

ANALYSIS OF INVESTMENT PROJECTS AS A METHOD FOR DETERMINING CHANGES IN THE ECONOMIC STRUCTURE OF THE SAMARA REGION OF RUSSIA

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Abstract: *The purpose of the article is to identify potential changes in the sectoral and territorial structure of the Samara region economy based on its investment projects. The data on the current ongoing and promising investment projects (2008-2048) of the Fund "Agency for Attracting Investments of the Samara Region" are used. The information and statistical base are also the sites of the cities of the region and the Federal State Statistics Service of Russia. The specificity of the current socio-economic situation of the region is characterized and its industrial profile is determined. 144 investment projects were considered, more than half of which are related to the development of industry (79 in terms of quantity and 2/3 in terms of investments). More than 80% of investments are related to strategic projects designed to ensure the integrated development of the region. This implies significant changes in the basic industrial sectors of the regional economy in the future. However, the analysis revealed that although the number of investment projects in the manufacturing industry of traditional areas prevails, 3/4 of the financing comes from the fuel industry (the creation of oil refineries). Projects are localized mainly in the largest cities: Samara, Novokuybyshevsk, Syzran, and Tolyatti concentrate about 90% of all investments. Although the already existing industry-specific features of industrial development will remain in the future, the value of oil refining will significantly increase and the manufacturing industry decrease. As to the spatial picture of the economy, the concentration of the economy will increase in large cities due to the development of oil refining projects, and the diversification of industry will affect Togliatti and Samara to a greater extent.*

Key words: *investment projects, industry, major cities, Samara region*

JEL codes: *O 018, R 120, R 190*

1. Introduction

Currently, Samara region is one of the most developed industrial regions of Russia. Strategic investment projects are designed to cause positive changes in the structure of its economy. Implementation of these projects affects the socio-economic situation in individual cities and the region as a whole, creates prerequisites for the economy decentralization ensuring its competitiveness. The construction of new industrial enterprises or modernization of existing ones contributes to an increase in the overall level of employment and improvement of the investment climate.

This paper is aimed to identify the structural specifics of investment projects of the Samara region in order to assess the prospects of its development. The following tasks have been set: to give a brief readout of the current economic situation in the region, to analyze the features of investment projects, to determine their sectoral and territorial priorities.

2. Methodology and Data

This problem is generally relevant in the domestic special economic literature. Most papers are devoted to the analysis of investment activity in the regions of Russia (for example, Bayev & Solovyeva, 2014, Kuznetsova, 2016, Krasilnikova et al. 2017), problems of investment project management in the region (Tatarkin & Bimatov, 2010, Nikitin, 2016, Pelyasov, 2018), and evaluation of its effectiveness (Nikitin, 2016). The works of scientists who have made a significant contribution to the study of the impact of investment projects on the socio-economic development of territories (Domański & Gwosdz, 2010, Belov, 2018), many of which are associated with individual regions (Chmelíková & Redlichová, 2012, Goryachko, 2014), became the theoretical and methodological basis of this article.

The statistical base of the study is the data of the Federal State Statistics Service of Russia (www1). The list of investment projects implemented and planned for implementation in the Samara region for 30 years is available on the website of the Fund "Agency for Attracting Investments of the Samara Region" (www2). It provides an opportunity to assess the priorities of the development of economic and industrial sectors of the region, belonging to the settlements of the territory based on the number of projects and the volume of investments allocated for their development. A comparative assessment of the sectoral and territorial

structure of these projects with modern features of the region helps to identify its future development.

3. Results and Discussion

Socio-economic characteristics of the Samara region. The region is located in the Volga Federal District, in the South-Eastern part of European Russia, in the middle reach of the Volga river. According to the data of 2018, the total area of the territory is 53.6 thousand sq. km., population - 3.2 million people, population density - 59.4 people/sq. km, the level of urbanization is high - 80.2%, and 10 cities in the region. The administrative center is Samara (1163.4 thousand people), a millionaire city, the largest cities: Togliatti (707.4 thousand people), Syzran (172.1 thousand people), and Novokuibyshevsk (104.3 thousand people) (www1). The main minerals are oil, natural gas, oil shale, and mineral construction raw materials. The region has reserves of hydropower resources, native sulfur and cement raw materials. More than 56% of residents are of working age, of which more than 21% are employed in the manufacturing industry and 13.4% - in the field of trade and repair of vehicles (Plisetsky, 2018).

