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METROPOLITAN REGIONS IN LITHUANIA – TRENDS OF SOVIET URBAN SYSTEM TRANSFORMATION

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Abstract. *Lithuanian urban network was strongly affected by the soviet central planning system and the state remains the only small country without clear dominance of one city in western world. Quite balanced settlement system and relatively even urban spaces are under change now. The resistance and transformation of such artificial network in free market economy, decrease of one areas and metropolization of another is the main object of this paper.*

Бурнейка Д. *Метрополітенські регіони у Литві – тренди трансформації радянської урбосистеми. Литовська міська мережа суттєво постраждала від радянської системи централізованого планування, держава залишається лише маленькою країною без чіткого домінування одного міста в західному світі. Досить збалансована система розселення і відносно рівномірні міські простори нині змінюються. Супротив та трансформація такої штучної мережі у вільну ринкову економіку, занепад одних територій і метрополізація інших є головним об'єктом даної статті.*

Introduction. The general trends of the post-communist transformations are quite similar in the Eastern European countries. One could hardly deny that different societies tend to create different spaces, thus the transformation from quite even socialist country into highly fragmented liberally organised capitalist one should result in certain spatial consequences. However, these changes do not happen in an empty space. In many cases this means conflict between old and new socio-spatial structures. The older one tends to resist the changes causing both positive and negative consequences. It can reduce or facilitate the growth of the regional differences at the country level or prevent fragmentation and ghetto formation inside the cities. It can also paralyse development of the economy in the certain spaces or block conversion of “grey” Soviet spaces into more pleasant ones. The different background can cause significantly different outcomes of the same processes in various countries.

The aim of this paper is to reveal the main trends of the transformations of the Lithuanian urban network, which were taking place during the last decades of unstable economic growth. The urban network of the country was centrally planned and a balanced urban system was created during the Soviet period. It means that instead of the clear dominance of a capital city (in terms of population and economy) a well-developed network of regional and sub-regional centres was established in Lithuania. This is the opposite to what is found in many Western European capitalist countries of the same size. According to the simple logic and having in mind widespread trends of concentration and metropolisation in the world, guided by liberal economic policies, the situation in Lithuania is subject to change. Lithuanian cities, planned for the socialist economy and “even” communist society, should reorganise themselves into capitalistic ones with fragmented economic and residential spaces. It is yet difficult to predict how the inherited Soviet structures will withstand these pressures in the future. We have tried to explore the main trends of these processes in order to make some assumptions of the further development of the urban system in Lithuania.

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Transformations of inherited urban network. Economic development of Lithuania experienced a lot of disturbances during the last two decades. Recessions that appeared prior to 2008 have resulted in huge imbalances of economy between different regions (Burneika, 2007). This resulted in different trends of growth and decline of various urban areas across the country. We suggest that these imbalances of the development are the result of the previous management of urban network, at least to some extent.

Lithuanian settlement structure was influenced to the extent like no other country in post-Soviet Europe. The Soviet policy wiped off the majority of granges and small villages concentrating their residents to bigger villages and towns of several hundred residents. In parallel, the prevention of the development of the biggest cities, especially Vilnius, and expansion of medium sized towns into cities,

giving them regional functions were carried out. It was implemented according to the locally modified ideas of W. Christaller. Thus Lithuania became the land of medium towns and cities and it remains the only small and medium sized European country without clear dominance of one metropolitan region. Artificially constrained urbanisation and metropolisation during the Soviet period might be one of the main reasons why the proportion of emigration in Lithuania is the highest among the EU member states. Present process of the rapid decline of the population and its spatial redistribution within the country is a continuation of the artificially constrained and reshaped processes. This led to the reorganization of the whole urban system in Lithuania. Moreover, the bigger cities themselves were planned in such a way that now they mainly consist of vast areas of blocks, where there is no space for development of small scale businesses and other economic activities. Lithuania is still widely perceived as a country of 5 big cities in the local media and it was quite a shock when recent population census found that Panevezys lost its status of big city.

