

# Регіональна політика і територіальний розвиток

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## The role of city centers in intensifying the endogenous developments of regions

*This article has revealed the peculiarities of the influence of the oblast city centers on the endogenous regional development by way of an analysis of the basic local potentials of urban economy, as well as brought to light the main problems of the mobilization of endogenous resources. The current urbanization trends in Ukraine have been estimated within the context of providing endogenous development, and the main obstacles to the realization of the scenario of endogenous development have been identified: demographic, economic and institutional ones. The development of the oblast city centers has been analyzed according to their key indicators, the comparison of the results of urban and regional development during the years 2010-2016 has been carried out, the indicators of the elasticity of the growth rates of the city and oblasts have been calculated, conclusions on ensuring the positive impact of oblast centers on their own regions and the reasons for their absence have been made. The measures towards the effective use of local resources, the reduction of social stratification of the population, providing them with a wider access to basic services have been proposed. The implementation of a new development policy of urban centers as hubs of economic activity will contribute to the cities' endogenous development, to the increase of their global competitiveness.*

**Keywords:** *endogenous development, urbanization, cities-oblast centers, regional development, coefficients of elasticity.*

**Problem statement.** The endogenous theory of economic growth has in view the consideration of economic activity at the regional and local levels. On the one hand, the concept of endogenous development is rooted in such factors as territorial location and the effective use of local resources, and, on the other hand, in local factors such as investments in innovations and human capital, high-quality municipal governance, backup for small and medium-sized enterprises, specific elements of urban culture, etc. The endogenous development of the regions involves an advancement involving internal resources, prerequisites and factors. This research focuses on cities and is specified by their present status as the centers of economic growth of the regions and the state, as centers giving rise to social revolutions, as concentration of talents, culture, technologies, capital, and science. An assessment of the cities' impact on endogenous regional development involves the analysis of the main local potentials of the city economy, identifying the core problems of mobilizing endogenous resources and working out proposals for increasing and stimulating local reserves. The oblast center cities that carry out a number of urban and metropolitan functions (beyond the limits of city jurisdiction, i.e. multi-functional) are believed to be in the best position as to the provision of endogenous development. There are 24 such cities out of the 27 oblast centers in Ukraine due to the annexation of the Crimea and military actions in eastern Ukraine. Modern socio-economic and political transformations and home reforms of local self-government necessitate a scientific analysis of the role of oblast center cities in the socio-economic development of regions on the basis of their endogenous potential.

**Analysis of recent research.** Theoretical and methodological foundations of the role of cities in regional development as the growth poles have been formed by Ukrainian and foreign researchers: O. O. Denysenko, M. I. Dolishniy, S. I. Dorohuntsov, O. A. Karlova, O. I. Karyi, G. P. Pidhrushnyi, I. H. Savchuk, M. O. Sluka, I. Z. Storonyanska, L. H. Chernyuk, V. I. Chuzhykov, L. T. Shevchuk, and J. R. Budwil et al. While developing the issues of improving the socio-economic development of the

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regions based on the activation of the endogenous potential of large cities, it seems appropriate to address the peculiarities of their identification and the establishment of the key indicators that might serve the basis for the development of urban policies of endogenous development.

**The paper purpose** is to expand on theoretical, methodological and applied provisions of regional and urban development within the context of activating its endogenous factors, to find out the main problems in spreading positive externalities of city centers on the adjacent territories.

**Major research findings.** Cities, mostly large and medium, as centers at a local, regional and inter-regional levels, because of the higher concentration of economic, innovative, scientific, infrastructural, cultural and information development potential impersonate the role of «growth poles». It is the very level and vector of city development, the effectiveness of structural transformations of their economy, the development of promising and creative kinds of economic activity that the competitive development of the regions of the country as a whole depends on.

To a large extent, this is due to a high proportion of indicators of socio-economic development of cities in almost all important fields of life in the regions. Therefore, the assessment of the cities' impact on endogenous regional development involves calculating the concentration of economic activity in the oblast center cities according to the indicators of endogenous factors including: demographic (population, number of students of higher education institutions per 10 thousand people); economic (average wages, the employment rate of the population, export and import of goods and services, industrial production output) and social (the total housing area put into operation, retail trade turnover), etc.

The current phase of urbanization in Ukraine is characterized by a change in the number of urban population in oblast centers due to its natural and migration growth (reduction). Ukraine's regions differ significantly in terms of the level and intensity of urbanization processes, the tendencies towards the fluctuation of urban population, resulting from historical and geopolitical peculiarities and globalization challenges. Ukraine belongs to the highly-urbanized countries of the world, the level of urbanization is 69% (in 2017), disregarding the temporarily occupied territory of the Crimea and the city of Sevastopol. The high rates of urbanization intensity (from 0 to 5) are attributable to the regions of Western Ukraine, Kyiv and Odesa regions, explained by both a demographic reserve of the population in rural areas and by a permanent migratory influx of the population to the capital and the city of Odesa. The intensity growth of the urbanization processes in these regions can be attributable to the later historical stage of urbanization of western Ukraine, in comparison with the long-standing industrial and highly-populated regions of eastern and central Ukraine. The attenuation of urbanization processes is caused by the transition to the next stage of urbanization (according to J. Jibbs) and the forced migration of the population from the zones of military conflict (Fig. 1).

