

“Effectiveness of financial and economic regulation of land relations in ukraine in the context of the decentralization reform”

AUTHORS	Uliana Vatamanyuk-Zelinska  https://orcid.org/0000-0003-4971-5763 Nataliia Sytnyk
ARTICLE INFO	Uliana Vatamanyuk-Zelinska and Nataliia Sytnyk (2019). Effectiveness of financial and economic regulation of land relations in ukraine in the context of the decentralization reform. <i>Problems and Perspectives in Management</i> , 17(2), 550-562. doi: 10.21511/ppm.17(2).2019.43
DOI	http://dx.doi.org/10.21511/ppm.17(2).2019.43
RELEASED ON	Thursday, 04 July 2019
RECEIVED ON	Monday, 25 March 2019
ACCEPTED ON	Tuesday, 21 May 2019
LICENSE	 This work is licensed under a Creative Commons Attribution 4.0 International License
JOURNAL	"Problems and Perspectives in Management"
ISSN PRINT	1727-7051
ISSN ONLINE	1810-5467
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

35



NUMBER OF FIGURES

0



NUMBER OF TABLES

3

© The author(s) 2019. This publication is an open access article.



BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine

www.businessperspectives.org

Received on: 25th of March, 2019

Accepted on: 21st of May, 2019

© Uliana Vatamanyuk-Zelinska,
Nataliia Sytnyk, 2019

Uliana Vatamanyuk-Zelinska, Ph.D.
in Economics, Associate Professor,
State and Local Finances Department,
Ivan Franko Lviv National University,
Ukraine.

Nataliia Sytnyk, Ph.D. in Economics,
Associate Professor, State and Local
Finances Department, Ivan Franko
Lviv National University, Ukraine.



This is an Open Access article,
distributed under the terms of the
[Creative Commons Attribution 4.0
International license](https://creativecommons.org/licenses/by/4.0/), which permits
unrestricted re-use, distribution,
and reproduction in any medium,
provided the original work is properly
cited.

Uliana Vatamanyuk-Zelinska (Ukraine), Nataliia Sytnyk (Ukraine)

EFFECTIVENESS OF FINANCIAL AND ECONOMIC REGULATION OF LAND RELATIONS IN UKRAINE IN THE CONTEXT OF THE DECENTRALIZATION REFORM

Abstract

The sphere of local self-governance in Ukraine deals with a need for thorough researching and solving problems concerned with enhancing the effectiveness of financial and economic regulation of land relations on account of the expansion of the decentralization reform. The decentralization has led to gaining additional powers by bodies of local self-government. These powers entitles bodies of local self-government to ensure the increase of local budgets of newly-formed territorial units – united territorial communities – owing to carrying out financial transactions with land plots owned by local communities. In the process of research, the authors determine financial and economic efficiency of revenues of local budgets of perspective territorial communities by each region of Ukraine, taking into account variants of the normative monetary evaluation of land and the standard of capitalized rental income of agricultural lands located beyond their built-up areas. The authors substantiate an opportunity to create budget-forming sources of revenues for local budgets of perspective communities through the exercise of powers of bodies of local self-government regarding indicating the value of such lands and a right to lease, as well as terms of paying a single tax for the use of such lands for agricultural activity by taxpayers belonged to the fourth group of the simplified system of taxation.

Keywords

decentralization, local self-governance, land relations,
revenues, local budgets, united territorial community

JEL Classification

R51, H72, R30

INTRODUCTION

A need for normalization of socio-economic conditions of our country at the lowest level has stipulated the importance of a matter concerned with ensuring sustainable regional development in Ukraine. In the process of transformation of local self-governance, achieving an appropriate level of funding territorial units, which is possible in terms of adherence to the constitutional principle of autonomy of local budgets and organizing effective self-governance, is crucial. At the same time, it is necessary to take into consideration undertaking the first reforms related to decentralization of management in Ukraine focused on the hierarchy of territorial units, land relations, and ensuring financial autonomy of corresponding territorial communities. Since the enhancement of decentralization processes is problematic and occurs under conditions of an unstable political situation, it is necessary to further examine a matter of effectiveness of financial and economic regulation of land relations, taking into account the creation of the united territorial communities in Ukraine. Hence, the importance of

the research is stipulated by decentralization tendencies of reforms that change traditional administrative powers of local self-governance and a territory of its jurisdiction, influencing regulation of land relations.

1. LITERATURE REVIEW

Since undertaking reforms in the sphere of decentralization of power in Ukraine is in the initial phase, scientists have hardly formalized problems of the formation and use of effective methods of managerial influence on the increase of financial assets and improving physical facilities of local self-governance at the expense of the inclusion of land plots in its assets.

Contemporary scientific papers oriented towards researching aspects of decentralization of power in Ukraine indicate that a majority of institutional changes in the country occur under unstable political conditions. Scientists consider matters of public preferences regarding regional decentralization in the context of post-Soviet Ukraine. Chaisty and Whitefield's (2017) researches are grounded on analyzing permanent political changes occurring in the country during the past decade. Scientific outcomes show that, under conditions of political uncertainty, institutional advantages of citizens are related to group identification and ideological orientations rather than to instrumental ones. Thus, decentralization effectiveness is liable to subjective assessment on the part of the public (Chaisty & Whitefield, 2017). Such process will not always demonstrate the real influence of its consequences on the socio-economic situation in the country.

Particularly, Hanushchak (2015), Hrynevetskyi, (2013), Kuibida et al. (2009) have examined legal, financial, and organizational aspects of reforming local self-governance in Ukraine from the standpoint of a new spatial basis for extension of powers of executive power bodies. Scientific papers of these scientists contain reasons concerning the necessity for such changes under conditions of the escalated economic situation in Ukraine. The abovementioned scientists have substantiated new frameworks for building the hierarchy of territorial units based on applying the criteria of the separation of powers between the government and local self-governance, developed the theoretical and

methodological frameworks for organizing the executive power in Ukraine alongside with separating the powers of self-governments between the existing levels of local self-governance and territorial bodies of the executive power, and proposed directions for creating effective territorial units through indication of administrative and financial powers for bodies of local self-governance within their economic activity in the sphere of managing local property.

Outcomes of contemporary scientific research in the sphere of studying matters concerned with ownership of the land show that there are significant disadvantages of the domestic legislation in the context of regulating land relations. For instance, examining the use of the agricultural land, scholars identify clear regularities of land fragmentation in various agroclimatic zones of Ukraine and consider opportunities for exchange of land resources for efficient functioning of the land market (Kurylo, Pantaliienko, Bogdanets, & Ovcharuk, 2017). Having analyzed the prospects of market turnover of agricultural lands in Ukraine, the scholars substantiate the necessity for the use of transparent procedure in the field of commercial land transactions and emphasize that such process will precede the introduction of a free land market in Ukraine (Koroteiev, Korman, Manzii, Semenda, & Semenda, 2017). Contemporary scientific papers are grounded on studying new legislative initiatives in reforming land relations. Such scientists prove the absence of an open land market in Ukraine and inefficient functioning of financial mechanism for the governmental land regulation. Experts propose to eliminate such disadvantages through achieving an economic effect from cancellation of moratorium on the sale of agricultural lands (Frolov, Pedchenko, & Vygovska, 2017).

