

ARTICLES

**REGIONAL DIFFERENTIATION OF THE DWELLINGS CONSTRUCTION IN THE CZECH REPUBLIC DURING THE TRANSITION PERIOD**

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**ABSTRACT**

***Regional differentiation of the dwellings construction in the Czech Republic during the transition period***

*The article presents the results of an analysis of the spatial distribution of the construction of new dwellings in the Czech Republic in the period after 1989. This period represents a major turnaround in the Czech society and the associated transformation of the Czech economy from a centrally planned economy toward a free market. These changes were also significantly reflected in the construction of new dwellings. The article analyses the spatio-temporal evolution of the construction of new dwellings at the level of the Czech Republic and its partial spatial structures. The results indicate significant differences in the regional distribution of the construction of new dwellings in the Czech Republic.*

**KEY WORDS**

*housing, dwelling construction, regional differentiation, transition periods, Czech Republic*

## 1. Introduction

Socialist economic systems, including Czechoslovakia, suffered from many distortions that resulted from their central administration. These distortions included a large share of industry, especially heavy industry, and an underdeveloped service sector. In the countries of the so-called Eastern bloc, industrialisation was widely regarded as the driving force of economic growth, in contrast to the importance of services for economic growth, which was underestimated. Another typical feature of the central planning system was the monopolisation of the economy. The construction sector was no different from the rest of the economy, and therefore a significant concentration of production also occurred in the construction sector. Before 1989, the Central Authority for the construction industry was the Ministry of Construction, which established state enterprises according to branches, and so, for example, *Pozemní stavby* (Civil Engineering) was established for the construction of dwellings, *Stavby silnic a železnic* (Construction of Roads and Railways) for transportation projects, *Metrostav* for the construction of the underground, etc. (Šimáček, Szczyrba 2012).

The above-mentioned central planning in the construction industry resulted in the mass dwellings construction, with standard market mechanisms for planning dwellings being suppressed in favour of a model based on the administrative allocation of flats. The state-controlled dwellings construction from the late 1950s until the late 1980s was based mostly on the development of flats made from prefabricated panels, which did not take into account the capabilities of the dwellings, functionality, architectural design, people's individual needs, or energy demands. The dwellings construction peaked in the early 1970s, when the government started a project for the comprehensive dwellings construction, which aimed to build effectively a large volume of new dwellings (Andrle et al. 1986).

In this period, on the territory of today's Czech Republic, an above-average number of new dwellings was developed in comparison with abroad (Lukavcová 2013). In the early 1980s, the total volume of the dwellings construction was significantly reduced. The decline in the number of new flats completed lasted until the mid-1990s and was closely associated with the gradual quantitative saturation of the needs of society regarding the housing stock and subsequently with societal changes and transition from a centrally planned economy to a market economy (Tsenkova 2009).

Even in the first third of the 1990s comprehensive dwelling construction projects were completed, although the state subsidies allocated for the dwellings construction were stopped at the beginning of the decade.

From the mid-1990s, when the mortgage market started to develop in the Czech Republic, the development of the construction of new dwellings started again, but it has never reached the intensity it had in the era of socialism. This increase in the dwellings construction since the mid-1990s was suspended by the global economic crisis. In 2008, 35,000 apartments were built, while from 2009 to the present the decline in the construction of new dwellings is obvious.

From the foregoing it is evident that a number of social, political, and economic changes took place in the Czech Republic after 1989. In connection with this, the conditions for the dwellings construction also changed: it ceased to be the domain of the state and through a gradual liberalisation of the market it passed to municipalities and private entities (mainly developers). The ambitions of developers and their efforts to optimise profit were significantly reflected in the distribution of new residential development across the regions of the Czech Republic. Therefore, the first part of the article analysing the spatio-temporal evolution of the construction of new dwellings will focus on the description of the phenomenon observed in 1989 at the level of the Czech Republic, while in the second part, attention will be paid to the spatial level of regions (NUTS3 regions), and in the third part, we will pay attention to the spatial level of administrative districts of municipalities with extended powers (the basic unit of the micro-regional structure of the Czech Republic). The second and the third parts will focus more on the period after 1997, when the number of newly completed flats reached its absolute minimum within the transition period. The paper thus aims to contribute to the current understanding of the problems of the spatio-temporal aspects of new residential construction.

