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M.R. Vlach, I.V. Vanda, L.I. Kotyk

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On the problem of financial capacities of administrative districts of Lviv Oblast

Myroslava R. Vlach, Iryna V. Vanda, Liubov I. Kotyk

Ivan Franko National University of Lviv, Lviv, Ukraine, liubov.kotyk@lnu.edu.ua

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Abstract. We emphasize the importance of complex human-geographical researches of the processes of transformation of the administrative-territorial division of Ukraine at the level of administrative districts to provide harmonic and balanced development of the Oblast. We revealed the human-geographical essence of the notion of region capacity. We analyzed the

methods of distinguishing and type classification of regional statistical units, adopted in the EU countries, concluding about their adaptation in the Ukrainian realities taking into account the parameters of financial capacities, i.e. the abilities to use local revenues to fulfill local needs. The existing districts of Lviv Oblast were analyzed according to area of the territory, population, population density, level of urbanization, emphasizing their inequalities that puts them on different starting positions for their functioning. Based on the official statistics of the Ministry of Communities and Territories Development of Ukraine (Decentralization portal), we estimated averaged parameters of financial capacity of administrative districts of Lviv Oblast. In particular, we analyzed the share of local taxes in the revenue part of the budget of the general fund, revenue of the general fund per unit area; in the calculation per one person – revenue of the general fund, basic and reverse subsidies (i.e. those given to local governments from the state government and those provided by the local government to the state government for purpose of equalization of taxation capacity), revenue from excise, consolidated tax, land rent. We calculated variation coefficients of indicators of financial capacity of administrative districts, determined inequalities between the districts, especially regarding basic and reverse subsidies. By ranking, we type-classified the administrative districts according to financial capacity (the ability to use local resources to solve local problems): with high capacity (Lviv district), average capacity (Drohobych, Zolochiv, Stryi, Chervonohrad, Yavoriv districts), low capacity (Sambir district). In the context of administrative units, we developed diagrams of local taxes and charges (excise, consolidated tax, land rent). We came up with practical recommendations on how to improve the subregional administrative-territorial division of Lviv Oblast, in particular, we suggested designating Lviv metropolitan district within the Lviv agglomeration, including Lviv district. In the strategy of social-economic development of administrative districts, we proposed taking into account the results of analysis of financial capacity of their current state of functioning. We concluded that inequality of districts requires special, non-unified approaches so as to design programs of social-economic growth. We emphasize the necessity of correlating the National Statistics with the Statistics of EU countries regarding the regional development.

Keywords: administrative district, typologisation, financial capacity, metropolitan district, Lviv Oblast

До проблеми спроможності адміністративних районів Львівської області

М. Р. Влах, І. В. Ванда, Л. І. Котик

Львівський національний університет імені Івана Франка, м. Львів, Україна, liubov.kotyk@lnu.edu.ua

Анотація. Наголошено на важливості комплексних суспільно-географічних досліджень процесів трансформації адміністративно-територіального устрою України на рівні адміністративних районів для забезпечення гармонійного і збалансованого розвитку обласного регіону. Розкрито суспільно-географічну сутність поняття спроможності регіону. Проаналізовано методику виокремлення і типологізації регіональних статистичних одиниць, прийняту в країнах ЄС, зроблено висновок щодо її адаптації в українських реаліях з урахуванням показників фінансової спроможності. Досліджено утворені райони Львівської області за площею території, людністю, щільністю населення, рівнем урбанізації та наголошено на їх неспівмірності, що створює різні стартові умови для функціонування. На основі офіційної статистики Міністерства розвитку громад та територій України (портал «Децентралізація») розраховано усереднені показники фінансової спроможності адміністративних районів Львівської області. Зокрема, проаналізовано частку місцевих податків у дохідній частині бюджету загального фонду, доходи загального фонду на одиницю площі; у розрахунку на одну особу – доходи загального фонду, базову і реверсну дотації, надходження акцизу, єдиного податку, плати за землю. Обчислено коефіцієнти варіації показників фінансової

спроможності адміністративних районів, виявлено неоднорідність районів особливо щодо базової і реверсної дотації. За допомогою методу ранжування виконано типологізацію адміністративних районів за показниками фінансової спроможності: з високою спроможністю (Львівський район), середньою спроможністю (Дрогобицький, Золочівський, Стрийський, Червоноградський, Яворівський райони), низькою спроможністю (Самбірський район). У розрізі адміністративних одиниць побудовано діаграми місцевих податків і зборів (акциз, єдиний податок, плата за землю). Розроблено практичні рекомендації стосовно удосконалення субрегіонального адміністративно-територіального устрою Львівської області, зокрема висунуто ідею виділення Львівського метрополійного району у складі Львівської агломерації зі сучасного Львівського району. У стратегуванні соціально-економічного розвитку адміністративних районів запропоновано враховувати результати аналізу фінансової спроможності їх сучасного функціонування. Зроблено висновок, що неоднорідність районів потребує спеціальних, а не уніфікованих підходів до розроблення програм соціально-економічного розвитку. Закцентовано необхідність узгодження національної статистики зі статистикою країн ЄС щодо регіонального розвитку.

Ключові слова: адміністративний район, типологізація, фінансова спроможність, метрополійний район, Львівська область.

