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REGIONAL STRUCTURE OF HEADQUARTERS OF LARGEST ENTERPRISES IN THE CZECH REPUBLIC FROM QUANTITATIVE PERSPECTIVE

Summary: Largest enterprises play a crucial role in the economies of countries, regions and localities. This paper deals with spatial structure of headquarters of largest enterprises in the NUTS III regions in the Czech Republic. Attention is devoted primarily to industry and service companies. We concentrate on selected aspects, such as economic power or geographic concentration. The Lorenz curve and Theil index are use to express of the above concentration. We observe clear differences among largest enterprises in the service and industrial sector in terms of turnover size in 2015. The results of Theil index show that headquarters of largest enterprises in the service sector are much more concentrated than their industrial counterparts. The same holds true for turnover concentration. Dominant position is occupied by Prague and its surroundings. In this region almost 50% of headquarters of the largest enterprises is located, which generates almost 50% of the total turnover.

Keywords: largest enterprises, headquarters, Theil index, NUTS III Regions, Czech Republic.

JEL Classification: R10, R11, D22, L29.

Introduction

Largest enterprises play a crucial role in the economies of countries, regions and localities. Largest enterprises dispose of significant production and capital capabilities or research and development infrastructure interconnected with innovation potential. They are constitutive for the labour market by creating new direct and indirect jobs. These facts became extremely important in rather small economies, of which the Czech Republic is a typical representative. Largest en-

terprises constitute a key part of the economy in the Czech Republic, as well as in the EU [Vanhove and Klassen, 1987; Lyons, 1994; Sucháček, 2013a; Damborský and Hornychová, 2014].

Dynamic development of the location of largest enterprises after the implementation of the market economy had a substantial impact on regional differentiation during transition and post-transition period in the Czech Republic. In this context Sucháček and Baránek [2011] based on their research concluded that the spatial structure of the largest enterprises entered into the stabilisation phase. This is further supported by the relative satisfaction of the top management with the location of the headquarters.

It should be stated that headquarters plays an important role within intra-enterprise hierarchy. Rice and Lyons [2010, p. 321] perceive headquarters as 'most elite of economic venues'. Largest companies usually have a wide range of organisational units. However, it is the headquarters of company where top management is concentrated. The management of enterprise has the competence to implement internal rules of operation for all organisational units, i.e. implement specific procedures and routines. Management also dispose of power to decide about corporate strategy, profit allocation, investment activities or closure and establish of other organisational units. Obviously, the organisational units can be spatially very remoteness [Fothergil and Guy, 1990; Blažek, 2002; Dunning and Lundan, 2008; Urminský and Benišková, 2015; Urminský, 2016].

Some reasons leading to separate location of headquarters are reported by Davis and Henderson [2008]. They mention two main reasons leading to internal separation.

First reason reflects the needs of headquarters comprised of obtain a wide range of services. The key role plays the availability of information, advice, legal and financial services or advertising. Acquisition of information and services requires repeated personal contacts and spatial closeness among market players.

Second reason is that headquarters creates clusters, due to mutual exchange of information, e.g. about market conditions. Head office receive the necessary information, representing impulses usable, e.g. for planning of production, inputs or absorption of available technologies.

These aspects contributes to the geographical concentration of corporate headquarters, mostly into the metropolitan areas or regions. At the same time, it is clear that social contacts based on spatial proximity plays an important role in this context.

The proximity of the headquarters of enterprises can help to increase knowledge of the market environment and thus reduce transaction costs and uncertainty in decision-making mechanisms. It should be stated that characteristics

of the territory affects the enterprise both on input and output side. Factors such as labor, technology, information, non-codified knowledge, quality of entrepreneurial milieu, proximity of customers, suppliers and competitors or institutional specific have a crucial influence on the economic condition of enterprise. All of these elements are more or less spatially differentiated.

On the other hand, largest enterprises are the major economic entities for the economies of the territories. They acts as a stabilising factor in the territory as regards supplier-customer relationships, employment, wages, information lows, etc. Especially if we accept that the location of the headquarters is so--called quasi-irreversible. At the same time, the headquarters and their economic power can be considered as a dynamic element that shapes the future social and economic development of the territory. Headquarters also acts as a gravitational force for business services, highly skilled workforce as well as other corporate headquarters. Within the effects of headquarters is also assigned importance to the strengthening the attractiveness of the territory. Testa [2006, pp. 115] reports in this context: "There is something in the image of a headquarters for a town that goes to the commercial essence of what makes up a successful city. As business people say, that essence is the reputation and image of where deals are done and where business is spawned". Currently, the positive image of the territory can be considered as one of the most important factors of the territorial development [Aksoy and Marshall, 1992; Van Dijk and Pellenbarg, 1999; Strauss--Kahn and Vives, 2009; Sucháček, 2015, Urminský, 2017].

