Comparative characteristics of world agricultural markets using contracting and state farm support development (Russian Agribusiness Case Study)

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Abstract. Theoretical and methodological aspects of direct and indirect methods of farm regulation are being discussed. One of the most important goals is regulation of the agro-industrial complex. The volume production was optimized under ecological and economic conditions of business development. All countries have been optimizing their farm policy to satisfy the requirements of the national internal standards. The state farm policy changes according to the requirements of the environmental sector of the business ecosystem. It also depends on marketing and distribution development taking an intermediate position between internal and external markets.

1 Introduction

The reforms in present-day Russia provide changing its production structure. Reforms in the processing and distribution of farm materials and foods influence the food production through WTO requirements. Thus, it is required to research the problem of farm and food market development and pay much attention to it [1-3]. Nowadays, in Russia the transition economy is typical of agriculture.

The basic theses of the modern state policy in Russia are shown in the following legislative Acts: The Act about Agriculture Development in 2006 accepted; the State Program of the Agriculture Development and Farm and Foods Markets Regulation in 2008-2012 and planning in 2013-2020; Presidential Act "Doctrine of Food Safety" and Nationals Annually Reports prepared by the Agricultural Department.

The farm policy in Russia has been carried out through legislation using the economic mechanisms and organization in the agribusiness. It has also aimed at the development of subsidies from budget of different levels, tax immunity, creating leasing fund; credit optimization and improvement of custom service for farm and food companies including tariffs and taxation [4-10].

According to the Russian government, the need for state support is explained by the following reasons: despite the importance of food production, farmers' income is around 40% lower compared to non-agricultural income; agriculture depends more on the weather and the climate than many other sectors; there is an inevitable time gap between consumer demand and farmers being able to supply.

2 Materials and methods

Between the rate of vertical integration and the rate of state policy regulation the authors have experienced feedback (Figure 1).
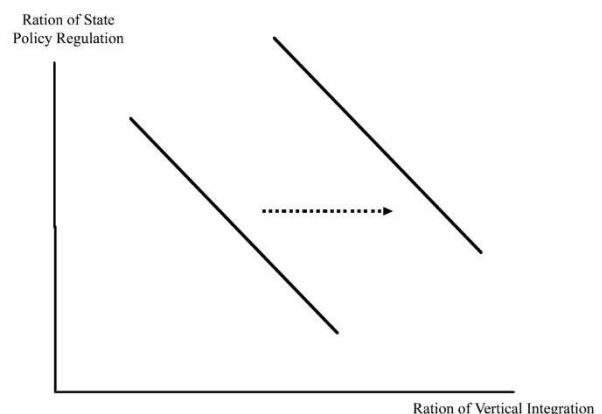

Fig. 1. Correlation of State Policy Regulation and Vertical Integration in the economy by the example of agribusiness.

The authors think that the rating of Vertical Integration is following the formula:

$$Y = \frac{sales_1}{sales} + \frac{sales_2}{sales} + ... + \frac{sales_n}{sales} \quad (1)$$

where sales – final goods product,
sales 1, sales 2, sales n – goods intermediate product.

$$Y = a - k_1 x_1 + k_2 x_2 + k_3 x_3 + k_4 x_4 + k_5 x_5 + k_6 x_6 + ...knxn \quad (2)$$

where $k_1...k_n$ – coefficient regression,

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x_1 – middle expenses;

x_2 – labor productivity;

x_3 – investments per one worker;

x_4 – total volume (market share);

x_5 – social payments per capita;

x_6 – medium annually investments on the social infrastructure;

Y – Rate of Vertical Integration.

To maximize the operational effectiveness modern processing companies, control the volume and quality of purchased materials, allowing lowering the losses from risks for big investment projects.

Transactional expenses at the micro level of state policy in relation to the agricultural companies can be presented in the production function form using expenses (material, labor, marketing and distribution), which respectively decrease.

$$f(x_1) = f(MAT)_1 + f(LAB)_1 + f(MART)_1 + f(REAL)_1 \quad (3)$$

$$f(x_2) = f(MAT)_2 + f(LAB)_2 + f(MART)_2 + f(REAL)_2$$
(4)

$$f(x_1) \to \min$$

$$x_1 = EXP_1$$
(5)

$$f(x_2) \to \min$$

$$x_2 = EXP_2$$
(6)

These formulas are a logical continuation of a basic position of the transactional approach, which is a vertical integration of the subsequent stages of production promoting their association, when transactional expenses within the integrated company are minimum reaching scale effect and synergy effect [11, 12].

3 Results and discussion

The western business in 1998 introduced import changes providing all these aspects shown by the Russian producer who had been having all resources for high competitiveness in the world agricultural market.

Devaluation of 2014 cannot yield such results as sectoral sanctions work. There are no doubts that with the corresponding economic policy and appropriately taken measures of organizational property the agrarian sector of the agrarian and industrial complex of Russia will prosper and will make a global and Russian contribution. Very often Russian authorities criticize the low level of support in the agroindustry. For comparison, the value of the PSE indicator for the European Union countries is about 40%, for the USA - more than 20%, that is, the relative level of state support in the Samara region is several times less (table 1).

At the same time, many critics forget that the American agribusiness develops decreasing the role of the government [13-17]. Authors believe that the state policy regulation is the complex measures of the state activity for modernization, investment attractive development and farm and food products competitiveness and providing of the Food Safety doctrine and planning rural development.

