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THE LOCATIONS OF HOUSING INVESTMENTS IN LOWER SILESIA PROVINCE VERSUS CHANGES IN SPATIAL DISPROPORTIONS IN THE SOCIAL AND ECONOMIC DEVELOPMENT OF THE REGION

LOKALIZACJA INWESTYCJI MIESZKANIOWYCH W WOJEWÓDZTWIE DOLNOŚLĄSKIM A ZMIANY DYSPROPORCJI PRZESTRZENNYCH W ROZWOJU SPOŁECZNO-GOSPODARCZYM REGIONU

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ABSTRACT: The purpose of the paper is to present the locations of housing investments in Lower Silesia Province, with a special focus on cities/towns and suburban areas, and also to evaluate their potential impact on reducing spatial disproportions in the region's development. The study covers the territory of Lower Silesia Province, especially cities/towns which are leading with regard to housing investments locations, selected by the number of dwellings completed. The research period is 2011-2017. The paper presents the relations and feedbacks between a housing investment location and the social and economic development and growth.

KEY WORDS: housing investments, city/town, suburban area, population, socioeconomic development

ABSTRAKT: Celem artykułu jest omówienie lokalizacji inwestycji mieszkaniowych w przestrzeni województwa dolnośląskiego ze szczególnym uwzględnieniem miast i ich stref podmiejskich, a także ocena możliwego ich wpływu na zmniejszanie dysproporcji przestrzennych w rozwoju regionu. Badaniem objęto województwo dolnośląskie a szczególnie miasta wiodące w zakresie lokalizacji inwestycji mieszkaniowych, wybrane do analizy według liczby oddanych do użytkowania mieszkań. Okres badawczy to lata 2011–2017. W artykule wskazano zależności i sprzężenia zwrotne pomiędzy lokalizacją inwestycji mieszkaniowych a wzrostem i rozwojem społeczno-gospodarczym.

SŁOWA KLUCZOWE: inwestycje mieszkaniowe, miasto, strefa podmiejska, ludność, rozwój społeczno-gospodarczy

Introduction

The purpose of the paper is to present the locations of housing investments in Lower Silesia Province (Voivodeship), with a special focus on cities and suburban areas, and

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to evaluate their potential impact on reducing spatial disproportions in the region's development. The study covers the territory of Lower Silesia Province. A more in-depth analysis was carried out for selected cities/towns and suburban areas which are leading for housing investments locations, selected by the number of dwellings completed. The study period of the years 2011-2017 was determined by availability of comparable data from the Local Data Bank of the Statistics Poland. The applied methodology includes a descriptive method, comparative analysis and simple statistical methods.

Significant development disproportions can be observed in the Province of Lower Silesia. The term dichotomy is often mentioned in the context of the region's development. The division applies to the northern part (the subregions of the City of Wrocław, Wrocław suburban region and Legnica and Głogów) and the south-western area (subregions of Wałbrzych and Jelenia Góra). The south-western part is characterised by much lower social and economic growth indicators, and consequently its lower investment attractiveness (see more, e.g. Korenik 2017; Zakrzewska-Półtorak et al. 2018). The paper presents the relations and feedbacks between a housing investment location and the social and economic development and growth.

Housing investments according to districts (*poviats*)

An analysis of the number of dwellings completed in residential and non-residential buildings, both new and extended ones, in Lower Silesia Province according to districts (Figure 1) was carried out as an introduction to the study. Between 2011 and 2017, the highest number of dwellings were placed into service in the capital of the province – Wrocław.

What is more, the share of Wrocław (the city with district rights) in the number of dwellings completed in the province's scale increased from 35.6% in 2011 to nearly 52% in 2017. After including Wrocław administrative district (strongly functionally connected with Wrocław) the share amounted to 49.2% in 2011 and was going up continuously until 2016 (65.7%), while in 2017 it stood at 62.6%. After adding the data for the Commune of Miękinia (located in the District of Środa Śląska) bordering on Wrocław to the west (strongly functionally connected with Wrocław, too), which was leading for housing investments locations among all the communes in Lower Silesia Province – almost 1,500 dwellings completed between 2011 and 2017[1] – the share (of Wrocław with the suburban area) increased to over 50% in 2011, while in 2017 it amounted to around 65% in the scale of the region.

