

CUADERNOS DE SOFÍA EDITORIAL

ISSN 0719-4706 - Volumen 7 / Número Especial / Julio - Septiembre 2020 pp. 949-971

DEPENDENCE OF ECONOMIC SAFETY OF THE RUSSIAN SUBJECTS ON THEIR FOREIGN TRADE

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Fecha de Recepción: 04 de abril de 2020 – Fecha Revisión: 09 de mayo de 2020 Fecha de Aceptación: 27 de junio de 2020 – Fecha de Publicación: 01 de julio de 2020

Abstract

The research objective is to study the regional aspect of economic safety in relation with the overall economic development of the Russian federal districts and Russia in general. The main tasks are to determine the indices of economic safety of the regions and federal districts and to graphically show the dependence of economic safety on the foreign trade coefficient, while the regional economy reduces its dependence on external and internal threats. As a result, it is necessary to increase the level of managing the country's economy to maintain a certain macroeconomic balance, taking into account the chosen criteria of economic transformations in the society.

Keywords

Foreign trade turnover – Population change and education level – Labor potential -Food autonomy

Para Citar este Artículo:

Glechikova, Natalia A.; Seriogin, Aleksandr, A. y Reva, Alla F. Dependence of economic safety of the Russian subjects on their foreign trade. Revista Inclusiones Vol: 7 num Especial (2020): 949-971.

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Introduction

International development and economic safety of a state, being interconnected, have always been of primary importance, as they greatly influence the guality of life, provide state and national needs, stability and sustainability of economic development in general. This sphere started being developed in the beginning of the 1990-s due to the constantly expanding openness of economies and their integration into the global economic processes. According to A. V. Lukyanov, who studied economic safety of the Russian Federation, "provision of economic safety allows achieving the stable, efficient economic development. followed by the results - economic independence, timely renovation of production, providing rational and efficient employment, increasing well-being of people, their social protection, and achieving foreign economy balance"¹. V. A. Nikolaev² wrote: "Providing economic safety of Russia, its ability to counteract both external and internal threats is one of the key conditions of transition to sustainable development". Economic safety can be viewed at various levels, from state interests to individual businesses. Also, it is interpreted differently in scientific literature. According to A. Fomin³, "economic safety is a system of protecting the vital interests of Russia, where the objects of protection are: economy, regions, spheres of activity and sectors of economy, as well as juridical and physical persons as subjects of economic activity". The issues related to various aspects of economic interests and their interactions have been considered by many authors⁴. All of them agree that today the economic aspects is of utmost importance in all spheres of the state and society functioning. Well-being of the state directly depends on its economic component, the latter being subject to the greatest risk, as it is influenced by a lot of constantly changing factors. Thus, speaking of national safety, we most often imply protection and stability of the country's economy. D. V. Volobuev⁵ considers the notion of "economic safety of a country" as the ability of the appropriate political, legal, and economic institutions of the country to defend the interests of their key subjects within the frameworks of national economic traditions and values. The same author⁶ refers providing economic safety to the guarantees of: the country's sovereignty; stable and efficient functioning of the society; achieving certain successes in economic, political, and social spheres.

Economic safety of a region is a certain state of economic development of the society, under which beneficial conditions and factors of its existence are provided. The regional economy cannot expand inclusively by expanding the internal markets; it is greatly influenced by external financial flows secured by external markets. One of the tasks

¹ A. V. Lukyanov, "Economic safety and features of its provision in the Russian Federation". Ph.D. Theses (Saratov, 2000)

² V. A. Nikolaev, "Topicality of economic safety in banking". Materials of the 10th International students' scientific conference "Students' scientific forum". Bashkir State University. Retrieved 05.09.2019 from: https://scienceforum.ru/2018/article/2018006107

³ A. Fomin, "Economic safety of the state", International processes, Vol:8 num 3(24) (2010) 118-133. ⁴ A. A. Korableva, "Researching the methodological aspects of economic safety of a region", Bulletin of Siberian State Automotive-road Academy, num 6 (2013): 118-125; E. I. Kuznetsova, Economic safety and competitiveness. Forming the economic strategy of the state. Monograph (Moscow: YUNITI, 2017); A. A. Odintsov, Economic and informational safety of business (Moscow: Akademiya, 2004); T. R. Orekhova; V. I. Orekhov and O. V. Karagodina, Economic safety of modern Russia under crisis: monograph (Moscow: Infra-M, 2017) y V. K. Senchagov, Economic safety of Russia (Moscow: Binom. Laboratoriya znaniy, 2009).

⁵ D. V. Volobueva, "Topical issues of economic safety", Molodoy uchenyy, num 9.2 (2016): 16-18. Retrieved 05.09.2019 from: https://moluch.ru/archive/113/29141/

⁶D. V. Volobueva, "Topical issues of economic safety...

providing economic safety of a region is to reduce the regional economy dependence on the external and internal threats.

