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Conceptual changes of fiscal regulation of agricultural land use: international experience and Ukrainian practice

Abstract. On the basis of the analysis of international standards of land and real estate valuation and modern scientific researches devoted to the actual issues of land and real estate valuation for fiscal purposes, the authors substantiate the problematic aspects of the formula «land valuation - land payment - budget», which are becoming the basis of public fiscal policy in many countries of the world, and including Ukraine, are grounded. The authors of the article show that the effective valuation of land in the national context depends on the fiscal policy of the state in relation to the tax burden of agricultural enterprises in three-dimensional space, according to the first option - using market prices to determine of the land tax, according to the second option - if it is necessary to establish land rent on the basis of the market prices when the real value of land will be reflected instead of the normative, according to the third option - it is possible if there is market for agricultural land. The authors substantiate the problem of land valuation in its global and general economic measure, and, simultaneously, on the example of the Ukrainian practice, which proves the need to develop a sound methodology for fiscal regulation of agricultural land use, taking into account national specific.

Keywords: Fiscal Policy; Land; Agricultural Enterprise; Land Tax; Rent; Methodology; Valuation

JEL Classification: C13; H32; K34; Q12; Q15

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Концептуальні зміни фіскального регулювання сільськогосподарського землекористування: міжнародний досвід й українська практика

Анотація. На основі аналізу міжнародних стандартів оцінки майна й сучасних наукових досліджень, присвячених актуальним питанням оцінки землі й нерухомості для фіскальних цілей, у статті обґрунтовано проблемні аспекти в реалізації формули «оцінка землі – плата за землю – наповнення бюджету», які стають основою державної фіскальної політики у багатьох країнах світу й, у тому числі, в Україні. Сучасні дослідники вказують на проблемні питання у створенні методології проведення оцінки для фіскальних цілей. Зокрема, піддаються критиці підходи до визначення нормативної грошової оцінки на основі економічної оцінки земель, в основу яких покладений диференціальний рентний дохід із виробництва зернових культур у радянський період. Відтак, сама оціночна процедура проведення оцінки земель для фіскальних цілей набуває економічного й управлінського характеру, в результаті чого дослідники оперують інформацією, яка показує лише наявність у масовій свідомості певних стереотипів стосовно розуміння оцінки землі, а не про світову модель оцінки нерухомості. Для європейських країн із сталими оціночними інститутами та дієвими нормативно-правовими системами щодо оцінки нерухомості поєднання в понятті нерухомості – землі із земельними поліпшеннями, є цілком прийнятним. Водночас у суспільствах перехідного типу (це стосується країн колишнього Радянського Союзу), де в свідомості громадян закладено в розуміння нерухомості земельні поліпшення (будівлі, будинки тощо), гостро відчувається методологічна розбіжність оціночних підходів, а це впливає на кінцеві результати оцінки та надходження до місцевих бюджетів. Застосування неадаптованих світових методик проведення оцінки земель у сучасних українських реаліях – хибний курс. Автори статті показують, що ефективна оцінка земель у національному контексті залежить від фіскальної політики держави відносно податкового навантаження сільськогосподарських підприємств у тривимірному просторі: за першим варіантом – використання ринкових цін для визначення земельного податку; згідно з другим варіантом, якщо необхідно встановити орендну плату за землю на основі ринкових цін, коли реальна вартість землі відобразитиметься замість нормативної; відповідно до третього варіанту, це можливо, якщо існує ринок земель сільськогосподарського призначення.

Ключові слова: фіскальна політика; земля; сільськогосподарське підприємство; земельний податок; орендна плата методологія; оцінка.

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Концептуальные изменения фискального регулирования сельскохозяйственного землепользования: международный опыт и украинская практика

Аннотация. На основе анализа международных стандартов оценки недвижимости и современных научных исследований, посвященных актуальным вопросам оценки недвижимости фискальных целей, в статье обоснованы проблемные аспекты в реализации формулы «оценка – плата за землю – наполнение бюджета», которые становятся основой государственной фискальной политики во многих странах мира и, в том числе, в Украине. Современные исследователи указывают на проблемные вопросы в создании методологии проведения оценки для фискальных целей. В частности, подвергаются критике подходы к определению нормативной денежной оценки на основе экономической оценки земель, базой которых является дифференциальный рентный доход по производству зерновых культур в советский период. Следовательно, сама оценочная процедура проведения оценки земель для фискальных целей приобретает экономический и управленческий характер в результате чего исследователи оперируют информацией, которая показывает только наличие в массовом сознании определенных стереотипов относительно понимания оценки земли, а не о мировой модели оценки недвижимости. Для европейских стран с устоявшимися оценочными институтами и действенными правовыми системами по оценке недвижимости, сочетание в понятии недвижимости – земли с земельными улучшениями, является вполне приемлемым. В то же время в обществах переходного типа (это касается стран бывшего Советского Союза), где в сознании граждан заложено в понимание недвижимости земельные улучшения (здания, дома и т.д.), остро ощущается методологическое расхождение оценочных подходов, а это влияет на конечные результаты оценки и поступления в местные бюджеты. Применение неадаптированных мировых методик проведения оценки земель в современных украинских реалиях – неверный курс. Авторы статьи показывают, что эффективная оценка земель в национальном контексте зависит от фискальной политики государства в отношении налоговой нагрузки сельскохозяйственных предприятий в трехмерном пространстве: по первому варианту – использование рыночных цен для определения земельного налога; по второму варианту, – если необходимо установить арендную плату за землю на основе рыночных цен, когда вместо нормативной будет отражена реальная рыночная стоимость земли; по третьему варианту – возможно при наличии рынка земель сельскохозяйственного назначения.