In summary, largest enterprises are not passive entities, but one of the most important actors of the territorial development [Sucháček et al., 2017].

The presence, economic power and concentration of largest enterprises can be considered as one of the primary sources of regional differentiation in the Czech Republic. The above reasons determines the needs to focus this issue on the spatial distribution and concentration of the largest enterprises, but also on their economic power in the territory of the Czech Republic.

1. Material and methods

This paper is based on data obtained from the Albertina CZ/Silver Edition database. Attention is devoted to largest enterprises of non-financial type in the Czech Republic. The enterprise had to comply the following criteria to be included in the data sample:

- turnover size more than 50 m EUR,

- we had to know exact turnover in the last available year, i.e. 2015,
- within the institutional sector belong into the category of non-financial companies. Therefore, banks, insurance companies, etc. were not included in our research.

We also deals with sectoral structure. We focus on Secondary and Tertiary sectors. Primary and Quaternary sectors are not included in our research. Our definition of the sectoral structure (Table 1) is based on the study of Lepic et al. [2015] – *Vývoj a změny kvalifikačních potřeb trhu práce v ČR v letech 2000-2025*.

Table 1. Structure of sectors according to NACE classification

NACE Rev. 2			
Sectors	**Sections**		**Divisions**
Secondary	C	*Manufacturing*	10-33
	F	*Construction*	41-43
Tertiary	G	*Wholesale and retail trade, repair of motor vehicles and motorcycles*	45-47
	H	*Transportation and storage*	49-53
	I	*Accommodation and food service activities*	55-56

Source: Based on: Eurostat [2008].

The objective of the paper is to analyze and evaluate the spatial distribution of headquarters of largest enterprises in the Czech Republic. Attention is devoted to spatial differences at the level of NUTS III regions.

Largest enterprises were classified according to NUTS III regions in the Czech Republic (Table 2) based on the official registered address. The capital city of Prague and the Central Bohemian region were aggregated into the one territorial unit [Sucháček et al., 2017]. Ownership structure was also observed. It should be emphasised that in the case of enterprises owned by a foreign owner, we can not talking about headquarters, but rather about sub-headquarters located in the Czech Republic. However, these units are on the top of intra-enterprise hierarchy within the Czech Republic.

Table 2. Spatial distribution of headquarters of largest enterprises in 2015

NUTS III	**Headquarters of Largest Enterprises**							
	Number			**Turnover (m CZK)**			**Ownership**	
	Sec.	*Tert.*	*Total*	*Sec.*	*Tert.*	*Total*	*CZ*	*For.*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
Central Bohemia + Prague	74	206	280	788,154	1,177,748	1,965,902	77	203
South Bohemia	16	6	22	107,652	17,321	124,973	7	15
Pilsen	24	8	32	145,019	32,333	177,352	8	24
Karlovy Vary	3	1	4	16,991	1,310	18,301	2	2

Table 2 cont.

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
Usti	24	7	31	210,853	26,983	237,836	8	23
Liberec	16	1	17	125,165	6,478	131,643	2	15
Hradec Kralove	10	6	16	115,567	13,639	129,206	6	10
Pardubice	15	5	20	216,388	20,395	236,783	10	10
Vysocina	18	4	22	111,747	17,182	128,929	9	13
South Moravia	31	21	52	153,437	73,692	227,129	21	31
Olomouc	16	3	19	59,036	9,121	68,157	9	10
Zlin	12	11	23	148,385	45,871	194,256	13	10
Moravia-Silesia	41	21	62	448,462	140,100	588,562	26	36
Total	300	300	600	2,646,856	1,582,173	4,229,029	198	402

Source: Own calculation based on: Database Albertina CZ/Silver Edition [2017].

Spatial differences can be measured by many indicators. Usable tools represents measures based on spatial concentration. Commonly used are coefficient of variation, Gini coefficient, Localisation quotient, Lorenz curve or Theil coefficient. These tools can be customised or weighted in various ways. We applied the non-weighted and weighted Theil index (T, T_v). The Theil index belongs to the class of generalised entropy. It gives values $0 \leq T \leq \ln k$. The maximum value is reached when the monitored indicator is concentrated only in the one territory. The Theil index can be calculated according to the formula:

$$T = \frac{1}{k} \sum_{i=1}^{k} \frac{y_i}{y} \ln \frac{y_i}{y},$$

and weighted variant:

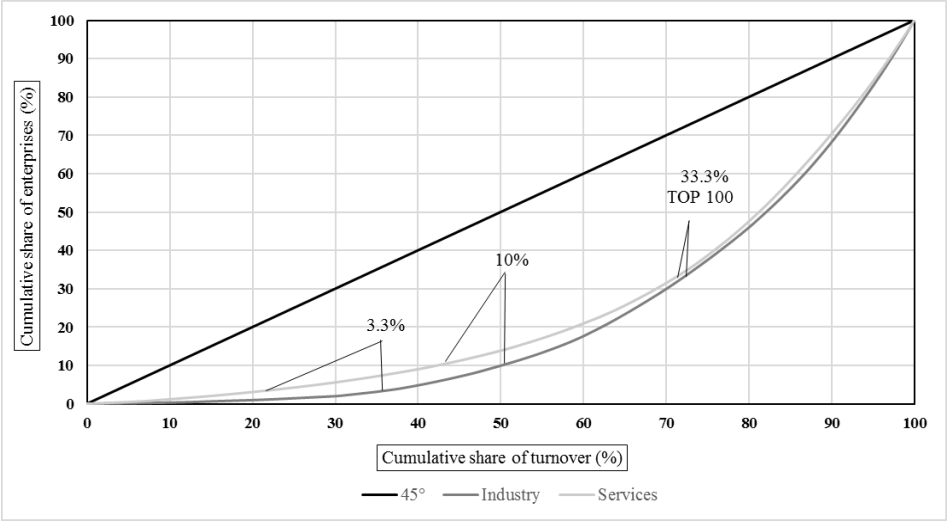
$$T_v = \sum_{i=1}^{k} \frac{n_i}{n} \frac{y_i}{y} \ln \frac{y_i}{y},$$

where k represents number of regions in our case, y_i reflects values of the individual observations and n_i their weights in the case of weighted variant, y expresses average of observed indicator or weighted average in the case of weighted variant. The average number of population was used as the weight. Population can be considered as the primary source of economic activity. Population size roughly approximates socio-economic potential of each region [Theil, 1965; Brülhart and Traeger, 2005; Sucháček, 2013b, Novotny, Nosek and Jelinek, 2014].

2. Results

We analysed 600 largest enterprises in the Czech Republic. TOP 300 largest enterprises in the tertiary sector (Services) and TOP 300 in the secondary sector (Industry). These 600 companies achieved a total turnover of 4.2 tn CZK in 2015 (Table 2). Largest enterprises from services generated 1.6 tn CZK and industry companies 2.6 tn CZK. The turnover size can be perceived as one of the indicators demonstrating performance or economic power of enterprise. Lorenz curves plot relationship between enterprises and their turnovers, i.e. expresses distribution of economic power across largest enterprises in the Czech Republic, both in the services and industry (Figure 1).

Figure 1. Relationship between cumulative share of turnover and cumulative share of enterprises



Source: Own calculation based on: Database Albertina CZ/Silver Edition [2017].

Lorenz curves reflects situation that only 10 largest service enterprises (3.3%) generated more than 20% of total turnover in services, while 10 largest industrial enterprises generated 35% of total turnover in the Czech Republic. These enterprises can be considered as core entities of the Czech economy.

Within secondary sector have strong position companies connected with automotive industry, such as Škoda Auto a.s., Hyundai Motor Manufacturing Czech s.r.o. or Continental Automotive Czech Republic s.r.o. Within service sector belong among 10 largest enterprises, companies with main activities focused on food, beverage and tobacco products, such as Tesco Stores ČR a.s., Penny

Market s.r.o., Makro Cash & Carry ČR s.r.o. or Geco a.s. Nevertheless, largest turnover achieved Moravia Steel a.s., which deals with wholesale of metals and metallurgical products.

TOP 30 largest companies, i.e. 10%, generated more than 40% of total turnover in services and 50% of total turnover in secondary sector. TOP 100 largest companies, i.e. 33.3%, achieved more than 70% of total turnover in both sectors.

The Lorenz curves and the above facts suggest that there are obvious differences in economic performance across largest enterprises within both sectors. Thus, distribution of economic power among the largest enterprises can be considered as significantly differentiated in the Czech Republic.

The structure of ownership shows that foreign owners dominate. Foreign owners owned 67% of largest enterprises (both sectors together, i.e. 600 companies). In services are 56% and in industry 78% of enterprises owned by the foreign owners. If we focused on the TOP 100 largest enterprises that generated more than 70% of total turnover in both sectors, we can observed an even higher share of foreign ownership. Foreign owners have 60% of service enterprises and 88% of industrial companies.

