

The Residential Property Market During a Pandemic Period in Poland

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ABSTRACT

Purpose –The purpose of this article is to present changes in supply and demand as well as price developments in the primary residential property market of the largest agglomerations in Poland in recent years as well as the major determinants of the observed trends, both of a market and social nature.

Design/methodology/approach – The study mainly uses the method of analysis and evaluation of secondary data on the primary residential property market, coming from reports and studies, such as the National Bank of Poland, the Central Statistical Office, the Polish Bank Association, the AMRON Centre, the Polish Financial Supervision Authority. In particular, a diagnosis was made of the existing state of the housing market, taking into account its spatial analysis for the main agglomerations of Poland. Also, the main groups of factors stimulating and limiting the development of the examined segment of the real estate market were identified.

Findings – The results of the research performed clearly indicate a very high demand pressure caused by investing in residential premises/houses both cash withdrawn by purchasers from unattractive interest-bearing bank deposits and funds coming from historically today's 'cheapest' bank loans. Moreover, especially in the period of the pandemic and the associated temporary ban on movement, a strong interest in premises and houses with their own gardens and recreational plots has emerged.

Research implications – The analyses conducted imply the need for a broader study of the impact of the Covid-19 pandemic on changes taking place in the housing market and on the financing of transactions concluded in it in the long term. Furthermore, it is worth monitoring the changes taking place with regard to the risk of a price bubble and the consequences of implementing new solutions aimed at supporting activity in the housing market.

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INTRODUCTION

The property market is cyclical by nature and fluctuations are therefore inherent. However, any disturbances that occur unexpectedly have an additional impact on economic fluctuations. According to Larcker, 'The COVID-19 pandemic represents a so-called 'black swan' event that inflicted severe and unexpected damage to wide swaths of the economy' (Larcker et al., 2020). Therefore, for many researchers, it provides an interesting impetus for research into the mechanisms of the pandemic's impact on different areas of activity, including but not limited to the real estate market, and its effects. However, for the time being - due to the relatively short observation time – the literature on the subject is scarce (Tretyachenko et al., 2021).

The purpose of this study is to present the current situation in the Polish residential property market, with particular emphasis on the impact of the COVID-19 pandemic on changes in supply and demand, price formation in the primary residential market in Poland, methods of financing purchases in the residential market as well as on changes in customers' purchase preferences.

The paper is organized as follows. The following section provides a brief overview of the literature related to housing and its conditions during the COVID-19 pandemic. Next the methodology used in the study is presented. Then the test results are discussed. At the end, general conclusions were presented and some limitations related to the specificity of the presented data were indicated, as well as recommendations for further research.

In the study, the author posed the following research question: Has the COVID-19 pandemic contributed to the weakening of the housing market in Poland, as it was in the other sectors of the economy?

LITERATURE REVIEW

The shock caused by the COVID-19 epidemic serves an example of the materialisation of risk, which affects, firstly, on a global scale and almost simultaneously in many geographically distant countries, and, secondly, in different ways in various spheres, not only of economic life. Research to date indicates that the pandemic, to varying degrees and in the vast majority of situations, has a negative impact on the functioning of many market participants. „The firms in particularly exposed industries—such as restaurants, tourism, and personal services—project that they will find it extremely difficult to stay in business” (Bartic et al., 2020). In addition, there were massive layoffs, company closings, and problems with financial liquidity

and the risk of bankruptcy (e.g. Bartic et al., 2020; Golubeva, 2021; Majumder & Biswas, 2021; Jaworek et al., 2020).

Due to the unprecedented introduction of remote working and learning in many countries under the impact of the pandemic, restrictions on travel for many people and the associated reduction or abandonment of traditional shopping and leisure and tourism activities, the office property sector, some service properties (e.g., hotels and restaurants), student dormitories, large shopping malls, hotel properties and flats for rent, especially short-term rentals, have been very negatively affected by the pandemic (Tanja & Ekman Ladru, 2021; Zakharov et al., 2021).

At the same time, available statistical data and the results of conducted surveys show that the construction market and certain segments of the property market, including the residential property market, have proved - like several other spheres of activity (e.g., medical industry, broadly understood IT industry, logistics, etc.) - relatively resistant to the crisis caused by the pandemic shock, and certain markets, such as the market for houses located in well-connected locations near large agglomerations, are recording clear increases (e.g. Nuredini, 2020; Cheung et al., 2021).

Thus, coronavirus can have a huge impact on different segments of the property sector, as under its influence many of the changes taking place in the property market have greatly accelerated, due to the ability to flexibly adapt the functionalities of properties throughout their life cycle (Bloom, 2020; Francke & Korevaar, 2021; Sitian & Su, 2021).

In the literature on the subject, there are more and more studies on the impact of the pandemic on the real estate markets in the world (e.g. Balemi, 2021) and in individual countries, incl. euro area (Battistini et al., 2021), USA (Layser et al. 2020, Anenberg, Scharlemann, 2021; Li, Zhang, 2021), China (Cheung et al., 2021), India (Mishra, 2021a, 2021b); United Kingdom (Bricongne et al., 2021), France (*Le marché ...*, 2020), Turkey (Tanrivermiş, 2020; Aliefendioğlu et al., 2021), Kazakhstan (Aliefendioğlu et al., 2021), Ireland (Allen-Coghlan & McQuinn. 2021) etc. Francke and Korevaary (2021) look for answers to the question How are housing markets responding to the outbreak of a great pandemic? by analyzing unique transaction and mortality data around the historic outbreaks of the plague in Amsterdam and the cholera in Paris. Also of interest are articles that provide a „comprehensive review of the literature on the latest academic insights into the impact of this pandemic on the housing, commercial and mortgage markets” (Balemi et al., 2021; Kaklauskas et al., 2021).