Financial and economic regulation of land relations in a majority of countries contemplates a system approach to the formation of a land market and building effective infrastructure for it. Researching this matter, scientists accentu-

ate that only 20.7% (40 out of 193) countries are able to provide quality infrastructure (Williamson, Enemark, Wallace, & Rajabifard, 2010). Moreover, paradoxically, managing land resources assumes social functions based on exclusively ecological aspects of the land use. It is expedient to highlight contemporary outcomes of scientific research in the sphere of regulating land relations, which are based on applying the paradigm of land management and contemplate an opportunity of building an effective system of land administration (Samsudin, Lim, & McCluskey, 2014). First of all, such process is ensured by decentralization of “obligations of planning”, which implies the formation of the local representational democratic responsibility for local needs.

Contemporary scientific researches confirm that nowadays the lease of land plays the role of a political instrument rather than economic one, because it creates various opportunities for owners and lessees in the process of the use of land plots owned by local self-governments (Gerber, Nahrath, & Hartmann, 2017). Such situation is inherent to the Ukrainian realities. Nonetheless, stability of property rights, e.g. in Switzerland, which derives from the current conception of exclusive ownership for municipal lands, contemplates implementing effective plans of the land use. Therefore, only the lease becomes a way of contractual collaboration that enables bodies of local self-government to apply this instrument for planning the effective land use under the division of land plots, e.g. for construction, and controlling over implementing these budgetary investment projects.

Nevertheless, contemporary scientific researches, particularly those concerned with studying consolidation of agricultural lands, reveal high effectiveness of opportunities regarding automatization of processes of land evaluation, which, under conditions of decentralization, is very relevant in Ukraine. Demetriou (2016) proves an opportunity of the increase of effectiveness of this process through the acceleration and cheapening of operations related to evaluating the land by 80%, as well as unification of these procedures, giving the example of the use of automatized models for evaluating agricultural lands in Cyprus. The existing approach contemplates that five members of the Land Evaluation Committee assess lands manual-

ly and empirically, visiting each unique plot in a consolidated zone in order to determine the market value. In contrast to this approach, the proposal of increasing effectiveness of this process implies implementing a model for automatized evaluation of artificial neural networks together with a geographical information system.

Moreover, since models for the land use are spatially explicit by their nature, planning, and management in the sector of lease (sale) of land, they have to integrate the geographical information system and spatial optimization, which enhance its effectiveness. Approaches to spatial optimization should include maintenance of planning the sustainable land use, particularly compactness, contiguity, and compatibility. Yao, Zhang, and Murray (2018) point out that balanced development of the land use contemplates the economic growth, social interaction, and protection of the environment, as well as underlies its long-term sustainability. Therefore, applying approaches for spatial optimization alongside with the use of corresponding procedures is also acceptable in Ukraine. It should be noted that automatization of processes of the normative monetary evaluation of agricultural lands in Ukraine will particularly enable to decrease corruption risks, ensuring transparency in the demarcation and division of land plots in terms of lease or sale. Since the natural and agricultural regionalization of lands of Ukraine underpins calculations of the normative monetary evaluation of agricultural lands, applying the geographical information system will allow enhancing effectiveness of public planning measures concerned with the rational use of natural resources being conducive to agriculture and adequate protection of them.

Such research discloses new opportunities for applying methods and procedures for decentralized management for the purpose of increasing the effectiveness of regulating land relations within implementation of the territorial reform in Ukraine. This will conduce to solving a problem of managing land plots passed into ownership of united territorial communities (UTC) and ensure a stable amount of financial assets and physical facilities at the expense of the formation of additional own-source revenues of local budgets from transactions with such objects.

2. METHODS

Research outcomes are based on applying the abstract and logical analysis for determination of the essence of financial and economic regulation of land relations under conditions of decentralization of the state power in Ukraine, statistical analysis for ascertaining the value of land plots, which are owned or are being passed into ownership of united territorial communities; a system and structural approach for determining financial and economic efficiency of the use of such lands based on various variants of the normative monetary evaluation. The chosen methods are oriented towards implementation of effective principles of financial and economic regulation of land relations through reformation of the hierarchy of territorial units in Ukraine. Key provisions, principles, and methods of contemporary economics and theories of regulation, finances, and economy constitute the theoretical and methodological basis for this research.

A purpose of the research contemplates determining financial and economic effectiveness of revenues of local budgets belonged to perspective territorial communities in Ukraine owing to the exercise of additional powers in the sphere of regulation of land relations by their bodies of local self-government.

3. RESULTS

The possession, use, and disposal of property, including the use of land plots, based on an ownership right, are inalienable rights of territorial communities in Ukraine. Hence, regulation of land relations contemplates a direct influence of the government and bodies of local self-governments on conditions of the use of land plots owned by local communities through applying financial instruments to increase corresponding local budgets. Therefore, a right to property for the land of united territorial communities should be extended to all lands within united territorial communities and effectiveness of regulation of land relations will depend on legitimacy of decisions of a body of local self-government.

However, legislators have begun to regulate the matter of passing state-owned land plots into

ownership of united territorial communities only in 2018. This regulation is concerned with agricultural lands only (Cabinet of Ministers of Ukraine, 2018). In spite of these tendencies, financial assets and physical facilities of local self-governance supplemented by a communal resource in the form of agricultural lands located beyond built-up areas has enabled to form additional revenues for local budgets of united territorial communities only in terms of ensuring high effectiveness of financial and economic regulation of land relations since 2018 (Watamanyuk-Zelinska & Malets, 2018).

Indicators of the execution of local budgets of Ukraine in terms of revenues with regard to revenues from payment for communal land, including the land fee and rent of legal entities and sole proprietors, as well as revenues in the form of the single tax from taxpayers of the fourth group, are calculated on the basis of data on the execution of the state budget of Ukraine (Table 1).

To determine a share of this source of revenues for the state budget of Ukraine, let us consider and compare indicators of the execution of the budget with regard to revenues from the sale of lands and intangible assets. Comparability of the indicators is attributable to the fact that 10% of revenues from the sale of non-agricultural lands or rights to non-agricultural lands, which are owned by the state until the delineation of state-owned and communal lands, are included in the state budget (except non-agricultural land plots owned by the state, on which assets being subject to privatization stand) (Verkhovna Rada of Ukraine, 2010b). Correspondingly, 90% of such revenues are remitted to a development budget of local budgets.