The analysis of the population concentration in the oblast center cities revealed the compression of economic space in favor of city centers. Thus, in particular, in 2016, the average proportion of oblast centers in the total population spread of their regions was almost 30%, with the highest rate in Kyiv (62.8%, +1.3% per cent during the period of 2010-2016) and the lowest in Uzhhorod (9.1%, -2.9% during the analyzed period). Also, during 2010-2016 there was a slight increase in the average value of oblast centers' share by 1.8% pp, most of all among other cities during the analyzed period (by more than 5%) the share of Ivano-Frankivsk and Khmelnytskyi (+ 5.6% and 5.5% respectively), on the other hand, the highest rates of decline in the share of oblast centers were observed in Uzhhorod and Rivne (-2.9% and 1.8% respectively). The population increase and the growing importance of Kyiv, Ivano-Frankivsk, Lutsk and Chernivtsi are followed by a simultaneous rise of their regions' population, if at a lower pace, i. e. a rather active process of population concentration

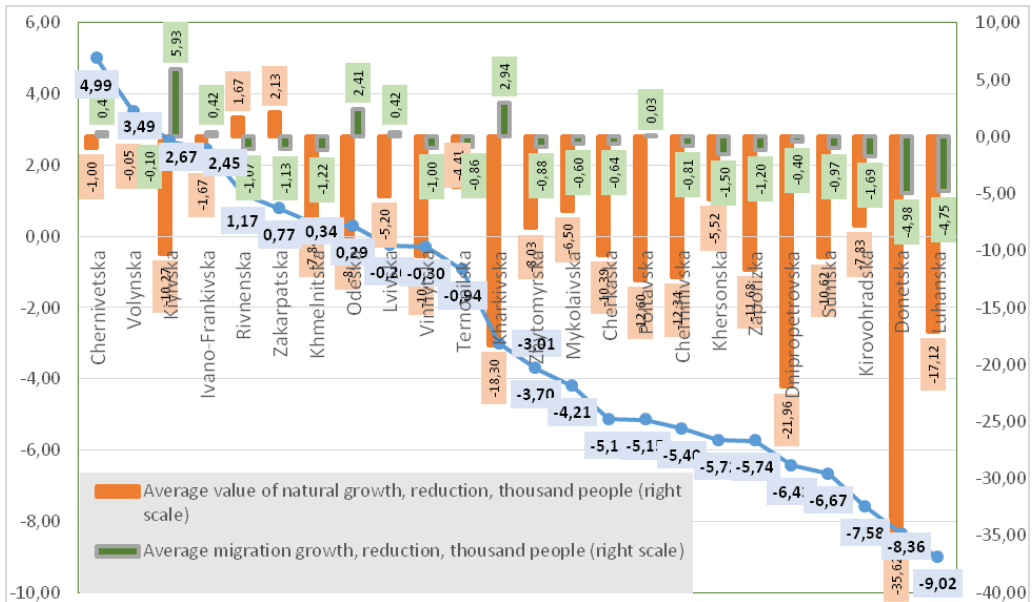


Fig. 1. The distribution of Ukraine's oblasts according to the coefficients of intensity of urbanization and indicators of natural and migration growth (reduction) of population for 2005-2016\*

\*Source: calculated by the authors according to the data [2]

in these cities is not only due to a pendulum labor migration, but also to a natural population growth, which is typical for the region at large. However, the population growth and the share value of other regional centers (Vinnytsia, Odesa, Ternopil and Khmelnytskyi) are accompanied by the population decrease in their regions, which, in turn, may indicate that the intensification of the concentration process of the population in these cities does not have a positive impact on the demographic situation in their regions. Furthermore, there is a reverse effect, when the growth poles do not assist the development of the surrounding territory, but «exhaust» its resources (primarily the human ones). Population concentration in an oblast center complicates the processes of polycentric development, leads to an increase in spatial disproportions in the socio-economic development of the regions.

Consequently, significant indicators of the reduction of natural and mechanical population movements showed in half of the analyzed oblast centers. Moreover, the cities of the East of Ukraine are actively losing their population due to depopulation, aging, military actions, local economy destruction and the transition to the next stage of urbanization characterized by a reduction in the birth rate of urban and rural population, and thus the decay of urbanization of the entire region. The cities in central Ukraine, except Kyiv, also lose their population. The outlined tendencies in the urban population reduction require the implementation of measures aiming at the maintenance and preservation of human capital through the creation of new jobs and the modernization of social infrastructure, the introduction of measures to stimulate birth rate by providing better medical, social and educational facilities, etc. [1, p. 93].

The cities in the West of Ukraine increase their population more actively, which results in the rise of housing construction, higher investments, etc. The above said proves the necessity of implementing a differentiated approach to urban development, the updating of strategic goals and coordination of the strategic development goals of oblast city centers and regional priorities.

The dynamics of indicators of external economic activity of oblast centers (the amount of exports of goods and services, as well as the amount of foreign direct investment (equities) per person), which indicates the economic development and competitiveness of economic systems, clearly distinguishes cities against their regions. The average share value of regional centers in the total volume of exports of goods in their regions in 2016 amounted to 46.2% (-5.3% in the years 2010-2016), and in the total volume of exports of services – 67.5% (-2.5% during the analyzed period) (Fig. 2).

