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Role of the Real Estate Market in the Expansion of Housing and in the Municipal Budget of Olsztyn

Rola rynku nieruchomości w rozwoju zabudowy i w budżecie Olsztyna

Abstrakt: W artykule opisano wpływ rynku nieruchomości na rozwój zabudowy i budżet Olsztyna. Celem było pokazanie, jak duży wpływ na dochody budżetowe mają opłaty i podatki powiązane z gospodarką nieruchomościami oraz w jaki sposób rozwijający się rynek nieruchomości oddziałuje na decyzje związane z powstawaniem nowej zabudowy. Badania zostały oparte o dane statystyczne z lat 2009–2017 udostępniane przez Główny Urząd Statystyczny i Urząd Miasta oraz o fotomapę Google Earth. Zebrane dane poddano analizie i obróbce statystycznej, a uzyskane wyniki zaprezentowano w formie rysunków i tabel. Z przeprowadzonych badań wynika, że szybko rozwijający się rynek nieruchomości warunkuje powstawanie nowych inwestycji mieszkaniowych, a te z kolei pozytywnie oddziałują na stan budżetu miasta.

Słowa kluczowe: budżet miasta; planowanie przestrzenne; rozwój zabudowy; rynek nieruchomości

Abstract: This article describes the impact of the real estate market on the expansion of housing and on the budget of Olsztyn. The aim of the paper was to show how the revenue from fees and taxes related to real estate management contributes to the budget income and how the real estate market developing in communes affects decisions related to creating new housing. The study was based on statistical data from the years 2009–2017, shared by Statistics Poland and the Municipal Office, as well as on the Google Earth photomap. The data was analysed and processed statistically and the results are presented in diagrams and tables. The study showed that a rapidly developing real estate market is a condition for starting new housing investment projects which, in turn, have a positive impact on the municipal budget.

Keywords: municipal budget; spatial planning; housing expansion; real estate market

INTRODUCTION

Investment activities conducted by municipal governments, as well as by other investors, are the basis of local development. All investment projects are carried out in a space which is artificially divided into record parcels. Such parcels are components of real estate. As in the majority of countries, a real estate in Poland is defined by legal regulations as “part or parts of the Earth’s surface which constitutes a separate property (land), as well as buildings attached permanently to the land or parts thereof if they constitute a separate property under relevant regulations” (Art. 46 § 1 of the Act of 23 April 1964 – Civil Code [Journal of Laws 2018, items 1025, 1104, 1629]). Currently, real estate is not only an object which satisfies the buyers’ needs, but it is also a utilitarian and consumer commodity. It is increasingly often an alternative form of capital allocation (Henzel et al. 2014, p. 133).

The specificity of real estate is made up of a group of physical, economic and legal features. The most important of them, from the investor’s point of view, include (Bryx, Makowski 2001, p. 70):

- permanent position,
- stability,
- diversity,
- short supply,
- location,
- protection against inflation,
- credit collateral,
- capital collateral,
- reduction of expenditure for everyday consumption.

An investment involves engaging the investor’s accumulated resources in enterprises aimed at satisfying his needs, mainly by an increase in the value of his assets (Bryx, Makowski 2001, p. 15). Investing in real estate is a process which involves freezing capital in real estate in order to gain benefits – present or future. The real estate market is the entirety of the relationship of exchange between participants in the market who generate the supply and demand for real estate. The exchange relations include intentions to buy, sell, lease and rent, with clearly defined, negotiable conditions (Gostkowska-Drzewicka 2010, p. 45). Currently, we see rapid growth of housing and commercial construction by developers. When completed, buildings become part of the primary real estate market. Previously-owned property becomes part of the secondary market. Market participants gather information on market parameters before making a final decision. Such information includes: transaction prices, rent, market

capitalisation rate, equity risk premium, empty flat rate, information on supply-demand factors, needs, preferences, income, cost and technical indices (Henzel et al. 2014, p. 135). Continuous growth of the real estate market contributes to urban development. Owing to the real estate, municipal budgets receive a stable and steady income, which is resistant to economic fluctuations. Expansion of housing results in changes in space, which are often regarded as development.

