

LAND PRICE AS THE MAIN FACTOR OF THE AGRICULTURAL LAND MARKET EFFECTIVE FUNCTIONING

Anatoliy Danylenko¹, Oleksandr Shpychak²

Bila Tserkva National Agrarian University¹

Department of public administration and international economics¹

pl. Soborna 8/1

Bila Tserkva Ukraine

National Science Center "Institute of Agrarian Economics"²

Department of pricing, competition and market infrastructure²

Str. Heroes of Oborony 10

Kyiv, Ukraine

e-mail^{1,2}: kafzovnpolit@ukr.net, svitlana_pashko@ukr.net

Abstract

The article aims to justify the methodological approaches to determining the land value, to systematize deterrents and incentive factors of a civilized land market formation in Ukraine, and to predict the tendencies of the market development under lifting the moratorium on land purchase and sale in Ukraine.

Keywords: *agricultural land price, expert money and normative appraisal mortgage*

JEL classification: *Q15, E37*

1 Introduction

Land pricing issues are of particular relevance in the period of land market formation and development as land becomes one of the main sources of profit under market conditions. Not any purchase act - land sale, lease, exchange and mortgage can be made without the price. Determination of the price is necessary in the land plot handing down by inheritance, feoffment, determining the contribution rate of an enterprise fund, establishing the size of the land tax, etc. Therefore, solving the problem of land pricing influences the performance of the land market functioning.

2 Data and Methods

The author used official statistics data, consulting institutions data and own research while conducting a survey of land shares owners; the data processing was carried out by economic and statistical research methods.

3 Results and Discussion

In modern society, the views on land ownership are polar: from a complete denial to an unappealable affirmation. In an open letter to Mykhailo Gorbachov Nobel prize winners in the field of economics Franco Modigliani, James Tobin, Robert Solow recommended to preserve the public ownership of land in the Soviet Union and to form state revenues through the abolition of rent for land usage [1]. Henry George formulated this opinion in the paper "*Progress and Poverty*" in 1879. A person has a natural, inherent right to the land, and all citizens have equal rights to that part of the land that is associated with its natural properties. H. George's ideas were actively supported by Leo Tolstoy, who wasn't accepting both the right to ownership of man (slavery, serfdom), and the private ownership of the land, because it is the property of all mankind. In the letters to Peter Stolypin, he repeatedly called for listening to the teachings of H. George [2].

The philosophy of Tommaso Campanella has the idea of a society in which there is no private property, and not only on the land [3]. At the same time, most countries of the world have solved the issue of the ownership in favor of the private land, as well as buy and sell agricultural lands. State ownership of land exists only in a few countries, including Israel, where 91 % of the land fund belongs to the state.

Supporters of the private land ownership advocate its expediency because it is one of the driving forces of economic processes because of the action of the entrepreneurial resource of man. In our opinion, the most convincing example of this statement in Ukraine is the functioning of garden (cottage) areas, usually in the size of 0.05-0.07 ha. At the same time, the size of the lots is adequate to the level of technological weaponry of the owners, which determines their effectiveness. As the experience shows, the effect is much lower with a significant increase in the area of land and the same technological equipment. Nowadays, at the expanse of the private ownership people have made with their work created an oasis on hundreds of thousands of privatized lots, which are most often parceled on "unfavorable" lands. In the case of creating collective gardens on these lands, which would combine, for example, hundreds of garden lots, such an effect could not be achieved. At the same time, we agree on the fact that the coordinated work of the

group of people is more productive given the high level of their consciousness and self-organization, which is proved by an example of Kibbutz in Israel.

Among the reforms implemented in the domestic agricultural complex, land is the most complex and responsible one. This is due to its profound social significance and methodological and technological peculiarities of implementation which does not allow errors that are much more difficult to eliminate than reform, such as pricing, taxation, lending, customs tariffs, quotas, etc.

Unfortunately, private ownership of land in Ukraine has not yet provided the desired economic effect. Currently, the production of agricultural products at comparable prices in 2010 per unit area didn't reach the level of 1990 in 2015. To a large extent this is due to the lack of proper economic environment and material and technical equipment of owners in accordance with the size of allocated land shares. An effective owner should provide performance that would significantly exceed the size of the rent, which in 2016 was 10.3% in the structure of production costs. This is the essence of the economic transfer of land to an effective tenant, or owner.

