

## PROSPECTS OF THE LAND - RENTAL RELATIONS DEVELOPMENT IN AGRICULTURE OF UKRAINE

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### *Abstract*

*This paper deals with current status and features of land-rental transactions and relations in domestic agricultural. The author has suggested an approach to the justification of the prospects of land-rental relations development in agriculture of Ukraine based on the definition of interconnection of this field with major factors of influence. This approach is based on the application of the method of analysis of the cross-influencing factors, the initial data for the use of which are the conclusions of experts involved in solving specific forecasting problems. This approach makes it possible to calculate the likely tendencies of development of the main parameters of land-rental transactions in agriculture, depending on changes in factors of impact. Taking into account the current state and peculiarities of rental relations in domestic agricultural land use, medium-term scenarios for the development of this element of the market turnover of land have been formed, which provide an opportunity to predict the development of land-rental transactions and relations depending on market conditions.*

**Key words:** rent, land relations, market, development prospects, agriculture.

### INTRODUCTION

The main task of the modern state policy in the area of agrarian land use is the following improvement of land relations, which would ensure the balanced use of lands and soils on the foundation of ecologization, protection and maintenance of land as part of the natural environment, preservation, multiplication and reproduction of its productive power as a natural resource. The world experience of the functioning of the land market has shown that the realization of full-fledged market relations between the land use actors helps to optimize land use in the context of individual economic entities. The vast majority of peasants interact with economic entities (agrarian and farms) through lease relations. The lease has become one of the most dynamic segments of the land market, since its participants are interested in obtaining the maximum income for intensive use of land. Lease transactions at the present-day stage of land use are becoming increasing importance, since the purchase of agricultural land in ownership is still constrained by the legislation by the moratorium on their sale.

Proceedings of such scholars as V.H. Andriichuk, D.S. Dobriak, M.I. Malik,

V.Ia. Mesel-Veseliak, P.T. Sabluk, M.M. Fedorov, O.Iu. Yermakov, etc. are devoted to the research of principles of development of land relations and operations in the agricultural, in particular, the institutional provision of leasing land of Ukraine. The proceedings of these, as well as several other authors, served as a theoretical and methodological basis for the study and allowed to reveal a number of peculiarities related to the disclosure of scientific and applied principles of leaseholding, in particular the definition of the main factors influencing this segment of the land market (the size of rent, the form of its payment, lease term, etc.).

Formation of an effective system of lease relations in agricultural land use is primarily due to the current state of participants in this segment of the land market and the variety of factors affecting them. Therefore, a very important theoretical and applied aspect is the substantiation of the development prospects of land-rental relations in domestic agrarian sector.

## MATERIALS AND METHODS

The study is based on data provided by the State Service of Ukraine on Geodesy, Cartography and Cadastre and the State Statistics Committee of Ukraine. To determine the key factors of influence on the development of rental relations in agriculture land use of Ukraine, the method of analysis of the cross-influencing factors was applied. The cross-factor matrix is a graphical tool developed by Theodore Gordon and Olaf Helmer [3] in 1966 to establish links between various phenomena (processes) over the alleged cause-effect relationships. The goal is to determine what impacts need to be changed in order to achieve a certain result. The initial data for using the method of analysis of cross-influencing are the conclusions of experts involved in solving specific forecasting problems.

## RESULTS AND DISCUSSIONS

The economic content of the lease relations is the relationship between the landowner (the

lessor) and the tenant (the business entity directly using it) regarding the allocation and assignment of the lease-defined income ratio. The particularity of rental of land in agricultural is that it is considered as an independent form of management on the ground, determining the type of land ownership and the level of development of the productive forces of society [1; 6; 11]. Lease relations are inherently contractual, decisive decisions of the whole range of issues that satisfy the interests of process participants. Depending on specific socio-economic conditions and structural changes, “in the agrarian sector of the developed economies, there is a tendency to increase the area of farms due to the lease of agricultural land” [6]. Ukrainian agricultural producers conduct economic activity mainly on rented land, the share of which in the total volume of land use is more than 45% (Fig. 1). In general, rental of agricultural land is an average of about 90% of all land-rental transactions in Ukraine.



Fig. 1. Share of leased agricultural land in total land use by regions of Ukraine, %

Source: formed by the author according to the State Service of Ukraine on Geodesy, Cartography and Cadastre.

\* Note: data on the Autonomous Republic of Crimea as of 01.01.2014

At the same time, it is inappropriate to assume the remaining 55% of the shares that are not formally leased are not used in agricultural production or used directly by landowners. Unfortunately, the practice of so-called "hidden rent" on the territory of Ukraine is rather widespread, according to which the land is used by agricultural enterprises without the conclusion of corresponding lease agreements with landowners who receive a payment for the use of land in cash or in kind. There are also cases of using without landlord the land whose owners have died, and no successors [4; 10]. Today, according to preliminary estimates of such lands in Ukraine there are about 0.5 million hectares. Characteristics of the current state and main trends in the development of the land-rental relations in agrarian sector in Ukraine are given in Table 1.

