Consequences of the Spread of Covid-19 on the State of Investment Activity in the Kaluga Region

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Abstract: The acceleration of socio-economic development of territories depends on the volume of investment in its economy. The current pandemic situation, which has influenced the institutional transformation of economic and political conditions, is encouraging regions to make the necessary structural arrangements of the economy in order to ensure an influx of capital and increase its competitiveness. The article presents the result of research into socio-economic transformations of the regional economy, determined by investment activities and the mechanism for implementing investment policy. Particular attention is paid to the state of investment activity in agricultural production and its influence on the ongoing transformations of agriculture and on the size of production in the industry. The critical situation of the region's agricultural producers in the context of declining investment flows attaches particular importance to the issues of effective use of contractual forms of interaction between producer and investor, which have proven maximum efficiency.

1 INTRODUCTION

The prospects for economic development of any region are determined by material costs and the financial resources necessary for this. Attracting investments and creating favorable conditions for their placement makes it possible to obtain economic and social benefits from their implementation. However, the Covid-19 pandemic has made major adjustments to investment activities.

The policy pursued by the authorities of the Kaluga region since 2006, aimed at attracting investors to the region, made it possible to create a favorable investment climate for the development of large businesses in the region and to form the first industrial parks, defining strategic directions for the development of the region, providing for sustainable economic growth through the realization of the potential of the three "I" - innovation, investment, tourism industry (Resolution, 2009). 300 foreign enterprises and organizations were created in the region - in all fields of activity, of which 89 are engaged in industrial production (Turchaeva, 2021).

2 RESEARCH METHODOLOGY

The study is based on the use of general scientific and special methods and techniques of scientific knowledge: analysis and synthesis, methods of absolute, relative, average magnitudes, as well as graphic and formal presentation of the results of analysis.

The research methodology included two main stages:

1) a description of the state of the existing system of investment activity in the region for the period from 2014 to 2022, where trends in key indicators of investment activity in the region were assessed, the

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structure of investments in fixed capital by type of ownership was analyzed;

2) calculation methodology and interpretation of the research results obtained during processing, identifying the impact of investment activity on individual indicators of economic and socio-economic development of the region. At this stage of the study, the main basic factors that form investment utility for certain sectors of the national economy, including sectors of the agricultural sector, have been identified as an area less susceptible to the negative impact of the Covid-19 pandemic.

3 RESULTS

The volume of investments in fixed capital reflects the current state of investment activity of business entities at the expense of all sources of financing. The stability of investment processes, despite the impact of the COVID-19 pandemic, is evidenced by the positive dynamics of investment in fixed assets by organizations of all forms of ownership (Table 1).

Table 1: Main indicators of investment activity in the region.

Indicators	2014г	2015г	2016г	2017г	2018г.	2019г	2020г.	2021г.	2022г.
Investments in fixed capital (in million rubles)	99786	92707	84445	89030	91138	110158	112040	114900	135850
Index of physical volume of investments (in% of the previous year in comparable prices)	99,6	80,7	86,3	102,1	87,6	112,1	102,1	114,9	88,8
Investments in fixed assets per capita (in thousand rubles)	98,7	91,8	83,2	87,9	90,2	109,8	111,9	107,0	126,8

On average, during the study period, more than 45% of investments were aimed at updating machinery and equipment, vehicles, including household equipment, etc.; about 40% - for construction, reconstruction of buildings (except residential) and structures, as well as for land improvement. The rest of the investment resources are aimed at housing (buildings and premises), intellectual property, etc.

An analysis of the structure of investments by type of ownership showed that the share of domestic investments increased by 25.6 percentage points during the period under study, while the share of foreign investments decreased by 2 times and investments of a joint nature decreased by 5.5 times (Figure 1). A decrease in the share of foreign investment in the structure of investment flows can be seen in 2020 by 2.8 percentage points and in 2022 by 6.3 percentage points compared to previous periods.

These changes are due to the impact of the pandemic and the political conditions that determine investment activity in the region, indicating a reorientation of investment flows.