Ключевые слова: фискальная политика; земля; методология; оценка; сельскохозяйственное предприятие; земельный налог; арендная плата.

1. Introduction

Land valuation is one of the important and topical issues of our time. This is evidenced by international and European real estate valuation organization that systematized valuation rules worldwide and in Europe (for example, International Valuation Standards and European Valuation Standards). The solution of this problem is possible at consecutive studying of methodical approaches, methods and estimation procedures of this actual economic phenomenon. After the introduction of Ukraine's institution of private ownership of land, this problem has become the subject of discourse of both Ukrainian economists, land managers, and politicians, government officials. The experience of land valuation of foreign countries and the created theoretical and methodological basis that has already been developed in numerous works of European and world researchers have become a valuable asset for solving acute problems of land valuation for fiscal regulation of agricultural land use. One of the key issues is being addressed in this study is

the valuation of agricultural land, which affects the formation of local budgets of united territorial communities in the context of authority decentralization, especially in countries with transition economies in Eastern Europe. Many scholars believe that the effectiveness of socio-economic development of rural areas depends on full-fledged legal regulation at the state level of the three-component process of valuation:

- 1) developing of land valuation methodology for fiscal regulation of agricultural land use;
- 2) conducting of a mass assessment of land throughout the territory of state;
- 3) creation of an evaluation portal on the Internet to ensure free access to its results for each interested person.

The problem arises when, as a result of the inconsistency of the use of incomplete and outdated data, there takes place the results distorts, which leads to ineffective state tax policy and excessive burden on agricultural enterprises, along with economic constraints on owners of land shares (units).

2. Brief Literature Review

The task of our study is to analyze market and normative concepts outlined in international assessment documents for determining the value of land for fiscal regulation of agricultural land use and the most famous scientific papers on this topic by scientists of the Classical economic theory - Smith (1776), Ricardo (1817) etc. - and modern foreign scientists such as Billon and Sommerville (2017), Demetriou (2018), Kalkuhl et al. (2018), Janoušková and Sobotovičová (2019), Kara et al. (2021), Tomić et al. (2021), Wentland et al. (2020), Wyatt (2019) and others as well as methodical approaches to monetary valuation of agricultural land, commonly used in International and European valuation activities. We have chosen a market approach to the fiscal regulation of agricultural land use, which provides maximizing the filling of the local budget. Some scholars share our views. In particular, Youngman (1996) states that, «where appropriate, it can provide the readiest transition to full market value taxation as more price data become available» (p. 14). According to Bird and Slack (2002), «where it is possible to use market value, it is generally regarded as a better tax base» (p. 18). Furthermore, there are two methodological approaches to property valuation for tax purposes: the first - area-based valuation, the second - value-based valuation, which divided into market value and rental value methods, but some countries developed a self-assessment system» (Bird & Slack, 2002). Some countries want to set into base of the tax system the sale price of property and, in the case of their absence, «model their market value, such as Estonia» (Tiits, 2006, p. 11), Germany, which uses «rateable value - is the price in the case of sale» (Spahn, 2003, p. 2) and others. We managed that the main prospects and areas of valuation in modern Ukrainian practice, referring to the experience of different countries in conducting monetary valuation of land. Problems of monetary valuation of agricultural lands are widely represented in the domestic economic scientific literature. Thus, the works by Tretyak et al. (2017), Khodakivska et al. (2016), Smaha (2018), Safonova (2008), Polupan et al. (2015), Novakovsky (2015), Kovalova et al. (2021), Fedorov et al. (2017) and other scientists are devoted to the actual issues of development of methods of normative monetary valuation of agricultural lands in Ukraine. Unlike other similar studies, this article substantiates conceptual changes in the methodology of fiscal regulation of agricultural land use in a market economy and have a theoretical-methodological character for countries with a transition economy Central and Eastern Europe. We are trying to explore the problem of land valuation in its socio-economic dimension and to reveal the key points of improving the methodology, which will be the basis for further development of land valuation in the functioning of the agricultural land market and authority decentralization.

