

## EFFECTS OF THE IMPLEMENTATION OF SELECTED HOUSING POLICY INSTRUMENTS IN POLAND IN 2008-2023

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**Purpose:** The article addresses the functioning of the housing market with particular attention to the effects of government housing programs supporting the demand side. Dynamic increases in housing prices, reduced credit availability as a result of high central bank interest rates, increasing pressure from the institutional sector and, finally, the increasingly popular recognition of housing as an investment asset negatively affect the situation in the housing market and the affordability of housing.

**Design/methodology/approach:** For the purpose of the article, a review of literature related to the topic of the housing market and housing policy was conducted. A diagnosis of the housing situation was carried out based on current statistical data covering the effects of housing construction, demand for mortgages and housing, or housing price dynamics. A review of housing policy programs and instruments made it possible to identify present directions for supporting the population in meeting housing needs. The analytical part also included the calculation of indicators of housing affordability, thus showing the ambiguous effects of housing policy.

**Findings:** Evaluation of government policies to support the population in meeting housing needs is ambiguous. On the one hand, the demand policy instruments used make it possible to purchase housing for households that do not have this ability. On the other hand, the increase in the amount of demand for housing results, in the long term, in an increase in the price of this good, which is confirmed by market data. However, the attempt to isolate the impact of specific factors is severely hampered by their multiplicity and often difficult-to-measure nature.

**Research limitations/implications:** Assessing the impact of a specific factor on the real estate market situation, on the residential segment, is difficult due to the complex nature of this market and the multiplicity of players, connections and high dynamics of change in this area. An additional difficulty is the methodological diversity used by various authors and entities engaged in the analysis of this market. The possibilities of diagnosing the housing situation are also limited by the available data.

**Practical implications:** The study presented in the article can be used both at the government level in terms of shaping housing policy, as well as commercial players in the area of matching supply to needs and preferences in the housing market.

**Social implications:** Improving the housing situation of the population and the affordability of housing are currently some of the main social challenges. Attempting to solve this problem using instruments developed ad hoc often ends up generating negative side effects, in the form of price increases. That is why a well-thought-out approach to supporting the population in the field of housing is so important.

**Originality/value:** The survey is part of a discussion on the implementation of housing policy instruments in the real estate market. The survey is aimed primarily at public authorities active in the residential rental market, policy makers and developers.

**Keywords:** housing market, housing policy, demand-side housing policies

**Category of the paper:** research paper

## 1. Introduction

The housing market, which is an important and specific segment of the real estate market, is an extremely complex system, closely linked to the economy and subject to the impact of several economic, social, demographic, technological, legal, or resulting from the requirements of sustainable development. For this reason, assessing the phenomena occurring in this market is extremely difficult. The housing market is also one of the most capital-intensive markets in the economy, so knowledge of the factors that significantly affect its development is crucial to understanding the mechanisms of operation.

Housing policy plays a key role in shaping the housing market, having a direct impact on the availability, quality and price of housing. The various instruments used by the state, such as regulations, subsidies, tax breaks or social housing support programs, can, on the one hand, stimulate the development of the housing market, and, on the other hand, influence the reduction of barriers to access to housing for various social groups. In an era of rising real estate prices and increasing demand for affordable housing, appropriate housing policies are becoming a key tool for influencing market stability and quality of life.

This article aims to present the essence of both pro-population and pro-supply housing policy instruments used in Poland in 2006-2023, and to answer the question of whether and how these tools have affected the housing market. The article includes an analysis of the situation in the primary and secondary housing market in terms of price levels, housing supply and affordability of the selected household. In addition, to determine the role of the discussed instruments in meeting housing needs, the loan agreements concluded during the period under study and the transactions concluded in the housing market were analyzed. It is worth noting that the collection of data encountered objective obstacles in the form of different time ranges. The data collected in the Local Data Bank of the Central Statistical Office differs regarding the sections given. As a result, some of the data are available for earlier years, some only for later years, and some still must wait due to the late time of their publication.

## 2. The housing market and the determinants of its development

The market is one of the fundamental categories in economic theory, encompassing the totality of purchase and sale transactions between economic agents. Despite the various definitions, the market should not be equated only with the physical space of transactions. The contemporary view of the market goes beyond a simple model of the interaction of supply and demand, considering also the institutional framework that regulates its functioning. These institutions, as a set of rules and norms, significantly influence the course of market processes. Changes to this regulatory framework can modify the mechanisms of market functioning. Enforcement of the applicable rules is handled by state authorities and specialized institutions responsible for supervising their observance (Gołabeska, 2024).

The concept of the real estate market, according to Kucharska-Stasiak (2005), refers to the activities and interactions undertaken and occurring between actors involved in the buying, selling, exchanging, using, developing and transforming of real estate. The housing market, on the other hand, can be defined as the place where housing demand meets housing supply, shaping the price and enabling transactions (Łaszek, 2006). As emphasized in the literature, the mechanism of the housing market is conditioned by the same factors that constrain the functioning of the broader market, as well as by characteristics specific to real estate (Bryx, 2006).

The high specificity of the housing market is evidenced by its features such as, first, high heterogeneity, limited access to information, local character, relatively small number of transactions or links with other markets. One of the most important features of the real estate market is the high level of public interventionism realized through public sector activities, i.e. spatial planning, protection of historical monuments, protection of agricultural and forestry land, influence on rent policy. State action takes a direct form, aiming to increase supply or transform needs into demand. In addition, financial involvement in the implementation of investments is noticeable (Bryx, 2006).

Determinants of housing market development, affecting both the demand and supply side, can be classified into four groups of factors: political, legal/organizational, social and economic (Foryś, 2011). Among the political factors influencing demand, preferential housing purchase scheme, long-term housing policy and increased trust in state institutions were mentioned. Favorable tax legislation was included in this category on both the demand and supply side. Legal and organizational factors shaping demand included protection of tenants' rights, diverse methods of financing the market and a functioning judicial system. Social demand factors included the high level of unmet housing needs, dynamic demographic changes and the multifunctionality of housing spaces. Economic demand factors include the economic situation and creditworthiness of households, the socially acceptable cost of housing and the inflow of foreign investment into the housing market (Wilczek, 2013).

Another classification of factors shaping demand in the housing market includes: income (own, transfers, loans), prices (rents, housing prices, interest rates), preferences (consumption pattern, level of need satisfaction, demographic factors) (Łaszek, 2006). In turn, supply is determined by: zoning plans (taking into account building sites), the timing of building permits, the level of economic activity, consumer spending (Borowski, 2015).

The real estate market is significantly influenced by legal regulations, including legislation on meeting housing needs and changes resulting from state housing policy. Also of key importance is the set of laws and regulations governing investment processes in the housing sector - from the design stage, through construction, to tax policy issues, including tax breaks for the sector (Gołabeska, 2024).