Development is a long process which leads to improvement of something by achieving a higher level of development than the present state. Changes taking place during development processes lead to qualitative and quantitative modification of features and properties. Development processes can be spontaneous or can be triggered by external stimuli (Kossowski, Klimczuk 2012, pp. 77–78). Such stimuli in terms of housing expansion may include: a city's spatial policy – passing local plans or issuing land use permits or the influence of developers and small investors (mainly owners of detached houses).

Housing expansion based on local plans is a guarantee of preserving spatial and social order. Local plans as tools of spatial policy used by communes cover larger areas than one parcel and lay down comprehensive conditions that have to be met by new housing. Conditions laid down in local plans introduce spatial order and observe rules of good neighbourhood. Additionally, the community is consulted about the local plan, which helps to alleviate various social conflicts (Gorzym-Wilkowski 2017, pp. 75–76). However, passing local plans is a time-consuming and costly process. New housing can be developed on the basis of land use permits. Such permits are issued for areas which are not covered by a valid local plan. Land use permits can cause chaos in space because they apply to only one plot and are sometimes developed to suit an investor's needs. However, the commune administration cannot refuse to issue such a decision despite its negative effect on the neighbourhood if the plot meets the necessary conditions. Issuing a decision is often a shorter way to carry out an investment project than passing a local plan, and it is often used by developers (Cymerman et al. 2006, pp. 20–35).

With new buildings, the number of real estate properties in a city increases, which increases the revenue of the municipal budget. Such revenue includes taxes and fees paid by property owners. Housing expansion also causes some expenses. Funds from the municipal budget are partly spent on expansion and improvement of the condition of technical infrastructure and on developing new local plans.

The budget policy of the state and local governments is based on the Act on public finances of 27 August 2009 and the Act on local governments revenue of 13 November 2003. In these acts, the legislators included information on public finances and on how they should be managed by local governments. According

to the regulations, local and regional governments independently manage their financial matters based on the budget. The budget of individual local government units is their independent plan, passed by local representations for one calendar year (Wilk 2015, pp. 251–253).

Taxes and fees are the main source of local government income. Local governments are also entitled to subsidies and grants from the state budget. Communes can also derive income by managing their assets. Budget expenses are intended to finance the local governments' own tasks, which include all public matters of local importance, not reserved for other entities under the relevant regulations. A budget is passed by the relevant local government body, e.g. by the commune council, and it is verified by the Regional Accounting Chamber (Dyk 2012, pp. 158–159).

This study presents the impact of the real estate market on housing expansion in a city and on its budget. The analysis covered data for the city of Olsztyn for the period between 2009 and 2017. The data were acquired from the Local Data Bank of Statistics Poland, from the Municipal Office in Olsztyn and open geodetic and cartographic data shared at geoportals and were analysed statistically.

THE IMPACT OF THE REAL ESTATE MARKET ON HOUSING DEVELOPMENT AND ON THE MUNICIPAL BUDGET

Materials and methods

The study area covered the city of Olsztyn – the biggest and the most rapidly developing city in the Voivodship of Warmia and Mazury. Considerations of the role of the real estate market in housing development and in the budget of the city of Olsztyn made use of data shared by: Statistics Poland, the Municipal Office and a Google Earth photomap. The data were analysed and processed statistically and the results are presented in diagrams and tables.

The basic comparison involved data for the period of 2009–2017. However, since Statistics Poland did not share all indices for the period covered by the study, their presentation is limited to the periods for which data are available. The principal source of information on the budget of Olsztyn were annual reports on the budget implementation shared on the Internet (*Annual report of the City of Olsztyn budget*). The annual reports helped to illustrate the size of the city revenue from sources related to the real estate market and expenses related to spatial planning. Data shared by Statistics Poland were taken from the Local Data Bank (Statistics Poland, Local Data Bank) and concerned: structure of land

use, population size, real estate sales as well as the number of local plans and the number of land use permits issued. Two Google satellite maps were compared: one from 2009 and the other from 2017. The aim of the comparison was to identify places where housing development took place.