Table 1. Basic indices of land rental in agricultural, 2011-2016

Years	Indicator			
	The total area of agricultural land leased, thousand ha	Average rent for agricultural land in Ukraine, UAH / ha	Average rent for agricultural land of state ownership, UAH / ha	
			with land trades	without conducting land trades
2011	17,421.0	327.5	x	x
2013	17,196.0	412.2	555.8	–
2014	17,166.1	664.0	894.8	–
2015	17,168.0	862.0	1,377.8	1,169.2
2016	17,099.1	1,093.4	2,249.8	952.0

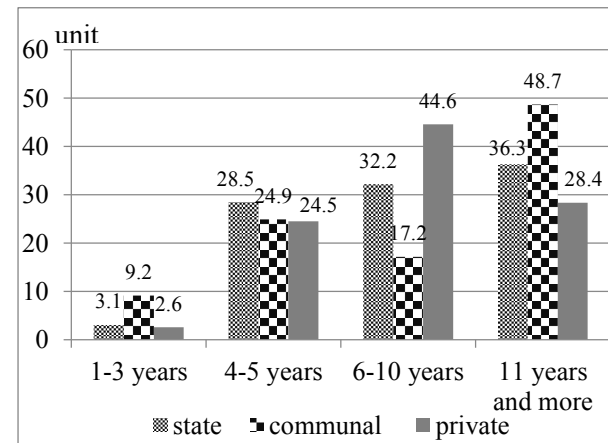
Source: formed by the author according to the State Service of Ukraine on Geodesy, Cartography and Cadastre and the State Statistics Committee of Ukraine.

Regarding the allocation of land in accordance with the terms of the lease agreements, it should be noted that recently the number of lots leased for a term of up to 5 years is more than 30%, and over an area is 25%. Among the lands of private property the most common are lease agreements for a term of 6-10 years, and among the state and communal for 11 years and more (Fig. 2).

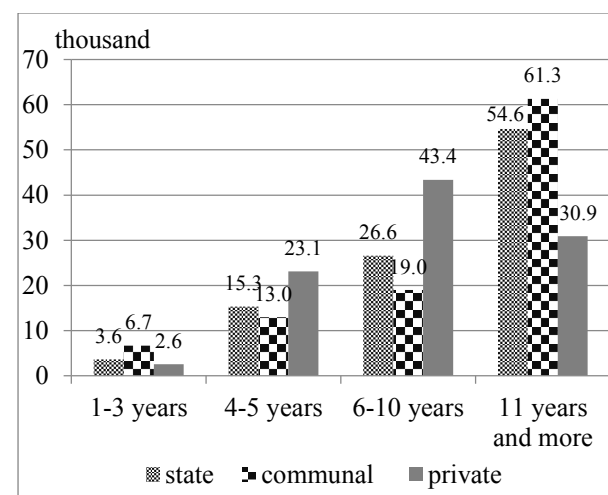
The specificity and diversity of the specialization of agrarian production confirms the assertion that even five years is not enough for a substantial restructuring of

economic relations in this area. Therefore, in order to ensure the tenant of guaranteed land use, the minimum period of lease of land should be sufficiently long.

Despite the tendency to reduce the area of leased land, the average rent for agricultural land continues to grow. In Ukraine on average, the owners of shares in 2016 received 1,093.4 UAH per hectare, which is 27% more than in 2015 (862 UAH / ha). In the regional context, the lowest rent was in the Kyiv region (533.4 UAH / ha), the highest – in Poltava (2,243.2 UAH / ha) (Fig. 3). Regarding state land, the average cost of their lease has recently increased significantly. This is due to the proliferation of practices for the transfer of land for use through the mechanism of auctions.



(a)



(b)

Fig. 2. Allocation of the number (a) and area (b) of agricultural land in 2015 for the duration of the lease agreements, %

Source: formed by the author on the basis of data [10].

An analysis of the prerequisites for the development of land-rental relations allows us to conclude that this segment in the near future will remain the main element of the market circulation of land in agriculture of Ukraine. However, the further development of land-rental relations in agriculture is due to a

number of factors influencing them. Two descriptive scenarios of transactions and relations in agriculture of Ukraine for the near future (by 2020) were formed on the basis of studying such factors and taking into account the methodology of Theodore G. & Hayward H. [3].



Fig. 3. Ranking of regions of Ukraine by the average rents for agricultural land, 2016 (UAH / ha)  
 Source: formed by the author according to the State Service of Ukraine on Geodesy, Cartography and Cadastre.  
 \* Note: data on the Autonomous Republic of Crimea as of 01.01.2014.