Materials and Methods

The methodology of estimating economic safety is implemented within a system of various indices. The indices of economic safety are estimation of the system from the viewpoint of basic economic indices and those indices which reflect the essence of economic safety as an object. The criterial assessment of economic safety includes estimating the following: the resource potential and opportunities for its development, the level of resource employment efficiency, capital and labor resources and their correlation with the indices of developed and advanced representatives of industry, and the level at which the external and internal threats are minimized. The reliability of economic safety assessment depends on the correctness of indices and their quantitative parameters of threshold values. At that, the multiplicity of threshold values, which are different in their content and character, requires multiplicity of their calculation techniques. Depending on the specific economic situation, they should vary with the circumstances, as well as the list of threshold values⁷⁸. The regional aspect of economic safety can be assessed with the criteria and techniques of system estimation, taking into account the foreign trade turnover coefficient. The criteria of assessment and the mechanism of functioning of a country's economic safety is based on understanding the essence of economic safety of federal districts as a measure of harmonization of their interests with the external environment, which interact at the regional level and the level of an individual enterprise. To assess economic safety, we chose an index technique, which includes population change, life expectancy, education level, labor potential and employment, food safety and independence, physical and economic accessibility of food for the population.

1. The index of population change in the region. The index value changes from 0 to 1 and above.

$$I_{pop.c.} = \frac{\frac{Q_{pop} + V_{nat}}{Q_{pop}} + \frac{Q_{pop} + V_{migr}}{Q_{pop}}}{2}$$

where $I_{pop.c.}$ – indexofpopulationchange; Q_{pop} – numberofpopulation; V_{nat} – natural growth of the population; V_{migr} – migration growth of the population.

2. The index of life expectancy of adult population in the region. The index value changes from 0 to 1.

$$I_{lifeexp} = \frac{t_{atbirt} - min_{lifeexp}}{t_{max \ lifeexp}} - min_{lifeexp}$$

⁷ D. A. Loginov, "Economic safety of a region as a social-economic phenomenon", Economics and management: problems, solutions, num 12 (2015): 16-21.

⁸ N. S. Lavrut, "Economic safety of regions as the basis of safety of the scountry". Economics and modern management: theory and practice: procs of the 22nd International scientific-practical conference (Novosibirsk: SibAK, 2016).

where	I lifeexp	- index of life expectancy of adult population;
	tatbirt	 – lifeexpectancyatbirth;
	<i>min</i> lifeexp	 minimallifeexpectancy;
	t maxlifeexp	 averagemaximallifeexpectancy.

3. The index of education level of the population in the region. The index value changes from 0 to 1.

$$I_{educ} = \left(\frac{w}{100} \times \frac{2}{3}\right) + \left(\frac{\alpha^{24}}{100} \times \frac{1}{3}\right)$$

where I_{educ} – index of education level of the population; W – weightedcoefficient 2/3; \propto^{24} – weightedcoefficient 1/3;

4. The index of labor potential and employment in the region. The index value changes from 0 to 1.

$$I_{lab.pot.} = \frac{\frac{Q_{emp.}}{V_{able-b}} + \frac{Q_{reg.unemp.}}{V_{unemp.}}}{2},$$

where
$$I_{lab.pot.}$$
 – index of labor potential and employment;
 $Q_{emp.}$ – numberofemployedpopulation;
 $V_{able-b.}$ – number of able-bodied population;
 $Q_{reg.unemp.}$ – numberofregisteredunemployed;
 $V_{unemp.}$ – totalnumberofunemployed.

5. The index of food safety and independence in the region. The index value changes from 0 to 1 and above.

$$I_{foodsaf} = \frac{q_2 \times p}{q_1 \times p}$$

where $I_{foodsaf.}$ – index of food safety and independence;

 q_1 – normative consumption of the food available in the region;

 q_2 – actual consumption of the food available in the region;

p – costoffoodproducts.

6. The index of physical and economic accessibility of food for the population of the analyzed region ($I_{phys.econ.acc}$). This indicator is calculated as the mean arithmetic of products of ratio of normative food consumption (Q_1) to actual consumption (Q_0) and the ratio of normative consumption amounts to living wage. Theindexvaluechangesfrom 0 to 1 andabove.

$$I_{phys.econ.acc.} = \frac{\frac{Q_1 \times p}{Q_0 \times p} + \frac{q_0 \times p}{q_0^I \times p}}{2}$$

where $I_{phys.}$ – index of physical and economic accessibility of food econ.acc. population; Q_1 – normativefoodconsumption; Q_0 – actualfoodconsumption; q_0 – normativefoodconsumptionamount; q_0^I – livingwage.

The complex assessment of economic safety is a systemic analytical study which, on the basis of comprehensive analysis of the previously researched aspects of individual regions' functioning, yields a summarized estimation of its efficiency expressed through an integral index of economic safety.

The integral index of economic safety of the Russian Federation (*I_{econsaf.}*) will be the mean arithmetic of the sum of six indices:

$$I_{econ \ saf.} = \frac{I_{pop.c.} + I_{life \ exp.} + I_{educ.} + I_{lab.pot.} + I_{food \ saf} + I_{phys.econ.acc.}}{6}$$

Results and discussion

Calculation of the index of economic safety of the regions and federal districts of the Russian Federation is shown in terms of the six above indices shown in Table 1.