Results

Olsztyn is the capital and the largest city in the Voivodship of Warmia and Mazury. It is situated in the southern part of Warmia and it occupies an area of 88.33 km². The city is the centre of science and development in the voivodship. Within its administrative borders there are 16 lakes, two rivers and several minor streams, a forest complex and numerous parks (Świdziński, Świdzińska 2016, pp. 245–267). Due to its geographic location and diversity of landscape forms, only 9.54 km² of the city area is used for housing (Tab. 1). However, Olsztyn has in its borders approx. 20 km² of farmland which is a reservoir of space which can be used for housing in the future.

Tab. 1. Structure of land use in Olsztyn (author's own study based on Statistics Poland, Local...)

Type of land	2012	2013	2014
	[ha]	[ha]	[ha]
total area	8,833	8,833	8,833
farmland	1,966	1,961	1,906
forests and land overgrown by trees and shrubs	2,110	2,110	2,104
land under waters	846	846	850
built-up and urbanised area	3,674	3,678	3,740
built-up and urbanised area – housing area	943	945	954
wasteland	227	228	223
other land	10	10	10

In 2014, the largest portion of the city area was occupied by urbanised land – 42.3%; the City Forest and land under water occupied a total of 33.4% (Tab. 1). Olsztyn is one of the few cities with as many as 16 lakes and a forest complex within its borders. Data on the structure of land use are shared by Statistics Poland only for the period from 2012 to 2014. The built-up and urbanised area increased during this period by 66 ha, of which 11 ha were allocated for housing. Like most Polish cities, Olsztyn struggles with the issue of depopulation: it had 176.5 thousand residents in 2009 and 173.1 thousand in 2017 (Fig. 1).

3,387 people left Olsztyn between 2009 and 2017. The population of Olsztyn was the smallest in 2016 – 172.9 thousand, and the largest in 2009 – over

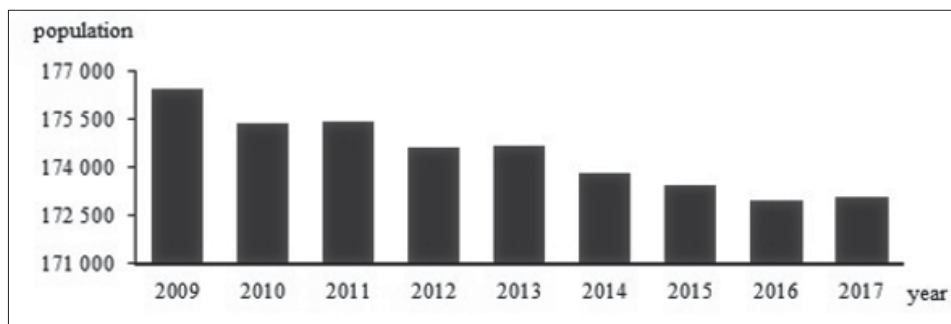


Fig. 1. Population of Olsztyn by the place of residence in the years 2009–2017 (author's own study based on Statistics Poland, Local Data Bank)

176.5 thousand. Despite the general decreasing tendency regarding the population size, it increased by 77 people during the last year. The average population density in Olsztyn was 1,977 people/km² in 2012 and 1,959 people/km² in 2017.

Despite the decreasing population of Olsztyn, new – both single- and multi-family – residential buildings are being constructed in the city. According to the statistical data, there were 70,375 flats in the city in 2009 (2–3 people per flat on average), and 76,680 flats in 2016 (2 people on average). The number of flats is increasing by 900 on average every year. Since 2015, Statistics Poland has been gathering and sharing data on real estate sales, which provides information on the real estate market.

Tab. 2. Market sale/purchase transactions in Olsztyn in 2015–2017 (author's own study based on Statistics Poland, Local...)