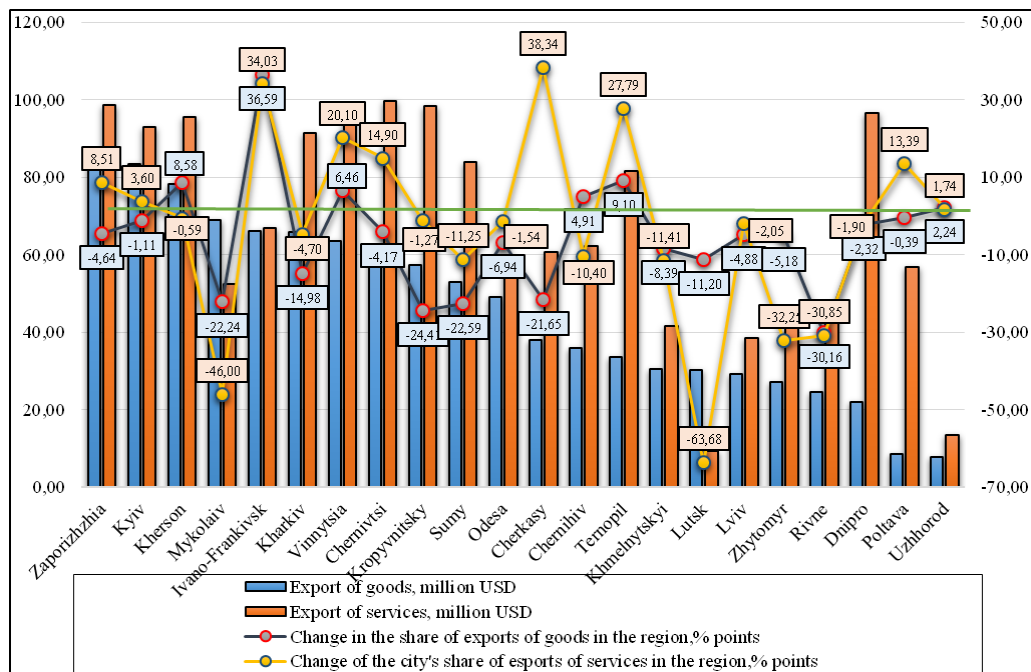


Fig. 2. Regional centers' share in the total volume of goods exports in 2016 and its change in 2010-2016\*

\*Source: calculated by the authors according to the data [??]

The highest share value in total exports of goods among the regional centers of Ukraine in 2016 were observed in Kyiv and Zaporizhzhia (both 83.4%, -1.11% and -4.64%, respectively for the period of 2010-2016), the lowest one is in Uzhhorod and Poltava (7.66% and 8.53%, + 2.24% and -0.39% of the changes in their share during the analyzed period) (Fig. 2). The highest growth rate of the share value in the total amount of exported goods during the period of 2010-2016 demonstrated the city of Ivano-Frankivsk (+ 36.6%), while the highest rates of decline showed the cities of Rivne and Kropyvnytskyi (- 30.2 % and -24.4% respectively), which is connected, first of all, with the intensification of industry development (including with the attraction of foreign investment) in the former case, and the degradation and collapse of industrial enterprises in the latter. The growth of goods export in Ivano-Frankivsk in 2010-2016 is directly correlated with the export increase in the region (+ 152.9% in the city and up to + 13% within oblast), on the other hand, a drop in the goods export in the city of Rivne alongside with the export decrease in the region (-64% in the city up to -19.7% on the oblast scale).

Concerning the sphere of service export in most regions of Ukraine, the characteristic feature is almost complete dominance of their centers, the share value of eight of them exceeds the 90% threshold, which is closely connected with

a sufficient number of highly qualified personnel, higher wages and an appropriate infrastructural environment in oblast cities for the development of export directions of the internal service sphere. The highest growth rates of the oblast center's share in the total volume of service exports in the region in the period 2010-2016 were demonstrated by the cities of Cherkasy and Ivano-Frankivsk (+38.3% and +34% respectively), while in Lutsk and Mykolaiv (-63.7% pa and -46%, respectively) showed the highest rates of decline. The increase of the export potential of Cherkasy in the region was due to the growth of providing services in telecommunication, computer and information spheres (48% of total service exports), and of Ivano-Frankivsk due to the services of material resources processing (about 61%).

The concentration of direct foreign investment (DFI), one of the most effective external sources of financing the development of various spheres of the country's economy, as well as most of the export potential of Ukraine's regions, thrives primarily in their regional centers, most of all in the capital, Kyiv (about 60% of the total volume of DFI (share capital), which are invested into Ukrainian economy according to the results of 2016). For example, on average, the volume of DFI per capita in oblast centers in 2016 exceeded this indicator value in their regions by almost twice showing an increase of 5.5% during the period of 2010-2016. The greatest advancement in the process of DFI attraction among oblast centers of Ukraine in the period of 2010-2016 was achieved in Ivano-Frankivsk, which increased the amount of DFI per capita to 1,873 USD (the total amount of DFI during 2010-2016 exceeded USD 500 million), which is more than 4.5 times higher than in 2010 and 2.3 times more than the value of a similar indicator in the region. Currently, according to the volume of DFI per person, Ivano-Frankivsk is second only to the acknowledged leader in attracting DFI – Kyiv (2.7 times), but prevails over other oblast centers (Kharkiv by 90%, Odesa by 1.9 times, Dnipro by 33.1%, and Lviv by 2.1 times). Among the least successful oblast centers, according to the amount of DFI per person, are Chernihiv and Poltava, which, in the analyzed period, along with Kherson and Khmelnytskyi, could not exceed or reach the level of their regions, which is largely connected with other powerful economic centers in their regions that are capable of attracting significant portions of DFI.

The share of the oblast center in terms of DFI in the region during 2010-2016 increased in Ukraine's capital, Zaporizhzhia, Ivano-Frankivsk, Rivne, Dnipro, Vinnytsia, Kropyvnytskyi, Ternopil, Zhytomyr, Khmelnytskyi, and Uzhhorod (Fig. 3). The lower diagram indicates the change of the city's share, it also points to the characteristic extremes (the maximum is Ivano-Frankivsk, and the minimum is Cherkasy (dropping by 46.5%), in general, half of the cities is characterized by an increase in their share for this indicator, and for the second half by reduction).