These informations are important because significant part of the economic power of the Czech Republic is dependent, less or more, on the external decision-making and external control. This is even more obvious in the industry compare to their services counterparts.

Due to the obvious differentiation among the largest enterprises comes to the fore the question of their spatial distribution and concentration in the Czech Republic.

2.1. Geographic concentration of headquarters of largest enterprises in the Czech Republic

The following part is devoted to the concentration of the largest enterprises and their economic power in the Czech Republic in 2015.

The resulting measures of concentrations expressed by the Theil index reflects Table 3. The geographic concentration of the number of headquarters, ownership structure as well as turnover size were monitored. The total values of concentration can be considered as relatively similar both in non-weighted and weighted variants. On the basis of the total values we can say that the generated turnover is characterised by a higher geographic concentration than the physical number of headquarters. Higher concentration measure can be seen in the enterprises owned by foreign owners compare to their Czech counterparts.

Table 3. Geographic concentration of headquarters of largest enterprises in 2015

Theil Index	Headquarters of Largest Enterprises							
	Number			Turnover			Ownership	
	Ind.	*Serv.*	*Total*	*Ind.*	*Serv.*	*Total*	*CZ*	*For.*
Non Weighted	0.233	1.263	0.632	0.349	1.482	0.664	0.506	0.724
Weighted (pop.)	0.227	0.901	0.570	0.336	0.985	0.586	0.456	0.634

Source: Own calculation based on: Database Albertina CZ/Silver Edition [2017].

We can observed different situation between the sectors. The measures of geographic concentration are higher for the generated turnover compare to the physical number of headquarters in both cases. However, we note much higher levels of concentration in the services compare to the industry, both in terms of number of headquarters and turnover.

It is always necessary to take into account the size structure of the population at the chosen spatial level, when examining spatial differences. The above fact is expressed, described and specified, on the basis of Table 2 and Annex, in the next three parts of this paper.

2.2. Spatial distribution of headquarters of largest enterprises from total point of view

First part contains the spatial distribution of largest enterprises from total point of view in the Czech Republic in 2015. We analyse spatial distribution of 600 headquarters in this case.

The largest share of total number of headquarters 46.7%, hosting aggregated region of Prague and Central Bohemia. In the Moravian-Silesian and South Moravian regions, 10.3% and 8.7% of the headquarters are located. These regions represents the most populated areas (Annex) with three largest cities agglomerations in the Czech Republic. The literature suggest, that the headquarters are usually most concentrated in this agglomerations. Location factors such as agglomeration effects, infrastructure or the quantity and quality of the workforce can be described as the motives for location to these areas [Sucháček, Sed'a, and Friedrich, 2015]. Thus, this situation is not surprising.

The position of the Pilsen region also is not surprising in this context. The city of Pilsen is the fourth largest city in the Czech Republic. We can see there the fourth largest share of headquarters 5.3%. In summary, more than 70% of headquarters are located in the above four regions. On the contrary to that, the lowest share occurs in the Karlovy Vary region, less than 1% and in the Hradec Kralove and Liberec region, in both less than 3%.

The view on the spatial distribution of turnover shows on the higher concentration and a different situation from the above-mentioned distribution of the physical number of headquarters. However, is obvious that we can observed dominant position of Prague and its surroundings again. Local companies generated 46.5% from 4.2 tn CZK of total turnover in the Czech Republic in 2015. The largest enterprises from the Moravian-Silesian region participated on the total turnover by 14%. On the 3rd and 4th place can be seen companies from the Usti and Pardubice regions, participated on the total turnover by 5.6% in both. The enterprises of above mentioned four regions achieved 72% of the total turnover. The lowest share on the total turnover is generated by companies in the Karlovy Vary and Olomouc region, 0.4% and 1.6%.

The overall distribution of ownership across regions shows the dominance of foreign owners. The Czech owners prevail only in the case of the Zlin region. The structure of owners have in balance regions of Karlovy Vary and Pardubice. The foreign owners prevail, more or less, in other regions. Olomouc and Moravian-Silesian region have the lowest share of foreign ownership, 52.6% and 58%. The economic structure is largely controlled by foreign owners in the Liberec, Pilsen and Usti region and also in Prague and its surroundings. The foreign owners owned 88%, 75%, 74% and 73% of the largest enterprises in this four regions.