3. Purpose

The purpose of the paper, which is based on the experience of conceptual changes of land valuation in international valuation documents and scientific works of modern scientists, is to identify the problematic issues of implementing the formula «land valuation - land payment - budget» and explanation that the lack of a clear understanding of the categorical definition of the concept of land valuation as a basis for fiscal regulation of agricultural land use leads to significant distortion of its results. The transition from the normative to the market concept of land valuation as a basis for fiscal regulation should be substantiated in the paper. We propose to use the market concept as a basis for financial regulation of agricultural land use to maximize budget filling. We consider

that the basis of the tax base should become the real sale prices of land. In their absence, the market value calculated by a comparative methodological approach should be used. The first part of the article analyzes the existing approaches to determining land valuation, presents a view of the valuation process in its broad and narrow sense and reveals a number of specific characteristics in understanding and conceptualizing land valuation in existing international valuation documents. The second part substantiates the methodological changes in the assessment and payment for land on a global and European scale, determining the priorities for the separation of land tax or its inclusion in the real estate tax. The third part contains an analysis of methodological changes in the normative monetary valuation of agricultural land, summarizes the key positions of each stage and substantiates the relationship between the components of the formula «land valuation - land payment - budget» - automation of valuation processes. The fourth part analyzes the taxation system of agricultural enterprises, which is based on a specific tax base. In the fifth part, we propose to use the real sale price of agricultural land (market concept) as a basis for taxation and rent collection in the conditions of functioning of their lands market. The sixth part reveals the prospects of fiscal regulation of agricultural land use in the context of decentralization of power.

4. Results

4.1. Definition of land valuation

It is impossible to reveal the essence of land valuation, based only on the value of a separate land plot, taken for one civil-legal action, apart from other purposes of its use in social production. For example, to determine the essence of land valuation, it is not enough to refer only to civil valuation legislation, according to which «property valuation is the process of determining their value on the valuation date according to the procedure established by regulations and is the result of practical activities of the valuation entity» in the Law of Ukraine «On Appraisal of Property, Property Rights and Professional Appraisal Activity in Ukraine» (VRU, 2001, Art. 3). We consider that the concept of land valuation, rich in its socio-economic nature, covers a number of conceptual options, which provide for its reproduction in various sectors of the national economy, as well as in the moral and ethical sphere, including private land ownership. The value of land is directly related to the legal concept, civil law agreements and property, and, therefore, reflects a set of private property rights. From a material point of view, real estate is a plot of land and improvements, which are structures above and below ground. We analyzed that in each state, national legislation establishes the appropriate principle of division of real and personal property, based on unified world terms. From an intangible point of view, the concept of property rights on real estate ownership includes all rights, interests, privileges associated with real estate ownership. One of the main international documents that defined the concept of value is the International Valuation Standards. According to them, market value is the estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion (IVS, 2020, p. 23). This document is of a recommendatory nature, and the understanding of non-market value is reduced to a separate classification, among which there is a taxable value, which is calculated for real estate taxation and may differ from the concept of market value. The recommendations set out in this document are of fundamental importance to each country in the context of economic globalization and standardization of land valuation. The European Valuation Standards state that in many countries real estate assets are used as a basis for raising local or national taxes, which are levied on one-off events or periodically (annually), and the value is determined by relevant national or local laws or regulations (EVS, 2020, p. 51). Therefore, special attention is paid to the fiscal regulation of land use at the national level. Subsequently, the main directions of International and European evaluation standards have been developed and adapted to the National evaluation standards used by Ukrainian evaluators. In particular, there are several reasons that explain the lack of specificity in international evaluation documents. Firstly, the international valuation community perceives land valuation not as a separate part, but rather as a synthetic real estate valuation concept. Secondly, in the national legislation of different countries, valuation is interpreted differently, and the practice of valuation activities to determine the value of land has specific conditions. Therefore, Ukraine has developed its own national valuation standards, and the main provisions on land valuation are laid down in the Constitution of Ukraine, the Land Code of Ukraine, the Law of Ukraine «On Land Valuation», etc. With the

adoption of Ukraine's independence, land use has become a fee, and the basis of the fee has become a normative monetary valuation, which requires the development of an effective methodology for its implementation.

4.2. Methodological changes in the assessment and payment for agricultural land

In the scientific works of modern foreign scientists, there are different approaches to the implementation of the formula «land valuation - land payment - budget» in the world and European space. For example, in a scientific article by J. Janoušková and Š. Sobotovičová, researchers from the Czech Republic on «Fiscal autonomy of municipalities in the context of land taxation in the Czech Republic» (2020), a detailed analysis of existing approaches to the polarity of views on land taxation in individual states is conducted. The authors emphasize that the method of tax assessment in the Czech Republic is determined by the quality of land valuation and does not reflect the real market value of land. At the same time, they focus on the use of a single method of determining the tax base based on land area by municipalities, which affects the amount of revenue through coefficients - the most effective tools for regulating the amount of revenue for municipal budgets. In their research paper C. Hughes et al. (2020) on «Implementing a land value tax: Considerations on moving from theory to practice» define the land value tax as a periodic tax on landowners, based on the value of «unimproved» land. Thus, the focus on the theoretical justification in favor of the land value tax (land tax) does not implement the practical implementation of this issue. In many countries, the land tax is part of property taxes, much less often it becomes the only universal mechanism for real estate taxation. Another attention is paid to countries with a long history of real estate taxation, but they also have supporters of land tax separation (Wyatt, 2019, p. 3). For example, England is a representative of this category of countries, where property taxes have existed since the XVII century, but the land tax has not been introduced. Thus, in England there are two forms of permanent real estate tax, which are based on the combined value of land and property. These include the Council tax levied on domestic real estate and business rates levied on non-domestic real estate (Wyatt, 2019, p. 8). In the research of scientists, we can observe the separation of land tax or its inclusion in other taxes, which provide a constant and projected income to local budgets, and the rate is justified by the presence of large-scale coverage of all lands, their owners and land users. The authors of the article emphasize the historicity of the taxation system, because, in their opinion, land payment can be considered an economic component of land management of territorial communities, which attracts the attention of governments only when it concerns the process or functions of taxation of legal entities and individuals for fiscal regulation of existing land uses. Existing approaches to determining land tax, including the methodology for determining the value of land based on market value (capital, rent) or non-market value (cadastral valuation), are subject to critical evaluation. The authors ask questions about that as far as results presented by different valuation methods are objective, reliable and relevant in terms of land use, location, quality, size, etc. In general, the problem of developing the right methodology for determining the value of land in the fiscal regulation of agricultural land use has not yet been sufficiently resolved. If the history of land rent as an integral part of economic theory is calculated over centuries, then the intention to «determine» the land tax using scientifically reasonable methods have begun to introduce into the economic space not so long ago.