Table 1. Current expenditure commitments of the Samara region Ministry of Agriculture and Food, million rubles [18]

Year	2014	2015	2016	2017	2018
Plan	3513	3593	3694	4374	6208
Fact	3490	3553	3659	5159	6038
Completion percentage	99.3	98.9	99.1	118.0	97.3
Agricultural products (in actual prices, billion rubles)	35.8	51	58.2	67.7	73.1
State support level indicator (PSE),%	9.8	7.0	6.3	7.6	8.3

The European Union is one of the main agrarian partners of the USA and one of significant competitors in the market of food. The USA and the EU carry out considerable state support of agribusiness. The American agrarian policy is focused, mainly, on such cultures as wheat, fodder grain, cotton, a sunflower seeds, sugar and dairy products. As it is noted by us, the level of state regulation in the European countries is higher, than in the USA. Therefore the American agrarian policy, is represented to the most capable to adaptation for the countries with limited budgetary resources which also Russia is among as well as [19, 20].

The concept of agrarian European policy (CAP – Common agrarian policy) includes the following aspects:

1. Guaranteeing high standards of life for farmers.
2. Stabilization in the food markets.
3. Guaranteeing free access to food products.
4. Ensuring the mutually advantageous prices.
5. Helping to tackle climate change and the sustainable management of natural resources.
6. Maintaining rural areas and landscapes across the EU.

Combining indicators of import and export on average annually for the period of 2008-2010, making up 166 billion euros, one must note that at the same time the European Union is one of the largest exporters of agricultural products and a significant sales market of the imported production of agricultural products. The global market of food is subject to influence of turbulence that influences the situation in agribusiness of many countries.

The European agrarian policy (CAP) is based on:

1. food safety, namely coordination of productivity of farms in the European Union with volumes of domestic market;

2. management of price volatility that is necessary in long-term competition, including grocery and price interventions;

3. following of the doctrine of stability up to 30% of direct payments, which is the share of the targeted local farmer markets;

4. aspiration to achieve high competitiveness, placing emphasis on new technologies and innovations in the solution of technical questions;

5. targeting management for the support and production efficiency based on the young farmer movement and development for rural territories;

6. farmers remunerating for environmentally friendly farming;

7. implementation of rural development measures with national and regional programs to address the specific needs and challenges faced by rural areas.

The American farm policy began in the period of the Great Depression and the Dust Storm, and the European agrarian policy has been developing since 1960 which is connected with integration of the European companies. The American agricultural policy has led to the fact that many American agrifoods cost cheaper than European ones; this fact exerts beneficial influence on welfare of the American nation [21-26].

Allan Mastard notes that "we will try to obtain in the agrarian and industrial complex the same that GATT (the predecessor of the WTO) has made for industrial goods, having reduced the average amount of duties from 70 percent to 7 and having abolished unfair subsidies (for example, export). Now let us turn to agriculture, in which the highest tariff barriers and the highest subsidies distort trade.

It is necessary to lower trade barriers to support economy of developing countries. The USA is ready to reduce support of the agrarian and industrial complex, which distorts trade, the EU makes the same. And support in the EU is four times more than ours. Until the EU takes a counter step, we just aren't able to afford to reduce support unilaterally.

Duties in 300-400 percent are too much for successful development of the agrarian and industrial complex. So far, we have agreed with the EU to abolish export subsidies after 2013, but in future we want to cancel all subsidies" [27].

The U.S. state farm support, program of food stamps, farm trade, marketing and rural development policy were provided through the Farm Bill and satellite regional state laws. Moreover, the farm regional policy was built, which modified state legislation and ethnos, living on this territory. The U.S. farm policy included all spectrum programs, which provided the people rights and supply of the cheaper foods [28, 29].

The U.S. Cooperatives are oldest. The first American successful cooperative was organized in 1752 by Benjamin Franklin in Philadelphia in the field of house insurance. This cooperative functions at present time. The modern cooperatives take part in Rochdale Equitable Pioneers Society in 1844 in England by Rochdale. There were pioneers and they were in food industry. We are ready to describe all basic principles of the cooperative movement [30-33].

Cooperatives provided:
- business service, personal data and management benefits, also the groups of the procurements for goods;
- service for children care;
- credits and personally finance services;
- equipment and computer programs and supplying of the farmers;
- electrification, phonation and Internet, cable and satellite development;
- service for materials in the production, processing and distribution of the foods;
- health;
- construction of houses;
- insurance;
- law and professional services;
- food marketing.

At this moment, there are 350 distribution cooperatives in the trade of foods in the USA. These cooperatives generate about 33 bln. USD and consist of thousands members. The distribution cooperatives own the largest supermarkets and foods shops. Each cooperative has the contacts with the counties municipalities.

Seven basic reasons for cooperative development: voluntary and open membership; democratic membership control; membership on the basis of economic participation; autonomy and independence; education, training at a basis of information component; cooperation among cooperatives; address attention to existence of municipalities.

Cooperatives became prosperous because of the concept put in their fundamental nature of existence being universal, which is connecting people or businesses, existing together, forming their legal independence, collective management of people, the basis in the activity on the final buyer, employment. This grouped all of them in a single whole including cooperatives.

4 Conclusion

The basic problems of the Ministry of Agriculture should be:
- elimination of price disparity;
- support of income of agricultural producers;
- increase in demand and, thereby, stimulation of economic increase in production;
- financing of food stamp programs;
- market protectionism;
- rural development;
- creation of the branded economy and active advance of integrally net production.

The basic methods of the state regulation in the Agribusiness:
- support of the prices and income;
- compensation payments and subsidies, preferential crediting;
- government procurement;
- food aid by needy.

Besides, creating new generation cooperatives and contract agriculture will be promoted smoothing the imperfect market and radically changing market infrastructure, operating risks in the agribusiness. Uncertainty always accompanied regional and national agribusiness, including all grocery chains of merchandising. The number of the major factors influencing risks was correlated with biological processes, seasonality, marketing cycles, geographical dissociation, political factors in agroeconomics.

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