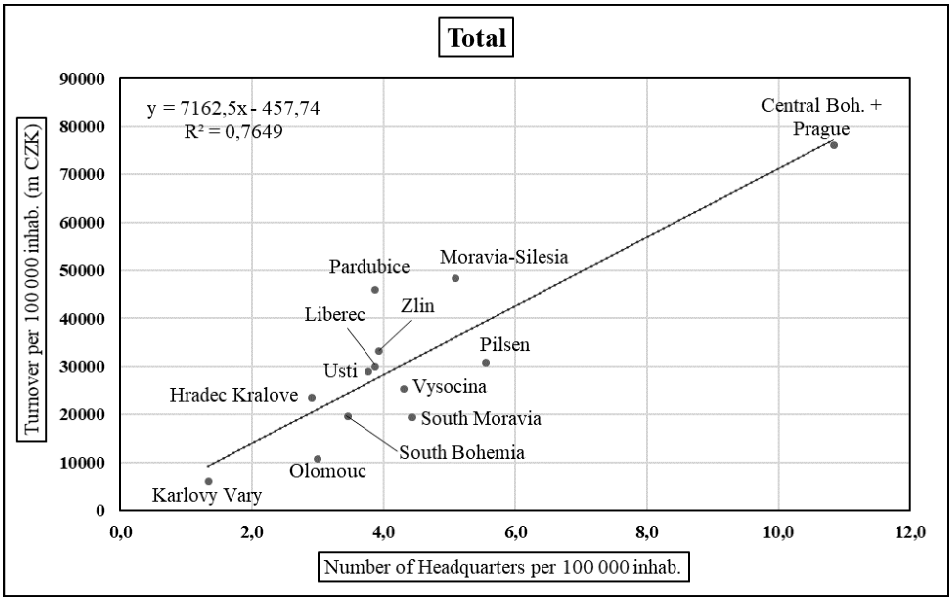
The relationship between spatial distribution of the largest enterprises and their economic power with regard to the population size reflects Figure 2 (Total view). In principle, we can say that the largest companies in regions above the curve, have a larger share of total turnover compare to their share on the total number of enterprises.

There are 6 regions at the forefront in this context, especially the Moravian--Silesian and Pardubice region, but the dominant position of Prague and its surroundings is obvious.

The position of Prague and its surroundings is not surprising. Capital city of Prague is the economic, institutional, cultural and political center of the Czech Republic. This territory also have the highest share of the population.

The aggregated territory of Prague and Central Bohemia gained the largest number of headquarters with regard to the population size. The key position occupy capital city of Prague. We can described this territory as the most attractive region for the location of the headquarters. This fact is in line with research based on the questionnaire survey by Sucháček and Baránek [2011], where the top management of selected largest companies in the Czech Republic described city of Prague as the most attractive locality for location of the headquarters. The handicap of other territories was, e.g. the lack of sufficient infrastructure and low purchasing power of the population.

Figure 2. Relationship between number of headquarters and their economic power per 100 000 inhabitants



Source: Own calculation based on: Database Albertina CZ/Silver Edition [2017].

The largest enterprises located in Prague and its surroundings also dominate in terms of economic power. These companies achieved more than 76 billion CZK of turnover per 100,000 inhabitants in 2015. Very important is the fact that management feels higher solidarity with the territory where the headquarters are located than with the territory where the branches are located [Sucháček and Baránek, 2011]. This fact appears to be important, especially from the point of view of the concentration of top management and their decision-making powers, which is obviously supported by strong financial background.

The power to decide about future investments, flow of capital from and into the territory or the possibility of deciding about the allocation of profit, supporting, e.g. non-profit-making activities can be considered as crucial for territorial development. We could say that this concentration of economic power can contribute to the activation of the endogenous potential and to the dynamic development of Prague and its surroundings. On the other hand, exist the potential for deepening of regional differentiation. This situation can be perceived as a negative effect.

From the point of view of the total number of largest enterprises and their economic power is also in the forefront Moravian-Silesian region. This fact is not surprising because largest enterprises played always a crucial role in this region. However, the historically dominant position of heavy industry is gradually being replaced by automotive industry in the new millennium.

Significant over-proportional share in total turnover compare to the total share of the number of largest enterprises can also be found in the Pardubice region. The electronics industry contributes the most to this. The key economic subject is Foxconn CZ, which focuses on the production of computers and other information processing equipment.

The position of largest enterprises in the economy is quite interesting in the Pilsen and South Moravian regions. In the Pilsen region, despite to the strong representation of largest enterprises in the local economy, largest companies do not achieved proportionate of performance. In the case of the economy of the South Moravian region is interesting that, given to the population size, largest companies do not played a higher role in terms of both number of companies and economic power.

2.3. Spatial distribution of headquarters of largest enterprises within secondary sector

Second part reflects the spatial distribution of largest enterprises within secondary sector in the Czech Republic in 2015. We analyse spatial distribution of 300 headquarters of industrial companies.

