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Problems of Ensuring Balanced Socio-Economic Development of Regions Under Sanctions

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ABSTRACT

The purpose of the study is to identify and analyze problems and develop recommendations to ensure a balance of social, economic, budgetary, credit and other aspects of the integrated development of the constituent entities of the Russian Federation under sanctions. The relevance of the study is due to the need to resolve issues of a rational relationship between ensuring social stability in society and the dynamism of investment and technological renewal of the territory's economy as the basis for its sustainable long-term development in the current conditions of sanctions pressure from unfriendly countries on the economy of Russia and its regions. In accordance with the results obtained of this study, the following **conclusions** were formulated: 1) based on the results of a review of scientific publications of domestic and foreign authors on the issues of balanced development of territories, the differences and interrelationships between balanced and sustainable development were highlighted, and the use of an approach to assessing balance based on criteria of economic security was justified; 2) a system of 26 indicators of economic security is proposed, characterizing the development of constituent entities of the Russian Federation in terms of social, economic, innovative and environmental components. Based on the use of **methods** of statistical analysis, standardization, spectrum-score and expert methods, an assessment and grouping of the regions of the Volga Federal District was carried out according to the level of balance, which made it possible to identify the presence of significant heterogeneity when comparing individual components of development and their distinctive features (problem areas) in different periods (pre-pandemic, pandemic, post-pandemic, sanctions); 3) based on the results of the study, the main problems of balanced regional development were identified and recommendations were proposed to improve it based on the principle of complementarity (mutual complementarity) of components as the basis for ensuring sustainable socio-economic development of territories and improving the quality of life of the population.

Keywords: socio-economic development; investment; public finance; region; balance; sustainability; economic security; complementarity; sanctions; COVID-19; spectrum-point method

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INTRODUCTION

In the context of modern challenges facing the economy of Russia and its regions (sanctions, demographic, personnel, budgetary, etc.), the relevance of research into the problems of ensuring their balanced socio-economic development is increasing. Due to the interconnectedness and interdependence of social and economic aspects from each other,¹ the long-term imbalance in the distribution of financial resources between them (including due to a significant outflow of profits generated in the economy abroad over the past 30 years in the amount of about \$ 1 trillion²) leads to a decrease in the overall sustainability of territorial development and the formation of crisis phenomena. All this negatively affects both social stability in society and the pace of investment development, technological renewal of the territory's economy (taking into account compliance with environmental requirements), which form the basis of its sustainable long-term development.

In this regard, the role of public finance as a mechanism for redistribution of financial resources obtained as a result of economic activity into the social sphere is increasing. The problem of balanced development of regions in one form or another has been raised at the state level,³ including in determining the main directions of the new Government of the Russian Federation⁴ and the national development goals of the country until 2030 and in the perspective

until 2036,⁵ where its social orientation is among the most important components. The strategic planning documents of the constituent entities of the Russian Federation also pay increased attention to the issues of balanced development (as part of the tasks to reduce differentiation in various aspects of development between municipalities within the region).⁶

The analysis of publications devoted to the problem of balanced development of territories shows that research in this area is quite broad, multidimensional in nature, which is explained by the interdisciplinarity of the research object, including the consideration of various factors. In particular, according to the authors of the study [1], balanced development is a coordinated economic-socio-ecological development. In the paper [2], balanced development is understood as the achievement by the region of given development parameters taking into account the interests of all stakeholders. Thus, the basic characteristic of balanced development, emphasized by various authors, is the presence of coherence (interests) between the components of development (stakeholders).

In addition, the concept of "balanced development" is often identified with other categories (e.g., "sustainable development"). To more clearly establish the boundaries of

¹ For example, underfunding of the social block in education and health care (according to the authors' calculations on the basis of Rosstat and Eurostat data, in 2021 in Russia compared to EU countries the expenditures on these areas amounted to 7.3% and 12.9% of GDP or 20.9% and 25.1% of all expenditures of the consolidated budget of the territory, respectively), as well as excessive workload of pedagogical and medical workers (including the formation of various reports) in the future leads to the deterioration of financial and economic indicators of the region's development as a result of the fall (or preservation of the same level).

² URL: <https://tass.ru/ekonomika/7037106> (accessed on 28.05.2024).

³ URL: <http://www.council.gov.ru/events/news/90944/> (accessed on 20.05.2024).

