

Institutional aspects of the development of local markets for agricultural land rights

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Abstract - The article proposes to consider sustainable development of regional economy in the context of mutual influence of the main interaction mechanisms between individuals and organizations, power and competition in agricultural land market. According to the authors' concept of a dual agricultural land market, a model of economic rights market is considered as a market more in demand under the conditions of the current moratorium on state and municipal land sale in the region and a limited supply of shared ownership. Basing on the results of the research conducted within the framework of "Monitoring the functioning of local agricultural land markets" research project, we found some non-price determinants affecting structural transformation of land lease demand and supply, the motives for economic rights market that determine the behaviour of market agents within "limited" competition. The multilevel system of rental relations is justified - "individual - organization, organization - power", within the framework of which it is necessary to increase the coercion level of built-in power mechanism to control the effective use of land resources based on land lease state support. Several types of opportunistic behaviour are identified, as well as a group of factors constraining the development of the agricultural land market, according to our multivariate analysis. Efficient functioning of the agricultural land economic rights market in the context of institutional constraints could ensure guaranteed economic growth, stable conditions for expanded reproduction of rural population and an increase in their welfare.

Keywords - market model, economic rights market, rental relations, agricultural land market, market monitoring, sustainable development, regional economy.

I. INTRODUCTION

The authors' approach to understanding the dual nature of agricultural land market allows to explore two segments of the market - property rights market and economic rights

agricultural land market [1, p. 27-35; 2]. At various stages of institutional change in agrarian economy, preferences are given to the demand for management right. This is explained by the current institutional restrictions (presence of land share institution operation of Federal Law No. 101-FZ of July 27, 2002 "On the turnover of agricultural lands", Volgograd Region Law No. 855-OD of July 17, 2003 "On the turnover of agricultural lands in Volgograd Region"), contributing to the formation of more favourable institutional environment for rental relations development in land use system of the economy agricultural sector [3, 4, 5].

The objective of this study is to obtain empirical data on the development of economic rights local markets, to substantiate the interdependence of land resources efficient use and sustainable rural development in the regional economy, to comprehend the survey results from practical and theoretical points of view.

II. MATERIALS AND METHODS (MODEL)

In contrast to existing research methods of agricultural land market, the institutional approach is used which allows us basing on the analysis of institutional environment and objective and subjective factors of market development, to justify the motivation for rental relations enhancement due to economic interests and preferences of various market actors, as well as formal and informal rules [6]. When objective assessment is based on the analysis of formal rules and standards of behaviour of market participants, subjective analysis is built on the expert evaluation of managers at various levels. Among experts there are 48% of managers including heads of municipal administrations and rural settlements, 28% of professional managers (heads of administration departments) and 11% of leading specialists of

administration departments who have from 1 to 21 years of working experience at these positions and live in a given rural area. The age of experts varies between 29 and 60, among them there are 58% of men and 42% of women. Most experts have a university degree in economics (24%) and agronomy (20%).

The survey is carried out in four municipal districts of Volgograd region differing in fertility and quality of agricultural land, degree of market localization f the (regional centre, district centre, rural settlement) taking into account all the development spectra of rental relations levels.

III. RESULTS AND DISCUSSION

The concept of sustainable development of the agro-industrial complex of regional economy is aimed at achieving guaranteed economic growth based on more efficient use of land resources, of distribution mechanism and redistribution of agricultural land. An important indicator of economic resources effective use is the choice of an agricultural land market model, which in its turn contributes to the stabilization of labour resources in rural settlements and food security in the region [7, 8].

The classical supply-and-demand model of production market factors reflects the functional dependence of supply and demand on price and non-price determinants. The land market as a production factor differs from other markets, primarily by its spatial and institutional limitations [1, p. 28]. Another feature of the agricultural land market is, on the one hand, the market structural dichotomy, and on the other hand, the market functioning mechanism structure based on the system of interrelated elements of self-regulation and regulation [1, p.30]. One should pay attention to the phenomenon of "land share" and the specificity of realization of land share rights in the market [3, p. 401]. With these characteristics, the price, land rent, quality and location of land, the demographic factor, economic and institutional conditions, and the form of ownership are considered to be aggregated determinants in the land ownership model.

