“Financial mechanism of state land regulation in Ukraine”

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The paper is devoted to research of existing variants of land reform in Ukraine towards cancelling the moratorium on the sale-purchase of agricultural lands. The authors prove that the financial function of the land is realized insufficiently, which is connected with the absence of open land market and ineffective functioning of state land regulation financial mechanism. The aim of the paper is to substantiate the directions of state land regulation in Ukraine on the basis of evaluating the economic effect of cancelling the moratorium on the sale-purchase of agricultural lands. The authors analyzed three most likely variants of land reform at the current stage of Ukraine’s economy development, and calculated economic effect from its implementation. Based on the calculations, conclusion is made about the feasibility of gradually cancelling the moratorium, which corresponds to third variant under study, which is offered to be implemented in two stages: 1) sale of state and community lands; 2) sale of private lands. Economic effect of implementing such a variant, calculated by the authors, gives a possibility to create additional annual cash flow to local budgets in the amount of 68-83 %, which is more than the revenue of other variants described in the paper. It is proven that for possibility to put the variant offered into practice, it is necessary to observe some prerequisites (organizational, financial, legal and regulatory), valuation of which enabled to offer the directions to improve state land regulation, the realization of which would favor the full functioning of agricultural land market. 

**Keywords:** moratorium, state regulation, agricultural lands, economic effect, land reform, financial mechanism.

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**Introduction**

In the conditions of continuing the moratorium on the sale-purchase of agricultural lands in Ukraine, the formation of land reform directions is of particular importance. It is due to the fact that land is a specific resource, which is characterized by irreproducibility and restraint. Commonly known fact is that land properties are realized through the respective functions (ecological, social, political). Probable transformation of land resources into full commodity and their inclusion into commodity-money turnover enable to substantiate the presence of land’s financial function, which is realized insufficiently in conditions of acting long-term moratorium on sale of agricultural lands. As statistical data show, today, because of moratorium, 96 % of agricultural lands are out of the market, which not only contradicts the common sense and successful practice of land reforms in foreign countries, but also hinders the processes of economic transformations in Ukraine. Definitely, effective realization of land’s financial function in conditions of cancelling the moratorium requires effective state regulation and control of land relations transformation. Along with this, state policy in the sphere of land relations financial regulation must be aimed not at land speculation as a result of buying and selling it, but at getting additional economic effect both for the state and land owners. In the context of the abovementioned issue, cancelling the moratorium on the sale-purchase of agricultural lands is relevant and significant.

**1. Latest research and publications analysis**

Fundamental works of the significant number of scientists are devoted to the research of prerequisites of possible positive and negative consequences of cancelling the moratorium on the sale-purchase of agricultural lands. In particular, the issues of formation of land management financial mechanism, development of methods, principles, forms of state land regulation are studied deeply at different historic stages in the works of Varlamov, A., Komov, N., Shaminaev, V. (1998), Sabluk, P. (2006), Zhuk, V. (2008), Fedorov, M. (2009), Fedoriuk, M., Timokhina, O., Dubel, I. (2011), some aspects of land valuation and formation of land rental were studied in the works of Palekha, Yu. (2011), Steblanko, O. (2015), Tretiak, A., Dorosh, O. (2006), Guzar, B. (2009), issues of land taxation – in the works of Tulush, L. (2010), Danylyshyn, M.V. (2011). The fundamental work of Posterman (Posterman, 1987) was devoted to issue of interrelation between land reform and democratic development. Some aspects of land reform in the context of increasing living standards of rural population were deeply studied by Ghonemy (Ghonemy, 1984). Directions of land relations
development in Eastern European countries were studied in the work of Renee Giovarelli and David Bledsoe (Renee Giovarelli, David Bledsoe, 2001). At the same time, multidirectionality of scientific views concerning the possible variants of land reform in Ukraine, valuation of directions to get economic effect from their implementation, formation of financial mechanism for state regulation of cash flows connected with land resources requires additional scientific researches and shows the urgency of the topic of the paper. 

The purpose of the paper is substantiating the directions of state land regulation in Ukraine based on assessment of the economic effect of the moratorium cancelling of agricultural lands sale-purchase.