The role of housing in shaping material and social living conditions is extremely important, and the need for state intervention in the housing market stems from existing structural problems that make the housing market unable to effectively meet housing needs. Without state support, ensuring access to housing for all citizens is not possible (Suszyńska, 2017).

State intervention in housing should result in optimization in terms of housing availability, household housing costs and the efficient deployment of financial resources. To improve access to housing, governments typically take measures to stimulate the construction of new units. Through various housing policy tools, such as government mortgage interest subsidies, the overall cost of construction can be reduced, thus encouraging increased housing production. Tax concessions, exemptions, as well as subsidies and grants influence the structure of the production of new units, thus shaping the rental housing market. Rental regulations, such as rent freezes or limits on rent increases, are also an important factor influencing the development of this market, which can lead to a reduction in investor activity in the rental market (Suszyńska, 2017).

### **3. The essence and role of housing policy**

Considering, firstly, the importance of housing as a good satisfying key human needs and, secondly, the essence of the housing problem, it is necessary to reflect on the further implications of these, as reflected in the deliberate policies pursued by the state and local government units at municipal level. The aim of housing policy is to create conditions for meeting housing needs in accordance with the preferences, aspirations and economic possibilities of the population (Strączkowski, Koszel, 2021, p. 149). The objective of housing policy can also be expressed in terms of housing availability. Thus, for the purposes of this study, it is assumed that the objective of housing policy is to improve housing accessibility, which is reflected in the assumptions of housing policy programmes and instruments implemented in Poland over the last three decades.

Due to the significant dynamics of the socio-economic situation in 2020-2023, the last of the indicated criteria - the economic capacity of the population - can be objectively considered the most significant determinant of housing availability. In accordance with the content of Article 75 of the 1997 Constitution of the Republic of Poland (Journal of Laws No. 78, item 483, as amended), the role of the state is to support citizens in meeting their housing needs. In recent years, a comprehensive support programme has been, among others, the National Housing Programme (NPM) adopted on 27 September 2016 by Resolution No. 115/2016 of the Council of Ministers (gov.pl). The NPM has three main objectives:

1. To increase access to housing for people with incomes that do not allow them to purchase or rent housing on a commercial basis.
2. To increase the possibility of satisfying the basic housing needs of persons at risk of social exclusion due to low income or a particularly difficult life situation.
3. To improve the housing conditions of the population, the technical condition of the housing stock and to increase energy efficiency.

It was to be possible to achieve the adopted objectives through the implementation of nine measures, which were to favour the development of the offer of flats for rent and increase the quality of living (including the following programmes: Apartment+, Apartment for Senior). The National Housing Programme, as well as its individual measures, were evaluated for their effects and effectiveness (Sobczak, 2021; NIK, 2022b, Szelałowska, 2023). This evaluation is inconclusive, pointing to measures which, despite their positive effects, failed to meet the initial assumptions due to their potential scale and numerous negative side effects in the form of dynamic increases in the level of prices on the housing market (Szelałowska, 2023). According to the contents of the Act on Municipal Self-Government (Journal of Laws 1990 No. 16, item 95): ‘Satisfying the collective needs of the community is one of the municipality's own tasks. Its own tasks include matters of: (...) municipal housing construction’. The provisions of the Act on Municipal Self-Government are further specified by the provisions of the Act on the Protection of Tenants’ Rights, the Commune's Housing Stock and Amendments to the Civil Code (Journal of Laws 2001, No. 71, item 733), which regulate in particular the principles and forms of protection of tenants’ rights and the principles of management of the commune's housing stock. Considering the above, it is reasonable to discuss the possibilities in terms of the implementation of the housing policy.

Agata Twardoch (2015) points to three levels of housing policy-making - central, regional and local. Given the impact of these policies on the housing situation and the real sphere more broadly, it is reasonable to present the main assumptions of central and local (municipal or city) housing policies. In doing so, it is pointed out that the importance of these regional policies is marginal. It is worth tracing the assumptions and instruments of housing policy historically - Tables 1 and 2.

**Table 1.***Assumptions of housing policy implemented in Poland in the period 1990-2023*

<b>Diagnosis of the housing situation based on key strategy and programme documents (for the periods indicated)</b>	<b>Housing policy objectives</b>
Resolution of the Sejm of the Republic of Poland of 6 July 1995 on the state housing policy (1990-1999) <ul style="list-style-type: none"> <li>– low quality of the stock,</li> <li>– housing deficit</li> </ul>	<ol style="list-style-type: none"> <li>1. improving housing conditions for families.</li> <li>2. eliminating the housing deficit.</li> <li>3. State assistance in obtaining a first home.</li> <li>4. Support for the provision of resources for the middle-income group in rental housing.</li> <li>5. support of social housing for people with permanently low incomes.</li> <li>6. Popularization of long-term savings instruments.</li> </ol>
Assumptions of the state housing policy for the years 1999-2003 <ul style="list-style-type: none"> <li>– low supply of housing,</li> <li>– high implementation costs and prices of flats,</li> <li>– formal problems of functioning of housing communities,</li> <li>– lack of modern rental policy and management of public resources,</li> <li>– poor technical condition of the housing stock</li> </ul>	<ol style="list-style-type: none"> <li>1. Eliminating the housing deficit.</li> <li>2. Reducing development costs and housing prices.</li> <li>3. Improving the technical condition of the housing stock.</li> <li>4. Improving the management of the public stock and adjusting the rent policy.</li> </ol>
National Development Programme 2004-2006 <ul style="list-style-type: none"> <li>– housing deficit,</li> <li>– low quality of stock,</li> <li>– no direct reference to housing issues</li> </ul>	<ol style="list-style-type: none"> <li>1. Eliminating the housing deficit.</li> <li>2. Improving the quality of housing.</li> </ol>
National Development Plan 2007-2013 <ul style="list-style-type: none"> <li>– the need to support the private and non-profit rental housing sector,</li> <li>– low occupational mobility of Poles</li> </ul>	<ol style="list-style-type: none"> <li>1. To promote institutional and legal rental housing.</li> <li>2. Development of the rental housing sector carried out by the private sector and non-profit institutions.</li> <li>3. Support of the private sector with public funds.</li> <li>4. Development of rental housing in the commercial sector.</li> </ol>
Main issues, objectives and directions of the housing support programme up to 2020. (2010-2016) <ul style="list-style-type: none"> <li>– support for people with low incomes,</li> <li>– supporting the supply of affordable housing</li> </ul>	<ol style="list-style-type: none"> <li>1. To meet the housing needs of those at risk of social exclusion.</li> <li>2. To promote access to housing for those unable to purchase or rent market housing.</li> <li>3. To stimulate the supply of affordable housing.</li> <li>4. To improve the technical condition of the housing stock, including energy efficiency.</li> </ol>
National Housing Programme (2017-2023) <ul style="list-style-type: none"> <li>– support for people on low incomes,</li> <li>– support for people at risk of social exclusion</li> </ul>	<ol style="list-style-type: none"> <li>1. To increase access to housing for people with incomes that prevent them from buying or renting housing on the commercial market.</li> <li>2. To increase the possibility of satisfying the basic housing needs of persons at risk of social exclusion due to low income or special life situation.</li> <li>3. To improve the housing conditions of the population, the technical condition of the housing stock and to increase energy efficiency.</li> </ol>

Source: (NIK, 2022, pp. 78-79).

