Leading investment approaches to the development of agro-industrial complex and formation of regional policy

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Abstract This paper focuses on the leading investment approaches to the development of agro-industrial complex and formation of regional policy. We employ the case study of the productivity of the enterprises in the food and processing industry in Sverdlovsk region. The paper considers the investment approach of development of agro-industrial complex at the formation of the regional policy. We describe the mechanism of interaction of the state, science business at strategic development of agro-industrial complex in the region.

Our results show that the investment approach of development of the agro-industrial complex which essence consists in building of the additional capital directed on effective use of cumulative capacity of the enterprises of food and processing industry is reasonable. This campaign will allow deducing the Russian economy from a condition of recession and becoming pledge for its development. Our findings suggest that the formation of regional policy in the conditions of transformation of the economy is based on investment appeal of the territory, and, in particular, on the development of agro-industrial complex.

1 Introduction

In general, the agro-industrial complex is the most important part of the Russian national economy system (Maitah et al. 2016; Doronina et al. 2016). Its leading position and the necessity of its strategic development are located in its volume of production that makes about 80 % of consumer goods (Yakunina et al. 1998). The level and quality of development of agro-industrial complex in many respects define and shape up the country’s welfare as a whole (Bezpalov et al. 2019). This is quite typical not only for Russia but also for other former socialist economies (see e.g. Svatôš and Smutka 2010; Janda et al. 2013; Moskalenko and Yevsieieva 2015; Abrham et al. 2015; Yerseitova et al. 2018; or Smaliiukiené and Monni 2019).

In addition, the development of agrarian and industrial complex is an important economic factor necessary for Russian economy as a whole. Political factors influence development of national economy in macro, meso, and micro levels. The agro-industrial complex was affected directly with political factors and has cardinally changed the vector of its development due to the sanctions imposed by the European Union (EU) countries, the ones with a high level of economic development.

As a result, the implementation of a “State program of development of agriculture and regulation of the markets of agricultural production, raw materials and the food for 2013-2020” became the instrument of ensuring food security of the Russian economy concerning a number of foodstuff and promoted acceleration of process of import substitution which has begun before the introduction of sanctions and restrictions. Nowadays, the problem of productive process of beef still remains a problem due to the labour-intensive technological process which results in the high level of productive cost. Along with the designated problem, it is also necessary to enumerate a number of negative tendencies interfering the development of agro-industrial complex, in particular shortage of cultivated areas, absence in raw materials in sufficient quantity, bad equipment used in the course of production with application of innovative technologies and as a result high product cost. In a medium-term forecast, the development of agro-industrial complex will likely to slow down because of the underdevelopment of rural territories (Molokova 2016).

Certainly, we consider an indicator of export of Russian grain to be one of the achievements, which in 2016 was 120,7 million tons, and in 2017 has reached 133 million tons (Fomin 2018). Moreover, positive
dynamics is traced in production of meat, slaughter of a bird, collecting technical agricultures, sunflower and sugar beet. Taking into consideration closeness of the export market, the animal husbandry will not provide in the long-term future growth. The decrease in the state support, glut by production in the consumer market becomes the precondition for decrease in volume of production of managing subjects (Proshchalykina et al. 2019). Thus, the new stage in agro-industrial complex, in particular redistribution of shares of the market is looked through.

2 Food industry enterprises in Russian Federation

In the Russian agro-industrial complex, the structure of the branches processing agricultural raw materials (food, the branches of light industry connected with pre-processing of flax, cotton, wool, etc.) is allocated in accordance with some productional logic. The structure of the food industry includes market subjects with release of finished goods in the form of foodstuff, semi-finished products, and also soft drinks, alcoholic beverage production. The managing subjects who are letting out tobacco production also rank as the food industry. The indicators characterizing activity of the Russian food industry enterprises are presented in Table 1.

**Table 1. Main indicators of the food industry enterprises of the Russian Federation, in millions of rubles**

| Indicators                                                                 | 2010      | 2011      | 2012      | 2013      | 2014      | 2015      |
|---------------------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Number of the operating organizations and their territorial the isolated divisions (on the end of the year) | 40869     | 41274     | 43016     | 43263     | 44083     | 43971     |
| Volume of the shipped goods of own production, the executed works and services by own forces, billion rubles. | 3262      | 3602      | 4001      | 4272      | 4840      | 5861      |
| Production index, as a percentage to previous year                        | 103,2     | 103,9     | 104,1     | 100,6     | 102,5     | 102,0     |
| Mid-annual number of employees of the organizations, one thousand people | 1317      | 1292      | 1254      | 1216      | 1190      | 1185      |
| Balanced financial result (profit minus loss)                             | 162649    | 114126    | 189170    | 184830    | 109215    | 228549    |
| Profitability of the sold goods, production (works, services), in %       | 10,8      | 7,8       | 9,4       | 8,6       | 9,1       | 9,9       |
| Costs of 1 ruble of production (works, services), in kopecks              | 92,2      | 94,8      | 90,5      | 89,8      | 90,3      | 89,2      |

