

ECONOMIC SECURITY OF THE REGION (PERM KRAI)

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Abstract: *For the establishment of a certain state as an independent one in the global space, the problem of the economic security of its territorial units, the special relevance of which, in the conditions of transformational changes and globalization, turns out to be in the scientific-theoretical, economic and political aspects, acquires exceptional significance. The purpose of the article is to generalize and systematize the scientific approaches to the definition of the concept of "economic security of the region", to identify its main elements, to analyze the functional features and principles of its ensuring, to determine the main components of the region's economic security. General scientific, special and private-scientific methods (logical, comparative, based on statistical materials, synthesis, etc.) are used in the work. The basis of the article is the consideration and elaboration of the main approaches in understanding the region, the economic security of the region, approaches to assessing the economic security of the regions, the research analyzes statistics on a specific region in the Volga federal district (VFD). The practical value of the article lies in the possibility of organizing effective management of socio-economic processes in the region – Perm Krai, which is a supporting factor in its economic security.*

Keywords: region, economic security, economic security of the region, components of economic security, methods for assessing economic security.

Regional economic security is a part of the national economic security, an important component of it. In the modern world, the problem of national security, the importance of which is constantly growing, has been singled out as a separate branch of political-economic science and socio-economic activity. The very existence and development of a person, a separate territory, society and the state as a whole depends on the level of national security. The central element of the national security system is economic security which characterizes a stable state, its ability to firmly improve the efficiency of functioning, increase the resource potential, preserve the integrity and independence of the state¹.

Building on the interpretation of economic security and considering it, respectively, as a global project of a new century, the following scheme can be used: strategic objects of sustainability of society's life activity,

¹ E.M. Akhmetshin, V.L. Vasilev, "Control as an instrument of management and institution of economic security", in *Academy of Strategic Management Journal*, 2016, vol. 15, Special Issue 1, p. 1-7.

economy, state – destructively-negative trends in the development of key spheres of life activity – positive activity in setting up regulatory mechanisms and instruments of civilized development of society and the state. In addition, the structural heterogeneity of the country's space in the natural-geographic, resource, social aspects lead to economic heterogeneity, which provides for the consideration of the issue of economic security management at the regional level and the feasibility of creating a mechanism to ensure economic security of the region (MEESR) and maintaining it at the optimum level^{2,3,4}.

Thus, the national level of economic security is determined by the level of regional systems, and the process of ensuring the economic security of the state should be implemented on the basis of accounting for and compliance with the security of territorial units⁵. The reasons for the threats to the economic security of the state are of regional nature, and therefore the researches of exactly the territorial aspect of economic security make it possible to determine the key factors for observing the economic security of the state as a whole⁶.

Accordingly, the goal-oriented activity is aimed at preventing and overcoming negative moments of economic development, and ensuring economic security^{7,8,9}.

² N.V. Buley, T.S. Demchenko, V.V. Bondaletov, N.F. Bondaletova, S.A. Makushkin, “Management policy promotion as element of complex of commercial organizations marketing”, in *International Journal of Applied Business and Economic Research*, 2017, vol. 15, no. 12, p. 307-316.

³ T. Atanelishvili, A. Silagadze, “Formation of economic views in the ancient era”, in *Bulletin of the Georgian National Academy of Sciences*, 2018, vol. 2, no. 1, p. 191-196.

⁴ D.A. Kaldiyarov, A.M. Baltabayeva, A.E. Bedelbayeva, “Competent role of anti-crisis management in the development of economy in the Republic of Kazakhstan”, in *Espacios*, 2017, vol. 38, no. 48, p. 20.

⁵ V. Gnevasheva, Dutch disease of Russia's economy? in *Mezhdunarodnye Protsesty*, 2016, vol. 14, no. 4, 146-154.

⁶ T.K. Yerjanov, Z.M. Baimagambetova, A.M. Seralieva, Z. Zhailau, Z.T. Sairambaeva, “Legal issues related to combating cybercrime: Experience of the Republic of Kazakhstan”, in *Journal of Advanced Research in Law and Economics*, 2017, vol. 8, no. 7, p. 2286-2301.

⁷ M.E. Panina, “Economic security of the Chelyabinsk region”, in *International Scientific Bulletin*, 2017, no. 2, p. 165-170.

⁸ E. Kryukova, M. Vinichenko, S. Makushkin, A. Melnichuk, V. Bondaletov, E. Potekhina, “On sustainable economic development of the mono town of Baikal’sk”, in *International Journal of Economic Research*, 2016, vol. 13, no. 6, p. 2409-2424.

⁹ N.V. Buley, Y.A. Melnichuk, S.A. Makushkin, M.V. Vinichenko, A. Melnichuk, “Marketing in management structure of commercial activity of enterprise”, in *International Journal of Applied Business and Economic Research*, 2017, vol. 15, no. 12, p. 251-259.

The processes of ensuring economic security are constantly at the center of attention of scholars. Problems of economic security of the region are devoted to in the works of such scholars as L. Abalkin, I. Babets, A. Bandurka, A. Baranovsky, I. Binko, D. Burkaltseva, N. Vavdiyuk, V. Geets, M. Gerasimov, S. Gerasimchuk, S. Glazyev, A. Golovenko, N. Guk, A. Gumenyuk, Ya. Zhalilo, V. Zablodskaya, M. Eremin, K. Efremov, M. Kizim, T. Kislaya, T. Klebanova, V. Kuzmenko, S. Lelyukhin, H. Maull, S. Murdock, V. Muntiyau, E. Oleinikov, G. Pasternak-Taranushenko, V. Ponomarenko, V. Senchagov, A. Stepanenko, A. Sukhorukov, V. Tkachenko, Yu. Kharazishvili, A. Chernyak, V. Shlemko and others.

Modern processes of economic development – globalization, regionalization, formation of a "new economy" – condition the increased role of the regions of individual states in the world economy. National regions today are considered as independent specific subjects of international competitive relations. At the same time, national economic security is based on a harmonious combination of interests of the state and the region, ensures the integrity of the country's economic system¹⁰.

V. Geets, M. Kizim consider the economic security of the region from two positions: as a part of the national economy for central national government bodies and as a relatively independent system for regional government bodies¹¹.

In the opinion of many authors, economic security as a whole represents the most important characteristic of the economic system, which determines the ability to support normal living conditions of the population, and to maintain sustainable development of resource support for the national economy to fulfill national-state interests¹².

Today, the majority of scholars and practitioners¹³ agree that economic security can be designated:

¹⁰ T.V. Shtal, Y.O. Polyakova, E.L. Hasanov, G.S. Ukubassova, S.A. Kozhabaeva, "Formalization of the enterprise international economic activity efficiency management", in *Utopia y Praxis Latinoamericana*, 2018, vol. 23, no. 82, p. 64-82.