Introduction

The administrative-territorial reform that is underway in Ukraine in accordance with the legal bills adopted in the country (Verkhovna Rada Ukrainy, 2015, 2017, 2020: [Kabinet Ministriv Ukrainy, 2020b](#)) makes relevant the problem of capacity [financial capacity is the ability to involve, accumulate and effectively use financial resources from various sources to solve relevant local issues – Translator's note] of administrative-territorial units to perform their duties. While the capacity of territorial communities (TC) in Ukraine has been long discussed by scholars and public for both volunteer and government-imposed administrative cohesion, removal or creation of new administrative districts or raions (AD) was going much faster. This resulted in imbalance of administrative division of oblast regions from the perspectives of territorial, demographic, and especially economic potentials. If territorial disproportions, unsuccessful composition of TCs do not solve the main task of decentralization of social life – facilitation of administrative, educational, medical, cultural services to the population – then the social-economic disproportions at the level of AR pose threat to stable geospatial development of the region in general. Relevance of the research of transformation of subregional administrative-territorial division was also conditioned by the need to develop a concept of new AR, in particular its powers, especially in budget forming.

The **objective of the research** was determining geospatial disproportions of administrative division of Lviv Oblast based on indicators of size of territory, population, population density, level of urbanization, fiscal activity; in carrying out typological division of ARs in order to substantiate the program of social-economic development of the region. Also, we designed recommendations to improve competitiveness of AR.

Analysis of recent researches and publications

The problems of the administrative-territorial division of Ukraine in the conditions of the reformation have mostly been analyzed by researchers in the sphere of state management ([Kuchabskyi, Boichuk, 2021](#)) and economists (edited by [Kravtsiv, Storonianska, 2020](#); [Ratoshniuk, Sokolova, 2021](#); [Cervere, 2021](#)). Complex human-geographical researches deal with the main level of TC ([Melnichuk, Ostapenko, 2016](#); [Oliinyk, Ostapenko, 2016](#)). New ARs – from the standpoints of human-geographical sciences – have been so far researched insufficiently. A research by O. Skliarska (Skliarska, 2021) was focused on the changes the reform of the administrative-territorial division makes in the status and functions of settlements. In particular, she mentioned the tendency of popularization of social space, formation of peripheral territories because of loss of administrative functions of many municipal and rural settlements, change in the established connections between settlements. We should note the article by M. Baranovkyi (Baranovskiy, 2020), who has at the National level revealed the legal basis of performing the administrative reform at subregional level, practical benefits of designating AR into three-level division of the country and their functions in the context of policy of decentralization, delegation of a significant amount of powers to the TC level. Adoption of foreign experience in transforming administrative-territorial division, particularly, regarding cities as self-governing units, cities with right of powiats, and sublocal self-governing units, was in the focus of the article by O. Kuchabskyi and A. Boichuk ([Kuchabskyi, Boichuk, 2021](#)). Spatial peculiarities of the results of the reformation of the administrative-territorial division of Lviv Oblast are reflected in the Atlas... ([Ostapenko, Perkhaliuk, Bonchkovskiy, Ostapenko, 2021](#)).

Materials and methods

The administrative-territorial reform in Ukraine is being implemented taking into account the historical experience of the country, and also practical developments of neighboring countries which confirm the need of adhering to the requirement of territorial and social-economic integrities of units of the territorial division. Therefore, the problems of the reformation of the administrative-territorial division were analyzed using systemic scientific approach, which implies analyzing ARs as human-geographical systems in the integrity of territory, population, and economy.

For the research, we used official statistical materials of the Ministry of Development of Communities and Territories of Ukraine (Decentralization portal) ([Ministerstvo rozvytku hromad ta terytorii Ukrainy, 2020](#); [Ministerstvo rozvytku hromad ta terytorii Ukrainy, 2021](#)). Statistical analysis of territorial, demographic and financial indicators in the context of new ARs was carried out through averaging the values of their TCs.

To analyze the differentiation of ARs, we employed the coefficient of variation, which is determined as a ratio of mean square deviation to mean value of an indicator. Coefficient of variation characterizes the extent of variability of the values of an indicator. Variation of the feature was low if the coefficient of variation was below 10%, mean – 11-25%, significant – over 25%. If the coefficient of variation exceeded 33.3%, the sum was considered high level of variance.

Calculations and development of diagram using the parameters of financial capabilities of ARs were performed using standard methods in Microsoft Excel. For correctness, the parameters of financial efficiency of districts were compared with the Oblast's mean value that was considered 1.

We should note that the existing Ukrainian statistics does not correspond to the EU statistics regarding some territorial units (English. NUTS – nomenclature units of territorial statistics of the EU). First of all, this concerns territorial level of statistical analysis. In EU countries, the range of statistics for local and regional typologies is legally determined according to the Regulation 2017/2391, Position №1059/2003 of the European Parliament and the Council of Europe. The typology is based on population density, estimated in the network formed by 1 km² cells, which provides high accuracy of designating territorial units. At this particularly level, the following territorial types are designated: city centers (population density is over 1,500 people/km², the overall population in neighbor-

ing cells is at least 50 thousand people), city clusters (density of settlement is over 300 people/km², the overall population in neighboring and diagonal cells is over 5 thousand people) and rural territories (population density is up to 300 people/km², the overall number of population in groups of neighboring sides and diagonal cells is lower than 5 thousand). By rural share in the overall population, three NUTS 3 types of regions are designated: mostly urban (over 80% of the population lives in urban clusters), intermediate (50 to 80% of the population lives in urban clusters), mostly rural (up to 50% of the population live in «rural cells») (Eurostat, 2018; Eurostat, 2020).