Source: Goskomstat (2019)

One can see that the profitability of the agricultural goods is growing. The production has increased in dynamics slightly in 2015 in comparison with 2014 by 0,8%. Therefore, to testify to dynamic development of market subjects inconveniently. The number of the operating enterprises is reduced, exactly, as well as number of employees of the studied organizations. To resultants an indicator is - an indicator of expenses for 1 ruble of production, its growth says that there is a rise in price of let-out production (Table 1). The reasons of growth of this indicator are: raw materials rise in price, a deterioration of fixed assets, lack of innovations in technological process, reduction of wages of workers. A message for this indicator are: raw materials rise in price, a deterioration of fixed assets, lack of innovations in technologic production, its growth says that there is a rise in price of let-out production. Effective functioning of agro-industrial complex directly depends on development food and processing industry (Zeibote et al. 2019).

The state strategy of development of agrarian and industrial complex of various regions of Russian Federation is individual. Depending on position of the region, from features of its development including historical, methods of development of the region get out also. The exact assessment of the territory, population density, nature of economic development of the region, as separately, and in a percentage ratio to an assessment across Russia as a whole is necessary.

Agricultural producers specialize on production of milk, meat, egg, potatoes, vegetables and fodder grain (Špička and Smutka 2014). The enterprises making foodstuff, all product range presented in the market of
Sverdlovsk region is issued. It is meat, dairy, oil and fat, flour-grinding, baking, confectionery, macaroni, alcohol-alcoholic, beer alcohol free, fish production.

3 Agro-industrial sector in Sverdlovsk region

Sverdlovsk region makes 13% of the all-Russian volumes of fowl, respectively the agro-industrial complex of area completely provides regional requirement. At the expense of the production the requirement of the population is completely provided with vegetables, potatoes, egg, for 70% - dairy production, for 55% - meat products, for 25% - grain. Finishing of these indicators to 100%, and further and bigger increase in production at territories of Sverdlovsk region, is capable to solve the questions connected with providing with the food other regions of the country (Maltsev and Gaidai 2017).

Production of foodstuff occupies a small part in production sector of economy of Sverdlovsk region and the manufacturing industry, about 8% of percent from total amount of shipped production of the industry of the region. One can see that 8% belong to a low share in production sector, but the social importance which is supported also with economic effect is allocated for the studied enterprises. Now in a science the standard approach to studying of the food industry is generally conducted with a position of an economic component. Questions of management in labour potential, increases of efficiency of activity, introduction of innovations in activity, investment appeal are considered. We consider that the food industry is of interest to studying of questions of social interaction at the developed institute. For the purpose of development of the enterprises food and processing industry it is necessary to improve organizational structure which provides activity of the person, regulating with formation of personal installations according to standard and legal base. Namely the role of the food industry consists in formation of values of citizens, providing the food developed in the society of the social statuses and performance of the main functions, in particular in release of enough of food and their qualities, maintenance of the balanced diet. The standard classification of the food industry includes four groups of branches: flour-grinding groats, provender, meat and milk flavouring. The designated branches include more than 32 specialized sub-industries.

In Sverdlovsk region, despite a small share which is occupied by the food industry in branch structure of manufacturing industry with it the social and economic role which is supported with normative legal acts is taken away. Which essence defines prospect of development of agro-industrial complex, in particular the enterprises food and processing industry. In addition, in Sverdlovsk region a number of the normative documents regulating strategic development have been approved:

- The law of Sverdlovsk region “About strategy of social and economic development of Sverdlovsk region for 2016-2030” N 151-OZ from December 21, 2015;
- State program of Sverdlovsk region “Development of agro-industrial complex and the consumer market of Sverdlovsk region till 2020”: The resolution of the government of Sverdlovsk region from October 23, 2013 of No. 1285-PP;
- Approval of the concept of the regional target program of development of the industry of Sverdlovsk region and increase of its competitiveness for 2014-2018” the Resolution of the government of Sverdlovsk region from July 2, 2013 of N 816-PP (Karkh et al. 2017).

