

THE FEATURES OF THE FORMATION AND DEVELOPMENT OF AGRICULTURAL LAND MARKET IN UKRAINE

Roman STUPEN, Mykhailo STUPEN, Halyna DUDYCH

Lviv National Agrarian University, Ukraine, 1, V. Velykoho str., Lviv Region, 80381, Ukraine,
Phones: +38 067 33 27 875, +38 032 224 2962, +38 097 67 01 250; E-mails: romomas@ukr.net,
zemdek@ukr.net, dudych_g@ukr.net

Corresponding author: romomas@ukr.net

Abstract

One has determined that the successful formation and development of the market of agricultural lands depends on a combination of various factors, taking into consideration the successful development of the agrarian sector of the economy as a whole. One has considered all external and internal factors affecting the development of the market of agricultural lands. One has systematized these factors into four large groups: environmental, economic, social and legal ones. Ecological factors include the composition and type of soil, the level of contamination and the land user's environmental policy. Economic factors affect the price of land plot depending on its size and form, geographical location of the land plot, competition on the market and infrastructure development. The social group includes all factors that are in some ways connected with the social sphere. Legal factors are related to the relationship of the state, economic entities, and the population. One has revealed that the major component of the conceptual essence of the market is a market mechanism, which is a method of interaction between the seller and the buyer, based on demand, supply and price. One has substantiated that the long-term lease of agricultural lands will be the instrument of effective market development.

Key words: lands market, moratorium on agricultural lands sale, land lease, lands valuation, methods of land plots valuation

INTRODUCTION

The formation of the agricultural land market in Ukraine is an important process for a balanced development of the country, which will affect not only economic but also environmental and social indicators. The ambiguity of the position of the authorities regarding this issue (the intention to sell about 1 million hectares of land of state ownership and the simultaneous extension of the moratorium on land sales by January 1, 2020 [9], which contradicts Article 90 of the Land Code of Ukraine [7]) only emphasizes the need for the formation and proper development of the market of agricultural lands in Ukraine. The most essential criteria for the functioning of this market should be justice, transparency, and objectivity.

A significant problem of the present is the low level of people's trust in the government. The high level of corruption has contributed to the development of psychological preconditions in the minds of the population that the creation of a land market will lead to

indispensable shadow embezzlement of the largest Ukrainian national wealth – agricultural lands. In turn, it will further strengthen the polarization of Ukrainian people's incomes. That is, the successful formation and development of the market of agricultural lands depend on a combination of various factors, taking into consideration the successful development of the agrarian sector of the economy as a whole.

O. Hutorova [6], O. Hnatkovich [5], D. Dobriak [1], Y. Dorosh [2], A. Martyn [10], M. Stupen [12], M. Fedorova [3] paid special attention to problems related to the reformation of land relations and the formation of the market of agricultural land in their publications in the course of land reform in Ukraine.

However, one has not sufficiently studied many aspects of the functioning of the agricultural lands market. One can explain it not only by the multifaceted approach to the studied issue but also by the disclosure of new factors affecting the development of the land

market, which requires additional systematic research.

MATERIALS AND METHODS

The methodological basis of the research consists of a dialectical method of cognition, a systematic approach to the study of economic phenomena and processes, scientific and theoretical developments of Ukrainian and foreign scientists on the problems of the formation and development of the land market.

We are faced with the task of proposing mechanisms to form an efficient land market that properly performs its crucial functions.

One has applied some methods to realize the goal and to solve the problems of the research. They are the following ones: monographic (when developing scientific publications on land market

issues); system and functional (one has generalized theoretical and methodological aspects of the study of land relations, and determined factors influencing the development of the market of agricultural land, and studied the method of determination of the value of land plots).

RESULTS AND DISCUSSIONS

First of all, we must consider all external and internal factors affecting the development of the market of agricultural lands in order to fulfill our task. In our opinion, it is appropriate to systematize these factors into four large groups: environmental, economic, social and legal (Fig. 1).