The authors have ascertained that the state budget of Ukraine received the largest amount of revenues from the sale of land – UAH 957,546.7 thousand – in 2016. This figure exceeds a figure of 2015 by UAH 33,176.7 thousand and a figure of 2014 by UAH 203,274.3 thousand. However, positive dynamics is explained by the growth of revenues from the sale of tangible assets of the state reserve rather than from the sale of land plots, taking into account that there has been an official moratorium on the sale of agricultural lands until 2018. The revenues from the sale of land and intangible assets account for the largest share of the revenues

Table 1. Indicators of the execution of the state and local budgets of Ukraine in terms of revenues with regard to revenues from the sale of land, payment for land, and single tax of taxpayers belonged to the fourth group during 2014–2017

Source: The Ministry of Finances of Ukraine (2016), the State Treasury of Ukraine (2018), Accounting Chamber of Ukraine (2018).

Sources of revenues	2014		2015		Paces of growth		2016		Paces of growth		2017		Paces of growth	
	Thousand UAH	% in revenues	Thousand UAH	% in revenues	Thousand UAH	%	Thousand UAH	% in revenues	Thousand UAH	%	Thousand UAH	% in revenues	Thousand UAH	%
Revenues of the state budget of Ukraine														
Total revenues of the state budget without interbudgets transfers	354,966,200	77.8*	531,550,800	81.5*	176,584,600	149.75	612,111,600	78.2*	80,560,800	15.2	787,474,148	77*	175,362,548	128.6
Revenues from the sale of the land and intangible assets	754,272.4	2.1**	924,370.0	0.2**	135,585.3	122.5	957,546.7	1.6**	33,176.7	103.6	65,094.5	0.1**	-892,452.2	-6.8
Single tax of taxpayers belonged to the fourth group	-	-	-	-	-	-	-	-	-	-	695,100.0	0.1**	695,100.0	x
Revenues of the local self-government budgets														
Total revenues of the local budgets without interbudgets transfers	101,087,600	28.0 **	120,461,700	22.0 **	19,374,100	119.0	170,645,400	27.0 **	50,183,700	141.0	229,495,360	28.0 **	58,849,960	134.5
Revenues from the sale of the land and intangible assets	735,050.0	0.72 ***	889,857.7	7.39 ***	154,807.7	121.1	921,086.9	5.39 ***	766,279.2	103.5	1,267,123.4	5.52 ***	346,036.5	137.6
Payment for land **** including:	12,083.9	0.11 ***	14,831.4	0.12 ***	2,747.5	122.7	23,323.6	0.14 ***	8,492.1	157.3	26,384.5	0.11 ***	3,060.9	113.1
land fee of legal entities	2,776.4	22.98 ****	3,558.7	23.99 ****	782.3	128.2	7,060.9	30.27 ****	3,502.2	198.5	8,262.3	31.31 ****	1,201.4	117.0
rent of legal entities	7,819.6	64.71 ****	9,413.8	63.47 ****	1,594.2	120.4	13,351.4	57.24 ****	3,937.5	141.8	14,701.6	55.72 ****	1,350.2	110.1
land fee of individuals	384.9	3.19 ****	501.1	3.38 ****	116.2	130.2	1,302.3	5.58 ****	801.2	259.9	1,387.4	5.26 ****	85.1	106.5
rent of individuals	1,102.9	9.12 ****	1,357.6	9.16 ****	254.7	123.2	,1878.9	8.05 ****	521.2	138.4	2,033.2	7.71 ****	154.3	108.2
Single tax of taxpayers belonged to the fourth group	122,200.0	0.01 ***	2,330,000.0	1.93 ***	2,207,800.0	1,906.00	3,500,000.0	2.05 ***	1,170,000.0	150.00	4,269,900.0	1.83 ***	709,900.0	120.28

Notes: * in revenues of the consolidated budget of Ukraine; ** in revenues of the state budget of Ukraine; *** in revenues of local budgets; **** in the payment for land (when payments, which had been referred to as the payment for land, fell under the category of local taxes in 2015, this name is not officially used; therefore, applying this name is stipulated by a necessity to present the data in the comparable format because this name was used in previous periods), data of 2014 are disclosed to compare tendencies, which have existed before implementing the reform of the hierarchy of territorial units and tendencies, which have existed after implementing the reform in 2015.

of the state budget of Ukraine – 2.1% in 2014, during a period of relatively low prices for land plots and before the initiation of decentralization processes aimed at preventing uncontrolled expropriation of the land in Ukraine. Revenues from this source to the state budget of Ukraine in 2017 was the lowest (UAH –892,452.2 thousand). There was no increment of these revenues compared with 2015 (122.5%) and 2016 (103.6%). In 2017, the authors observe the largest amount of revenues of development budget of local budgets from the sale of land – UAH 1,267,123.4 thousand. It is UAH 532,073.0 thousand higher than in 2014. The total sale of land plots possessed by local self-governments, which are liquidated because of the unification of territorial communities and the completion of the territorial reform, is a possible explanation of this fact.

It is worth mentioning that, after initiating decentralization processes and changes of the normative monetary evaluation of land plots, the largest share of revenues from the sale of land in revenues of local budgets, which accounts for 7.4% (UAH 889.9 thousand), is observed in 2015. This share remains within 5.45% (UAH 1,267.1 thousand in 2017) and tends to increase. Obviously, local budgets suffer considerable losses of financial resources due to the misuse in the sale of land plots or rights to them now. That is to say, there is illicit expropriation and the sale of such lands activated with completing the reform of the hierarchy of territorial units in Ukraine. For example, according to certain provisions of the Land Code of Ukraine, land plots owned by the state or local communities or rights to them together with state-owned or communal real estate, which is located on these plots, are subject to the sale in the form of separate lots on a competitive basis (land biddings). Nonetheless, this code contains a sufficiently large list of exceptions enabling bodies of local self-government to perform such transactions without conducting land biddings, e.g. “providing a private partner with state-owned or communal land plots within public-private partnership” (Verkhovna Rada of Ukraine, 2001). In Ukraine, there is also the widespread practice concerned with passing land plots into the use of communal enterprises with following subletting these plots by developers. In any case, such transactions lead to reducing amounts of possible revenues of local budgets,

violating competitive conditions of functioning of a land market, emergence of a large amount of violations in the budgetary sector, the extension of the scope of corruption, and active selling of lands in built-up areas located near the cities of district and regional subordination prior to the unification of communities.