4.3. Problematic aspects of fiscal regulation of agricultural land use in Ukraine

In Ukraine today, there is a scientifically sound methodology for conducting a normative monetary valuation of agricultural land, which is used to pay land tax and rent for land in the implementation of fiscal policy. The current method of normative monetary valuation is the result of the evolutionary process of its formation in Ukraine. We analyzed that the beginning of the introduction of normative monetary valuation is considered to be 1995. Analyzing its development, we distinguish three methodological stages: the first - 1995-2016, the second - 2016-2021, the third - project (unified). The problematic aspects of changing the methodology of regulatory monetary valuation should be considered.

The first methodological stage (1995-2016). The basis for determining the normative monetary valuation of this period is rent income, which is generated in the production of grain crops and is determined according to the economic valuation of land conducted in 1988. The first national (all-Ukrainian) normative monetary valuation of agricultural land throughout Ukraine was

conducted in 1995. The sequence is as follows: Ukraine, regions, administrative districts, agricultural enterprises, individual land plots. During this period, the normative monetary valuation had to be updated three or four times, but this did not happen due to the imperfection of the existing approach. Therefore, there are prerequisites for changes in the methodological approach, which include: obsolescence of economic evaluation data; unaccounted for growth in the cost of agricultural products; the difficulty of conducting an economic assessment; dynamic boundaries of modern agricultural enterprises; violation of Art. 179 of the Land Code - the natural-agricultural area is not taken into account in the valuation.

The second methodological stage (2016 and to present). The definition of the normative monetary valuation of the second period is based on the norm of capitalized rental income, which is formed in the production of cereals and is determined by the actual data of financial and economic activities of agricultural enterprises for the period 2011-2015. The sequence is as follows: Ukraine, regions, natural-agricultural areas, individual land plots. In 2018, the second nationwide all-Ukrainian normative monetary valuation of agricultural lands on the entire territory of Ukraine of all forms of ownership was conducted. An innovation was the transparency of data on the Portal of normative monetary valuation. The preconditions for methodological changes in the normative monetary valuation were the following problematic aspects: unification of three separate methodological approaches; the need to assess the entire territory of the community; reduction of costs for financing the assessment by territorial communities.

The third methodological stage (project) should create a simplification and unification of existing methods of normative monetary valuation of land. Determination of the normative monetary valuation of agricultural land will be based on the multiplication of the area, the rate of capitalized rental income and seven coefficients that describe the suburban area, resort and recreational location, radiation location, zonal factors, purpose of land, category of land indexing. Thus, Ukraine has developed its own unified system for determining the value of land for taxation, which is characterized by the following areas: determining the normative monetary valuation of agricultural land on the basis of current actual performance of agricultural enterprises; conducting a nationwide assessment throughout the country; creation of an electronic portal for access of each interested person to information on the value of agricultural land.

4.4. Priority tendencies of fiscal policy in the agricultural sector in Ukraine

In many countries around the world, the tax system reflects the form of financial relations between the state and the landowner in relation to the collection of taxes in the budget. In Poland, in accordance with the Polish Law «On agricultural tax», the area of agricultural land is converted into a conversion hectare, which is multiplied by a factor located in the table of classes of agricultural land of tax districts. In Germany, according to the German Law «On agricultural property tax», the land tax is determined on the basis of tax rates and regulatory appraisal value. In Ukrainian practice, currently the fiscal policy of agricultural land use is regulated by a number of regulations, among which the most important place is given to the Tax Code. The development of the system of taxation of agricultural land is associated with the introduction of the institution of private property and the enshrinement in the Constitution of Ukraine that land use is paid. We conclude that the legal, economic and managerial aspects is necessary to characterize the current fiscal policy of the agricultural sector regarding the use of land resources in the economic circulation of agricultural enterprises. From a legal point of view, the taxation system evolved with the adoption of the Law of Ukraine «On land payments» (1992), then the inclusion of its legal provisions in the Tax Code (2010). From an economic point of view, the taxation system covers taxpayers who pay land tax; single tax payers of the fourth group; privileged categories for the payment of land tax. From the managerial point of view, the taxation system had differences in the centralized management of agricultural land and the decentralized land management of the united territorial communities. It should be noted that land taxation in Ukraine was initiated in 1992, and since 1996, the normative monetary assessment has been recognized as the tax base. Until 2015, land tax rates were set at the state level for all agricultural lands without exception, and since 2015 and until now, land tax rates are set by local authorities of territorial communities within the range defined by law. We emphasize that since 2015, in the context of authority decentralization, when local governments independently set the size of the land tax rate, revenues from land payments have decreased towards rent, and towards land tax - have increased. The authors of the article believe that the priority areas of fiscal policy in the agricultural sector are: reducing the tax burden on agricultural

enterprises in order to intensify business in rural areas; transparency and simplicity of tax reporting; improving tax control; wide application of tax planning; application of digital and information technologies to determine land tax.