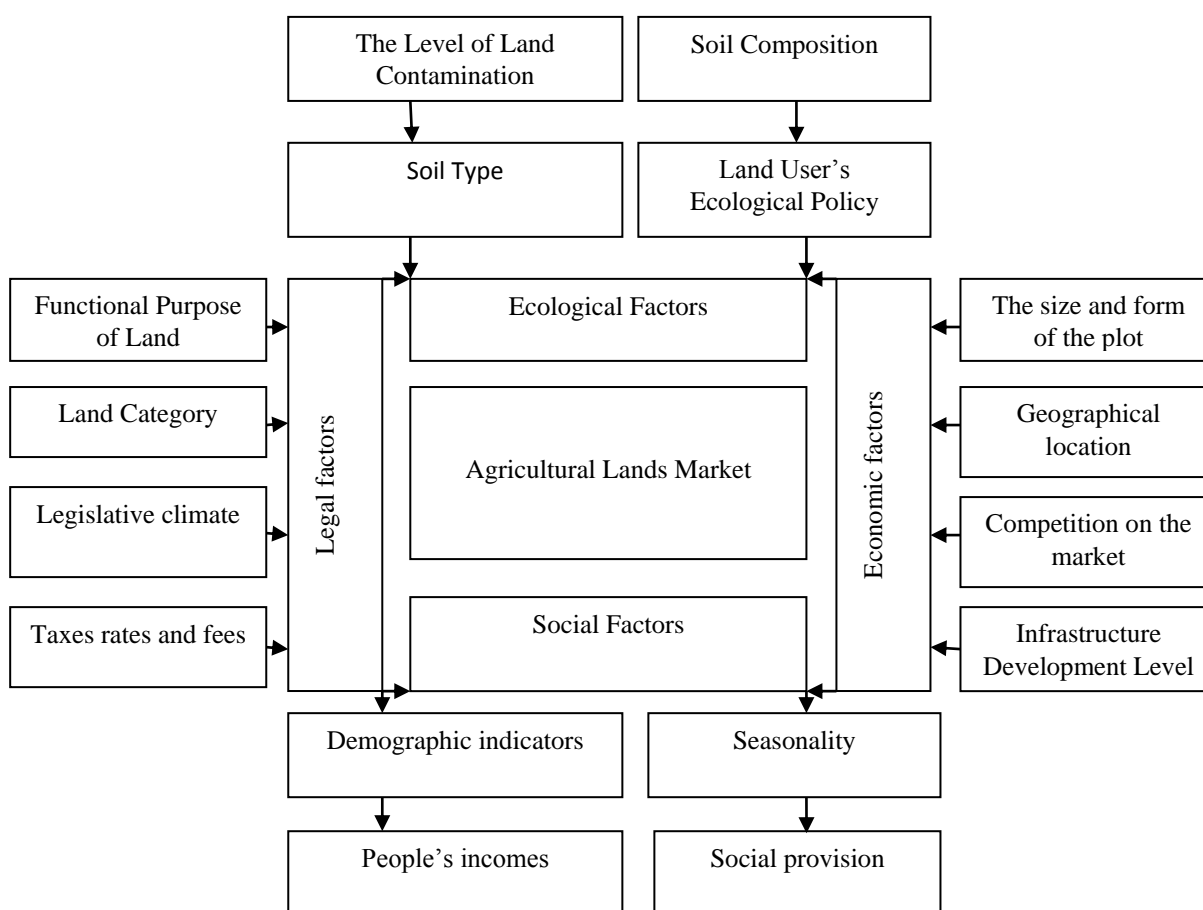


Fig. 1. Factors that influence the development of agricultural lands market in Ukraine.
 Source: it is done by the author.

Ecological factors. This group includes all factors that have an ecological component. The composition and type of soil, the level of contamination and the environmental policy

of the land user influence the level of demand and supply according to a particular land plot. Accordingly, one should pay more attention to such factors as contamination levels and land

user's policies. Two of these factors can be interpreted as the quality of the land before its use and the quality of the land after its use.