A situation in the sphere of revenues of local budgets of Ukraine from the use of land plots is slightly different. Since payments for the use of land plots are included in a basis of local taxation, the authors observe positive dynamics of those incomes to local budgets – an increase by UAH 154,807.7 thousand (121.0%) in 2015, by UAH 921,086.9 thousand (103.5%) in 2016, and by UAH 1,267,123.4 thousand (137.6%) in 2017. This may be explained by reducing an amount of tax benefits related to the payment for land, abolition of the fixed agricultural tax and classification of this tax as the local one, and extending a basis of taxation of the land fee. Such situation is stipulated by the growth of payments for the use of land because of monetary evaluation of lands according to new coefficients of the proportion between amount of receipts of lease payments and the land fee – 60/30. Budgets of united territorial communities (UTCs) have achieved the highest rate of increment of revenues from the payment for land in relation to the previous year among levels of local budgets of Ukraine: in 2016, those revenues increased by 58% in 159 newly-formed UTCs (Ministry of Regional Development, Building, Housing and Utilities of Ukraine, 2016); in 2017, those revenues increased by 23.2% in 207 newly-formed UTCs (Decentralization Reform, 2018). This confirms efficiency of the decentralization reform in the system of land relations.

Amounts of the single tax of taxpayers of the fourth group, i.e. economic entities, a share of agricultural manufacturing of which for a previous tax (reporting) year equals or exceeds 75%, are the most significant source of revenues of local budgets in Ukraine. Dynamics of such revenues steadily grows. Owing to budgetary support of Ukrainian agricultural manufacturers, paces of growth of revenues from the single tax for this category accounted for 1906% in 2015. In 2017, according to Paragraph 12 of Article 11 of the Law of Ukraine “On the State Budget of Ukraine for

2017”, 14% of the single tax paid by tax payers of the fourth group, which had entirely belonged to local budgets over previous years, began to be transferred to the special fund of the state budget. Applying this provision of the legislation has fostered the decrease of such revenues by UAH 695.1 million (Accounting Chamber of Ukraine, 2018). Thus, local budgets of Ukraine have received UAH 4,269.90 million during 2017.

Since local communities already own 25.5 thousand ha of lands (The State Service of Ukraine for Geodesy, Cartography and Cadastre, 2017), bodies of local self-government, under the implementation of the territorial reform, have an opportuni-

ty to apply for 3 million ha of state-owned agricultural lands, which are located beyond the built-up area, through acquiring the right of ownership in terms of forming the united territorial communities (Cabinet of Ministers of Ukraine, 2018). As can be seen in Table 2, this measure ensures the growth of revenues of local budgets from the use of such land plots by 30-40%.

Drawing on the analytical data on ways of the increase of local budgets belonged to united territorial communities at the expense of revenues from the sale of agricultural land plots located beyond built-up areas as objects of communal ownership (UAH 72,721.2 million) and forecasted indicators

Table 2. Economic efficiency of the use of agricultural land plots in terms of passing them into ownership of perspective territorial communities at the sale price by January 1, 2019

Source: Decentralization Reform (2017), Government Portal (2018), the State Service of Ukraine for Geodesy, Cartography and Cadastre (2018).

Region	Area, km ²	Approximate area of agricultural lands passed into communal ownership, billion m ² **	Sale price of a plot in terms of sale (beyond/within). UAH/m ² ***	Sale price of a lease right for a plot. UAH/m ² ****	Prognosticated indicators for amounts of revenues of budgets of ATCs (economic impact), million UAH/year		Payback period for lands in case of selling a lease right, years
					from the sale of lands passed into the communal ownership (beyond/within)	from the sale of a lease right for lands passed into the communal ownership	
Vinnitsia	26,513	350	-/148.39	0.49/1.77	/51,936.5	171.5/619.5	-/83.8
Volyn	20,144	290	24.27/115.44	0.16/22.40	7,038.3/33,477.6	46.4/6,496.0	151.7/0.2
Dnipropetrovsk	31,914	650	-/133.28	0.09/19.59	-/86,632.0	58.5/12,733.5	-/6.8
Donetsk	26,517	250	-/87.87	0.24/-	-/21,967.5	60.0/-	-/
Zhytomyr	29,832	490	-/95.99	-/17.13	-/47,035.1	-/8393.7	-/5.6
Zakarpattia	12,777	30	71.69/191.22	0.15/11.00	2150.7/5,736.6	4.5/330.0	478/17.4
Zaporizhzhia	27,180	420	-/74.27	0.34/-	-/31,193.4	142.8/-	-/
Ivano-Frankivsk	13,900	110	-/153.50	-/97.44	-/16,885.0	-/10,718.4	-/1.6
Kyiv	28,131	120	-/69.01	1.66/28.28	-/8,281.2	199.2/3,393.6	-/2.4
Kirovohrad	24,588	250	-/191.62	0.46/115.42	-/47,905.0	115.0/28,855.0	-/1.7
Luhansk	26,684	280	-/191.62	0.46/115.42	-/53,653.6	128.8/32,317.6	-/1.7
Lviv	21,833	170	70.5/383.43	0.36/36.15	11,985.0/65,183.1	61.2/6,145.5	195.8/10.6
Mykolaiv	24,598	440	-/155.67	0.34/22.05	-/68,494.8	149.6/9,702.0	-/7.1
Odesa	33,310	380	-/495.33	0.31/168.47	-/188,225.4	117.8/64,018.6	-/2.9
Poltava	28,748	510	56.52/421.46	0.47/20.92	28,825.2/214,944.6	239.7/10,669.2	120.3/20.1
Rivne	20,047	240	17/88	0.37/151.68	4,080.0/21,120.0	88.8/36,403.2	45.9/0.6
Sumy	23,834	270	-/96.16	0.20/13.13	-/25,963.2	54.0/3,545.1	-/7.3
Ternopil	19,823	370	23.17/124.19	0.43/100.03	8,572.9/46,213.0	159.1/37,011.1	53.9/1.2
Kharkiv	31,415	160	-/419.03	0.24/77.67	-/67,044.8	38.4/12,427.2	-/5.4
Kherson	28,461	400	-/81.46	0.18/1.34	-/32,584.0	72.0/536.0	-60.8
Khmelnitskyi	20,645	470	18.43/79.35	0.34/215.73	8,662.1/37,294.5	159.8/101,393.1	54.2/0.4
Cherkasy	20,900	270	-/147.61	0.31/1.76	-/39,854.7	83.7/475.2	-/0.4
Chernivtsi	8,097	140	-/223.39	-/0.54	-/31,274.6	-/75.6	-/413.7
Chernihiv	31,865	420	3.35/35.54	0.16/19.07	1407.0/14,926.8	67.2/8,009.4	21/1.9
Total	575,756	7,590	x	x	72,721.2/1,257,827.0	2,218.0/394,268.5	32.8/3.2

for amounts of revenues of budgets of UTCs from the sale of a lease right to such plots at established low prices (UAH 2,218.0 million per month), the authors may assert that an average payback period of the sale of lands accounts for 33 years. Until recently, a lease rate for a considerable share of those lands has been the lowest and accounted for 1-3%. In other words, they have been offered at prices lower than those established in the market. Bodies of local self-government have factually exerted influence on only 12% of own territories. United territorial communities have not been able to manage land plots before 2018, because those plots have been owned by the state and an opportunity of cultivating 7 million ha of “grey” lands has been excluded at all (Konkurent.in.ua, 2018).