It suggests a fairly strong concentration of housing investments in Wrocław and its suburban area, mainly as a result of intensive influx of people. Between 2011 and 2017,

[1] For comparison, in the same period in the cities with district rights: Legnica approx. 1,600 and in Jelenia Góra a little over 1,100 dwellings were completed. There were 96 dwellings per 1,000 inhabitants completed in Miękinia in the years 2011-2017, while approx. 75.5 in Wrocław, approx. 16 in Legnica and about 14 in Jelenia Góra.

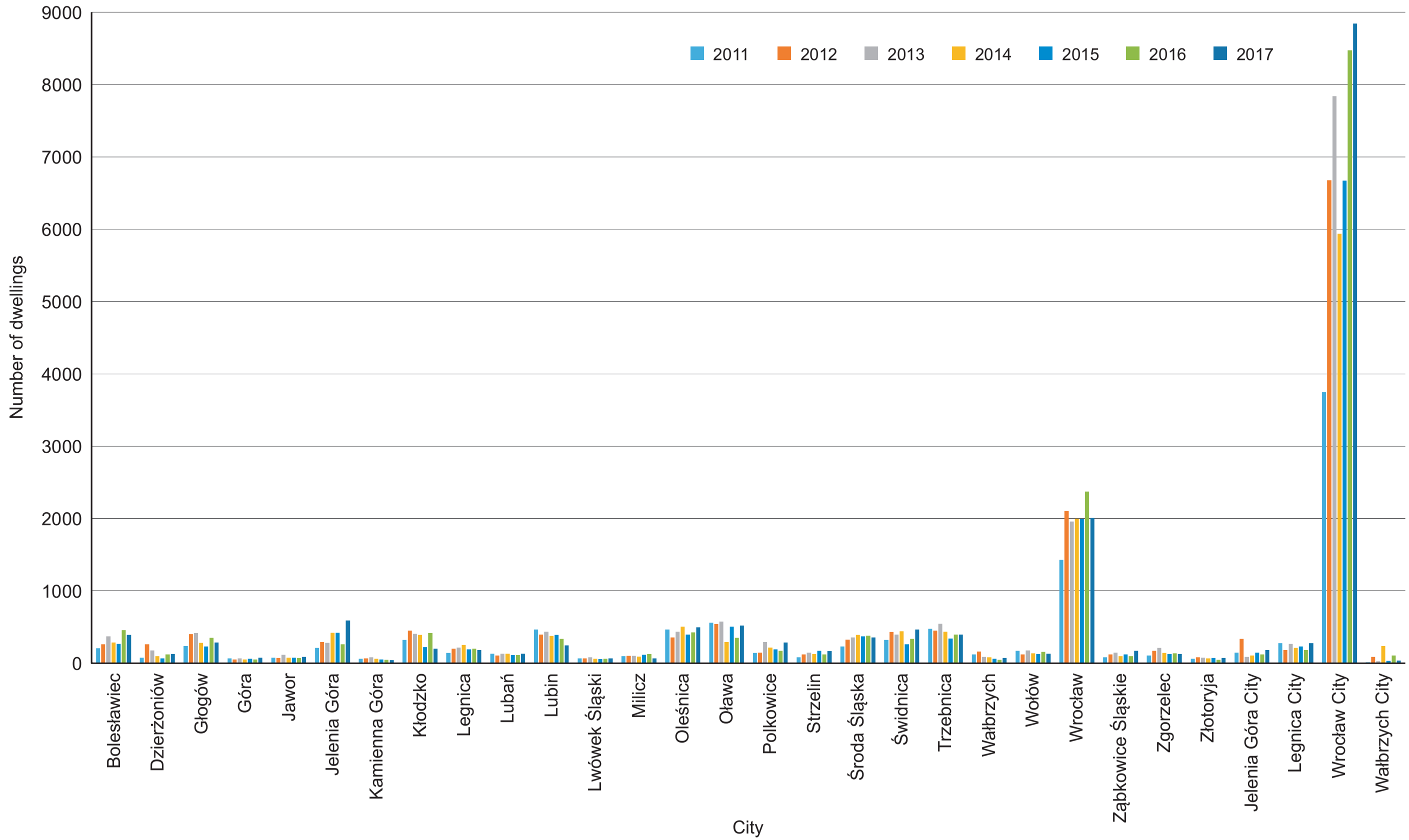


Fig. 1. Number of dwellings completed in residential and non-residential buildings, new and extended ones, between 2011 and 2017, according to districts in Lower Silesia Province