The development of housing policy, which is the subject of long-standing state development strategies, is made up of specific housing policy instruments which have a real impact on the housing situation of those supported. Specific housing programmes and their effects, have been the subject of much analysis and research (Groeger, 2016; Szelągowska, 2021; NIK, 2022;

Bochenek et al., 2023). Two main types of housing policy instruments are identified - pro-demand and pro-supply (Marona, Tomasik, 2023, pp. 40-41). One of the most important findings of research conducted to date is the relationship between the general economic situation and the situation on the housing market - in the case of the latter, primarily in the context of supply and price levels (Bochenek et al., 2023). The main conclusion of the research to date is that the housing boom has a positive impact, but that potential negative side effects must also be taken into account. Pro-housing instruments such as housing allowances, mortgage subsidies (programmes: Family on its own, Apartment for the young, Apartment without own contribution) also contribute to a general increase in the level of housing prices, which is a natural consequence of the market game stimulated by an increase in demand for a given good. Supply-side instruments should, in principle, work in the opposite direction, but in reality this is not the case at all, to which the peculiar paradox resulting from the role of housing - on the one hand as a good for satisfying living needs (semi-public good), on the other hand as an investment good (commodity) - contributes. The described paradox can also be understood as a side effect of the conflict of interests between those in need of housing and investors.

Table 2 presents selected instruments (programmes) of housing policy implemented in Poland from the mid-1990s to the present. It should be noted here that the government's role was mostly to initiate changes of a formal and legal nature, including the drafting of legislative acts which subsequently enabled municipalities to undertake activities and implement their own housing-related tasks.

**Table 1.**

*Selected housing policy instruments in force in Poland in the period 1995-2023*

<b>Years of application</b>	<b>Instrument</b>	<b>Supported side of the market</b>
1992 – 2001	Large construction relief (Duża ulga budowlana)	Pro-Supply
1995 – now	Social housing associations and social housing initiatives (Towarzystwa Budownictwa Społecznego, Społeczne Inicjatywy Mieszkaniowe)	Pro-Supply
2001 – now	Housing allowances	Pro-Demand
2002 – now	Reduced VAT for housing investments	Pro-Supply
2002 – 2006	Interest relief	Pro-Demand
2006 – now	Scheme for non-refundable subsidisation of part of housing costs	Pro-Supply
2009 – now	Renovation premium	Pro-Supply
2007 – 2013	Family on its own (Rodzina na swoim)	Pro-Demand
2014 – 2018	Apartment for the young (Mieszkanie dla młodych)	Pro-Demand
2019 – 2028	Apartment for a start (Mieszkanie na start)	Pro-Demand
2016 – 2023	Apartment plus (Mieszkanie plus)	Pro-Supply
2020 – now	Apartment for land (Lokal za grunt)	Pro-Supply
2022 – now	Apartment without own contribution	Pro-Demand
2023	Safe credit 2%	Pro-Demand

Source: (NIK, 2022; Marona, Tomasik, 2023; Szelągowska, 2023).

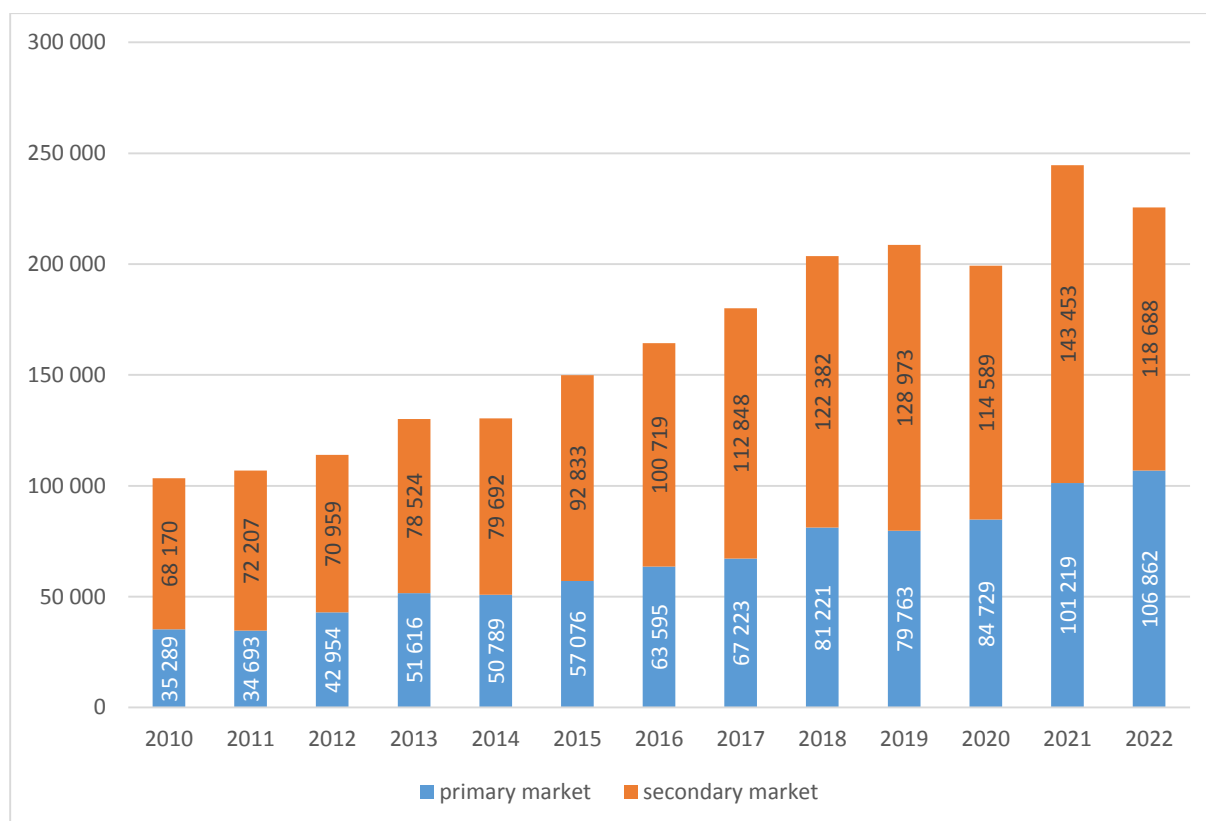
The effects of the implemented housing policy instruments, as pointed out earlier, are ambiguous. Instruments of a pro-demand nature, dominant in recent years, did indeed contribute to an increase in housing availability, but only for persons meeting eligibility criteria, but at the same time resulted in an increase in the level of housing prices. The result, in turn, has been a polarization of the overall availability of housing - from the perspective of households unable to use it for formal reasons. A potentially considered effect is even a situation in which households, accumulating funds for the own contribution required when financing the purchase of a flat with a mortgage on general terms, fell into the rent gap, thus losing their creditworthiness. Given the dynamics of price changes on the secondary market in selected cities in Poland (based on Otodom Analytics data), the scenario seems likely. Taking into account the rigid housing supply and the general turbulence in the construction sector, which resulted in a temporary decrease in the number of building permits issued and construction commenced, we should expect a further deepening of the unfavorable situation, which may also be influenced by the implementation of the new housing loan bill #naStart, which is still (as of Q2 2024) at the consultation and opinion stage, replacing the earlier Safe Credit 2%, which was analyzed in more detail by Szelałowska, among others (2023, pp. 55-84).