Having analyzed possible revenues of local budgets of Ukraine, the authors determine that the amounts of revenues from the use of land plots located within built-up areas of united territorial communities may account for UAH 1,257,827.0 million from the sale of an ownership right and UAH 394,268.5 million from the sale of a lease right on average in Ukraine. This difference is stipulated by different values of a land plot within and beyond of built-up areas. The value fluctuates from 3.35 UAH/m² (minimum) beyond of built-up areas to 35.54 UAH/m² within built-up areas in Chernihiv region and 70.5 UAH/m² (maximum) in Lviv region. Sale and lease prices are higher for lands located within built-up areas of united territorial communities than for land plots, which will be passed into communal ownership. Therefore, a change in the purpose of use of the lesser contemplates the increase of revenues of local budgets from sale or lease of land plots. However, this change smooths out the use of these lands for running an agricultural business.

Nevertheless, economic efficiency of the use of land plots located beyond built-up areas is underestimated due to the low normative monetary evaluation in regions of Ukraine. For instance, an amount of the lease payment in more than 27 thousand of lease agreements for state-owned lands fluctuates from 1% to 3% of the normative monetary evaluation of lands, i.e. an average payment per 1 ha is only 940 UAH (approximately 30 EUR). For example, it accounts for more

than 200 EUR per 1 ha of arable in Germany, the Netherlands, and Denmark, up to 10% of the market value or 350 USD-400 USD per 1 ha in the USA. Taxpayers spend 40-45% of grown harvest for lease payments in Canada and up to 1/3 of harvest in France (NGO “Civil Society Institute”, 2018).

To determine financial and economic effectiveness of regulating land relations, the authors draw Table 3. Data of this table enable to indicate amounts of revenues of local budgets of Ukraine from the use of lands located beyond built-up area and passed from the state ownership into communal ownership of united territorial communities.

Revenues of budgets of united territorial communities from the single tax of the taxpayers of the fourth group are calculated in proportion to agricultural lands of Ukraine – UAH 19,481.7 thousand for each region, taking into account an average figure of revenues from this tax over the analyzed period – UAH 2,555,525.0 thousand throughout Ukraine and the approximate area of agricultural lands beyond built-up areas passed into communal ownership of united territorial communities (The State Statistics Service of Ukraine, 2016).

The approximate value of agricultural land plots located beyond built-up areas of perspective united territorial communities is determined in compliance with the natural and agricultural regionalization of lands of Ukraine based on the normative monetary evaluation as of January 1, 2019 and the norm of capitalized rental income on agricultural lands of each region of Ukraine. For example, the approximate value of agricultural land plots throughout Vinnytsia region is equal to UAH 28,281.75, taking into consideration that capitalized rental income for arable of determined natural and agricultural districts of this region is as follows: Pohrebyshchensko-Orativskiyi – UAH 29,109.15, Teplytsko-Chechelnytskyi – UAH 41,294.38, Khmilnyko-Lypovetskyi – UAH 35,201.76, Vinnytskyi – UAH 18,277.84, Nemyrivskiyi – UAH 15,570.01, Yampil'skyi – UAH 39,940.46, Kryzhopil'skyi – UAH 28,432.19, Mohyliv-Podil'skyi – UAH 31,140.02, and Zhmeryn'skyi – UAH 15,570.01 (Portal Normatyvna hroshova otsinka, 2019).

Table 3. Economic efficiency of the use of land plots located beyond built-up areas in terms of passing them into ownership of united territorial communities

Source: Ministry of Agrarian Policy and Food of Ukraine (2017), Portal Normatyvna hroshova otsinka (2019).

Region	Approximate area of agricultural lands passed into communal ownership, thousand ha	Normative monetary evaluation for 1 ha of agricultural lands, UAH (by 2019)*	Approximate value of agricultural lands of perspective ATCs based on the normative monetary evaluation, thousand UAH (by January 1, 2019)	Normative monetary evaluation for 1 ha of agricultural lands located beyond built-up areas, UAH (as at January 1, 2019)**	Approximate value of agricultural lands of perspective ATCs based on the normative monetary evaluation, thousand UAH (as at January 1, 2019)	Prognosticated amounts of revenues of budgets of perspective ATCs from payment for land (economic impact), thousand UAH/year		
						factually, provided that the lease payment equals 13% of the normative monetary evaluation	the lease payment and a rate of the land fee for lands plots, 1% of normative monetary evaluation	single tax from taxpayers of the fourth group
Vinnitsia	35	27,078.28	947,739.80	28,281.75	989,861.25	123,206.17	989.86	4,591.14
Volyn	29	21,607.36	626,613.44	18,263.37	529,637.73	81,459.74	5,296.38	3,804.09
Dnipropetrovsk	65	27,078.28	1,760,088.20	31,516.11	2,048,547.3	228,811.46	20,485.47	8,526.41
Donetsk	25	31,167.66	779,191.50	30,743.61	768,590.25	101,294.89	7,685.90	3,279.39
Zhytomyr	49	21,165.27	1,037,098.23	19,115.07	936,638.57	13,402.76	9,366.39	6,427.60
Zakarpattia	3	27,520.38	82,561.14	23,157.39	69,472.18	10,732.94	694.72	393.52
Zaporizhzhia	42	25,254.64	1,060,694.88	24,953.99	1,048,067.5	137,890.33	10,480.68	5,509.37
Ivano-Frankivsk	11	26,194.09	288,134.99	22,156.65	243,723.19	37,457.54	2,437.23	1,442.93
Kyiv	12	26,194.09	314,329.08	23,850.41	286,204.89	40,862.78	2,862.04	1,574.10
Kirovohrad	25	32,107.11	802,677.75	31,057.86	776,446.42	104,348.10	7764.46	3,279.39
Luhansk	28	27,078.28	758,191.84	25,588.98	716,491.32	98,564.93	7,164.91	3,672.91
Lviv	17	22,049.46	374,840.82	12,936.55	219,921.35	48,729.3	2,199.21	2,229.98
Mykolaiv	44	27,078.28	1,191,444.32	27,271.70	1,199,954.6	154,887.76	11,999.55	5,771.72
Odesa	38	31,167.66	1,184,371.08	27,709.01	1,052,942.2	153,968.24	10,529.42	4,984.67
Poltava	51	30,283.47	1,544,456.97	29,316.98	1,495,165.8	200,779.40	14,951.66	6,689.95
Rivne	24	22,049.46	529,187.04	13,753.04	330,073.08	68,794.31	3,300.73	3,148.21
Sumy	27	26,636.19	719,177.13	24,501.88	661,550.76	93,493.02	6,615.51	3,541.74
Ternopil	37	28,901.92	1,069,371.04	25,992.96	961,739.52	139,018.23	9,617.40	4,853.49
Kharkiv	16	32,549.20	520,787.20	31,923.25	510,772.04	67,702.33	5,107.72	2,098.81
Kherson	40	24,370.45	944,818.00	20,608.37	824,334.84	122,826.34	8,243.35	5,247.02
Khmelnyskyi	47	29,841.37	1,402,544.39	25,485.64	1,197,825.1	182,330.77	11,978.25	6,165.25
Cherkasy	27	33,930.75	916,130.25	32,928.25	889,062.77	119,096.93	8,890.63	3,541.74
Chernivtsi	14	32,991.29	461,878.06	25,023.58	350,330.09	60,044.14	3,503.30	1,836.45
Chernihiv	42	23,873.10	1,002,670.20	21,965.88	922,566.96	130,347.12	9,225.67	5,509.37
Total	759	x	20,236,436.21	x	21,130,339.21	252,049.23	1,8930,202.81	2,555,525.0