In the regional economy, there are basically two models of agricultural land market: a market model of full property rights and a model of limited land ownership rights [9]. In the first model, the exchange is completed after the land sale and purchase in a short term, in the second model, the exchange is medium-term and long-term, since in practice it is implemented in the form of a contract for an average of ten years. Accordingly, taking into account the impact of the exchange time factor, it can be noted that the possibilities of mutually beneficial exchange in the interests of market agents are variable, as the influence of institutional factors increases over time, hence, the determining significance of individual factors in demand-and-supply structure changes as well. In the model of economic rights for agricultural land market, the structure of non-price determinants of supply and demand differs by the set of the following determinants:

- degree of market localization (L_T);

- form of ownership (private, shared, individual, communal (collective), state and municipal) (O);
- amount of transformation costs (C_t);
- opportunism risks (R_o) (Table 1).

TABLE 1. SUPPLY-AND- DEMAND MODEL IN AGRICULTURAL LAND MANAGEMENT RIGHTS MARKET

| The equation of functional dependence of land lease demand (Q_D^R) | The equation of functional dependence of the land lease supply (Q_S^R) |
|--|--|
| $Q_D^R = f(P_r, L_T, O, C, C_t, R_o, N, B)$ | $Q_S^R = f(P_r, FDV, OCC, R_{PL}, T_L, R_o, N, B)$ |
| P_r – agricultural land rental price | P_r – agricultural land rental price |
| L_T – land location and market localization degree | (FDV) – alternative value - Future Discounted Value |
| O – form of ownership for legal entities (shared, individual, state and municipal) | OC – value of opportunity costs - to sell, lease, work yourself |
| C – value of transaction costs | C_t – value of transformation costs |
| C_t – value of transformation costs | R_{PL} – State and Municipal Land Lease Terms |
| R_o – opportunism risks | N – number of landlords |
| N – number of tenants | T_L – Land Tax |
| B – other factors including force majeure and climatic conditions | R_o – opportunism risks |
| | B – other factors including force majeure and climatic conditions |

It should be noted that the institutional determinants affecting structural changes in supply and demand such as form of ownership, transaction costs, risks of opportunistic behaviour dominate in the model of economic rights market. In addition to general determinants (number of landlords, force majeure factors), the structural transformation of land supply is influenced by land use opportunity costs, lease terms and transaction costs, possible risks of opportunistic behaviour and land tax rates.

The results of the expert assessment of the local markets show that structural changes in non-price determinants in the market model of economic rights are largely due to the dominance of such institutional factors as:

- transaction costs of measurement;
- contracting costs - lease terms (time period for processing documents and their costs);
- opportunistic behaviour of market actors while implementing pricing policies at land lease auctions and in contractual relationships;
- trust factor;
- institutional constraints (moratorium on state and municipal land sale in Volgograd region).

The model of economic rights market differs from the model of property rights market in the system of economic relations which is multi-level and determines the development vector of rental relations between market agents for a limited period of time:

- legal entities (institutions of various economic forms)
 - individuals (owners of land shares);
- legal entities - authorities of various levels (state, subject of the Russian Federation, municipal and local authorities).

In modern conditions of the agro-industrial complex development, there is a steady dominance trend of the lease form of land use which necessitates proper accounting of agricultural land [10, 11]. Lease relations have become preferable due to certain motives of various landowners:

- motive for obtaining additional income;
- replenishment of local budget - the main source of income rural settlements budgets is land tax and agricultural land use rent;
- motive for strengthening monitoring functions of local authorities;
- motive of land use area optimization;
- motive of precaution - to preserve value or wealth.

According to the results of the expert survey, the economic rights market of agricultural land is in demand in local markets. The majority of experts (65.2%) say that the predominance of lease form of land use is due to the institutional environment of the market, therefore, land rent does not have any negative impact on the development of agricultural land market (Fig. 1).