4.5. Conceptual changes of fiscal regulation of agricultural land use in Ukraine

Currently in Ukraine, fiscal regulation is based on the normative concept of agricultural land valuation. Although Ukrainian scientists have developed many methods for conducting a normative monetary valuation of agricultural land, their results require further research to form effective fiscal regulation of agricultural land use. Based on the analysis of the conceptual provisions for the payment for the using of agricultural land, we have identified two concepts: the first - normative, the second - market. The first concept (normative) is widely used in practice and enshrined in Method 831 (Standards Ukraine, 2002). The second concept (market) is possible for implementation when it is developed agricultural land market. That is why we propose that average market value of 1 hectare of agricultural land by region should be the basis of it. As of 1 August 2021, the National Bank of Ukraine set the dollar exchange rate at 26.8867 UAH per 1 USD (Ministry of Finance of Ukraine, 2021). So far, we have conducted a comparative analysis of the two concepts (Table 1).

Analysis of data on the market concept shows a slight reduction in land tax in most regions of Ukraine due to the low average selling price in the market. Finally, the regions saw an increase in the land tax from 1 hectare of agricultural land. Especially in Kyiv (48.1%) and Zakarpattia (46.4%) regions, where there is an increase for almost a half. It is necessary to pay attention to the fact that the land market works only one month (from 1 July 2021). In the future, there will be sufficient information on land purchase and sale agreements that can form the basis of a market concept that reflects the real price of land. Rental income will increase for landlords (landowners) of land shares (units). At the same time, revenues from land tax and land rent within territorial communities will increase in local budgets. This will allow conducting regularly normative monetary valuation, to form a market base for setting standards, as well as take into account the financial capacity of nationals and the economic condition of the state.

At the initial stage, the purchase and sale price of agricultural land should be equal to or over than its normative monetary value. Improving the socio-economic condition of the country will

Table 1:
Comparative analysis of normative and market concept for agricultural land payment at the state and regional levels as at 01.08.2021, USD/ha

Regions	Concept of valuation		Difference between market and normative concept		Land tax		Land rent	
	1	2	USD/ha	%	1	2	1	2
	normative	market			normative	market	normative	market
Vinnitsia	1011	744	-267	-26.4	10.1	7.4	80.9	59.5
Volyn	811	833	22	2.7	8.1	8.3	64.9	66.6
Dnipropetrovsk	1125	889	-236	-21.0	11.3	8.9	90.0	71.1
Donetsk	1157	870	-287	-24.8	11.6	8.7	92.6	69.6
Zhytomyr	796	908	112	14.1	8	9.1	63.7	72.6
Zakarpattia	1014	1484	470	46.4	10.1	14.8	81.1	118.7
Zaporizhzhia	929	710	-219	-23.6	9.3	7.1	74.3	56.8
Ivano-Frankivsk	970	n/d*	n/d*	n/d*	9.7	n/d*	77.6	n/d*
Kyiv	987	1462	475	48.1	9.9	14.6	79.0	117.0
Kirovohrad	1186	956	-230	-19.4	11.9	9.6	94.9	76.5
Luhansk	1009	1090	81	8.0	10.1	10.9	80.7	87.2
Lviv	799	948	149	18.6	8	9.5	63.9	75.8
Mykolayiv	1006	788	-218	-21.7	10.1	7.9	80.5	63.0
Odesa	1154	1447	293	25.4	11.5	14.5	92.3	115.8
Poltava	1130	1012	-118	-10.4	11.3	10.1	90.4	81.0
Rivne	816	818	2	0.2	8.2	8.2	65.3	65.4
Sumy	997	915	-82	-8.2	10	9.2	79.8	73.2
Ternopil	1080	1034	-46	-4.3	10.8	10.3	86.4	82.7
Kharkiv	1199	878	-321	-26.8	12	8.8	95.9	70.2
Kherson	909	762	-147	-16.2	9.1	7.6	72.7	61.0
Khmelnyskyi	1134	1127	-7	-0.6	11.3	11.3	90.7	90.2
Cherkasy	1251	1090	-161	-12.9	12.5	10.9	100.1	87.2
Chernivtsi	1237	722	-515	-41.6	12.4	7.2	99.0	57.8
Chernihiv	895	974	79	8.8	9	9.7	71.6	77.9
Ukraine	1025	977	-48	-4.7	10.3	9.8	82.0	78.2

Note: * - n/d: no data.