It should be noted that the purposes of realization of the direction of social and economic policy of Sverdlovsk region for 2016-2030 in a part "Development of agro-industrial complex of Sverdlovsk region" are the sustainable development of agro-industrial complex and ensuring food security of Sverdlovsk region. The main objectives for achievement of the specified purposes are:

- increase in a share of consumption of agricultural production and production of the food industry made in the territory of Sverdlovsk region, in total amount of consumption of agricultural production and production of the food industry;
- increase of investment appeal of rural territories;
- increase of efficiency of functioning of agro-industrial complex and competitiveness of the organizations of agro-industrial complex;
- assist the development of small forms of managing in rural areas, personal farmsteads of citizens.

The project "Development of agro-industrial complex” is directed on the solution of objectives realized within a state program of Sverdlovsk region. The expected results of implementation of the specified project are:

- increase in providing Sverdlovsk region production of own production:
  - meat and meat production about 55,3 percent in 2014 to 72 percent in 2030;
  - milk and dairy production about 60,3 percent in 2014 to 80 percent in 2030;
vegetables about 39.2 percent in 2014 to 44 percent in 2030;

- increase in volume of made production of agriculture about 65.9 billion rubles in 2014 to 95.3 billion rubles in 2030;
- increase in volume of made production of the food industry about 88.2 billion rubles in 2014 to 134.1 billion rubles in 2030;
- increase in labour productivity in the agriculture sphere about 1.6 million rubles in 2014 to 2.8 million rubles in 2030;
- increase in labour productivity in the food industry about 3.4 million rubles on the person in 2014 to 5.4 million rubles on the person in 2030.

4 Leading investment approaches

It is necessary to define the reasons which constrain branch development. Some of these reasons are likely to be the weak source of raw materials, low level of a salary of employees of branch, high prices for equipment updating, stage of formation of the food market, and high interest rates of commercial banks (Kurdyumov 2016).

It is apparent that the salary of employees of branch is lower than on the average on economy, it is visible and at national level, and in Sverdlovsk region. Also proceeding from the analysis of data, the monthly average added salary of workers in Sverdlovsk region lower than on the average across Russia.

Table 2. Monthly average added salary of workers of the Russian Federation, in rubles

| Year | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------|------|------|------|------|------|------|------|
| In total | 20952 | 23369 | 26629 | 29792 | 32495 | 34030 | 36709 |
| Agriculture, hunting and forestry | 10668 | 12464 | 14129 | 15724 | 17724 | 19721 | 21755 |
| Processing productions | 19078 | 21781 | 24512 | 27045 | 29511 | 31910 | 34592 |
| from them: | | | | | | | |
| production of foodstuff, including drinks, and tobacco | 17317 | 19094 | 21105 | 23327 | 25081 | 26793 | 28779 |

Source: Goskomstat (2019)

Studying of compensation allows estimating tendencies at branches. According to the table, the monthly average salary for 2016 at the enterprises food and processing industry is lower for 21 % in relation to the enterprises with other type of economic activity. Stagnation of this parameter leads to social and economic consequences. The average salary of employees of the enterprises food and processing industry reflects level of their life. From a position of our research given by an indicator it is necessary to combine with labour productivity as this interrelation influences and cumulative macroeconomic indicators. Experience of a number of the enterprises shows that they intentionally contain salary growth for the purpose of growth of profit and attraction of investments, to creation of additional workplaces, reductions of the cost of technological process.

Table 3. Monthly average added salary of workers of the Russian Federation, in rubles.

| Year | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|------|------|------|------|------|------|------|
| On the average on all branches | 19756,7 | 22179,2 | 25138,8 | 27608,2 | 29492,2 | 30690,8 |
| Agriculture, hunting and forestry | 12729,7 | 13929,9 | 15599,8 | 17509,1 | 19016,4 | 20436,4 |
| Production of foodstuff, including drinks, and tobacco | 17299,9 | 19291,4 | 21071,2 | 23172,5 | 24695,7 | 26747,7 |

Source: Goskomstat (2019)

For the market subject, irrespective of a type of economic activity, attraction of investments is the instrument of development in the medium-term, long-term periods. On which the increase in volume of production and increase of efficiency of activity of the enterprise depends. At macrolevel of an investment define
a social and economic component of development of the Russian economy. Investments into development of the enterprises food and processing industry directly influence formation of living conditions of the population. From 2004 to 2010 investment in established prices in the Russian economy have increased for 69 % that promoted development of domestic market. However, food and processing industry this tendency has concerned the enterprises partially and this growth has made only 18 %. Thus, we consider that this branch during this period had low level of investment appeal. Since 2011 on the present of the enterprise food and processing industry carried out reorganisation for the purpose of integration increase of a share of the market. Feature the food industry are that there was a market redistribution, a number of the enterprises have replaced owners with domestic on foreign (42 % of the enterprises of the food industry belong to foreign legal entities). Proceeding from the provided data of the table, we ascertain that arrival of foreign investors has not rendered large-scale influence growth of investments into fixed capital. Following the results of the carried-out researches earlier, we consider that growth of proceeds from sales of production, profitability of assets of the managing subject are indicators which are priority for increase of level of investment appeal. In 2015, 2016 these indicators of the enterprises food and processing industry had rate of decrease, respectively and attraction of additional investments was inconvenient.