⁴ Mishustin named the main areas of work for the new government. URL: <https://www.rbc.ru/politics/10/05/2024/663e033f9a794760e4128530> (accessed on 20.05.2024).

⁵ Decree of the President of the Russian Federation from 7 May 2024 No. 309 "On national development goals of the Russian Federation for the period up to 2030 and in the perspective up to 2036". URL: <https://rg.ru/documents/2024/05/07/prezident-ukaz309-site-dok.html> (accessed on 24.05.2024).

⁶ Resolution of the Government of the Republic of Bashkortostan from 20 December 2018 No. 624 "On the Strategy of Socio-Economic Development of the Republic of Bashkortostan for the Period until 2030". URL: <https://economy.bashkortostan.ru/documents/active/298367/> (accessed on 05.08.2024); Law of the Republic of Tatarstan from 17 June 2015 No. 40 "On Approval of the Strategy of Socio-Economic Development of the Republic of Tatarstan until 2030". URL: <https://mert.tatarstan.ru/strategiya-sotsialno-ekonomicheskogo-razvitiya.htm> (accessed on 05.08.2024); Resolution of the Government of the Nizhny Novgorod Region from 21 December 2018 No. 889 "On Approval of the Strategy of Socio-Economic Development of the Nizhny Novgorod Region until 2035". URL: <https://strategy.nobl.ru/assets/content/main/strategiya-22.09.pdf> (accessed on 05.08.2024).

the subject field of this concept, the article [3] conducted a study of publications on the basis of ScR-methodology (scoping review), which allowed us to define the balanced development of the region as a spatial and dynamic characteristic of the process of continuous coherence between economic entities at the sectoral, territorial and systemic levels. In another paper, the authors, separating the concepts of “sustainable development” (constant development achieved despite the influence of negative factors) and “balanced development”, formulate a definition of sustainable balanced development as the constant development of economic, socio-ecological subsystems of the region, taking into account their coordinated interaction, giving a synergetic effect to ensure dynamic stability [1].

Consequently, the distinguishing characteristic of sustainable development from balanced development is the ability of the territorial socio-economic system to ensure continuous (stable) development even under the influence of negative factors of the external environment, while balance is characterized by the consistency of interaction between the elements of this system. It is logical that sustainable self-development of the region in the medium term, and even more so in the long term, cannot be ensured without its balance.

Since balance implies the establishment of a certain balance between the various components of the territory’s development (in the form of the absence of significant differentiation, distortions in development), to a certain extent it can be quantitatively characterized by economic security indicators and their threshold values [4–6]. Including through the prism of economic security indicators, the works of various authors consider such aspects of social development as individual well-being [7], the priority of taking into account demographic [8], human resources [9], economic and criminogenic [10] indicators in assessing the results of regional

policy, as well as the standard of living of the population as a whole [11]. In addition, researchers assess the level of economic security of the territory from the position of its sectoral specifics [12], environmental condition [13], etc. Thus, within the framework of assessing the economic security of the region it is possible not only to analyse various aspects of its balanced socio-economic development, but also to determine their sufficiency to ensure the sustainability of development.

In foreign scientific literature, the balanced development of territory has also been extensively researched [14–16], including in the context of tourism as a driver of development [17, 18], problems of transport accessibility in rural areas [19], the definition of indicators and their threshold values for assessing the imbalance of Inner Peripheries [20], environmental analysis in accordance with sustainable development goals [21]. Foreign authors actively study financial aspects, which are considered from the point of view of the mutual influence of the processes of financialization of rural territories and spatial components of their development [22]. On the example of urban clusters, the possibilities of applying the model of joint optimal allocation of land use (COAL model) between different clusters (production, residential, environmental space) as a basis for ensuring balanced development are studied [23].

The above review of scientific publications of domestic and foreign scientists confirms the relevance of the study of this topic, especially at the regional level. The purpose of the study is to identify and analyse the problems of balancing social, economic, fiscal, credit and other aspects of integrated development of the Russian Federation subjects (on the example of the regions of the Volga Federal District — VFD) in the conditions of sanctions and to develop recommendations for their elimination. In order to achieve the set goal, it is necessary to solve the following tasks:

- to collect and systematize indicators of economic security at the regional level, characterizing various aspects of integrated development of territories;
- to propose a method for assessing the economic security of regions from the point of view of the balance of their development;
- to assess the level of balanced development subjects of the Russian Federation and identify distinctive features (problem areas) that affected its dynamics in different periods in the context of development components;
- to formulate recommendations to improve the balanced development of territories.