The average rate of the lease payment for state-owned agricultural land plots, which were leased on competition grounds in 2017, accounted for 13% of the normative monetary evaluation (Cabinet of Ministers of Ukraine, 2017). Provided that bodies of authorities apply the 13% monetary evaluation for agricultural lands, the right to which has been acquired by united territorial communities on competition grounds, financial and economic efficiency

of the use of such land plots as an additional source of revenues of local budgets in Ukraine factually accounts for 2,520,049.23 UAH/year in contrast to 203,189.94 UAH/year when the evaluation has been conducted and 923,458.56 UAH/year when the evaluation has not been conducted. Norms of the Tax Code of Ukraine establish rates of the lease payment and land fee, which equal 5% if the normative monetary evaluation has not been conducted.

Factually, this difference in the lease payment for an agricultural land plot with area of one hectare at the rate of 13% accounted for 218,078.52 UAH/year (max. – 228,811.46 UAH – for ATCs in Dnipropetrovsk region and min. – 10,732.94 UAH – for ATCs in Zakarpattia region). At the same time, the maximum figure of normative monetary evaluation for agricultural lands by 2019 has exceeded 1.6 times the minimum one (by 12765.48 UAH): max. – 33,930.75 UAH/ha – in Cherkasy region and min. – 21,165.27 UAH/ha – in Zhytomyr region. Since the establishment of the normative monetary evaluation of agricultural areas located beyond built-up areas of united territorial communities, which occurred on January 1, 2019, its value for arable on average throughout Ukraine may fluctuate within the following figures: max. – 32,928.25 UAH/ha in Cherkasy region and min. – 12,936.55 UAH/ha – in Lviv region, i.e. it exceeds 2.54 times (by 19,991.70 UAH/ha).

That is to say, if the normative monetary evaluation of lands acquired by an united territorial community has not been conducted, forecasted amounts of revenues of perspective communities, according to the norms of tax legislation of Ukraine, account for 5% of the lease payment or land fee by 2019. In such a case, the difference for such amounts has reached 86,108.94 UAH/

month (max. – 88,004.41 UAH – for ATCs in Dnipropetrovsk region and min. – 1,895.47 UAH/month – for ATCs in Vinnytsia region). Thus, the value of lease and an amount of paid land fee exceed 46.42 times their minimum value!

Since January 1, 2019, under conditions of leasing agricultural lands located beyond built-up areas of united territorial communities, the normative monetary evaluation of which is at the rate of 1%, the difference in forecasted amounts of revenues of their budgets accounts for 14,719.53 UAH/year (max. – UAH 20,485.47 thousand – for ATCs in Dnipropetrovsk region and min. – UAH 694.72 – for ATCs in Zakarpattia region). Although the maximum value of the normative monetary evaluation throughout Ukraine exceeds 1.22 times the minimum one, the value of exploitation of such lands exceeds 29.48 times its minimum value.

Forecasted amounts of revenues of budgets of perspective ATCs from the single tax (Table 3) equal UAH 2,555,525.00 thousand and account for 13.49% of approximately forecasted amounts of the lease payments and land fee (as a part of real estate tax) at the rate of 1% of the normative monetary evaluation for agricultural plots located beyond built-up areas of united territorial communities.

CONCLUSION

Hence, to enhance financial and economic effectiveness of the use of agricultural land plots passed into ownership of a territorial community in terms of unification, the authors suggest:

1. Taking into account that the proportion between amounts of revenues from the sale of land plots located beyond built-up areas of amalgamated territorial communities and amounts of revenues from leasing these plots is 1 to 33 and the proportion for plots located within built-up areas is 1 to 3, the authors recommend that lease relations should remain a prevailing form of land turnover in Ukraine (Table 1). This will enable to regulate prices for land plots on the level of newly-formed territorial communities owing to new powers in the sphere of regulating land relations gained by bodies of local self-government in the process of the decentralization. In terms of legalization of 7 million ha of “grey” lands, which are already involved in agricultural production, the additional economic impact of their leasing for budgets of ATCs throughout Ukraine will constitute UAH 2.10 million. Such amounts have been determined at an average price of agricultural land plots by regions of Ukraine where these lands are available, namely boundaries of Volyn, Zakarpattia, Lviv, Poltava, Rivne, Ternopil, Khmelnytskyi, and Chernihiv regions. In such a case, revenues of budgets of ATCs from the sale of a lease right to land plots account for 13% of a general amount of revenues of all the local budgets of Ukraine, i.e. the economic impact will constitute 72,723.30 thousand UAH/year.

2. Taking into account powers of bodies of local self-government regarding the establishment and changes in the purpose of use of land plots and the existence of an inconsiderable number of lands (0.23-2.28% of the entire area of regions) acquired by territorial communities in terms of unification in Volyn, Zakarpattia, Lviv, Poltava, Rivne, Ternopil, Khmelnytskyi, and Chernihiv regions, there is a need to forbid a change in the purpose of use of agricultural lands. Under such conditions, financial and economic efficiency of the use of such land plots through the sale of a right to lease accounts for from 123,206.17 UAH/year to 1,402,544.39 UAH/year.
3. To establish the value of leasing agricultural lands passed into ownership of ATCs on the basis of the difference between the factual lease payment and a sum of single tax from agricultural producers being taxpayers of the fourth group, activity of which is profitable, shows positive trends of the growth of a financial result, and is prior for regional development. This will enable to encourage socio-economic development of these regions, providing a financial and economic effect of revenues of budgets belonged to ATCs of Ukraine accounting for 16,369,127.09 thousand UAH/year, which will reach 17,064,227.09 thousand UAH/year after the deduction of UAH 695,100.00 thousand to the state budget. Such approach contemplates avoiding the payment for the use of land for production of agricultural commodities, which has been included in a basis of taxation of the single tax charged on agricultural producers, as well as in the lease payment for the use of agricultural lands. If an amount of payment of the single tax exceeds a lease rate (as in Vinnytsia region), the authors recommend concluding a lease agreement. A proposition is of particular importance, because such contractual relations will not reduce a general amount of revenues of local budgets of perspective ATCs. Since rights to use such land plots have not been registered, such contractual relations ensure adherence to the current norms of the Tax Code of Ukraine regarding the value of leasing agricultural lands at the rate of 1% of the normative monetary evaluation as of January 1, 2019.