	2015	2016	2017	2015	2016	2017
	Value of transactions [million PLN] [million EUR]	Value of transactions [million PLN] [million EUR]	Value of transactions [million PLN] [million EUR]	Number of transactions	Number of transactions	Number of transactions
Primary market	206.02 47.96	108.11 25.17	223.37 52.00	794	402	852
Secondary market	202.94 47.25	216.13 50.32	245.99 59.36	1,010	1,048	1,190
Total	408.96 95.21	324.23 75.48	478.35 111.36	1,804	1,450	2,042

The data presented above (Tab. 2) show that the real estate market in Olsztyn is growing. Residents choose more frequently to purchase property on the secondary market, whose average transaction price is lower by PLN 50,000 (EUR 11,640). In 2017, 2,042 transactions were recorded in Olsztyn for the total

amount of over PLN 478 million (EUR 111.3 million), 58% of which were concluded on the secondary market. Property purchase agreements on the primary market accounted for 42% of all the transactions. The number of transactions recorded in 2016 – 1,450 – decreased compared to 2015 – 1,804. The average flat price in 2017 amounted to PLN 234,000 (EUR 54,477) and it was higher by PLN 7,000 (EUR 1,630) compared to the average price in 2015.

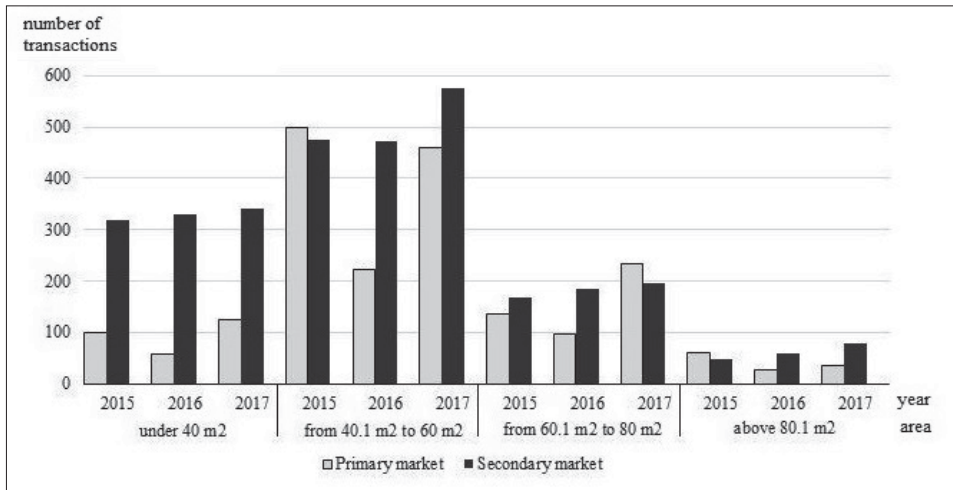


Fig. 2. The number of property units purchased in 2015–2017 by the area (author’s own study based on Statistics Poland data)

Buyers are the most interested in small flats (from 40.1 m² to 60 m²) (Fig. 2). In 2015, more medium-size and very large flats (above 80.1 m²) were bought on the primary market. On the other hand, in 2017, more large flats were bought on the primary market. Small flats (under 40 m²) were bought much more frequently on the secondary market (Fig. 2).

New housing expansion and the bigger size of the real estate market results in larger revenue of the municipal treasury due to various taxes and fees paid by property owners or holders. In 2017, the city revenue amounted to over PLN 1.13 billion (EUR 263 million), with 14% of the revenue coming from the city assets and current revenue accounting for 86% of the total.

Property income includes income from sale of assets (23%), subsidies and investment resources (74%) and other (3%). Current revenue included 26% of income tax revenue; municipal taxes and charges accounted for 21% of current revenue. 25% of the revenue came from grants from the state budget. Subsidies and funds for current activities accounted for 20% of the current revenue; the other 8% was revenue from other sources (Fig. 3). Revenue related to the real