Source: Calculated and completed by the authors according to data of Standards Ukraine (2021) and AgroPolit (2021)

have a positive impact on land pricing policy. Therefore, we observe a gradual increase in arable land prices, which is based on the experience of foreign countries with economies in transition and the newly created land market (Table 2).

Table 2:
Average prices of arable land, EUR/ha

Country	2011	2012	2013	2014	2015	2016	2017	2018	2019	2019/2011, %
Poland	4 855	6 080	6 275	7 723	9 220	9 083	9 699	10 414	10 991	226
Czech Republic	1 836	3 264	3 662	4 282	4 775	5 463	6 448	7 594	8 095	441
Hungary	2 089	2 380	2 709	3 042	3 356	4 182	4 368	4 662	4 862	233

Source: Calculated and completed by the authors according to data of European Statistics (2021)

Until 2024, only nationals of Ukraine can participate in the market of agricultural land. We found that the low purchasing power of the average Ukrainian encourages the formation of low land prices at an early stage. At the same time, the constantly growing economic indicators of agriculture and its increasing role in the national economy indicate the possibility of making a profit. Thus, agricultural land becomes attractive for investment to a potential buyer, and agriculture - an industry that provides income to potential investors.

Thus, we propose to use the market concept as a basis for collecting land tax and rent, which will be the main lever for fiscal regulation of agricultural land use. At the same time, it is necessary to conduct agrarian-investment zoning by the following elements: zone of high investment attractiveness, zone of medium investment attractiveness, zone of low investment attractiveness. We understand that not all land can be sold at once. Therefore, we propose to use a methodological approach based on the comparison of sales prices of similar land plots (Standards Ukraine, 2002).

We believe that the main elements of comparison for agricultural land are: the legal status of the site; sources of funding; date and conditions of sale; microclimatic zones, land arrays, provision of engineering and transport infrastructure, distance to markets and primary processing of products, availability of labor resources, conditions of use of the adjacent territory; size and configuration, slope steepness, exposure, groundwater level, flooding, wind direction, fertility, quality, physicochemical properties, typical set of crops in the region of land plot location.

4.6. Increasing the efficiency of fiscal regulation of agricultural land use

In European countries, spatial planning is widely used, which simulates the socio-economic development of the community for effective fiscal regulation of land use, including agricultural. In the European Union, the concept of spatial planning includes public policy and a set of actions to regulate activities in a particular space and to establish relationships between them (EU Compendium of Spatial Planning Systems and Policies, 1997, p. 156). Balancing regional policy and land use planning requirements take place at European, national and local levels. Trends and directions in the evolution of spatial planning and spatial management systems and new typologies in Europe, synergies and antagonisms between EU policy and national spatial planning and territorial governance, and cross-engagement between EU cohesion policy and spatial planning practices, have recently been on the agenda European Planning Communities (Auziņš, 2019, p. 3). In Germany, community use plans are being developed that its show the current and possible use of land, as well as possible tax revenue. In Poland, directions for the spatial organization of the commune's territory are being developed. It is one of the directions, which is to provide the authorities with complete information on land plots for their effective taxation. In Croatia, decentralization has also taken place, and its regional authorities are developing documentation on the spatial planning of municipalities. Thus, in European countries, where the authority decentralization has taken place, there is a spatial development of the territory based on architectural planning documentation. It allows to have up-to-date information on existing and projected land use within the municipality. Simultaneously, local authorities can legibly determine the income from land tax and rent. The authors of the article conclude that spatial planning and development contribute to effective fiscal regulation of land relations within a particular municipality. Scholars A. Krysovaty et al. (2020) argue that «thanks to tax reforms, the government in Ukraine has managed to support the growth of budget revenues» (p. 55). However, the issue of full provision of information on land plots of local authorities remains unresolved. The transfer of agricultural land from state ownership to communal ownership took place, but there is no actual information about the boundaries of the newly created territorial communities. Legislative regulation of this issue took

place on the basis of the Law of Ukraine «On Improving the System of Management and Deregulation in the Sphere of Land Relations» (2021). Therefore, Ukraine will develop complex plans for the spatial development of the territories of the united territorial communities, which will provide local authorities with complete information about land plots within them and will allow to accrue land tax and rent. The clarity of possible types of land use within territorial communities will not only attract investors, but will also allow the authorities to predict fiscal regulation of agricultural land use. Thus, Ukraine implements the best European experience in decentralization of power and spatial development of the newly created territories by adapting it to domestic realities.