Subjects of the Russian Federatio n	Indexofp opulatio nchange	Index of life expecta ncy of adult populati on	Indexofed ucationlev el	Indexofl aborpot ential	Indexoff oodsafet y	Index of physical and economic accessibili ty of food	Level of economic safety of a Russian subject
1. Centralfe deraldistr ict	0.988	0.724	0.873	0.554	1.074	0.923	0.856
Belgorodo blast	0.90	0.71	0.88	0.41	1.09	0.861	0.809
Bryansko blast	0.92	0.70	0.89	0.40	1.06	0.882	0.809
Vladimiro blast	1.01	0.73	0.86	0.41	1.13	0.831	0.829

N7 I							
voronezh oblast	1.09	0.81	0.90	0.55	1.19	1.012	0.925
lvanovoo blast	0.89	0.70	0.88	0.46	1.01	0.884	0.804
Kalugaobl ast	0.93	0.68	0.86	0.47	1.01	0.873	0.804
Kostroma oblast	0.89	0.68	0.86	0.41	1.03	0.862	0.789
Kurskobla st	0.88	0.69	0.88	0.45	1.00	0.850	0.792
Lipetskobl ast	1.01	0.65	0.87	0.44	1.02	0.880	0.812
Moscowo blast	1.41	0.81	0.90	0.74	1.17	1.330	1.06
Oreloblast	0.92	0.77	0.88	0.38	1.04	0.831	0.804
Ryazanob last	0.93	0.73	0.86	0.39	1.08	0.843	0.797
Smolensk oblast	0.91	0.68	0.88	0.42	1.06	0.861	0.802
Tambovo blast	0.89	0.66	0.87	0.34	1.11	0.834	0.784
Tveroblas t	0.90	0.75	0.86	0.44	1.09	0.833	0.812
Tulaoblas t	0.88	0.76	0.81	0.36	1.11	0.901	0.804
Yaroslavl oblast	1.00	0.68	0.87	0.38	1.08	0.905	0.819
Moscowfe deralcity	1.43	0.84	0.91	0.78	1.06	1.340	1.060
2. Southern federaldi	0.980	0.795	0.853	0.437	1.092	1.025	0.864
strict							
strict AdygheR epublic	1.01	0.80	0.80	0.49	1.01	0.843	0.826
strict AdygheR epublic Republico fKalmykia	1.01 0.81	0.80 0.78	0.80 0.79	0.49 0.32	1.01 0.96	0.843 0.786	0.826 0.741
strict AdygheR epublic Republico fKalmykia Krasnoda rkrai	1.01 0.81 1.11	0.80 0.78 0.84	0.80 0.79 0.91	0.49 0.32 0.58	1.01 0.96 1.24	0.843 0.786 1.220	0.826 0.741 1.00
strict AdygheR epublic Republico fKalmykia Krasnoda rkrai Astrakhan oblast	1.01 0.81 1.11 0.91	0.80 0.78 0.84 0.73	0.80 0.79 0.91 0.88	0.49 0.32 0.58 0.37	1.01 0.96 1.24 0.99	0.843 0.786 1.220 0.904	0.826 0.741 1.00 0.797
strict AdygheR epublic Republico fKalmykia Krasnoda rkrai Astrakhan oblast Volgograd oblast	1.01 0.81 1.11 0.91 1.01	0.80 0.78 0.84 0.73 0.82	0.80 0.79 0.91 0.88 0.90	0.49 0.32 0.58 0.37 0.60	1.01 0.96 1.24 0.99 1.21	0.843 0.786 1.220 0.904 1.190	0.826 0.741 1.00 0.797 0.972
strict AdygheR epublic Republico fKalmykia Krasnoda rkrai Astrakhan oblast Volgograd oblast Rostovobl ast	1.01 0.81 1.11 0.91 1.01 1.03	0.80 0.78 0.84 0.73 0.82 0.80	0.80 0.79 0.91 0.88 0.90 0.90	0.49 0.32 0.58 0.37 0.60 0.49	1.01 0.96 1.24 0.99 1.21 1.14	0.843 0.786 1.220 0.904 1.190 1.210	0.826 0.741 1.00 0.797 0.972 0.957
strict AdygheR epublic Republico fKalmykia Krasnoda rkrai Astrakhan oblast Volgograd oblast Rostovobl ast 3. North-	1.01 0.81 1.11 0.91 1.01 1.03	0.80 0.78 0.84 0.73 0.82 0.80	0.80 0.79 0.91 0.88 0.90 0.90	0.49 0.32 0.58 0.37 0.60 0.49	1.01 0.96 1.24 0.99 1.21 1.14	0.843 0.786 1.220 0.904 1.190 1.210	0.826 0.741 1.00 0.797 0.972 0.957
strict AdygheR epublic Republico fKalmykia Krasnoda rkrai Astrakhan oblast Volgograd oblast Rostovobl ast 3. North- Westfede	1.01 0.81 1.11 0.91 1.01 1.03 1.015	0.80 0.78 0.84 0.73 0.82 0.80 0.721	0.80 0.79 0.91 0.88 0.90 0.90 0.90 0.812	0.49 0.32 0.58 0.37 0.60 0.49 0.441	1.01 0.96 1.24 0.99 1.21 1.14 1.00	0.843 0.786 1.220 0.904 1.190 1.210 0.942	0.826 0.741 1.00 0.797 0.972 0.957 0.822
strict AdygheR epublic Republico fKalmykia Krasnoda rkrai Astrakhan oblast Volgograd oblast Rostovobl ast 3. North- Westfede raldistrict	1.01 0.81 1.11 0.91 1.01 1.03 1.015	0.80 0.78 0.84 0.73 0.82 0.80 0.721	0.80 0.79 0.91 0.88 0.90 0.90 0.90 0.812	0.49 0.32 0.58 0.37 0.60 0.49 0.441	1.01 0.96 1.24 0.99 1.21 1.14	0.843 0.786 1.220 0.904 1.190 1.210 0.942	0.826 0.741 1.00 0.797 0.972 0.957 0.822
strict AdygheR epublic Republico fKalmykia Krasnoda rkrai Astrakhan oblast Volgograd oblast Volgograd oblast Rostovobl ast 3. North- Westfede raldistrict Republico fKarelia	1.01 0.81 1.11 0.91 1.01 1.03 1.015 0.85	0.80 0.78 0.84 0.73 0.82 0.80 0.721 0.64	0.80 0.79 0.91 0.88 0.90 0.90 0.812 0.72	0.49 0.32 0.58 0.37 0.60 0.49 0.441 0.34	1.01 0.96 1.24 0.99 1.21 1.14 1.00 0.983	0.843 0.786 1.220 0.904 1.190 1.210 0.942 0.781	0.826 0.741 1.00 0.797 0.972 0.957 0.822 0.719
strict AdygheR epublic Republico fKalmykia Krasnoda rkrai Astrakhan oblast Volgograd oblast Volgograd oblast Rostovobl ast 3. North- Westfede raldistrict Republico fKarelia KomiRep ublic	1.01 0.81 1.11 0.91 1.01 1.03 1.015 0.85 0.84	0.80 0.78 0.84 0.73 0.82 0.80 0.721 0.64 0.65	0.80 0.79 0.91 0.88 0.90 0.90 0.812 0.72 0.72	0.49 0.32 0.58 0.37 0.60 0.49 0.441 0.34 0.32	1.01 0.96 1.24 0.99 1.21 1.14 1.00 0.983 0.876	0.843 0.786 1.220 0.904 1.190 1.210 0.942 0.781 0.796	0.826 0.741 1.00 0.797 0.972 0.957 0.822 0.719 0.700
strict AdygheR epublic Republico fKalmykia Krasnoda rkrai Astrakhan oblast Volgograd oblast Volgograd oblast Rostovobl ast 3. North- Westfede raldistrict Republico fKarelia KomiRep ublic Arkhangel skoblast	1.01 0.81 1.11 0.91 1.01 1.03 1.015 0.85 0.84 0.96	0.80 0.78 0.84 0.73 0.82 0.80 0.721 0.64 0.65 0.64	0.80 0.79 0.91 0.88 0.90 0.90 0.812 0.72 0.72 0.72	0.49 0.32 0.58 0.37 0.60 0.49 0.441 0.34 0.32 0.37	1.01 0.96 1.24 0.99 1.21 1.14 1.00 0.983 0.876 1.040	0.843 0.786 1.220 0.904 1.190 1.210 0.942 0.781 0.796 0.940	0.826 0.741 1.00 0.797 0.972 0.957 0.822 0.719 0.700 0.805