In some cases of type classification of territorial units «city-village», some additional features are used:

- The area of the surface which is less than 50 km². Type of one or several such regions is determined by centroid method. This is not relevant for Ukraine, as the smallest Kosiv District of Ivano-Frankivsk Oblast accounts for 877.2 km²;
- Presence of large cities. Rural district becomes intermediate if there is a city with over 250 thousand people population, which is less than 25% of the overall population of the region. A district becomes mostly urban with settlement, where over 500 thousand people live, which is less than 25% of the general population of the region.

In contrast to the EU countries, to form the operating administrative-territorial units of subregional level in Ukraine, there have been taken into account the following criteria: compactness, integrity and indivisibility of the territory; number of resident population, which is usually no less than 150 thousand people (corresponds to minimal threshold value for NUTS 3) ([Ministerstvo rehionalnoho rozvytku, budivnytstva ta zhytlovo-komunalnoho hospodarstva Ukrainy, 2019](#)).

For the type classification of ARs of Lviv Oblast, there was used multi-dimensional ranking of the indicators of fiscal capacity. Method of ranking is rating each parameter of territorial unit of the research in descending or ascending order depending on its value. The number of ranks is within 1 to n , where n is a number of territorial units in the research. Sum of ranks of some parameters forms the general rank of territorial units of the research. Using the method allows type-classifying the territorial units of the research according to the principal of closeness of their general ranks. In respect to decrease in the values of seven financial parameters (general fund revenues per unit area, general fund revenues per one inhabitant, share of local taxes in revenue part of the general fund budget, reverse subsidy [here reverse subsidy is

costs that are provided from a local government to the state government in order to equalize the tax taxable capacities of the territories, while basic subsidy is the one given to local governments from the state government – *Translator's note*] per one inhabitant, revenue from excise per one inhabitant, revenue from the consolidated tax per one inhabitant, revenue from land rent per one inhabitant) and increase in the value of basic subsidy per one inhabitant, ARs of Lviv oblast were arranged in ascending order ranging 1 to 7. This method allowed us to determine three types of ARs of the Oblast according to the indicators of financial capacity and develop recommendations for their promising development based on them.

Results and their analysis

Until December 2020, Lviv Oblast had 20 ARs and 9 cities of Oblast significance. According to the Resolution of the Ukrainian Parliament «On Creation and Liquidation of Districts» as of 7/17/2020, through enlargement, 7 ARs have been formed ([Verkhovna Rada Ukrainy, 2020](#)):

- Drohobych (within former Drohobych district, cities of Oblast significance Boryslav, Drohobych, Truskavets, Lastivka and Holovske village council of Turka district, Oriv village council of Skole district);
- Zolochiv (within former Brody, Busk and most part of Zolochiv districts);
- Lviv (within former Lviv city council, Horodok, Peremyshl, Pustomyty and most part of Zhovkva, Kamianka-Buzka districts, Hlyniany city council, Velyky Polihiv, Zastavne, Kurovychi, Perehnoiv, Pidhaichyky, Slovita village councils of Zolochiv district, Sokolivka village council, Novi Strilyshcha village council of Zhydachiv district);
- Sambir (within former Sambir, Stary Sambir, most part of Turka district, Sambir city of Oblast significance);
- Stryi (within former Stryi, Mykolaiv, most part of Skole and Zhydachiv districts, Oblast significance cities of Stryi, Morshyn, Novyi Rozdil);
- Chervonograd (within former Sokal and Radehiv districts, Dobrotvir village community of Kamianka-Buzka district, Kupychvolia and Boianets village councils of Zhovkva district, cities of Oblast significance Chervonohrad, Sosnivka city, Hirnyk village);
- Yavoriv (within former and most part of Yavoriv district).

The number of subregional administrative-territorial units was definitely decreased taking into ac-

count actual socio-economic relations, as confirmed by the division of the former ARs. However, new ARs of Lviv Oblast do not coincide with territorial types of microregions developed in the «Strategy...» (Lviv Regional State Administration, 2019), which designated industrial regions with industrial structure built during the Soviet period (former Sokal district, Boryslav city, Drohobych city); near-border districts (former Yavoriv, Zhovkva, Mostyska district); agglomerated regions around Lviv (former Pustomyty, Kamianka-Buzka, Horodok districts); resort microregions (cities Morshyn and Truskavets); mountain microregions (former Turka, Staryi Sambir, Skole, Sambir districts); agricultural regions (the rest of the territory). Combination of various functional territorial types of microregions within certain ARs creates reasons for its multidirectional socio-economical development.

Similarly to the situation in the country in general, extending AR was oriented at lessening administrative factor through delegation of powers to the level of TCs and providing conditions for stable socio-economical development of the territory.