Source: own elaboration based on data from the Local Data Bank of the Statistics Poland.

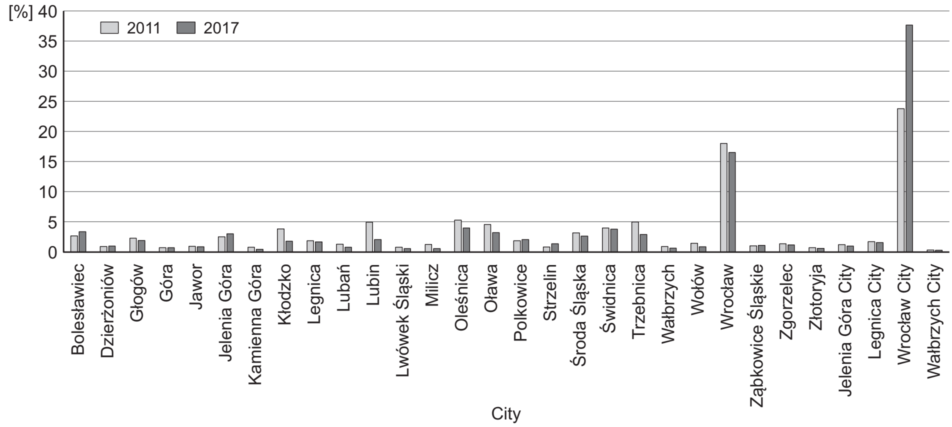
the population in the area (the City of Wrocław, the administrative district of Wrocław and the Commune of Miękinia altogether) increased by over 29,000, i.e. by about 3.8%, whereby only in the City of Wrocław the population number grew by over 1%, in the administrative district of Wrocław by over 16%, while in the Commune of Miękinia by nearly 15%.[2] In the case of residential investments in Wrocław and its suburban area, income (capital and/or current) determinants prevailed. It means people would buy another flat to earn on it. The influx of people, resulting from dynamically developing labour market was the factor which decided about the choice of the location.

In the scale of the region there are also other cities/towns which are fairly attractive for housing investments. They can partly compensate for the disproportions in the spatial development of Lower Silesia Province. It can be of even greater importance since housing investments not directly intended to bring profit remained outside the Wrocław impact area. In this case, flats or houses were purchased for people's own needs. Highly attractive tourist towns, such as Karpacz and Szklarska Poręba were the exceptions, where investment determinants prevailed. Buying a flat for oneself and connecting one's future with the particular area can greatly contribute to the development of these areas (development of entrepreneurship, higher attractiveness of the labour market, etc.). The investments made in the cities/towns analysed together with their suburban areas result in moderate dominance of the following districts: Oława, Oleśnica and Trzebnica (the total for the period 2011-2017) and the Districts of Jelenia Góra, Oława, Oleśnica and Świdnica (according to the data of 2017), besides the dominant Wrocław and the administrative district of Wrocław. The data are presented in Figure 1. Details of housing investments in the cities/towns and their suburban areas are presented in Item 3.

The dominance of Wrocław and its suburban area was a bit lower when the floor space and not the number of new dwellings were taken into account. The share of the capital of the province in the usable floor space of dwellings newly placed into service amounted to about 24% in 2011 and over 37% in 2017 in the scale of the region (see Figure 2). The share of Wrocław administrative district decreased then from 18% to 16.5%. Other districts with a fairly high share in 2017 included the City of Jelenia Góra with Jelenia Góra District, the districts of: Oleśnica, Świdnica, Bolesławiec, Oława and the City of Legnica with the District of Legnica; their individual shares ranged from 3 to 4% of the floor space of dwellings completed in the scale of the region. The Districts of Oleśnica, Lubin, Trzebnica and Oława were characterised by a fairly high share (of 4.5–5.3%) in 2011.