5. Conclusions

We have identified two concepts of fiscal regulation of agricultural land use: the first - normative, the second - market. At present, the normative concept is widely used in Ukraine. We propose to change it to a market concept, which makes sense to exist when there is a market for agricultural land and prices for the sale of land plots are known on it. We propose to determine the market value of land that has not been sold, using a methodological approach, which is based on comparing the sale prices of similar land plots. Fiscal regulation of agricultural land use, regardless of the national context, is influenced by three components: determining the valuation of land, setting land fees and the amount of budget revenues. The first component involves the formation of the concept of land value at the national level. Many countries around the world conduct a cadastral assessment, which determines the normative value of land, which is, certainly, different from the market value. For developed European countries with a well-established market economy and an efficient market of agricultural land, market value or market rent can be used as a basis for assessment. For countries with economies in transition, where the land market is absent or just running, it is appropriate to use normative monetary valuation as a basis for determining land tax. The second component focuses on balancing the interests of local governments and rural businesses in setting land tax and rent rates that will promote both rural development and agricultural production without being a heavy tax burden. The third component focuses on the effectiveness of fiscal policy, which becomes a source of filling the budget of local communities. It is obvious that the fiscal regulation of agricultural land use in Ukraine will be effective under the following conditions:

- 1) providing the government of territorial communities with reliable information about the available areas of agricultural land;
- 2) actualization of the normative monetary valuation of agricultural lands within the united territorial community;
- 3) setting the rate of land tax and rent, taking into account the financial and economic results of agricultural enterprises;
- 4) preferential stimulation of rational use and protection of lands;
- 5) state support for the transparency of fiscal policy, tax planning and administration.

References

1. AgroPolit. (2021). Land market in Ukraine. <https://agropolit.com/spetsproekty/892-rinok-zemli-v-ukrayini-mapa-zemelnih-ugod-i-tsin-na-zemlyu-z-1-lipnya-2021-roku> (in Ukr.)
2. Auziņš, A. (2019). Capitalising on the European Research Outcome for Improved Spatial Planning Practices and Territorial Governance. *Land*, 11(8), 163. <https://doi.org/10.3390/land8110163>
3. Billon Le, Ph., & Sommerville, M. (2017). Landing capital and assembling «investable land» in the extractive and agricultural sectors. *Geoforum*, 82, 212-224. <https://doi.org/10.1016/j.geoforum.2016.08.011>
4. Bird, R., & Slack, E. (2002). Land and Property Taxation: A Review. Economics. World Bank. <http://www1.worldbank.org/publicsector/decentralization/June2003Seminar/LandPropertyTaxation.pdf>
5. Demetriou, D. (2018). Automating the land valuation process carried out in land consolidation schemes. *Land Use Policy*, 75, 21-32. <https://doi.org/10.1016/j.landusepol.2018.02.049>
6. European Union Commission. (1997). EU Compendium of Spatial Planning Systems and Policies. <https://op.europa.eu/en/publication-detail/-/publication/a7342edc-968b-43d3-bf51-d0cc42bc7642>
7. European Valuation Standards. (2020). EVS 2020: Information for the Press. The European Group of Valuers' Associations, Belgium. <https://tegovva.org/evs-2020-information-press>
8. Eurostat. (2021). Agricultural land prices by region. https://ec.europa.eu/eurostat/databrowser/view/apri_lprc/default/table?lang=en
9. Fedorov, M. M., Mesel-Veselyak, V. Ya., Balyuk, S. A., & Lisovyy, M. V. (2017). Evolution of methodological and methodical aspects of land valuation in Ukraine. NNTS «IAE». <http://www.iae.org.ua/activity/books/2550> (in Ukr.)
10. Hodakivska, O. V., Solovianenko, N. A., & Matvienko, A. P. (2016). Influence of degradation processes upon normative money evaluation of ploughlands. *Bulletin of Agricultural Science*, 94(7), 60-64. <https://agrovisnyk.com/index.php/agrovisnyk/article/view/331> (in Ukr.)