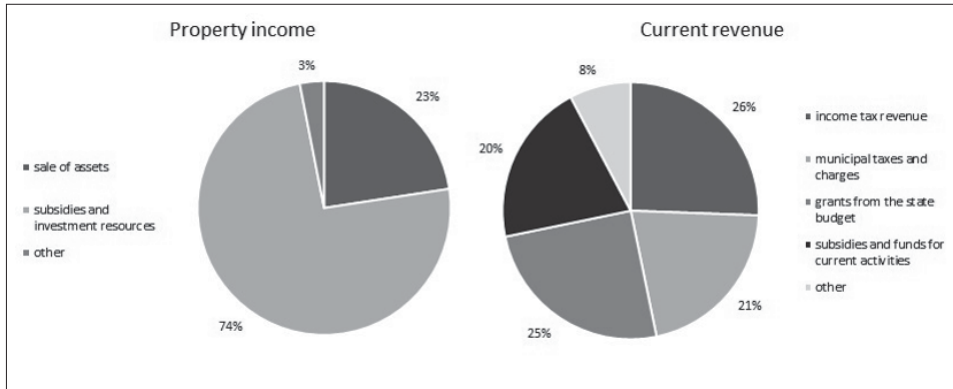


Fig. 3. Structure of asset revenue and current revenue in Olsztyn in 2017 (author's own study based on the *Annual report of the...*)

estate market and property management accounted for 14.1% of all revenues in 2017. Table 3 presents property-related revenue of the municipal budget in 2009–2017.

Tab. 3. Revenue related to the real estate market and property management in Olsztyn in 2009–2017 (author's own study based on the *Annual report of the...*)

Year	Real estate tax	Agricultural and forest tax	Fees for permanent management, holding, easement and perpetual usufruct	Transformation of perpetual usufruct into ownership	Sale of assets	Revenue from lease of property components	Total
2009	60.67	0.10	16.11	1.90	15.18	4.08	98.03
	14.12	0.023	3.75	0.44	3.53	0.95	22.82
2010	71.87	0.08	15.61	0.98	18.39	3.81	110.74
	16.73	0.019	3.63	0.23	4.28	0.89	25.78
2011	73.98	0.09	14.13	1.35	15.84	4.91	110.29
	17.22	0.021	3.29	0.31	3.69	1.14	25.68
2012	87.45	0.13	14.79	0.13	15.26	5.01	122.78
	20.36	0.030	3.44	0.03	3.55	1.17	28.58
2013	89.82	0.14	15.46	6.08	19.57	5.16	136.24
	20.91	0.033	3.60	1.42	4.56	1.20	31.72
2014	97.33	0.15	14.02	1.58	18.36	5.78	137.22
	22.66	0.035	3.26	0.37	4.27	1.35	31.95
2015	92.69	0.13	20.04	1.21	69.31	6.22	189.59
	21.58	0.030	4.67	0.28	16.14	1.45	44.14

2016	96.11	0.15	20.84	0.36	16.24	6.59	140.30
	22.38	0.035	4.85	0.08	3.78	1.53	32.66
2017	101.58	0.15	15.56	0.30	35.12	7.27	159.97
	23.65	0.035	3.62	0.07	8.18	1.69	37.24

The largest portion of the municipal revenue during the period under analysis (2009–2017) came from the real estate tax (Tab. 3). It was followed by the sale of municipal assets. The agricultural and forest tax accounted for the smallest portion of the municipal budget revenue.

In order to attract investors, the city offers them preferential conditions and allocates new areas for housing by passing local plans as well as developing and improving technical infrastructure. New housing is associated with the need to pass local plans or issuing land use permits. Preparing a local plan is a time-consuming, complex and costly procedure, which is why sufficient funds are reserved in the municipal budget for the purpose (Fig. 4). However, like most cities in Poland, Olsztyn struggles with the problem of suburbanisation of adjacent rural areas. The suburbs are inhabited by people who work and study in Olsztyn, which is associated with the need to provide them with access roads and parking spaces in the city centre (Świdyński 2017, pp. 134–142).