## **2. Data and methodology**

Statistics on the dwellings construction in the Czech Republic are kept by the Czech Statistical Office (CZSO). These statistics were among the first to be resumed and extended after the Second World War and followed up the statistics of construction development from the period of the First Republic. Until 1970 they were only published on the regional level. In 1971, CZSO began tracking the dwellings construction on the municipal level, which already contained annual data on the number of started, completed, and under-construction apartments. New dwellings were presented separately for flats in family houses, apartment buildings, and other buildings. Unfortunately, however, the time series of the dwellings construction in the municipalities was discontinued in the period 1991-1996. At that time, CZSO only published data on dwellings completed for the whole country and regions. In 1997, statistics on the dwellings construction were resumed.

Since this year, it has therefore been possible to track accurately the number of completed dwellings in their full structure, but also to associate their numbers with the current territorial delimitation in the most detailed territorial structure and then evaluate the dwellings construction by any current territorial arrangement (in regional and micro-regional structures). The following indicators are analysed in the article on the basis of data from the CZSO databases (CZSO 2015a and CZSO2015b).

Firstly, it is the indicator of the total volume of the construction of new dwellings, which is also divided by the type of dwelling into the dwellings construction in family houses or apartment buildings. The comparative indicator was the so-called intensity of the dwellings construction, expressed in terms of the number of dwellings completed per 1,000 mean value of the population in the respective year or, in the case of a multi-year period, per the mean value of the population of this particular period. The fluency of the dwellings construction is evaluated by the ratio of the number of dwellings completed per 100 dwellings started in each year of the period in question. In addition, for individual regions, indicators of concentration (the dwelling construction concentration index and coefficient) were calculated for the period 1997-2013. Valuable findings were provided by the typology of administrative districts of municipalities with extended powers according to the difference in the intensity of the dwellings construction from the annual average intensity of the dwellings construction in family houses and apartment buildings in the Czech Republic in the period 1997-2013.

### **3.Changes of basic indicators of the dwellings construction**

In connection with the developments described above, the basic indicators of the dwellings construction were changing. In addition to the volume of construction, a new indicator was the average living area per newly completed apartment. In the 1950s, this indicator declined almost continuously, mainly as a result of the increase in the development of small apartments (Andrle et al. 1967). At the turn of the 1950s and 1960s, the conditions for the development of dwellings (see previous section) changed fundamentally and the average size of apartments started to rise. This development has continued to the present day, with minor oscillations. Unlike the situation in the early 1990s, today's increase in the average living space of newly completed apartments is caused more by new family houses than by apartments built in residential buildings. Over the past 25 years, the average living area of newly completed dwellings has increased by more than 20 m<sup>2</sup> (it is currently about 77 m<sup>2</sup>). For comparison, from 1958 to 1989, the value of the average living space in newly completed dwellings increased by approximately 16 m<sup>2</sup>.

Another basic indicator used for the evaluation of the dwellings construction is the so-called dwelling construction intensity (number of completed dwellings per 1,000 inhabitants) and its fluency (number of completed apartments per 100 apartments started). Data on apartments started are available for the period since 1971. For more than a forty-year period, the dwellings construction in the Czech Republic went through relatively interesting fluctuations. After a very dynamic period of the dwellings construction in the 1970s, the intensity of construction, as well as its fluency, gradually decreased. This decline continued until the turn of the 1980s and 1990s (see Fig. 1), when this trend began to change in the opposite direction.

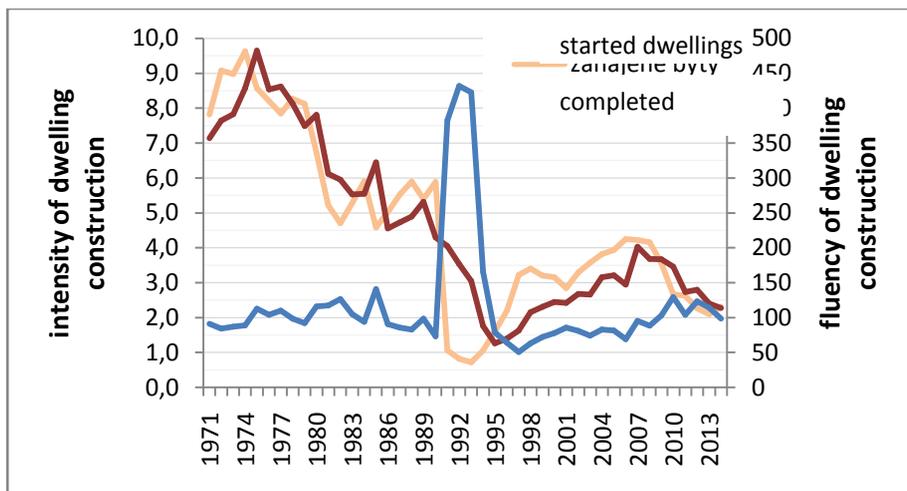


Figure 1: The development of the intensity and fluency of the dwellings construction in the period 1971-2013

