

# Economic security of the regions: trends and prospects

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**Abstract**—Modern development of national economy is characterized by a variety of different threats preventing its stable functioning. In these circumstances a great importance is given to the provision of national security in particular to economic security as its most important component. The economic security of the state is achieved by countering threats at the regional level. The article presents a model focused on supporting economic security of the regions at a high level.

**Keywords**—rating assessment of regions (economic growth and standards of living), the management system model of regional economic security, forecasting of the main macroeconomic indicators, economic crime, maintaining the overall level of safety.

## I. INTRODUCTION

Now there is no doubt that the economy is a basic area of activity in the society. The actual content the "economic security" concept is not limited to the aspects which affect the economic processes taking place in the region or the country as a whole. According to the strategy of "Russian National Security until 2020", economic security is an important component of Russia's national security [1]. On the one hand, it is determined by the productive forces development level and the state of socio-economic relations, on the other hand, economic security is a kind of foundation for the food, energy and environmental security.

Traditionally regional economic security is determined by the level of economic independence, stability and sustainability of the economy and the region's ability to self-development [2; 3; 4]. Socio - economic development for each region of the Russian Federation has unique features, which are explained by its geographical position, resource potential and the type and method of production selected for the region.

## II. REGIONAL ECONOMIC SECURITY RATING ASSESSEMENT AND FORECASTING FOR SEVERAL GROUPS OF INDICATORS

Rating assessment method has been selected to analyze socio-economic development and to work out measures aimed at stabilizing and improving the overall level of regional economic security. The research was based on the consideration and comparison of regional features according to belonging of regions to the Federal Districts [5; 6; 7]. The rating includes official data provided by Rosstat (indicators of socio-economic status of Russian territorial subjects from 2010 to 2018). All indicators were grouped into two blocks. The first block shows economic growth of the region; the second one describes standards of living.

On the assumption that the rating parameter was assigned value from 1 to 10 towards the average maximum indicators of the regions in a federal district for the period 2010-2018, all other values are respectively compared with the maximum separately within each federal district.

The analysis shows that each federal district is characterized by sharp disparities between regions. This can be explained by the increase in the gap in socio-economic development between northern and southern regions and the presence of industrial production and special economic zones.

Final values of the positions taken by regions of federal districts in rating assessment of economic growth and standards of living matched the maximum values in three federal districts: Pryvolzhsky Federal District, North-Caucasian Federal District, Ural Federal District, South Federal District, and the minimal values in North-Caucasian Federal District, Siberian Federal District, Central Federal District, South Federal District. The results of this rating assessment allow to estimate the development level of the regions in the context of Federal District, to identify main trends of either economic growth or decline.

According to the forecasts, all regions except Moscow city demonstrate an upward trend in GRP indicator, with particularly high growth rates in Krasnodar Krai, which significantly distinguishes this territory in comparison with other regions. The total increase in GRP by 2022 can reach 168.4%, in relation to 2018, according to realistic forecast. Such a significant increase is due to the dynamic development of resort - recreational and tourist complexes, transport and agricultural complex, which in turn are significant priorities, not only for the region but also for the socio-economic development of Russia as a whole.

According to realistic forecast for Moscow the decline in GRP will reach 9.08% by 2022 in relation to 2018, the hypothesis for such decline can be the prevalence of trade in the structure of GRP (for 2018 this sphere has been ranked first in GRP structure), the second place is occupied by the activity related to business services, research and development, and information technology. As service sector development is a priority direction in the development of many Russian regions, this will be able to contribute to increase in GRP.

The economic situation in the Russian Federation (especially since 2014) is developing under the influence of deterioration in the external economic conditions, a special attention is paid to import substitution policy therefore one of

key aspects in social and economic development of the country is to maintain high level of food security which, in turn, is the most important component of economic security. The increase in agricultural production by almost 7,2% in 2018 has a positive impact on growth dynamics of a GRP indicator. Positive dynamics is also preserved in the industries oriented towards exports: chemical and energy products.

Despite the fact that the forecasts for selected areas mainly show positive growth dynamics of GRP, it should be noted that a mathematical model - the log-parabolic trend - was used as a forecasting tool. Therefore, the downward GRP tendency will automatically cause the decrease in the main standards of living indicators in many Russian regions, significantly worsen social and economic development of the country, etc. In this case, considering the economic security as the most important component of Russia's national security, may significantly worsen the threats to the state and public security (illegal drugs transfer, increase in criminal attacks against the person, property, public authorities, social and economic security, and also ones related to corruption). As it is seen from examples, the threats are directly related to the economic security.