In 2012, the city spent nearly PLN 2 million (EUR 465,614) on spatial planning. It was an exceptional year, because during the period between 2009 and 2017 the city spent annually not more than PLN 400,000 (EUR 93,122) for the purpose (Fig. 4). According to statistics, there were 67 local plans in place in Olsztyn, covering ca. 54% of the city area. Additionally, work is in progress on another 32 plans. When the zoning work is completed, the city will have

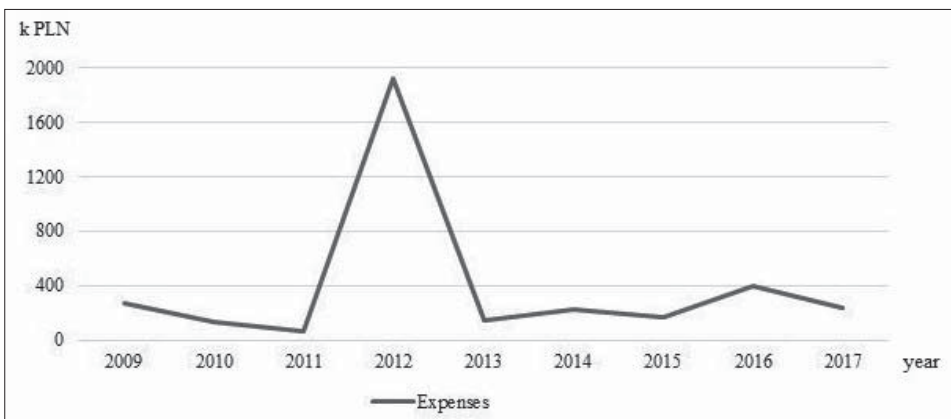


Fig. 4. Expenses for spatial planning in the budget of Olsztyn in 2009–2017 (author’s own study based on the *Annual report of the...*)

99 local plans covering 68.5% of its area. If there is no local plan, a land use permit has to be issued. 212 such permits were issued in 2016, with 45% concerning residential housing (Tab. 4). The largest number of such permits were issued in 2014 – 259; the smallest number was in 2015 – 169. Land use permits for residential housing were issued the most frequently in 2016. The smallest portion of land use permits for residential were issued in 2010, when only 31 out of 242 concerned residential housing (Tab. 4).

Tab. 4. Land use permits issued in Olsztyn in 2009–2014 (author's own study based on Statistics Poland, Local...)

Name	2009	2010	2011	2012	2013	2014	2015	2016
total land use permits	226	242	210	244	243	259	169	212
land use permits for residential housing	90	31	73	63	81	92	58	95
proportion of permits concerning residential housing	40%	13%	35%	26%	33%	36%	34%	45%

The biggest portion of the residential investment projects were carried out in the southern part of the city. Housing density was increased in the other quarters. A comparison of photomaps (Fig. 5) of the southern quarters – Jaroty, Pieczewo, Nagórki and Osiedle Generałów – has been provided.

New housing in these quarters created new housing estates. Places of housing expansion are marked with white ellipses (Fig. 5). Construction of new housing estates with single- and multi-family houses necessitated the development of technical infrastructure – mainly roads – which is shown on the presented photomaps.

CONCLUSIONS

The study showed that a developing real estate market is a condition for starting new housing investment projects which, in turn, has a positive impact on the municipal budget. The real estate market in Olsztyn is developing. The number of transactions is growing. Flats put up for sale come both from the primary and secondary market. Property from the secondary market with an area under 60 m² attracts the greatest interest. The number of both single- and multi-family buildings in the city is growing, which is demonstrated both by the statistics and a comparison of the photomap showing the state of housing in the southern part of Olsztyn in 2009 and in 2017. Municipal budget revenue associated with property management accounts for a considerable portion of the municipal funds and is resistant to economic fluctuations, which makes it a stable



Fig. 5. Expansion of housing in the southern quarters of Olsztyn in 2009–2017 (author's own study based on Google satellite images)

source of income. The income is increasing steadily and it amounted to nearly PLN 160 million (EUR 37.25 million) in 2017.

It is important from the investor's/developer's point of view that the city should invest as little as possible in local plans and that it should not have decided on the direction of its spatial policy. With local plans absent, investment projects are based on land use permits which are issued with the investor's/developer's needs in mind. Investment projects of this kind disrupt the spatial

order. The desire for profit makes the new housing over-scaled and violates the good neighbourhood rules. A large number of new investment projects makes the profit-oriented real estate market the main form of investment in the city.

Note: EUR 1 = PLN 4.2954, according to the average annual NBP price in January–August 2019 (*NBP weighted average...*).

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