The concept of sustainable territorial development implies possibility of harmonizing the running of TCs. For example, TC is considered capable if it can – independently or through respective organs of local government – provide the needed level of public services, particularly in the sphere of education, culture, healthcare, social protection, housing-municipal economy, taking into account professional resources, financial provision and development of infrastructure. The basic criteria to determine the capacities of communities are territorial integrity, presence of schools of levels I-III for no less than 250 students, 250 school-aged students and 100 pre-school students; additional criteria are number of resident inhabitants of the community, its area, index of taxable capacity of the community's budget, its share comprising local taxes and fees, and accessibility (distance to administrative center equaling up to 25 km) ([Kabinet Ministriv Ukrainy, 2020b](#)). As with the capacity of administrative districts, it is legally unregulated, and at the level of AR, it is considered as amounts of financial resources that are necessary for governing bodies to carry out their duties. The Ukrainian Association of district and oblast councils performed projects of modeling administrative-territorial division at the subregional level in Donetsk, Luhansk, Ternopil and Kharkiv (2018), Volyn, Odesa, Poltava, Chernivtsi and Kyiv Oblasts (2019) in regards to formation of capable districts.

Contrary to the European approach to designating lower territorial statistical units, based on consid-

eration of indicators of the total number and density of population, in Ukraine, the indicators of financial capacity are those that should be taken into account. This allows analyzing not only the existing status, but also effectiveness of functioning of units of administrative-territorial division.

Administrative districts of Lviv Oblast are unequal due to objective reasons of stable development, and particularly population, area, population density, level of urbanization, amount of united local councils and communities (Table 1). For example, 45.8 % of the region's population lives in the largest Lviv district (22.8 % of the Oblast's area). The population density in the district is the highest as well, equaling 231.3 people/km². By population, Lviv district is the fourth among the Ukrainian districts after Kharkiv, Odesa and Dnipro districts. According to the parameters of the highest and lowest values of the overall population, area and population density, ARs of Lviv

Oblast are different respectively by 7.2 times, 3.3 and 4.2. Variation coefficients confirm the differences of ARs of Lviv Oblast by area of territory and population (35.1 % and 98.3 % respectively). In general, ARs of Lviv Oblast – according to the area – are relatively small, which indicates high level of development of the territory, significant density of settlements and population.

In Lviv Oblast, the recommended criteria of AR formation have not always been adhered to, for instance regarding density (e.g. Lviv district). Also, the recommendations were not followed regarding classifying TCs to districts: for example, communities located 50 km away from the district center were classified to Lviv district (Rava-Ruska community), while on the other hand, communities located at the distance of up to 25 km were classified to other districts (Ivano-Frankove settlement community was joined to Yavoriv district).

Table 1. Basic parameters of administrative districts of Lviv Oblast, 1/1/2021

Administrative districts	Population		Area		Population density, people/km ²	Urbanization level, %	Number of communities	including			Number of councils that have united
	Thousand people	%	km ²	%				village	settlement	cities	
Drohobych	237.4	9.5	1 499.7	6.9	158.3	72.2	5	0	2	3	55
Zolochiv	162.0	6.5	2 908.5	13.3	55.7	41.5	7	1	3	3	80
Lviv	1 150.0	45.8	4 971.0	22.8	231.3	76.9	23	9	4	10	179
Sambir	225.9	9.0	3 259.6	14.9	69.3	32.3	11	3	1	7	114
Stryi	325.5	13.0	3 846.3	17.6	84.6	48.0	14	4	3	7	136
Chervonohrad	231.0	9.2	2 969.3	13.6	77.8	62.3	7	0	2	5	80
Yavoriv	180.3	7.2	2 382.5	10.9	75.7	72.2	6	1	1	4	69
Lviv Oblast	2 512.1	100.0	21 836.9	100.0	115.0	62.3	73	18	16	39	713

Lviv Oblast is the most urbanized region of Western Ukraine (62.3 %). The above-average levels of urbanization for the Oblast are in Drohobych, Lviv and Yavoriv districts, lower in Zolochiv, Sambir, and Stryi districts. In Chervonohrad district, this value is at the level of the Oblast's average.

According to the regional typology of the EU, new ARs of Lviv Oblast (NUTS 3 level) could be grouped in three types: urban Lviv district (urbanization level of 76.9, population in Lviv was 721.5 thousand people as of 1/1/2022), intermediate districts Chervonohrad, Drohobych and Yavoriv, mostly rural

Zolochiv, Sambir, Stryi districts. The given typology of ARs of Lviv Oblast is based on statistical data in the context of TCs.

According to the internal division, ARs of Lviv Oblast also vary. Particularly, 23 TCs have functioned in Lviv district (from 73 TCs of Lviv Oblast). Drohobych district with 5 TCs belongs to the group of 8 ARs of Ukraine with the same number of communities (less than 5 communities are there only in Verhovyna district of Ivano-Frankivsk Oblast, Novhorod-Siversk district of Chernihiv Oblast, Rakhiv district of Zakarpattia Oblast, Henichesk district of Kherson Oblast). In general, according to the parameter of internal distribution, there are designated three groups of districts: those having less than 10 TCs (Drohobych, Zolochiv,

Chervonohrad, Yavoriv), 11-15 TCs (Sambir, Stryi districts), and more than 20 TCs (Lviv district). Respectively, in Lviv, Sambir, Stryi districts, the number of city administrations that have had cohered in TCs is also the highest. Indicative of the development potential of created ARs is significant number of urban communities (in Lviv Oblast, urban communities account for 54.8% of the overall number, in Drohobych district – 60.0%).