According to the statistics, the shrinkage of medium sized cities was one of the main features of the development of Lithuanian urban network during the last two decades (Statistics Lithuania, 2013). Vilnius city lost 7.6% of its population in 1996-2012, while all other cities lost more than 20% (Lithuanian average - 16%). However, the statistical data shows that the relative population increase of Vilnius city was quite slow compared to the distribution of the population within the country (the share of the residents of Vilnius city increased from 16% in 1996 till 17.8% in 2011 (Statistics Lithuania, 2013)). On the other hand, municipalities surrounding the biggest cities were the only areas gaining population during the analysed period; therefore the real increase in the metropolitan regions was higher.

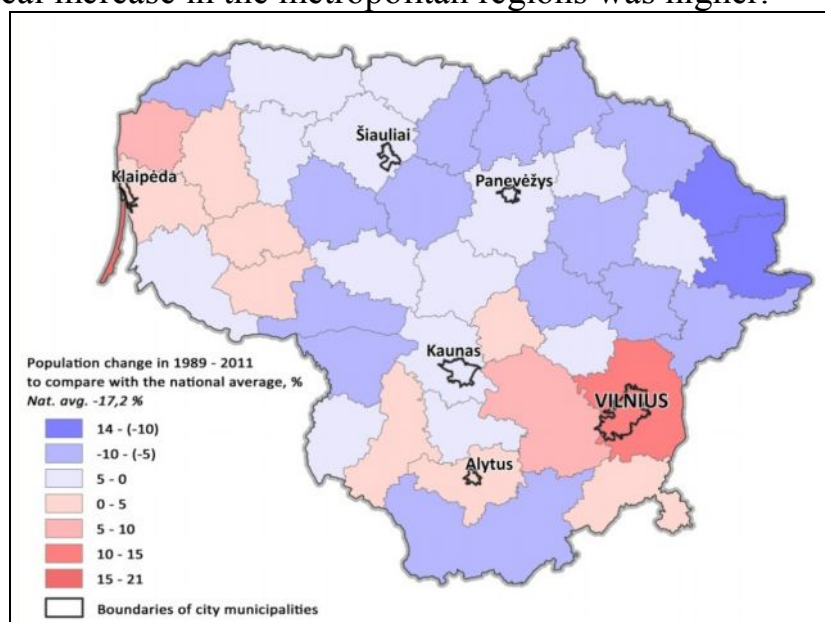


Figure 1 – Differences of trends of population change in municipalities in 1989-2011 (According to the Lithuanian census data)

The hidden internal migration. The trend of the population concentration is obvious, but the pace of this process is under question. Moreover, the reliability of

statistical data might also be questioned. Many residents actually living in the cities officially declare different place of residence. It can be illustrated by the secondary data. The redistribution of gathered income tax of physical persons, which is carried out according to the declared place of residence, shows that 76 thousands or some 28% of Vilnius's tax payers officially live in other municipalities (for comparison, it is approximately the total number of employees in Klaipeda) (Fig. 2). Therefore, one could estimate that the real number of population in Vilnius is bigger by at least some 100 thousand residents (or even more, having in mind students and other non-tax payers). Hidden metropolization is also common for Kaunas and Klaipeda, though the extent is much lesser.

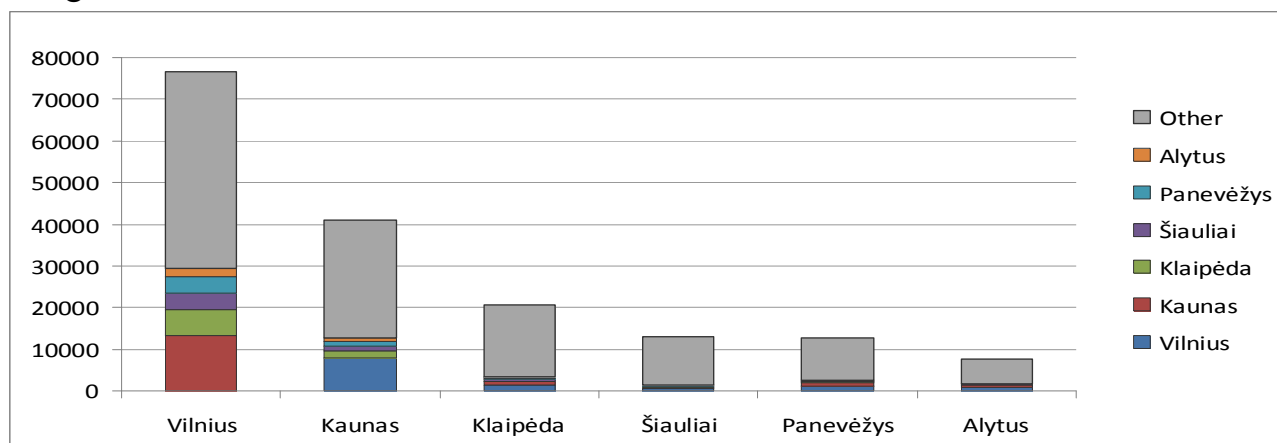


Figure 2 – Approximate number of employees in the biggest cities officially residing in other municipalities in 2012. (According to State Tax Inspectorate, 2013)