The size of the purchased floor space greatly depended on the price per 1 m^2 to be paid. Figure 3 presents the average prices per 1 m^2 of a dwelling, according to data from market transactions in the period 2015-2017, obtained from the Register of Property Prices and Values for different districts (the period was reduced due to the fact that comparable data were not available). Besides some exceptions on the primary market

[2] According to data from the Local Data Bank of the Statistics Poland.



Note: The data of 2013 instead of 2011 were given for Walbrzych City and Walbrzych District; in 2013 the City of Walbrzych regained its status of municipality with district rights.

Fig. 2. The share of floor space of dwellings newly completed in Lower Silesia Province according to districts in 2011 and 2017 (in %, Lower Silesia = 100%)

Source: own elaboration based on data from the Local Data Bank of the Statistics Poland.

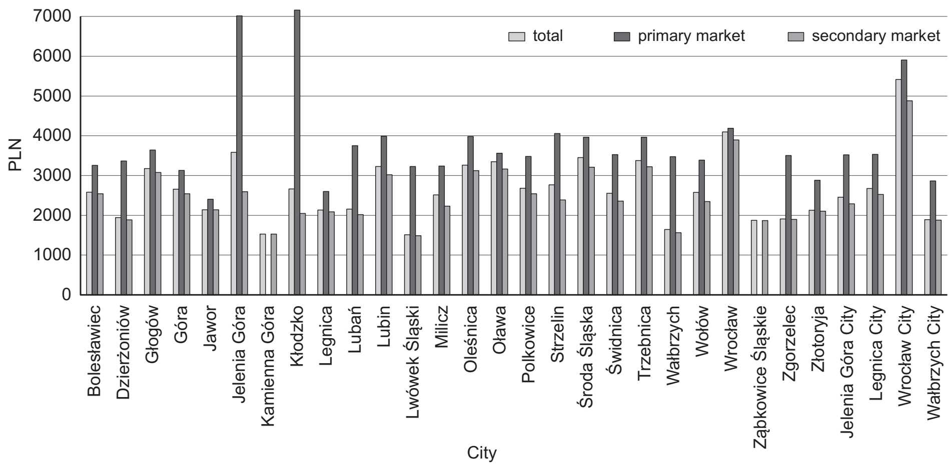


Fig. 3. Mean price per 1 m2 of a dwelling according to market transactions in 2015-2017 according to districts in Lower Silesia Province (in PLN)

Source: own elaboration based on data from the Local Data Bank of the Statistics Poland.

in the Districts of Jelenia Góra and Kłodzko, the mean prices on the primary market (except for Wrocław and the administrative district of Wrocław) did not exceed PLN 4,000 per 1 m^2. In Wrocław's administrative district the average price on the primary market was slightly higher and amounted to a bit less than PLN 4,200, while in the City of Wrocław it was much higher and amounted to about PLN 5,900. The aforementioned exceptions in the Districts of Kłodzko and Jelenia Góra applied to the sales of luxurious apartments in highly attractive tourist places. In the District of Kłodzko they were mainly apartments with areas up to 60 m^2, the same was true for the District of Jelenia Góra, but there were a few transactions for flats up to 80 m^2.[3]

The prices on the secondary market were much lower. The average price per 1 m^2 on the secondary market constituted about 64% of the mean price on the primary market. The most similar prices for the two market types were observed in the Districts of Wrocław (the average price on the secondary market amounted to 93% of the primary market price), Oława and Jawor (about 89%, respectively), while the biggest differences were observed in the Districts of Kłodzko (the average secondary price market was 29% of the primary market prices) and Jelenia Góra (37%).

The average prices per 1 m^2 ranged in Lower Silesia Province in the study period from PLN 1,500 in the Communes of Kamienna Góra and Lwówek Śląski to over PLN 5,400 in the City of Wrocław and nearly PLN 4,100 in Wrocław's administrative district. The paper, however, focuses on primary market transactions, i.e. the ones related to new housing investments.