¹¹ V.N. Geets, N.A. Kizim, T.S. Klebanova, A.I. Chernyak, *Modeling of economic security: state, region, enterprise*, VD "INZHEK", Kharkiv, 2006.

¹² L.I. Abalkin, "The economic security of Russia: threats and their reflection", in *Issues of Economics*, 1994, no. 12, p. 4-13.

¹³ L.P. Goncharenko, E.S. Kutsenko, *Security management*, Knorus, Moscow, 2005; V. N. Geets, N. A. Kizim, T. S. Klebanova, A. I. Chernyak, *Modeling of economic security: state, region, enterprise*, VD "INZHEK", Kharkiv, 2006; I.A. Kapitonov, I.V. Zhukovskaya, R.R. Khusaenov, V.A. Monakhov, "Competitiveness and competitive advantages of enterprises in the energy sector", in *International Journal of Energy Economics and Policy*, 2018, vol. 8, no. 5, p. 300-305.

- as an opportunity to implement own economic regional policy;
- an ability to respond sustainably to political and economic changes within the country;
- an ability to conduct major events within the economy regarding negative socio-economic situations within the region;
- as an opportunity to provide assistance in certain areas and regions;
- as an opportunity of stable maintenance of meeting the economic standards that operate in the region relatively common in the world practice, which can provide the necessary level and quality of life for the population.

The processes of ensuring the economic security of an enterprise (a country, a region, an industry, an enterprise, a household, a person) and creating a mechanism for economic security are constantly at the center of attention of scholars¹⁴.

But in most cases, they research only certain issues of the problem, primarily related to the formation of the basic principles of ensuring economic security, the definition of a system of economic interests and development priorities, and the formation of specific security management activities^{15,16}.

At the same time, regional aspects of ensuring the economic security of the region are not fully investigated; they require further theoretical-methodological and applied consideration. The issues of ensuring economic security at the state and regional levels require differentiation, since the security mechanisms have their own peculiarities.

All this makes it difficult to assess the level of economic security in the region, to develop measures to ensure it, taking into account the specifics of the region's development.

¹⁴ V.V. Dikan, O.Yu. Alexandrova, “Mechanism for ensuring the economic security of the region: the essence, composition, directions. State regulation of the economy”, in *Bulletin of Transport and Industry Economics*, 2017, no. 58, p. 18-25; S. Yu. Glazyev, *On the concept of macroeconomic policy in the light of ensuring the economic security of the country*, 2017. Available at: <http://old/glazev.ru>.

¹⁵ L. K. Gurieva, E. M. Akhmetshin, A. N. Savicheva, V. I. Kataeva, A. N. Norkina, “Theoretical foundations of management of the organization: Development, types of structures, management methods of control”, in *International Business Management*, 2016, vol. 10, no. 10, p. 5406-5416.

¹⁶ E. E. Nakhratova, I. Y. Ilina, A. I. Zotova, M. S. Stepanov, S. V. Dusenko, “Modern peculiarities of SWOT analysis when taking management decisions by Russian TOP managers”, in *International Journal of Applied Business and Economic Research*, 2017, vol. 15, no. 7, p. 187-194.

The role and importance of economic security in the processes of regional development are considered by such authors as: V.V. Dikan, V.Yu. Aleksandrova, L.P. Goncharenko, E.S. Kutsenko and others.

The most important blocks of the economic security structure of the region, the components of economic security at the regional level, the factors of economic security of the region are reflected in the works of such authors as: L.V. Semkova, M.M. Sverdan, V.K. Antoshkin and others.

The above mentioned dictates the need for the further research of the problem with the possibility of working out recommendations for ensuring the economic security of the region and its sustainable development.

Expansion and addition of theoretical aspects within the framework of the issue of researching the economic security of the region make it possible to indicate the theoretical significance of the research¹⁷.

The solution of the problem of economic security in the region is a rather complicated process, including the development of recommendations, elaboration of a mechanism for the sustainable development of a particular territory, which determines the practical importance of the research.

Literature review

Before considering the specifics of the economic security of the regions, it is necessary to determine what a region is. Under the region one can understand:

1) a significant part of the territory of the country with similar geographic, natural and climatic conditions, similar specialization of production – economic complexes, socio-economic problems (despite the fact that the regions are closed enough in terms of production and economy, nevertheless, this concept can be designated as less strict, mainly used outside the scientific community);

2) economic region of the country (this definition is a more accurate version of the first one);

¹⁷ E. V. Povorina, O. V. Serbskaya, N. F. Bondaletova, E. V. Duplij, N. V. Buley, “Improving quality control tools for domestic industrial production”, in *International Journal of Applied Business and Economic Research*, 2017, vol. 15, no. 12, 283-296.

3) a unit of the state system in the country (from the point of view of issues of regional administration this concept is the most accurate, since the region is a state entity, exercises state power on its territory)^{18,19}.

The region acts as a structural unit of the state, and in aggregate all regions of the country make up the country itself. Therefore, on the whole, the economy of the country depends on the level of economic development of the regions and how economically secure each region is, the more opportunities the state has to form a successful country.

Economic security of the state is the dominant component of the national security, which guarantees the protection of national interests from internal and external threats, ensures the country's socio-economic stability, sufficient defense potential, development of productive forces and normal conditions for the life of society.

According to American scholars S. Murdock, K. Nor, F. Treiger, economic security has to meet at least two conditions. The first condition is to preserve the economic independence of the country, its ability in its own interests to make decision on the development of the economy. The second condition is to preserve the already achieved standard of living of the population with the possibility of further raising it²⁰.

Due to Western scholars²¹, the term "security" is more specific and has a narrow interpretation, it is based on an understanding of protection against external threats that have a basis for malicious intentions of the opponents' actions, which is different from understanding of this category by Russian scholars.

The current state of economic security predetermines the relevance of the assertion of another author Kh. Machovski, where economic security should be ensured by a high degree of independence from strategic partners, that is, those that can potentially influence on the

¹⁸ M.M. Sverdán, "Regional economy and economic security of the region", in *Bulletin of Kherson State University*, 2013, no. 1, p. 46-52.

¹⁹ D.A. Kaldiyarov, A.K. Sharipov, A.E. Bedelbayeva, "Development of the concept of the optimum mechanism of government administration by economy of agroindustrial complex of the Republic of Kazakhstan", in *Life Science Journal*, 2014, vol. 11, no. 84, 394-400.

²⁰ C. Murdoch, "Economic factors as objects of security: Economics security & vulnerability", in *Economics Interests & National Security*, Lawrence Publishing Company, Lawrence, 2001.