Table 4. Volume of investments into fixed capital by types of economic activity in the Russian Federation, in billion rubles

| Year     | Amendment unit | 2000      | 2010      | 2014      | 2015      | 2016      |
|----------|----------------|-----------|-----------|-----------|-----------|-----------|
| In total | billion roubles| 1165,2    | 9152,1    | 13902,6   | 13897,2   | 14639,8   |
| Agriculture, hunting and forestry | billion roubles | 34,3 | 303,8 | 510,3 | 505,8 | 611,2 |
| % to in total |                        | 2,9 % | 3,3 % | 3,7 % | 3,6 % | 4,2 % |
| Processing productions | billion roubles | 190,2 | 1207 | 2084 | 2172 | 2123 |
| % to in total |                        | 16 % | 13 % | 15 % | 16 % | 15 % |
| From them: | | | | | | |
| Production of foodstuff, including drinks, and tobacco | billion roubles | 43,9 | 176,5 | 251,4 | 247,1 | 242 |
| % to in total | | 3,8 % | 1,9 % | 1,8 % | 1,8 % | 1,7 % |

Source: Goskomstat (2019)

Subjects of regional economy developing strategy of further development were guided by the basic principle which essence consists in search of nonconventional forms of interaction of all subjects taking into account influence of the factors influencing economic and social situation in national economy. Sverdlovsk region is the potential territory in the Russian economy for attraction of investments. The volume of investments into fixed capital by types of economic activity in Sverdlovsk region is presented in Table 5.

Table 5. Volume of investments into fixed capital by types of economic activity in Sverdlovsk region

| Branch                                      | Amendment unit | 2017 |
|---------------------------------------------|----------------|------|
| In total                                    | billion rubles | 237,8| |
| rural, forestry, hunting, fishery and fish  | billion rubles | 9,9  | |
| breeding                                    |                |      | |
| % to all                                   |                | 4,2 %| |
| processing productions                      | billion rubles | 60,2 | |
| % to all                                   |                | 25,3 %| |

Source: Goskomstat (2019)

Forming investment climate in Sverdlovsk region the mechanism of state-private partnership by creation of structural elements in the conditions of economy transformation is used. From authorities the instrument of interaction of the state, business, a science (science and technology park "University", Industrial park "Bogoslovsky") is offered. Attraction of resources will allow effective functioning of the market subjects belonging to real sector. For example, start of Industrial park "Bogoslovsky" is carried out with attraction of
means as from regional and federal budgets that will strengthen industrial capacity of Sverdlovsk region and will create solvent demand. Strengthening of solvent demand will be the basis for development of the enterprises of the food industry in the territory (Cagrolink 2015).

Table 6. Indices of industrial production across Sverdlovsk region, (as a percentage to previous year)

| Index                    | 2017 |
|--------------------------|------|
| Industrial production    | 103,1|
| Processing productions   | 104,0|
| from them: production of foodstuff | 100,3 |

Source: Goskomstat (2019)

5 Conclusions

Overall, in a context of the problem outlined in the title of this paper, we consider that the violation of a principle of equivalence in the relation of the mechanism of pricing in the high-monopolized branches, in particular agricultural mechanical engineering, power industry, oil refining has led to growth of purchase prices of agricultural production might affect the increase of the final prices of production of the enterprises in food and processing industry. Within this context, the state support of agricultural producers remains to be a powerful tool for increasing the leadership position and efficiency of the food industry in creation of conditions for increase of production capacity, development of infrastructure, decrease in an unemployment rate, and ensuring social wellbeing in the region.

Thus, a main goal of development of agro-industrial complex and the food industry of Sverdlovsk region and in Russian Federation as a whole is a complete import substitution at the expense of own productions. Development of own capacities of agrarian and industrial complex and the food industry of Russia and Sverdlovsk region in particular are favourable and necessary. A leading role in the solution of all problems of a complex it is impossible without support from the state. Due to the financing and realization of tasks of programs of development deduction of the agrarian and industrial complex on the first place will become possible. As a result, Russian Federation can proceed to the complete import substitution as well as to covering its demand for agricultural production by its own means.

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