

Enhancing the Economic Mechanism of Poultry Subcomplex of Regional Agro-industrial Complex in the Conditions of Import Substitution



A.V. Nikitin, R.A. Smykov

Abstract: *With international sanctions and the reciprocal food import embargo in place, ensuring food supply by procurement of domestic Russian products can be addressed through the implementation of the import substitution strategy. The Tambov region, with its favourable conditions for many types of agricultural production, plays an important role in ensuring food security. Amid the recent considerable decline in the average per capita nutrition levels, Russia has significant potential for food demand growth provided an increase in real income levels and price stabilisation. This should stimulate growth in production and improved efficiency of the agro-industrial complex. The development of Russian poultry farming can play an important role in it.*

Index Terms: *organisational economic mechanism, poultry subcomplex, government regulation, import substitution, agroholding.*

I. INTRODUCTION

A. Organisational economic mechanism of poultry subcomplex economy

An analysis of the existing economic writings shows noticeable terminological inconsistencies in addressing economic mechanisms. The essence of the notion “mechanism” is not construed uniformly in economic literature. Some authors believe that an economic mechanism is a system of interacting and interrelated forms and methods of managing public production and its structural parts. According to other researchers, it refers to the mechanism of economic laws representing the realm of objective economic forms embodying the interaction and interrelation of economic needs, interests and stimuli, as well as centralised and decentralised forms of management and economy. The term “economic mechanism” is rarely used in economic literature. However, it is “implied in references to the mechanisms of adaptation of the existing economic systems,

their social and institutional frameworks to new technology and structural change, to new economic growth profile” [1]. A major contribution to the theory of economic mechanisms was made by the Nobel Prize winners Leo Hurwicz, Eric S. Maskin and Roger B. Myerson who described it in the broad terms as the interaction among economic subjects [2].

The formation of an organisational economic mechanism in the poultry subcomplex involves the refinement of the management system, creation of enterprise-level efficient subsystems of production, processing, transportation, storage and marketing of products, investment and innovation process activation for further production modernisation and competitive improvement in the poultry industry in the domestic and external markets. The organisational economic mechanism, in our view, consists of two components. The first one is the organisational mechanism including the regulatory and information framework, organisational production structure, management functions and methods, marketing and logistics, as well as labour organisation. The second one is the economic mechanism comprising forecasting and planning, pricing of material and technical resources utilised by the industry, financing and lending, insurance, payrolls and economic incentives, etc. [3].

Research and practice suggest that managing the processes of modernisation and innovation development in the poultry complex depends on numerous factors, namely, the principles, goals, functions and objectives of management, organisational structures and staff composition, the methods and processes of management, information resources, technical, human resources, financial and legal framework of the management system, methods and style of managerial staff operation. All the aforementioned elements constitute a whole system, are linked by causal relations and are constantly evolving, so management system improvements should take them into account as a complex, together with their interaction and interrelation. Currently, modernisation and innovation process management may be practicably approached in accordance with the program and objective method. This method allows establishing the need for creating particular management structures to perform objectively required system functions as part of the implementation of the planned programs, as long as the functions dictate the need for creating managerial structures, the essence and nature of their operation [4].

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II. METHODS

A. Major dimensions of government regulation of agricultural production

State support, countersanctions and rouble devaluation have made agriculture one of the most attractive businesses in Russia. In 2011, agricultural profit margins were below 12% (taking into account subsidies), meanwhile, in 2016, they approached 20%. Agriculture became an attractive and rewarding area. Over the five years, agricultural production rose to 5.6 trillion roubles from 3.3 trillion roubles.

Further improvement in terms of the economic efficiency of agricultural production in the conditions of import substitution will require an efficient economic mechanism. This can be achieved by way of government regulation and refining economic relations between partners of the agro-industrial complex [5], [6].

Agricultural producers need state support, as their low competitiveness leaves no way for self-regulation of agriculture. There may be two major support lines, one of them being indirect economic influences and stimuli, with a key focus on the pricing mechanism, pursuing a moderate credit and tax policy and an efficient insurance system in place. The second line is the economic measures of investment policy and direct budget assignments [7].