2. Key research findings

In the Ukrainian laws, land is identified as a territorial basis, natural resource and main means of production, i.e., is a multifunctional category, as it performs ecological, social, political and financial functions. Through the payment of land charge, land acts as main source of budget revenue and economic growth of some regions. Realization of land financial function stipulates the formation of the corresponding state land regulation financial mechanism, under which we will understand a set of financial methods, instruments and controls of financial resources, which are designed to harmonize the interests of the subjects of land relations. The offered structure of mechanism is presented at figure. 1.

Fig. 1. Financial mechanism of state land regulation
Assessing the functioning of components of state land regulation financial mechanism shows the ineffective realization of land financial function in the conditions of the current moratorium. The disadvantages of regulative and ensuring components of the presented mechanism are defined fragmentarily and are as follows: priority of administrative mechanisms of land relations regulation over economic ones, which significantly decreases the effectiveness of land relations financial regulation and control; absence of full state financial policy and complex program of actions in the sphere of land relations, directed towards stepping of cash flows; multidirectionality of financial interests of different population segments as for the steps of land reform implementation; absence of mechanisms to prevent financial misconduct with land and many others. For example, in Ukraine, the most widespread is the use of administrative methods, which stipulate direct intervention into financial and economic activity of subjects of land relations. At the same time, the state is able to regulate land market by way of economic (market) methods, if it directly takes part in land market turnover.

Negative consequences of imperfect state land regulation financial mechanism are appearance of land shadow market, protection of interests of large “latifundists”, ignoring financial interests of small and medium farmers, underpayment of sums of state revenues from the use of lease lands, etc. The above mentioned disadvantages stipulate the development of directions to improve the presented financial mechanism and, as a priority task of its efficient functioning, it is necessary to define formation of full land market (provided its effective regulation by the state). It requires an analysis of possible variants of cancelling the moratorium on the sale-purchase of agricultural lands and choice of the most appropriate from the position of getting the additional economic effect and creation of additional cash flows to state budget.

Land reform in Ukraine has been lasting during all the period of its independence from 1991. According to statistical data, dynamics of land fund of Ukraine during 2006 and 2012-2016 years is presented in Table 1. As the data of the given table show, in Ukraine, 82 % of land area is used as main means of production in agriculture and forestry. In particular, 70.8 % of land area is used in agrarian production.

### Table 1. Dynamics of land resources in 2006 and 2012-2016 years

| Types of main lands and economic activity | 2006* | 2012* | 2013* | 2014** | 2015** | 2016** |
|------------------------------------------|-------|-------|-------|--------|--------|--------|
| Land area, thous. hectares               | 42943 | 42796 | 42766.9 | 42744.5 | 42731.5 | 42726.4 |
| Land area, thous. hectares               | 42766.9 | -29.1 | 42744.5 | -32.4 | 42731.5 | -5.1  |
| Deviations as of 2011                    | 42744.5 | -32.4 | 42731.5 | -5.1  | 42726.4 | 70.8  |
| Land area, thous. hectares               | 42731.5 | -5.1  | 42726.4 | 70.8  |        |       |
| Deviations as of 2012                    | 42726.4 | 70.8  |        |       |        |       |
| Land area, thous. hectares               | 42726.4 | 70.8  |        |       |        |       |
| Deviations as of 2013                    | 42726.4 | 70.8  |        |       |        |       |
| Land area, thous. hectares               | 42726.4 | 70.8  |        |       |        |       |
| Deviations as of 2014                    | 42726.4 | 70.8  |        |       |        |       |
| Land area, thous. hectares               | 42726.4 | 70.8  |        |       |        |       |
| Deviations as of 2015                    | 42726.4 | 70.8  |        |       |        |       |
| Land area, thous. hectares               | 42726.4 | 70.8  |        |       |        |       |
| Deviations as of 2016                    | 42726.4 | 70.8  |        |       |        |       |
| % to total area of Ukraine (territory)   | 42726.4 | 70.8  |        |       |        |       |

Note: compiled by the authors; * Reporting of results of State Land Agency of Ukraine in 2009-2013 (2012). ** Monitoring of land relations in Ukraine 2014-2015 (2016).