The level of state economic security is one of the factors largely determining the investment attractiveness of regions. The most important characteristic of investment processes in the Russian Federation is the dynamics of investments in fixed assets index. For regions which got the minimal values in standards of living rating assessments three types of forecasts were made for this indicator. The investment attractiveness assessment includes analysing different investment sphere indicators. That's why this assessment occupies a special place in the preparation of federal and regional budget projects. The perspective areas for investments include mining and manufacturing industries, which are the basis of the Russian economy.

The situation with the investment activity deteriorated significantly in Russia for the last 3-4 years, but the results of forecasts show that four regions will markedly improve their investments in fixed capital indicators. The Republics of Ingushetia, Tuva and Kalmykia will have a more than twofold increase. The opposite situation is typical of the Jewish Autonomous Region, Kurgan Region, for them the indicator will decline by more than twice in 2021, and for the Ivanovo region - by more than 3 times. The index will decrease for other regions as well, but so significantly.

Investment potential of the region is able to solve problems that affect overcoming territorial disbalance in economic development of subjects and the fixed capital renewal. Thus, the investment potential factors forming the conditions for radical modernization of national economic, start to dominate in the economic security of the country, and they also play a key role in the formation of long-term investment policy.

Both territorial subjects and Russia as a whole face the most serious problem in the investment activity maintenance, that is the area of investment leverage, due to the necessity of reproduction and accumulation of fixed capital, where there are specific factors and risks. Investment threats are reflected, for example, in high bank loan interest rates. So, in December 2014 the Central Bank raised its key interest rate

to 17% in order to reduce the risk of inflation and devaluation, that in fact led to the growth of loans rates for working capital up to 25-30%.

The study of economic security at the regional level should not be limited only to the analysis of socio-economic indicators [8] in the Russian Federation territorial subject, crime indicator analysis is also particularly significant. Official data from information resource 'PrognozDataPortal' were taken to study the dynamics of registered economic crimes in federal districts. In general, each federal district shows a significant downward trend in reported crimes by 2018. However this can not be regarded as a positive one, because crime schemes are becoming much more complicated. The greatest number of recorded crimes demonstrate Central Federal District and Povolzhsky Federal District, although the regions of these districts occupy fairly high positions in terms of socio-economic development. Therefore, a high level indicator of socio-economic development does not always correspond to a low crime level.

### III. THE MODEL OF REGIONAL ECONOMIC SECURITY

Having analyzed the development scenario of regions by federal districts, and also forecasting of the main socio-economic indicators, it is necessary to designate the main methods and instruments to maintain and improve the general level of economic safety at the regional level. The management system model of regional economic safety regions is developed as recommendations (Fig. 1).

This model includes 6 blocks: improving the quality and standards of living, maintaining the overall level of security, improving production process, development of the entrepreneurship institute, development of knowledge-based industries. The expected effect - stabilizing the economic security level of regions - can be reached by means of the following tools: investment, cluster-based, anticorruption, financial and credit policies.

3 blocks are accepted as bases in this model: 'maintaining the overall level of security' (this block is basis for others), 'improving production process' and 'development of high-tech industries'. The block 'improving production process' includes improvement of technological processes structure, renovation and modernization of legal structure, improvement of quality management in manufacturing plants, etc. This block is one of the most significant taking into account the current development conditions of the Russian economy, because energy and raw material economy model is still present. Due to objective reasons regions do not contribute equally into this block even in the frames of one federal district. That is why it is necessary to introduce actively the block 'knowledge-based industries' into the economy of the regions along with the improvement of production processes, in order to develop new methods and technologies, including information ones aimed at improving the structure of production processes. Finally active implementation of this block will result in building-up of human capital.

Third and fourth blocks (improving the quality and standards of living) result from the first two blocks, i.e. how effectively objectives and the purposes in the production and knowledge-intensive sphere are achieved to such an extent

the effect will be reached to increase or on the contrary to decrease social and economic development of the region, and all this will be reflected in standards of living indicators. These indicators necessarily include: increase in employment; improvement of working conditions; improvement of an ecological situation; increase in housing provision level; improvement of education quality; increase in availability of medical services, etc. The general result of the third and fourth blocks is the finishing 'development of the entrepreneurship institute' block.