Source: Lukavcová 2013; authors' own processing

In the first half of the 1990s, however, the dwellings construction was still under considerable attenuation, which, with a much greater decline in the number of apartments started, resulted in a sharp fluctuation in the continuity of the dwellings construction. As previously mentioned, the large development projects of blocks of flats, which began within the so-called comprehensive apartment development, were brought to an end, while almost no new dwellings construction was started. A substantial recovery in the dwellings construction occurred after 1993, but the increase in the intensity of the dwellings construction logically followed with some delay after 1995, when the lowest volume of the dwellings construction in the second half of the 20th century was recorded. For comparison, according to Lukavcová (2013), 97,000 new dwellings were completed in 1975, and in the early 1980s, about 60,000 dwellings were completed a year, while in the mid-1990s it was only about 13,000 dwellings.

Since 1995, the overall trend in the number of completed and started dwellings grew until 2007, when the intensity of the dwellings construction reached its 1991 level. Subsequently, the economic crisis caused a more significant slowdown in the intensity of the dwellings construction than in the fluency of the dwellings construction.

Developers focused their capacity on the completion of unfinished projects and did not start new ones (Němec 2011). Nevertheless, a number of housing projects were stopped as a result of the suspension of their funding and limited purchasing power, and their completion was delayed by several years.

#### 4. Interregional disparities in the dwellings construction

In the Czech Republic, there are quite significant differences in the spatial distribution of the construction of new dwellings after 1989 (see Fig. 2). The area with the traditionally most intense dwellings construction in the Czech Republic is the Prague metropolitan region, which extends beyond the administrative borders of Prague and extends quite significantly into the Central Bohemian Region. Šimáček and Szczyrba (2012) considered this area the "primary market of residential construction" since about two fifths of the completed dwellings built after 2000 in the entire Czech Republic are concentrated in it. After 1989, it was especially the hinterland of the Capital, Prague, which, because of suburbanisation, became an important area with intense residential construction (see e.g. Ouředníček 2007; Sýkora & Posová 2007; Ouředníček et al. 2011; Šimáček & Szczyrba 2012).

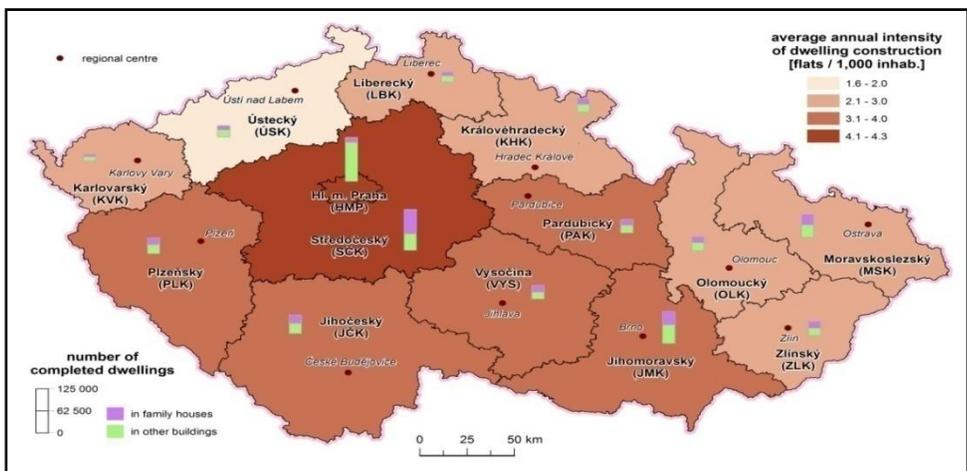


Figure 2: Regions of the Czech Republic according to the volume and intensity of the dwellings construction in the period 1989-2013

Source: CZSO 2015a; authors' own processing

The capital, Praha (Prague), together with the Středočeský (Central Bohemian) Region, accounts for almost one-third (31.5%) of the total volume of the dwellings construction in the Czech Republic after 1989. Together with the Jihomoravský (South Moravian) and Moravskoslezský (Moravian-Silesian) Regions, they are the most important regions as regards the construction of new dwellings in the Czech Republic, and together they represent about 52% of the construction of new dwellings (see Tab. 1). But these regions are the most populous, and therefore, from this perspective, these results are fairly predictable.

