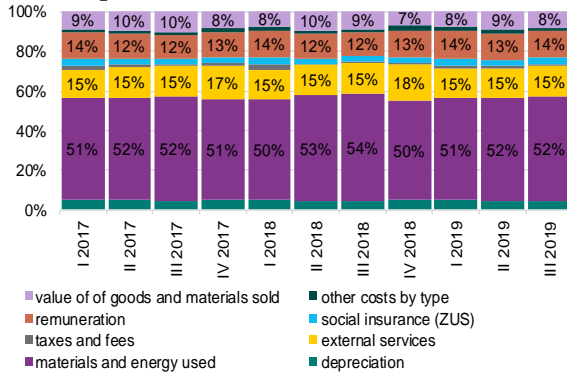
Source NBP based on GUS (F01)

Figure 141 Operating expenses of construction material producers employing from 9 to 49 persons



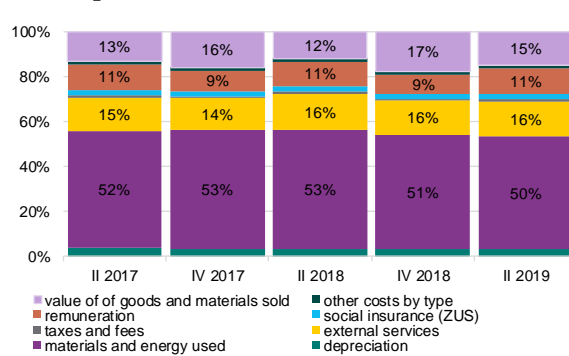
Source NBP based on GUS (F01)

Figure 142 Structure of operating expenses of construction material producers employing more than 49 persons



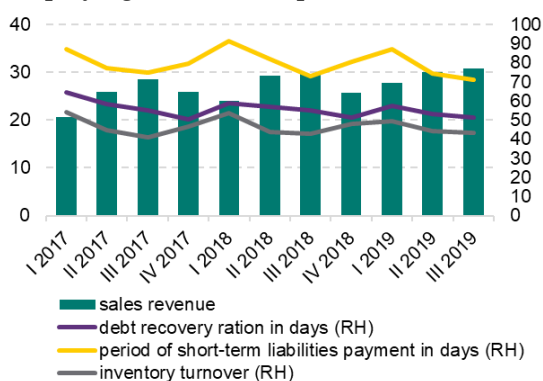
Source NBP based on GUS (F01)

Figure 143 Structure of operating expenses of construction material producers employing from 9 to 49 persons



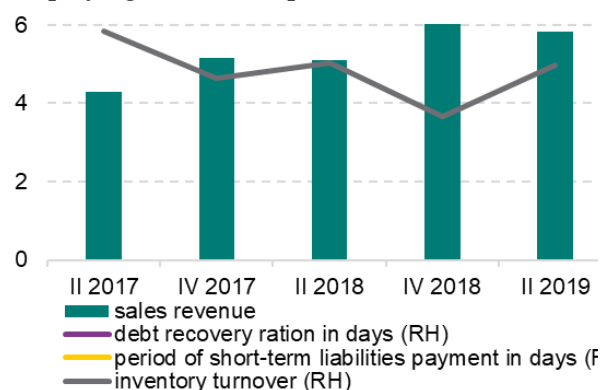
Source NBP based on GUS (F01)

Figure 144 Turnover of inventory, receivables and liabilities of construction material producers employing more than 49 persons



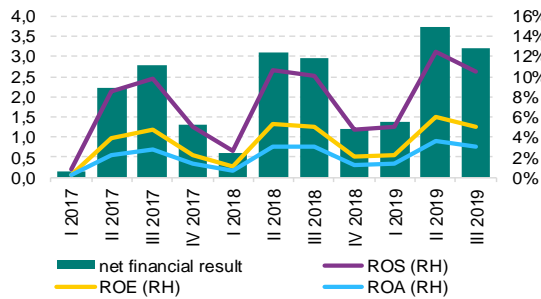
Source NBP based on GUS (F01)