#### **4. Housing market and selected housing policy instruments in Poland 2007-2023**

Programs introduced between 2007 and 2023 to support the purchase of housing, such as Family on its own, Apartment for the young and Safe Credit 2%, have undoubtedly translated into a significant increase in demand for residential real estate. The number of transactions in the housing market is shown in Figure 1.

Unfortunately, objective obstacles were encountered in the collection of data in the form of different time ranges. The data collected in the Local Data Bank of the Central Statistical Office differ with regard to the sections given. As a result, some data are available for earlier years, some only for later years, and some still must wait due to the late time of publication. Hence, transaction data only cover the period 2010-2022.



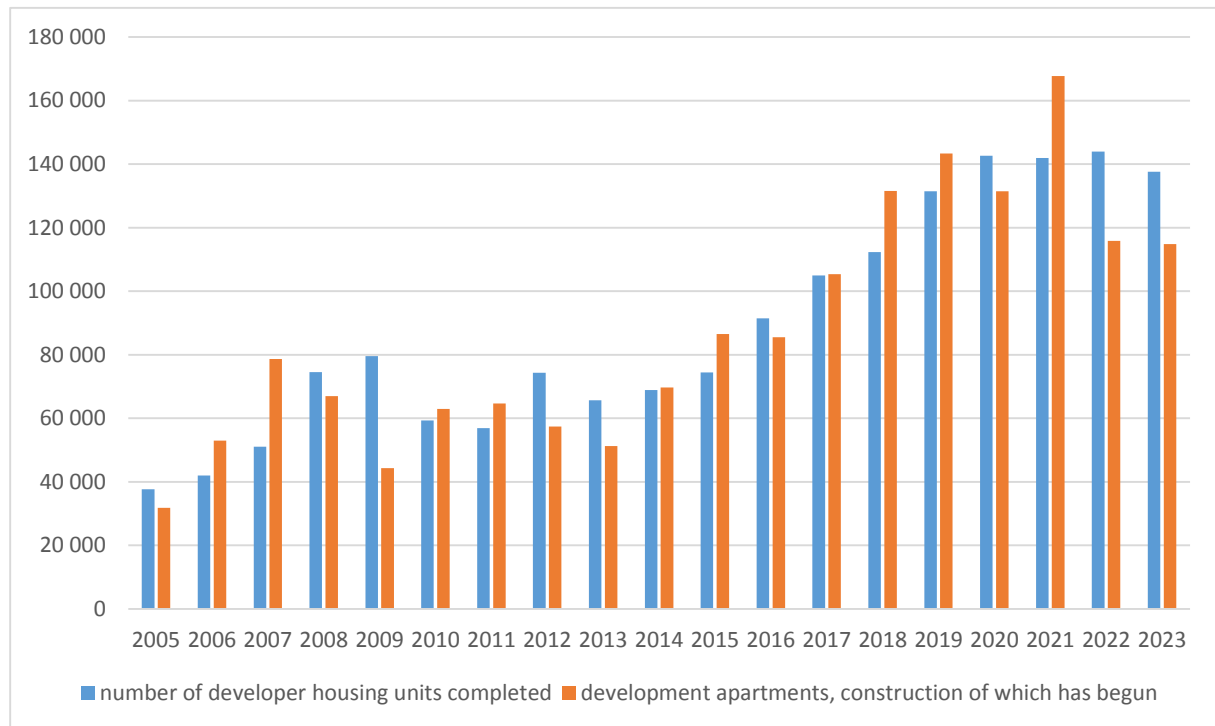


**Figure 1.** Number of housing market transactions between 2010 and 2022.

Source: own elaboration based on the Local Data Bank of the Central Statistical Office.

The number of housing market transactions in Poland in 2010-2022 fluctuated under the influence of various factors, such as the economic situation, changes in interest rates, banks' lending policies, and consumer sentiment. It should be noted that because of the global financial crisis in 2008-2009, the real estate market recorded a marked decline in the number of transactions. The credit crunch and limited availability of mortgages resulted in lower demand for flats than in previous years. After 2010, the number of transactions started to gradually increase, although it was still lower compared to the pre-crisis period. It was not until 2013 and 2014 that there was greater credit availability, moderate prices and a higher number of transactions. The dynamic increase in demand due to low interest rates, ease of financing, facilities in the form of the Apartment for the young programme brought record numbers of transactions in the housing market between 2015 and 2019, especially in large cities. In 2020, due to the COVID-19 pandemic, the number of transactions initially fell, especially in the second quarter of the year. However, by the second half of 2020, the housing market had already started to recover and demand for properties returned to pre-pandemic levels. The increase in interest in buying homes was partly driven by low interest rates and fears of inflation. In 2021, the number of transactions in the residential market reached record levels, particularly due to the high activity of investors seeking, in the face of high levels of inflation, alternative forms of capital investment. This growth continued into 2022, although the second half of the year began to see some signs of a slowdown, linked to interest rate rises.