Table 1: Cumulative characteristics of the construction of new dwellings by region for the period 1989-2013

region	newly completed flats					
	total	share in CR (%)	in family houses		intensity of dwelling construction (flats/ 1,000 inhabitants)	
			total	share in CR (%)	total	in family houses
HMP	123.374	16,3	14.523	4,7	4,3	12,5
SČK	114.361	15,2	68.513	22,1	4,1	61,0
JČK	51.214	6,8	23.528	7,6	3,4	37,7
PLK	44.295	5,9	19.226	6,2	3,3	35,0
KVK	17.431	2,3	6.227	2,0	2,4	20,5
ÚSK	30.881	4,1	11.784	3,8	1,6	14,4
LBK	28.209	3,7	11.473	3,7	2,7	26,8
KHK	37.559	5,0	16.230	5,2	2,8	29,5
PAK	37.535	5,0	16.473	5,3	3,1	32,5
VYS	37.877	5,0	19.141	6,2	3,1	36,9
JMK	89.287	11,8	37.300	12,0	3,3	33,2
OLK	39.079	5,2	16.631	5,4	2,5	26,1
ZLK	39.577	5,2	19.230	6,2	2,8	32,4
MSK	63.739	8,5	29.551	9,5	2,1	23,3
<b>Czech Rep.</b>	<b>754.418</b>	<b>100,0</b>	<b>309.830</b>	<b>100,0</b>	<b>3,1</b>	<b>30,4</b>
HMP+SČK	237.735	31,5	83.036	26,8	4,2	36,4

Source: CZSO 2015a; CZSO 2015b; authors' own processing

Note: For the abbreviations used for regions see Fig. 2

In terms of the dwellings construction in family houses, the Central Bohemian Region has more than one fifth of the total aggregate of the Czech Republic, which is primarily due to suburbanisation trends in the Prague metropolitan region. A similar situation developed in the South Moravian Region, where, with the exception of the hinterland of the City of Brno, a more significant

development of new buildings has occurred in the southwest part of the region, especially near Znojmo. The dwellings construction in family houses in the Central Bohemian Region and South Moravian Region represents in total more than a third of the total construction of these flats in the Czech Republic. In third place in the order of the volume of the dwellings construction in family houses is the Moravian-Silesian Region, in which there are significant spatial differences in the distribution of new residential construction in family houses. The construction of family houses has mostly been concentrated in the economically strong areas or in those parts of the regional metropolis with interesting natural surroundings. The economic boom of the late 1990s also resulted in an upturn in the mortgage market and construction industry, which led to an increase in the intensity of the dwellings construction. Residential development even intensified at the beginning of the first decade of the 21st century, but not with the same intensity in all regions of the Czech Republic (Šimáček & Szczyrba 2012). Fig. 3 shows the three regions with the highest and the three regions with the lowest intensity of the dwellings construction for the period 1997-2013.

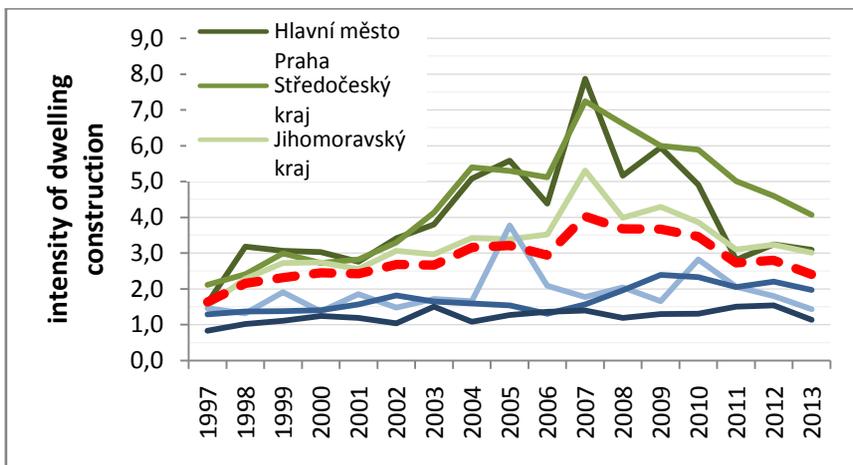


Figure 3: Extreme developmental trajectory of the average annual values of intensity of the dwellings construction in regions of the Czech Republic in the period 1997-2013  
 Source: CZSO 2015a; authors' own processing