As demonstrated by the analysis of parameters of area, overall number of population, population density, level of urbanization of formed districts, there have developed various starting positions of economic functioning. The economic activity of ARs is based on their financial capacity (Table 2).

Table 2. Mean parameters of financial capacity of administrative districts of Lviv Oblast, 2020

Administrative districts	Incomes of the general fund per unit area, thousand UAH/km ²	Incomes of the general fund per person, thousand UAH/person	Share of local taxes in the income part of the general fund budget, %	Subsidy, UAH/person		Revenue from excise per person, UAH/person	Revenue from consolidated tax per person, UAH/person	Revenue from land rent per person, UAH/person
				reverse	basic			
Drohobych	917.4	5.80	21.9	-	724.1	210.2	514.7	563.6
Zolochiv	239.9	4.31	24.1	17.3	486.3	294.4	580.7	406.1
Lviv	2174.8	9.40	25.1	660.0	198.0	671.2	1543.0	569.1
Sambir	313.7	4.53	16.7	-	1154.4	144.7	361.6	352.8
Stryi	504.3	5.96	21.3	161.6	506.9	263.6	571.4	565.0
Chervonohrad	434.3	5.58	17.2	0.4	280.1	197.4	586.6	295.2
Yavoriv	377.8	4.99	18.2	38.8	491.5	322.3	529.3	312.9
Lviv Oblast	826.0	7.18	23.0	327.0	421.0	434.6	990.9	494.5

The greatest differences between ARs are seen for revenues of the general fund per unit area. In particular, difference between those parameters of Lviv urban and Sambir rural districts equals 6.9 times. Revenues of the general fund per an inhabitant differ by 2.2 times (Lviv and Zolochiv districts), the share of local taxes in the revenue part of the budget of the general fund – by 1.5 times (Lviv and Sambir districts), revenue from excise per inhabitant – by 4.6 times (Lviv and Sambir districts), revenue from consolidated tax per inhabitant – by 4.3 times, income from land rent per inhabitant – by 1.6 times. Considering the parameters of financial capacity, five ARs of Lviv Oblast (Zolochiv, Lviv, Stryi, Chervonohrad, Yavoriv) have reverse subsidy, i.e. the index of taxable capacity of respective local budgets there is higher than 1.1 of the average value for Ukraine. At the same time, in Lviv district alone, it is more than three times the basic subsidy from the state budget. Self-sufficient, i.e. those that are not subjected to equalizing (index of taxable capacity equaling

0.9-1.1) are Drohobych and Sambir ARs. As with the basic subsidy (is provided by local budget with index of taxable capacity below 0.9), its amount per inhabitant in the Oblast varies by 4.1 times (Sambir and Chervonohrad ARs).

Socio-economic development of the Oblast is complicated by internal inequalities in financial capacities of ARs at the level of TCs, which is confirmed by parameters of variation of features that are mostly higher than 33.3% (Table 3). Variation coefficient of reverse subsidy for ARs of Lviv Oblast has not been estimated, since this indicator either is not given for TCs (Drohobych, Sambir districts) or is characteristic only for one community (Zolochiv, Chervonohrad districts).

Relatively lower variability was seen for the following financial parameters of TCs:

- revenue of the general fund per inhabitant (23.80), which depends on the number of the community inhabitants and is formed by inter-budget transfers;

Table 3. Variation coefficient of parameters of financial capacity of administrative districts of Lviv Oblast, 2020

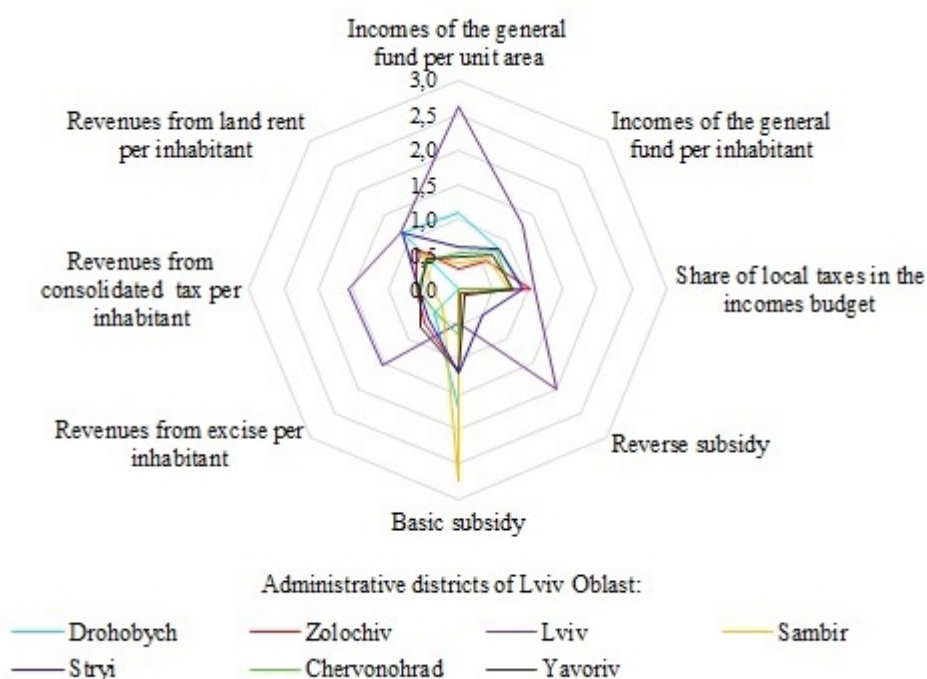
Administrative districts	Income of the general fund per unit area, thousand UAH/km ²	Income of the general fund per person, thousand UAH/person	Revenues from local taxes in the income part of the general fund budget, %	Basic subsidy per person, thousand UAH/person	Revenues from excise per person, UAH/person	Revenues from consolidated tax per person, UAH/person	Revenues from land rent per person, UAH/person
Drohobych	83.5	24.1	23.1	74.7	46.5	28.3	77.3
Zolochiv	46.7	32.7	39.6	77.2	99.9	23.7	35.4
Lviv	99.9	33.3	27.4	99.9	99.9	33.4	33.7
Sambir	99.9	48.5	40.6	53.8	96.5	35.1	65.1
Stryi	87.3	44.2	40.7	99.9	99.9	26.2	58.3
Chervonohrad	99.9	16.5	24.6	99.9	52.3	28.0	34.5
Yavoriv	43.7	19.8	34.9	99.9	95.7	19.2	61.6
Lviv Oblast	82.64	23.80	14.55	75.19	40.11	39.64	25.23