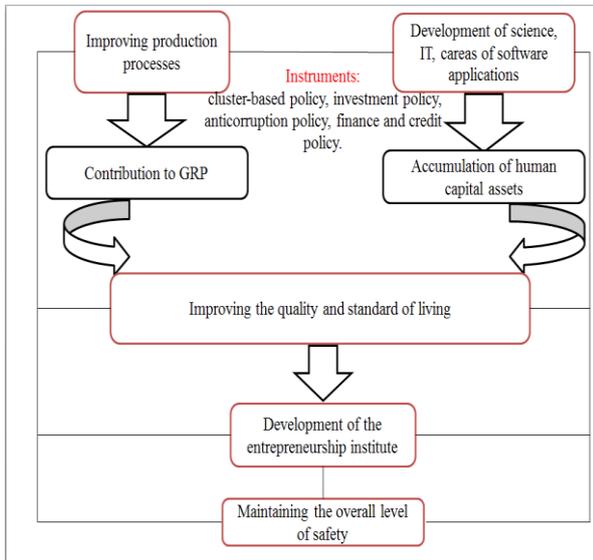


Fig. 1. Author's Development of the Regional Economic Security Model

Accordingly, the sixth block 'maintaining the overall level of security' operates at all levels, regardless of the development degree of other blocks. Its content covers absolutely all aspects of security, such as ecological, information, personnel, industrial security, the fight against corruption, and many other types of security. And the qualitative result expressed in achievement of security has to be reached, first of all, due to increase in legal literacy of the population. The issues of ecological security are actual inside the country and at the international level as well. Environmental policy must be paid a special attention in the course of the production block improvement. Information and personnel security are also fundamental for all development stages of regions.

Nowadays financial and credit policy is not effective for many regions, enterprises and individuals. The main problem is credit conditions [9; 10]. The main problem of the Russian Federation, especially sharply manifested in 2014 (after introducing Western sanctions) is the result of the Central Bank policy. In general, the country experiences 'an artificial credit hunger', which is manifested in the fact that money supply increases insufficiently, there is a flight of capital abroad, due to the fact that the interest rate on loans is quite high the country has a need for long-term loans at low interest rates. The international policy of high-interest loan and low-interest crediting is pursued in Russia, and it is a direct loss. The interest rate exceeds profitability in industry by 1,5 times, in agriculture by 4 times. The Central Bank does not create mechanisms for long-term loans, corporations are forced to be credited in the West, so that there is a risk of

early credit reclamations. Analyzing financial policy in general, creation of a national payment system can become an important step that, in turn, will also promote increase in the homeland security of the Russian Federation.

Implementation of investment policy has already been partly proven by creating forecasts for the 'investment into fixed capital' indicator for a number of regions after creation of a rating assessment. Improvement of financial credit policy can also partly promote improvement of investment one. Key problem for the Russian Federation is the decrease in investment activity both within the country and internationally, many reasons are connected with the international policy concerning the Russian Federation, but on the other hand, many problems are connected with stagnation in many industries of economy within the country [11].

Now the economy of many regions has the following hierarchy of industries: chemical, petrochemical, oil processing, machine-building, wood processing, pulp-and-paper, mining and processing of minerals, agro-industrial complex. All these industries form the foundation of regional economies and are traditional, it means that nevertheless a low production variety still prevails in region economies, and new high-tech industries are formed by low rates [12; 13; 14]. A promising step for many Russian regions can become a break with raw materials exports and turning to production of final products with higher added value, exporting which will bring more revenue to the regions. Productions of final goods will reduce dependence on import. The cluster-based policy can become the key tool for development of final goods productions. Such policy in essence is not something new to the Russian Federation, however its active application can promote improvement of many indicators which characterize the investment environment. Within cluster-based policy it is admissible to create the missing production links necessary to implement a complete production chain in the existing clusters that will allow to increase the use efficiency of idle floor spaces and to form deep product processing [15].

#### IV. CONCLUSION

The result of the study was an attempt to construct a model of regional economic security which was based on the analysis of strengths and weaknesses in the socio-economic development of regions. The sources of the analysis were the results of ratings and making forecasts for selected macroeconomic indicators. The choice of forecast indicators is determined by the regional level of economic development. The GRP indicator was chosen for the regions of all federal districts which took the maximum values for the rating assessment of economic growth, the investment in fixed assets indicator was chosen for the minimum values of standards of living. According to the used mathematical model 'log-parabolic trend' GRP is growing in all analyzed regions with any type of forecast indicators except for Moscow. Despite the drop in value, the region still holds a leading position on the GRP indicator. The resulting predictive values of the index fixed investment vary for different regions and reflect either a sharp increase or a sharp fall. The pessimistic forecast for the Jewish Autonomous Region demonstrates the investment outflows, on the resulting model the value of this indicator is negative.

Finding the way to solve economic security problems is a dynamic process, it requires consistency, a certain order, as well as a detailed analysis of many indicators that not only characterize the economic aspect of society, it is necessary to study in detail a variety of methods and integrated approaches for different groups of regions, respectively identifying key problems, threats, develop already more suitable model, aimed at raising the level of economic security.

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