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Innovative Investment Trends In The Economy Of The North Caucasus.

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ABSTRACT

The article presents an analysis of the effectiveness of investing in selected sectors of the North Caucasus economy in Russia. It has been established that the largest cash flow from investments of previous periods is generated by agricultural production and processing enterprises, as well as by high-tech industries. Survey of the most effective agricultural production has shown that the most competitive and profitable are those enterprises that have restructured on the basis of innovative forms of organization and management, in addition, they are introducing innovative technologies of the main production. In the structure of innovation development, innovations based on the use of information and communication technologies are highlighted.
Keywords: innovation, regional economy, efficiency, discounted cash flow, information and communication technologies, convergence.

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INTRODUCTION

The economic cycles of the last decade have caused such a significant volatility in world and regional markets, which created conditions for the loss of stability of a number of companies in the real economy and financial institutions. In the territorial structure of the economy of the Russian Federation, the regions found themselves in unequal conditions of the impact of disturbing factors. In addition, the structure of the regional economy, and, accordingly, the opportunities for using stabilization measures, as well as their effectiveness, is not homogeneous.

The Northern Caucasus has a special geopolitical significance for the Russian economy. Due to the migration processes taking place in the region and adjacent to it, its economic situation acquires a number of specific features.

A significant role is played by natural and climatic conditions, determining the opportunities and trends in the development of recreational tourist zones, the high proportion of agricultural production, and restrictions on the formation of sectoral clusters.

In this regard, it is relevant to study the emerging trends in development and ensure the stability of the economy of the North Caucasus region.

The purpose of the study is to determine and justify the possibilities of investment support and reset the economy of the North Caucasus region of Russia on the basis of the priorities for substituting loss-making industries with innovative high-tech enterprises.

RESULTS AND DISCUSSION

In the system of administrative-territorial division of Russia, the North Caucasian Federal District (NCFD) united the republics of Dagestan, Ingushetia, North Ossetia, Kabardino-Balkaria, Karachaevo-Cherkessia, Chechen, and Stavropol Territory. Analysis of the number of people living on the territory of the NCFD allows us to establish that this district is one of the two most sparsely populated territorial entities. The proportion of economically active population is also proportionally low. Territory - 170.4 thousand square km.

It is important, however, to note that the dynamics of demographic processes lead to an increase in the population, and this provides the region with a growing labor potential. At the same time, the structure of the rural and urban population has been redistributed in favor of the rural population, which amounts to 50.9% (as of January 1, 2015). This is the highest figure among all federal districts of Russia. In addition, the dynamics of the rural population is negative in all districts, except for the South and North Caucasus. In comparison with the Southern District, the North Caucasus has the largest increase in the rural population (70,000 people in two years), which is 1.42%. Therefore, we can conclude that, despite the crisis conditions, agriculture in the region is attractive to the population of the region.

It is important to note here that in general, business activity in the region in all sectors of the economy is one of the lowest. Thus, according to the number of enterprises (137127 as of December 31, 2014), the region is inferior to all the rest. This gives grounds to conclude that agricultural production for the North Caucasus region is a factor in the stability of the economic situation of the population. Obviously, import substitution played a significant role.

In fact, agricultural output has actually and most significantly increased its share in the structure of consumption in the Russian market. However, it should also be noted a new factor that stimulates the development of the agro-industrial complex of the North Caucasus - innovative technologies, equipment, methods of organization. The growth of income and profit of agricultural enterprises in the North Caucasus, in our view, is related to the automation of technological processes on the basis of innovative software and hardware. This applies, in the first place, to on-board computers and microcontrollers of agricultural machinery. The result of their use is a significant increase in the yield of crops cultivated in the North Caucasus region. Equally important is the growth of labor productivity of the personnel of agricultural enterprises. The means of automation in the technology of processing agricultural products are increasingly being used. As a

result, the quality of food products supplied to trade networks has significantly improved. The demand has grown - the incomes of enterprises have increased.

Innovative forms acquired the organization of production of agricultural enterprises on the basis of the active implementation of information systems for resource management (ERP). An important role was played by 1C software products, well adapted to the specifics of domestic production, with an established system of training and retraining personnel for the introduction and maintenance of such information resources. Successful was the integration of ERP systems 1C: enterprises with information resources of related organizations and institutions, and primarily with banking information systems.

The use of "smart" devices becomes especially important. Their algorithms support the situational adoption of sound decisions based on the results of objective measurements and real-time analysis of process parameters. As a result, the management of economic processes guarantees the best (optimal) solutions, for example, in terms of resource costs, and hence costs.