MATERIALS AND METHODS OF RESEARCH

In our opinion, it is most appropriate to use the approach based on the dynamics of economic security indicators as an approach to assess the balance of territorial development. Since the assessment of economic security involves the consideration of many factors from various spheres of activity, the use of this approach allows us to consider various aspects of the balance of socio-economic development of the regions in a comprehensive manner, as well as to determine whether their current state is sufficient to ensure long-term sustainable development through the threshold levels of economic security. It is proposed to assess the balanced development subjects of the Russian Federation by 26 indicators in the context of 4 components:

- social development (13 indicators);
- economic (5 indicators);
- innovation (5 indicators);
- environmental (3 indicators).

The thresholds for these components have been suggested by academics and experts in the field (*Table 1*).

It is proposed to use the method of assessing regional economic security proposed by V.K. Senchagov and S.N. Mityakov as a

basis [24]. This toolkit allows to bring the indicators, which are different in their impact on socio-economic development, to a single scale from -1 to $+1$, where the threshold values of economic security indicators pass through the zero level. Formula (1) is used to normalize the indicators whose growth has a positive impact on the region's economy:

$$y = 2^{1-a/x} - 1, \quad (1)$$

where y — normalized value of the indicator; x — initial value of the indicator; a — indicator threshold.

If the increase in the indicator negatively affects the socio-economic dynamics of the territory, then the formula is used (2):

$$y = 2^{1-x/a} - 1. \quad (2)$$

The integral indicator within the development components and the overall integral indicator are calculated as the arithmetic mean of the sums of normalized indicators within a certain component in the first case and indicators for all components in the second case. It is proposed to group regions by the level of balanced development according to the following scale: high level — with positive values of the integral indicator; average level — with values from -0.2 to 0 ; below average — from -0.4 to -0.2 ; low level — from -0.6 to -0.4 ; critical level — from -0.8 to -0.6 ; catastrophic level — below -0.8 .

The calculations are based on the data of Rosstat,⁷ the Bank of Russia⁸ and the Ministry of Finance of the Russian Federation⁹ on the example of the regions of the Volga Federal District (VFD) for the period 2019–2022, which allows us to compare the change

⁷ Regions of Russia. Socio-economic indicators. Rosstat. URL: <https://rosstat.gov.ru/folder/210/document/13204> (accessed on 20.06.2024).

⁸ Bank of Russia. URL: https://www.cbr.ru/statistics/bank_sector/sors/#a_63140 (accessed on 20.06.2024).

⁹ Electronic budget. Ministry of Finance of the Russian Federation. URL: <https://budget.gov.ru/Главная-страница> (accessed on 20.06.2024).

Table 1

Indicators of Regional Economic Security and their Threshold Values

No.	Indicators	Threshold value
Social development		
1	Life expectancy (total population), years	>80
2	Life expectancy (men), years	>77
3	Life expectancy (women), years	>85
4	Fertility rate (number of children per 1 woman), un.	>2.15
5	Ratio of people of retirement and working age,%	<40
6	Ratio of the number of deaths to the number of births, un.	<1
7	Share of population with incomes below subsistence minimum,%	<6
8	Ratio of average per capita cash income to subsistence minimum, times	>3.5
9	Gini index, un.	<0.3
10	Funds ratio, times	<7
11	Area of housing per 1 inhabitant, sq. m.	>30
12	Share of expenditures on health care, education and culture,% of GRP	>15
13	Crime rate (number of registered crimes per 100,000 population), un.	<1000
Economic development		
14	Investments in fixed capital, as% of GRP	>25
15	Depreciation of fixed assets,%	<45
16	Profitability of production,%	>15
17	Share of manufacturing in industry,%	>70
18	Volume of business lending,% of GRP	>40
Innovative development		
19	Share of shipped innovative products,%	>30
20	Number of persons engaged in R&D per 10,000 employed in the economy, persons	>120
21	Domestic expenditure on R&D,% of GRP	>2.2
22	Number of applications for inventions and utility models filed per 10,000 population, un.	>5
23	Share of innovation-active enterprises,%	>40
Environmental development		
24	Share of environmental expenditures,% of GRP	>5
25	Discharge of polluted wastewater, thous. cubic metres per sq. km	<0.3
26	Emissions of pollutants into the atmospheric air from stationary sources, tonnes per sq. km	<0.5

Source: Compiled by the authors based on the works of [25–27].