- share of local taxes (property tax, consolidated tax, tourist tax, etc) in the revenue part of the budget of the general fund (14.55), the list and threshold values of which are determined at the National level;
- Revenues from land rent per inhabitant (25.23), threshold values of which are regulated by the norms of legislation.

The highest variability was observed for revenues of the general fund per unit area and basic subsidy per inhabitant, which depend on the level of econom-

ic development of the territory, economic activity of population, distribution of property among the communities.

The differentiation diagram of ARs of Lviv Oblast according to the parameters of financial capacity reflects how close to the Oblast's average level are Zolochiv, Stryi, Chervonohrad and Yavoriv districts and polarization of Drohobych, Lviv and Sambir districts, especially according to basic and reverse subsidies (high basic subsidy in Sambir, reverse in urban Lviv district) (Fig. 1).

**Fig. 1.** Differentiation of administrative districts of Lviv Oblast according to the parameters of financial capacity, 2020

Geospatial differences in the administrative-territorial division of Lviv Oblast are reflected by ranking of ARs according to the parameters of financial capacity (Table 4).

Table 4. Ranks of financial capacity of administrative districts of Lviv Oblast, 2020

Administrative districts	Income of the general fund per unit area, thousand UAH/km ²	Income of the general fund per person, thousand UAH/person	Revenues from local taxes in the income part of the general fund budget, %	Subsidies, UAH/person		Revenues from excise per person, UAH/person	Revenues from consolidated tax per person, UAH/person	Revenues from land rent per person, UAH/person	Sum of ranks
				Reverse	basic				
Drohobych	2	3	3	6	6	5	6	3	34
Zolochiv	7	7	2	5	3	3	3	4	34
Lviv	1	1	1	1	1	1	1	1	8
Sambir	6	6	7	6	7	7	7	5	51
Stryi	3	2	4	3	5	4	4	2	27
Chervonohrad	4	4	6	4	2	6	2	7	35
Yavoriv	5	5	5	2	4	2	5	6	34

As a result of ranking of financial capacity, there were designated three types of ARs of Lviv Oblast (Fig. 2). In particular, it is Lviv district with high financial capacity, making up the highest parameters of income of the general budget fund; the highest share of local taxes in the income part of the general budget fund, reverse subsidy; the lowest value of basic subsidy; the highest income from excise, consolidated tax, land rent. The group with average financial capacity comprised Drohobych, Zolochiv, Stryi, Chervonohrad, and Yavoriv districts with lowest values of income of the general budget fund, diversified share of local taxes in the income part of the budget of the general fund; average and above-average values of basic subsidy; low and average values of revenues from excise; low values of revenues from consolidated tax; diversified revenues from land rent with prevalence of higher values. Low financial capacity was determined for Sambir district with low parameters of income of the general budget fund; the lowest parameter of the share of local taxes in the income part of the general budget fund; the highest subsidy value; the lowest parameters of revenues from excise and consolidated tax; and the lowest revenues from land rent.

The basis of the financial stability and sustainable development of both TCs and ARs, other than tax leased on incomes of physical persons, are local taxes and charges. Local financial resources are made up of excise, consolidated tax and land rent. The objects of excise taxation are goods in mass demand with high profitability (for example, fuel, cars, mo-

torcycles, vehicles) and goods the consumption of which is considered socially unfavorable (alcohol, liquor, beer, tobacco goods and tobacco, liquids used in electronic cigarettes). Increase in purchasing power of population, development of commercial infrastructure promotes increase in deductions to local budget from excise. Currently, the fiscal value of excise in the local budget of Lviv Oblast is low: from 7.1% in urban Lviv district to 3.2% in rural Sambir district, which in recalculation per person equals 671.2 UAN and 144.7 UAH respectively (Fig. 2).

Revenues from single tax in Lviv Oblast are diversified in relation to ARs and are conditioned by both its economic application and the development of initiatives of private entrepreneur. According to average value of 13.8% in the structure of revenues of local budget, higher values are in Lviv (16.4 %), Zolochiv (13.5 %) districts; lower in Yavoriv (10.6 %), Chervonohrad (10.5 %), Stryi (9.6 %) districts; the lowest in Drohobych (8.9 %) and Sambir (8.0 %) districts. The dispersal of this parameter in recalculation per person ranges 1,543.0 UAH to 361.6 UAH (Lviv and Sambir ARs).