The data on the redistribution of income tax could illustrate the spatial pattern of recent migrations inside Lithuania, while no other data on this phenomenon is available. This could also be an indicator of ongoing processes of concentration and metropolization as well as shrinkage of peripheral settlements. Although data illustrates both commuting flows and longer migrations and does not indicate accurate numbers, the general trends are obvious. It is clearly seen that Vilnius city is the destination for migrants from all over the country. Meantime, Kaunas and Klaipeda plays important role in the middle and western parts of the country. Other cities have only small regional impact (Fig. 3).

The metropolization of economy One of the main drivers of described trends is obviously related to the differences of economic development. The degree of metropolization of the economy of the country is much higher, what once again confirms the hypothesis that social and economical phenomena changes much faster than the space. More than 45% of the total income tax of Lithuania is gathered in Vilnius city, while officially city has 17,8% of country population (Fig. 4). Kaunas city, which at present (statistically) is home for 10% of Lithuanians, gathers 3 times less income tax than Vilnius. Similar proportion is common for Klaipeda, while other cities gather less tax per capita than is Lithuanian average (Statistics Lithuania, 2013; State Tax Inspectorate, 2013). The disproportion in gathered profit tax is even bigger. One could expect that metropolization will continue in the future, because

cities offer very different opportunities for people. Lithuania has already become country of 3 big cities instead of 5, as is still being perceived in media.

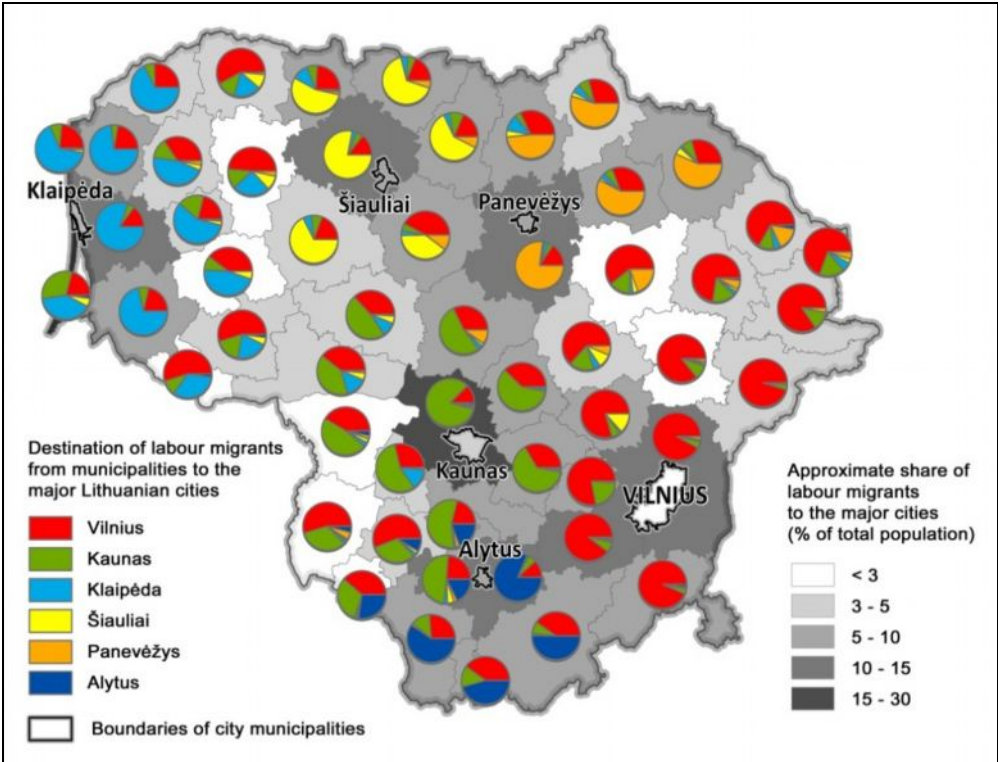


Figure 3 – The detination of labour migrations to the city municipalities (according to State Tax Inspectorate, 2013).