RESEARCH METHODOLOGY

The study is based on information obtained from statistical sources including the databases of the Central Statistical Office, the National Bank of Poland, the Polish Financial Supervision Authority, the Polish Bank Association as well as cyclical reports published by consulting companies such as, for instance, Colliers International, Jll, or the AMRON Centre.

The information covers: 1) The situation on the residential property market in Poland in 2000-1H2021; 2) Transaction prices of residential property in Poland and major agglomerations in 2000-1H2021; 3) The level of supply and demand and the so-called exposure period of flats on the market in major agglomerations in 2011-1H2021, 4) Changes in prices of selected components of residential construction costs in recent years; 5) The level of mortgage debt in 2006-1H2021; 6) The rate of the so-called cash purchases in 2014-2021.

The study uses such methods as statistical and economic analysis, including the method of comparative analysis, synthesis and the method of measurement and aggregation of data, as well as the graphical and tabular method. The information on the housing market used in the study was obtained by the author from a preliminary search of scientific literature on the subject and the latest statistical data available.

RESULTS & DISCUSSION

A historical look at the dynamics of housing construction in Poland between 2000 and 2020, taking into account its four most important parameters, namely the number of dwellings:

- the permits of which have been granted or notifications with a construction design have been submitted,
- the construction of which has commenced,
- which have been put to use,
- under construction,

allows us to conclude that in recent years, all of the aforementioned volumes have reached higher levels than in the record-breaking 2007 and 2008, just before the outbreak of the global financial crisis in the first decade of the 21st century. A clear upward trend in the residential property market has been visible especially since 2017, when the record number of 250,000 dwellings for which construction permits were issued (or a notification with a construction project was made) reached ten years earlier (i.e., in 2007) was exceeded (Fig. 1).

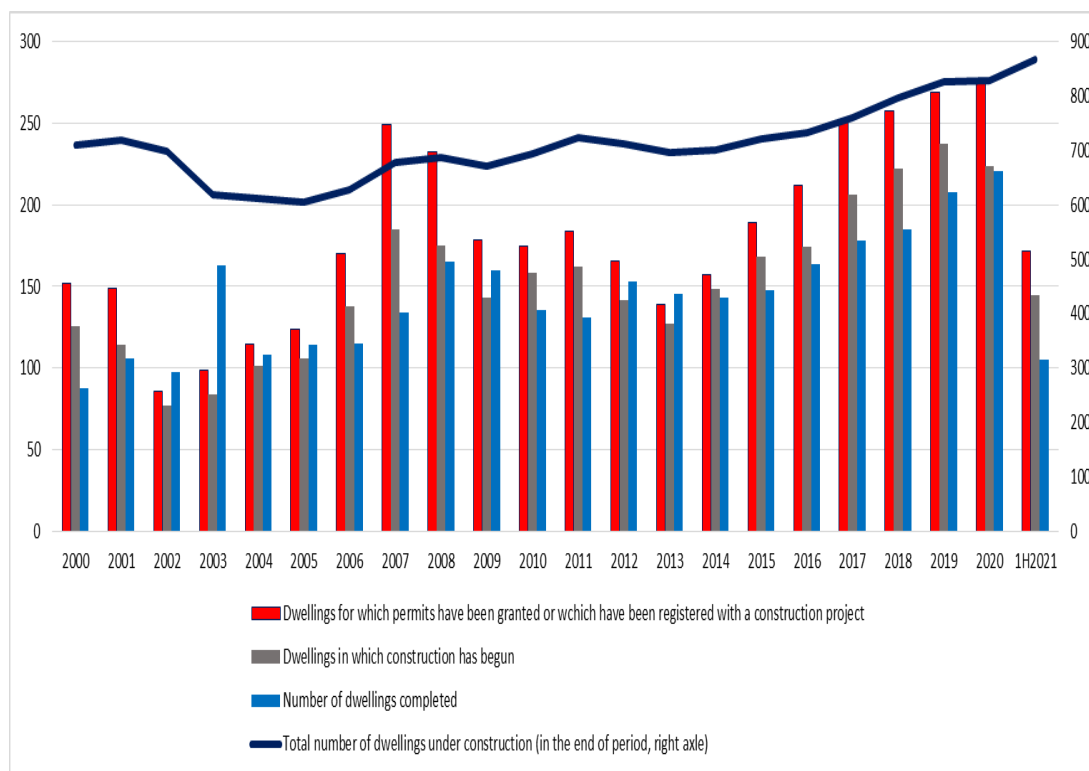


Figure 1. Housing construction in Poland in the years 2000-1H2021 (in thousands)

Source: own development based on (Central Statistical Office of Poland, <https://bdm.stat.gov.pl/available> on: 04 September 2021).

According to the data of the Central Statistical Office, the price of one square meter of usable floor area of a residential building put into use has been constantly growing over the period in question, and it is worth noting that the dynamics of this growth was the highest in the aforementioned years 2007-2008 and since the beginning of 2018 (Figure 2). This means that during periods of recovery in the housing market, together with an increase in demand for dwellings, their prices also increase markedly.