Kaliningra doblast	1.03	0.73	0.80	0.44	0.891	0.876	0.795
Leningrad oblast	1.31	0.81	0.89	0.71	1.180	1.340	1.040
Murmans koblast	0.99	0.80	0.780	0.34	0.840	0.863	0.769
Novgorod oblast	0.96	0.69	0.79	0.40	1.030	0.898	0.795
Pskovobl ast	0.93	0.71	0.82	0.42	0.972	0.864	0.786
Nenetsaut onomous district	0.91	0.76	0.76	0.34	0.988	0.738	0.749
Saint- Petersbur gfederalci ty	1.41	0.82	0.91	0.77	1.080	1.330	1.053
4. FarEastfe deraldistr ict	0.858	0.658	0.718	0.336	0.838	0.803	0.702
Republico fSakha (Yakutia)	0.90	0.68	0.75	0.34	0.82	0.761	0.709
Kamchats kiykrai	0.86	0.66	0.74	0.32	0.82	0.784	0.697
Primorsky krai	0.88	0.64	0.74	0.32	0.86	0.861	0.717
Khabarov skkrai	0.89	0.63	0.72	0.32	0.85	0.984	0.732
Amurobla st	0.81	0.65	0.74	0.36	0.83	0.861	0.709
Magadan oblast	0.79	0.63	0.66	0.34	0.81	0.734	0.661
Sakhalino blast	0.91	0.63	0.68	0.32	0.84	0.738	0.686
Jewishaut onomous oblast	0.89	0.76	0.71	0.36	0.86	0.741	0.720
Chukchia utonomou sdistrict	0.79	0.64	0.72	0.34	0.85	0.762	0.684
5. Siberianf ederaldis trict	0.914	0.759	0.797	0.477	1.013	0.923	0.814
AltaiRepu blic	0.81	0.75	0.76	0.44	1.12	0.883	0.794
Republico fBuryatia	0.79	0.74	0.72	0.32	0.91	0.825	0.718
Republico fTuva	0.78	0.68	0.70	0.32	0.88	0.761	0.687
KhakassR epublic	0.77	0.69	0.70	0.36	0.89	0.789	0.699
Altaikrai	1.05	0.84	0.89	0.78	1.09	1.120	0.962
Zabaikals kiykrai	0.79	0.71	0.68	0.36	1.01	0.719	0.712