The unquestionable leaders in attracting DFI over the analyzed period are Kyiv, Zaporizhzhia, Kharkiv, Mykolayiv, Lviv, Sumy, Vinnytsya, Odesa and Cherkasy, which draw over a half of the DFI directed for the oblast. Against this background the outsider cities of other oblast centers with DFI in relation to the whole amount of regional DFI are Kropyvnytskyi, Ternopil, Uzhhorod, Chernihiv, Poltava, where the share of the city varies within 10-25%.

The average growth rate of the gross regional products (GRP) for the period 2010-2016 (the upper diagram) shows a certain asynchrony with the configuration of the lower diagram (change in the share of the city's DFI), which reveals the mixed impact of the towns of oblast significance on the regional economic development. Spacious synchronisms have been discovered (the dynamics peculiarities of both diagrams is approximately the same, either rise-rise, or fall-fall) that are inherent in these cities: Kyiv, Zaporizhzhia, Kharkiv, Vinnytsia, Odesa, Lutsk, Kropyvnytskyi, Khmelnytskyi, Cherkasy, Kherson, Poltava.

Asynchronous characteristics are displayed by oblast center cities, which, at a high rate of change in the share of DFI, do not provide positive externalities to regional



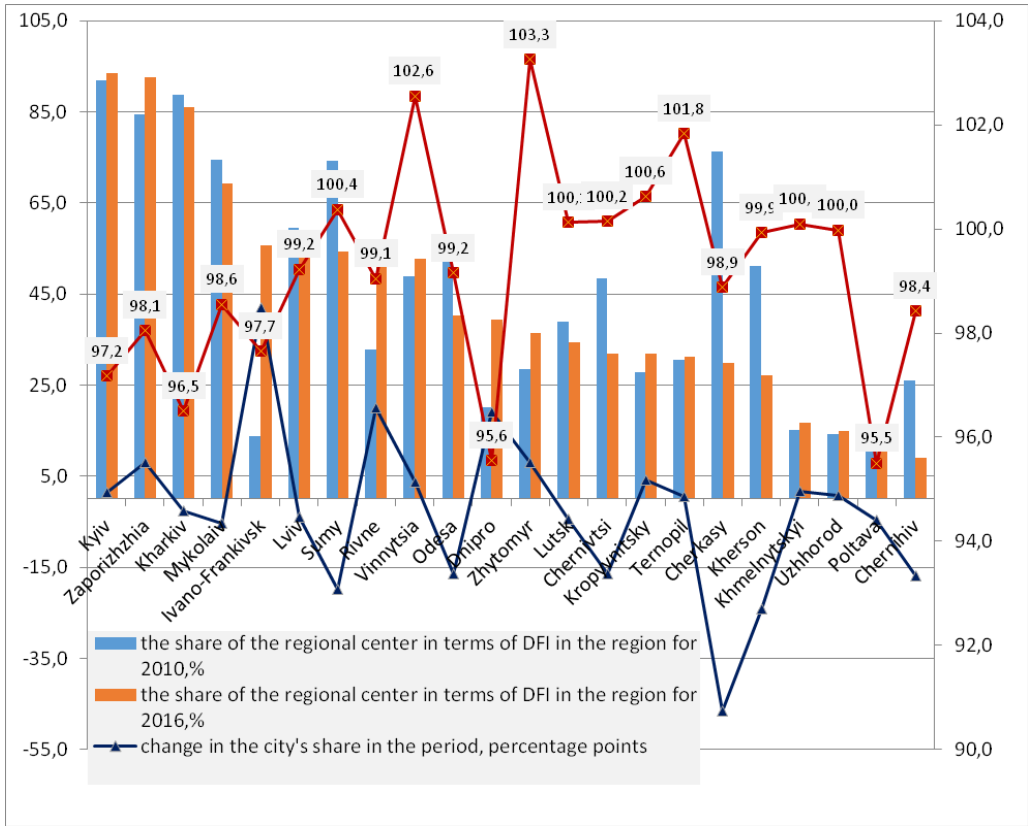


Fig. 3. The correlation of change of the regional centers' share in the volume of DFI in the region and the GRP growth rates for 2010-2016 \*

\*Source: calculated by the authors according to the data [2].

development; we have allocated them into the first group of cities (leaders against the background of a decrease in regional development): Ivano-Frankivsk (with a 40% increase in the city share of DFI the growth rate of GRP dropped by 2.3%), Rivne (with a 20% increase in the city share of DFI, the growth rate of GRP dropped by 0.9%); Dnipro (with 19% of the city share of DFI the growth rate of GRP dropped by 4.4%).

The lack of positive external results of the city's influence on regional development testifies to the extensive growth of the oblast center at the expense of the region, or to the ineffectiveness of DFI in the context of general regional production of goods and services, as well as their consumption. However, DFI can have an effect with a certain time lag and may manifest itself in the growth of GRP in the years to come, since it is DFI that influences the growth of the economy, the influx of the domestic market of the region with competitive goods and services, especially when there is a shortage of domestic investment resources.

A separate group consists of the cities characterized by a reduction in their share in the region in terms of DFI, which, nevertheless, did not affect the growth of the regions' GRP in a negative way (Sumy, Vinnytsia, Lutsk, Chernivtsi). This situation is explained by the existence of other growth potentials in the region, apart from the oblast center, as well as by the correlation of economic development of these regions on internal factors and growth reserves.