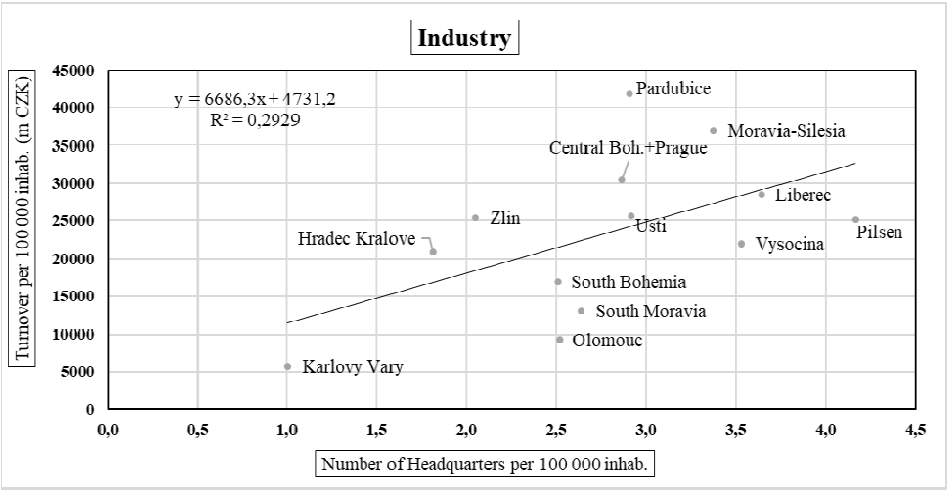
The largest share on the total number of headquarters of industrial enterprises is agglomerated in the capital city of Prague and its surroundings, 24.7%. The headquarters have 13.7% of industrial companies in the Moravian-Silesian and 10.3% in the South Moravian region. We can see, that the fourth largest share of headquarters 8% hosting in both Pilsen and Usti region. Altogether, there are almost 65% of headquarters in the above mentioned five regions. The lowest share is observed in the Karlovy Vary 1% and in the Hradec Kralove region 3.3%.

Higher concentration of turnover compare to the physical numbers of headquarters is also obvious in the sector of industry. The largest turnover could see in Prague and its surroundings, 29.8%. Enterprises generated 17% of total turnover in industry in the Moravian-Silesian region. Companies located in the Pardubice and Usti region achieved 8.2% and 8% on the total turnover. Industrial enterprises located in above mentioned regions generated 63% of total turnover in 2015.

The relationship between spatial distribution of the largest enterprises and their economic power with regard to the population size in the secondary sector presents Figure 3. In principle, we can say that the largest companies in regions above the curve have a larger share of total turnover compared to their share on the total number of enterprises.

There are 6 regions at the forefront in this context, especially the regions of Moravian-Silesian, Pardubice, Prague and its surroundings and Usti.

Figure 3. Relationship between number of headquarters and their economic power per 100 000 inhabitants in secondary sector



Source: Own calculation based on: Database Albertina CZ/Silver Edition [2017].

Of course, all of the regions have more or less different structure of industry. Attention is devoted to the Moravian-Silesian, Pardubice, Prague and its surroundings and Usti region because largest enterprises gained strong position in their economies.

Largest construction companies of Czech Republic such as Eurovia CS a.s., Skanska a.s. or Metrostav a.s. have headquarters in Prague. There are located also companies such as Siemens s.r.o. and ABB s.r.o. or Nestlé Česko s.r.o., Coca-Cola HBC Česko a Slovensko s.r.o. or Pivovary Staropramen s.r.o. In surroundings of Prague, i.e. Central Bohemia, emerged strong position of automotive industry, companies such as Škoda Auto a.s. or Toyota Peugeot Citroën Automobile Czech s.r.o. Altogether 23 divisions of Nace were monitored in the industrial sector. The headquarters of the companies from 20 of these divisions were identified in Prague and its surroundings. Thus, this territory have largest diversity in terms of structure of industry.

However, Pardubice region is relatively strong dependent only on one company, Foxconn CZ s.r.o. Foxconn generated more than 60% of total turnover in this region. But the main activity of Foxconn lies in the production of computers. We can perceive ICT still as a progressive sector of economy or as a sector with great potential to the future.

Moravian-Silesian and Usti region represent so-called old industrial regions. The strong influence of largest enterprises on the economies is typical for these regions. Chemistry companies have a historically strong position in Usti. This is still valid for today. Leading companies such as Unipetrol RPA s.r.o. or Lovochemie a.s. achieved almost 50% of total turnover in this region in 2015.