Krasnoyar skkrai	1.04	0.83	0.89	0.61	1.20	1.110	0.947
Irkutskobl ast	1.04	0.83	0.90	0.62	1.16	1.120	0.945
Kemerovo oblast	1.03	0.85	0.90	0.63	1.04	1.120	0.928
Novosibir skoblast	1.03	0.81	0.89	0.61	1.08	1.110	0.922
Omskobla st	0.88	0.68	0.76	0.32	0.89	0.722	0.709
Tomskobl ast	0.96	0.70	0.78	0.36	0.89	0.791	0.747
6. Uralfeder aldistrict	0.973	0.777	0.817	0.478	1.060	1.009	0.852
Kurganobl ast	0.99	0.68	0.74	0.38	1.01	0.768	0.761
Sverdlovs koblast	1.02	0.83	0.90	0.60	1.21	1.200	0.960
Tyumeno blast	1.02	0.83	0.89	0.60	1.19	1.180	0.852
Chelyabin skoblast	1.01	0.80	0.89	0.61	1.08	1.180	0.928
Khanty- Mansi autonomo us district – Yugra	0.89	0.76	0.74	0.34	0.92	0.884	0.756
Yamal- Nenetsaut onomous district	0.91	0.76	0.74	0.34	0.93	0.843	0.854
7. Volgafed eraldistri ct	0.959	0.749	0.822	0.531	1.043	0.93	0.839
Republico fBashkort ostan	1.01	0.81	0.89	0.58	1.14	1.190	0.937
Republico fMariEl	0.92	0.76	0.72	0.36	0.94	0.749	0.741
Republico fMordovia	0.89	0.67	0.72	0.36	0.99	0.765	0.733
Republico fTatarstan	1.01	0.80	0.85	0.59	1.07	1.06	0.897
UdmurtRe public	0.81	0.63	0.74	0.44	0.871	0.731	0.704
Chuvash Republic	0.88	0.71	0.78	0.42	0.983	0.743	0.753
Kirovobla st	0.91	0.73	0.82	0.55	1.03	0.781	0.804
NizhniyNo vgorodobl ast	1.03	0.81	0.90	0.64	1.09	1.110	0.930

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Orenburg oblast	0.95	0.68	0.80	0.52	0.876	0.732	0.760
Penzaobl ast	0.96	0.71	0.80	0.48	1.03	0.744	0.787
Ulyanovs koblast	0.93	0.73	0.78	0.50	1.01	0.831	0.797
Samarao blast	1.04	0.81	0.89	0.61	1.18	1.21	0.957
Saratovob last	1.04	0.82	0.91	0.68	1.21	1.22	0.980
Permkrai	1.05	0.82	0.91	0.71	1.18	1.16	0.972
8. North- Caucasu sfederald istrict	0.927	0.86	0.757	0.443	0.900	0.848	0.789
Republico fDagestan	1.00	0.87	0.90	0.53	1.01	0.876	0.864
IngushRe public	0.84	0.91	0.68	0.34	0.81	0.76	0.723
Republico fKabardin o-Balkaria	0.87	0.90	0.70	0.37	0.79	0.77	0.733
Karachai- Cherkess Republic	0.86	0.84	0.70	0.37	0.80	0.77	0.723
Republic of North Ossetia – Alaniya	0.89	0.85	0.71	0.39	0.80	0.78	0.737
Republico fChechny a	0.88	0.81	0.69	0.34	0.81	0.76	0.715
Stavropol krai	1.15	0.84	0.92	0.76	1.28	1.22	1.028
9. Crimeanf ederaldis trict	0.84	0.68	0.82	0.38	0.88	0.79	0.762
Republico fCrimea	0.84	0.68	0.82	0.38	0.88	0.794	0.762
Sevastop olfederalci ty	0.84	0.68	0.82	0.38	0.88	0.786	0.761
Integral index for the Russian Federatio n	1.01	0.79	0.89	0.54	1.09	0.976	0.896

Table 1

Indices of economic safety of the regions and federal districts of the Russian Federation* *Calculated by the authors based on: Rossiya v tsifrakh: KratkiystatisticheskiysbornikFederalnoysluzhbygosudarstvennoystatistiki. Moscow. 2017.

Estimating foreign trade, one should analyze such indices as: solvency of a district or region, competitiveness, export-import dynamics and specialization of a region.

For calculations, we used a database of 2015-2017. The graphic interpretation of economic safety and foreign trade turnover of the federal districts and regions is shown in Fig. 1–8.

Export from the Central federal district in 2015-2017 was \$478 bln. The main exports were "Mineral products" (50%) and "Hidden" (28%). Among the exporting countries, Germany ranks first (10%), China second (10%).

Import to the Central federal district in 2015-2017 was \$357.5 bln. The main imports were "Machines and equipment" (30%) and "Chemical products" (15%). Among the importing countries China ranks first (20%), Germany second (12%).

For calculations, we used the data for 2017, according to which, export into the Central federal district was \$175 bln and import – \$140 bln.

The trade turnover of the Central federal district in 2015-2017 was \$835.5 bln. The main turnover was in "Mineral products" (29%) and "Hidden" (17%).

In the trade turnover structure, China ranks first (14%), Germany second (11%). By the volume of trade turnover, the Central federal district ranks first in the Russian Federation. The export share of this federal district in the latest analyzed year was 60.8%.



