

## INDICATORS AND A MECHANISM TO ENSURE ECONOMIC SECURITY OF THE REGIONS

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### **Abstract**

Economic security of regions is one of the most important components of national security of the state, for any state it is important to solve the problem of ensuring their economic security. To ensure the economic security of the regions it is necessary to develop mechanism and indicators. In article the system of indicators of economic security of the region. Considered signs of classification of the regions to identify threshold levels of performance indicators of economic security. The proposed mechanism of ensuring economic security of the region, the algorithm of development strategy of economic security, the stages of formation of system of economic security of the region.

**Keywords:** Economic security of the region, indicators of economic security, economic security, the region's economy

**JEL classification:** O20, P25, R10

### **1. Introduction**

Economic security is a strategic direction in the activities of the state and its regions. This trend is enhanced by the fact that the process of economic globalization is an irreversible natural evolutionary process of societal development.

The changes in the international environment necessitate new approaches to comparative assessment of the level of political, economic and military security in different countries of the world community. It is obvious that an effective system of ensuring economic security is an important issue in any region. This is even more important for today's Russia, seeking to take its rightful place in the global geopolitical and economic space.

The state of economic security of the region can be estimated using special tools: indicators, evaluation criteria, developed and used in government statistics and in various fields of science.

## **2. The system of economic security indicators of socio-economic systems**

Regional socio-economic interests, threats and thresholds of the indicators should take into account the specificity of economy and social sphere of the region, the relevant parameters in this field in Russia as a whole.

In the economic literature there is no single approach to formation of system of economic security indicators the socio-economic system and their threshold values.

In Russia, common system indicators, which includes four projections: economic development, social development, innovative development and environmental development.

Analysis of the developed system showed the feasibility of its improvement by increasing the number of projections and unification of structure of indicators, taking into account new challenges and threats, as well as a number of other factors, emphasizing features of particular regions. In choosing an indicator we used the following considerations:

- o availability of source data
- o a single frequency output of information – one year
- o a limited number of indicators.

The entire system of economic security indicators of socio-economic systems includes ten projections describing various aspects of economic security.

To assess the level of economic security of Russian scientists currently use a variety of methods that can be represented in the form of five groups:

1. Monitoring of the main macroeconomic indicators and their comparison with the thresholds
2. Expert assessment method to rank the regions in terms of threats
3. An assessment of the rate of economic growth in the main macroeconomic indicators and dynamics of their changes
4. Methods of applied mathematics such as multivariate statistical analysis
5. The use of economic instruments when assessing the impact of security threats through quantification. The main problem when using the observation method of the main macroeconomic indicators is the selection of those indicators which compare with the thresholds will allow a comprehensive assessment of the state of the economy, to allocate an objective threat trends.

One of the most authoritative systems of indicators of economic security of Russia is the system S. Y. Glazyev. Diagnostics and monitoring of economic security of the state are conducted on the basis of 22 indicative indicators, each of which defined an individual threshold value. Exceeding these values leads to violation of state security (mainly the threshold value was set by expert). Indicators of economic security, in which Glazyev and cover various areas: industrial, financial, foreign trade, etc., which in turn, allows to judge about the comprehensiveness of the resulting estimates, which is very important when choosing management decisions.

The indicators of economic security S. Glazyev include: gross domestic product, share in industrial production of the manufacturing industry, the share of industrial production engineering, investments, research spending, the share of new products in volume of engineering products, the share in the population of people with incomes below the subsistence level, life expectancy, crime rates, unemployment, inflation, the volume of domestic debt, external debt, budget deficit, money supply, the share of imports in domestic consumption.

Analyzing the presented system of indicators of economic security of different authors, it should be noted one common drawback: they cannot be called a methods of estimation of economic safety, since in these systems there are no algorithms determining the values of the indicators (although in many cases such algorithms are derived directly from the name of the indicator); the interactions between the indicators and the rules for obtaining synthetic estimates based on the aggregate indicative targets; General rules for estimating the States of security; approaches to the assessment of the interaction of various factors and indicators, etc. (Glazyev, 2015).

The criterion of economic security to assess the state of the economy from the point of view of the most important processes, reflecting the essence of economic security.