Figure 145 Turnover of inventory, receivables and liabilities of construction material producers employing from 9 to 49 persons



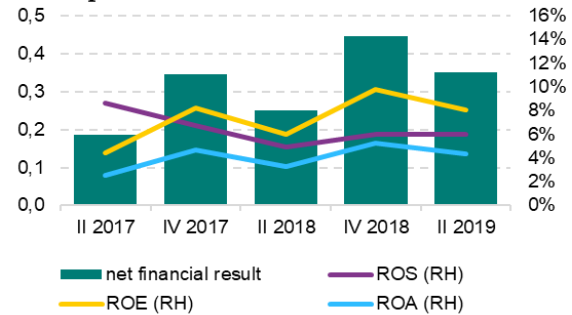
Source NBP based on GUS (F01)

Figure 146 Profitability of operations of construction material producers employing more than 49 persons



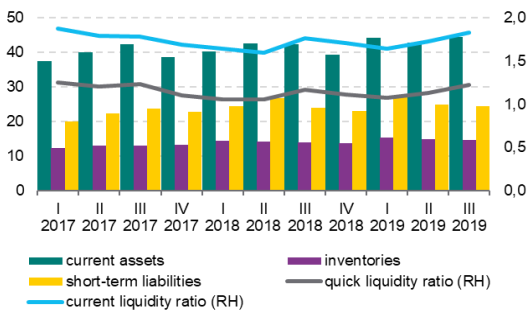
Source NBP based on GUS (F01)

Figure 147 Profitability of operations of construction material producers employing from 9 to 49 persons



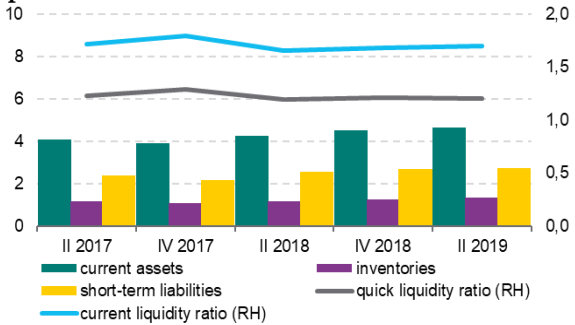
Source NBP based on GUS (F01)

Figure 148 Liquidity ratios of construction material producers employing more than 49 persons



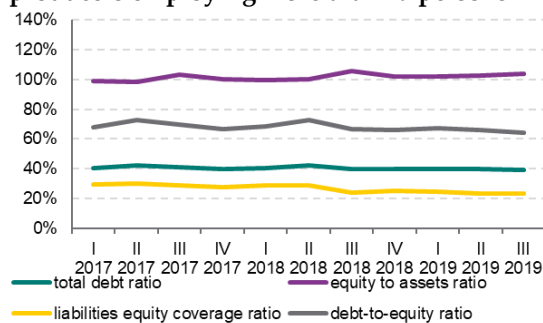
Source NBP based on GUS (F01)

Figure 149 Liquidity ratios of construction material producers employing from 9 to 49 persons



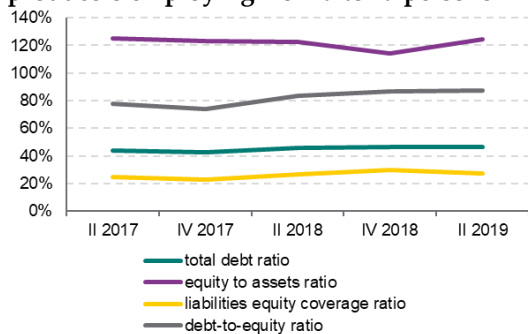
Source NBP based on GUS (F01)

Figure 150 Debt ratios of construction material producers employing more than 49 persons



Source NBP based on GUS (F01)

Figure 151 Debt ratios of construction material producers employing from 9 to 49 persons



Source NBP based on GUS (F01)

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