The process of forecasting begins with the analysis of the formed square. It follows the process of managing the scenario, which involves the definition of external and internal factors of influence on the development of land-rental relations in the field of land use. For this purpose an important stage is the formation of the main scenario spheres of influence on the development of domestic rental relations of land use, which specify the main factors of influence by the method of expert surveys. As a result, 10 factors were identified that could affect the development of domestic land-rental relations in agriculture (Table 2).

Table 2. Factors influencing the main scenario spheres on the development of rental transactions and relations of agriculture land in Ukraine

Factor №	Influence factor
1	Infrastructure provision of the land market
2	The size of the rent for the land
3	Investing in agriculture
4	The fiscal policy of the state in the agrarian sector
5	Financial and credit policy of the state
6	Inclusion of land value in economic turnover
7	Environmental policy of the state in the agrarian sector
8	State support of agricultural producers
9	State regulation of the land market
10	Level of shadowing on the agricultural land market
11	Development of auctions for land lease
12	Methods of calculating rent for land

Source: author's development.

As a result of determining the factors of influence (on the basis of expert conclusions), the matrix of direct effect of factors of influence has been formed and analyzed (Table 3).

The values of "1" and "2" in this matrix indicate the force of influence, where: "1" is a weak effect; and "2" is a strong influence. The overall impact of asset factors means some other factor and is defined as the sum of the lines in certain.

The total liability indicator shows the influence of the factor on the part of other factors, and its value is defined as the sum of values in the columns. If you divide the

quantity of an asset by the amount of a liability, you can obtain the so-called pulse index, which determines the impact of a particular factor. If the sum of the asset and the quantity of the responsibility factor multiplied, we obtain a dynamics index, which shows the degree of inclusion factor in the general system [5; 8; 12]. As a result, in the process of analysis of the matrix of direct effect of the factors of influence, the key ones are separated, those factors that are characterized by high dynamics index, high impulse index and significant amount of the asset.

Table 3. Multiplicative factor model of the interaction of factors of influence on the development of land-rental relations in agriculture in Ukraine

	1	2	3	4	5	6	7	8	9	10	11	12	Amount of the asset	Impulse index	Dynamics Index
<b>1</b>	–	2	2	1	2	1	1	1	1	2	2	1	16	1.1	224
<b>2</b>	1	–	2	2	2	1	1	2	1	2	1	1	16	0.8	304
<b>3</b>	1	2	–	1	1	1	1	1	1	1	1	1	12	0.9	168
<b>4</b>	1	2	1	–	1	1	1	2	1	1	1	2	14	1.0	196
<b>5</b>	1	2	2	1	–	2	1	2	1	1	1	1	15	1.2	195
<b>6</b>	2	2	2	2	2	–	1	1	2	2	1	2	19	1.4	266
<b>7</b>	1	2	1	2	1	1	–	1	2	1	1	1	14	1.4	140
<b>8</b>	1	1	2	1	2	1	1	–	1	1	1	1	13	0.9	182
<b>9</b>	2	2	1	1	1	2	1	1	–	2	2	2	17	1.3	221
<b>10</b>	1	2	1	1	1	2	1	1	1	–	2	1	14	1.0	196
<b>11</b>	2	2	1	1	1	2	1	2	2	2	–	1	17	1.4	204
<b>12</b>	1	2	1	2	1	1	1	1	1	1	1	–	13	1.0	169
<b>Amount of liabilities</b>	14	19	14	14	13	14	10	14	13	14	12	13	164	x	x

Source: author's calculations.

The total of five main factors influencing the development of agricultural leases are among the key. These include factors whose general characteristics are their ability on the one hand to have a significant impact on the entire system, and on the other to be exposed to the system itself (Table 4). This increases their importance as levers of influence in cases when it is necessary to bring the system in motion in the event of emergencies.

The next stage is the consideration of possible options for the development of rental relations

in the system of agricultural land use for optimistic (A) and pessimistic (B) projections (Table 5). The basis of economic relations between the tenant and the lessor are lease payments, which reflect the relationship of possession, use and disposal of land ownership.

Therefore, economically justified rental rates are the main link in lease agreements.

Table 4. Key factors influencing the development of land-rental relations in agriculture with high dynamics index

№	Factor	Dynamics Index
2	The size of the rent for the land	304
6	Inclusion of land value in economic turnover	266
1	Infrastructure provision of the land market	224
9	State regulation of the land market	221
11	Development of auctions for land lease	204

Source: author's calculations.

The unity and contradiction between the landowner and the tenant are concluded in them.