²¹ J. Kirshner, "Political economy in security studies after the cold war", in *Review of International Political Economy*, 1988, vol. 5, no. 1, p. 64-91; J. Yong, "Economic security: redressing imbalance", in *China Security*, 2008, vol. 3, no. 2, p. 66-85.

political decisions that are unacceptable from a commercial point of view²².

According to Bondarevskaya O.N., economic security can be considered as an interrelated system of its various levels, including the following: global, international, national, regional, level of a single economic structure, a person²³.

1. Global level – a set of activities aimed at ensuring sustainable global economic development, whose goal is to achieve maximum security and a high standard of living for every person, regardless of nation or nationality.

2. International level (supranational) is considered as a state of the world economy, where the territories (countries) are mutually beneficial to solve national and global problems, as well as the free choice and implementation of these socio-economic development strategies, given the active participation within the framework of the international division of labor. Security ensuring at this level is carried out through such international economic organizations as WTO, IBRD, IMF and others. The leading role in resolving the problems related to economic security is assigned to partner agreements, the nature of which affects issues of equal relations with less developed countries, the free movement of capital (services, goods), the abandonment of pressure, the consideration of mutual economic interests.

3. Macroeconomic level (economic security of the country) is a set of conditions and factors that ensure the independence of the national economy, its stability and sustainability, the ability to develop. Economic security of the country has a relationship with international economic security, which is due to such processes as the internationalization of production, the inclusion of the national economy in the world economy.

4. Regional level is characterized by the ability of the authorities at the regional level to ensuring, stability, sustainability and competitiveness of the economy, which has a limited process of integration into the economy of the country.

²² H. Machovski, "Ost-West Handel: Entwicklung, Interessenlagen. Aussichten. Aus Politik u. Zeitgeschichte", in *Bonn*, 1985, no. 5, p. 39-44.

²³ O.N. Bondarevskaya, "Economic security of regions in the system of economic security of the state", in *Scientific Newsletter of the International Humanities University*, 2017, no. 5, p. 54-57.

5. Economic security of the enterprise is represented by a microeconomic level – it presupposes – the process of efficient use of resources to ensure stability and prevent threats²⁴.

6. Personality level – in the framework of human life is ensured the provision of economic protection of vital interests and legal, as well as the observance of rights and duties fixed constitutionally²⁵.

According to V.K. Antoshkin, as well as M.M. Sverdan – the economic security of the region can be represented as a set of factors and conditions that characterize the current state of the economy, the progressiveness of its development, stability and sustainability, and are manifested in the following²⁶:

1) as an opportunity to conduct domestic economic policy within the country;

2) as an opportunity for a balanced response to changes in the country, which are geopolitical in nature;

3) as an opportunity to implement economic measures in socially dangerous situations with respect to local "economic" diseases on the territory (without waiting for the help from the center);

4) as an ability to maintain consistently the compliance of economic norms existing on the territory with respect to world practice, which will lead to the preservation and restoration of a decent standard of living.

According to V.O. Shurshin, economic security of the region is a set of properties of a particular territory (region), which provide the maximum contribution to the national economy and to the security of the country. Economic security of the region as an independent economic system ensures the progressive development of the region in conditions of destabilizing influence of various types of threats.

As a result of the analysis and systematization of scientific approaches to the definition of the concept of "economic security of the region", we will outline the main ones, such as:

1) a set of conditions and factors that ensure sustainability and stability of the economic development of the region;

²⁴ E. Akhmetshin, E. Danchikov, T. Polyanskaya, N. Plaskova, N. Prodanova, S. Zhiltsov, "Analysis of innovation activity of enterprises in modern business environment", in *Journal of Advanced Research in Law and Economics*, 2018, vol. 8, no. 8, p. 2311-2323.

²⁵ O.V. Nikonova, "The development of the social protection system in the context of improving the legal and economic status of public organizations in the Russian Federation", in *Astra Salvensis*, 2018, vol. 6, no. 12, p. 679-687.

²⁶ V.K. Antoshkin, "Economic and national security of regions", in *Bulletin of the Berdiansk University of Management and Business*, 2014, vol. 26, no. 2, p. 108-109.

- 2) an ability of the regional economy to function in the mode of self-reproduction;
- 3) certain economic independence and integration with the economy of the state;
- 4) protection against the impact of destabilizing factors.

Thus, in this research, we consider the economic security of the region as a state of protection of the regional economy from the impact of external and internal threats with the aim of ensuring sustainable economic growth, financial self-sufficiency, social and political stability and an adequate standard of living for the population. In modern conditions, it is expedient not only to consider the concept of economic security in the region, but also to investigate the most influential factors, the interconnection of individual components of the regional economic security system.

The system of economic security of the region is a complex of interrelated organizational and legal measures aimed at harmonizing various interests, ensuring stability, adaptability, self-organization and development of the regional economy in interaction with the external environment of its functioning²⁷.

The economic system of the region and its components, such as: natural resources, productive and non-productive funds, real estate, financial resources, economic structures, family, a person belong to the objects of economic security of the region²⁸. In the opinion of M. Kornilov and G. Gutman, the object of economic security can simultaneously be the subject of its ensuring²⁹.

The main subjects of the region's economic security system are the state and its institutions (ministries, departments, tax and customs bodies, exchanges, funds and insurance companies), other regions, regional and local state administrations, local governments, enterprises, institutions and organizations, and the private sector of the economy, citizens and their

²⁷ V.A. Shurshin, "Features of formation of system of economic safety of region", in *Tavrichesky Scientific Bulletin: A Collection of Sciences. Works KSAU*, 2007, no. 55, p. 227-231.

²⁸ O.V. Zashchirinskaya, E.I. Nikolaeva, V.Y. Rybnikov, V.M. Byzova, "The influence of family communication on the specificity of the gestures perception by children of primary school age with mild mental retardation", in *Novosibirsk State Pedagogical University Bulletin*, 2017, vol. 7, no. 5, p. 81-93.

²⁹ M.Ya. Kornilov, *Economic security of Russia: the fundamentals of the theory and methodology of research*, RAGS Publishing House, Moscow, 2007; G.V. Gutman, Yu.N. Lapygin, A.I. Prilepsky, *Economic security of the region: theory and practice*, Nauka, Moscow, 1996.

associations³⁰. The economic security of the region, as well as the overall national security of the state, is affected by a wide range of threats (Figure 1), the identification of which will reduce their negative impact³¹.