The tourist segment of the economy of the North Caucasus deserves special attention. It is well known that for the last two decades even domestic tourism has lost to the level of service to foreign offers. Raising the level of service for clients of tourist companies in the North Caucasus began with information and telecommunications services, which are provided to consumers for the choice of tour operators and tourist services. It is the requirements of consumers in the online choice of the company forced tour operators to improve the quality of their services. This directly influenced competitiveness. If we add to this the conjuncture of world currencies and the advantages of domestic tour operators resulting from the depreciation of the ruble, it becomes obvious that the trend in the growth in demand for tourism services and the volume of their sales is logical.

However, the mobilization processes, on the one hand, of consumers and, on the other hand, of service providers, play an important role in the system of providing modern services. And here innovative solutions based on information and communication technologies showed themselves. First of all, these are mobile systems and applications of the choice of services. Secondly, it is a system of mobile electronic payments using bank accounts, payment systems based on the use of digital cash and virtual accounts, services of mobile operators. Thirdly, the factor of logistical mobilization enables the population of the North Caucasus region to use their ethnic characteristics to mobile application of their capabilities. Information and telecommunication services allow the mobility of the use of labor resources within the region. This is a factor in increasing business activity in the region, increasing employment in the region. After all, traditional immobilization methods of organizing the provision of services led to migration of the population to other regions. Recently, European countries have felt the results of migration processes in more developed regions. They proved to be ambiguous for the indigenous population.

It is extremely important in this case to increase the requirements for staff. The labor resource is transformed into human capital with a high degree of intellectualization. This requires the operation and maintenance of innovative equipment. At the same time it is in the interests of the staff to acquire innovative competencies, since the salaries of such personnel are significantly higher than those of incompetent in terms of modern innovative technologies and solutions.

The creation of a scientific and innovative infrastructure in the North Caucasus is stimulated. As can be seen from their data, given in Table 1, such a task is relevant for the North Caucasus. Obviously, its solution will increase the competitiveness of enterprises in the region.

Table 1: Number of organizations performing research and development in the Russian Federation and federal districts

Russian Federation, district	Years		
	2012	2013	2014
Russian Federation	3566	3605	3604
Central Federal District	1318	1327	1313
North-West Federal District	487	464	466

Southern Federal District	222	234	236
North-Caucasian Federal District	99	116	117
Volga Federal District	609	633	619
Ural federal district	236	229	239
Siberian Federal District	424	428	242
Far Eastern Federal District	171	174	170
Crimean Federal District			20

The distribution for the subjects of the North Caucasus region is presented in Table 2.

Table 2: Number of organizations performing R & D in the North Caucasus District

District, region	Years		
	2012	2013	2014
North-Caucasian Federal District	99	116	117
Including:			
1. The Republic of Ingushetia	4	4	4
2. The Karachay-Cherkess Republic	5	7	8
3. The Chechen Republic	9	9	8
4. The Kabardino-Balkarian Republic	14	14	14
5. Republic of North Ossetia-Alania	16	17	18
6. The Stavropol Territory	23	35	35
7. The Republic of Dagestan	28	30	30

Solving this problem requires investing in scientific, research, development, design, research and implementation activities. Monitoring data showed that, on the one hand, the amount of financing for such activities is growing, and, on the other hand, is significantly behind developed countries.

The analysis of the dynamic processes taking place in the innovation sphere of the region shows that it is attractive for the population of the region. A comparative analysis with the processes of changing employment in other spheres of activity makes it possible to establish that the dynamics of employment in the scientific and innovative sphere are fairly stable. This circumstance is stabilizing for the economy of the North Caucasus. Thus, innovative segments in the structure of the housekeeper had a stabilizing effect on the economy of the North Caucasus region during the crises of 2008-2009 and 2014-2015. This is well illustrated by data reflecting the dynamics of the gross regional product, given in Table 3.

Comparison of dynamic indicators of the gross regional product of the North Caucasus in comparison with the gross domestic product allows us to conclude that the region exceeds the average Russian development indicators in terms of growth rates. Indeed, if the GDP indices in 2005, 2010 and 2013 in relation to 2000 were respectively 295.8%, 633.87%, 906.01%, the GRP index of the surveyed region was 334.7%, 847.9% 1 292.35%. The total excess of the growth rates of the gross product is 1 292.35% / 906.01% = 1.426 times. The gross product index calculated per capita for Russia and the North Caucasus for the same period is 925.5% and 1 292.35%, and the excess is 1 396 times.