The role of economically active city centers in ensuring the endogenous development of regions is determined by the achievement of a new quality of economic growth of

cities, social effects, followed by an increase in the level and quality of life for the population. Regarding this, it is important to assess the elasticity of the dynamics of transformational processes in cities in the context of sectoral, technological, reproductive, social, spatial proportions, innovative priorities of economic development, and also of an elasticity analysis of the dynamics of socio-economic development of cities and regions in general.

In the given case, aiming at a more qualitative analysis of the effectiveness of the main indicators of the socio-economic development of the regional centers of Ukraine for the development of their regions, it is necessary to calculate and analyze the indicators of the elasticity of their growth rates (according to the following criteria: the amount of direct foreign investments (share capital) calculated per person; the total housing area put into operation calculated per 10 thousand people; the average monthly nominal wages; the average number of staff employees calculated per 10 thousand people, the amount of goods export per person, the amount of service export per person, the retail turnover of manufacturing enterprises per person, the number of university students per 10 thousand. people) (1):

$$E_i^{DFI} = \frac{\Delta DFI_i^0}{\Delta DFI_i^{OC}} E_i^{DFI} = \frac{\Delta DFI_i^0}{\Delta DFI_i^{OC}}, E_i^{HA} = \frac{\Delta HA_i^0}{\Delta HA_i^{OC}} E_i^{HA} = \frac{\Delta HA_i^0}{\Delta HA_i^{OC}},$$

$$E_i^{AMNW} = \frac{\Delta AMNW_i^0}{\Delta AMNW_i^{OC}} E_i^{AMNW} = \frac{\Delta AMNW_i^0}{\Delta AMNW_i^{OC}}, E_i^{ANE} = \frac{\Delta ANE_i^0}{\Delta ANE_i^{OC}} E_i^{ANE} = \frac{\Delta ANE_i^0}{\Delta ANE_i^{OC}},$$

$$E_i^{GB} = \frac{\Delta GE_i^0}{\Delta GE_i^{OC}} E_i^{GB} = \frac{\Delta GE_i^0}{\Delta GE_i^{OC}}, E_i^{SE} = \frac{\Delta SE_i^0}{\Delta SE_i^{OC}} E_i^{SE} = \frac{\Delta SE_i^0}{\Delta SE_i^{OC}}, E_i^{RT} = \frac{\Delta RT_i^0}{\Delta RT_i^{OC}}$$

$$E_i^{RT} = \frac{\Delta RT_i^0}{\Delta RT_i^{OC}}, E_i^{NS} = \frac{\Delta NS_i^0}{\Delta NS_i^{OC}} E_i^{NS} = \frac{\Delta NS_i^0}{\Delta NS_i^{OC}} \quad (1)$$

where:  $E_i^{DFI} E_i^{DFI}, E_i^{HA} E_i^{HA}, E_i^{AMNW} E_i^{AMNW}, E_i^{ANE} E_i^{ANE}, E_i^{GB} E_i^{GB}, E_i^{SE} E_i^{SE}, E_i^{RT} E_i^{RT}, E_i^{NS} E_i^{NS}$  are elasticity coefficients of the change rates of one of the main indicators of social and economic development of the region  $i$  in comparison with the pace of change of a similar indicator in the oblast center  $i$  during 2010-2016;  $\Delta DFI_i^{OC} \Delta DFI_i^{OC}$  - average annual rate of the changes in the amount of direct foreign investments (DFI) (share capital) per capita in the oblast center ( $^{OC}$ )  $i$  during the analyzed period;  $\Delta DFI_i^0 \Delta DFI_i^0$  - average annual rate of the changes in the amount of direct foreign investments (DFI) (share capital) per capita in the oblast ( $^0$ )  $i$  during the analyzed period;  $\Delta HA_i^{OC} \Delta HA_i^{OC}$  - the average annual rate of the changes in the total housing area (HA) put into operation calculated per 10 thousand people in the oblast center ( $^{OC}$ )  $i$  during the analyzed period;  $\Delta AMNW_i^{OC} \Delta AMNW_i^{OC}$  the average annual rate of the change in the size of the average monthly nominal wage (AMNW) of the oblast center ( $^{OC}$ )  $i$  during the analyzed period;  $\Delta AMNW_i^0 \Delta AMNW_i^0$  - the average annual rate of the change in the level of the average monthly nominal wage (AMNW) of the oblast ( $^0$ )  $i$  during the analyzed period;

$\Delta ANE_i^{OC} \Delta ANE_i^{OC}$  - the average annual rate of change in the average number of employees (ANE) per 10 thousand people in the oblast center  $i$  during the analyzed period;  $\Delta ANE_i^0 \Delta ANE_i^0$  - the average annual rate of change in the average number of employees (ANE) per 10 thousand people in the oblast  $i$  during the analyzed period;

$\Delta GE_i^{OC} \Delta GE_i^{OC}$  - the average annual rate of change of volume of goods export (GE) per capita of the regional center  $i$  during the analyzed period;  $\Delta GE_i^0 \Delta GE_i^0$  - the average annual rate of change of volume of goods export (GE) per capita of the oblast  $i$  during the analyzed period;

$\Delta SE_i^{OC} \Delta SE_i^{OC}$  - the average annual rate of change of the amount of service export (SE) per capita of the regional center  $i$  during the analyzed period;  $\Delta SE_i^0 \Delta SE_i^0$  - the average

annual rate of change of the amount of service export (SE) per capita of the oblast  $i$  during the analyzed period;

$\Delta RT_i^{OC} / \Delta RT_i^{OC}$  - the average annual rate of change in the volume of retail turnover (RT) of enterprises per capita of the regional center  $i$  during the analyzed period;  $\Delta RT_i^0 / \Delta RT_i^0$  - the average annual rate of change in the volume of retail turnover (RT) of enterprises per capita of the oblast  $i$  during the analyzed period;  $\Delta NS_i^{OC} / \Delta NS_i^{OC}$  - the average annual rate of change of the number of students (NS) of higher educational institutions per 10 thousand people of the oblast center  $i$  during the analyzed period;  $\Delta NS_i^0 / \Delta NS_i^0$  - the average annual rate of change of the number of students (NS) of higher educational institutions per 10 thousand people of the oblast  $i$  during the analyzed period.