Level of development of economic safety of the Central federal district subjects, depending on the coefficient of foreign trade turnover of the district

The most developed subjects in the district are Moscow federal city and Moscow oblast, as well as Voronezh oblast, which ranks third by the number of permanent population, average per capita monetary income and GRP. The least populated are Kostroma oblast and Orel oblast. By GRP, Kostroma oblast and Ivanovo oblast have the least unit weight. The above three oblasts also have the least level of average monthly nominal payroll and average per capita monetary expenditures.

Export from the Southern federal district in 2015-2017 was \$42.6 bln. The main exports were "Mineral products" (40%) and "Plant products" (28%). Among the exporting countries Turkey ranks first (15%), Italy second (8%).

Import to the Southern federal district in 2015-2017 was \$22.8 bln. The main imports were "Plant products" (24%) and "Machines and equipment" (20%). AmongtheimportingcountriesChinaranksfirst (15%), Ukrainesecond (9%).



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Figure 2

Level of development of economic safety of the Southern federal district subjects, depending on the coefficient of foreign trade turnover of the district

The trade turnover of the Southern federal district in 2015-2017 was \$65.4 bln. The main turnover was in "Mineral products" (27%) and "Plant products" (26%). In the trade turnover structure, Turkey ranks first (13%), Ukraine second (8%). By the volume of trade turnover, the Southern federal district ranks seventh in the Russian Federation. The export share of this federal district in the latest analyzed year was 64.3%.

The strongest subject of the Southern federal district is Krasnodar krai, followed by Rostov and Volgograd oblasts. By the number of permanent population, Krasnodar krai ranks first with over 5.5 mln people, Rostov oblast has 4.2 and Volgograd oblast 2.5 mln people. By the average monthly nominal payroll and average per capita monetary incomes and expenditures, the subjects rank as follows: Krasnodar krai, Astrakhan oblast, Adyghe Republic, Rostov oblast, Volgograd oblast and Republic of Kalmykia. By excavation of natural resources, processing industries, and delivery of electric energy, gas and water, the subjects rank as follows: Krasnodar krai, Volgograd oblast, Rostov and Astrakhan oblast, while Adyghe Republic and Republic of Kalmykia are the last in the ranking. By agricultural production, the leading positions belong to Krasnodar krai, followed by Rostov and Astrakhan oblast, while Republic of Kalmykia and Adyghe Republic are the last.



Figure 3

Level of development of economic safety of the North-West federal district subjects, depending on the coefficient of foreign trade turnover of the district

Export from the North-West federal district in 2015-2017 was \$112.4 bln. The main exports were "Mineral products" (48%), "Metals and metal goods" (13%). Among the exporting countries Netherlands ranks first (19%), Germany second (8%).

Import to the North-West federal district in 2015-2017 was \$101.7 bln. The main imports were "Machines and equipment" (28%) and "Transport" (13%). Among the importing countries China ranks first (18%), Germany second (10%).

The trade turnover of the North-West federal district in 2015-2017 was \$214.1 bln. The main turnover was in "Mineral products" (26%), "Machines and equipment" (16%). In the trade turnover structure, China ranks first (12%), Netherlands second (11%). By the volume of trade turnover, the North-West federal district ranks second in the Russian Federation. The export share of this federal district in the latest analyzed year was 53.87%. By the gross regional product, the leading position in the North-West federal district is occupied by Saint-Petersburg, followed by Leningrad oblast and Arkhangelsk oblasts. By the levels of average monthly nominal payroll and average per capita monetary incomes and expenditures, the subjects rank differently: the leader is Nenets autonomous district, where wages are 2-3 times higher than in other subjects, followed by Murmansk oblast and Saint-Petersburg.

By the volumes of natural resources excavation, the first three positions are shared by Nenets autonomous district, Arkhangelsk oblast and Murmansk oblast. By the volume of processing industries, Leningrad oblast is leading, followed by Vologda and Novgorod oblast. By the volumes of production and delivery of electric energy, gas and water, the most densely populated subjects lead, namely, Saint-Petersburg and Leningrad oblast. By agricultural production, the subjects rank as follows: Leningrad oblast, Kaliningrad oblast and Novgorod oblast.

Export from the Far East federal district in 2015-2017 was \$61.5 bln. The main exports were "Mineral products" (57%), "Precious stones" (18%). Among the exporting countries South Korea ranks first (28%), Japan second (26%).

Import to the Far East federal district in 2015-2017 was \$17.9 bln. The main imports were "Machines and equipment" (33%) and "Transport" (11%). Among the importing countries China ranks first (42%), South Korea second (11%).



Figure 4

Level of development of economic safety of the Far East federal district subjects, depending on the coefficient of foreign trade turnover of the district

The trade turnover of the Far East federal district in 2015-2017 was \$79.4 bln. The main turnover was in "Mineral products" (44%) and "Precious stones" (14%). In the trade turnover structure, China ranks first (26%), South Korea second (24%).

By the volume of trade turnover, the Far East federal district ranks sixth in the Russian Federation. The export share of this federal district in the latest analyzed year was 77.73%, which is the fourth in the Russian Federation.