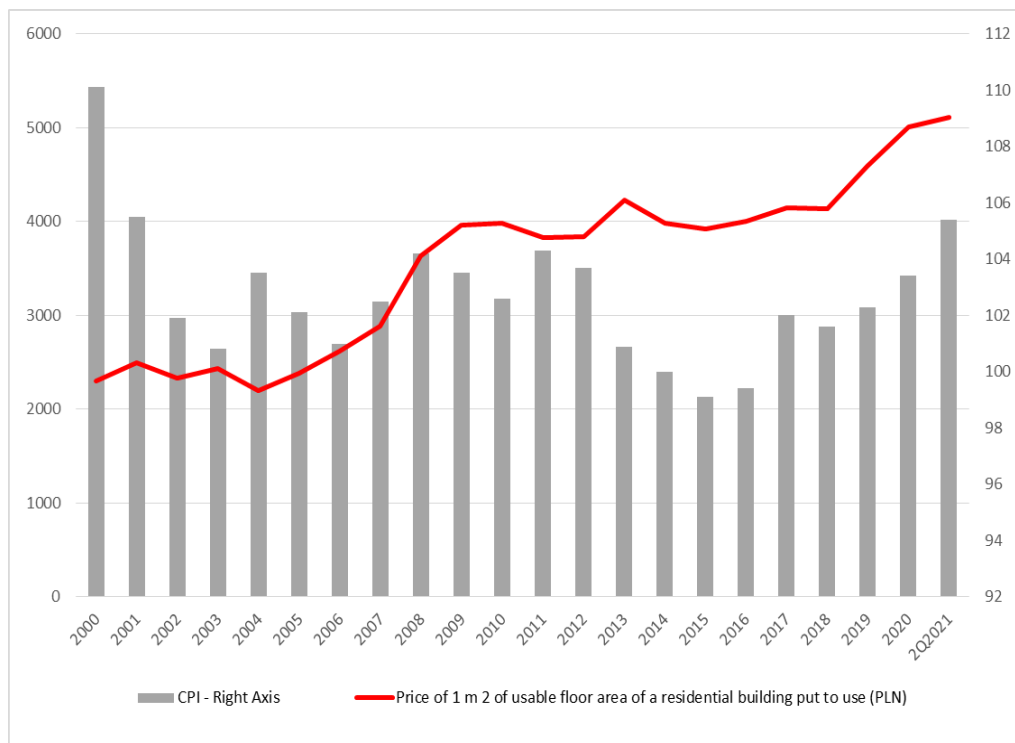


Figure 2. Price of 1 m² of usable floor area of a residential building put to use (PLN) vs. inflation rate (%) in 2000-2Q2021

Source: own development based on (Central Statistical Office of Poland, <https://stat.gov.pl/available on: 04 September 2021>).

A closer look at changes in prices of dwellings, especially in the largest agglomerations where developers implement the greatest number of new residential projects, shows that they are much higher than the average prices of usable floor area of a dwelling given for the whole Poland (Fig. 3). The upward trend of prices of flats is also confirmed by experts of the National Bank of Poland (NBP) and JLL, pointing to, among others, continuous increases of both prices of newly launched flats and average prices of sold flats (NBP, 2021b). One exception in particular was the second quarter of 2020, when the Covid-19 pandemic began in earnest, resulting in a very noticeable pause in investment decisions and reduced purchases, which in turn slowed down the pressure on developers to raise the prices of the flats on offer. However, it appears that after this transitional, highly uncertain period of the pandemic, from April to December 2020, both demand and prices in the residential property market returned to their upward trends, often exceeding pre-pandemic levels (Fig. 3 & 4; JLL, 2021c). In Q2 2021, the highest increases in the average residential price compared to the corresponding period of 2020

were recorded in Cracow, Warsaw and Gdańsk - by 10.99%, 9.57% and 9.37% respectively (AMRON 2021).

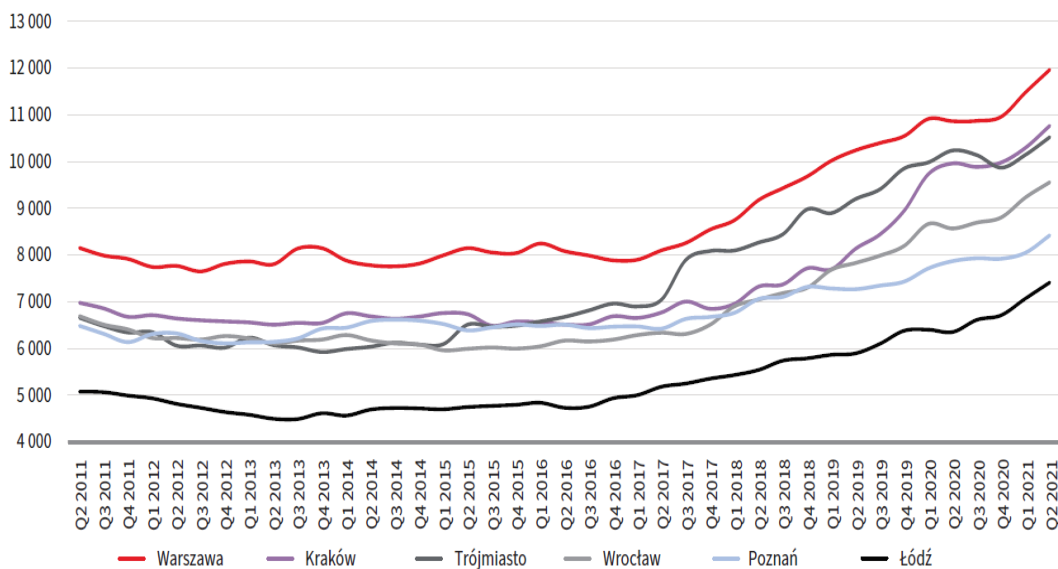


Figure 3. Average prices of flats offered on the primary market (PLN/m², including VAT, developers' standard) in 2011-2Q2021

Source: (JLL, 2021c).

The pricing policy of many developers bringing a new supply of flats to the market from the beginning of 2021 is very dynamic and prices are rising steadily from quarter to quarter. This trend triggers certain behaviours on both the demand and supply side, namely:

- on the demand side, buying flats often without looking at them and without postponing the decision to buy and buying more of them,
- on the supply side, the developers put on sale a specific pool of units rather than the whole project in order to monitor the pace of sales and the level of acceptance of the proposed price.