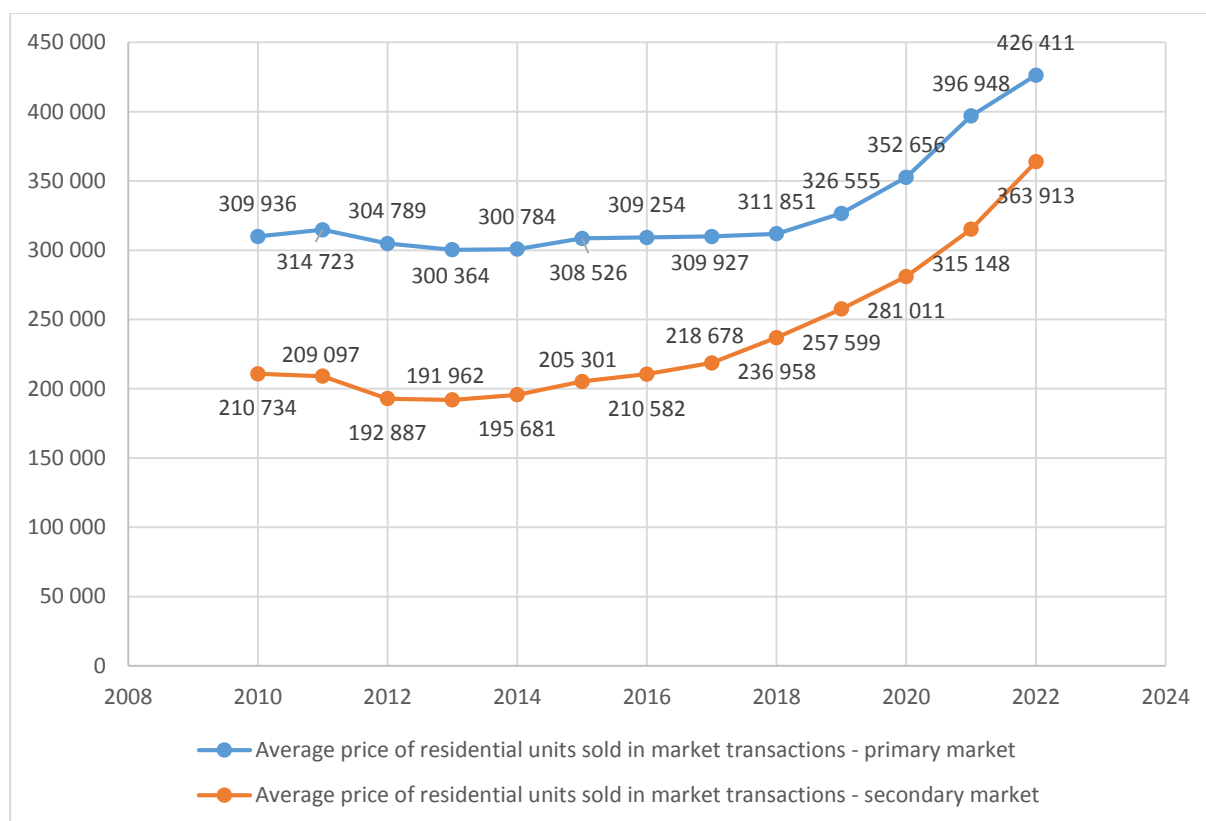
The changes in the housing market are also reflected in the activity of developers in this sector of the property market (Figure 2).



**Figure 2.** Developers activity in the housing market from 2005 to 2023.

Source: own elaboration based on the Local Data Bank of the Central Statistical Office.

The activity of developers in the housing market in Poland in 2005-2023 was dynamic and strongly dependent on macroeconomic conditions, credit policy, land availability and legal regulations. During the period under review, large fluctuations can be observed, from a housing boom (2005-2008, 2014-2019) to periods of major slowdown and investment caution (2008-2013, 2022-2023). The main factors affecting the market are the availability of mortgages, changing government policies, including programs to support demand, such as “Housing for the Young”, which stimulated the purchase of housing by young people, which increased activity in the market. The COVID-19 pandemic, contrary to expectations, did not decelerate the market, and its consequences in the form of problems with the availability of construction materials, and the consequent increase in the cost of investment, were the drivers of price growth. In turn, 2022 brought the onset of high interest rates and inflation, which clearly reduced the availability of credit and ultimately the decline in demand. Only the 2% Safe Credit program, introduced in mid-2023, led to an increase in buyer activity and, with a low supply of housing, a dynamic increase in prices (Figure 3).



**Figure 3.** Average housing prices from 2008 to 2023.

Source: National Bank of Poland.

The indirect effects of the introduction of the various pro-demand instruments in the form of programs that help finance the purchase of one's own home (Family on its own, Apartment for the young and the safe credit 2%) can be seen in the estimated indicators of housing income availability (Table 3 and Table 4). To construct the accessibility index, the following were used:

- A. for the total market - the average price of housing units sold in total market transactions and the average gross monthly salary.
- B. for the primary market - the average price of housing units sold under market transactions in the primary market and the average gross monthly salary.
- C. for the secondary market - the average price of residential units sold as part of market transactions in the secondary market and the average gross monthly salary.

The following assumptions were made:

- A. the composite housing affordability index recommended by the World Bank was used for the calculation. The method of its calculation is described in: (Strączkowski, 2021, p. 21; Strączkowski, Mazurczak, 2015, p. 18; Trojanek, 2014, p. 6). For clarity - the value of the index up to 3 points - indicates housing affordability, from 3 to 4 points - moderate affordability, from 4 to 5 - unaffordability, and above 5 points - high housing affordability;

- B. gross wages were converted to net wages. The reason for such a procedure is that apartment buyers, disregarding their motives, when deciding to purchase units are guided by the size of their budget (funds in the bank account) and creditworthiness, calculated on the basis of real incomes in the account;
- C. calculations were made on the assumption that two adults have equal income throughout the year;
- D. calculations were made for the total market (primary and secondary markets combined), and then for the two segments separately, in order to illustrate price differences in the purchase of housing within one or the other market.

**Table 3.***Affordability index of apartments for sale in Poland in 2010-2023*

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>total</b>	4,12	3,89	3,63	3,51	3,42	3,41	3,36	3,23	3,19	3,17	3,26	3,37	3,40
<b>primary market</b>	5,22	5,02	4,71	4,48	4,35	4,30	4,17	3,96	3,73	3,65	3,69	3,83	3,68
<b>secondary market</b>	3,55	3,34	2,98	2,87	2,83	2,86	2,84	2,79	2,84	2,88	2,94	3,04	3,14

Source: own elaboration based on the Local Data Bank of the Central Statistical Office

As can be seen from the table above, the primary market is characterized by greater unavailability of housing than the secondary market. Throughout the analyzed period, apartments in the primary market were characterized by unavailability or moderate unaffordability. The situation was different in the secondary market, where apartments were affordable between 2012 and 2020.