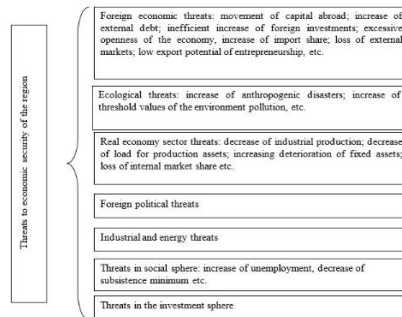


Figure 1: Classification of the main threats to the economic security of the region³²

According to many scholars, to ensure the economic security of the region, it is necessary to observe objectively existing general principles (Figure 2).

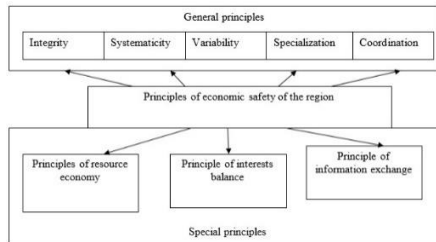


Figure 2: Principles of ensuring the economic security of the region³³

V.I. Sigov and A.A. Pesotsky single out several groups of methods that can be used to assess the economic security of the region³⁴:

³⁰ D.A. Kaldiyarov, V.R. Burnasheva, A.D. Kaldiyarov, “Tax evasion and its influence on development of the economy of the Republic of Kazakhstan”, in *Life Science Journal*, 2014, vol. 11, no. 19, p. 95-103.

³¹ D.A. Kaldiyarov, E.O. Kydyrbayeva, B.K. Shomsheva, M. Toregozhina, G.R. Baytaeva, “Cooperation of small forms of managing in agro-industrial sector in the Republic of Kazakhstan”, in *Espacios*, 2017, vol. 38, no. 62, p. 13.

³² L.V. Semkova, “Economic security of the regions”, in *Bulletin of the Priazovskiy State Technical University. Series: Economic Sciences*, 2014, no. 27, p. 63-69.

³³ *Ibidem*.

³⁴ V.I. Sigov, A.A. Pesotsky, “Security of the economic space of the region: the conceptual framework and the system of indicators”, in *Economy of the Region*, 2017, vol. 13, no. 4, p. 1236-1250.

- 1) the main base of the first group of methods is the identification and subsequent monitoring of the main macroeconomic indicators, their subsequent comparison with the threshold for each indicator;
- 2) the main base of the second group of methods is the analysis of the dynamics of macroeconomic indicators in the context of regions;
- 3) the third group of methods is based on expert review with ranking of territories by threat level;
- 4) the main base of the fourth group of methods is the economic tool used for measuring damage (quantitative expression) used in assessing the consequences of the realized threats;
- 5) methods within which a mathematical apparatus is used: game theory, multivariate statistical analysis, etc.;
- 6) the main basis of the sixth group of methods is the consideration of economic security as an economic space, which is formed by the activities of business entities located in a given territory³⁵.

In the present research, the technique clarified in the works of S.N. Mityakov, E.S. Mityakov and N.A. Romanova was used, within the framework of which the analysis of the main indicators of economic security of the region is carried out.

To the formation of system of indicators for the economic security of the region, there are various approaches in the scientific literature, as well as to justify the threshold values of these indicators.³⁶ The authors

³⁵ D. Yedilkhan, G.U. Bektemyssova, "Identifying similar business process models", in *Journal of Theoretical and Applied Information Technology*, 2016, vol. 91, no. 1, p. 152-157; G.U. Bektemyssova, D. Yedilkhan, "Applying of process management in the 'e-license' project", in *ICCAS 2015 - 2015 15th International Conference on Control, Automation and Systems, Proceedings*, 2015, p. 2076-2079; R.K. Uskenbayeva, B.K. Kurmangaliyeva, D. Yedilkhan, "Situational management for process implementation of working operations of the business process", in *2015 54th Annual Conference of the Society of Instrument and Control Engineers of Japan, SICE 2015*, 2015, p. 292-297; R.K. Uskenbayeva, B.K. Kurmangaliyeva, D. Yedilkhan, A.B. Kassymova, "Principles for achieving the optimal performance of the input tasks flow of a business process and optimal performance of the business process", in *2015 54th Annual Conference of the Society of Instrument and Control Engineers of Japan, SICE 2015*, 2015, p. 728-733; R.K. Uskenbayeva, G.B. Bektemyssova, B.K. Kurmangaliyeva, D. Yedilkhan, "Development of the business process for national companies of Kazakhstan with the integration of the project 'E-Government'", in *2015 54th Annual Conference of the Society of Instrument and Control Engineers of Japan, SICE 2015*, 2015, p. 724-727.

³⁶ I.V. Novikova, N.I. Krasnikov, "Indicators of economic security in the region", in *Bulletin of Tomsk State University*, 2010, no. 330, p. 132-138; V. K. Senchagov, S. N. Mityakov, *Indicators of sustainable development of the regions of the Russian Federation*, Russian Emergency Situations Ministry, Moscow, 2012; K. Ogareva, *The budget of Perm and the Perm region for 2018: what money will go to*, 2017. Available at: www.perm.kp.ru; A.I. Tatarkin,

carried out a generalization of the experience of earlier researches. In work³⁷ the system of indicators of economic security of the region, which were used in this research, is given. In contrast to the existing indicative system of economic security of the country, proposed by the IE RAN, there is no separate differentiation of the financial and foreign economic blocks in the regional system, although a number of indicators of these blocks were included in the system of indicators. The main indicators proposed by the authors are presented in Table 1.

Table 1: System of indicators of economic security of the territory (region)³⁸

Purpose of the indicator	Threshold value
Economic development	
gross regional product (GRP) per capita, thousand rubles.	>413.2
annual inflation rate, %	<6
investments in fixed assets, % to GRP	>25
degree of depreciation of fixed assets of industrial enterprises, %	<50
net foreign trade balance, % to GRP	>4 and <8
net consolidated budget of the region, % to GRP	>-3 and <4
Social development	
ratio of the average monthly salary to the subsistence minimum, times	>3.5
ratio of average pension to average salary, %	>40
unemployment rate, %	<4
life expectancy at birth, years	>80
size of housing per inhabitant, sq.m	>25
funds for health, education and social policy, % to GRP	>15
Innovative development	
the share of shipped innovative products in all shipped industrial products, %	>30
number of persons engaged in scientific research and development per 10,000 employed population	>120
domestic expenditure on research and development, % to GRP	>2.2
intensity of costs for technological innovation (the ratio of costs for technological innovation to the volume of output), %	>3.2
number of submitted applications for inventions and utility models per 10,000 population	>5
Ecological development	

A.A. Kuklin, A.L. Myzin, *Comprehensive methodology for diagnosing the economic security of territorial entities of the Russian Federation*, IE UrB RAS, Ekaterinburg, 1998.