Criterion assessment of economic safety includes evaluation of:

- o resource potential and its development
- o the level of efficiency of resource use, capital and labour and its conformity with the level of the most developed countries, as well as the level at which threats to internal and external nature can be reduced to a minimum
- o the competitiveness of the economy
- o the integrity of the territory and economic space
- o sovereignty, independence and the possibility of facing threats
- o social stability and conditions for preventing and resolving social conflicts.

For the purposes of comprehensive coverage of potential factors of socio-economic instability in the region developed synthetic indicators of socio-economic tensions that reflect the following situation: unemployment, crime, political situation, international relations, ecology, as the consumer market, the price index for consumer goods and food products, income of citizens, the state of the economy, the availability of additional factors of potential socio-economic tensions.

As characteristic properties of a mode of economic security to consider the conditions of reproduction. Under these conditions, can be put the system boundary mode indicators balanced functioning of the economy. Crisis-free functioning of the real sector of the economy inevitably means its orientation to the expanded reproduction. (Dorokhova et al., 2015; Kostin, 2012).

To build a system of economic security the most important feature of indicators is their interaction, which always exists only under certain conditions, increase in the force of danger, they go beyond certain limits become extreme, and become obvious.

The accumulation of information about the numerical parameters such interaction is necessary to determine the socio-economic impact of macroeconomic policy decisions, assess the importance of certain threats to economic security.

Assessment of the situation in the regions is carried out using two groups of indicators: the first group consists of verifying the indicators. On their basis is carried out diagnostics of a condition of the district, analyzes the depth of the degradation of the structure of the economy and the inertia of their dynamics. The second group consists of indicators of "potential growth" – that characterize the inner potential of the region, prerequisites and possibilities to overcome the state of depression or retardation due to internal forces and resources, the availability of effective pulses and growth points in order to detect the validity of the region to apply for Federal aid. (Novikov et al., 2010).

### **3. Signs of classification of the regions to define the threshold values of economic security indicators**

An objective assessment of economic security socio-economic system is possible on the basis of a comparison of the obtained indicator values with thresholds.

However, the threshold value is a limit value of specific indicators or criteria, but this paper just lists the indicators and limit values are proposed.

To obtain the threshold values of economic security indicators need to be defined at the level of principle, the country's national interests in the field of Economics. (Lyshchikova et al., 2015; Nikulina et al., 2013; Vladyska et al., 2016).

The basis of the territorial zoning threshold levels of performance indicators of economic security in regions of the Russian Federation allowed a separation of socio-economic space of the country according to a number of fundamental classification criteria.

1. Climatic conditions. The more severe is the climate, the more stringent conditions are imposed on a number of performance indicators of economic security, for example, from the standpoint of investment the economy of the regions and the renewal of fixed assets. On the basis of all the territory of the Russian Federation are divided into the following three groups:

- o areas with a relatively favourable climate (average temperature in January does not fall below – 5°C)
- o areas with a continental climate (average winter temperature in January can drop below – 20°C. the fluctuation range between average January temperature and average July temperature can reach 45-50°C)

- o areas with a cold climate and the Northern territory (the average temperature and January usually falls below – 20°C).

2. The degree of development of the territory, where we can distinguish the following affinity groups:

- o long cultivated territory with balanced development of industrial and social spheres
- o territories, development of which started not so long ago and continues to the present time (developing area)
- o undeveloped areas.

3. The structure of industrial production in the territory. In accordance with this characteristic identifies six territorial groups:

- o focused on the mining and production of fuel resources (the share of economic activities associated with the extraction and production of fuel resources, in the structure of industrial production is more than 30%)
- o areas where the prevailing position in the industrial production is production related to the production of non-ferrous metals and products from them (their share is more than 30-35% in the structure of industrial production)
- o areas with a highly developed wood processing and production of wood products and pulp and paper production (these productions occupy a dominant position among other economic activities related to the production of industrial products, and their share exceeds 25%)
- o areas with highly developed industries related to the production of products of light (textile and garments manufacturing: manufacture of leather, products from leather and footwear manufacturing) or food (manufacture of food products, beverages and tobacco) industry (one of these productions has a dominant position in the structure of industrial production)
- o areas with highly developed metallurgical production and production of ready products made of ferrous metals, as well as engineering and Metalworking (one of these productions has a dominant position in the structure of industrial production and its share in the structure exceeds 30% or the sum of the proportions of both types of production exceed 40-45%)
- o the rest of the territory not included in any of the five re-numbering groups.