The results obtained for such large-scale economic indicators provide grounds for stating the following facts. First, the potential of the North Caucasus region is not exhausted, and the growth potential at the advanced rates of development is very significant. Secondly, the orientation towards the regional structure of the economy with the dominant sectors - agriculture and food production - is justified, and its effectiveness is proven in practice. Thirdly, innovative equipment, technologies, forms of production organization provided advanced dynamic indicators of the region's development in comparison with the Russian Federation as a whole. On this basis, the potential of such development of the regional economy with such a vector can be calculated by the methods and models used for innovation processes. They are based on the logistic function or its modification in the form of the Bass model, which show that the stage of innovation dynamics, when the rates increase, is characterized by a level not exceeding 50% of the maximum value (saturation). Consequently, the potential of the gross regional product of the North Caucasus is at least 2,719 billion rubles. The potential of GRP per capita is at least 284,206 rubles. per person. Achieving this potential will help to close the gap in

the standard of living of the population of the North Caucasus Federal District in comparison with other regions.

Table 3: Gross regional product (GRP)

	Total, million rubles / Per capita, rubles			
	2000	2005	2010	2013
Gross domestic product of the Russian Federation (market prices)	7305646/ 49835	21609766/ 150571	46308 541/ 324177	66190120/ 461233
Including GRP of RF subjects				
Central Federal District	1841499/ 48205	6278360/ 164888	13 444440/ 350204	18975900/ 489708
North-West Federal District	578505/ 40565	1799780/ 130846	3943054/ 289611	5586594/ 406026
Southern Federal District	329696/ 23418	936057/ 67566	2337937/ 168773	3528190/ 253152
North-Caucasian Federal District	105178/ 13803	352069/ 39051	891834/ 94915	1359273/ 142103
Volga Federal District	1036787/ 32792	2799036/ 91574	5709469/ 190720	8571225/ 288055
Ural federal district	866133/ 69327	3091363/ 254078	5118918/ 423495	7648600/ 626119
Siberian Federal District	687072/ 33682	1951300/ 99628	4131396/ 214402	5535449/ 287027
Far Eastern Federal District	308802/ 44932	826420/ 127161	2110720/ 334910	2808368/ 450126

Equally important is the possibility of investing in the outpacing dynamics of GRP growth due to regional revenues of innovation projects. To the greatest extent this applies to agriculture, food industry, tourism; the potential of regional energy has not been exhausted. It is characterized by excessive energy resources. However, it should be noted that the opportunities of this sector will be manifested after a change in the trend of prices for oil, gas, electricity, which is inevitable from a fundamental point of view. Indeed, the change in quotations of oil prices on world markets from $ 147 per barrel to 27.5 is an anomaly. In this regard, investments in the energy sector of the North Caucasus are strategically important and will ensure the solution of long-term development challenges for the region. No less important for the region are innovative projects of a breakthrough nature. Among them, the company "Monocrystal" attracts attention, the development of which provided a competitive production of sapphires, as well as sapphire plates. The enterprise became a portfolio company "Rosnano". For the domestic economy, the development and production of the sixth technological order are not only a factor of competitiveness, but also a valuable experience in increasing the added value of production.

Therefore, it is possible to restructure the region's economy on the basis of replacing non-competitive enterprises with modern innovative products with competitive products. Substitution of enterprises of extractive industries and industries with low processing and low added value, but high requirements for material resources, thus creates prerequisites for improving the efficiency of enterprises, and consequently contributes to the growth of the regional economy and to the welfare of its population.

CONCLUSION

An analysis of the efficiency of investing in the raw materials industries of the North Caucasus's economy in Russia and industries that require large expenditures of material resources shows that, due to the periphery of the region, they do not provide a payback. A lot of such enterprises went bankrupt. At the same time, stable and growing cash flow from investments from previous periods generates agricultural production and processing enterprises, as well as high-tech production. In the agricultural production of the North Caucasus, income growth is observed. It is generated by the processes of import substitution, as well as automation of technological processes on the basis of innovative software and hardware, especially smart

devices. The formation of human capital with a higher level of intellectual components entails the need for the development of the education system, investing in institutions for the retraining of personnel and the formation of new competencies. So a system with positive feedbacks, self-regulation and development is formed. As a result, the employment of the population in the scientific and innovative spheres of activity is stabilized. The stability of systemic ties in the North Caucasus economy has been tested by the crisis processes of 2008-2009 and 2014-2015. Consequently, the formed trend of innovative development should be considered fundamental for the public authorities responsible for the development strategy and investment of the infrastructure of the North Caucasus.

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