³⁷ V.K. Senchagov, S.N. Mityakov, *Indicators of sustainable development of the regions of the Russian Federation*, Russian Emergency Situations Ministry, Moscow, 2012.

³⁸ C.N. Mityakov, S.E. Mityakov, "Economic security of the regions of the Volga Federal District", in *Economy of the Region*, 2013, no. 3, p. 81-91.

discharge of contaminated sewage, ths. m ³ / km ²	<0.3
emissions of pollutants into the atmospheric air from stationary sources, t/km ²	<0.5
reforestation (share of restored forests, %)	>0.15

The represented system of indicators of economic safety of regions is not final and can be supplemented if necessary by other indicators, the number of which, however, should not be too large.

An analysis of the literature on the issue under consideration leads to the conclusion that one of the priority tasks in the aggregate of the country's security problems is to ensure the security of the regions.

Materials and methods

The methodological basis for the research of economic security in the region is the use of statistical analysis, based on statistical data on the region.

In the framework of the research, the system of economic security indicators of the region, considered earlier, is used, namely, some of them, which are subsequently compared with threshold values (the technique was developed by the authors Mityakov S.N., Mityakov E.S. and Romanov N.A. for the Volga federal district):

- gross regional product (GRP) per capita;
- investments in fixed assets, % to GRP;
- degree of depreciation of fixed assets of industrial enterprises, %
- net foreign trade balance, % of GRP;
- net consolidated budget of the region, % to GRP;
- ratio of the average monthly salary to the subsistence minimum, times;
- ratio of average pension to average salary, %
- unemployment rate, %
- life expectancy at birth, years;
- size of housing per inhabitant, sq.m;
- share of the shipped innovative products in all shipped products of industry, %.

The revealed changes will allow to define economically justified "risk zones". These indicators are examined taking into account the dynamics over a certain time interval (several years). The empirical base of the research is the Perm Krai, which is part of the Volga federal district.

Volga federal district (VFD). VFD is one of the most economically developed districts. It includes 14 subjects of the Federation located

directly on the Volga River, or associated with it historically and economically. The territory of the district is 6.08% of the territory of the Russian Federation. The population of the Volga federal district as of January 1, 2008 was 30,241,581 people (21.3% of the population of Russia).

The population is made up of townspeople. The share of industrial production of VFD in the Russian economy is on the first place among all districts and is 23.9%. The volume of investment in the Volga federal district is 15.3% of all investments in Russia. Perm Krai is a subject of the Russian Federation and is part of the Volga federal district. The administrative center of the region is the city of Perm. The area is 160,237 km². The population is 2,623,122 people.

The stages of the research are as follows:

- the study of theoretical aspects related to the economic security of the region; within this stage, the concept of the region, economic security, economic security of the country and the region in particular is explored, as well as a brief listing of the methods used in assessing the economic security of the region;

- study of the main indicators of economic security in the region – comparison and dynamics. Study period 2014–2017;

- comparison of indicative indicators in the regions of the Volga federal district;

- identification of problem areas;

- result: drawing conclusions about the current situation within the regions, on the main threats, developing directions for their elimination.

Results

The purpose of the research is to study the development of Perm Krai, which is part of the Volga federal district in comparison with other regions of this district. The use of statistical data will allow us to draw conclusions and build analytical charts and tables. The main indicators of the economic development of Perm Krai are presented in Table 2.

The main share in the economy of the Perm Krai is made up by the industrial production sectors. In 2017, the index of output of basic industries of the economy of Perm Krai amounted to 104.4% of the corresponding period of the previous year. The dominant influence on the dynamics and structure of the industry was the positive growth rates of the main manufacturing industries.

Table 2: The main indicators of economic development of the Perm Krai, 2014-2017

Indicators	2014	2015	2016	2017	Rate of growth, %		
					2015	2016	2017
GRP, bln. rub.	974.19	1063.8	1091.3	0*	9.20	2.59	-100.0
GRP per capita, ths. rub.	369.48	403.6	414.4	0*	9.23	2.68	-100.0
Index of industrial production, %	103.9	99.4	98.7	104.4	-4.33	-0.70	5.78
Net foreign trade turnover, mln.	5316.8	4740.4	2711	2883.3	-10.84	-42.81	6.36
Investments in fixed assets, mln. rub.	185649	216991.5	237014.1	253802.2	16.88	9.23	7.08
Degree of depreciation of fixed assets, %	60.3	60.4	63.5	63.5	0.17	5.13	0.00
Net consolidated budget, thousand rubles.	13406.2	-5975276	-586680	519038	-44670.9	-90.18	-188.4
Average monthly accrued salary, rub.	27102	28222	30713	32438	4.13	8.83	5.62
Average value of pension, rub.	10745	11941	17323	13250	11.13	45.07	-23.51
The amount of the subsistence minimum, rub. per month.	8185	9582	9594	10098	17.07	0.13	5.25
Life expectancy at birth, years	68.28	69.09	69.74	70.48	1.19	0.94	1.06
Unemployment rate, %	1.6	6.3	5.8	6.6	293.75	-7.94	13.79
Size of housing per person, sq.m.	22.1	23	23.2	23.77	4.07	0.87	2.47
Discharge of contaminated sewage, mln cub. m	398	383	357	338.16	-3.77	-6.79	-5.28
Emissions of pollutants into the atmospheric air, ths. tons	312	299	309	307.72	-4.17	3.34	-0.41
Share of shipped innovative products in all shipped industrial products, %	9.4	7.7	15.5	21.94	-18.09	101.30	41.61

Source: compiled by the author on the basis of data from the Federal State Statistics Service³⁹

Foreign trade turnover in January-December 2017 amounted to 5657.9 million US dollars, which is 15.6% higher than the level of January-December 2016 (in actual prices). At the end of the year, the nett foreign

³⁹ Official site of the territorial body of the Federal State Statistics Service for the Perm region. Available at: <http://permstat.gks.ru>

trade turnover is positive. In 2017, 253,802.2 million rubles of investments in fixed assets were used for the development of the economy and social sphere of the region, an increase of 7% compared to the level of the same period of the previous year.

Currently, more than 50 major investment projects are being implemented in the region⁴⁰. Among them: the “Novy Zvezdny” technopolis with the creation by 2020 of 3000 new jobs, the “Fotonika” cluster, which will employ 300 people, “Eurokhim” OJSC for 2000 jobs, “Metafraks” “Melamin-Karbamid-Ammiak” PJSC for 400 jobs. According to the Ministry of Finance of the Perm Krai, the consolidated budget in January-December 2017 was ran surplus. Revenues exceeded expenses by 519 mln rubles. Compared to the corresponding period last year, revenues increased by 9.2% and reached 145.4 bln rubles. Expenses were expressed in the amount of 144.8 bln rubles (an increase of 8.3%).