4. The security of a territory of their own mineral resources. Primarily on the basis of the territory differentiate depending on the type of mineral resources (mineral resources, metal ores or other mineral fork) and the degree of security of territories of different types of minerals. The result is divided into the following groups:

- o territory with its own resources of oil or gas, and the resources available in 3-5 times or more exceeds the demand of the territory in these types of fuel and energy resources
- o territory with its own resources of oil, gas or coal, while the volume of resources is approximately equal to the requirement or exceeds it somewhat. In addition, this group includes areas with significant own resources of non-ferrous metals
- o areas with significant own resources of iron ore
- o areas with insignificant amount of own resources of minerals or with their complete absence.

5. The security of a territory of its own fuel resources. This characteristic is used to differentiate threshold values for a number of indicative indicators of energy security of the territory, and is a special case of the previous characteristic. The result of this symptom among the subjects of the Russian Federation allocated only two threshold groups:

- o areas with significant fuel resources and ensuring their need for them more than 30-40%
- o areas with little of its own fuel resources or complete absence.

6. The strength of transport links the territory with other territories. In the differentiation threshold values indicative figures among the subjects of the Russian Federation in this case there are three affinity groups:

- o areas with strong transport links. Such areas are, first, developed railway links with other territories, and secondly, a high degree of development of two or more other types of external transport links (road, air, river or sea)

- o areas with connections of medium strength. These areas have railway connection with other areas (but not very strong), and one or more of the other types of external transport links
- o areas with weak transport links. These areas have virtually no rail and road connections with other areas. All deliveries to these areas are mostly aviation and water transport.

7. The strength of transport links the territory with other territories from the point of view of supply of fuel resources. By analogy with the fifth sign of the considered characteristic is used to differentiate the thresholds of the indicators of energy security, and is a special case of the previous characteristic. In addition, when forming the threshold groups it takes into account climatic conditions. With that said among the subjects of the Russian Federation are the following affinity groups:

- o the territory, with railway connection of medium strength, on non-pipeline transport relations with gas producing territories
- o areas that do not have rail and gas pipeline links with external suppliers; fuel resources are taken either from own sources or are delivered by water or air transport. This group includes also the territory of group 1 with severe climatic conditions.

8. The power electrical connections of the territory with power systems of other territories or integrated electricity system. This symptom is regarded as a special case of the 6-th lines, and generates the requirements for energy security in terms of availability of its own generating sources.

9. The development of scientific schools and scientific potential of the territory. This characteristic is used in the zoning thresholds on indicators of science and technology security and consolidation includes three threshold groups:

- o the territory, the largest centers of science
- o areas with well-developed science of individual lines of which have national significance
- o the territory where science developed mostly at the local level and is of a purely applied nature.

10. The development of the higher education system. In accordance with this characteristic differentiates between two territorial groups:

- o areas with a developed system of higher education, including the universities of different directions, and profiles, many of which are of Federal significance
- o the area where the higher education system is mainly focused on the local needs of skilled workers, given the structure and orientation of the economy, or territory where the system of institutions of higher professional education is not developed.

11. The level of development and orientation of the structure of industrial production in the territory. On the basis of this symptom is zoning thresholds for indicators that assess innovation capacity and performance innovation sphere territories. Are seven territorial groups:

- o developed and developed areas with highly developed industry
- o developed and Mature areas with well-developed industries, however, traditionally agricultural regions of the country
- o developed and developed territory with underdeveloped industry
- o areas with developing industry which has a dominant position among the other spheres of production of goods and services
- o underdeveloped territories, where the industry does not occupy a dominant position among the other industrial areas
- o undeveloped areas in which the industry has received initial level of development and in future it is planned its dominant position among the other industrial areas
- o undeveloped territory, where in the near future is planned large-scale development of industrial production.