Elasticity indicators of the rates of change in the main indicators of socio-economic development in the regions relative to the rates of change of the same indicator of regional centers for 2010-2016 are given in Table 1.

Table 1

The elasticity coefficients of the change rates of the main indicators of socio-economic development of regions compared to their regional centers in 2010-2016

Oblast / regional center	DFI	HA	AMNW	ANE	GE	SE	RT	NS
Chernihivska/ Chernihiv	3,02	0,66	1,07	0,97	0,90	0,48	1,45	1,01
Cherkaska/ Cherkasy	2,63	0,69	1,05	0,97	1,61	0,19	2,50	1,22
Khersonska/ Kherson	1,86	0,55	0,95	0,96	0,89	1,51	1,97	0,87
Chernivetska/ Chernivtsi	1,59	0,42	1,00	1,02	1,12	0,26	1,34	1,04
Sumska/ Sumy	1,41	0,87	1,04	1,02	1,47	1,97	2,10	1,07
Poltavska/ Poltava	1,39	1,18	0,97	1,02	1,07	0,66	5,42	0,96
Odeska/ Odesa	1,19	1,15	1,00	0,97	1,14	0,54	3,46	0,99
Volynska/Lutsk	1,16	1,22	1,05	0,94	1,40	9,15	2,53	1,03
Kirovohradska/ Kropyvnytskyi	1,11	0,68	1,03	1,03	1,46	0,66	3,33	1,06
Mykolaivska/ Mykolaiv	1,09	0,75	1,00	0,97	1,34	0,74	4,34	1,02
Kharkivska/ Kharkiv	1,05	0,78	1,00	1,04	1,25	0,64	2,54	1,01
Lvivska/ Lviv	1,02	0,52	0,98	0,97	1,17	0,25	2,20	0,95
Kyivska/Kyiv	1,00	1,39	0,90	1,05	1,12	1,08	2,38	1,12
Khmelnyska/ Khmelnytskyi	0,95	0,78	1,05	1,07	1,35	0,90	2,73	1,09
Vinnyska/ Vinnytsia	0,95	0,63	1,01	1,00	0,93	0,38	1,31	1,02
Zhytomyska/ Zhytomyr	0,91	0,37	1,02	0,98	1,21	0,37	2,97	1,05
Zakarpatska/Uzhhorod	0,91	0,44	0,96	0,90	0,69	0,19	1,52	0,96
Zaporizka/ Zaporizhzhia	0,87	0,59	1,00	0,99	1,05	0,71	3,01	0,99
Ternopilska/ Ternopil	0,79	0,57	0,97	1,00	0,75	0,20	0,89	1,03
Rivnenska/ Rivne	0,68	0,71	1,03	0,99	2,19	2,10	6,93	1,00
Dnipropetrovska/ Dnipro	0,51	0,72	0,96	0,99	1,11	1,36	3,72	1,02
Ivano-Frankivska/ Ivano-Frankivsk	0,30	1,37	0,99	1,01	0,47	0,46	6,47	0,96

\*Source: calculated by the authors according to the data [2] and formulae (1)

The elasticity coefficients we have calculated describe the density of the connection between a set of parameters for oblast centers with a similar set for their regions. Therefore, all the values of the elasticity index  $<1$  indicate a low sensitivity of the change in the growth rate of the main indicators of socio-economic development of the region towards the tempo of their growth in the oblast centers, and, as a consequence, a higher level of concentration of resources and potentials in the oblast centers, with a simultaneous degradation in a regional socio-economic system, that is, there is a danger of exacerbating territorial socio-economic disproportions due to the spatial expansion of city centers. However, when the elasticity index is equal to



or exceeds 1, it indicates the stimulating effect of the development of oblast centers on the growth rates of their regions and the effective redistribution of resources from the oblast center throughout the region.

For instance, indicator 3,02 shows the change in the growth rate of direct foreign investment per capita in Chernihiv during the period of 2010-2016 by 1 percentage point (pp). Chernihiv oblast reacted with the rate of growth of this indicator in the amount of 3.02 pp, which may indicate a significant stimulatory effect of the oblast center on its region and a more efficient redistribution of resources from the oblast center throughout the entire region.

According to the results of 2010-2016, none of the 22 analyzed oblast centers possessed a high proximity between a full set of criteria for the development of regional centers with a similar set of these indicators for their regions. Among the regions with the highest elasticity indicators are Volyn, Sumy and Kyiv regions to be singled out, which showed a high sensitivity of the change in the growth rate of 7 parameters from the 8 analyzed (Fig. 4) as compared to their oblast centers. That is, the city development was accompanied by an increase in the scope of their macro-regional and regional influence, in other words, it featured the process of territorial distribution of positive social and economic effects generated by the regional centers.