The average monthly accrued salary of one employee for January-December 2017 amounted to 32,438.1 rubles and increased compared to January-December 2016 by 5.6%. There is an increase in the unemployment rate in 2017 compared to 2016, it was 6.6%. There is also a slight increase in the size of housing per resident.

Let us consider the main indicators of the region's economic security in the Perm Krai in comparison with other regions of the VFD with respect to the threshold for each indicator. Figure 3 shows the dynamics of the GRP of the Perm Krai and other regions of the VFD with respect to the threshold value, per capita.

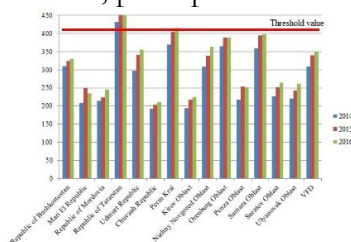


Figure 3: Dynamics of GRP of the Perm Krai and other regions of the VFD with respect to the threshold value, per capita, ths. rub.

Source: compiled by the author on the basis of data from the Federal State Statistics Service⁴¹

*data are presented for 2016, due to the lack of official data

⁴⁰ A. Kaldiyarov, D.A. Kaldiyarov, D.S. Nardin, S.A. Nardina, “Process approach to managing real investment projects focused on import substitution of products”, in *Journal of Applied Economic Sciences*, 2016, vol. 11, no. 7, p. 1368-1375.

⁴¹ Official website of the Federal State Statistics Service. Available at: www.gks.ru.

GRP of Perm Krai in 2016 exceeds the level of the threshold value (the same dynamics with respect to other regions of the VFD), the same dynamics is observed in indicators of the Republic of Tatarstan (which is characterized by the highest GRP level). The dynamics of investment in fixed assets in the Perm Krai and other regions of the VFD with respect to the threshold value is shown in Figure 4.

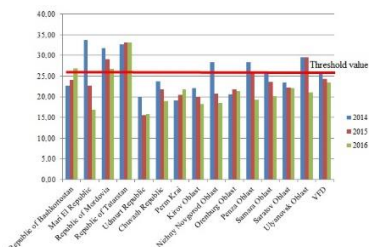


Figure 4: Dynamics of investment in fixed assets for the Perm Krai and other regions of the VFD with respect to the threshold value, in % to GRP

Source: compiled by the author on the basis of data from the Federal State Statistics Service⁴²

*data are presented for 2016, due to the lack of official data on GRP in regions

Despite the growth of investment in fixed assets in the Perm Krai, the value of this indicator of the region's economic security is below the threshold level (the trend of this indicator is positive), as for other regions, the Republics of Bashkortostan and Tatarstan are quite stable.

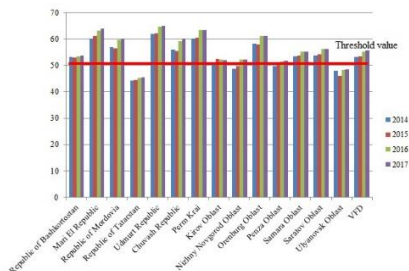


Figure 5: Dynamics of the depreciation of fixed assets of industrial enterprises in Perm Krai and other regions of the VFD with respect to the threshold value, %

Source: compiled by the author on the basis of data from the Federal State Statistics Service⁴³

⁴² *Ibidem.*

⁴³ *Ibidem.*

Source: calculated by the author on the basis of data from the Federal State Statistics Service⁴⁵

Taking into account the dynamics of the VFD regions in the aggregate, the dynamics of the nett consolidated budget of the Perm Krai has a fairly positive trend and is within the threshold values. The dynamics of the ratio of the average income of the population to the subsistence minimum for the Perm Krai and other regions of the VFD relative to the threshold value is shown in Figure 8.

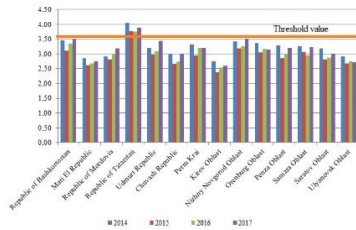


Figure 8: Dynamics of the ratio of the average income of the population to the subsistence minimum for Perm Krai and other regions of the VFD with respect to the threshold value, %

Source: calculated by the author on the basis of data from the Federal State Statistics Service⁴⁶

As for this indicator of the economic security of the region, over the past three years it has a positive dynamics and has an average value for the entire federal district, but nevertheless has a value below the threshold, which poses a threat to the economic security of the region. The dynamics of the ratio of the average pension to the average salary in Perm Krai and other regions of the VFD with respect to the threshold value is shown in Figure 9.

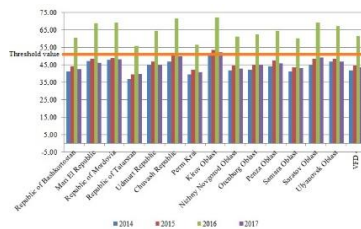


Figure 9: Dynamics of the ratio of the average pension to the average salary in Perm Krai and other regions of the VFD with respect to the threshold value, %

⁴⁵ *Ibidem.*

⁴⁶ *Ibidem.*

Source: calculated by the author on the basis of data from the Federal State Statistics Service⁴⁷

Relative to other regions of the Volga federal district, Perm Krai has the same average and negative trend relative to 2016 and is below the threshold value, which poses a threat to the economic security of the region from the standpoint of its social development.

Figure 10 shows the dynamics of the unemployment rate for the Perm Krai and other regions of the VFD with respect to the threshold value.

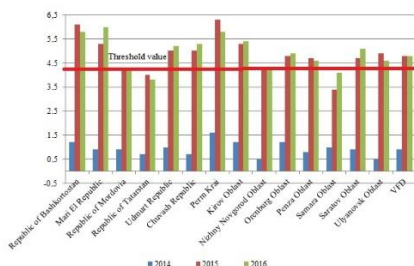


Figure 10: Dynamics of the unemployment rate for the Perm Krai and other regions of the VFD with respect to the threshold value, %

Source: calculated by the author on the basis of data from the Federal State Statistics Service⁴⁸

* data are presented for 2016, due to the lack of official data

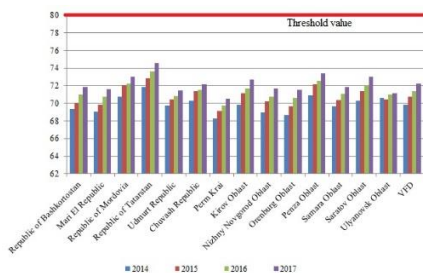


Figure 11: Dynamics of life expectancy at birth in Perm Krai and other regions of VFD relative to the threshold value, years

Source: compiled by the author on the basis of data from the Federal State Statistics Service⁴⁹

⁴⁷ *Ibidem.*

⁴⁸ *Ibidem.*

⁴⁹ *Ibidem.*

The dynamics of the size of housing per capita in the Perm Krai and other regions of the VFD with respect to the threshold value is shown in Figure 12.