Nonetheless, such objects of a right to communal ownership perform economic, as well as social functions. The very context of the decentralization enables to undertake reforms in all the spheres of social development and to take into account ensuring a social effect, as well as forming necessary physical facilities for balanced development of newly-formed territorial units in order to foster combining principles of social responsibility and economic efficiency and to maintain the national security and state sovereignty of Ukraine.

REFERENCES

1. Accounting Chamber of Ukraine. (2018). *Висновки про виконання закону України «Про Державний Бюджет України на 2017 рік» [Vysnovky pro vykonannya Zakonu Ukrainy "Pro Derzhavnyi Biudzhel Ukrainy za 2017 rik"]*. Retrieved from http://www.ac-rada.gov.ua/doccatalog/document/16755915/Vusnovki_2017_opt.pdf?subportal=main
2. Cabinet of Ministers of Ukraine (CMU). (2017). *Деякі питання удосконалення управління в сфері використання та охорони земель сільськогосподарського призначення державної власності та розпорядження ними [Deiaki pytannia udoskonalennia upravlinnia v sferi vykorystannia ta okhorony zemel silskohospodarskoho pryznachennia derzhavnoi vlasnosti ta rozporiadzhennia nymy]* (Postanova No. 413). Retrieved from <http://zakon.rada.gov.ua/laws/show/413-2017-%D0%BF>.
3. Cabinet of Ministers of Ukraine (CMU). (2018). *Питання передачі земельних ділянок сільськогосподарського призначення державної власності у комунальну власність об'єднаних територіальних громад [Pytannia peredachi zemelnykh dilianok silskohospodarskoho pryznachennia derzhavnoi vlasnosti u komunalnu vlasnist ob'iednanykh terytorialnykh hromad]* (Rozporiadzhennia No. 60-r). Retrieved from <https://land.gov.ua/info/rozporiadzhennia-kabinetu-ministriv-ukrainy-vid-31-sichnia-2018-r-60-r-pytannia-peredachi-zemelnykh-dilianok-silskohospodarskoho-pryznachennia-derzhavnoi-vlasnosti-u-komunalnu-vlasnist-ob/>
4. Chaisty, P., & Whitefield, S. (2017). Citizens' Attitudes towards Institutional Change in Contexts of Political Turbulence: Support for Regional Decentralization in Ukraine. *Political Studies*, 65(4), 824-843. <https://doi.org/10.1177/0032321716684845>

5. Decentralization Reform. (December 13, 2017). *Almost 700 AHs, over UAH 173 billion of own revenues in local budgets, sectoral changes – updated decentralization monitoring*. Retrieved from <https://decentralization.gov.ua/en/news/7823>
6. Decentralization Reform. (January 17, 2017). *Доходи 159 об'єднаних громад зросли більше ніж у 7 разів, – експерт про результати фінансової децентралізації 2016 року [Dokhody 159 obiednanykh hromad zrosly bilshе nizh u 7 raziv, – ekspert pro rezultaty finansovoi detsentralizatsii 2016 roku]*. Retrieved from <https://decentralization.gov.ua/en/news/4013>
7. Decentralization Reform. (January 18, 2018). *Local budgets: experts summed up first 2017 results*. Retrieved from <https://decentralization.gov.ua/en/news/8053>
8. Demetriou, D. (2017). A spatially based artificial neural network mass valuation model for land consolidation. *Environment and Planning B: Urban Analytics and City Science*, 44(5), 864-883. <https://doi.org/10.1177/0265813516652115>
9. Frolov, S., Pedchenko, N., & Vygovska, N. (2017). Financial Mechanism of State Land Regulation in Ukraine. *Accounting and Financial Control*, 1(1), 15-22. [https://doi.org/10.25161/afc.1\(1\).2017.02](https://doi.org/10.25161/afc.1(1).2017.02)
10. Gerber, J.-D., Nahrath, S., & Hartmann, T. (2017). The strategic use of time-limited property rights in land-use planning: Evidence from Switzerland. *Environment and Planning A: Economy and Space*, 49(7), 1684-1703. <https://doi.org/10.1177/0308518X17701916>
11. Government Portal. (2018). *Уряд погодив механізми передачі землі у власність територіальним громадам [Uriad pohodyv mekhanizmu peredachi zemli u vlasnist terytorialnym hromadam]*. Retrieved from <https://www.kmu.gov.ua/ua/news/uryad-pogodiv-mekhanizmi-peredachi-zemli-u-vlasnist-teritorialnim-gromadam>.
12. Hanushchak, Y. (2015). *Реформа територіальної організації влади. Швейцарсько-український проект «Підтримка децентралізації в Україні – DESPRO» [Reforma terytorialnoi orhanizatsii vlady. Shveysarsko-ukrainskyi projekt "Pidtrymka detsentralizatsii v Ukraini – DESPRO"]*. Kyiv: LLP Sofia-A. Retrieved from <http://despro.org.ua/upload/14-Book-%D0%93%D0%B0%D0-%BD%D1%83%D1%89%D0-%B0%D0%BA%2021%2008%202013.pdf>
13. Hrynevetskyi, S. R. (2013). *Адміністративно-територіальний устрій: де вихід? [Administrativno-terytorialnyi ustrii: de vykhid?]*. ZN^{UA}, 18. Retrieved from https://dt.ua/LAW/administrativno-terytorialniy-ustriy-de-vihid_.html
14. Konkurent.in.ua (2018). *Землі поза межами населених пунктів передадуть тергромадам (інфографіка) [Zemli poza mezhamy naselenykh punktiv peredadut terhromadam (infografika)]*. Retrieved from <https://konkurent.in.ua/publication/22991/zemli-pozamezhaminaselenykh-punktiv-peredadut-tergromadam-infografika/>
15. Koroteiev, M., Korman, I., Manzii, O., Semenda, O., & Semenda, O. (2017). Prospects for the Market Turnover of Agricultural Land in Ukraine. *Problems and Perspectives in Management*, 15(2-2), 344-354. [https://doi.org/10.21511/ppm.15\(2-2\).2017.04](https://doi.org/10.21511/ppm.15(2-2).2017.04)
16. Kuibida, V. S., Pavlenko, V. P., Yatsiuk, V. A., Matviishyn, O. Ya., Tkachuk, A. F., Nehoda, V. A., & Kravets, T. A. (2009). *Адміністративно-територіальний устрій України. Історія. Сучасність. Перспективи [Administrativno-terytorialnyi ustrii Ukrainy. Istorii. Suchasnist. Perspektyvy]*. Kyiv: Secretariat of the Cabinet of Ministers of Ukraine. Retrieved from <http://history.org.ua/LiberUA/978-966-7863-80-7/978-966-7863-80-7.pdf>
17. Kurylo, V., Pantaliienko, P., Bogdanets, V., & Ovcharuk, S. (2017). Land Fragmentation in Ukraine: Agricultural Land-use Management and Jurisprudence Issues. *Problems and Perspectives in Management*, 15(2), 102-109. [https://doi.org/10.21511/ppm.15\(2\).2017.10](https://doi.org/10.21511/ppm.15(2).2017.10)
18. Martyn, A. (2012). *Встановлення меж адміністративно-територіальних утворень: проблеми та напрями їх вирішення [Vstanovlennia mezh administrativno-terytorialnykh utvoren: problemy ta napriamy yikh vyrishennia]*. *Zemlevporiadnyi Visnyk*, 4, 17-23. Retrieved from http://nbuv.gov.ua/UJRN/Zv_2012_4_6
19. Ministry of Agrarian Policy and Food of Ukraine. (2017). *Про затвердження Порядку нормативної грошової оцінки земель сільськогосподарського призначення [Pro zatverdzhennia Poriadku normatyvnoi hroshovoi otsinky zemel silskohospodarskoho pryznachennia]* (Nakaz No. 262). Retrieved from http://search.ligazakon.ua/l_doc2.nsf/link1/RE30547.html
20. Ministry of Regional Development, Building, Housing and Utilities of Ukraine (MRDBHUU). (2016). *Децентралізація. Місцеві бюджети 159 об'єднаних територіальних громад [Detsentralizatsiia. Mistsevi biudzhety 159 obiednanykh terytorialnykh hromad]*. Kyiv: MRDBHUU. Retrieved from <http://despro.org.ua/despro/Local%20Budgets%20of%20ACs.pdf>.
21. NGO "Civil Society Institute". (2018). *ЗЕМЛЮ – ГРОМАДАМ!? Чи всю і навіщо? [ZEMLIU – HROMADAM!? Chy vsiu i navishcho?]*. Retrieved from <https://www.csi.org.ua/articles/zemlyu-gromadam-chy-vsyu-i-navishho/>
22. Portal Normatyvna hroshova otsinka. (2019). *Загальнонаціональна (Всеукраїнська) нормативна грошова оцінка земель сільськогосподарського призначення [Zahalnonatsionalna (Vseukrainska) normatyvna hroshova otsinka zemel]*