Comparing supply and demand in the residential property market in the largest agglomerations of Poland, it is clearly visible that, especially recently, supply has not kept up with demand, which is confirmed by the aforementioned growing prices, but also by the clearly decreasing pool of flats available in the primary market offer, which at the end of the first half of 2021 decreased to the lowest level in over a decade, *i.e.*, 37,800 dwellings. The average sell-out period, monitored by the aforementioned JLL experts, amounts to about two quarters, while in the situation of demand and supply

balance, it is assumed to amount to four quarters (Fig. 4; JLL, 2021c, NBP, 2020a, p. 50; NBP, 2021b, p. 2; JLL 2021d).



Figure 4. Quarterly supply and demand relationship (aggregation for the following markets: Warsaw, Cracow, Wrocław, Tricity, Poznań and Łódź) in 2011-2Q2021

Source: (JLL, 2021c).

The main reasons for the current situation in the housing market in Poland as presented above include in particular (PKO BP, 2021a; PKO BP, 2021b; PKO BP, 2021c; GUS, 2021c):

- strong demand pressure to purchase flats resulting also from the persistence of very low interest rates for a relatively long period of time and rising inflation, mainly in order to protect one's savings (storehouse premise),
- availability of housing loans and their low interest rates,
- significant increase in prices of raw materials and materials used in construction (e.g., steel, cement, construction chemicals, wood, fuels and energy, etc.; NBP, 2021b, p. 19 et seq) and labour costs (e.g., in connection with the increase of the minimum wage level by the government; Fig. 5),
- an increase in the price of land intended for development, especially in attractive locations, resulting from the shrinkage of land banks,
- the implementation from 2021 of a new law on higher energy efficiency requirements for buildings (Journal of Laws of 2021, item 497) and further regulations under the so-called Green Deal of the European

Union, which, according to many experts, will increase the cost of construction and maintenance of buildings,

- increased interest in institutional rental, especially by investors with foreign capital, as part of a new market segment - PRS, which is fostered - in pandemic conditions - by the search for relatively safe assets, which are considered to be residential premises (JLLa; 2021; PKO BP, 2021c; NBP, 2021b).

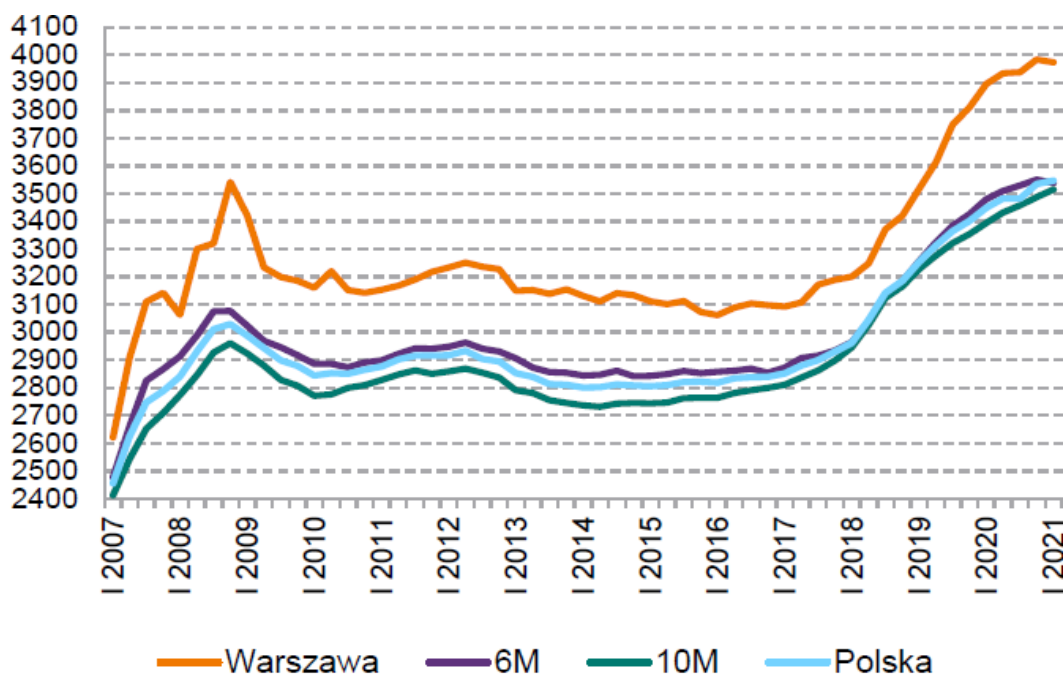


Figure 5. Average construction cost of 1 m² of usable floor area of a residential building in selected markets (PLN)

Source: (NBP, 2021b, s. 20).

SEKOCENBUD experts forecast that in the next two years, *i.e.*, in the period 2022-2023, the prices of construction of flats and houses, excluding the costs of land purchase, will increase by further approximately 3-4% compared to the price level from Q1 2021, mainly due to the continuing high wage pressure and a large increase in the rental rates for construction equipment, with relatively slower growth in the prices of some materials (Fig. 6; PKO BP, 2021b).