Government regulation is meant to stabilise and improve the efficiency of agricultural production, ensure food security, improve food supply, maintain economic parity between agriculture and other industries, provide for income level convergence with other sectors and protect Russian producers.

B. Algorithm

Government regulation of agricultural production, in our view, should be effected in the following major directions:

- grants for animal farming production channelled to the federal and regional food funds;
- grants for animal breeding development, elite seed selection, production of hybrid corn, sunflower and sugar beet seeds;
- partial compensations of energy bills and fuel costs, spending on lubricants, mineral fertilizers and chemicals for plant protection;
- funding state measures of soil development and maintenance of veterinary network;
- providing financial support for establishing and developing peasant (private) farms;
- formation and operation of the market of agricultural and food products;
- protection of producers in external market operations;
- development of science and promoting research in agricultural production;
- development of rural social services system.

A requisite condition of successful agro-industrial production development in emerging markets is the refinement of pricing, tax and lending policy for the sector.

III. RESULTS

Poultry farming in the Tambov region has shown a steady growth trend and remained focused primarily on meat production.

The region is in the top ten in Russia by poultry meat production and holds the first rank by the growth rate.

Poultry farming support in the region is effected as part of the State Program of Agricultural Development and Regulation of Agricultural Products, Commodities and Food Markets for 2013-2020, which includes subsidising the interest rates on loans, insurance, infrastructure development. Another key reference is the Concept of poultry farming industry development in the Russian Federation from 2013 to 2020, stating the following directions: 1) refurbishment and modernisation of the existing facilities through the implementation of technological advances including the development of hi-tech production; 2) construction of new production facilities [8].

In terms of production structure, meat poultry is concentrated in large animal farming complexes.

In 2017, poultry meat production equalled 256.9 thousand tonnes live weight, which is 192.7% compared to the same period of the previous year. The share of the Tambov region in the total national poultry meat production was 3.9%. The Tambov region ranked seventh in the nationwide regional ranking of the Russian Federation in the past year, rising to the fourth place in the first half of 2018. The region has remained a leader of growth. A nearly twofold increase of the production volume compared to the same period of 2017 was due to the commissioning of new facilities of OAO Tokarevskaya PTF and OOO Tambovskaya Indeika, two modern closed-cycle poultry factories with an aggregate annual capacity of 200 thousand tonnes of poultry. In 2012, ZAO Inzhavinskaya Poultry Factory in the Inzhavinsky district reached full potential operation, with the annual capacity of 100 thousand tonnes of poultry meat.

OOO Tambovskaya Indeika is a joint venture with Spain's biggest turkey producer, Grupo Fuertes.

It is an integrated full-cycle enterprise integrating the complete production sequence from supplying combined feeds to slaughtering and processing. The complex includes a feed production factory with the capacity of 150 thousand tonnes per year, a grain elevator for 120 thousand tonnes of grain, growing and feeding facilities, a slaughtering and preparation shop, modern storage facilities and sanitary control stations. The enterprise owns 9.5 thousand ha of land and employs more than 1,500 of staff in production.

Chicken meat accounts for 83% and turkey meat makes up 17% of the total poultry production volume. Both segments are developing in the region, creating investment inflows, tax revenues for the budget and new jobs. However, broiler meat is more in demand given the purchasing power of the population and the price ranges of chicken and turkey meat.

As part of import substitution and due to the deficit of hatching eggs in the Russian market, OAO Tokarevskaya Poultry Factory is planning to develop its own parent stock.

In 2016, a hatching house with the capacity of 105 million hatching eggs was put to operation along with a combined feed mill with the potential to supply 100% of the feeding needs of the complex after it is launched.

The hatching house equipped with state-of-the-art Dutch equipment became one of the biggest facilities in Russia. The combined feed mill was also completely upgraded.

The processing mill of OAO Tokarevskaya Poultry Factory was built to meet the most stringent requirements and integrates all processing stages, from poultry procurement to shipping end products. Maximum automation of all processes is also attained here through the use of equipment by the world's leading suppliers.

Being fully committed to compliance with the requirements of environmental legislation to preserve the natural environment, the Resurs Group of Agricultural Enterprises makes considerable investments into the technologies of considerate natural resource management. The processing mill of Tokarevskaya poultry factory is equipped with state-of-the-art waste handling, treatment and removal systems.