An essential factor in the formation of the price of land plot is the fact that when properly treated with land resources, they do not lose their value, as it happens with other material means of production. Despite this fact, there is a problem of land reclamation in Ukraine, because the owner or user of which is not able or does not see economic expediency in conducting reclamation works. Economic expediency of purification of contaminated lands can be done by the state, using financial incentive instruments. If land user's economic activity leads to deterioration of the soils, and since it concerns agricultural lands, it is impossible to avoid deterioration of the soil, then the environmental policy of the user will have a significant impact on the formation of the level of demand and supply on agricultural lands.

Economic factors. We consider that it is appropriate one can include those factors that directly affect the price of the land plot as one of the most important factors of influence on demand and supply to this group. Economic factors influence the land plot as a conditional unit, abstracting from the composition and type of soils or their contamination level. From an economic point of view, it is of vital importance only the amount of additional costs which will incur for land users when they use a particular land plot in their economic activity. The land user must ensure the supply of raw materials, equipment and labor to the plot, and the export of final products to storage depots in order to receive income. Thus, if the land user needs lesser additional costs or, in other words, the land plot is closer to the warehouses with the raw materials and final products, then one will observe the greater demand for this plot, and hence the higher price.

According to the Law of Ukraine "On land valuation" [8] and "Methods of expert monetary valuation of land" [11], there are several approaches to land valuation:

(i)an income approach, which means the capitalization of net income from the use of one or another land plot);

(ii)a comparative approach, which means a comparison of prices for land plots, similar in the context of indicators);

(iii)an approach to the balance of land, or an expenditure approach. The basis of this approach is the cost of accounting for land improvement.

All these approaches have their own specifics and peculiarities of the use.

The income approach is one of the best in the context of achieving the main objective of the business entity. One has determined the economic essence of such an approach by the calculation of the present value of future income, which arises in the process of this property implementation.

One has formed a comparative approach by comparing agricultural land with similar properties. This approach is based on the application of the principle of substitution, that is, the determination of land analogs. However, such lands have certain differences, which lead to a certain adjustment of these differences.

The expenditure approach is based on the recoverable value or the cost of replacing the land of the same utility by eliminating all types of deterioration. This approach is effective in the use of lands of special purpose [4].

Social factors. This group includes all factors that are in some ways connected with the social sphere, which supports economic activity with two most important components: labor resources and consumers of the final product.

In such an economically unstable time, as in Ukraine today, seasonality has a significant impact on the pricing of agricultural lands. Carrying out works necessarily depends on the temperature of the environment, the level of precipitation, humidity, etc. Under unfavorable conditions, an economic subject removes significant funds from economic turnover because of the slow process of getting income from their investments. For example, inflation was only 43.3% for the year of 2015 [1].

We divided the incomes of the population are distinguished in a separate category, since they have an influential impact on the

development of the land market and the formation of prices for land plots. They determine the percentage of potential consumers of final products directly near the land plot, which will affect, on the one hand, the cost of transportation and storage of final products, and, on the other hand, on the desire of the population to get a job. The land user should take into account that the costs of getting labor power from another region are significant. In addition, one will have to increase the payroll fund in order to encourage staff to work remotely from their place of residence.

Demographic indicators of the population include not only the general birth and mortality rates, but also the average age, life expectancy, sex ratio, the percentage of able-bodied people, the average level of education, etc. All these indicators will affect the availability of the land user to the required skilled workforce, significantly reducing future costs, unless it is necessary to equip the accommodation for staff in the sowing and harvesting periods.

Legal factors. In our opinion, one should include all factors that are related to the relationship of the state, economic entities and the population to this group.