Local budget revenues from land rent are generated by land tax and rent for land lease. They make significant contribution to the formation of budgets of mostly rural districts of Lviv Oblast. Having the Oblast's average value of 6.9% in the structure of the local budget revenues, the parameters are higher in Drohobych (9.7 %), Stryi (9.5 %), Zolochiv (9.4 %), Sambir (7.8 %) districts; lower in Yavoriv (6.3 %),

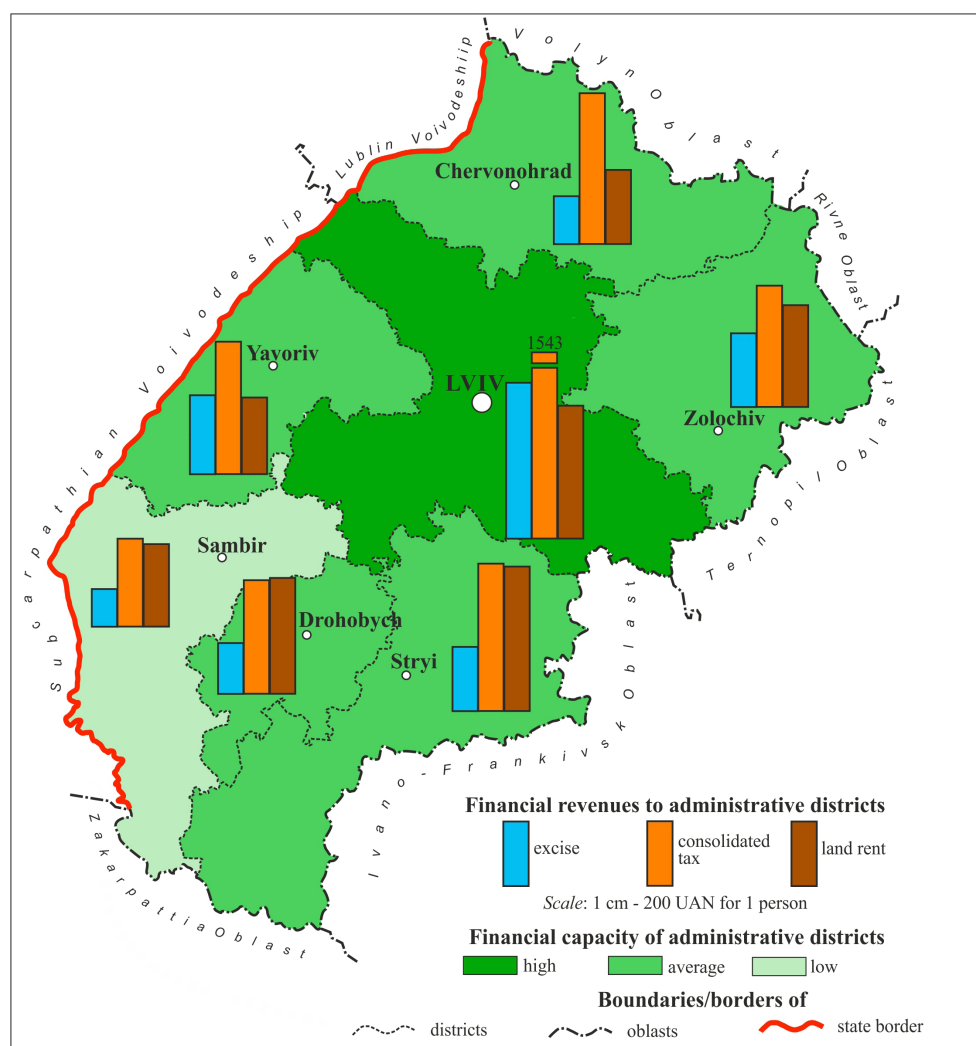


Fig. 2. Financial capacity of administrative districts of Lviv Oblast, 2020

Lviv (6.1 %), Chervonohrad (5.3 %) districts. Diversification of the parameter in calculation per person is 569.1 UAH to 295.2 UAH.

We should note similarities between the given typology and typology of ARs of Lviv Oblast in the approaches of the EU regarding urban district with high financial capacity – Lviv, average Drohobych, Chervonohrad, and Yavoriv districts, mostly rural district with low financial capacity – Sambir. Differences were seen only for rural Zolochiv and Stryi districts, which were classified to the group with average financial capacity.

Because finances are undoubtedly some of the most important factor of economic transformation, the financial capacities of ARs could be considered as the core of economic capacity of the development of Lviv Oblast in general, considering its sufficient labor and natural resources.