It is also worth tracing the development of the housing affordability index in Poland's largest cities. In line with the assumptions made for the NBP's quarterly information on housing prices and the situation in the residential and commercial real estate market in Poland, it was decided to analyze the situation in Warsaw and the other five largest cities in Poland, viz: Gdansk, Krakow, Lodz, Poznan and Wroclaw.

In order to calculate the housing affordability index, data on average transaction prices per square meter from two information resources were used: 1) for the years 2010-2022, annual data from the CSO's Bank of Local Data were used, 2) while for the period covering the period from the first quarter of 2023 to the second quarter of 2024, AMRON-SARFIN data published in quarterly reports were used. AMRON-SARFIN data were averaged for 2023 and the first half of 2024. Data on average gross wages and salaries in the business sector were taken from the GUS Local Data Bank (2010-2023) and from current CSO publications for the period covering the months of January to June 2024 - these data were also averaged for the purpose of calculating the final values of the accessibility index. To make the figures more realistic, the amount of average net wages was calculated by subtracting the amount of mandatory social security and health insurance contributions, as well as advance payments for income tax, thus obtaining disposable income. On this basis, it was assumed that the average net salary is 71.47%

of the gross salary. For the purpose of the calculations, the usable area of the apartment was assumed to be 50 m<sup>2</sup>, which is a size close to the average for the selected cities and corresponding to the preference of 2-3 person households. It was assumed that in this case income is earned by two adults. The detailed results of the calculations are shown in Table 4.

**Table 4.**

*Affordability index of apartments for sale in six largest cities in Poland in 2010-2024 (first half of 2024)*

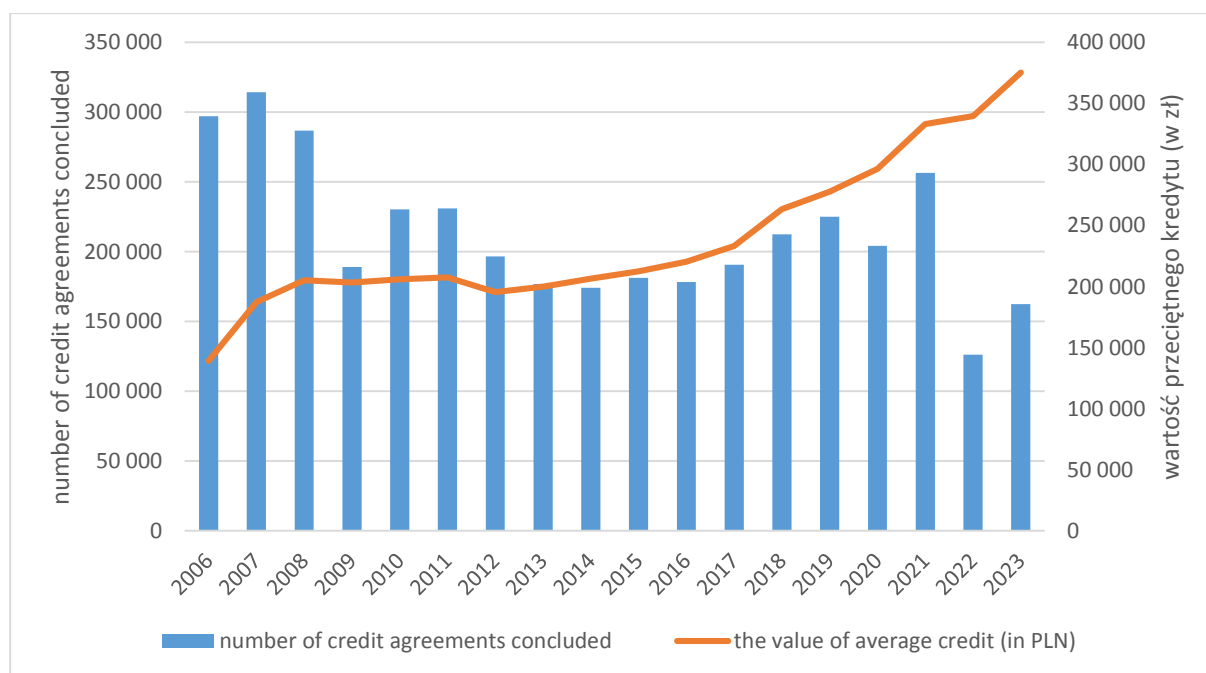
City	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Gdańsk	3,87	3,87	3,84	3,51	3,32	3,21	3,32	3,60	3,55	3,58	3,77	3,85	3,68	3,28	3,29
Kraków	5,37	5,12	4,76	4,52	4,45	4,27	4,04	3,81	3,64	3,60	3,72	3,66	3,73	3,41	3,61
Łódź	3,89	3,44	3,22	3,10	2,87	2,69	2,62	2,68	2,72	2,78	2,92	2,93	2,97	2,67	2,97
Poznań	4,38	4,21	3,82	3,72	3,72	3,56	3,42	3,35	3,35	3,26	3,26	3,35	3,31	2,98	3,20
Warszawa	5,23	4,87	4,61	4,14	4,16	4,00	3,95	3,95	3,97	3,89	4,04	4,20	4,21	3,78	4,18
Wrocław	4,39	4,26	3,91	3,87	3,55	3,36	3,30	3,19	3,20	3,19	3,39	3,52	3,58	3,39	3,71

Source: own elaboration based on the Local Data Bank of the Central Statistical Office and data form AMRON-SARFIN.

Considering the interpretation of the value of the housing affordability index and the temporal and spatial scope of the conducted research, it can be clearly stated that in most cases apartments were moderately unavailable (Krakow and Warsaw), unavailable (Gdansk, Poznan, Wrocław) and partially available - Lodz. During the period studied, there were clear changes in the housing affordability index from extremely high values in 2010, meaning that apartments were severely unavailable (Krakow, Warsaw), unavailable (Poznań, Wrocław) and moderately available (Gdańsk, Łódź), to a relative improvement in the value of the index in 2014-2016, which was the effect of stabilization and even correction of apartment prices in Poland's largest cities, and then further deterioration of housing affordability in the surveyed centers. An exceptional year in the period under review is 2023, in which, despite dynamic increases in housing prices, their affordability improved. In the first half of 2024, the affordability of housing in Poland's six largest cities again deteriorated significantly.

Mortgage market activity in Poland in 2008-2023 was closely linked to the economic situation, monetary policy and housing programs introduced to support both demand, but indirectly affected supply and housing prices (Figures 4 and 5).