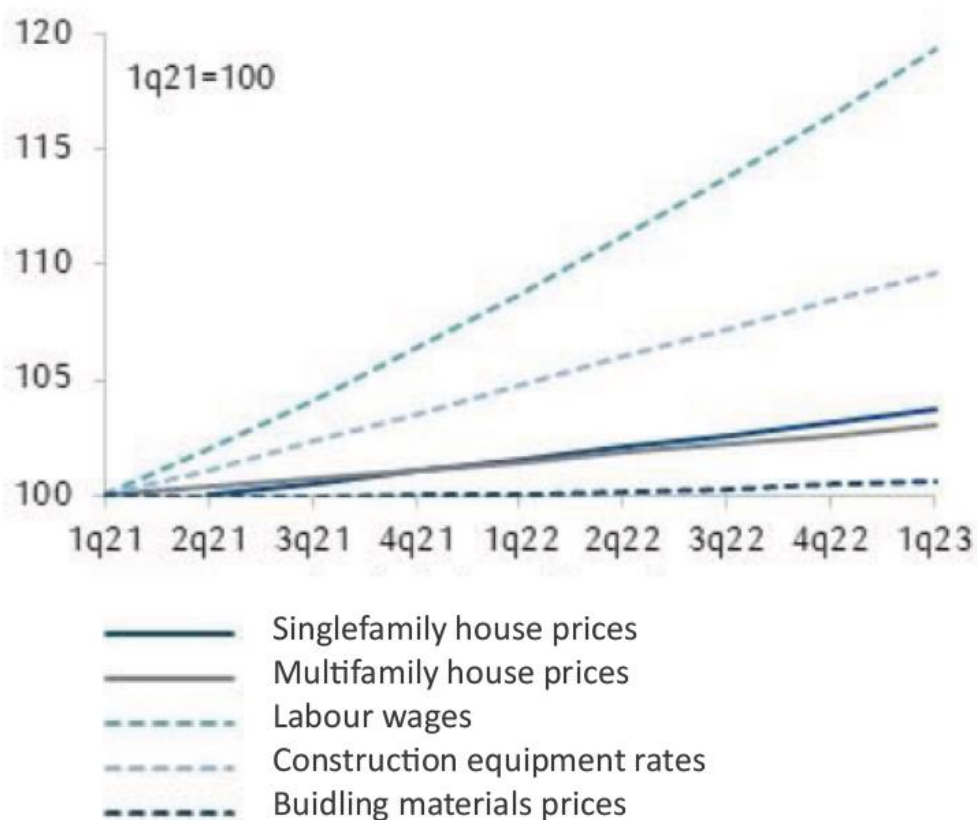


Figure 6. Forecast of prices of residential buildings, labour rates, prices of materials and equipment according to SEKOCENBUD

Source: (PKO BP, 2021c, p. 18).

Another extremely important and rapidly increasing component of residential property construction costs is energy prices, which, according to the CSO, increased by 11.7% in December 2020 compared to December 2019 prices and by a further 9.5% through the first half of 2021 (GUS, 2021d; GUS, 2021e). This alarmingly fast increase in the price of electricity is related to the drastic recent increases in the price of CO₂ emission allowances, which at the beginning of 2018 was around 8 euros/tonne, and at the beginning of September 2021 exceeded the level of 60 euros/tonne of CO₂ emission allowances (CIRE, 2021). This makes energy costs a huge burden for many sectors of the national economy and for household budgets (Fig. 7).



**Figure 7. Prices of CO2 emission allowances
from 1.04.2016 to 9.07.2021 (euro/t)**

Source: (<https://handel-emisjami-co2.cire.pl/>, 12.07.2021).

The previously mentioned constraints related to the scarcity of available investment land, are mainly due to:

- the Act of 14 April 2016 on the suspension of the sale of properties of the Agricultural Property Stock of the State Treasury and on the amendment of certain acts, which prevents the purchase of agricultural land from the state resources with an area of more than 2 hectares (i.e., Journal of Laws of 2018, item 869, as amended),
- the lack of a sufficient stock of land covered by spatial development plans that allow various investment projects, including housing, to be carried out in an orderly manner in a given area. According to the research of the Committee for Spatial Planning of the Country of the Polish Academy of Sciences, only about 30.5% of the area of Poland is covered by the mentioned plans (Śleszyński et al., 2018; Krajewska et al., 2021).

The accumulation of numerous investment projects in various segments of the property market (residential, office, logistic-industrial, roads, etc.) causes that, with the aforementioned restrictions, the problems of land

availability increase, especially in attractive locations (e.g.: JLL 2021d). The shrinking supply of investment land is exacerbated by an increase in land prices, which has not slowed down in 2020 with the introduction of COVID-19 restrictions. According to experts from PKO BP, 'the number of registered notarial deeds (...) increased, particularly for land for residential developments outside cities (by 6% y/y). (...) Furthermore, the epidemic, enforcing restrictions on movement, caused a renaissance of interest in recreational plots (and second homes), whose prices rose (by 14% y/y). According to the NBP's cyclical survey of developers, in 2020 net land prices for multifamily residential projects increased by an average of 13% y/y in average locations and by 22% y/y in very good locations,' the report reads. (Real Estate Land Analyses, PKO BP, 6 May 2021, p. 2). In practice, developers implement residential projects in such a way that - depending on the attractiveness of their location, the development of the land and the number of storeys - the cost of the land constitutes about 12-23% of the total cost of constructing the facility, although there are such valuable locations that this level is exceeded (PKO BP, 2021c).

Moreover, it is worth noting that due to the difficulties in acquiring land, some developers, especially those who do not have land banks at a satisfactory level, are forced to acquire the so-called 'difficult land', often with legal defects, which require additional expenses and time to adapt them to the investment needs (Krajewska, 2017; Colliers International, 2020, p. 5).

In turn, the aforementioned increase in interest in the construction of single-family homes is particularly evidenced by the number of:

- individual houses with construction starts, amounting in the first half of 2021 to 54,274 (houses), which is 22.3% more than in the corresponding period of 2020,
- construction permits for individual houses issued in the first half of 2021 amounting to 60,386 or 28.9% more than in the corresponding period of 2020, and for the whole of 2020 the increase was 6.6% compared to 2019. (GUS, 2020, 2021a; Kazimierczak, 2021).