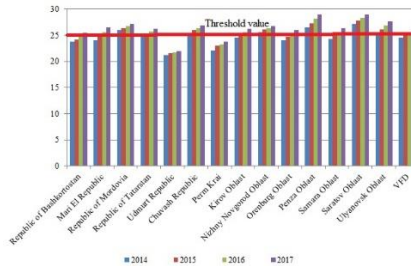


Figure 12: Dynamics of the size of housing per capita in the Perm Krai and other regions of the VFD with respect to the threshold value, sq.m.

Source: compiled by the author on the basis of data from the Federal State Statistics Service⁵⁰

In general, we can note the growth in the level of economic security in the region, the positive dynamics (GRP growth, growth in industrial production, growth of innovative products) for certain indicators (lower unemployment, but above the threshold), but there are also negative aspects: a decrease in the income of the population; the nett consolidated budget, and the nett foreign trade turnover.

In general, it can be noted that one of the main threats to the economic security of the region, rather acting as a risk is a highly concentrated economy and large-scale production, which does not provide an incentive for the development of small businesses.

The value of this indicator of economic security of the region is above the threshold value; this dynamics is observed for all regions of the Volga federal district, which also poses a threat to economic security not only in the region, but for the whole district.

The dynamics of life expectancy at birth in the Perm Krai and other regions of the VFD with respect to the threshold value is shown in Figure 11.

Perm Krai according to this indicator of economic security of the region has an average value relative to the regions of the Volga federal district, the negative point is the backlog of this indicator from the threshold value.

⁵⁰ *Ibidem.*

Negative dynamics is also observed in this indicator, which is lower relative to most regions of the district and, accordingly, the threshold value.

The dynamics of the share of shipped innovation products in all shipped industrial products in the Perm Krai and other regions of the VFD with respect to the threshold value is shown in Figure 13.

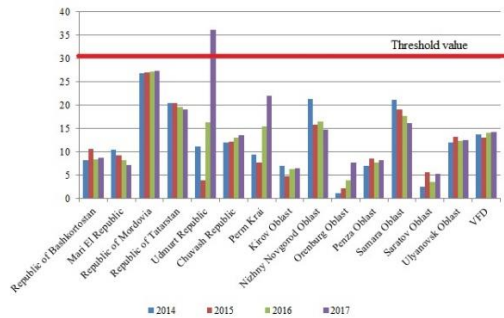


Figure 13: The dynamics of the share of shipped innovation products in all shipped industrial products in the Perm Krai and other regions of the Volga Federal District with respect to the threshold value, %

Discussion

The economy of the Perm Krai is diversified and multisectoral, this diversity of direction is a huge plus for the region in terms of its economic stability and economic security⁵¹.

There are examples of regions with a really high homogenous industrial concentration of the economy. For example, this is the Sverdlovsk Oblast, which is definitely more developed, but significantly depends on one industry – machine building and machine tool construction. Another example is the Khanty-Mansi Autonomous Region where the industry is exclusively oil and gas, and mainly – oil. And when there are problems with this industry, the region is unable to deal with them on its own; it has problems with the fulfillment of social obligations to the population due to a sharp reduction in budget revenues⁵². Perm Krai still does not belong to this category of regions. Here, besides chemistry

⁵¹ I.L. Litvinenko, L. K. Gurieva, O. N. Baburina, M. A. Ugryumova, V. I. Kataeva, “Tendencies and features of innovation management in the activities of business”, in *International Business Management*, 2016, vol. 10, no. 22, p. 5397-5405.

⁵² N.I. Yashina, S.D. Makarova, M.V. Ogorodova, E.A. Chelnokova, S.N. Kaznacheeva, “Budget aspect of economic security of the state: Regional approach”, in *Astra Salvensis*, 2018, vol. 6, no. 12, p. 635-642.

and oil production, engine development and the defense industry are highly developed.

Maxim Reshetnikov, Governor of the Perm Krai, and Alexey Chibisov, Deputy Prime Minister and Minister of Industry, Entrepreneurship and Trade, noted optimistic tendencies: statistics provides the basis for this. The index of industrial production was 104.4%, which is a high result for the Permian industry with its scale, according to officials. In addition, this indicator exceeds the indices of industrial production in the Volga federal district and Russia as a whole⁵³.

The krai's authorities explain the achievement of such results by a whole series of measures that were taken as part of the implementation of industrial policy. First, it is based on a cluster approach^{54,55}. Alexey Chibisov said that there are already two registered industrial clusters in the Kama region ("Fotonika" and the pharmaceutical cluster). Secondly, the government's report says that Perm Krai for three years is one of the leaders of the program to support investment projects in the civilian industry⁵⁶. What is also evidenced by data on investment in fixed assets (their growth).

Nevertheless, in order to successfully confront existing threats, it is extremely important to understand the strong points and pay special attention to them. In 2017, for the Perm Krai, it is, first of all, successful export industries. In particular, processing industry, chemical enterprises, manufacturers of medicines, electricity, food. However, according to the Business Ombudsman Vyacheslav Belov, focusing on exports, the region is dependent on world prices. If they are reduced, the gross revenue of the

⁵³ A.A. Pesotsky, *Security of the economic space of the economic complex of Russia: the methodological basis*, ANO VPO "MBI", Saint Petersburg, 2015; I. V. Petrov, *Institutional and reproductive aspects of assessing the economic security of the region*, Krasnodar University of the Ministry of Internal Affairs of Russia, Krasnodar, 2014; T. Vlasenko, *In search of growth points*, 2017. Available at: <https://www.newsco.ru/articles/nk-4394066.html>.

⁵⁴ E.M. Akhmetshin, K.A. Barmuta, Z.M. Yakovenko, L.I. Zadorozhnaya, D.S. Mironov, E.N. Klochko, "Advantages of cluster approach in managing the economy of the Russian Federation", in *International Journal of Applied Business and Economic Research*, 2017, vol. 15, no. 23, p. 355-364.

⁵⁵ E.M. Akhmetshin, E.P. Kolpak, E.A. Sulimova, V.S. Kireev, E.A. Samarina, N.Z. Solodilova, "Clustering as a criterion for the success of modern industrial enterprises", in *International Journal of Applied Business and Economic Research*, 2017, vol. 15, no. 23, p. 221-231.