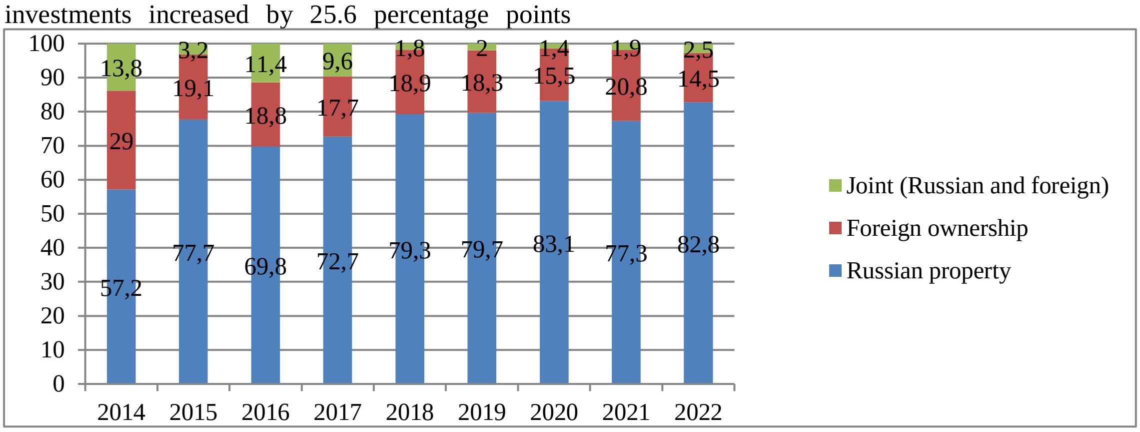

Figure 1: Structure of investments in fixed capital of the Kaluga region by type of ownership, %.

Also, it should be noted that the investment attractiveness for foreign investors in the region has greatly weakened due to the events of 2022.

The following people left Kaluga land: the world's largest manufacturer of building materials LafargeHolcim, representatives of the automobile industry Peugeot, Citroen, Mitsubishi and Volvo, which produces trucks, etc., and more than 8,000 employees were released.

The current trend was reflected in the economic results of the region. According to preliminary estimates, GRP in 2022 amounted to 669.1 billion rubles or 89.5% of the 2021 value in constant estimates [3].

GRP growth from 2014 to 2021 2 times (at current prices) was achieved primarily due to the rapid development of manufacturing industries.

In the Kaluga region, special attention is paid to the development of agricultural production.

The agro-industrial complex of the Kaluga region includes 225 organizations engaged in agricultural activities, 42 large and medium-sized food and processing enterprises, 855 peasant farms, 100.5 thousand personal subsidiary plots.

The main area of specialization of agricultural production is dairy and beef cattle breeding.

Along with the main industry, agricultural producers are engaged in poultry farming, growing grain crops, potatoes, and vegetables.

Attracting private investment remains a key direction in ensuring the development of agriculture. According to the regional Ministry of Agriculture, over the seven years of the state program for agricultural development, investments in the agricultural sector of the Kaluga region exceeded 106.7 billion rubles, of which 54.7 billion rubles were private funds from investors. In 2021, the volume of investments in agricultural development amounted to 3.5 billion rubles.

As for the total volume of investments in the region in fixed capital by type of activity “Agriculture, forestry, hunting, fishing and fish farming”, the data over the years is presented in Figure 2.

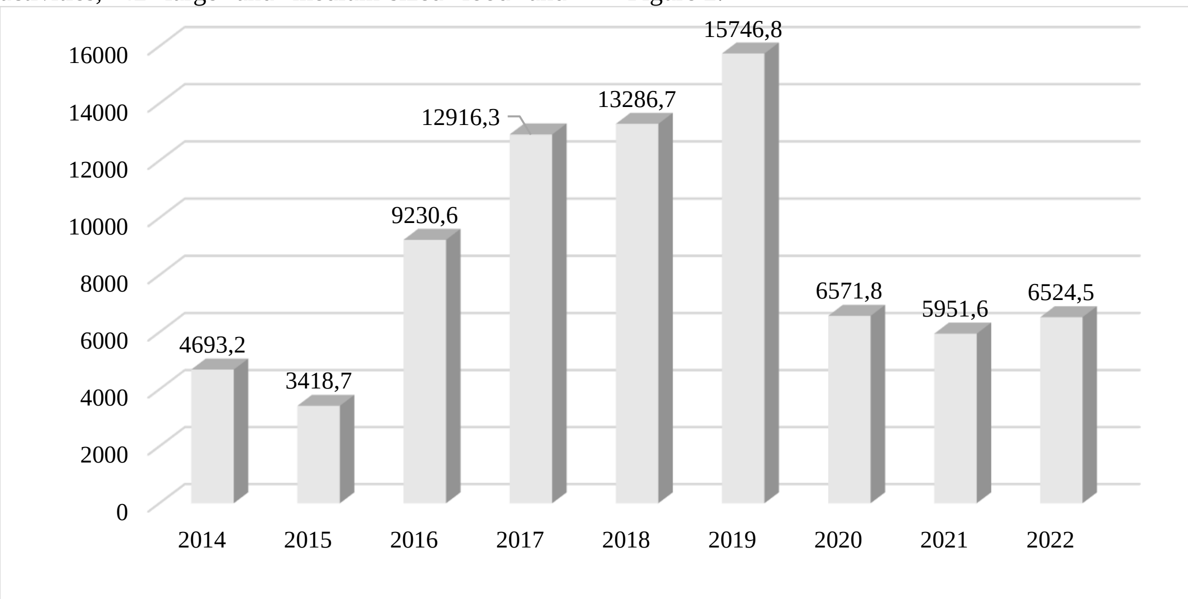

Figure 2: Investments in fixed capital by type of activity “Agriculture, forestry, hunting, fishing and fish farming” (Kaluga region, for the period from the beginning of the reporting year; in million rubles).