The most dynamic development occurred in the Capital City, Prague and in the Central Bohemian Region, regions where the dwellings construction at the end of the economic boom in 2007 reached the level of more than seven completed dwellings per thousand inhabitants per year. Because of the economic crisis in the years after that, the intensity of the dwellings construction in both regions fell quickly, while in Prague, the decline was steeper. Many unfinished dwelling construction projects in the city, mostly belonging to development companies, were stopped for a long period and the development of new projects was postponed for sometime.

On the other hand, the Ústí nad Labem Region is the area with the lowest long-term intensity of the dwellings construction. Both in the Ústí nad Labem Region and the Moravian-Silesian Region, the process of the construction of new apartments is primarily impeded by the economic situation of the inhabitants of the regions, but also by the relatively large capacity of disposable housing stock built in the socialist era, whose capacity has increased as a result of higher emigration after 1989 (Terplan 1999). The curves of development of the intensity of the dwellings construction in the Moravian-Silesian Region and Ústí nad Labem Region show a very flat course, unlike the development of the dwellings construction in the Karlovy Vary Region, where the oscillations are more noticeable.

The information on the areal standards of flats, i.e. the indicator of the number of square metres of living space per flat, is also very interesting. In twelve of the fourteen regions of the Czech Republic, the values of this indicator are more or less balanced and correspond to the national average (about 68 m<sup>2</sup>), but in two regions they are vastly different. Newly-finished apartments in Prague are smaller by 9 m<sup>2</sup> of living space in comparison with the average for the Czech Republic, while newly-finished apartments in the Central Bohemian Region are approximately 10 m<sup>2</sup> larger. According to Frelich (2011), Prague is economically the strongest territorial unit of the Czech Republic, which is reflected in definitely the highest average purchase costs of real estate and, unlike other regions, regardless of the degree of wear of the real estate.

While the dwellings construction in Prague is rationalised as a result of the increased demand for smaller apartments (we cannot ignore the demographic and social changes in society after 1989), in the hinterland of the city, which already belongs to the Central Bohemian Region, the dwellings construction is, on average, characterised by larger apartments with a significant share of flats in family houses. This development is often concentrated in the so-called suburban satellites (Hnilička 2006; Ouředníček et al. 2008) and did not appear only in the area beyond the administrative borders of the capital, Prague, but also the peripheral parts of Prague (Nebošice, Zbraslav, Újezd nad Lesy, etc.). As indicated above, the dwellings construction in the transformation period (or since the second half of the 1990s, when the intensive development began) was mostly spatially concentrated in a few regions, but significant differences were also found within the regions.

Tab. 2 refers primarily to the rate of the concentration of the dwellings construction in comparison with the distribution of the region's population and also compares the level of the concentration of the dwellings construction in the region with the level of the concentration of the dwellings construction in the Czech Republic. In addition, the data is structured by the type of building in which the construction of the dwelling was developed.

When looking at the overall index of the concentration of the dwellings construction in the regions, which reflects the volume of the dwellings construction in comparison with the distribution of the population, we can see relatively equal values in most regions (the value for the capital, Prague is irrelevant in terms of this indicator).