Table 2

Integral Index of Balanced Development of Regions of the Volga Federal District in 2019–2020

Region	2019	2020	2021	2022	Dynamic
Regions with a level of balanced development below average					
Nizhny Novgorod region	–0.40	–0.37	–0.39	–0.38	0.02
Regions with a low level of balanced development					
Ulyanovsk region	–0.40	–0.41	–0.40	–0.40	0.00
Republic of Mordovia	–0.40	–0.39	–0.39	–0.40	0.00
Republic of Tatarstan	–0.44	–0.44	–0.44	–0.41	0.03
Perm region	–0.46	–0.45	–0.44	–0.42	0.03
Penza region	–0.43	–0.43	–0.44	–0.45	–0.02
Kirov region	–0.49	–0.48	–0.51	–0.50	–0.01
Samara region	–0.52	–0.51	–0.51	–0.52	0.00
Republic of Mari El	–0.55	–0.56	–0.54	–0.53	0.02
Republic of Bashkortostan	–0.55	–0.51	–0.51	–0.54	0.01
Saratov region	–0.54	–0.54	–0.52	–0.54	0.00
Udmurt Republic	–0.56	–0.54	–0.56	–0.56	0.00
Chuvash Republic	–0.54	–0.55	–0.56	–0.57	–0.02
Orenburg region	–0.59	–0.59	–0.61	–0.60	–0.01

Source: Calculated by the authors based on data Rosstat, Bank of Russia, Ministry of Finance of the Russian Federation. URL: <https://rosstat.gov.ru/folder/210/document/13204>; https://www.cbr.ru/statistics/bank_sector/sors/#a_63140; <https://budget.gov.ru/> Главная-страница (accessed on 20.06.2024).

in the values of indicators formed in the pre-pandemic, pandemic, post-pandemic and sanctions periods (although sanctions restrictions against the Russian economy by Western countries were imposed earlier, but they were not so total as from 2022).

RESEARCH RESULTS

The current state of socio-economic development of Russia's regions is characterized by a generally insufficient level of economic security for sustainable socio-economic development (Table 2).

Over the period under review, the integral index of balanced development in the regions had multidirectional weak dynamics, which

is associated with both high inertia of the processes characterizing certain components of development and smoothing as a result of summing up the values of indicators that make up the integral index. At the same time, within the development components the level of differentiation in some regions was somewhat higher (except for social development). With the exception of the Nizhny Novgorod region, all the regions of the Volga Federal District can be classified as a group with low development balance (Table 3).

As can be seen from Table 3, the most balanced (close to the threshold values) indicators of the socio-economic block, where the leaders in the social sphere are

Table 3

**Values of the Components of the Integral Index of Balanced Development of Regions
of the Volga Federal District in 2022**

Region	Development component in 2022 and its dynamics compared to 2019							
	Social		Economic		Innovation		Environmental	
	2022	change	2022	change	2022	change	2022	change
Republic of Bashkortostan	-0.16	0.01	-0.24	0.00	-0.82	-0.01	-0.93	0.04
Republic of Mari El	-0.19	0.00	-0.14	0.13	-0.92	-0.08	-0.86	0.05
Republic of Mordovia	-0.24	-0.02	-0.18	-0.02	-0.66	0.02	-0.52	0.02
Republic of Tatarstan	-0.11	0.01	-0.12	0.03	-0.41	0.09	-1.00	-0.01
Udmurt Republic	-0.19	0.01	-0.22	-0.04	-0.85	0.00	-0.98	0.01
Chuvash Republic	-0.18	-0.01	-0.23	0.00	-0.91	-0.10	-0.94	0.02
Perm region	-0.21	0.02	-0.06	0.06	-0.62	-0.04	-0.82	0.07
Kirov region	-0.21	0.00	-0.27	0.05	-0.87	-0.10	-0.64	-0.01
Nizhny Novgorod region	-0.19	0.00	-0.14	0.09	-0.28	-0.06	-0.91	0.05
Orenburg region	-0.21	0.00	-0.36	-0.07	-0.96	0.03	-0.88	0.00
Penza region	-0.20	-0.01	-0.14	0.05	-0.70	-0.09	-0.75	-0.03
Samara region	-0.22	-0.01	-0.22	0.02	-0.66	-0.02	-0.98	0.01
Saratov region	-0.22	-0.01	-0.27	0.05	-0.86	-0.03	-0.79	0.01
Ulyanovsk region	-0.20	0.00	-0.34	-0.07	-0.33	0.05	-0.73	0.03