11. Hughes, C., Sayce, S., Shepherd, E., & Wyatt, P. (2020). Implementing a land value tax: Considerations on moving from theory to practice. *Land Use Policy*, 94, 104494. <https://doi.org/10.1016/j.landusepol.2020.104494>
12. International Valuation Standards. (2020). International Valuation Standards Council, United Kingdom. <https://www.ivsc.org/about/international-valuation-standards>
13. Janoušková, J., & Sobotovičová, Š. (2019). Fiscal autonomy of municipalities in the context of land taxation in the Czech Republic. *Land Use Policy*, 82, 30-36. <https://doi.org/10.1016/j.landusepol.2018.11.048>
14. Kalkuhl, M., Milan, F. B., Schwerhoff, G., Jakob, M., Hahnen, M., & Creutzig, F. (2018). Can land taxes foster sustainable development? An assessment of fiscal, distributional and implementation issues. *Land Use Policy*, 78, 338-352. <https://doi.org/10.1016/j.landusepol.2018.07.008>
15. Kara, A., Çağdaş, V., Isikdag, U., van Oosterom, P., Lemmen, C., & Stubkjaer, E. (2021). The LADM Valuation Information Model and its application to the Turkey case. *Land Use Policy*, 104. <https://doi.org/10.1016/j.landusepol.2021.105307>
16. Kovalova, O., Yarova, I., Mishenina, H., Pizniak, T., & Dutchenko, O. (2021). Evolution of improving the normative monetary evaluation of agricultural lands. *Agricultural and Resource Economics*, 7(1), 137-163. <https://doi.org/10.51599/are.2021.07.01.08>
17. Krysovaty, A., Fedosov, V., Tymchenko, O., & Silchenko, M. (2020). Taxation, economic growth and welfare in a low-income country. *Economic Annals-XXI*, 181(1-2), 44-56. <https://doi.org/10.21003/ea.V181-04>
18. Ministry of Finance of Ukraine. (2021). Currency. National Bank of Ukraine. <https://minfin.com.ua/currency> (in Ukr.)
19. Novakovsky, L. Ya. (2015). Problems of methodical provision of normative money evaluation of lands of agricultural purpose. *Bulletin of Agricultural Science*, 93(12), 11-16. https://agrovisnyk.com/index.php/agrovisnyk/article/view/2015_12_03 (in Ukr.)
20. Polupan, M. I., Velichko, V. A., & Solovey, V. B. (2015). Development of Ukrainian agronomic soil science: genetic and production aspects. *Agrarian science*, 400 (in Ukr.).
21. Ricardo, D. (1817). *On the Principles of Political Economy and Taxation*. <https://socialsciences.mcmaster.ca/econ/ugcm/3ll3/ricardo/Principles.pdf>
22. Safonova, V. I. (2008). Problems of monetary valuation of agricultural land on the eve of the land market in Ukraine. *Agroincom (Agroincom)*, 1-2, 83-88. http://nbuv.gov.ua/UJRN/agroincom_2008_1-2 (in Ukr.)
23. Smaha, I. S. (2018). Indicators of economic evaluation of arable land in different time periods. *Molodyy vchenyy (Young scientist)*, 7(2), 493-497 (in Ukr.).
24. Smith, A. (1776). *An Inquiry into the Nature and Causes of the Wealth of Nations*. <https://www.econlib.org/library/Smith/smWN.html>
25. Spahn, P. B. (2003). Land taxation in Germany. In R. M. Bird, & E. Slack (Eds.), *International Handbook of Land and Property Taxation*, chapter 7, Edward Elgar Publishing. World Bank. 7. https://ideas.repec.org/h/elg/eechap/3304_7.html
26. Standards Ukraine. (2002). Methods about expert monetary valuation of land plots. SUI Global. <https://zakon.rada.gov.ua/laws/show/1531-2002-%D0%BF#Text> (inUkr.)
27. Tiits, T. M. (2006). Land Taxation Reform in Estonia. Conference on Making the Property Tax Work in Developing and Transitional Countries, October 15-17, 2006, Stone Mountain: Georgia. http://www.andywrightman.com/docs/Estonia_landtax.pdf
28. Tomić, H., Ivić, M. S., Roić, M., & Šiško, J. (2021). Developing an efficient property valuation system using the LADM valuation information model: A Croatian case study. *Land Use Policy*, 104. <https://doi.org/10.1016/j.landusepol.2021.105368>
29. Tretyak, A. M., Tretyak, V. M., Kovalishin, O. F., & Kryshenik, N. I. (2017). New method of normative monetary valuation of agricultural lands: positive and negative sides. *Zemleustriy, kadastr ta monitorynhzemel' (Land management, cadastre and land monitoring)*, 1, 35-42. http://nbuv.gov.ua/UJRN/Zemleustriy_2017_1_8 (in Ukr.)
30. Verkhovna Rada of Ukraine (VRU). (1996). Constitution of Ukraine (Law of Ukraine). <https://zakon.rada.gov.ua/laws/show/254> (in Ukr.)
31. Verkhovna Rada of Ukraine (VRU). (2004). On Land Valuation (Law of Ukraine). <https://zakon.rada.gov.ua/laws/show/1378-15> (in Ukr.)
32. Verkhovna Rada of Ukraine (VRU). (2021). On improving the system of management and deregulation in the field of land relations (Law of Ukraine). <https://zakon.rada.gov.ua/laws/show/1423-20> (in Ukr.)
33. Verkhovna Rada of Ukraine (VRU). (2001). On Appraisal of Property, Property Rights and Professional Appraisal Activity in Ukraine (Law of Ukraine). <https://zakon.rada.gov.ua/laws/show/2658-14> (in Ukr.)
34. Verkhovna Rada of Ukraine (VRU). (2002). Land Code of Ukraine (Law of Ukraine). <https://zakon.rada.gov.ua/laws/show/2768-14> (in Ukr.)
35. Verkhovna Rada of Ukraine (VRU). (2002). Methods of normative monetary valuation of agricultural lands (Law of Ukraine). <https://zakon.rada.gov.ua/laws/card/en/831-2016> (in Ukr.)
36. Verkhovna Rada of Ukraine (VRU). (2011). Tax Code of Ukraine (Law of Ukraine). <https://zakon.rada.gov.ua/laws/show/2755-17> (in Ukr.)
37. Wentland, S. A., Ancona, H. Z., Bagstad, J. K., Boyd, J., Hass, L. J., Gindelsky, M., & Moulton, G. J. (2020). Accounting for land in the United States: Integrating physical land cover, land use and monetary valuation. *Ecosystem Services*, 46, 101178. <https://doi.org/10.1016/j.ecoser.2020.101178>
38. Wyatt, P. (2019). From a property tax to a land tax - who wins, who loses? *Land Use Policy*, 88, 104172. <https://doi.org/10.1016/j.landusepol.2019.104172>
39. Youngman, J. M. (1996). *Tax on Land and Buildings*. International Monetary Fund. <https://www.imf.org/external/pubs/nft/1998/tlaw/eng/ch9.pdf>

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