Moreover, the state in the process of using

agricultural land can act in several roles: the seller of land provided that the gradual lifting of the moratorium, which is planned by the Cabinet of Ministers of Ukraine, land user due to the creation of state-owned agricultural enterprises, whose income will be transferred to the state budget, the lessee by transferring the right to use land together with all risks, thus obtaining a rent, the controlling and stimulating body by charging fines from violators of the legislation and providing incentives for farms that practice the balanced land use, and buyer of agricultural products due to the mechanism of public procurement.

We focus only on those aspects of the state activities that affect supply and demand in the established agricultural land market and stimulate its development. The most common tool for regulating the functioning of the agricultural land market by the state is the rates of taxes and fees.

We can note that agricultural land is a commodity with a completely inelastic supply. Since the amount of land that can be sold is strictly limited, that is why the price adjustment for agricultural lands is possible only as a result of changing demand on lands. Moreover, it is necessary to separate agricultural demand and non-agricultural one.

Table 1. The quantity and area of land plots where there were transactions in the sphere of market turnover of agricultural lands by regions of Ukraine, 2016.

Regions	Sale		Heritage		Exchange		Mortgage		Lease		Emphyteusis	
	Quantity	Area, ha	Quantity	Area, ha	Quantity	Area, ha	Quantity	Area, ha	Quantity	Area, ha	Quantity	Area, ha
Vinnitsia	2,966	1,892.9	23,557	75,931.7	96	478.7	25	7.8	11,348	569,242	948	1,668.8
Volyn	17	456.1	7,194	26,118.1	824	441.1	9	12.8	16,823	100,446	7	18.2
Dnipropetrovsk	3,263	1,786.6	1,232	84,494.2	726	573.1	29	17.7	52,227	390,002	1,212	4,128.4
Donetsk	799	1,032.5	7,666	56,435.8	93	1,737.5	1	7.1	33,136	399,332	967	2,867.1
Zhytomyr	213	899.6	16,546	49,983.0	12	459.6	1	4.2	6,573	378,931	152	411.4
Transcarpathian	1,524	557.5	197	3,468.8	811	269.0	6	1.6	5,383	6,899	159	141.8
Zaporizhia	27	1,442.3	9,166	89,353.7	1,223	1,353.8	9	433.4	33,936	415,494	86	4,151.1
Ivano-Frankivsk	1,189	579.2	9,774	20,622.5	1,256	315.4	521	30.7	45,328	136,498	3	5.2
Kyiv	13,956	5,816.8	2,723	52,931.5	4,281	2,619.9	8	7.0	79,812	495,892	818	1,716.8
Kirovohrad	228	2,613.9	1,124	117,364.0	4,177	5,577.6	2	13.8	47,886	532,615	11	4,401.8
Luhansk	339	211.5	5,271	33,458.9	78	24.0	27	7.8	25,695	269,846	74	517.6
Lviv	238	559.3	16,525	26,092.2	1,754	444.6	9	5.0	713	188,699	17	31.4
Mykolaiv	1,629	2,337.1	1,577	48,188.0	666	1,635.5	11	1.8	38,795	352,208	342	1,718.6
Odessa	2,472	1,315.4	15,571	75,926.3	679	291.4	11	4.4	684	343,706	1,438	4,198.6
Poltava	236	760.6	18,447	114,551.9	567	240.6	11	0.5	9,149	568,087	1,664	4,827.2
Rivne	1,417	255.5	11,514	48,428.2	826	210.4	4	23.4	4,295	91,389	56	162.4
Sumy	1,923	741.8	27,895	99,712.4	516	240.8	19	20.9	93,374	462,889	1,424	2,485.1
Ternopil	818	231.1	17,662	36,219.5	858	447.5	17	22.1	9,834	330,685	71	121.9
Kharkiv	3,686	3,260.8	1,321	93,778.2	99	1,566.4	12	21.4	52,112	462,711	721	2,293.2
Kherson	13	1,825.1	873	40,037.5	1,238	2,594.5	13	4.6	38,318	308,149	33	1,279.2
Khmelnytskyi	3,994	3,279.4	22,764	73,644.3	185	640.9	9	0.7	11,235	465,003	179	382.4
Cherkasy	2,256	1,570.1	1,759	74,057.1	1,446	1,522.9	3	0.8	88,167	524,475	89	2,123.5
Chernivtsi	125	359	6,635	11,480.0	1,529	527.4	3	1.3	21,713	69,282	721	564.8
Chernihiv	149	1,416.4	25,377	95,497.2	384	213.5	11	0.1	116,988	417,408	39	139.9