This district is the largest in the Russian Federation – over 6150 thousand square kilometers, while the smallest by population – only 6100 thousand people. By the gross regional product, the leaders in the Far East federal district are three subjects: Sakhalin oblast, Primorsky krai and Republic of Sakha (Yakutia). Among the market specialization sectors in the Far East federal district, the leading place belongs to metallurgy. The main centers of non-ferrous metallurgy are situated in Yakutia and Khabarovsk krai. Non-ferrous metallurgy comprises mining of tin, mercury, polymetals, tungsten, arsenic, and gold. Despite the volumes of the gross regional product, the larger levels of average monthly nominal payroll and average per capita monetary incomes and expenditures have the following subjects: Chukchi autonomous district, Magadan and Sakhalin oblasts. By the volume of shipped manufactured goods, namely, natural resources, the first position belongs to Sakhalin oblast, followed by Republic of Sakha (Yakutia). The largest volume of processing industries belongs to Khabarovsk and Primorsky krai. By the volumes of production and delivery of electric energy, gas and water, Republic of Sakha (Yakutia) and Primorsky krai also lead. Agriculture is poorly developed in this district, due to natural conditions, but Magadan oblast and Primorsky krai develop it more actively than other subjects.

Export from the Siberian federal district in 2015-2017 was \$88.6 bln. The main exports were "Mineral products" (43%) and "Metals and metal goods" (31%). Among the exporting countries China ranks first (16%), Netherlands second (12%). Import to the Siberian federal district in 2015-2017 was \$20 bln. The main imports were "Chemical products" (27%) and "Machines and equipment" (26%). Among the importing countries China ranks first (29%), Kazakhstan second (11%).



Figure 5 Level of development of economic safety of the Siberian federal district subjects, depending on the coefficient of foreign trade turnover of the district

The trade turnover of the Siberian federal district in 2015-2017 was \$108.6 bln. The main turnover was in "Mineral products" (36%) and "Metals and metal goods" (27%). In the trade turnover structure, China ranks first (19%), Netherlands second (10%). By the volume of trade turnover, the Siberian federal district ranks fourth in the Russian Federation. The export share of this federal district in the latest analyzed year was 81.4%, which is the largest in the Russian Federation.

The important specialization sectors in the Siberian federal district are ferrous (Western Siberia) and non-ferrous (Eastern Siberia) metallurgy, as well as forestry and timber-processing industry. One of the key industry sectors of the Siberian federal district is electrical power industry. By the gross regional product produced in the Siberian federal district, its subjects rank as follows: Krasnoyarsk krai, Irkutsk and Novosibirsk oblast. By the levels of incomes and expenditures, лидирует Krasnoyarsk krai and Tomsk oblast, followed by Kemerovo oblast. By the territory, the district ranks second with over 5100 thousand square kilometers. By the number of population, the most densely populated are Krasnoyarsk krai, Kemerovo and Novosibirsk oblasts. By the volumes of natural resources, the unrivaled leaders are Kemerovo oblast and Krasnoyarsk krai, followed by Tomsk oblast. Processing industries are developed in Krasnoyarsk krai, Omsk and Kemerovo oblasts. Agriculture is well developed only in Altai krai, Omsk oblast, and Krasnoyarsk krai. Production and delivery of electric energy, gas and water prevails in the well-developed regions: Krasnoyarsk krai, Irkutsk and Kemerovo oblasts.



Figure 6

Level of development of economic safety of the Ural federal district subjects, depending on the coefficient of foreign trade turnover of the district

Export from the Ural federal district in 2015-2017 was \$85.5 bln. The main exports were "Mineral products" (56%) and "Metals and metal goods" (25%). Among the exporting countries Netherlands ranks first (19%), Germany second (9%).

Import to the Ural federal district in 2015-2017 was \$31.9 bln. The main imports were "Machines and equipment" (55%) and "Mineral products" (11%). Among the importing countries China ranks first (34%), Kazakhstan second (14%).

The trade turnover of the Ural federal district in 2015-2017 was \$117.3 bln. The main turnover was in "Mineral products" (44%) and "Metals and metal goods" (21%). (16%), Netherlands second (14%). By the volume of trade turnover, the Ural federal district ranks fifth in the Russian Federation. The export share of this federal district in the latest analyzed year was 79.3%, which is the second in the Russian Federation.

The territory of this district is a little over 1800 thousand square kilometers. Fuel industry plays the leading role in economy of the district, providing over 50% of its industrial production. The fuel-energy complex provides functioning of all other sectors. Today, oil and gas production is of great significance.

Gas (92%) and oil (68%) production are concentrated in Yamal-Nenets and Khanty-Mansi autonomous districts and Tyumen oblast. By the gross regional product, an unrivaled leader is Tyumen oblast, followed by Khanty-Mansi autonomous district. By the levels of average monthly nominal payroll and average per capita monetary incomes and expenditures, the subjects rank as follows: Yamal-Nenets and Khanty-Mansi autonomous districts and Tyumen oblast.

Processing industries are developed in Sverdlovsk oblast, Tyumen and Chelyabinsk oblasts. By the production and delivery of electric energy, gas and water, the three first positions are shared by the following subjects: Tyumen oblast, Khanty-Mansi autonomous district and Sverdlovsk oblast. Agriculture is developed in Chelyabinsk oblast, Tyumen and Sverdlovsk oblasts.