In the period from 2016 to 2019, the region experienced a steady increase in investment in the economic activity “Agriculture, forestry, hunting, fishing and fish farming.” By 2019, the amount of investment in this segment of the economy reached its peak (15 billion 746.8 million rubles), but in 2020 it sharply decreased by 2.4 times, that is, the pandemic had a negative impact on investment flows.

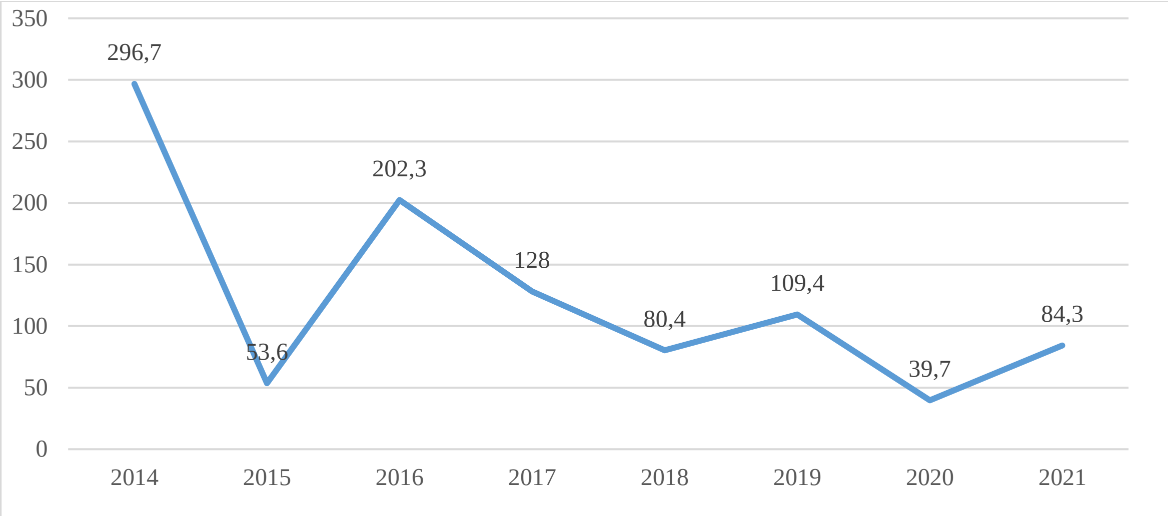

Figure 3: Index of physical volume of investment in fixed capital of agriculture in the Kaluga region, (in % of the previous year).

Table 2:. Selected indicators of economic and socio-economic development of the Kaluga region.

Indicators	2014г	2015г	2016г	2017г	2018г.	2019г	2020г.	2021г.	2022г
Gross regional product (in current basic prices), billion rubles.	326,4	339,7	409,4	457,0	507,6	549,7	561,9	664,2	…
Gross regional product per capita, thousand rubles.	324,0	336,3	404,5	451,0	502,2	546,6	560,9	659,6	….
Growth (decrease) rate of industrial production, %	108,9	93,5	107,0	119,8	109,7	105,7	101,3	107,9	80,7
Volume of shipped goods of own production, work and services performed in-house, in million rubles.	478,0	482,1	541,3	708,0	867,9	919,9	948,8	1131,8	906,2
Population (at the end of the year), in thousands of people.	1010,5	1009,8	1014,6	1012,2	1009,4	1002,6	1001,0	1073,3	1070,9
Share of people	50,9	50,8	51,3	51,1	52,4	51,6	51,3	48,6	48,2

employed in the economy, %									
Average per capita cash income of the population per month, in rubles.	24984	27703	28800	28715	29178	31417	32559	35076	34982
Average monthly nominal accrued wages of employees of organizations, in rubles.	28984	29939	31667	34332	38197	41442	43994	48837	52840

As for agriculture itself, as the data in Figure 3 shows, a surge in investment in fixed capital of the industry compared to previous periods was noted in 2014, 2016, 2017 and 2019.

We believe that a slight drop in investor interest in agribusiness in certain periods is due to various objective and subjective, internal and external factors, and generally reflects general economic trends in the country and the world. Thus, in 2020, negative changes in the development of many industries were associated with the consequences of the COVID-19 coronavirus pandemic; in 2021-2022 - with the uncertainty of the economic situation, political circumstances and numerous economic sanctions.

The average annual growth rate of agricultural products was 110.2%. The region is witnessing an increase in the size of agricultural production by large agricultural holdings. However, it should be noted that the emphasis on a few largest formations does not contribute to the sustainability of the food system (Golovach, 2018).