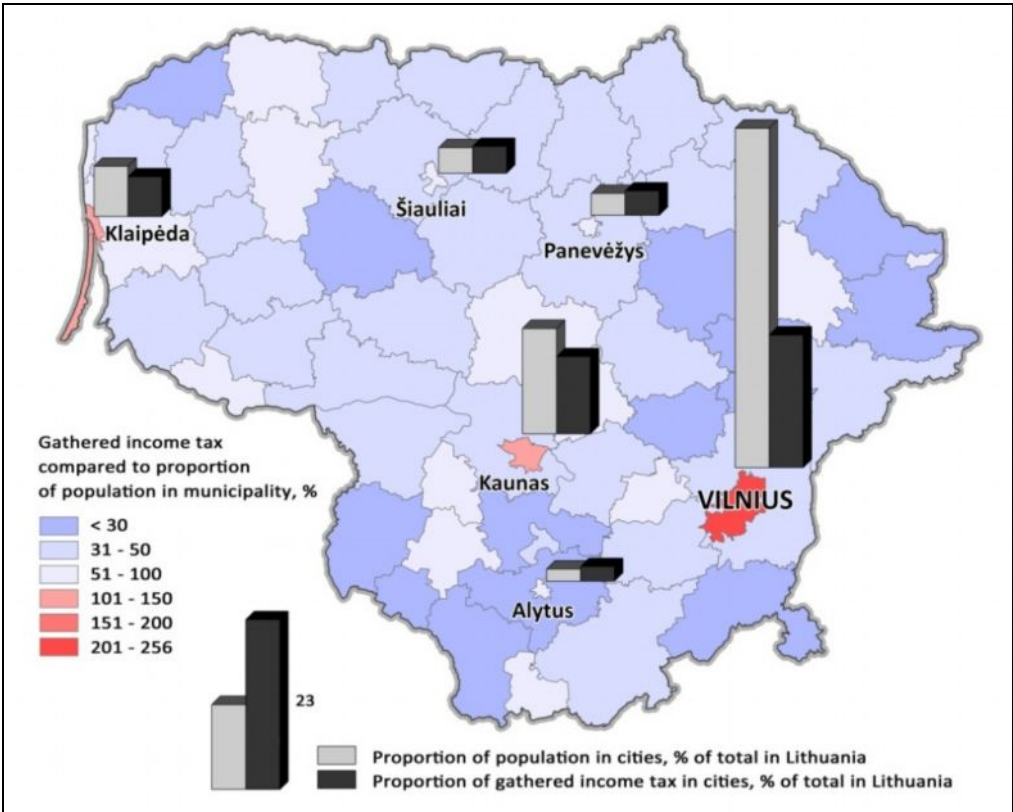


Figure 4 – Gathered income tax and proportion of population in municipalities (Lithuanian tax inspection, 2013; Statistics Lithuania 2013)

Transformations of the inner urban space is another, even more complex, phenomenon happening in the post-Soviet cities. Preliminary analysis shows, that urban structure of post-Soviet city of Vilnius has relatively high degree of resistance to ongoing transformations of economy and society. In general, trends of the transformations in the Vilnius urban region mostly correspond to those in other capital cities of the post-communist Europe (Gentile, Tammaru, van Kempen, 2012; Bachler, Downs, 1999; Smith, Timar, 2010; Boren, Gentile, 2007). Industrial areas in the central part and derelict or empty areas have been transformed very fast, while residential (especially Soviet planned) neighbourhoods demonstrated a strong resistance to the change of any kind.