Figure 7

Level of development of economic safety of the Volga federal district subjects, depending on the coefficient of foreign trade turnover of the district

Export from the Volga federal district in 2015-2017 was \$110.2 bln. The main exports were "Mineral products" (52%) and "Chemical products" (17%). Among the exporting countries Netherlands ranks first (13%), Kazakhstan second (7%).

Import to the Volga federal district in 2015-2017 was \$35.2 bln. The main imports were "Machines and equipment" (35%) and "Transport" (13%). Among the importing countries Germany ranks first (17%), China second (13%).

The trade turnover of the Volga federal district in 2015-2017 was \$145.4 bln. The main turnover was in "Mineral products" (40%) and "Chemical products" (16%). In the trade turnover structure, Netherlands ranks first (10%), Germany second (7%). By the volume of trade turnover, the Volga federal district ranks third in the Russian Federation. The export share of this federal district in the latest analyzed year was 78.7%, which is the third in the Russian Federation.

The district occupies a comparatively small area (6% of the country's territory). Its population comprises 20% of the total Russian population. Timber-processing sector comprises timber processing and pulp-and-paper industries. Kirov oblast is the most rich in valuable timber. Ship-building of Nizhniy Novgorod is world-known for its production – ships hydrofoil crafts. Processing of agricultural products is represented by flour-grinding, sugar, oil, and milk factories, concentrated in Samara, Saratov, Syzran, and Penza. By the gross regional product, the leader is Republic of Tatarstan, followed by Republic of Bashkortostan, Samara and Nizhniy Novgorod oblasts. By the level of average monthly nominal incomes, the subjects rank as follows: Republic of Tatarstan, Perm krai and Samara oblast.

Export from the North Caucasus federal district in 2015-2017 was \$3.25 bln. The main exports were "Chemical products" (41%) and "Plant products" (20%). Among the exporting countries Azerbaijan ranks first (16%), the USA second (11%).

Import to the North Caucasus federal district in 2015-2017 was \$3.21 bln. The main imports were "Machines and equipment" (29%) and "Plant products" (13%). Among the importing countries China ranks first (28%), Azerbaijan second (9%).



Figure 8

Level of development of economic safety of the North Caucasus federal district subjects, depending on the coefficient of foreign trade turnover of the district

The trade turnover of the North Caucasus federal district in 2015-2017 was \$6.46 bln. The main turnover was in "Chemical products" (23%), "Plant products" (17%). In the trade turnover structure, China ranks first (16%), Azerbaijan second (13%). By the volume of trade turnover, the North Caucasus federal district ranks the eighth – the last – in the

Russian Federation. The export share of this federal district in the latest analyzed year was just above 50%.

A great role in the North Caucasus economy is played by fuel-energy, metallurgy, chemistry sectors, tourism, construction materials production, and agriculture. This district is the smallest by area (except for the Crimean district) – 170.4 thousand square kilometers. Regional production is mostly concentrated in Stavropol krai and the Republic of Dagestan. By the level of average monthly nominal payroll, the subjects rank as follows: Stavropol krai, Chechen and Ingush Republics. Agriculture is developed only in Stavropol krai and the Republic of Dagestan. Mining of natural resources is carried out in all regions, the leading positions belonging to Stavropol krai, Chechen and Dagestan Republics. The processing industries are well developed only in Stavropol krai.

In the Crimean federal district, there was no export and import in 2015-2017.

Analysis of the regions was based on the set of indices of economic safety, which allowed revealing and qualitatively estimating the probable threats, and forecasting the complex of target indices for stabilizing the situation.

For economic safety of a region, crucial are the threshold values of indices, inobservance (exceeding or understating) of which will lead to disastrous unregulated processes in a region.

Today, the interests of economic safety of regions require objective and comprehensive monitoring of economy and society, using the indices of economic safety, which implies, first of all, factual tracing, analyzing and forecasting of the most important groups of economic indicators. Thus, Fig. 10 shows the set of indices of economic safety by the federal districts. Analyzing Fig. 9, one may notice two federal districts falling out of the common rule: these are the Crimean district, characterized by the largest share of tourist flows, and the Far East, which strongly depends on natural-climatic conditions.



Figure 9 Indices of economic safety of the Russian federal districts



The levels of economic safety development of the Russian federal districts and the

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Figure 10

Levels of development of economic safety of the Russian federal districts and coefficients of foreign trade turnover in the analyzed districts

Conclusion

Summarizing the above, one may conclude that the main goal of regulating the economic safety of the Russian Federation is to increase the level of management in the sphere of economy in order to maintain a certain state of macroeconomic balance, taking into account the selected criteria of economic transformations in the society. This would allow promoting stability against external and internal threats and ability to satisfy the needs of both the business sector and the state and society in general. Providing economic safety of a federal district or an individual region is a complex multi-purpose system, the content and structure of which depends on economic development and impact of many internal and external factors.

Stemming from the carried out analysis by the Russian Federation subjects and federal districts, one may conclude that the foreign policy influences the level of economic safety and the volumes of both GDP and GRP. The carried out analysis demonstrates two exceptions: the North Caucasus federal district (due to its specific economic-geographical position) and the Crimean federal district (due to its poor economic development), where tourist zones prevail. Economically well developedfederal districts, leading active foreign trade, as well as the regions comprising them, have a higher potential of economic development. In all federal districts, the largest unit weight belongs to exports. As was shown graphically, the lower the level of economic safety of a region, the weaker its foreign activity, and vice versa.

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