Residential attractiveness of cities/towns and suburban areas

Location of housing investment is a testimony to residential and economic (as well as tourist) attractiveness of the area. Economic and social factors play the dominant role, followed by nature factors – their significance increases in cities/towns and suburban areas with tourist advantages (see e.g. Ledzion-Trojanowska 2005; Uhruska 2008; Foryś 2009). In the studied region, it mattered mainly for mountainous areas. Other important aspects analysed when making a decision on a housing investment (both on the supply and demand side) include the condition of local economy with a special consideration for the labour market, transport infrastructure, other technical infrastructure as well as social and institutional infrastructure.

Taking into account the residential attractiveness of the towns in Lower Silesia Province, except for the dominating Wrocław, the following towns including their suburban areas stand out in the region, according to the number of dwellings newly placed into service: Lubin, Legnica, Jelenia Góra, Oława, Głogów, Oleśnica, Trzebnica, Bolesławiec and Świdnica. Figure 4 includes the other two towns (with their suburban areas) located in the Wrocław's suburban area: Siechnice and Kąty Wrocławskie.

The accumulated number of dwellings placed into service in 2011-2017 in all the towns exceeded 1,300, while in Wrocław alone, it was nearly 48,200 dwellings. Siechnice ranked the first (being actually a suburban area of Wrocław), followed by the highly ranked towns of Lubin, Legnica, Jelenia Góra, Oława and Głogów which can become growth centres that will reduce spatial disproportions in the social and economic devel-

[3] According to data from the Local Data Bank of the Statistics Poland.

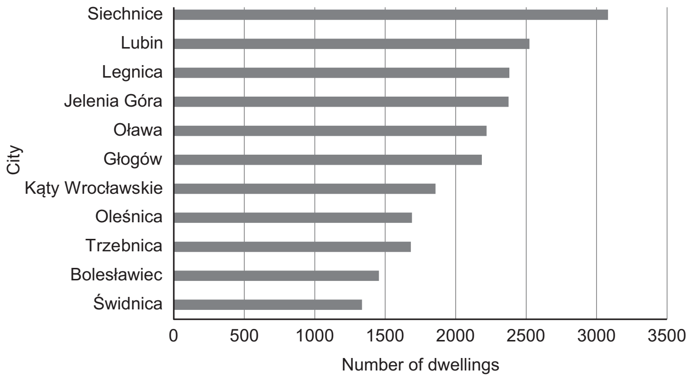


Fig. 4. Towns and their suburban areas, except Wrocław, leading for the number of dwellings completed in Lower Silesia Province (accumulated number for the period 2011-2017)

Source: own elaboration based on data from the Local Data Bank of the Statistics Poland.

opment of the region. Lubin, Legnica and Głogów are the towns of the Legnica-Głogów Copper District located in the centre (Legnica) and to the north of the province (Lubin, Głogów). However, a negative balance of population migration in the towns, analysed together with their suburban areas is a worrying phenomenon. The towns of Oława, Oleśnica and Trzebnica partly remain in the impact area of Wrocław. Still, there are no strong centres in the south and west of the province (except Jelenia Góra, in which case the suburban area was more dominant than the city itself) demonstrating development trends. In Figure 4, only Bolesławiec and Świdnica are included for this part of the region, besides Jelenia Góra. The number of new dwellings placed into service in the towns and their suburban areas ranged from about 1,330 to about 1,450. Szklarska Poręba was fairly often chosen due to its tourist attractiveness. The accumulated number of flats exceeded 930, whereby the year 2017 dominated with over 400 flats placed into service in the town.[4]

Due to the fact that housing investment was too low therein, Figure 4 does not include the following cities/towns (analysed together with the suburban area): Wałbrzych (a population of 129,000 as of the end of 2017, and the accumulated value for the period 2011-2017 slightly over 700 new flats), Kłodzko (population of about 44,500 and about 550 new flats) and Dzierżoniów (population of about 42,800 and about 500 new flats). They are towns with a potential to become new growth centres in the future, but their impact in the near future will not be too strong due to fairly low residential attractiveness for the time being. The changes in the number of inhabitants presented in Item 4 are there to confirm it.[5]

[4] According to data from the Local Data Bank of the Statistics Poland.
[5] According to data from the Local Data Bank of the Statistics Poland.