Situation has changed in the Moravia-Silesia region. The historically strong position of large companies producing iron, steel, etc. is being replaced by the automotive industry, especially over the past ten years. Among 10 largest enterprises in terms of generated turnover have still strong position companies with a long tradition in the region, such as Třinecké železárny a.s., ArcelorMittal Ostrava a.s., or Vítkovice Steel a.s. But an even stronger position is occupied by automotive companies such as Hyundai Motor Manufacturing Czech s.r.o., Mobis Automotive Czech s.r.o., Sungwoo Hitech s.r.o., Brose CZ s.r.o. and Varroc Lighting Systems s.r.o. Automotive companies generated almost 60% of total turnover in Moravian-Silesian region in 2015.

The interrelationship of these companies and their economic power significantly influence not only transformation of the economic structure of the Moravian-Silesian region. The question of a possible restoration of functional, cognitive and political lock-in is important in this context. This problem manifested itself in the transformation and post-transformation period and was associated mainly with the heavy industry. It still manifests itself partly to this day. However, the new form of massive specialisation of the region towards automotive industry may initially be seen as a positive one. Nevertheless, repeated massive rigidity can be one of the most important barriers of the development of Moravian-Silesian region in future [Grabher, 1993].

2.4. Spatial distribution of headquarters of largest enterprises within tertiary sector

Third part reflects the spatial distribution of largest enterprises in the tertiary sector in the Czech Republic in 2015. We analyse spatial distribution of 300 headquarters of companies.

We can observed the largest share on the total number of headquarters in Prague and its surroundings, 68.7%. 7% of the headquarters of largest enterprises are located in both region Moravia-Silesia and South Moravia. The fourth position occupy with 3.7% of headquarters Zlin region.

Altogether, more than 86% of the total of 300 largest enterprises in the service sector are located in the above four regions. The lowest share is recorded in the Karlovy Vary (K. V.) and Liberec in both region less than 1%.

An even higher concentration is obvious in the case of economic power also in services. Largest enterprises generated almost ¾ of total turnover in services in Prague and its surroundings. We note that capital city fortified its position as the centre of tertiary sector in the Czech Republic. In the other regions have the strongest position companies in the Moravian-Silesian region. They generated 8.9% of total turnover. South Moravia region, with the second most populous city, has the share only 4.7% on the total turnover. Companies located in these three regions achieved 88% of total turnover in services in 2015.

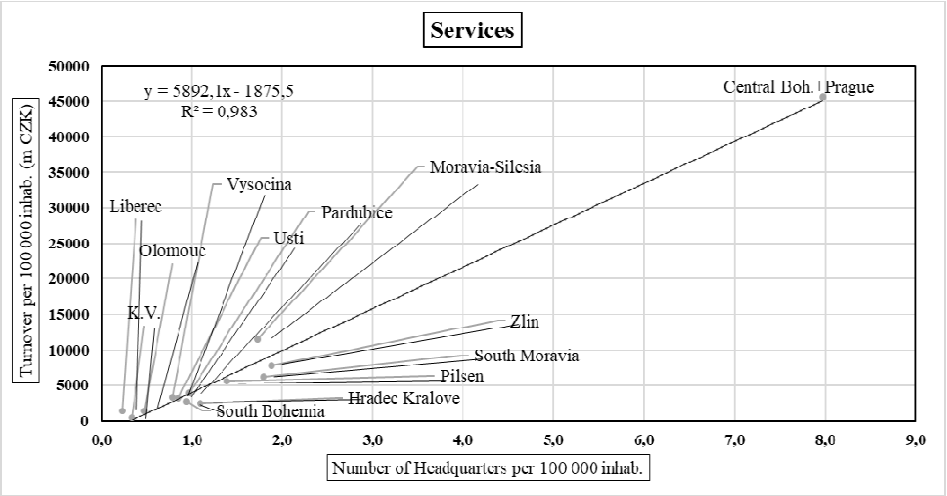
The relationship between spatial distribution of the largest enterprises and their economic power with regard to the population size in the tertiary sector summarised Figure 4. In principle, we can say that the largest companies in regions above the curve, have a larger share of total turnover compared to their share on the total number of enterprises.

We can see really dominant position of the Prague and its surroundings in this context. From other regions is at the forefront Moravian-Silesian region.

The headquarters have almost 70% of companies from services, more than 200 from the total of 300, in Prague and its surroundings. These companies generated 75% of total turnover, i.e. more than 1 tn CZK. Again there is a huge diversity among the enterprises in terms of their main activity. Among leading companies belongs, e.g. MOL Česká republika s.r.o., Makro Cash & Carry ČR s.r.o., Tesco Stores ČR a.s. or Travel Service a.s.