The objects of reform within the land reform as of 01.01.2016 are lands of approximately 12 thousand households. 72.4 % of agricultural lands were passed to private property, including 80.9 % of arable land for end use – agricultural production. The right to land share (equity) was given to 6.9 mln. people, from which 6.8 mln. (98.6 %) obtained certificates to land share (equity). 6.7 mln. citizens – 98.2 % from the...
number of persons who obtained certificates became full owners with state acts obtained. Irrespective of continuous lasting of the moratorium in Ukraine, in the economic literature, there lasts discussion about the appropriateness of its cancelling. The supporters of cancelling the moratorium are Sabluk, P. (2006), Diesperov, M. (2010), Fedorov, M. (2009). The opposite position is occupied by Shulga, O., Fedoriuk, M., Timokhina, O., Dubel, I. (2011). In our opinion, there are three main directions (variants) of land reform.

First variant stipulates the immediate cancelling of the moratorium, i.e., simultaneous sale of private and community lands (with temporary prohibition of free turnover of private lands). It will lead to additional putting of agricultural lands into turnover, which will create new cash flows to budget. Besides, use of land as collateral for small and medium farm households will give further impulse to developing financial relations of land owners with banking institutions. The important positive consequence of cancelling the moratorium while implementing the first variant is additional attraction of investments into agrarian sector of economy, as the acting prohibition abandons the market and hinders development of agrarian industry.

Second variant stipulates continuation of moratorium, which is determined by undeveloped financial mechanism of land relations and land use regulation, unpreparedness of state to prevent high level of speculative actions with land, presence of legal inaccuracies and inconsistencies in legal regulation of land relations, absence of due financial security of land reform in existing conditions. We can also add to this list ineffective activity of state cadastre, as significant amount of land resources is not registered in it, and among the lands at the cadastre map, there is a significant number of technical errors, which complicates the identification of land rights.

Third variant of land reform stipulates gradual cancelling of moratorium after forming efficient mechanism for state control of agricultural lands turnover and will be implemented in two stages: 1) sale of private and community lands; 2) sale of private lands. Such an approach requires reforming the infrastructure of land relations control, its effective organizational, methodological and staffing support. One form of such variant is an offer to sell private and community lands with putting the most valuable 32 % lands in a property of state (with temporary prohibition of free turnover of private lands). Let us analyze possible economic effect for the state from implementation of the variants offered (Table 2). It will characterize the amount of additionally accumulated budget revenue as a result of operations with agricultural land.

Calculations were performed with value of average price for 1 hectare of land from USD 900 to USD 1100. At the same time, according to forecast of experts Forecast IMF group Ukraine (2016), the expected price of 1 hectare of agricultural land after cancelling the moratorium can be as follows (Figure 2).

| Sl. No. | Essence of the variant | Method offered to calculate economic effect (for the state) of implementing the variant | Size of economic effect (for the state) |
|--------|-----------------------|----------------------------------------------------------------------------------|---------------------------------------|
| 1      | Immediate cancellation of the moratorium (sale of private and community lands (with temporary prohibition of free turnover of private lands)) | \( E = \sum_{i=1}^{n} S_{d_i} \times P_i \) |
|        |                       | \( S_{d_i} \): area of state and community agricultural lands in the regions;     | Economic effect of implementing the variant will be: USD 9.45 mlrd. < E < 11.55 mlrd. |
|        |                       | \( \sum_{a} S_{\bar{a}} = 10.5 \text{ mln. hectare} \)                           | It is approximately 64-78 % from revenues of local budgets (revenues of local budgets for 2014 were UAH 231 mlrd. 702 mln. or USD 14 mlrd. 701 mln.)* |
|        |                       | \( P \in [900; 1100]; n – number of regions \)                                  | E = UAH 12083.4 mln. = USD 766.7 mln. (5.2 % from revenues of local budgets for 2014) |
| 2      | Continuation of the moratorium | Budget revenues will continue to come as a land charge (private lands) and rental for state lands. We can neglect sums of budget revenues for state land surveying | Economic effect will correspond to the sum of land tax: |