When analysing the data for cities/towns, the significant share of suburban areas in the number of new dwellings placed into service needs to be emphasized. For Jelenia Góra it was over 50%, while for Oleśnica and Lubin over 40%. The share of suburban areas is presented in Table 1.

Table 1

The share of the suburban area in the number of dwellings newly placed into service in selected cities/towns of Lower Silesia Province in the period 2011-2017 (accumulated value, in%, city/town with the suburban area = 100%)

The city/town	Share of the suburban area
Jelenia Góra	53
Oleśnica	44
Lubin	43
Trzebnica	36
Świdnica	35
Bolesławiec	34
Głogów	33
Legnica	32
Oława	21

Source: own elaboration based on data from the Local Data Bank of the Statistics Poland.

Rural communes perceived as most attractive to live in the scale of the province include the communes located in Wrocław suburban area, in Wrocław administrative district, especially the Communes of Czernica, Długołęka and Kobierzyce, and the District of Środa Śląska in the Commune of Miękinia. Between 2011 and 2017, the total number of new dwellings completed amounted to the following: in the Commune of Długołęka over 3,800, the Commune of Kobierzyce – almost 1,850, the Commune of Czernica – over 1,800, and nearly 1,500 in the Commune of Miękinia. The mean usable floor space in the communes was about 120 m^2. For comparison, in the Town of Siechnice, similarly to Wrocław, it was much lower – about 60 m^2.

Towns leading for housing investment locations versus population, unemployment and business activity

Changes in the population number are an important aspect. Due to a limited volume of the study, the balance of population migration (internal and foreign) in the years 2016-2017 was taken into account. The data are purposefully presented separately for cities/towns and their suburban areas (see Table 2). The towns with a definitely positive balance include Kąty Wrocławskie, Oława, Siechnice, Trzebnica and Bolesławiec, namely towns (except Bolesławiec) in the impact area of Wrocław. There were many more suburban areas with a positive population balance, but only in some cases the balance highly compensated for the situation in the town. The cases include the suburban areas of Oleśnica and partly Legnica and Lubin. There was also a separate category of rural communes situated close to the capital of the province, attractive for the coming population: Długołęka and Miękinia.

Table 2

Balance of population migration in 2016-2017 (number of people)

The city / the town / the suburban area	Internal		Foreign	
	2016	2017	2016	2017
Bolesławiec	36	23	5	10
Bolesławiec suburban area	38	106	4	6
Długołęka	844	962	0	10
Dzierżoniów	–56	–3	–43	–10
Dzierżoniów suburban area	5	8	–36	–13
Głogów	–412	–315	4	4
Głogów suburban area	120	71	6	5
Jelenia Góra	–4	69	–29	–36
Jelenia Góra suburban area	114	95	–5	7
Kąty Wrocławskie	56	104	0	1
Kąty Wrocławskie suburban area	288	513	10	7
Kłodzko	–80	–74	0	6
Kłodzko suburban area	44	36	–25	–6
Legnica	–169	–271	26	31
Legnica suburban area	188	141	3	–4
Lubin	–310	–310	19	7
Lubin suburban area	255	286	3	–17
Miękinia	285	428	–1	9
Oleśnica	–35	–55	9	10
Oleśnica suburban area	140	122	3	4
Oława	117	90	16	6
Oława suburban area	39	23	–7	3
Siechnice	234	209	10	9
Siechnice suburban area	257	211	7	11
Świdnica	–145	–150	–10	–59
Świdnica suburban area	53	90	–7	–16

Table 1 contd.

The city / the town / the suburban area	Internal		Foreign	
	2016	2017	2016	2017
Trzebnica	99	69	3	7
Trzebnica suburban area	155	123	5	4
Wałbrzych	–319	–271	4	7
Wałbrzych suburban area	57	25	9	1
Wrocław	1,063	1,029	425	357

Source: own elaboration based on data from the Local Data Bank of the Statistics Poland.