Source: It is formed according to the monitoring of Land Relations in Ukraine, 2016-2017.

One has given the results of the analysis of transactions according to the forms of market turnover of agricultural lands in the regional section of Ukraine for the year of 2016 in Table. 1.

Agricultural demand arises on those land plots that are suitable for the agricultural activity. It is a derivative of demand for agricultural production, which, in turn, is inelastic (that is, the volume of agricultural production will not decrease significantly with the increase of prices). Land as a commodity in the market has its own properties not only because of the total lack of substitute goods and the absolute inelasticity of the offer, but also because such inelasticity leads to “passivity” of land rent.

We propose to use the model of hedonistic prices to determine the market value of agricultural lands. One can use various factors of influence to estimate the value of agricultural lands, the choice of which, as a rule, takes place depending on the possibility of further interpretation of the results. Based on these criteria, one has chosen two functional forms for the empirical model of hedonistic research on farmlands prices in Ukraine. The first form is a standard linear econometric equation, and the second is the semi-logarithmic one. As a result, a linear econometric model for estimating regression parameters has the form:

$$PPST = \beta_0 + \beta_1 SIZE + \beta_2 BONT + \beta_3 DFCY + \beta_4 RPPC + \beta_5 ATWT + \beta_6 ATRD + u \quad (1)$$

where PPST – the price of land for the area of 100 square meters, SIZE – the size of land plot, BONT – soil quality, DFCY – distance from regional centre, RPPC – people’s income and regional economic development level, ATWT – access to water, ATRD – access to the road.

The semi-logarithmic econometric model has the form:

$$\ln(PPST) = \beta_0 + \beta_1 SIZE + \beta_2 BONT + \beta_3 DFCY + \beta_4 RPPC + \beta_5 ATWT + \beta_6 ATRD + u \quad (2)$$

where $\ln(PPST)$ – natural logarithm of the price of land for the area of 100 square meters.

The increase or decrease in the price of land, and consequently the change in the size of the land rent does not affect the supply, while the change in the price of “ordinary” goods either leads to an increase in the offer, if the price increases, or producers decide to reduce the offer of some goods provided that the price is reduced.

However, in spite of the above-mentioned information, if one considers a micro level, then one may not follow the rule of absolute inelasticity of the supply. It can happen when there may be more landowners who are aiming to sell their land plots than real buyers of these land plots in a certain region. In this case, the excess supply over demand will lead to the lowering of prices for land.

One should always take into account such a property of agricultural land when forming the land market in Ukraine.

CONCLUSIONS

Until an integral market of agricultural lands in Ukraine is in the stage of formation and gradual implementation. Long-term lands leases instead of land purchase transactions occupy part of the market. And even after one lifts the moratorium partially or completely, the key to effective market development will be to improve the mechanism of lease relations, which has a number of shortcomings.

That is why the process of determining the size and reimbursement of losses when the tenant does not fulfill his lease obligations, the ongoing control over the activities of the lessee and the process of insurance of risks in the transfer of land as an asset in the lease.

One should concentrate the further development of lease land relations in the context of solving the issues of forming a competitive environment, working out mutually beneficial rules of the game between the subjects of the lease agreement, establishing the optimal size of the lease, forms of its payment, terms of lease, compliance with the parties contractual obligations, conservation and rational use of leased land, development of mechanisms for

attracting middle and long-term leases by tenants, improvement of land legislation.

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