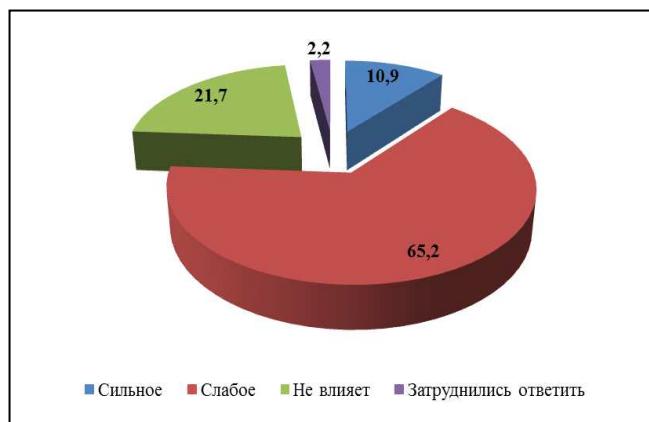


Fig. 1. Assessment of the impact of rental land use prevalence on agricultural land market development.

[Strong – Weak – No impact – Not sure]

It should be noted that land supply on the property rights market is limited, since rural residents do not want to sell land. This is explained by the fact that in rural areas land is the only investment resource for landowners, and for people of retirement age this is the only source of additional income. Therefore, the factors that form the motives for selling land plots (land shares) can be different depending on the current life situations:

- force majeure factor (for example, illness);

- investment direction change (for example, mortgage payments);
- lack of continuity and residence change;
- alternative proposal (coercion to sell) on the part of farms managers who work on the leased land to receive the necessary amount of money instead of debt.

The results of the expert survey allow us to identify the specificity of pricing mechanism (rent) in agricultural land economic rights market. In the system of rental relations between institutions and owners of land (land shares) the amount of rent is determined by tenants while their informal agreement on setting a single price to preserve the right for cultivated land use is a regular practice. However the quality of agricultural land causes manifestation of price competition elements in local markets. Thus, in the zone of less fertile agricultural lands (Olkovsky and Kletsky municipal districts), the price of rent is fixed and has a combined character. At the same time, landowners are deprived of the choice between natural and monetary forms of paying rent, and sometimes they are forced to transform their natural payment into cash payment. Competitive relations are more developed in the zone with fertile agricultural lands (Elansky and Uryupinsky municipal districts). Under the existing agreement on the amount of rent between agricultural producers, opportunistic behaviour is manifested being expressed through agreement violation to increase the rent for landowners.

It should be noted that in the fertile agricultural land zone, more flexible relations are formed between landowners and tenants which provide a choice between combined and monetary forms of rent. Sometimes a paradoxical situation takes place in the market when not the price signals determine the choice of the tenant, but the trust factor. For example, large agricultural enterprises (agroholdings) offer land owners a higher rent in cash, since they have large sales volumes and well-established logistics which allows them to sell their own products at a higher price and to maximize profits. As for small and medium enterprises, they sell their products via dealers at a lower price which reduces the rent monetary value and negatively affects competitive advantages. However, despite the difference in rental rates, landowners give preference to local producers, as local people enjoy more trust, as a result, the trust factor is holding back the process of land monopolization by holding companies.

The studies show that the economic rights market creates more favourable conditions for the manifestation of opportunism. Here we should highlight two points related to pricing and possibility of rental contract termination. The results of our survey show, that non-payment of rent without specifying its reasons is practiced (17.4%), while 37% of respondents admit non-payment of rent. Non-payment of rent in full occur due to unforeseen circumstances (30.4%), due to growth in debts, bankruptcy of enterprises, and change of ownership (10.9%). The experts admit that the future will see opportunistic behaviour regarding rent payment, at the same time they predict the possibility of early termination of contracts in favour of another tenant (43.5%) or transfer of the

land plot to a third party without terminating the current contract (41.3%). We should underline that with a high fear of opportunism manifestation in contractual relations in real situations of economic rights local lands markets, such opportunistic behaviour is most frequent in the period of price policy implementation (Table 2).