12. The degree of development and concentration of industrial production in the territory. This characteristic is largely similar to the previous one, but unlike it does not take into account the level of development of other spheres of production complex. Therefore, the

number of threshold groups among the subjects of the Russian Federation on this basis is somewhat less than in the previous case; it is possible to allocate five groups:

- o the territory with a highly developed and highly concentrated industry
- o areas with highly developed industry, but its concentration is uneven (there are areas with very high concentration, and there are areas where the industrial production is practically absent)
- o areas with a developing industry with the uneven concentration of industrial production
- o areas with underdeveloped industry
- o underdeveloped and undeveloped areas.

13. The export potential of the territory. On this basis, all areas in General, can be divided into two large groups:

- o areas with high export potential, where a significant part of industrial production is export-oriented products
- o areas with low or low export potential. These areas, usually heavily deficient in their natural and mineral resources.

14. The geographical position of the territory. In the first place in the division of the territories on similar groups regarded their proximity to boundaries, the development of transport communications and infrastructure of export-import operations. As a result, all socio-economic space of Russia can be divided into three large groups:

- o border area. This group includes the territory, the largest logistics centres, where many traffic flows
- o a territory distant from the state borders but having strong transport links to most parts of the country and with foreign countries
- o a territory distant from the state borders (land) or bordering weak States and weak transport links with other regions of the country and with countries abroad.

15. Proximity to foreign countries, and the presence of paths of movement of the migrants from these States. Is a special case of the previous characteristic and is intended for zoning of the constituent entities of the Russian Federation on indicators which take into account migration flows, residence of foreigners and their employment in the economy. When the enlarged classification on the basis of this stand two territorial groups:

- o the land bordering foreign States, or through which the main migration flows
- o the rest of the territory.

16. The degree of population of the territory. For zoning of subjects of the Russian Federation on this basis uses the rate of population density on the basis of which there are four territorial groups:

- o well-developed and densely populated areas
- o undeveloped and developed areas
- o the new territories
- o underdeveloped and undeveloped areas.

17. Production potential and financial security areas, which are assessed on a per capita GRP of the territory. Based on this characteristic among the regions of the Russian Federation there are three groups of areas:

- o areas in which per capita GRP relative to the average level is more than 120% (areas with strong production and financial potential)
- o areas in which per capita GRP relative to the average level is in the range from 70 to 120% (areas with an average production and financial capacity)
- o areas in which per capita GRP relative to the average level reaches 70% (areas with low production and financial potential).

18. The age of the asset population. Analyses on the proportion of the population older than working age in the total population of the territories. On this basis, among the regions of the Russian Federation it is possible to allocate three groups of areas:

- o with the well-established age composition of the population. The share of population over working age is more than 20%
- o with a dynamically developing economy, where the share of population over working age, usually lies in the range of 15-20%
- o with the share of population over working age, not pre-visausa 15%.

19. The proportion of women of childbearing age (15-49 years) in total population; regions of the Russian Federation are divided into two groups site:

- o the territory in which the proportion of women of childbearing age in the total population exceeds 27%
- o the territory in which the proportion of women of childbearing age in the total population less than 27%.

20. Percentage of population under able-bodied and of working age in the total population. Based on this characteristic among the regions of the Russian Federation, two groups of territories:

- o the territory in which the proportion of the population younger than working age and working age in the total population exceeds 80%
- o the territory in which the proportion of the population younger than working age and working age in the General population of less than 80%.

22. Climatic conditions in combination with the structure of production and the availability of energy-intensive industries. This characteristic is used for zoning threshold values of indicative indicators of the energy intensity of the economy of the territories. Among the regions of the Russian Federation under the sign of the coarsening is possible to distinguish the following three affinity groups:

- o areas with cold and temperate climate with a predominance of energy-intensive industries
- o the remaining areas with cold and temperate climate
- o the southern territory.

#### **4. The mechanism of ensuring economic security of the region**

The mechanism of ensuring economic security should be a system of procedures and economic instruments allowing the state to effectively exercise its function of protecting the economic security of Russia.

During the formation of this mechanism should clearly set out the responsibilities of the Federal Executive authorities and authorities of subjects of the Russian Federation for the protection of economic security of the country and to act at all stages of economic activities of the state bodies: in the analysis and forecasting of socio-economic development of the country, the development and approval of the state budget, adoption of major regulatory acts and government decisions on the economy, etc. (Yakimchuk, 2015).

The algorithm of realization of this function primarily involves the formalization of national interests in the economic sphere.