Tokarevskaya poultry factory supplies a wide range of meat products under the trademarks Blagoyar™ and An-Noor™, which have proven popular with consumers not only in Russia but also abroad.

Thus, the region has met and exceeded its poultry meat requirements. On average, the per capita production volume in the region is 247.7 kg versus the consumption rate standard of 31 kg per person.

Egg farming is also an important branch of animal farming in the region. In 2017, egg production across all types of farms in the Tambov region equalled 151.5 million, which is 101% versus the level of 2016. Production is primarily concentrated in private farms (62.6%). Among agricultural enterprises, only one poultry factory is engaged in egg production, OAO Stepnoe Gnezdo, with a capacity of 35 million eggs per year. To bring up supply rates of locally-produced eggs in the region, measures are taken for the support of egg production by minor farming entities – a course, which has proved quite popular among beginner farmers. The assignment of grants under the support program for minor farming entities since 2012 has led to the establishment of 20 emergent and family-run egg farms at peasant (private) farms. Correspondingly, egg production in this category of entities has grown 2.5 times since 2012 to 9.6 million.

IV. DISCUSSION

Poultry farming is one of the most integrated sectors of the agro-industrial complex, which predetermines the specifics of investment projects in the area. A specific feature of such projects is that there are components relating to investment in enterprises for the production of feed and raw materials, processing and marketing of end products. At the same time, a high level of integration exists between the technological stages. Financial, marketing and technological policies are conducted uniformly.

The implementation of such investment projects also provides for the formation of major holding-type product systems, which, consequently, enables the creation of asset complexes as collateral tools.

Importantly, the preferable option is to set up a managing company to enable technological and economic integration of

the poultry farming enterprises deciding to take part in the investment project [9].

Other tasks may be simultaneously addressed, such as the improvement of the competitive status of end products, market expansion, enhancement of efficiency in production, and further evolution to build a powerful agro-industrial holding in poultry production [10].

A requisite condition for successful investment project implementation and risk mitigation is ensuring stable and reliable operation of all constituent enterprises of the holding. This means enterprises in a holding should be bound by strict contractual obligations between them.

The managing company will be responsible for monitoring the enterprises' performance of their respective contractual obligations, conflict prevention, maintaining the balance of interests, ensuring the shortest possible duration of receivables by means of forfeiting.

The managing company will hold the enterprises and entities (their stakes) as follows:

- reproduction poultry factories provide for poultry stock reproduction for egg and broiler operations, meat production and processing;
- several poultry factories in egg operations provide for egg and poultry meat production and meat processing;
- several meat poultry factories provide for poultry stock reproduction for broiler operations, meat production and processing;
- combined feed factory provides for the production and supply of combined feed for poultry factories;
- regional administration promotes the organisation and implementation of this project and provides organisational and legal support for the holding company operations;
- commercial group handles marketing and procurement functions.

The consolidation of financial and production resources, attracting investment for industry development and modernisation, implementation of advanced technologies of poultry production and processing, as well as the development of interfarm cooperation will bring:

- increased utilisation of available production capacity;
- complete procurement of balanced combined feed to poultry factories. Timely deliveries of quality combined feed excluding intermediary stages will help to bring down aggregate unit costs;
- improved egg-laying rates in egg operations and higher daily weight gains in broilers;
- improved profit margins of all types of production;
- marketing end products through the dealer chain thus established will provide consolidated profit at the end of the technological chain. Its distribution among the participants of the group (company) will promote their further economic development [11].

V. CONCLUSION

The implementation of modern technology, primarily biotechnology, is a new approach to utilising the industry's inner resources.

The example of the Tambov region is used to analyse the practice of organisational and economic relations of the government and business in the system of modernisation of the regional poultry market development strategy. The poultry subcomplex operates as a system of government regulation and market self-regulation of economic relations between the participants to provide for improved competitive profile and steady industry development, which will enable to meet the demand for poultry meat and eggs. We believe that the findings of the study can be applied by public authorities and businesses in adopting similar practices in other territories. On the other hand, researchers can rely on them to inspire greater interest in studying the forms of public-private partnership at the international level.

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