In order to provide the extremely necessary investments into agriculture due to layland, which will allow to increase the efficiency of the industry by two-three times, it is predicted to introduce land buying and selling. Consequently, supporters of the immediate introduction of the land market sees it as the main lever of agricultural development, and the obstacle on this path is the lack of necessary legislative acts. By sharing this concern, we believe that this is a very important, but not a major obstacle to the land market.

It is necessary not only to adopt the necessary laws, but also to implement them, to create an appropriate moral environment in the village, to teach people to use these legislative acts knowingly, especially in the context of existing corruption and the fact that among the tenants about 60 % are pensioners. Without taking onto consideration these features, we expect very big difficulties. The term of calling off of moratorium is repeatedly postponed. Today, it is again delayed. Land inventory is not yet completed, land for its owners is not allocated everywhere in kind, there are no substantiated forecasts regarding the price level for agricultural land when the moratorium is called off, it is not determined what quantity of land will be offered for sale, etc. Thus, there is a paradoxical situation in the country, when the moratorium on land buying and selling did not eliminate the corruption schemes of underground facilities, and at the same time, it was not prepared for the moral and economic environment for the introduction of a free market. Independently, neither a moratorium on land nor a free market will not fulfill this function. In Ukraine, first of all, it is necessary to eliminate corruption,

reform the judicial system, to ensure a transparent process of land movement from less efficient landowners and land users to more efficient.

Thus, it is not entirely correct to ask – are you for the land market or against? Introduction of the market is not an end in itself. The consequences of introducing the land market should be predicted. If they are positive - then "for" the market, if negative - then "against" the land market.

Society and villagers are primarily concerned about the consequences of calling off the moratorium on land buying and selling. Will lay land become a powerful source for attracting much-needed funds into agrarian production? Will millions of tenant villagers profit economically from the full-scale functioning of the land market?

The answer to these and other issues related to this problem should be given even before the moratorium is called off, in order to prevent the negative consequences that accompany the under-weighted reforms in the economy of the country and especially in its agricultural sector.

The topical issue among all others is – what will be the land price after calling off the moratorium? Without knowing what could be expected in the near future, it is impossible to give a fairly reliable answer to any of the questions raised. In this regard, care should be taken to call off the moratorium, without predicting its consequences, and, above all, the price at which the buying and selling of land will be carried out and how much land will be offered for sale. Without clarifying these questions, it is not appropriate to do this.

We suggest the following approaches to determining the price of agricultural land.

The first option involves the use of questionnaires. Ukraine should conduct a thorough investigation to determine the estimated impact of calling off the moratorium on land sales. Thus, under the guidance of O. Shpychak thirteen years ago (in 2004 before the anticipated calling off of the moratorium in 2005) scientists of the Department of Economics and Land Relations of the UAAS (with the participation of O. Stratilata, N. Bunyak and others) developed a technique of forecasting the land price and its movement in case of cancellation of the ban on the sale of land parcels, which included a questionnaire and a memo to fill. The objects of the survey were determined by three village councils in each region of Ukraine and in the Autonomous Republic of Crimea. Village councils were chosen according to the level of land usage in the region: better, medium, worse. The total number of respondents was 55 – 60 thousand owners of land shares. The key to success was that nearly 100 employees from 25 regional research institutes of the National Academy of Sciences of Ukraine, who had family ties or worked on the territory of the respective village council, were involved in the

survey, which ensured the trust of the respondents and ensured the objectivity of the data received. The questionnaire was anonymous, but signed by the person who conducted the survey. A seminar was held with the employees designated for the questionnaire, forms of questionnaires and memorandum were submitted for their completion.