The gross regional product (GRP) of the Samara region amounted to 1496.1 billion rubles in 2017 (1.8% of the total GRP of the subjects of Russia), GRP per capita – 470 thousand rubles (10th place among the regions of the country). The largest share of the region's economy gross value added (30%) falls on manufacturing, 15% - trade and repair of motor vehicles, motorcycles, household goods and personal items, 12% - transport and communications, 11% - mining. These features determine the industrial profile of the region, which is historically positioned as a leader among the regions of Russia. It ranks 4th place in the district in terms of shipped industrial goods, including 4th place in mining and electricity, and 5h place in manufacturing. In the structure of the manufacturing industry in 2018, the leading role belongs to the production of machinery and equipment - 41%, and chemical products - 16%. Food products -11%, refining and petrochemicals - 11%, metallurgy - 10%, and electronics and electrical engineering- 6%, occupy a ranking place (www1). The basic branches of industry and economy of the region as a whole are the motor vehicle, chemical and petrochemical industries, precision engineering (production of space and aviation equipment), non-ferrous metallurgy and electricity. The manufactures with a high depth of processing related to the petrochemical complex and metallurgy are very important for the region. (www3). This allows

noting general diversification of production and the presence of industries with high added value.

The region has more than 600 medium and large, as well as about 6 thousand small industrial enterprises. The leading positions in the automotive industry belong to AVTOVAZ JSC, which produces about 70% of all passenger cars of the Russian Federation and is located in Togliatti. The chemical and petrochemical industry is represented by such large enterprises as: Togliattyazot, KuibyshevAzot, Kuibyshevphosphor, Sintezkauchuk, Synthetic Spirit Plant, and others. Samara, Syzran, and NovoKuibyshev oil refinery plants produce the largest volume of oil products; their share is about 10-12% on the national scale (www4). Automotive, chemical and petrochemical enterprises are located in almost all cities of the region, are the most important city-forming sectors and the main systemic industries of the region.

Investment projects of the Samara region. All of 144 projects under study (total investment of about 1175.7 billion rubles) are calculated for the period from 2008 to 2048 and mostly are projects of regional and urban scale (www2). The article deals with investment projects without taking into account projects of national scale, as regional investments stimulate the growth of the territory's economy in the long term much better than the implementation of large projects at the expense of the Federal budget (Belov, 2018). 39 of these investment projects are included in the list of the strategic projects, approved by the Order of the Government of the Samara region dated April 09, 2014, No. 221-r; they include the lion's share of invested funds - 81.1% of the total amount.

Almost 44% of all projects are short-term (with implementation periods of less than 5 years); they relate mainly to construction and agriculture. Long-term projects include 46 projects (with implementation period of more than 10 years), which are usually related to the development of industry. Only 31 of 144 announced projects have already been completed, while only 9 of them relate to the development of the industry.

More than half (55%) of all the projects in the region are industrial, and the remaining 65 affect construction, technology, and innovation development, agriculture, etc. The volume of investments accounted for by industrial investment projects is 71% of the total volume, so they will have the greatest impact on the basic sectors of the region's economy. Investment projects determine the prospects for the region development mainly through the renewal of its economic base, associated with the creation of infrastructure facilities and increased employment (Chmelíková & Redlichová, 2012).

The leading investors of industrial investment projects are the largest companies in the region: Togliattyazot, KuibyshevAzot, and Rosneft Oil Company, which determined their industry specialization, i.e. the future inertial trajectory of the region's development, which is typical for the regional policy of the country (Pelyasov, 2018). The main funds are related to 6 projects of the fuel industry: 3/4 of the investment volume was allocated for their implementation. The most expensive projects are oriented to the construction of new technological installations at oil refining enterprises.