There are not large differences among other regions compare with situation in industry. However, three ‘clusters’ of regions can be seen. The first two clusters have a very low number of enterprises per 100 000 inhabitants, less than one, with exception of Hradec Kralove. All of this regions have turnover less than 5 bn CZK per 100 000 inhabitants.

Figure 4. Relationship between number of headquarters and their economic power per 100 000 inhabitants in the Tertiary sector



Source: Own calculation based on: Database Albertina CZ/Silver Edition [2017].

Third cluster of regions contain Pilsen, South Moravia, Zlin and Moravia-Silesia. We can say that services play a relevant role in their economies. The position of Moravia-Silesia, South Moravia and Pilsen is not surprising because second, third and fourth largest city of the Czech Republic are in these regions.

Relatively strongest position have companies from services in the Moravia-Silesia, but these companies are strongly connected mostly with local automotive companies about which was writed in previous part of this paper.

Conclusions

Largest enterprises play a crucial role in the economies of countries, regions and localities. They represent both the stabilisation and development element of economies. They influence formation of tangible and intangible characteristics of individual territories. Thus, the spatial distribution of largest enterprises across the territory and their economic power represent important aspects affecting regional development and also regional differentiation.

Lorenz curves shows the obvious differences among largest companies in terms of economic power, both in secondary and tertiary sectors. High economic power is concentrated only in relativelly low number of largest enterprises in the Czech Republic in 2015. Only 10 largest companies generated 35% of total turnover in secondary sector and 20% of total turnover in tertiary sector. Strong

position occupy enterprises from automotive and food industry within structure of the main activity of companies.

The ownership structure shows the dominance of foreign owners. Thus, external decision-making and control affects a substantial part of largest enterprises in the Czech Republic in 2015. The foreign owners own 78% of industrial enterprises and 56% of service enterprises.

The results of Theil index reflects that headquarters of largest enterprises in the tertiary sector are much more concentrated than their industrial counterparts. The same holds true for the turnover size.

Headquarters of largest enterprises are located in all regions of the Czech Republic. Prague and its surroundings occupy a dominant position, both in the context of number of headquarters and also economic power. There are located almost 50% of headquarters, which generated almost 50% of total turnover. Really strong position occupy Prague and its surroundings in services. The headquarters have almost 70% of companies from services in this region. These companies creates 75% of total turnover. Prague and its surroundings also dispose of largest diversity in terms of economic structure.

Industrial enterprises have a traditionally strong position in the Moravian-Silesian region, but we can observe change in their structure, towards automotive industry. Pardubice region is strongly dependent only on one company. Relatively low role are played by largest enterprises in the economy of the South Moravian region, even though it is the third most populated territory in the Czech Republic.

Annex

Population size of the NUTS III regions in the Czech Republic in 2015

NUTS III	Population size
Central Bohemia + Prague	2,583,228
South Bohemia	637,292
Pilsen	575,665
Karlovy Vary	298,506
Usti	823,381
Liberec	439,152
Hradec Kralove	551,270
Pardubice	516,247
Vysocina	509,507
South Moravia	1,173,563
Olomouc	635,094
Zlin	584,828
Moravia-Silesia	1 215,209
Total	10,542,942

Source: Based on: Czech Statistical Office [2017].

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STRUKTURA REGIONALNA NAJWIĘKSZYCH PRZEDSIĘBIORSTW W REPUBLICE CZESKIEJ Z PERSPEKTYWY ILOŚCIOWEJ

Streszczenie: Największe przedsiębiorstwa odgrywają kluczową rolę w gospodarkach krajów, regionów i miejscowości. Artykuł zajmuje się strukturą przestrzenną centrów największych przedsiębiorstw w regionach NUTS III w Republice Czeskiej. Uwaga poświęcona jest przede wszystkim firmom przemysłowym i usługowym. Skoncentrowano się na takich aspektach, jak siła gospodarcza lub koncentracja geograficzna. Krzywa Lorenza i indeks Theil służą natomiast do wyrażania powyższej koncentracji. Zaobserwowano wyraźne różnice pomiędzy największymi przedsiębiorstwami sektora usług i przemysłu pod względem wielkości obrotu w 2015 r. Wyniki indeksu Theil pokazują, że siedziby największych przedsiębiorstw w sektorze usług są znacznie bardziej skoncentrowane niż ich przemysłowe odpowiedniki. To samo dotyczy koncentracji obrotu. Dominującą pozycję zajmuje Praga i okolice − tym regionie znajduje się prawie 50% centrali największych przedsiębiorstw, co daje prawie 50% całkowitego obrotu.

Slowa kluczowe: największe przedsiębiorstwa, centrala, indeks Theil, regiony NUTS III, Czechy.