⁵⁶ E.M. Akhmetshin, E.I. Artemova, L.V. Vermennikova, R.A. Shichiyakh, N.A. Prodanova, N.M. Kuchukova, "Management of investment attractiveness of enterprises: Principles, methods, organization", in *International Journal of Applied Business and Economic Research*, 2017, vol. 15, no. 23, p. 71-82.

enterprise decreases, and there is a threat of implementation of various investment projects. If such a reduction is of a lasting nature, it begins to affect the competitiveness of enterprises⁵⁷.

It is necessary to further develop support for investment projects⁵⁸. In this situation, it is also necessary to use the mechanism of special investment contracts more actively (SPIC). The Perm Krai is considered a pioneer in this direction. According to Maxim Reshetnikov there is a need to create a "factory" of projects that would receive support under federal and regional programs, and to increase the scale of this work. Equally important in this aspect is the provision of regional production orders. All this should become systematic and become a system work.

Against the background of all the above-mentioned, we can note another risk of a highly concentrated economy and large-scale productions for the Perm Krai. It consists in the fact that in a stable situation, their high profitability, the sufficiency of tax payments to the regional budget for the implementation of the tasks set and the fulfillment of social obligations can relax the authorities, including at the municipal level, and not give an incentive to develop small businesses^{59,60,61}. For the development of production, including large ones, there is the possibility of further using the status of territories of advanced development (TAD)⁶² for a number of territories of the Perm Krai.

If we talk about internal threats to the economic security of the Perm Krai – the dynamics of the ratio of the average income of the population to the subsistence minimum for the Perm Krai is growing. However, according to the results of the last year, real salaries in the region

⁵⁷ P. Putyakova, *Vyacheslav Belov: I would not exaggerate threats to the economic security of Perm Krai*, 2016. Available at: <http://zvzda.ru/interviews/c089020263cf>; L. A. Kormishkina, *General economic security*, Mordovskoye Knizhnoye Izdatel'stvo, Saransk, 2016.

⁵⁸ O. A. Urzha, "Social engineering as methodology of management activity", in *Sotsiologicheskie issledovaniia*, 2017, no. 10, p. 87-96.

⁵⁹ E.V. Frolova, K.I. Martynova, "Priority directions of development of inter-municipal cooperation in the modern Russian conditions", in *Materials of the Afanasiev Readings*, 2016, vol. 1, no. 14, p. 40-48.

⁶⁰ D.A. Kaldiyarov, V.R. Burnasheva, A.D. Kaldiyarov, "Tax evasion and its influence on development of the economy of the Republic of Kazakhstan", in *Life Science Journal*, 2014, vol. 11, no. 19, p. 95-103.

⁶¹ M.N. Lukyanova, I.A. Zayarnaya, M.A. Kadyrov, "Introduction of the "3-p" model in the concept of strategic management of municipal entities", in *Public Policy and Administration*, 2018, vol. 17, no. 4, p. 586-599.

⁶² The territory of social economic development "Chusovoy", 2018. Available at: <http://minter.permkrai.ru/toser/territoriya-operezhayushchego-sotsialno-ekonomicheskogo-razvitiya-chusovoy/>

decreased by 10%. This is a risk that leads to a decrease in consumption, which, in turn, negatively affects business development. And if this situation drags on, it becomes a threat to the economic security of the region: if business has problems, then entrepreneurs themselves do not get income, they do not pay salaries, taxes, do not pay on credit obligations, which leads to deterioration of the stability of the banking system, etc.⁶³ That is, the consequences of the decline in consumer activity are of a systemic nature – and this is a risk.

It is necessary to note the indicators of the consolidated budget, which in the reporting period have a negative value. Obligations of the Perm Krai actually require more funds than income to the budget system. This, of course, imposes certain obligations to accompany the debt, and on the other hand – to manage it in order to prevent its strong growth, but at the same time fulfill all the social obligations of the budget.

As a positive moment, it can be noted that the state debt of the Perm Krai is half of the federal budget. Such a structure makes it possible to keep the costs of its servicing at a low level, since budget loans, unlike bank loans, are cheap money.

In addition, the Perm Krai, in comparison with very many entities, does not go into any critical indicators of public debt – in percentage terms to budget revenues it is one of the lowest in the Volga federal district. Its size does not exceed the norms established by the legislation, and there are no risks for us in theory even if there are risks of the region's failure to fulfill its budget obligations, that is, the region's default⁶⁴. In the opinion of the Business Ombudsman Vyacheslav Belov, from the point of view of the budget system, Perm Krai, due to the different directions of the economy, has always been more stable relative to other regions.

At the moment, the solution of issues of economic security of regions remains ambiguous and controversial. The author's position on this issue is that, on the whole, there is a positive dynamics in the development of the region, but nevertheless there is a need to study the emerging risks and threats to the economic security of the region, which consist in the risk of a highly concentrated economy and large industries, which does not provide an incentive for development of small business.

⁶³ V. Mishchenko, S. Naumenkova, S. Mishchenko, V. Ivanov, “Inflation and economic growth: The search for a compromise for the Central Bank’s monetary policy”, in *Banks and Bank Systems*, 2018, vol. 13, no. 2, p. 153-163.

⁶⁴ Official site of the Ministry of Territorial Development. Available at: www.minter.permkrai.ru.

Conclusions

The research conducted in the article makes it possible to come to the following conclusion. Economic security of the region is a state of protection from the impact of threats, both internal and external, the relative economy of the region. The main goal is to ensure sustainable economic growth, financial self-sufficiency, social and political stability and an adequate standard of living.

Positive trends regarding the level of economic security of the Perm Krai can be noted, which is part of the Volga federal district. Analysis of the socio-economic development of the region and, accordingly, its economic security made it possible to identify the following trends: significant influence on the regional level of security. All-Russian and global trends that occur in various areas; ensuring the economic security of the region is carried out mainly through the processing industries (in 2017) and the export of raw materials.

Taking into account the impact on the economic security of the region of its socio-economic development, the author's position in resolving this issue is as follows:

1) it is necessary to use more actively the mechanism of special investment contracts (SPIC). which would receive support under programs of federal and regional importance, the scale of such work is to grow;

2) use of assigning the status of territories for advanced development; this enables the business creating new jobs to become a resident of the TAD and get tax benefits and reduced tariffs of insurance premiums several times.

3) we can also note the positive impact of the cluster development of the region; the current situation dictates the need for their further application. So, one of the proposals can be the creation of an innovative cluster, as support and the basis for shaping the future social and economic policy of the region.