For example, in Kyiv, the only parameter with low elasticity level was the average monthly nominal wages (0.90) that showed a significantly higher average level and dynamics of wage growth compared to Kyiv oblast in 2010-2016, which significantly promotes the activation of labor migration from all the regions of Ukraine without exception and the increasing concentration of labor resources in the capital. On the other hand, in Kyiv oblast, the highest level of elasticity among all regions in terms of the total housing area put into operation per 10 thousand people is 1.39, this proves that the growth rate of housing development in Kyiv determines the corresponding growth of its pace in Kyiv oblast at 1.39 pp as well. One of the highest costs of 1 sq.m. of residential real estate in Kyiv has become a powerful incentive to activate the development of housing construction in neighboring districts of Kyiv region.

The highest elasticity level of the fluctuation rate in the amount of service export during the period of 2010-2016 was observed in Volyn oblast (9.15), which indicates a positive impact of the dynamics of the change rate in the service export in Lutsk on the pace of change of this parameter in the region. In particular, an increase in the change rate in the volume of service export in the oblast center by 1 pp in 2010-2016 was reacted by the regional indicator of service export with a growth rate of 9.15 pp, caused, on the one hand, by a decrease in the actual volumes of service export in the oblast center (almost 60%), on the other hand, by an active growth of this sphere in Volyn oblast (by almost twice) mainly due to the efficient activity of processing and assembly enterprises with foreign capital. At the same time, the elasticity between the employment growth rates in the region and the city (0.94) indicate that, nevertheless, labor resources are largely concentrated in Lutsk as a more attractive one for active employment and life.

It is worth noticing that among the oblast centers whose pace of socio-economic development was responded by the least elasticity of the corresponding changes in their regions are Uzhhorod and Ternopil, with a rather low sensitivity of the change in the growth rate of parameters 7 and 6, respectively, out of the 8 analyzed (Fig. 5).

The coefficients of elasticity of the change rate in the volume of direct foreign investments, the size of the total housing area put into operation per 10 thousand people, the amounts of goods and services exports per capita testify to the active increase and concentration of financial and economic potential of Transcarpathian and Ternopil oblasts in their centers. Regarding the elasticity of the pace of change for other parameters, both cities in 2010-2016 showed that their development does

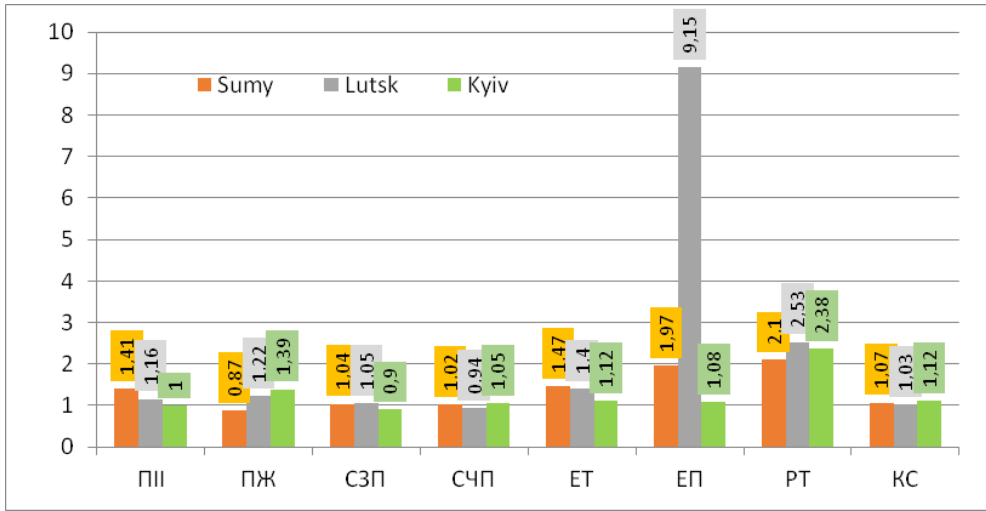


Fig. 4. Elasticity coefficients of the pace of change in the main indicators of socio-economic development of selected regions compared to their regional centers in 2010-2016 \*

\*Source: calculated by the authors according to the data [2].

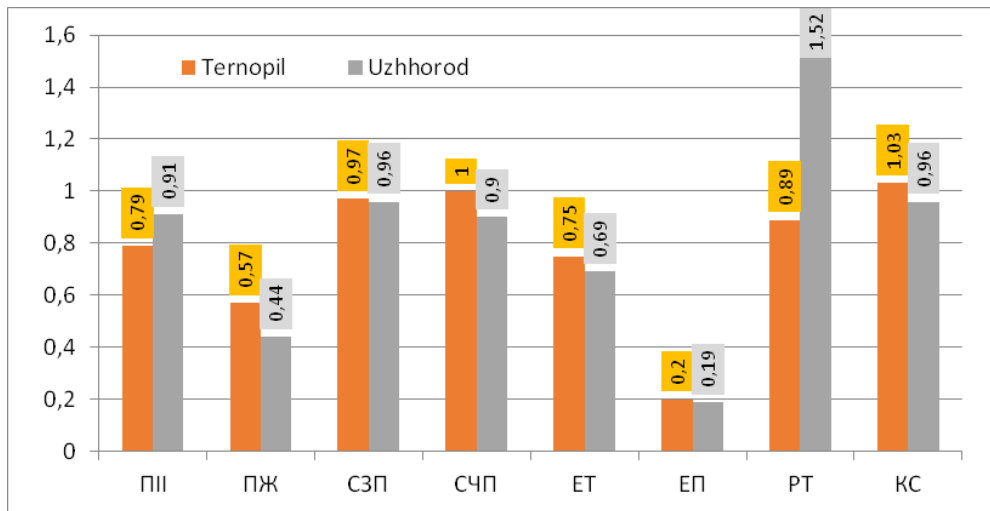


Fig. 5. Elasticity coefficients of the pace of change in the main indicators of socio-economic development of individual regional centers compared to the rate of change in regions in 2010-2016 \*

\*Source: calculated by the authors according to the data [2].

not have positive externalities for their regions, i. e., the territorial distribution of positive social and economic effects generated by the oblast centers has not taken place.