Among the 27 questions of the questionnaire were questions, whether the owner plans to sell or buy land, how much and at what price? As a result, about 12 thousand questionnaires were collected. An extremely important and compulsory point was that the questionnaire was carried out by people who had the trust of the respondents in land as a unique mean of production, which is essential for the collection of objective information, since the land issue is especially important for villagers. As a result of the survey conducted in seven regions of Ukraine at that time, there were only 3 % of respondents who were ready to buy a land parcel, while the share of willing to sell it was 14%. That is, the difference between the probable supply and demand for land was about 4.7 times.

The gathered information in questionnaires provided an automated processing. The costs of the questionnaire were calculated, and it was necessary to allocate only 200 thousand UAH. However, these funds were not allocated and the work was suspended, and for more than ten years only discussions have been ongoing.

It should be noted that in the United States for the service of market news every year it is allocated from the budget about 21 million dollars. And we continue to admire the fact that the US effectively manages the agribusiness, knowing that the one who owns the information owns the world.

The absence of minimal funding in our country for the gathering and processing of this information concerning the fateful problem leads to the conclusion that the conclusions are made without proper justification.

In different periods of time, unsystematic surveys were conducted in the form of surveys on the land market. So, for example, according to the Association of Ukrainian Agribusiness Club the poll in 2010 showed that among 460 heads of large and small agricultural enterprises in 22 regions of Ukraine 50% of respondents were against the market of agricultural lands, 12% – for entering it in 2012-2013, 30% – for entering the market in 3-10 years, 3% – not determined. In 2017 in the framework of Agrinvest Forum there was conducted a survey of 420 agricultural producers (with a land bank of 2.7 million UAH) on the necessity and consequences of the opening of the land market. Among the respondents, 48.4% expressed their support for the gradual opening of the land market, starting with the lands of state and communal property, and for calling off of the moratorium after 2021 19.6 %. When asked if your company has a means to purchase land, only 20.4 % responded positively.

There is no official data on the price level of land, and the existing single items in publications and speeches vary widely - from a dozen bottles of vodka per share to 10 thousand dollars US for 0.01 ha in the suburban area. In the media from time to time there is unsystematized information that the cost of 1ha of agricultural land in Ukraine will be at most 15 thousand UAH (H. Novak), and T. Gagalyuk claims that it will cost no more than 5 thousand UAH per 1 ha. According to O. Nivievskiyi the price for 1 ha of agricultural land in the Transcarpathian region amounted to 1,500 UAH, and in Kirovograd – 5500 UAH.

For the sake of fairness, it should be noted that the establishment of land prices by questionnaires has a certain disadvantage. As a result of the survey, the seller is naturally inclined to overestimate the sale price, and the buyer is accordingly underestimated.

However, we can not agree with the opinion of some experts that we will determine the price of land already on the fact of its buying and selling. Note that in the world practice, even the traditional markets for agricultural products and food (wheat, sugar, milk, meat, etc.) are expected to annually to carry out analytical work and to determine the forecast price level. Then why do we refuse to forecast the prices on such important and unique product as land? After all, unlike agricultural land, traditional and agricultural products in next season will renew, in which case the price situation is automatically coordinated. In the case of land sales, errors can not be allowed because they can cause social disturbance. However, it does not at all say that it is not necessary to foresee the prices for land, and that this work should be carried out extremely carefully and in several methods.

The land is a special product, and in the macro-economic aspect it has an absolute inelastic proposition. The land is absolutely limited, and society can neither short- nor long-term offer more land than it exists at all. There is a famous Mark Twain's saying: "Buy land – nobody produces it anymore". Land prices are constantly rising. So, in the US the price of 1 ha of agricultural land tripled in 2016 compared to 1999.

The problem of the land market must definitely be considered through the prism of the land price, without which the market cannot exist at all. In addition to determining the price by means of a questionnaire, we will also consider two options for predicting land prices before calling off the moratorium on land sales.

The second option. The methodical approach for determining the price of land, which is based on the theoretical principle of a direct link between an existing rents and the price of land. In world practice, the land price is determined by the capitalization of the rent by dividing its value by the discount rate. The level of the latter in the developed countries of the world varies within 3-5 % and depends on the interest rate on the use of capital.