Attractive areas were the ones characterised by a relatively low unemployment rate. In the Commune of Kąty Wrocławskie per 1,000 working age population there were about 14 unemployed, including fewer than 6 long-term unemployed, in the Commune of Siechnice – fewer than 15, including fewer than 6 long-term unemployed (Figure 5). Oława and Głogów close the ranking of the studied towns with suburban areas. In the case of these two towns, the total number of the unemployed per 1,000 working age population was over 3-times higher than in the leading communes and amounted to about 48-49 people, while the number of long-term unemployed was over 4 times higher (27-28 people).

In all of the studied towns, the share of working age population did not exceed 61% of the total population, except Siechnice (64%). It was much higher in the suburban areas – about 63-64%, while the highest (65.6%) in the rural Commune of Oleśnica.

The lowest number of the long-term unemployed against the number of working age population was reported in Siechnice and Kąty Wrocławskie, which confirms the attractiveness of residential locations in the Wrocław urban area. Other towns includ-

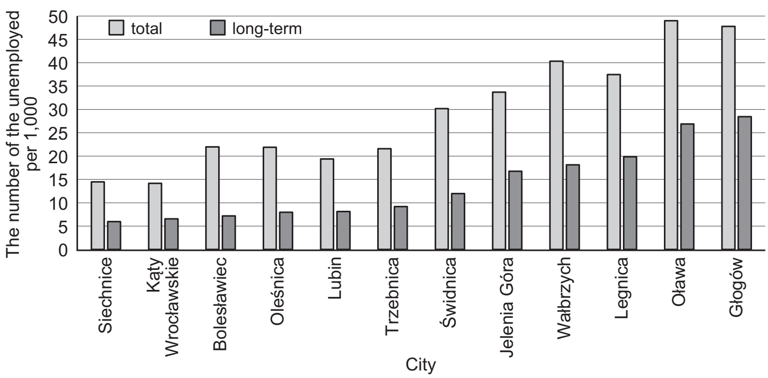


Fig. 5. The number of the unemployed per 1,000 of working age population in towns, including suburban areas in 2018 (ranked according to the long-term unemployed)

Source: own elaboration based on data from the Local Data Bank of the Statistics Poland.

ing suburban areas with a fairly small share of the long-term unemployed and the unemployed in total included: Bolesławiec, Oleśnica, Lubin and Trzebnica. A fairly high share of the unemployed of both categories was observed in Oława and Głogów, which weakens the position of the towns within housing attractiveness in the years to come. In the case of Głogów one should remember the additional negative balance of population migration, which is not sufficiently compensated for with a positive balance in the suburban area, as it happened in the majority of the studied towns in the period 2016-2017 (see Table 2). A particularly unfavourable ratio of the long-term unemployed to the unemployed in total in 2018 was observed in Głogów (the ratio of about 60%), Oława, Legnica (over 50%) and Jelenia Góra (nearly 50%); for comparison – in Bolesławiec it was slightly over 32%, while in Oleśnica about 36%.

The last of the analysed variables was the gain in the number of newly-registered business entities between 2011 and 2018 per 1,000 inhabitants (Figure 6). Besides Wrocław, the highest index was observed in the following towns (including the suburban area): Siechnice (110), Kąty Wrocławskie and Jelenia Góra (about 94), while a higher index occurred in the rural Communes of Kobierzyce (119), Czernica (105) and Długołęka (102).