Table 5. Projections of key factors on development of land-rental relations in agriculture of Ukraine

Designation of the projection	A brief description of the projection
1	2
2A	The size of the rent is regulated by the limits of the tax legislation
2B	Unregulated quantity of rent for land
6A	Inclusion of land value in economic turnover in connection with the abolition of the moratorium on the sale of agricultural land
6B	The land will remain beyond the formal economic process
1A	Development of infrastructure provision of land market
2B	Infrastructure of the land market will remain unsatisfactory
9A	Improvement of state regulation of the land market
9B	State regulation will remain at the current level
11A	Development of auctions for the lease of agricultural land of all forms of ownership
11B	Slow introduction of auctions for rent of agricultural land

Source: author's development taking into account the Theodore G. & Hayward H. methodology [3] and indicators based on the data of the "Institute of Agrarian Economics" NSC [13].

Disturbance of the balance of benefits in the quantity of rent affects either the benefits of the lessee, or the interests of the owner. According to the optimistic scenario, the rent for land will be regulated based on the

marginal amount of rent for agricultural land in the amount of 0.3 to 12% of the normative monetary valuation. Otherwise, market mechanisms for adjusting the size of the rent may be abusive on the part of tenants, which in modern conditions is threatening the sustainable development of rural areas.

Another factor that will positively affect the development of land and lease relations in agriculture in Ukraine, will be the lifting of the moratorium on the sale of agricultural land. Functioning and development of a full-fledged agricultural land market will enable the purchase or sale of land at a competitive market price [9]. In connection with the balancing of demand and supply, this will have a positive effect on those individuals who will continue to lease their own agricultural land on a lease. In turn, this will allow to fully include land in economic turnover [2; 7]. This will have a beneficial effect on the possibility of introducing into the statutory fund the right to lease land for agricultural purposes and the development of land mortgage lending to secure the rights to lease land. An effective agricultural land market will induce state authorities to develop regulatory and legal acts in the area of land lease market relations and development of its infrastructure support.

In a pessimistic scenario, the continuation of the moratorium on land will continue. As a result, civil land agreements will be non-transparent and will be uncontrolled, which will lead to economic losses on the part of the leaseholders, the state and local self-government. The infrastructure of the land market in agrarian sector will remain undeveloped.

The land market should be one of the most regulated markets of the state and special attention should be paid to agricultural land. In this regard, in addition to market regulators (demand, supply and price), institutions and organizations that are called to serve and regulate this market have a decisive influence. In addition, proper state regulation of the agrarian land market is an alternative to the moratorium.

Domestic experience has shown that the holding of auctions for the sale of land of state

and communal property enables to significantly reduce the corruption component and increase revenues to the State and local budgets. Due to the auctioning of land lease rights, we have a healthy, fair competition, significant additional revenue to the tenant. The auctioning mechanism for agricultural land in Ukraine is just beginning to operate, and therefore there are many unsolved issues. Therefore, in our opinion, it is necessary to create a unified system of auctioning land for all forms of ownership that will enable to ensure transparent competition and increase the efficiency of land and lease relations in the country.

Taking into account the above, one can conclude that in the case of the development of a pessimistic scenario on the territory of Ukraine, the agrarian sector expects a significant slowdown in the development of land-rental relations. This, in turn, will reduce the area of land rented. Moreover, the generated forecasts are relevant also when it comes to a long-term perspective.

The development of an optimistic or pessimistic scenario in the field of land-rental relations directly depends not only on the internal features of agrarian policy, but also on global economic trends. According to the results of the analysis of key factors, it has been found that the priority task in the agricultural sector is to create favorable conditions for the formation of a full-fledged land market. In addition, it is also necessary to take into account the state of the economy as a whole, since it affects not only the activities of economic entities, but also the indicator of the solvency of the population.

At present, there is an urgent need to form the institutional structure of the agricultural land market, because the imperfection of the legislative provision of market regulation and the presence of hemisphere schemes can lead to negative socio-economic consequences. The leading role in this matter is played by flexible and efficient infrastructure support built on account of the specifics of the product (land plots), especially at the stage of market formation.

## CONCLUSIONS

Thus, the definition of the interconnection between the area of land and lease relations in agriculture in Ukraine with the main factors influencing them, gives an opportunity to calculate the probable trends of development of the basic parameters of this segment of the land market. An analysis of the current state and features of the land-rental relations in domestic agriculture has enabled the formation of medium-term scenarios for the development of this element of market circulation of land, which would allow to predict the development of land-rental relations, depending on market conditions. The primary factors in the development of land rental in agriculture are the abolition of the moratorium on the sale of land and the inclusion its in economic turnover.

The main obstacles to civilized leasing in the land sector remain: imperfect competitive environment among potential tenants of land; regulation of legislative requirements on the size of leased land at the legislative level; violation of the balance of interests of land rental participants in favor of tenants; inadequate and untimely payment for the use of land.

In general, the improvement of leased land relations requires the formation of a comprehensive system of their regulation, with strict adherence to it in the conditions of agrarian production and the adoption of a long-term government program for the development of lease in the agricultural sector.

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