Table 2: Indicators of the concentration of the construction of new dwellings in regions for the period 1997-2013

Region	number of municipalities	indicator of the dwelling construction concentration			coefficient of the dwelling construction concentration	
		total	family houses	apartment buildings	family houses	apartment buildings
HMP	1	0.0	0.0	0.0	0.29	2.17
SČK	1,145	57.2	50.1	78.8	1.30	0.63
JČK	623	52.4	45.3	73.0	1.15	0.76
PLK	501	48.6	42.9	68.4	1.01	0.86
KVK	132	46.5	41.6	78.6	1.02	0.90
ÚSK	354	36.7	35.3	60.1	1.12	0.59
LBK	215	50.6	37.4	66.8	0.98	0.96
KHK	448	48.0	37.8	77.2	1.05	0.84
PAK	451	49.6	43.6	72.3	1.11	0.84
VYS	704	51.6	39.9	77.8	1.22	0.66
JMK	673	54.8	37.7	67.5	0.95	1.09
OLK	399	49.8	41.5	77.0	1.07	0.87
ZLK	307	47.8	41.1	74.3	1.22	0.61
MSK	300	31.6	28.9	70.3	1.35	0.41

Source: CZSO 2015a; authors' own processing

Note: For the abbreviations used for the regions see Fig. 2

In comparison with other regions, the Central Bohemian Region shows an above-average spatial concentration of construction, while the Moravian-Silesian Region and Ústí nad Labem Region show a significantly lower concentration in relation to the distribution of the population.

In terms of the coefficient of the concentration of the dwellings construction, which compares the level of the concentration of the dwellings construction in family houses or residential buildings in regions on a nationwide level, it can be stated that only the capital city, Prague (markedly) and Liberec and South Moravia (slightly) have below-average representation, i.e. a lower concentration of the dwellings construction in family houses than is usual at the national level. Pilsen and Karlovy Vary are slightly above average in this regard. In the case of the Liberec, Pilsen, and Karlovy Vary regions, it would

probably be more accurate to speak about the concentration corresponding to the average level of the country. On the other hand, only the City of Prague (markedly) and South Moravia (slightly) show an above-average concentration of the dwellings construction in residential buildings. In this regard the Moravian-Silesian Region contrasts sharply as a result of its very below-average concentration of the construction of new dwellings in residential buildings. As described earlier, in the Moravia-Silesian and Ústí nad Labem regions there are still many available flats built in apartment buildings (often concrete blocks of flats) in the period of socialism. Interesting values can be found in the Liberec Region, which was the only one among all the regions that showed a below-average, if compared to the national level, concentration of the dwellings construction both in family houses and apartment buildings. Both values were only slightly below the average, which rather means a condition corresponding well to the national average.

### **5. Disparities in the dwellings construction on the micro-regional level**

According to the total volume of the construction of new dwellings in the sub-spatial structure of the Czech Republic (administrative districts of municipalities with extended powers), the administrative districts of the largest cities and their neighbouring districts logically come to the fore, and in those residential suburbanisation is more evident (see Tab. 3). On the other hand, areas located on the periphery or struggling with adverse economic developments after 1989 for a long period (e.g. the Bílina district) show very low levels of dwellings construction. Interesting figures can be found in the case of the administrative district of Týn nad Vltavou, lying in the immediate hinterland of České Budějovice, where, during a period of seventeen years, only 59 flats were developed. As reported by Ouředníček and Čejková (2009), the area of Týn nad Vltavou lies outside the mainstream of suburbanisation in České Budějovice, as this developed in the northwest sector of the urban agglomeration, especially in suburbia which are still within the area of the city. The low figures may also be caused by the presence of the Temelín nuclear power plant in this district. It is clear that there are significant differences in the dwellings construction between administrative districts of municipalities with extended powers, given by their geographic location, as well as demographic and economic characteristics. However, if the dwellings construction is analysed on the basis of the difference between the intensity of the dwellings construction in family houses and apartment buildings in various administrative districts of municipalities with extended powers from the national average, a more comparable picture of the phenomenon under examination can be obtained.

Note: In the graph, the average for administrative districts of municipalities with extended powers in the Czech Republic corresponds to a value of 0, while the yearly average according to the construction of the house corresponds to 1.7 apartments/1,000 inhabitants, while the yearly average according to the construction of apartment buildings corresponds to 0.6/1,000 inhabitants.

On the basis of the above-mentioned procedure, we can determine some interesting information. First, there is the ultimate uneven distribution of administrative districts in each quadrant. It is true that most of them are located in an area of  $\pm 1.5$  (in both directions) from the average for all municipalities with extended powers in the Czech Republic, however, of which over 70% of administrative districts are below the horizontal axis. This means that these administrative districts show below-average values of intensity of the dwellings construction in residential buildings, and the districts with a below-average intensity of the dwellings construction in family houses prevail more than twice in this set.