For the normal functioning of the economic system need a strategy of economic security, both short-term and in the long term. Some economists argue that at present the main thing – the survival of the economy, then its stabilization, and only in the long term – development. At the core of this strategy lies the idea of the "mighty hand of the market". This understanding has a right to exist, and in terms of Economics it is theoretically justified.

The algorithm of development strategy of economic security socio-economic system consists of the following sequential steps:

1. Articulating interests in the region
2. The identification of threats to economic security of the region
3. Assessment of threats to economic security, as various indicators (socio-demographic, economic, food security, investment, financial, institutional transformations)
4. Comparison of the indicators with the thresholds and determining the status of socio-economic system (normal, pre-crisis, crisis, critical)
5. The formation of economic policy of the region
6. Monitoring the implementation of the measures
7. Implementation of measures to ensure economic security of the territory

Measures and mechanisms of economic policy formulated and implemented at Federal and regional levels, should be aimed at preventing internal and external threats of economic security of the Russian Federation in the following areas:

1. The most important elements of the mechanism of ensuring economic security of the Russian Federation are monitoring and forecasting of the determinants of threats to economic security.
2. Development of criteria and parameters (the threshold) economic security of the regions.
3. The activities of the state in ensuring economic security of the regions is performed in the following main areas:
  - o identify cases when the actual PLI projected parameters of economic development deviates from a threshold value of economic security and the development of a comprehensive state measures for the country's exit from the danger zone
  - o organization of work to implement a complex of measures to overcome or prevent the emergence of threats to economic security of the Russian Federation. In the course of this work the security Council of the Russian Federation considers the concept of the Federal budget from the point of view of ensuring economic security of the state; The government of the Russian Federation coordinates the work of Federal Executive bodies, Executive bodies of constituent entities of the Russian Federation in order to implement complex of measures to overcome or to prevent threats of economic safety of the country, including in preparation of legislative and other normative legal acts
  - o examination of decisions on financial and economic questions on the economic security of the Russian Federation. Legislative and other normative legal acts they must pass an examination on the subject of economic security of the Russian Federation. The procedure for the conduct of the said examination is determined by the President of the Russian Federation. Implementation of measures to eliminate threats to the economic security of the Russian Federation requires a system of control over their execution. The control system should take into account the rights and responsibilities of the owner.

The structure of socio-economic security socio-economic system must be a complex economic, environmental, legal, geopolitical, and other conditions that are designed to ensure: first, the protection of the vital interests of the country and its territories resource potential; second, the preconditions for the conservation and survival of the regional structures of Russia in the conditions of a possible crisis and future development; third, the competitiveness of regions in the domestic and world markets and the stability of the financial situation of the country; fourth, the creation of internal and external security from the destabilizing effects; fifth, the conditions for stable and normal reproduction of social processes.

Formation of system of economic security socio-economic system consists of seven blocks:

1. The concept of economic security
2. Regional interests in the economic sphere
3. The indicators of economic security
4. Threshold values of economic security threats to the region's economy
5. The organization for economic security
6. Legal and institutional economic security

The concept of economic security socio-economic system must contain the analysis of the current socio-economic situation of the region; an analysis of his socio - economic status compared to other regions; the definition of the objectives, principles and criteria for sustainable and safe development; the main parameters of the strategy of economic security of the region and measures for its implementation.

The concept of economic security socio-economic system should be based on long-term and future interests of the territory. Formulating the most important directions and principles of regional (territorial) policy, the concept thus provides the basis for developing concrete programmes and organizational documents, among which a special place must be a strategy for economic security. The economic security strategy socio-economic system is a normative - legal and organizational-methodical document that will reflect the actions of subjects of management of the region to achieve strategic and tactical goals of its economic security. At the stage of development of strategy of economic security socio-economic system, which is

the stage of prevention of critical situations (preventive phase of managing critical situation), actually implemented analytical and prognostic function of management.

Thus, to assess the economic security of socio-economic systems of different levels can be used a whole range of indicators. The use of a system of indicators of economic safety of region with their threshold values will help to identify points of increased risk in food production, infrastructure, financial, social and innovative sectors of the economy of the region, beyond which there is a threat of disequilibrium and development of the constituent elements of the regional system, followed by the onset of the crisis.

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