Among other regional centers that determine a high level of development elasticity of their regions, Rivne is worthy of mention by the majority of parameters (the highest values by two criteria are the elasticity coefficients of the change rate in the volume of goods exports per capita (2.19) and retail turnover per capita (6.93)), Ivano-Frankivsk, Poltava, Cherkasy (the highest value of the elasticity coefficient of the change rate in the number of students of higher educational institutions per 10 thousand people (1.22)), as well as Mykolaiv, Dnipro and Odesa. These regional centers are characterized by a more stimulating impact on their regions (due to

the relatively high change rates of the region's parameters compared to the city), which in general encourages a rational redistribution of resources and intra-regional interaction.

Low elasticity levels by most parameters for ten regional centers (Khmelnitsky, Kharkiv, Kherson, Chernihiv, Zaporizhzhia, Zhytomyr, Kropyvnytskyi, Lviv, Vinnytsia and Chernivtsi), attest the increasing concentration of human, financial, economic and educational resources in these cities is not matched by the corresponding socio-economic effects for the respective regions, which threatens the territorial imbalances of spatial development.

**Conclusions.** Thus, the urgent problems of the development of cities as centers of economic activity in providing endogenous development of regions comprise the demographic (related to the concentration of population in regional centers and migration processes), social (increased social stratification in cities and suburban areas), economic (imbalances in the urban labor market, informal employment and lack of finance to meet basic needs of the population, lack of affordable housing, degradation and infrastructure depletion by new residential neighborhoods, connecting to utility infrastructure), transportation, environmental land issues, urban development (spatial planning and updating the city's layout documentation), ect.

A transition to sustainable endogenous urban development is possible only through a more efficient use of resources, decreasing the level of pollution of the urban environment, reducing social stratification, providing wider access to basic services for the population. A revision of the existing urban development policy is boosted by a new stage in society's advancement, which facilitates a new vision, rapid and effective mechanisms for responding to global challenges and threats. Because nowadays city centers are powerful producers of not only trends of social development, but also of new ideas, concepts of development, as well as places of approbation of the newest elements of local government.

Practical exhaustion of the potential of traditional factors of economic growth against the background of modern trends of economic development (metropolization [3], network economics, intellectualization and informatization of socio-economic processes) necessitate a search for well-balanced decisions concerning the innovative trajectory for the development of cities as centers of economic activity in ensuring endogenous development and geopolitical potential of regions in order to improve their competitiveness on a global scale. Urban development should be based on the cities' identity and key competitive advantages, their ability to respond promptly to the transient technological changes and to provide a comfortable living environment for the people in the regions and the country at large.

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**Мельник М. І., Яремчук Р. Є., Щеглюк С. Д. Роль міських центрів у активізації ендегенного розвитку регіонів.**

У публікації розкрито особливості соціально-економічного впливу міст-обласних центрів на ендегенний регіональний розвиток шляхом аналізу основних локальних потенціалів міської економіки. Встановлено, що оцінка впливу міст на регіональний розвиток базується на визначенні концентрації економічної активності в містах-обласних центрах за індикаторами ендегенного розвитку: демографічними; економічними, соціальними тощо. Оцінено сучасні тенденції урбанізації в Україні в контексті забезпечення ендегенного розвитку, які характеризуються високими значеннями коефіцієнта інтенсивності урбанізації для областей Західної України внаслідок запізнолі історичної стадії урбанізації, Київської та Одеської областей, що пояснюється демографічним резервом сільського населення, міграційним припливом населення до столиці та обласних центрів. Виявлено концентрацію населення в містах-обласних центрах і стиснення економічного простору у великих містах. Виявлено суттєві просторові диспропорції у концентрації населення міст-обласного центру щодо регіонів – від 63% населення у м. Києві до 9% населення у м. Ужгород. Проаналізовано розвиток міст-обласних центрів і регіонів протягом 2010-2016 рр., за їх основними індикаторами (зовнішньоекономічна діяльність: обсяг експорту товарів і послуг, прямі іноземні інвестиції на одну особу; валовий регіональний продукт), виявлено міста-лідери та аутсайтери та їхній взаємозв'язок з їхнім регіональним оточенням. Виявлені просторові синхронізми та асинхронізми у соціально-економічному розвитку міст-обласних центрів і регіонів. Розраховано показники еластичності темпів росту міста та регіонів за основними показниками, зроблено висновки про позитивний вплив обласних центрів на власні регіони та причини їх відсутності. Визначено за результатами розрахунків процеси поглиблення просторових соціально-економічних диспропорцій внаслідок просторової експансії великих міст у більшості міст-обласних центрів, а також процеси стимулюючого впливу розвитку обласних центрів на регіони. Обґрунтовано, що впровадження нової політики стимулювання розвитку міст-обласних центрів як місць економічної активності сприятиме ендегенному регіональному розвитку, підвищенню їх конкурентоспроможності в глобальному масштабі.

**Ключові слова:** ендегенний розвиток, урбанізація, міста-обласні центри, регіональний розвиток, коефіцієнти еластичності.

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