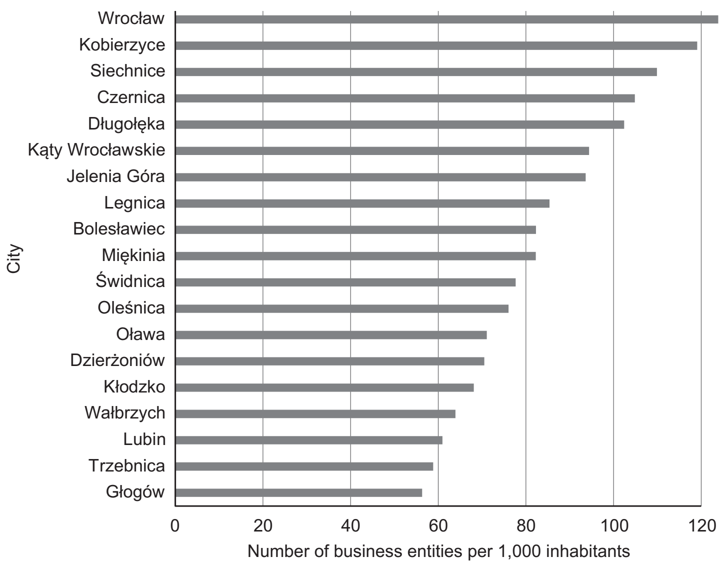


Fig. 6. Newly-registered business entities between 2011 and 2018 per 1,000 inhabitants

Source: own elaboration based on data from the Local Data Bank of the Statistics Poland.

The residential attractiveness and the development status and potential of the cities and towns and their suburban areas are evaluated in Table 3. The first quarter of the table includes entities characterised by a high intensity of housing investments completed and a good social and economic condition. There are 4 towns of that kind. The second quarter of the table presents towns which are attractive as housing locations and which can develop in the near future based on their potential. This is the most numerous group. None of the towns was classified for the third quarter, while two towns with a fairly low housing attractiveness and low chances for development in the next few years can be found in the fourth quarter of the table.

Table 3

Studied towns and their suburban areas classified for their residential attractiveness and the current and potential development

1. High housing attractiveness and development Siechnice Oława Kąty Wrocławskie Oleśnica	2. High housing attractiveness and development opportunities in the coming years Jelenia Góra Lubin Bolesławiec Trzebnica Legnica Świdnica
3. Low housing attractiveness and development —	4. Low housing attractiveness and low development opportunities in the coming years Kłodzko Dzierżoniów

Source: own elaboration.

Głogów was not included in the classification – it is characterised by high residential attractiveness but a low development potential (population changes, unemployment, new registered business entities). Wałbrzych is the opposite – its residential attractiveness is low but the development potential relatively high (the weakness is the decline in the population). Finally, one should highlight high housing attractiveness and the development level and potential of the following rural communes: Długołęka, Czernica, Kobierzyce and Miękinia.

Conclusions

The purpose of the paper was to present location of housing investments in Lower Silesia Province, with a special consideration for cities/towns and their suburban areas, and evaluation of their potential impact on reducing spatial disproportions in the development of the region. In the region strongly dominated by Wrocław and with a dichotomous division into the northern and south-western parts, towns located outside the typical growth area find it hard to get better results. The typical growth area includes Wrocław and the Wrocław subregion. Moreover, the towns situated in the Legnica and Głogów subregion also reveal unfavourable trends related to population migration or unemployment. In the studied period they were characterised by a higher residential attractiveness than the current development potential, which does not mean the situation would not improve in the years to come (towns: Lubin, Głogów and Legnica). Jelenia Góra in the southern part of the region was in the same situation. Bolesławiec, in turn, had a higher development potential than residential attractiveness. The towns which may in future strengthen their position include: Świdnica, Wałbrzych, Dzierżoniów and Kłodzko. They can contribute to reduction in the spatial disproportions in the region. However, Jelenia Góra and Bolesławiec may play such a role in the near future owing to the development of housing investments.

According to the theory of polarisation, the occurrence of subsequent growth poles may contribute to the development of a region as a whole, simultaneously reducing spatial disproportions in the income and living conditions (Myrdal 1957). Some of the presented towns can play such a role owing to new areas attractive for housing. Still, a worrying phenomenon of urban sprawl can be observed – suburban areas attract the majority of investments and are the main places of population influx. Relating to the concept of endogenous development (Romer 1994), it needs to be stated that beside the areas in the direct vicinity of Wrocław, taking benefits of the so-called location rent, the areas with favourable endogenous factors (infrastructure, condition of local economy, culture and natural advantages, local policy, etc.) and having good prospects for maintaining the current economic growth rate were attractive from the housing point of view.

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