It should be noted that there is a way of determining the price of land through the capitalization of conditional net income per hectare of agricultural land. Our research has found that the usage of such an approach in the present conditions of Ukraine is not without certain methodological difficulties. Therefore, the methodological principle of the formation of land prices through the capitalization of the value of rent remains more acceptable.

It is expedient to capitalize the rent on the interest rate (coefficient) for saving cash on the deposit account. A rational landlord agrees on the amount of annual rent, the lower limit of which is equivalent to interest income from saving cash on a deposit account in a bank in an amount equal to the price of 1 ha of land leased out. The connection of these quantities was spoken by W. Petty in the paper "Economic and Statistical Work" in 1664 [4].

Taking into account the above formula, the calculation of land prices for this methodical approach is the following:

$$P_3^{(x)} = Rp : Ird \quad (1)$$

Where Rp – rent price; Ird – interest rate on deposits, coefficient [5].

The advantage of the proposed approach is the availability of information and simplicity of calculation. Based on the above theoretical and methodological approach, we will calculate the price of agricultural land, assuming that it is already allowed to buy and sell this resource. Yes, in 2015 1 ha arable farms Ukraine got in 1176 UAH of rent price (Table 1). So, the price of 1 ha of arable land due to the capitalization of rent deposit rate at 15% annual (1176: 15x100) will be 7843 UAH or 280 dollars USA. It should be noted that in the regions this indicator has a rather large variation. Thus, in 2015 the minimum estimated price level of 1ha of arable land was 5,018 UAH in Zakarpattya and 5044.4 UAH – in Volyn, maximum – 14769,2 UAH – in Cherkasy and 12033 UAH – in Poltava regions.

As we can see, the land price is low, and without significant increase in the efficiency of agricultural production, its level cannot objectively rise.

Table 1 Calculation of the price of 1 ha of arable land in regions of Ukraine in 2015

Administrative and territorial units	arable land total, thousand ha	Out of them leased, thousand ha	The share of leased arable land in its total amount, %	Rent price 1 ha of arable land, UAH	The share of rent price in the production costs, %	Price 1 ha of arable land (through capitalization of rent price), UAH
Ukraine	16166.1	15507,2	95.9	1176.5	8.8	78 43.2
Vynnytsya	903.6	880.0	97.4	1452.1	7.6	9680.9
Volyn	182.4	173.1	94.9	756.7	3.2	5044.4
Dnipropetrovsk	1081.1	1033.4	95.6	1030.5	8.2	6870.2
Donetsk	674.7	660.6	97.9	796.5	8.4	5309.7
Zhytomyr	432.8	408.9	94.5	840.0	7.0	5599.8
Transcarpathian	16.2	3.6	84.0	752.7	2.0	5018.0
Zaporizhia	977.3	932.0	95.4	944.1	11.6	6294.0
Ivano-Frankivsk	132.5	131.4	99.2	918.5	4.3	6123.5
Kyivska	940.9	908.8	96.6	1667.7	7.6	11118.1
Kirovograd	980.4	931.2	95.0	1195.2	12.2	7967.7
Lugansk	539.7	529.3	98.1	803.7	13.3	5358.1
Lviv	235.2	229.2	97.4	1128.8	5.6	7525.1
Mykolaiv	828.3	784.8	94.7	985.6	9.8	6570.7
Odessa	1142.6	1100.5	96.3	802.3	9.7	5348,9
Poltava	1155.9	1130.7	97.8	1804.9	12.0	12033.0
Rivne	228.3	213.6	93.6	1112.4	6.7	7416.2
Sumy	779.2	757.0	97.2	1018.6	8.9	6790.4
Ternopil	440.1	439.3	99.8	1125.3	7.4	7502,2
Kharkiv	1062.8	985.1	92.7	1116.0	9.6	7440.0
Kherson	733.8	691.4	94.2	794.9	9.0	5299.0
Khmelnytsky	704.1	693.5	98.5	1422.5	10.0	9483.2
Cherkassy	772.5	739.9	95.8	2215.4	9.8	14769,2
Chernivtsi	105.8	102.2	96.6	1170.9	8.0	7805.7
Chernihiv	906.8	882.2	97.3	952.6	7.5	6350.8

Source: According to the statistical bulletin "Basic economic indicators of production of agricultural products in agricultural enterprises for 2015".