The motor vehicle industry ranks second in terms of investment (13 projects and 13% of industry investment), followed by the chemical industry - 9 projects (7%), focused on the production of mineral fertilizers. The most significant projects of the industry are initiated and invested by AVTOVAZ JSC; more often they are oriented at the construction of new car plants.

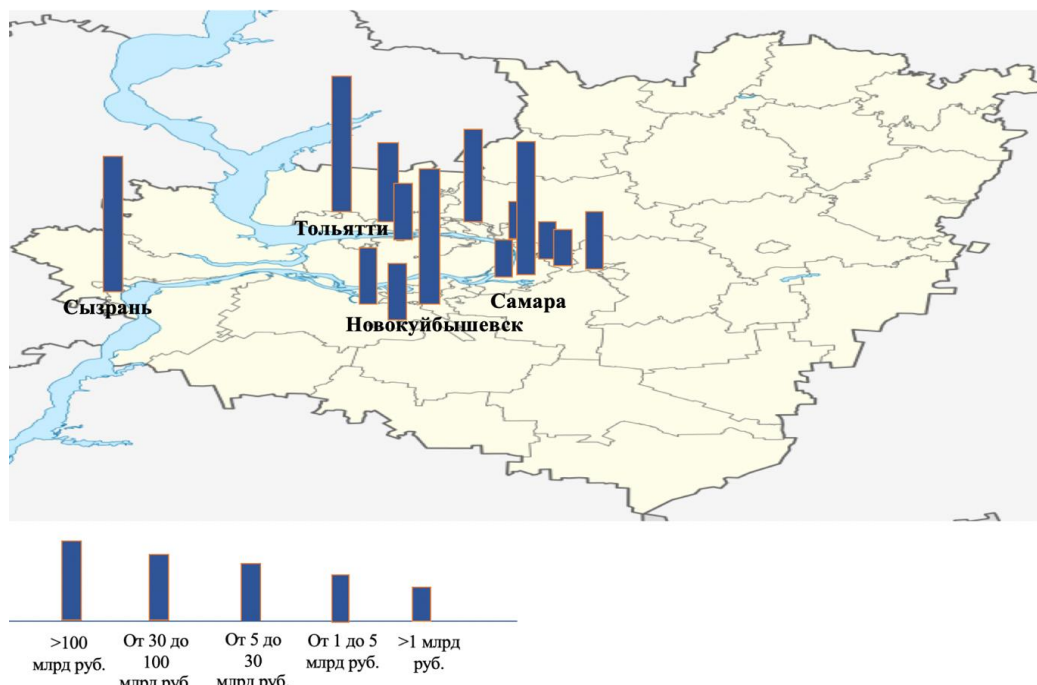
Other industrial projects occupy only 1% of the total amount of funds. There are 7 projects of other sub-sectors of mechanical engineering in the region, for example, the production of shut-off valves, electric motors, LED equipment and technical liquids, etc. The food industry includes 8 projects for the construction of new enterprises and workshops, for example, the design project of a milk processing plant, which is the largest of all. The largest of 6 projects of the construction materials industry involves the building of a plant for the production of dry building mixes based on KNAUF gypsum in the territory of the industrial park.

The most expensive projects are oriented to the construction of new enterprises, workshops and technological installations, and the least expensive projects relate to the modernization or reconstruction of existing production facilities.

Territorial structure of industrial investment projects. The multiplicative effect of the development of local and regional economies from investment projects is higher, the higher the volume of investment, the share in the industry structure, the specificity of spatial distribution (Domański & Gwosdz, 2010, Goryachko, 2014). Projects distribution through the territory of the Samara region is extremely uneven. Most are confined to the 4 largest cities in terms of investment and number. These cities are the main industrial centers of the region and are located on the banks of the Volga, the main waterway of the European part of the country. At the same time, Samara, Syzran, Novokuybyshevsk, and Tolyatti are transport and logistics hubs, they are distinguished by a high concentration of the population, the presence of qualified workers and highly educated specialists, as well as a developed social infrastructure, which generally determines the high investment potential of the entire region. (Bayev & Solovyeva, 2014, Kuznetsova, 2016, Krasilnikova et al. 2017).