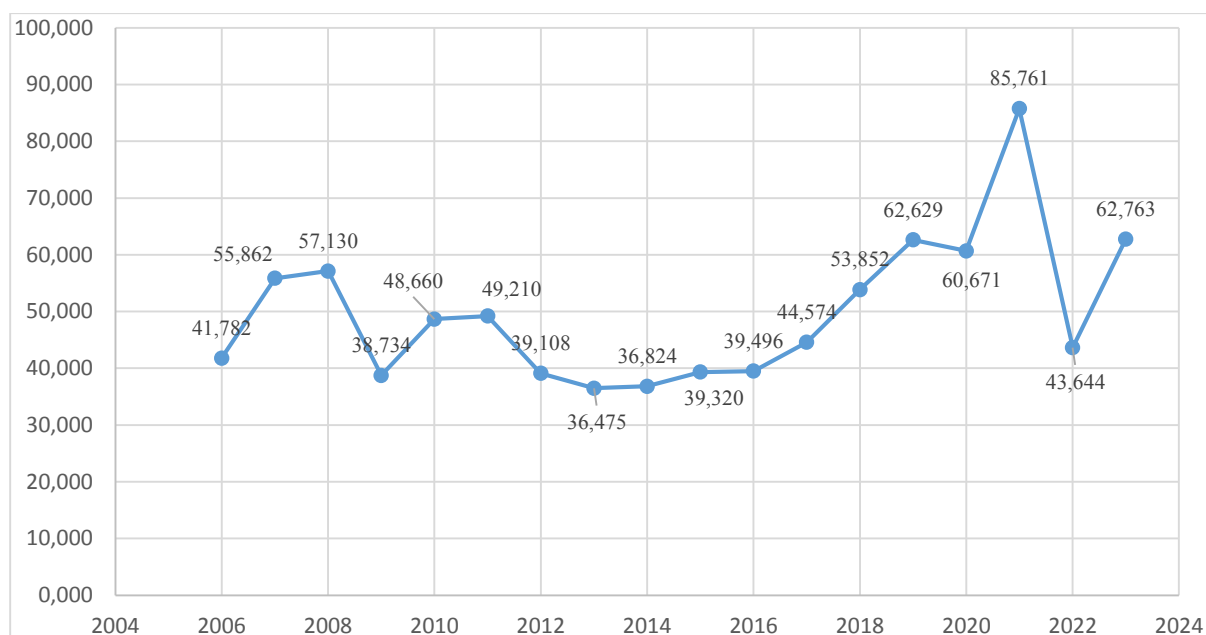
The decline in the number and value of loan contracts made immediately after the financial crisis (2008-2009) was an inevitable consequence of the economy. Mortgage availability declined and economic growth slowed. In the 2012-2020 period, the reduction of interest rates by the National Bank of Poland, which also stimulated an improvement in the availability of mortgages, contributed to a rapid increase in housing prices, especially in large cities. In 2019-2021, the mortgage market reached historic records in terms of the number of loans granted, fueling the real estate boom.



**Figure 4.** Number of credit agreements concluded and the value of the average mortgage from 2006 to 2023.

Source: AMRON-SARFIN.

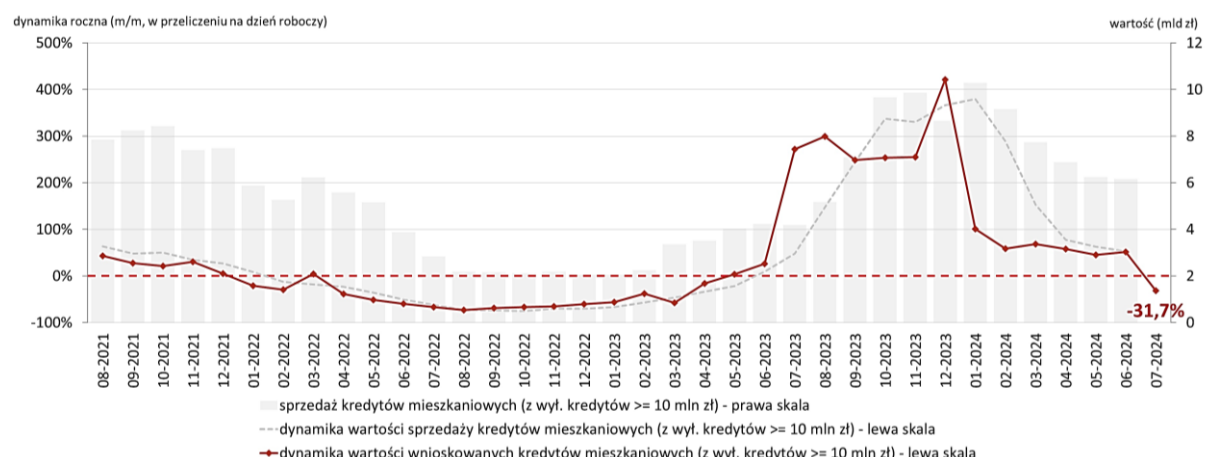
During the period under review, the state's proposed housing programs contributed to this situation. The increase in interest rates in 2022 and 2023 caused a significant increase in the cost of servicing loans, which reduced the creditworthiness of many households. The mortgage market slowed sharply in 2022-2023, and the number of new loan applications fell dramatically. For this reason, various forms of assistance for borrowers began to be implemented in 2023, including a credit vacation to provide relief to those with mortgages, including the Safe Credit 2% program, which allows people under the age of 45 to purchase their first home on preferential terms, offering low interest rates on loans for the first 10 years. The program was met with great interest (101888 loan applications had been submitted by Dec. 28, 2023), but the consequence was a rapid increase in prices.



**Figure 5.** Value of new contracts in the mortgage market from 2006 to 2023.

Source: Credit Information Bureau (BIK).

Highlighting the tremendous interest on the part of borrowers in the Safe credit 2% program, it is worth tracing the BIK Home Loan Demand Index at the end (Figure 6).



**Figure 6.** BIK Housing credit demand index.

Source: Credit Information Bureau (BIK).

In July 2024, 30.63 thousand potential borrowers applied for a housing loan, compared to 43.44 thousand a year earlier (that's when the call for applications under the program under review began), which translates into a y/y decrease of almost 30%. Compared to June 2024, however, the number of housing loan applicants increased by 11.6%. On the other hand, the average value of a housing loan applied for in July 2024 was PLN 435.88 thousand and was 6.2% higher than in July 2023. Compared to June 2024, however, it fell slightly by 1.6%. This confirms the most important effects of the program, including, among others, an increase in housing prices as a consequence of increased demand and a strong reduction in market supply.