- silskohospodarskoho pryznachennia*]. Retrieved from <https://ngo.land.gov.ua/>
23. Portal Normatyvna hroshova otsinka. (2019). *Zagalno-natsionalna (Vseukrainska) normatyvna hroshova oцinka zemel sil'skogospodarskogo pryznachennia. Vinnytska oblast' [Zahalnonatsionalna (Vseukrainska) normatyvna hroshova otsinka zemel silskohospodarskoho pryznachennia. Vinnytska oblast']*. Retrieved from <https://ngo.land.gov.ua/uk/oblast/vinnitska>
 24. Samsudin, S., Lim, J. L.-C., & McCluskey, W. (2014). *Decentralization and Good Governance in Land Administration Systems*. Retrieved from https://www.fig.net/resources/proceedings/fig_proceedings/fig2014/papers/TS07C/TS07C_salfarina_7289.pdf
 25. The Ministry of Finances of Ukraine. (2016). *Budget of Ukraine – 2016*. Retrieved from <https://www.minfin.gov.ua/uploads/redactor/files/Budget%20of%20Ukraine%202016.pdf>.
 26. The State Service of Ukraine for Geodesy, Cartography and Cadastre (StateGeoCadastre) (March 1, 2017). *Ogliad stanu zemelnykh vidnosyn v Ukraini [Ohliad stanu zemelnykh vidnosyn v Ukraini]*. Kyiv: SSUGCC. Retrieved from https://land.gov.ua/wp-content/uploads/2017/03/Land-Review-Monthly_3_final-1.pdf
 27. The State Service of Ukraine for Geodesy, Cartography and Cadastre (StateGeoCadastre). (April 17, 2018). *Моніторинг вартості проданих земельних ділянок та права оренди на них (за ціною продажу) у розрізі адміністративно-територіальних одиниць протягом 2017 року [Monitorynh vartosti prodanykh zemelnykh dilianok ta prava orendy na nykh (za tsinoiu prodazhu) u rozrizi administratyvno-terytorialnykh odyunys protiahom 2017 roku]*. Retrieved from <http://land.gov.ua/info/stan-formuvannia-rynku-zemel-v-ukraini-u-2017-rotsi/>.
 28. The State Statistics Service of Ukraine. (2016). *Кількість сільськогосподарських підприємств і площа сільськогосподарських угідь у їхньому користуванні станом на 1 листопада 2016 року за регіонами [Kilkist silskohospodarskykh pidpriemstv i ploshcha sil'skogospodarskykh uhid u yikhnomu korystuvanni stanom na 1 lystopada 2016 roku za rehionamy]*. http://www.ukrstat.gov.ua/operativ/operativ2016/sg/ksgp/ksgp_u/ksgp_11_u.htm
 29. The State Treasury of Ukraine. (2018). *Річний звіт про виконання Державного бюджету України за 2017 рік [Richnyi zvit pro vykonannia Derzhavnoho biudzhetu Ukrainy za 2017 rik]*. Retrieved from <https://www.treasury.gov.ua/ua/file-storage/richniy-zvit-pro-vikonannya-derzhavnogo-byudzhetu-ukraini-za-2017-rik>
 30. Verkhovna Rada of Ukraine (2001). *The Land Code of Ukraine*. Retrieved from <https://zakon.rada.gov.ua/laws/show/2768-14?lang=en>
 31. Verkhovna Rada of Ukraine (2010a). *The Tax Code of Ukraine*. Retrieved from <https://zakon.rada.gov.ua/laws/show/2755-17?lang=en>
 32. Verkhovna Rada of Ukraine (2010b, July 8). *The Budget Code of Ukraine*. Retrieved from <https://zakon.rada.gov.ua/laws/show/2456-17?lang=en>
 33. Watamanyuk-Zelinska, U. Z., & Malets, P. I. (2018). *Effective Management of Municipal of Property in the Context of Decentralized Processes in State Development. Effective economy*, 9. Retrieved from <http://www.economy.nayka.com.ua/?op=1&z=6520>
 34. Willamson, I., Enemark, S., Wallace, J., & Rajabifard, A. (2010, April). *Land Administration for Sustainable Development*. Paper presented at FIG Congress 2010 Facing the Challenges – Building the Capacity, Sydney, Australia. Retrieved from http://www.cs-dila.unimelb.edu.au/publication/conferences/FIG2010/LandAdministrationforSustainable_Development.pdf
 35. Yao, J., Zhang, X., & Murray, A. T. (2018). *Spatial Optimization for Land-use Allocation: Accounting for Sustainability Concerns. International Regional Science Review*, 41(6), 579-600. <https://doi.org/10.1177/0160017617728551>