These 4 cities account for 67% of all projects in the region and about 94% of all investments in industrial projects in the region (Fig. 1). This is due to the fact that they provide one common major project for the modernization of existing plants and construction of new technological plants at the enterprises of Novokuibyshevsk Refinery JSC, Kuibyshev Refinery JSC, Syzran Refinery JSC, and Novokuibyshevsk Oils and Additives Plant LLL.

Fig. 1: Territorial distribution of total investment in investment industrial projects of the Samara region



Source: Compiled by the authors based on (www2)

The volume of investment in industrial projects of these cities is approximately equal and is amounted to: Novokuibyshevsk - 25%, Samara - 24%, Syzran - 24% and Togliatti - 21% of the total amount. However, there are only 3 projects in Novokuibyshevsk, 5 in Samara and 1 in Syzran. In addition to the oil refining project in Novokuybyshevsk and Samara, a project is planned to expand the network of filling stations of Tatneft PJSC. A project to build a solar power plant in Novokuibyshevsk was completed in 2018. There is a variety of projects and industries in Samara: 1 project of the fuel industry, 1 - the petrochemical industry and 2 - development of new technologies in mechanical engineering.

But a wider list of projects is provided in Togliatti - the undisputed leader in the number of investment industrial projects in the region (56% of the total number in the region). The automotive, chemistry, and petrochemical industries dominate in the number of projects and

the total volume of investment, which accounts for almost 93% of the total investment in the city's projects, the largest of which are listed in Table 1.

Tab. 1 The main investment projects in Togliatti

Manufacturing industry	Project title	Design capacity
motor vehicle industry	Production of new cars on the B/C platform	180 thousand cars/year
	Production of new cars on the B0 platform	280 thousand cars/year
chemical	Reconstruction of ammonia units with an increase in ammonia capacity	12,200 t/day
	Reconstruction of carbamide units with an increase in capacity	5,200 t/day
petrochemical	Construction and operation of IC7 isomerization complex	30 thousand t/year

Source: Compiled by the authors based on (www2)

At the same time, automotive projects concentrate about 60% of the total investment in the city projects. Concerning other industries, a sufficiently large project is provided only in the steel industry: 8.2 billion rubles (about 5%) were allocated for the reconstruction of the electric steelmaking workshop.

4. Conclusions

The bulk of investment projects (80%) is in the process of implementation, so their analysis and comparison with the modern structure of the economy and industry of the Samara region allows us to draw the following conclusions:

1) The main investment projects are industrial projects, since more than 70% of the provided investment funds are allocated for their development. In their sectoral structure, we can note the dominance of the fuel industry, which accounts for 3/4 of the total investment. The most expensive is a powerful project to create a refinery in 3 large cities of the region. The most important place in the sectoral structure of industrial investment projects in terms of the number and volume of investments is occupied by projects related to the motor vehicle industry and the production of mineral fertilizers.

Despite the fact that about 80% of investment projects are strategic and are designed to improve the structure of the region's economy, the long-term development of the Samara region as a whole will preserve its sectoral specialization and basic industries. However, the

strengthening of the role of oil refining with a low level of investment in high-tech industries (for example, precision engineering - production of space and aviation equipment, electronics, etc.) will contribute to the simplification of the sectoral structure of the regional industry.

2) The territorial structure of investment industrial projects is uneven: almost all funds are distributed among the 4 largest cities. Such features of spatial development will contribute to the preferential creation of jobs in Samara, Novokuibyshevsk, Syzran, and Togliatti, which will strengthen the internal territorial differentiation of socio-economic development of the region. More than half of the total number of investment projects is concentrated in Togliatti - the automotive capital of the region, while more than half of the funds are provided for the development of the motor vehicle industry, which will strengthen the narrow profile of the city's economy and the risks of its socio-economic situation.

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