TABLE 2. EXPERT ASSESSMENT OF THE POSSIBILITY OF MANIFESTATION OF OPPORTUNISTIC BEHAVIOUR IN AGRICULTURAL LAND ECONOMIC RIGHTS MARKET, % OF RESPONDENTS

| Types of opportunistic behaviour | Prediction for opportunistic behaviour types manifestation | | Manifestation of opportunism in practice (opportunistic behaviour) | Manifestation degree ranking |
|---|--|------------|--|------------------------------|
| | Possible | Impossible | | |
| <i>Price factors</i> | | | | |
| Non-payment of rent in full due to force majeure | 23.9 | 37.0 | 30.4 | 1 |
| Rent increase | 39.1 | 32.6 | 17.4 | 2 |
| Non-payment of rent without giving reasons | 37.0 | 37.0 | 17.4 | 3 |
| Non-payment of rent or its partial payment due to growth of debts, bankruptcy of enterprises, change of ownership | 32.6 | 45.7 | 10.9 | 4 |
| <i>Contracting costs</i> | | | | |
| Early termination of the contract in favour of another tenant | 43.5 | 39.1 | 6.5 | 5=6 |
| Transfer of land plot to a third party without terminating the current contract | 41.3 | 43.5 | 6.5 | 5=6 |

The situation analysis at land lease auctions reveals another type of opportunistic behaviour in bidding processes which can be defined as extortion or rent-seeking. As the study shows, some third party is interested in receiving a certain amount of money for refusing to further participation in the auction in favour of another bidder who is interested in obtaining an economic right to take part in the land auction.

Quite often such an ‘interested’ participant enters the auction having certain expenditures, and with possible options for law violation in case of unauthorized construction of production facilities in the territory that becomes the object of selling lease rights at the auction. In this situation, the interested bidder in order not to lose future income is forced to agree to the terms of extortionists. Through their actions, extortionists help to increase transaction costs, as the time to conclude an agreement increases and the procedure itself becomes more complicated, since in the absence of others who want to bid for the exposed site the procedure is simplified and they get it without bidding. Some residents of Volgograd neighbouring regions (Voronezhsky, Saratovsky, Belgorodsky) who are not engaged in agriculture often act as

third parties. The closer the region is to the border with another region, the more dishonest bidders are likely to enter the economic rights market. We’d like to note that some elements of opportunism are manifested to a greater extent in the system of relations between legal entities and land owners which is due to information asymmetry, non-awareness of land ownership laws and the trust factor effect. At the same time, as the experts highlight (71.7%), in the system of ‘legal entities - authorities of various levels’, the pricing policies are fair and the possibility of manifestation of opportunism in contractual relations is excluded, since land control is exercised by the authorities.

Thus, the economic rights market is more susceptible to the influence of institutional factors determining supply and demand in agricultural land market. In a regional economy, any economic rights market development is determined, on the one hand, by some institutional constraints (institution of land share, moratorium on sale of state and municipal land) and, on the other hand, by motivation of landowners while choosing between renting or selling their land plots

IV. CONCLUSION

The study results lead us to the following conclusions.

A. Part one

The economic rights market is an important segment of agricultural land market; it is the system of economic relations and agreements within the framework of which temporary alienation of limited rights to agricultural land is carried out in the context of institutional restrictions.

B. Part two

The model of economic rights market for agricultural land is a system of two-level relations between market agents: ‘legal entities - authorities at various levels’ and ‘legal entities – individuals’. In the first system of relations the factors contributing to the economic rights market development in the regional economy are determined by the effect of institutional restrictions. In the second system of relations this factor is the motivation of agricultural land owners limiting the supply of land.

C. Part three

The following types of transaction costs manifest themselves in the economic rights market: identifying alternative costs, measurement costs, opportunistic behaviour costs, contracting costs and specifying limited property rights costs.

D. Part four

In terms of institutional constraints, the expert managers give preference to leasing agricultural land, since the controlling functions of local authorities over the efficient use of land, running business and providing social guarantees to employees of agricultural enterprises are strengthened with the current rental terms.

Thus, the efficiency of agricultural land market in the regional economy depends on the directions of institutionalization of economic rights market.

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