According to the developers surveyed by the NBP in 2020, the most significant factors that could have an impact on the slowdown in housing demand include:

- 'an unexpected decline in consumer sentiment,
 - deterioration of the situation on the labour market,
 - reduced purchasing capacity,
 - tightening of criteria for granting credit to buyers,
 - further increase in housing prices exceeding the increase in salaries,
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- a change in buyers' preferences and their outflow to the secondary market, and
- decrease in profitability of purchase for lease" (NBP, 2021a, pp. 33-34).

In turn, on the supply side, the main destimulants of residential market development in 2020 and 2021, the surveyed developers included administrative barriers related to delays in procedures for obtaining building permits and land use conversions, etc., and the mentioned difficulties in acquiring attractive land.

During the COVID-19 pandemic, the financing of residential property purchases by individuals took place similarly to previous years, i.e., both with the investor's own funds and with the participation of mortgage loans. At the same time, as the experts of the AMRON Centre point out - the results of lending in the period of the COVID-19 pandemic are very impressive with the exception of the second quarter of 2020, in which both banks and customers greatly reduced credit activity. Indeed, during this period 14,142 fewer loan agreements were concluded than in the corresponding period of 2019 (a decrease of 23.84%), while their value was lower by PLN 2.972 billion (a decrease of 18.07%) than in Q2 2019. On the other hand, however, in the following quarters of 2020 and 2021, the housing loan market developed very dynamically, achieving impressive results both in terms of the number and value of newly granted loans. In particular Q2 2021 brought very good results in the form of the highest number of newly granted loans since the subprime crisis in 2008, amounting to over 67 thousand agreements (over 17% more than in Q1 2021) with a value of over PLN 22 billion (i.e., over 23% more than in Q1 2021 and over 64% more than in Q2 2020). The source of such a good situation in the housing loan sector is, in particular, a very high increase in the demand for loans resulting to a large extent from the near-zero level of interest rates, with the simultaneous loosening of lending policies by banks, especially in terms of the requirements for own contribution. The total amount of debt from housing loans taken out reached PLN 486 billion at the halfway point of 2021, and the number of active loan agreements exceeded 2.5 million (Figure 8). Importantly, despite earlier fears in the initial pandemic period, it turned out that the quality of the housing loan portfolio not only did not deteriorate, but improved, which was the result of two measures in particular, namely:

- 'threefold reduction of interest rates by the Monetary Policy Council in 2020 to the level of 0.1% (the level of the NBP reference rate),
 - the credit moratorium announced by banks, which was used by every tenth borrower' (AMRON, 2021a, p. 5).
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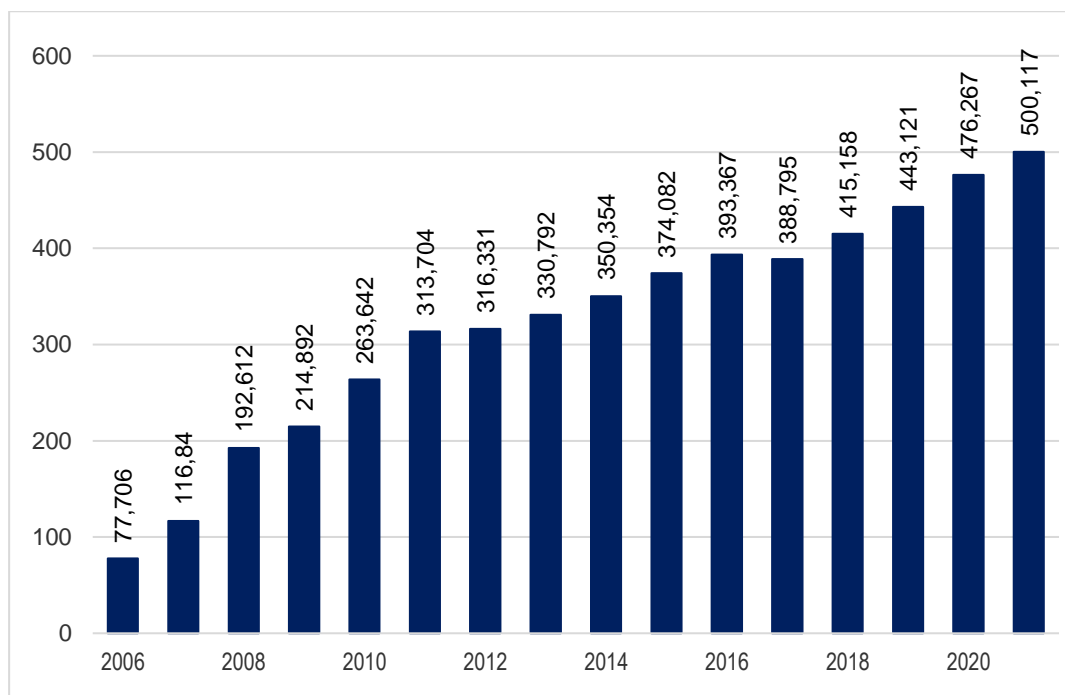


Figure 8. Level of total household debt under housing loans in 2006-3Q2021 in PLN billion

Source: (Amron, 2021a, p. 8; 2021b, p. 7).

According to cyclical estimates of the National Bank of Poland, the so-called 'cash' purchases in the primary residential market of the seven largest agglomerations in Poland (Warsaw, Kraków, Gdańsk, Gdynia, Wrocław, Łódź, Poznań) have in the recent years been at the level of approximately 60-70%, with a slight decrease in 2020 (in Q2 2020, this level dropped drastically to 31% due to a slump in residential sales recorded at that time), but in Q1 2021, they returned to the pre-pandemic level (Fig. 9; NBP, 2020b, p. 18.).