Table 3: Extreme values of the volume of the dwellings construction in the Czech administrative districts of municipalities with extended powers for the period 1997-2013

order	district	total	district	family houses	district	apartm. buildings
1.	Prague	82,433	Prague	12,713	Prague	66,006
2.	Brno	22,160	Černošice	12,601	Brno	15,999
3.	Černošice	18,772	Brndýs n/L-St.B.	10,373	Černošice	5,452
4.	Brndýs n/L-St.B.	14,268	Říčany	6,184	Plzeň	4,076
5.	Č. Budějovice	10,285	Č. Budějovice	5,987	Olomouc	4,063
.....	.....	.....	.....	.....	.....	.....
202.	Bílina	246	Vodňany	166	Týn n/V	25
203.	Pacov	233	Broumov	142	Kravaře	23
204.	Vodňany	231	Kraslice	128	Jablunkov	16
205.	Kraslice	205	Bílina	104	Konice	6
206.	Týn n/V	59	Týn n/V	34	Pacov	4
<b>Czech Republic</b>		<b>494,280</b>		<b>265,973</b>		<b>182,181</b>

Source: CZSO 2015a; authors' own processing

Another piece of information is the extreme values of the intensity of residential construction. The upper right quadrant, which shows above-average values of dwelling construction intensity both in family houses and apartment buildings, contains a total of 36 administrative districts.

In this group, three administrative districts which are far above the average substantially exceed the rest: Černošice, which has the highest intensity of the dwellings construction in residential buildings (3.4 dwellings/1000 inhabitants) of all administrative districts, Brandýs nad Labem-Stará Boleslav, which had the highest intensity of the dwellings construction in family houses (8.6 dwellings/1000 inhabitants) of all administrative districts, and Říčany, where a very high level of dwelling construction intensity in family houses (8.2 dwellings/1000 inhabitants), as well as a significantly lower intensity of the dwellings construction in residential buildings (0.9 flats/1000 inhabitants), were found.

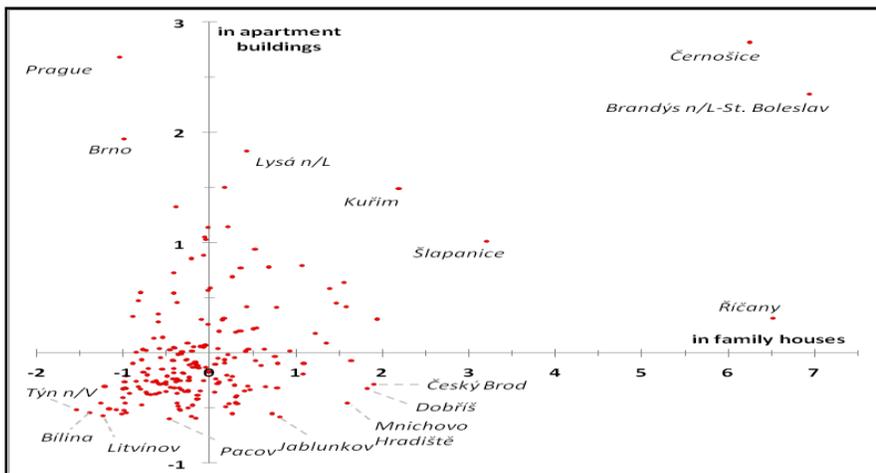


Figure 4: Typology of administrative districts of municipalities with extended powers according to the difference between the intensity of the dwellings construction and the annual average intensity of the dwellings construction in houses and apartment buildings in the period 1997-2013

Source: CZSO 2015a; authors' own processing

The lower right quadrant, which shows above-average values for the intensity of the dwellings construction in family houses, but below-average ones in residential buildings, contains a total of 40 administrative districts. The majority of the administrative districts in this quadrant form one cluster with a few isolated administrative districts (Český Brod or Dobříš) which do not constitute an essential difference. The upper left quadrant, showing the above-average values for the intensity of the dwellings construction in residential buildings, but below average in family houses, contains a total of 36 administrative districts, two of which (Prague and Brno) show significantly higher values in comparison with the others. In the lower left quadrant, we can find the remaining 94 administrative districts, which show a below-average intensity of the dwellings construction both in family houses and apartment buildings.