In order to satisfy the credibility of the proposed approach, we have calculated the price of land in the US through the capitalization of their rent and a comparison of the estimated and current (factual) price of land in the United States (Table. 2). Deviations from these prices were detected in 2010 and 2014 within the acceptable level (2.4–18%). It should be emphasized that the first attempt of methodical study determining the price of land were made by W. Petty, according to him the cost of land equals to 18-21-year rent.

Table 2 Pricing of 1 ha of arable land in Ukraine and the US

Indicator	2010	2015
Ukraine		
Deposit rate %	15	
Rent price, UAH	316	1176
Land price, UAH	2107	7843
Indicator	2007	2013
USA		
Deposit rate%	5	
Rents, US. USA	192	415
Estimated price of land, USD. USA	6400	8300
Factual price of land, USD. USA	6253	10130
Deviations of the factual settlement price %	2.4	18.0

An extremely important factor in the formation of the low price of land in Ukraine is too high interest rates on credit which for agriculture is 26 % and the rate for the money on deposit for a period of 1 year or more – 15-17 %, which makes the high price of land in our country impossible.

Third option. Calculation of the price land forecast based on the purchasing ability of the population.

We have made an assessment of opportunities to purchase 1 ha of land on the basis of wages in Ukraine and, accordingly, in the developed world, where the land market is functioning.

This methodical approach involves determining the number of months salary in advanced countries which are needed to purchase 1 ha of land in the native country and then move the number of months in terms of Ukraine (for real this salary) and define thus the predictable the price for 1 ha of land. As the example in France, it will be 576.2 dollars. USD, or 13 times less than in France. In addition, we determined the number of months that a Ukrainian should work to buy 1 ha of land for the price of France – 38.8 months, or almost 14 times higher (Table 3).

Table 3 **Indicative pricing of land in Ukraine due to land value and salary**

Country	Salary, USD. USA	Land prices in USD USA for 1 ha	First sale of land	Number of months necessary to work to buy 1 ha of land
Germany	3492	11600.6	2013	3.3
France	2682	7453.0	2012	2.8
Czech Republic	1262	3137.2	2009	2.5
USA	4400	10130.0	2013	2.3
Ukraine	192	576.2	2015	3
Ukraine compared to France %	7.1	7.7	x	x
The number of months required to purchase Ukrainian 1 ha of land in his factual salary and the factual price of land in France (accordingly for a Frenchman to buy land in Ukraine 14 times less)				38.8

An important factor that determines the low price of Ukrainian land is a weak competitive environment in the land market by Ukrainian buyers who directly live on their land due to their extremely low purchasing ability. It is well known that the rural population does not have free cash as salary among the lowest in material production country and even falls far short of the average salary in Ukraine. Thus, most of the villagers of working age not in a position today to buy land and expand their production [5, 6].

With such low prices on the land market may receive a significant portion of the wrong buyers who purchase it not for further use in agriculture but for profitable savings with a firm conviction that the land in the future will certainly be valued highly. This method is forced by the country due to high inflation and exchange rate instability.

When calling off the moratorium on land sales must conceptually define what we want eventually.

We have considered the following options.

1. If strategically anticipate the development of farming in the Ukraine, which, in our opinion, is the most reasonable option, you should take a position on the purchase of agricultural land by persons of Ukrainian nationality who live or operate within the territorial unit where the land area. In this case the owner of the land is fully interested to participate in improving the welfare of the

local community, rural development, environmental security, solving social problems of the people who live there and so on.

2. However, the downside is that under current conditions of Ukraine the low solvency of potential buyers within the local community the land price, unfortunately, will be low. The result will not have a desirable investment growth.
3. Subject to the right to purchase agricultural land to persons of Ukrainian nationality who do not necessarily reside within the local community may be threatened by the development of farming. However, there could be the rise of the number of paying customers compared to the first version of a land price, the amount of funds in agriculture in Ukraine. There is also the danger that the owner could care less about environmental and social problems of the territory where the land is located.
4. Subject to the right to purchase agricultural land to people with foreign citizenship, land prices in Ukraine most move toward the world level compared to previous versions. In this case, you can expect a substantial increase of investment in agriculture, introduction of innovative technologies of the best world level, significant growth rates of production of certain products, the most profitable in the world market. However, under these conditions, there is a high threat of loss of statehood of Ukraine and its transformation into a raw material appendage of the world market, etc. [6].