## 5. Conclusions

The assessment of the tools used by the Polish government to improve the housing situation in the country over the period 2008-2023, presented in the article, focuses on selected housing policy instruments, such as social housing support programs and mechanisms aimed in principle at increasing the availability of housing for middle- and low-income earners. It was emphasized that during the period under review a number of measures were implemented, such as the Family on its own, Apartment for the young and safe credit 2% programs, which were aimed at facilitating the purchase of housing.

Undoubtedly, the last program had the greatest impact on the housing market, which between July 2023 and February 2024 resulted in loans of more than PLN 30 billion (BIK, 2024). In comparison, the total value of loans under the Family on its own program is nearly PLN 35 billion (over 7 years) and Apartment for the young is PLN 20 million (over 5 years). According to the analysis, this program also contributed to the highest increase in housing prices, influencing lower affordability.

In conclusion, the authors point out the need for further reforms and adaptation of housing policy tools to real social needs to increase the availability of housing in Poland to a greater extent. In the face of further pro-population tools like the planned introduction of the Housing Credit #naStart program, its potential impact on the market should be carefully analyzed. Such a program, offering interest-free mortgages, could have a number of effects, both positive and potentially negative. The introduction of the Housing Credit #naStart program would, on the one hand, most likely significantly stimulate the residential real estate market, leading to an increase in demand, but on the other hand, it would increase housing prices. This would increase the availability of credit to a larger group of people, but at the same time could create the risk of a real estate bubble and over-indebtedness among households. The introduction of such a program would require strict supervision to avoid negative effects in the long term.

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## References

1. Bochenek, M., Szczepańska-Przekota, A., Hadław, M. (2023). Podażowe i cenowe konsekwencje zmian w rządowych programach mieszkaniowych w Polsce w latach 1998-2021. *Horyzonty Polityki*, 14(47), 229-250, DOI: 10.35765/HP.2321
2. Borowski, K. (2015). *Czynniki podażowe i popytowe na rynku nieruchomości mieszkaniowych w Polsce*. Katedra Finansów Publicznych. Instytut Finansów. Wydział Ekonomiczno-Socjologiczny. Uniwersytet Łódzki.
3. Bryx, M. (2006). *Rynek nieruchomości. System i funkcjonowanie*. Warszawa: Wydawnictwo.
4. Foryś, I. (2011). *Spoleczno-gospodarcze determinanty rozwoju rynku mieszkaniowego w Polsce. Ujęcie ilościowe*. Uniwersytet Szczeciński.
5. Gołąbeska, E. (2024). *Rynek nieruchomości mieszkaniowych w Polsce w ujęciu prawnym, ekonomicznym, ekologicznym i finansowym*. Oficyna Wydawnicza Politechniki Białostockiej. <https://doi.org/10.24427/978-83-68077-21-6>
6. Groeger, L. (2016). Programy wspierania budownictwa mieszkaniowego w Polsce i ich wpływ na rynek nieruchomości mieszkaniowych. *Space – Society – Economy*, 18, 131-146. DOI: <https://doi.org/10.18778/1733-3180.18.09>.
7. Konstytucja Rzeczypospolitej Polskiej z dnia 2 kwietnia 1997 r. (Dz.U. 1997, Nr 78, poz. 483).
8. Kucharska-Stasiak, E. (2005). Rynek nieruchomości i jego struktura. In: E. Kucharska-Stasiak (ed.), *Podstawy funkcjonowania rynku nieruchomości. Ujęcie teoretyczne. Folia Oeconomica*, 187. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
9. Łaszek, J. (2006). Rynek nieruchomości mieszkaniowych i jego specyfika jako czynniki determinujące ryzyko kredytowania hipotecznego. *Materiały i Studia*, z. 203. NBP.
10. Marona, B., Tomasik, K. (2023). Problem dostępności mieszkań w Polsce w kontekście realizowanych w Polsce programów polityki mieszkaniowej w latach 2016-2022. *Studia BAS*, 4(76), 27-53. DOI: <https://doi.org/10.31268/StudiaBAS.2023.29>
11. NIK (2022b). *Funkcjonowanie programu Mieszkanie Plus. Informacja o wynikach kontroli*. KIN.430.009.2021.
12. Sobczak, M. (2021). Skuteczność Narodowego Programu Mieszkaniowego w zakresie społecznej polityki mieszkaniowej. *Studia BAS*, 2(66), 113-128. DOI: <https://doi.org/10.31268/StudiaBAS.2021.19>
13. Strączkowski, Ł. (2021). *Preferencje nabywców mieszkań na lokalnym rynku nieruchomości*. Poznań: Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu.
14. Strączkowski, Ł., Koszel, M. (2021). Rynek mieszkaniowy i polityka mieszkaniowa w dużym polskim mieście – studium przypadku Poznania. *Studia BAS*, 2(66), 147-172. DOI: <https://doi.org/10.31268/StudiaBAS.2021.21>

15. Strączkowski, Ł., Mazurczak, A. (2015). Analiza rynku a decyzje deweloperów w świetle badań lokalnego rynku mieszkaniowego w Poznaniu. In: W. Szczepaniak, K., Wojewnik-Filipkowska (eds.), *Inwestycje i nieruchomości w warunkach zrównoważonego rozwoju. Wybrane problemy*. Gdańsk: Wydział Zarządzania Uniwersytetu Gdańskiego.
16. Suszyńska, K. (2017). Interwencjonizm na rynku mieszkaniowym - rozważania na temat tendencji komercjalizacyjnych budownictwa społecznego. *Studia Oeconomica Posnaniensia*, 5, 103-112.
17. Szelańska, A. (2023). Bezpieczny kredyt 2% oraz konto mieszkaniowe jako nowe instrumenty polityki mieszkaniowej w Polsce. *Studia BAS*, 4(76), 55-84. DOI: <https://doi.org/10.31268/StudiaBAS.2023.30>
18. Trojanek, R. (2014). Dostępność mieszkaniowa w wybranych miastach w Polsce w latach 1997-2012. *Biuletyn Rzeczoznawców Majątkowych Województwa Wielkopolskiego*, No. 1-2(39-40), pp. 5-7.
19. Uchwała Nr 115/2016 Rady Ministrów z dnia 27 września 2016 r. w sprawie Narodowego Programu Mieszkaniowego.
20. Ustawa z dnia 21 czerwca 2001 r. o ochronie praw lokatorów, mieszkaniowym zasobie gminy i o zmianie Kodeksu cywilnego (Dz.U. 2001, Nr 71, poz. 733).
21. Ustawa z dnia 8 marca 1990 r. o samorządzie gminnym (Dz.U. 1990, Nr 16, poz. 95).
22. Wilczek, M. (2013). *Wybrane czynniki popytowe kształtujące decyzje inwestora na rynku nieruchomości mieszkaniowych i źródła informacji o nich*. Uniwersytet Ekonomiczny w Katowicach.