Here, the lowest values were found in Pacov (almost zero intensity of the dwellings construction in residential buildings– the lowest recorded value in all districts), Litvínov, Bílina, and Týnnad Vltavou. The spatial anchoring of the typology of administrative districts of municipalities with extended powers presented in Fig. 4 is shown in Fig. 5, which gives a clear picture of various types of municipalities with extended powers in relationship to the average intensity of the dwellings construction. As already mentioned, administrative districts with above-average dwellings construction are mainly located in the Prague metropolitan region, the western part of the South Moravian Region, and in the hinterlands of some large cities (Brno, Pilsen, České Budějovice, Jihlava, and the Hradec-Pardubice agglomeration). In addition, the above-average regions in terms of the construction of family houses and apartment buildings can also be found in some areas outside the main suburbanisation stream (e.g. Znojmo, Humpolec, Čáslav, and Lanškroun). Districts with a below-average intensity of the dwellings construction in family houses and residential buildings are significantly concentrated in the north-west (especially the Ústí nad Labem Region) and in the north-eastern part of the country (especially the Moravian-Silesian Region).

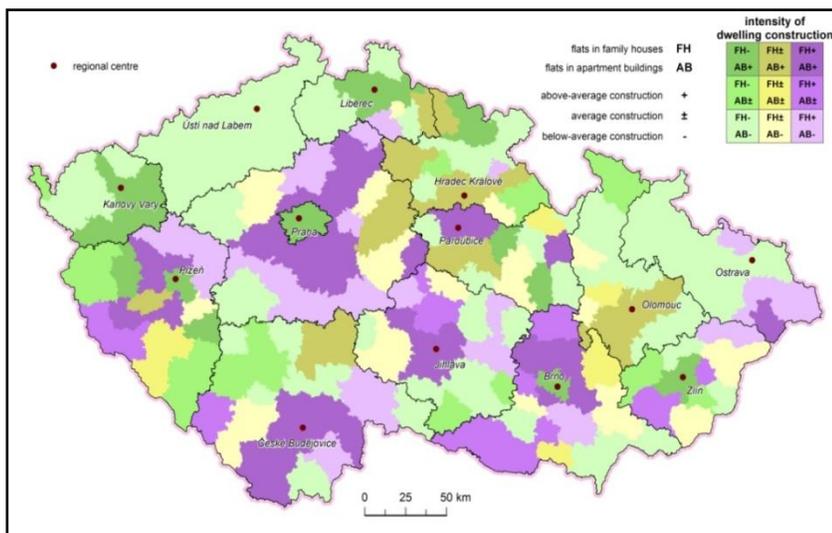


Figure 5: Typology of municipalities with extended powers according to the deviation of the average annual intensity of the dwellings construction from the average of all municipalities with extended powers according to the type of building, in the period 1997-2013

Source: CZSO 2015a; authors' own processing

Note: the average intensity of the dwellings construction corresponds to  $\pm 10\%$  of the average annual intensity of the dwellings construction in the Czech municipalities with extended powers for the reporting period

## 6. Conclusions

The volume and intensity of the construction of new dwellings in the Czech Republic in the period after 1989 has passed through several developmental stages. Both indicators initially recorded a downward trend that appeared in the mid-1990s. In connection with the economic boom, the number of newly completed apartments gradually increased, which was considerably influenced by private residential developers who began to appear on the construction market. This trend lasted with minor fluctuations until 2009, when, as a result of the impact of the economic crisis, the number of new dwellings started to decline again. This trend is evident today, although it seems that there has been a slight recovery of the market for new apartments.

The construction of new dwellings is largely a manifestation of meeting the demand for new apartments. The analysis of statistical data has shown that a major share of the construction of new dwellings was realised in the largest cities and their hinterlands. From a regional perspective, the construction of new dwellings was heavily concentrated in the capital city, Prague, and its surroundings. Other important regional concentrations of housing facilities are in the hinterlands of most major cities (mainly Brno), but also in selected attractive regions (e.g. the Krkonoše or Šumava mountains). On the basis of the analysis we can observe a spatial pattern of the concentration of the construction of new dwellings in the aforementioned regions. The geographic approach to examining the dwellings construction, i.e. the determination of the spatial (and possibly temporal) aspect, can be considered very beneficial, because to a certain extent, the geographic approach can provide a framework for the synthesis of knowledge from sub-disciplines that deal with the issue of housing development. Geographically oriented studies provide valuable insights mostly in interregional comparison and therefore can easily be applied in the strategic planning of regional development at the national level, as well as on lower levels.

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