Today on the land market there is a practice contract to use the land for 49 years and pay rent in advance. With average rents in 2015 1176 UAH this amount will make 57624 UAH or 2216 US dollars. Certainly for farmers in today's environment, this amount is greatly appreciated. However, analysis of the dynamics of land prices in the world in retrospect shows that there are significant growth of land prices. Particularly in France during 29 year period (1985-2014 years) the price of arable land increased from 3263 to 5940 euros per 1 ha , or 1.8 times. In Poland for 24 years (1990-2014) the increase was from 224 to 7723 euros per 1 ha or 34 times. Accordingly, there have been growing rents for the land. So, no doubt that for the tenant a subject of paying the rent in advance in the amount fixed as the contract is attractive, but we believe that the land owner in this case are significant losses.

It should be noted that the entry of Ukraine on the land market should not be an end in itself. The aim should be benefits that farmers and the state receive as a result of its functioning. Today it is necessary to define the conditions under which the introduction of the land market will give the desired result.

Ukraine, as most former Soviet republics, held deep transformation of the existence of a free land market in times of Stolypin's reforms to state ownership of

land in the former Soviet Union. Today Ukraine is again before the opening stage of the land market. It should be noted that such transformations were accompanied not only by economic but also significant changes in the psychology of farmers.

Particular attention should be paid to the experience of Ukraine of early twenties about the functioning of land markets and providing loans for its purchase, availability of appropriate land banks. It should be noted that the purchase of Ukrainian lands happened because Peasant Land and state banks. In 1901-1911. Purchase price of 1 ha of land in the provinces ranged from 150 rubles (Tavria) to 246 rubles (Poltava). In particular, the Kiev province 1 ha of land could be bought for 210 rubles, which was adequately a value of 3 tons of wheat, or equal equestrian payment working for 5 months. In addition, the ground could lay in the bank for a loan (Table 4). This was done by the noble state land bank, Peasants' Land Bank and private banks. The amount of land planted bail in 1912 was 55-80 % of the total private land ownership. Moreover, the mortgage amount was 60 % of the assessment laid down the ground. Assessment of land planted as of 01.01.1912. in provinces ranged from 161 rubles (Bessarabia) to 62 rubles (Volyn). Note that among the mortgage there dominated the land that was re-mortgaged and that was potentially dangerous, since shows a danger of losing their own land. Thus, in 1910 in all mortgaged lands the amount of remortgaged was 63-94 %. It should be noted that the assessment of 1 ha of land received as a bail for 20 years increased by 2-3 times. In addition, the Peasants' Land Bank provided a loan for the purchase of land. The largest number of loans allocated to households (80-90 %), but compared to their volume of loans to companies, was much greater, resulting in the amount of land bought in recent amounted to 60-80 % of the total land sales [7].

Based on the obtained results of the study we can conclude that without a substantial progress in improving the efficiency of agricultural production price of 1 ha of arable land in Ukraine is quite low.

For the low price of land dubious inclusion into the resource market economy in order to obtain significant working capital through the land as collateral. This is due to certain reasons. First, the bank may give bail amount of money within only 50-60 % of the value of the mortgage. Secondly, the farm leased land is 97 %, and its pledging is problematic. A widespread view on the use as a mortgage the lease rights, but that as the functioning of the State Land Bank requires extensive research. The experience of Poland, Czech Republic, Slovakia and other countries where security of land is not common.

Our predictions for low market prices for Ukrainian land are shocking. However, this risk is less than euphoric expectations of Ukrainian land prices at the

level of advanced countries. With the high prices we will overcome easy, but with the low prices it will be problematic.