The sprawl of Vilnius city was the most characteristic feature of ongoing transformations, which finally resulted in the formation of the wider Vilnius urban region (Ubareviciene, Burneika, Kriauciunas, 2011). The transformation of “even” Soviet urban city into “fragmented” capitalistic one is more hideous process. Growing social differences and fragmentation of the society redistribute population inside the cities. However, due to the lack of reliable statistical data, the degree and particular pattern of these processes are not clear in Vilnius. Such phenomena like rise of gated communities (Krupickaite, Pociute, 2008) can be regarded as a typical example of segregation of urban space. However it seems that inherited structure of the city plays crucial role in keeping the city less segregated than most Western cities are. Generally one could speak about some isolated atolls of social exclusion (e.g. in former factory workers’ hostels, which are scattered all around the city) or gated wealth, instead of wider seas of poverty or prosperity inside the city.

Conclusions. The present trends show that Lithuania will have one even more dominant metropolitan region in the nearest future and difference in number of residents between two biggest city regions will be counted by times instead of percents. However the pace of ongoing processes will not be fast. Inherited urban structure with peripheral position of capital city, which is not a sea port, like in all other small seaside countries, suggest that metropolization in Lithuania will not reach the degree of other countries of the Baltic sea region and remaining Europe. The difference of ongoing socio-economic changes and transformations of settlement structure will cause various social, economic and psychological tensions in Lithuania. Such a situation and inherited polycentrism of the country will cause bigger emigration flows than in the other post-socialist countries. Therefore the trends of the metropolisation will be expressed more via shrinkage of secondary cities than by expansion of capital city-region. Having in mind prevailing opinion of the majority of the population and the policy of ruling parties, which mostly rely on the support from the smaller cities and towns in periphery, it would be hard to predict that principles of the management of regional development of the country, oriented to support peripheral centres, will be revised. Any attempts to prevent metropolisation by seeking to keep population in medium cities and towns will fail or will further facilitate even stronger emigration flows from the country. The management of the urban network should be based on the idea of solidarity and unity, but not on the uniform settlement network of the country.

REFERENCES

1. Bachler J. and Downs R., (1999). Regional Policy in the Transition Countries: Comparative Assessment', *European Planning Studies*, Vol. 7, no. 6, P.: 793–808.
2. Boren, T. and Gentile M. (2007). Metropolitan processes in post-sommunist states: an introduction, *Geografiska Annaler* 89 (2), P.: 95-110.
3. Burneika D., (2007) 'Economic aspects of Regional disparities in Lithuania', *Folia Geographica*, vol. 13, P.: 56 - 66.
4. Gentile, M, Tammaru, T and van Kempen, R (2012) Heteropolitanization: Social and spatial change in Central and East European Cities. *Cities* 29 (5), P.: 291-350.
5. Pociute, G., Krupickaite, D. (2008). Gated communities in Lithuania: tendencies and peculiarities (a case of Vilnius and its environs). *Annales Geographicae* 40 (2), P.: 14 – 27. Vilnius.
6. Smith A., Timar J., 'Uneven transformations: Space, economy and society 20 years after collapse of state socialism', *European urban and regional studies*, Vol. 17, 2010, P.: 115-121.
7. State Tax Inspectorate, <http://www.vmi.lt/lt/?itemId=10121222>, 2013 02 10.
8. Statistics Lithuania (2013). <http://db1.stat.gov.lt/statbank/default.asp?w=1920>, 2013 02 05.
9. Ubarevičienė R, Burneika, D and Kriauciūnas, E (2011). The sprawl of Vilnius city - establishment and analysis of growing urban region. *Annales Geographicae* 43-44, P.: 96-107.

TERRITORIAL COHESION OF A METROPOLITAN AREA – MEASUREMENT METHODS (THE CASE OF LODZ METROPOLITAN AREA)

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Abstract. *The paper presents a pattern of conduct and research tools that make it possible to determine most precisely and objectively the degree of territorial cohesion of metropolitan area, based on the strength of spatial linkages (e.g.: synthetic measures of transportation, social and ecologic linkages, as well as local spatial policies compliance and socio-economic situation) that exist between the core and the hinterland.*

Бартосевич Б., Боровська-Стефанська М. Малі міста Центральної Європи: 20 років після трансформації у контексті функціонального та просторового розвитку. У статті представлено алгоритм проведення та засоби дослідження, що дозволяють найбільш точно і об'єктивно визначити ступінь територіальної єдності метрополітенського регіону, ґрунтуючись на силі просторових зв'язків (наприклад, синтетичні засоби перевезення, соціальні та екологічні зв'язки, а також місцева просторова політика відповідності, соціально-економічна ситуація), які існують між ядром і хінтерландом.