Table 2. Calculation of economic benefit of continued implementation options (cancel) the moratorium on the sale-purchase of agricultural land *
Table 2 (cont.). Calculation of economic benefit of continued implementation options (cancel) the moratorium on the sale-purchase of agricultural land *

| Sl. No. | Essence of the variant | Method offered to calculate economic effect (for the state) of implementing the variant | Size of economic effect (for the state) |
|---------|------------------------|---------------------------------------------------------------------------------|--------------------------------------|
| 3       | Gradual cancellation of the moratorium, which includes two stages: 1) sale of state and community lands; 2) partial sale of private lands | For first stage: 
\[
E_1 = \sum_{i=1}^{n} S_{di} \times \bar{P}_i 
\]
(see variant 1) | According to expert’s evaluations, when land market opens, only 10-15 % of private lands owners are ready to sell them**. Economic effect of selling state (community) lands will be: USD 9.45 mlrd. < \( E_{ad} \) < USD 11.55 mlrd. |
|         |                        | For second stage: 
\[
E_2 = SD \times \sum_{i=1}^{n} S_{pi} \times \bar{P} + \sum IT, 
\]
where \( S_{ni} \) – area of private agricultural lands 
\[
\sum S_i = 31 \text{ mln. hectare} 
\]
where \( \bar{P}_i \) – average price of 1 hectare of agricultural land in Ukraine, USD per hectare. 
\( SD \) – percent of state duty during sell-purchase of lands. 
\( IT \) – indirect taxes (sum of VAT) Total economic effect of implementing the second variant: 
\[
E_c = \sum_{i=1}^{n} (E_1 + E_2) 
\]
|         |                        | | Economic effect for the state of selling private lands will consist of customs payments, which will be paid to the budget by owners of private lands. According to decree of the Cabinet of Ministers of Ukraine “On state duty”, tax for sell-purchase of lands is established in the amount of 1 %. The same rate is for agricultural lands. Sum of VAT, which must be paid to budget during operation of selling the land, is USD 620 mln. (with rate of VAT=20 %). Economic effect of selling private agricultural lands will be: 
\[
E_i = USD 585.9 \text{ mln.} < USD 716.1 \text{ mln.} 
\]
Total economic effect of implementing the second variant: 
\[
USD 10.03 \text{ mlrd.} < E_c < USD 12.26 \text{ mlrd.} 
\]
It is approximately 68-83 % from revenues of local budgets |

Note: * calculated at the official rate of National Bank as of 01.01.2015 ($ 1 = UAH 15.7686). ** Experts estimate the state cadastre and land surveyors of the Union of Ukraine.

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**Fig. 2. Expected price of 1 hectare of agricultural land after cancelling the moratorium *

Note: * Forecast IMF group Ukraine (2016).
Increasing the price for 1 hectare will increase the amount of budget revenues and stipulates the significant increase of economic effect for the state.

Valuation of the data in Table 2 enables to make a conclusion about the excess of economic effect for the state while implementing the third variant rather than the first and the second. The third variant gives a possibility to create additional cash flow to local budgets in the amount of 68-83 %.

In the context of analyzing the variants of land reform, there arises an important issue about creation of necessary financial, organizational and legal and regulatory prerequisites for cancelling the moratorium.

Firstly, there is a need to significantly reform legal and regulatory acts, which regulate land relations and financial operations with land.

Secondly, the main organizational and financial prerequisite for cancelling the moratorium is arrangement of full account of land for different forms of property. As of 01.12.2015, in the State land cadastre, there were registered 16661051 lands and proprietary rights to them, which is 69 % of the territory of Ukraine. But the number of state lands registered in the Cadastre is quite insignificant (their share is 22.6 %) (Monitoring of land relations in Ukraine 2014-2015, 2016). The best occupancy indicators are in regions, where price of land is high, in particular, Kyiv and Poltava regions (in some regions, the information about 97-99 % of the area is listed in the cadastre). For comparison: in some districts of Zakarpattia and Ivan-Frankivsk region, only 2.7-7 percent of lands are listed in the State Cadastre.