Extension of the moratorium on sale of agricultural land, in our opinion, gives Ukraine another chance to implement at national level these essential steps:

- through economic instruments of macro level to create favorable economic environment for the development of agricultural production where the farms will be able to significantly improve the efficiency of production;
- introduce a program of long-term concessional lending able-bodied farmers who intend to buy land to create its agricultural business or expand existing in their agricultural production;
- after calling off the moratorium on land sale it must be established a minimum price for it below which agreements of sale of this resource could be recognized invalid;
- now it is not necessary to allow foreigners at the domestic land market, although this may increase the actual price of 1 ha of agricultural land to 7000 dollars. USA. In particular, the Chinese authorities have included in their time accumulating 60 billion USD for the purchase of Ukrainian black soil in case of cancellation of the moratorium on sale of agricultural land;
- to prevent land speculation should set a deadline within which be prohibited the resale of purchased property in land and in violation of this term to define the extremely high taxes on profits from the difference between the sale price of the land and its purchase;
- systematically explore the land movement on the market and the expected level of prices, using the proposed approaches to predict movement of land and its price.

This should provide the appropriate means and in any case not to skimp on this issue.

Table 4 Number of individual land in private ownership, private ownership debt in January 19121, the value of 1 ha of land mortgaged and the amount of loans (the provinces of Ukraine)

Provinces and region	The total amount of land, thous. ha	Number of individual land in private ownership, thousand. ha	The proportion of land private to all personal property, %	amount of land mortgaged in thousand. ha	Relation of mortgaged land to total private land ownership, %	Assessment of land mortgaged, million rubles	Amount granted loans - primary and secondary, million rubles	Remaining debt on January 1, 1912, million rubles	Value of 1 ha mortgaged land, rubles	The size of loans of 1 ha of mortgaged land, rubles
Bessarabska	4191.5	1810.1	43.2	1374.6	76	201.5	122.6	113.6	147	89
Herson	7039.6	3741.0	53.1	3050.2	82	375.7	214.7	195.4	123	70
Tavria	5748.1	3023.2	52.3	1657.3	55	165.8	96.2	86.8	100	58
Yekaterynoslavs'k	6089.1	884.4	14.5	2265.3	74	240.4	146.6	136.4	106	65
Kiev	5053.6	2287.1	45.3	1591.3	70	200.5	127.8	121.6	126	81
Podolsky	3997.2	1777.0	44.5	1427.5	80	207.6	132.1	125.5	146	92
Volyh	6308.9	3082.2	48.8	2314.5	75	152.2	94.6	90.9	66	41
Kharkov	4915.5	1757.9	35.8	1254.2	71	169.0	112.6	107.7	135	90
Poltava	4645.5	2189.4	47.1	1435.6	66	204.5	134.6	127.6	143	94
Chernihiv	4792.0	1995.4	41.6	955.4	48	79.0	54.5	51.7	82	57

4 Conclusions

The issue of land pricing is complex and multifaceted, its solution requires functioning a transparent land market. It is proved that establishing an appropriate pricing system which takes into account the economic and political situation, inflation level, social policy, competition level in the land market, in the development of the land market in Ukraine is an important part of the state regulation of land pricing. This will ensure a competitive environment on the land market, stimulating land rational use and protection, satisfying public interests, objectivity and legality of the assessment, introducing into practice the assessment of international norms and rules, increasing revenues to the state budget, legality of the land dealing market.

References

1. BENKS, R. (1991). Public welfare and private profit. *Ekograd*, p. 42-47.
2. DZHORDZH, G. (1896). Progress and poverty. Retrieved from: <http://land-question.narod.ru>.
3. KAMPANELLA, T. (1620). City of the Sun. Retrieved from: <http://lib.aldebaran.ru>.
4. PETTY, V. (1940). *Economic and statistical work*. State socio-economic publishing house.
5. SHPYCHAK, O. M. (2003). The theory and practice of forming the price of agricultural land. *Agroinkom*, p. 3-4, 33-40.
6. SHPYCHAK, O. M. (2017). *Theoretical-methodological and practical bases of pricing: monograph*. Komprynt.
7. SHPYCHAK, O. M. (2000). *Agriculture of Ukraine in the beginning and at the end of the twentieth century*. Kyiv: IAE.