In 2022, the sectors that occupied the largest share in the complex of manufacturing industries in 2020 (automotive manufacturing - 33.3% of the total volume of shipped products; food production - 16.7%; production of computers, electronic and optical products - 9.5% ; metallurgy – 6.5%), showed a significant reduction in production volumes.

In 2022, compared to 2021, food production decreased by 7.2%, metallurgical production - by 7.8%, production of computers, electronic and optical products - by 8.2%, production of electronic equipment - by 20, 4%, production of motor vehicles, trailers and semi-trailers amounted to 74.4%.

The production volumes of medicines and materials used for medical purposes increased in 2021 compared to 2020 by 26.2%, and in 2022 – by 31.4%.

In 2022, growth in production volumes was also demonstrated by the production of clothing (+9.6%), production of finished metal products, except machinery and equipment (+18.2%), production of machinery and equipment not included in other groups (+42. 8%). In 2022, production increased by 24.1% in the field of wood processing and production of wood and cork products (except furniture), production of straw products and wicker materials.

A significant reduction in production volumes by the leading sectors of industrial production under the influence of the coronavirus pandemic, aggravated by well-known political and economic factors in 2022, contributed to an overall decrease in industrial production in the region (by 19.3% compared to 2021).

Analysis of the data presented in Table 2 allows us to conclude that in the regional economy in the period from 2014 to 2020. inclusively, a little more than 50% of the total population of the region was employed. In 2021 and 2022 There has been a decrease in the share of the population employed in the economy, which is a consequence of the spread of coronavirus infection, the introduction of economic sanctions against the Russian Federation and the closure of some production facilities in the Kaluga region by foreign partners. Due to the above factors, the share of unemployed in 2020 increased by 0.53 percentage points compared to the previous year. However, in 2021 and 2022. there is a decrease in the number of unemployed (by 3.8 thousand people in 2021 compared to 2020 and by 600 people in 2022 compared to 2021).

It should be noted that throughout the entire period under study there has been an upward trend in the average monthly nominal wage. At the same time, if nominal accrued wages in 2021 increased by 72.9%

compared to 2016, then the average per capita income of the population increased only by 40.4%, which is largely due to inflationary processes.

4 DISCUSSION OF THE RESULTS

Systematic work aimed at creating favorable conditions for investment has led to an increase in the level of development and well-being of the region. However, the presence of the pandemic factor and its consequences, which destabilize the already difficult economic and political situation, indicate the need to develop new strategic decisions at all levels of government.

As such, we can recommend expanding the system of contracts capable of ensuring optimal economic interactions between entities (especially small and medium-sized ones); stability of activity; confidence in sales markets; minimize transaction costs; increase profits.

The main advantage of the contract is that all its counterparties work to order. This is especially true for the sphere of agricultural production, the products of which are guaranteed by stable consumption. Redistribution of investment flows in this direction will make it possible to secure the activities of both the investor, reducing the risk of loss of income, and the manufacturer. The contract stipulates in advance in what quantity and at what price the manufacturer will supply raw materials. Thanks to the contractual agreement, the investor is confident in the growth of his investments, and the manufacturer is confident that his products will be sold (Vlyubchak, 2016).

The contract system provides a number of benefits: access to credit and reliable markets; guaranteed sales of products; fixing pricing; introduction of new technologies.

Thanks to the contract system, the problems of selling products are solved by providing guarantees to farmers and ensuring supplies to buyers.

In addition, in the context of the development of the Digital Agriculture project, which is planned to be implemented between now and 2024, traditional contractual relationships can be replaced by smart contracts, which will allow investors to significantly increase their portfolio. A smart contract is a “digital contract”. Such a contract has its advantages. The first is transparency. It is impossible to change any information in the contract without being noticed. And the second is self-execution. The program is connected to Rosagroleasing and bank accounts, and, according to the agreement, automatically transfers money, and also stores and maintains the entire history of business relations (BennettGarner, 2018).

In addition to such smart contracts, digital products such as “smart greenhouse”, “smart warehouse”, “smart agricultural office”, etc. are being developed for agribusiness.

“What is expected from information technologies in agriculture is a large-scale transformation of the agricultural sector as a whole, reducing production costs in this area, increasing investment, automating decision-making and minimizing human intervention in production processes, as well as increasing the number of jobs and developing exports. Moreover, by 2024, according to the ministry, all agricultural products for export will be accompanied by a paperless tracking system “from field to port.” And within the country, the control system will operate “from field to counter”” (Zenovina, 2018).

5 CONCLUSION

Summarizing the above, it should be noted that the proposed directions will preserve the investment attractiveness of the region and will contribute to the redirection of investment flows, with the aim of having a positive impact on all aspects of the life of the population and aspects of economic development..

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