Thirdly, the compulsory financial prerequisite in the context of cancelling the moratorium is bringing of acting standard pecuniary valuation of lands in Ukraine in line with world prices. As practice shows, national pecuniary valuation is low (average standard pecuniary valuation of Ukrainian agricultural lands as of 01.01.2015 was UAH 21.9 thousand or USD 1.4 thousand. per 1 hectare). According to official data of the first quarter of 2016, because of devaluation, the value has decreased to USD 1.1 thousand. The importance of this indicator is determined by the fact that it is a basis for defining a land charge and rental for state and community lands. For comparison: average price of 1 hectare of land resources in different countries is presented in Table 3.
Table 3. The average price of 1 hectare of land resources in foreign countries*

| №  | Country       | Average price of 1 hectare of land resources, USD per hectare |
|----|---------------|-------------------------------------------------------------|
| 1  | Belgium       | 33617.7                                                    |
| 2  | Bulgaria      | 4653.6                                                     |
| 3  | Denmark       | 25919.3                                                   |
| 4  | Estonia       | 5000.0                                                     |
| 5  | Ireland       | 36305.8                                                   |
| 6  | Spain         | 14593.2                                                   |
| 7  | Italy         | 27018.5                                                   |
| 8  | Luxembourg    | 27889.6                                                   |
| 9  | Malta         | 181282.4                                                  |
| 10 | The Netherlands| 63738.4                                                   |
| 11 | Germany (West)| 16761.5                                                   |
| 12 | Poland        | 10265.7                                                   |

Average price for agricultural land rent in Ukraine: private ownership – UAH 800 per hectare ($ 50.73 per hectare), state ownership – UAH 1350 per hectare ($ 85.61 per hectare), community – UAH 1650 per hectare ($ 104.8 per hectare)*

Note: * Calculated at the official rate of National Bank as of 01.01.2015 ($ 1 = UAH 15.7686).

Rent price would have increased ten times provided the cancelling of moratorium and bringing standard pecuniary valuation in line with world standards.

Fourthly, the process of opening the land market is impossible without established and effective system of land relations management. The example of imperfect administrative transformations in land sphere is changing the name of State land agency of Ukraine to State Geodesy, Cartography and Cadastre Service with the transfer of the corresponding functions. At the same time, these functions were left in the Ministry of Agrarian policy, which is also designated to form government policy with regard to use and protection of agricultural lands, which spawns repeated and uncoordinated actions during land reform.

Based on the analysis of legal and regulatory, organizational and financial prerequisites necessary to create full land market in Ukraine, the following directions of state land regulation were formed, the implementation of which will favor the readiness of Ukraine for cancelling the financial moratorium: 1) improvement of existing legal and regulatory security of land relations in Ukraine; 2) development of new improved methodology of standard pecuniary valuation of lands; 3) improvement of system of state cadastre, protection and monitoring of lands; 4) protection of land rights to natural persons and legal entities by the state; 5) establishing the administrative responsibility of legal entities and strengthening the criminal liability for financial land offence.

Conclusion

The research proves that internal peculiarities of land are realized through ecological, social, political and financial functions, that gives us reasons to identify it as a multifunctional category. The evaluation of the above mentioned functions enabled to find out ineffective financial function, which is performed with formed market of sale-purchase of agricultural lands and with acting financial mechanism of state land regulation. The analysis of mechanism’s functioning testified the ineffectiveness of its regulative and ensuring components, which determined the underpayment of sums of additional revenues to state budget and defined the search of new sources of growing economic effect from opening the market of agricultural land by way of cancelling the moratorium.

As a result of research, three most likely variants of land reform are analyzed and economic effect of their implementation (amount of additionally accumulated budget revenues as a result of operations with agricultural lands) is calculated. Conclusion is made about reasonability of gradually cancelling the moratorium, which defined the priority of implementing the third variant, which will be implemented in two stages: 1) sale of state and community lands; 2) sale of private lands. The calculated economic effect from implementing such a variant gives possibility to create additional annual cash flow in the amount of 68-83 % to local budgets, which is more than revenues from first (64-78 %) and second (5.2%) variants under study. It was defined that opening the internal land market will also have positive social effect.

Necessary prerequisites for cancelling the moratorium (organizational, financial, legal and regulatory) are stipulated. Based on the analysis of the abovementioned prerequisites, the following directions of state land regulation were formed: 1) improvement of legal and regulatory security of land relations in Ukraine; 2) development of improved methodology of standard pecuniary valuation of lands; 3) improvement of system of state cadastre, protection and monitoring of lands; 4) protection of land rights to natural persons and legal entities by the state; 5) strengthening the responsibility for financial land offence.

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