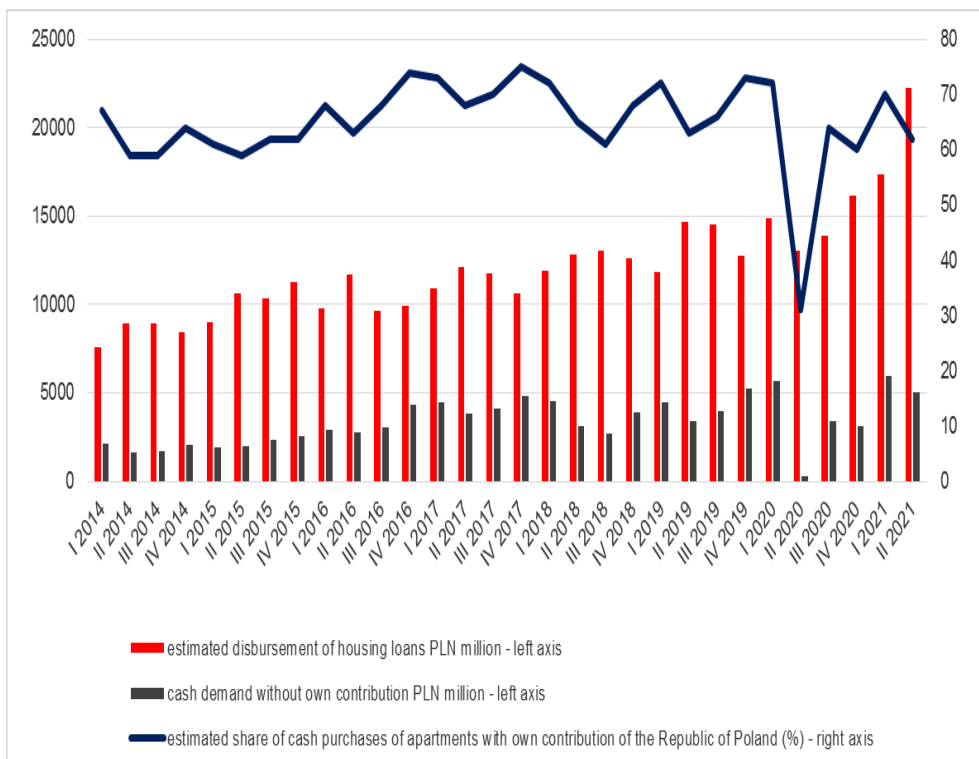


Figure 9. Estimated housing loan disbursements and cash demand in the primary market in the seven largest cities in Poland (in millions of PLN) and the share of cash purchases of flats (%) in 2014-2Q2021

Source: own compilation based on: (NBP, 2018, p. 18; 2021b, p. 17; 2021c, p. 16).

At this point it is worth noting the interest rate risk associated with the housing loans in question over the life of the loan agreement. Until September 2021 historically lowest level of interest rates (Figure 10) strongly stimulates the demand for mortgage loans, which, with the significantly rising inflation rate (in August 2021, consumer prices increased by 5.5% compared to the price level in August 2020, *i.e.*, more than twice as much as the NBP inflation target, *cf.*: GUS 2021b) may bring an increase in interest in purchasing housing to protect savings from a decline in the purchasing power of money (Kuligowska, 2021; PKO BP, 2021c; NBP, 2021b, p. 44 and next).

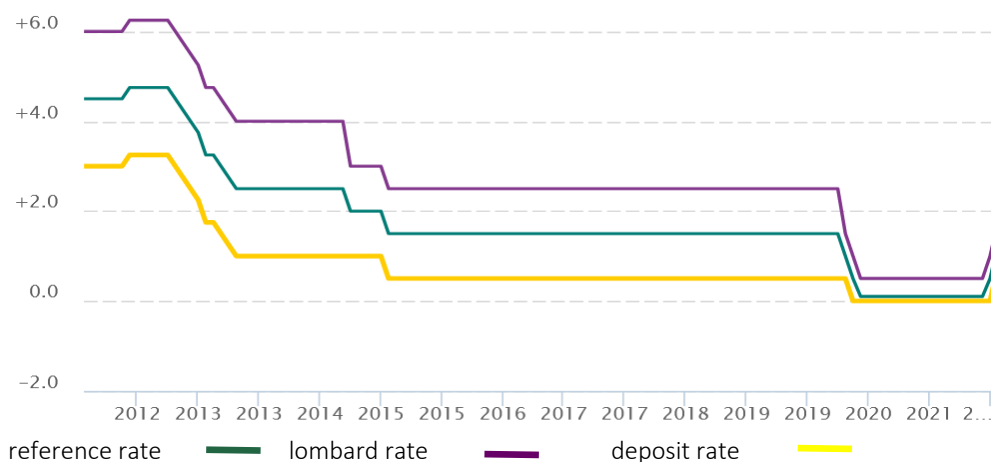


Figure 10. NBP base rates over the last 10 years (as of 10.12.2021)

Source: (<https://www.nbp.pl/>, 10.12.2021).