As with the further development of Lviv district, Ukraine needs to adopt a legislative package that would regulate the functioning of territories that are

untypically geographically situated (seaside, montane, peripheral, etc) or inhabited (highly urban, suburban). Therefore, the draft Law of Ukraine № 6743 (2017) defines the legal bases for the formation of urban agglomerations and mechanisms of how would their TCs interact, emphasizes the co-work of communities within agglomeration, which provides multiplicative effect and solves problems of center-peripheral development. In particular, the draft declares the urban agglomeration a «form of multidirectional co-work of territorial community of central city of agglomeration and territorial communities of villages, settlements, cities located in the zone of influence of central city of agglomeration and have intense economic, labor, cultural relations with central city of agglomeration with the purpose of implementation of particular function of local self-governing» ([Verkhovna Rada Ukrainy, 2017](#)). Relevant for Lviv Oblast became designating the same-name agglomeration of Lviv (Greater Lviv) and outlining the zone of its influence which de-facto exceeds the sizes of the formed Lviv community and

spreads to communities neighboring with it. The Lviv agglomeration is designated in the «State Strategy of Regional Development for 2021-2027» as an individual functional type of territories with population of central city of over 500 thousand people ([Kabinet Ministriv Ukrainy, 2020a](#)).

Establishing boundaries of the Lviv agglomeration and its institutionalization is the precondition for the transformation of Greater Lviv into a metropolitan region (scientific editor [Melnyk, 2016](#)), which is a «global trend in spatial organization of community» ([Pidhrushnyi, Marushchynets, Ishchenko, 2021](#)). Compared with the rest of the territory of Lviv district, Greater Lviv is characterized by development of tertiary and quaternary economics, has diversified structure of economics, provides above-regional multiplicative effect, consolidates and stimulates the development of the territories of various sizes, particularly outside Lviv Oblast, is a pole of nationwide and East-European economic activity, has advanced and diversified transport infrastructure, is a center of making political and economic decisions, center of knowledge, is characterized by intensity of development of suburban environments, etc. The aforesaid makes it relevant to designate Greater Lviv as a self-governing administrative unit.

Difference between the EU typology and the financial capacity-based typology regarding Stryi and Zolochiv districts could be explained by relatively higher development of industrial and agrarian productions in the area. In particular, financial capacity of Stryi district is generated by stably high revenue from land rent (565 UAH/person, 2020). The main payers of the land tax in the region are strategically important enterprises producing construction materials, and those of mining and transport spheres (Public JSC Mykolaivcement, PLC Concern Halnaftohaz, Oil and Gas Mining Management Boryslavnaftohaz, JSC Ukrzaliznytsia), which account for 95% of the revenue from land rent (245 UA). High parameters of the general fund revenues of Stryi district is related to the operation of LEONI Wiring Systems UA GmbH, which specializes in production of electric and electronic equipment for vehicles and is the main budget-forming enterprise of the district (35% of the total budget revenues, 2020). Oil and Gas Management Boryslavnaftohaz, which is one of the PLC Ukrnafta enterprises, together with district's local enterprises of National Joint-Stock Company Naftohaz of Ukraine generated 23% of the total revenue the budget (245 UA).

Zolochiv district raises most of the budget from enterprises of agrarian sphere, food and construction industries (Private enterprise Zahidnyi Buh; Pri-

vate JSC Krasne Combine of Bread Products, which is in the complex of vertically integrated company of agrarian trade DMV Group; Private enterprise Krasnebruk; SOE Brody Forestry; a branch of Elektrokontakt Ukraine-Brody»; ALC Halant and others) (245 UA). In the territory of the district, there are actively operating farms, which allowed classifying the district to the zone of mostly agrarian development in the «Strategy...» (Lviv Regional State Administration, 2019).

Further increase in the amounts of local taxes is important source of increasing the capacity of administrative units of Lviv Oblast. In particular, this is possible through creation of new enterprises with local management, mining enterprises with high natural resource rent. In general conclusion, we should note that increasing financial capacities of created ARs of Lviv Oblast is also a pre-condition of increase in social capital of the region (level of development of education, culture, medicine) and management potential (effectiveness of management, project activity, and planning and development strategy).

Conclusions

The reform of subregional administrative-territorial division of the country should be carried out taking into account territorial, demographic, inhabitation spread (area of territory, number and density of population, level of urbanization, network of settlements, first of all urban, etc), as well as results of financial activities of ARs. Only complex approach to reforming of administrative-territorial division could provide balanced and harmonious local and regional developments.

To overcome geospatial disproportions of socio-economic development of Lviv Oblast, it is necessary to solve the problem of disproportion between the largest, most populated and most economically advanced Lviv district and the rest of districts of the Oblast. This is possible by designating Lviv metropolitan district within Lviv agglomeration.

To strengthen the capacities of ARs, it is necessary to develop a strategy of further development considering the starting positions of their creation. This is especially relevant for mountain Sambir region with low financial capacity, priorities of the development of which could be considered traditional types of economics, agrarian enterprises, agrarian corporations, agrotouristic clusterization, co-work with rural foreign partners, grant support, etc.

Involvement of investments, first of all direct foreign, are necessary for the transformation

of economic sphere, in particular industry in intermediate (according to the typology of the EU) Drohobych, Zolochiv, Stryi, Chervonohrad and Yavoriv districts.

To analyze the decentralization process in Ukraine, improvements should be made in the system of monitoring of territorial development, particularly the comparability with the EU statistics should be improved and indicators of inter- and inner-regional differences designed. Also, there is a need of intro-

ducing electronic management and information communication technologies for transmission, storing and spread of data.

The scientific novelty of the research is adaptation of region-designating methods that were developed in EU countries to analyze and substantiate administrative-territorial units of the NUTS 3 level in Ukraine. The results of the research on determining geospatial differences in ARs of Lviv Oblast could be used for strategies of stable development of the region.

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