Dwellings purchased, often with the help of a mortgage, as the equivalent of a capital investment to protect the value of savings, may become a source of many financial troubles for both households and the banking sector involved in financing these purchases (JLL, 2021b, p. 9). This is because if they are intended to be rented out, they may turn out to be a very risky investment in the period of the pandemic due to the significant deterioration in the profitability of short-term rentals in particular. According to NBP experts, 'restrictions on population movements introduced in 2020 in connection with the COVID-19 pandemic caused a sudden and significant downturn in the housing rental market, which resulted in a sharp increase in vacancy rates, a drop in rental income and an increase in competition among landlords and a downward adjustment of rental rates. The remote pursuit of studies made it possible for students renting rooms or flats to give up their tenancy, which 'freed up' the supply of thousands of units in university towns. The large-scale provision of remote office work has allowed workers renting flats to return to their usual place of residence. In the first months of the pandemic, returns to the home country of individuals from abroad were also recorded, including those providing work' (NBP, 2021b, p. 39).

Moreover, it is worth noting that one of the consequences of the increase in prices of flats is their decreasing availability, which means '...the number of square metres of a flat available for purchase at the average remuneration in the enterprise sector in a given city (...), and the average transaction price in a given market' (NBP, 2021b, p. 12; Amron, 2021, p. 16).

Taking into account the above presented conditions of the residential market, the experts of PKO BP, in the adopted baseline scenario concerning its development prospects, assume 'a gradual strengthening of the upward trend in residential prices in the subsequent quarters of 2021 (...) - within the limits of 8-10% in a year perspective (...). The factor which may to some extent stabilize upward tendencies in flat prices is a large portfolio of flats with completion dates in the current and next year. The uncertain situation on the residential rental market also has an inhibiting effect. The pessimistic scenario is associated with the risk of earlier interest rate rises - as early as in H2 2021 - due to a stronger than forecast increase in inflation. An element of the pessimistic scenario is also the uncertainty of the course of the epidemic, including the strength of the next wave.' (PKO BP, 2021c).

The above-mentioned possible rise in interest rates in the near future may bring many problems both for borrowers themselves (especially households with already high Dtl, *i.e.*, the so-called income buffer) and lenders, causing a deterioration in the quality of banks' loan portfolios. Admittedly, low interest rates are not the domain of the Polish economy alone, but the awareness of the materialisation of risks associated with them, especially in relation to the portfolio of housing loans, in which contracts with a variable interest rate predominate, seems to be low in our country.

To address these risks, the Polish Financial Supervision Authority, in their S Recommendation on good practices for managing mortgage-backed credit exposures, amended in 2019, recommended that banks introduce housing loans with a temporary fixed interest rate from mid-2021 (*The S Recommendation ...*, 2019, p. 9).

To conclude the considerations presented here regarding the situation on the Polish residential property market, it is also worth referring, at least briefly, to some assumptions of the government programme named 'The Polish Deal', which includes, among others, proposals concerning support for housing construction development, including:

- the possibility to build a single-family house with an area of up to 70 m² without formalities required by the construction law and based on publicly available construction plans,
 - clarification of the provisions of the Personal Income Tax Act in favour of taxpayers selling their existing dwellings and repaying loans taken out for their purchase,
 - the possibility to apply for subsidies to the own contribution required when applying for a bank loan to finance the purchase of a flat,
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- solutions concerning changes in the method of calculating depreciation on real estate assets addressed, among others, to the property development industry and others (*Polski ...*, 2021).

Without going into a substantive assessment of the above proposals, it is worth noting that already at the stage of their public consultation, they were generally met with criticism by various participants of the real estate market (developers, especially from the Private Rent Sector [PRS], urban planners, architects and designers, financial sector, etc.) who report many concerns regarding the proposed solutions, especially the effects of their implementation (e.g.: *Mieszkalnictwo ...*, 2021; *PIIB negatywnie ...*, 2021; *Prof. Śleszyński: organizacja ...*, 2021; *Stanowisko Izby...*, 2021). The final shape of the solutions to be introduced within the framework of the government's Polish Deal programme will determine whether they will actually serve the development of the Polish housing market.

CONCLUSION

Based on the data and analysis presented in this study, it appears that the housing market in Poland has been experiencing a period of intense growth since 2017 and, as research and statistical data show, the COVID-19 pandemic has not hampered this process.

Moreover, it is worth noting that significant demand pressure in this market may mean the emergence of speculative demand, which in turn may generate the risk of speculative bubbles and large fluctuations in property prices. It appears that the near-zero interest rate environment, on the one hand, 'pushes' accumulated savings out of the banking sector and redirects them to more attractive and safer - according to investors - assets, while on the other hand, encourages to use cheap credit as the main source of financing the purchase of a flat. In addition, the inflation rate in Poland, which is rising from month to month, encourages the desire to protect one's savings and invest them in real estate, the prices of which are clearly rising in such conditions. However, such a spiral of dependence creates a real risk of price bubbles and all the consequences related to them for the financial sector, investors or developers. Under these conditions, it appears that interest rate risk may prove to be a huge challenge for the financial sector, which is heavily involved in financing investment in the housing market, as well as foreign currency lending, which has not seen a systemic solution for many years. The COVID-19 pandemic may affect the creditworthiness of borrowers, which may, in the future, cause problems for both parties to the loan agreement. Therefore, like any new phenomenon, the COVID-19 epidemic and the

consequences it causes in various areas of human activity, not only economic, require further observation and research, especially since the figures presented in the study relate to the relatively short period of the epidemic (Q2 2020 - Q2 2021). Furthermore, selected legal, market and financial conditions of the residential property sector signalled in the study, including the assumptions of the government programme (The Polish Deal) should be monitored both at the demand and supply level from the point of view of the effects they have on the residential property market. According to ECB experts “overall, pandemic-related uncertainties and associated structural changes will continue to influence the prospects for the housing market. The broad-based economic recovery and the use of the large stock of accumulated savings are likely to support housing market prospects going forward. However, the outlook remains uncertain and depends on how the pandemic develops and the timing of the withdrawal of policy support” (Battistini et al., 2021).

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