Source: Calculated by the authors based on data Rosstat, Bank of Russia, Ministry of Finance of the Russian Federation. URL: <https://rosstat.gov.ru/folder/210/document/13204>; https://www.cbr.ru/statistics/bank_sector/sors/#a_63140; <https://budget.gov.ru/> (accessed on 20.06.2024).

the Republic of Tatarstan, in the economic sphere — Perm region and the Republic of Tatarstan. However, even these leading regions managed to achieve an economically safe level only for some indicators: Tatarstan — for indicators 7, 8, 10, 11, 15–17, Perm region — 10, 16 (Table 1). In contrast to the social sphere, which showed insignificant dynamics of the integral index by regions, in the economic sphere the most significant growth was observed in the Republic of Mari El (comprehensive positive change in all parameters) and Nizhny Novgorod region (mainly due to improved values of investment and profitability of production indicators).

In the field of innovation and environmental development of the RF subjects under consideration, there is a significant lag behind the required parameters. Three regions demonstrate a more favourable position in terms of innovation compared to other territories: Nizhny Novgorod region (the leading region in terms of employment and investment in R&D in the Volga Federal District) retained its leadership despite the overall negative dynamics in this component of development, Ulyanovsk region (1st place in the Volga Federal District in terms of patent activity and 2nd place in terms of R&D expenditures relative to GRP), Republic of Tatarstan (1st place in the Volga Federal District

Table 4

Problem Areas for Balanced Development of the Regions of the Volga Federal District in 2019–2022

Period	Distinctive features (problem areas) in development			
	Social	Economics	Innovation	Environmental
Pre-pandemic (2019)	Low level of expenditures on healthcare, education and culture, socio-demographic indicators	Relatively high level of fiscal capacity of subjects of the Russian Federation	Critical level of innovative development in most regions	High level of environmental pollution, low level of environmental expenditures
Pandemic (COVID-19) (2020)	Increase in the share of social expenditures, decrease in the life expectancy of the population	Increase in investment activity, level of lending, decrease in the provision of budgets of the constituent subjects of the Russian Federation	Increase in the share of innovation-active enterprises with negative trends in other aspects	Increase in expenditures on environmental activities
Post-pandemic (2021)	Reduction in social expenditures, return of income inequality to pre-pandemic levels	Reduction in the share of manufacturing in industrial output	Continued multidirectional dynamics of indicators	Slight reduction in emissions, return of expenditures to pre-pandemic levels
Sanction (2022)	Multidirectional dynamics of indicators, but values, as a rule, are below the pre-pandemic level	Active renewal of fixed assets in industry	Deterioration or preservation at the same level of indicator values	Trend persistence, all indicators are below the economic security threshold
Level and dynamics of balanced development of regions	Medium, weak negative dynamics	Medium, weak positive dynamics	Low, weak positive dynamics in 2020, then return to the initial values	Catastrophic, weak positive dynamics

Source: Developed by the authors.

in terms of innovation activity of enterprises). The Perm region, Nizhny Novgorod region and the Republic of Mari El show the most significant growth in the introduction of green technologies.

If we consider the dynamics of balanced development of regions through the prism of the influence of significant factors of socio-economic transformation (COVID-19, sanctions), we can distinguish the pre-pandemic, pandemic, post-pandemic and sanctions periods, the distinctive features (problem areas) of which are summarised in *Table 4*.

Despite the fact that opposite trends could be observed in some regions, in general, the dynamics of the components of balanced development of the regions was as follows:

1. Pre-pandemic period (2019) — a relatively stable state of the socio-economic and budgetary sphere with a generally low level of balanced development of the regions;

2. Pandemic period (2020) — an activation of the investment, financial and budgetary systems, manifested in the form of growth in the share of investment and loans relative to GRP, gratuitous receipts to the consolidated budgets of the regions from the federal budget, increase in social spending. However, this growth was not of a long-term nature and made little use of the “window of opportunity” for import substitution, as well as failed to reverse the negative trends in the social and innovative spheres;

3. Postpandemic period (2021) — an increase in financial and investment activity in the economy, which started in 2020, was not continued (the share of investment to GRP in 2021 fell by 2.6% in Russia and 2.5% in the Volga Federal District), which, against the background of an improved oil price environment, strengthened the positions of the extractive sector in industry and led to a decline in the share of manufacturing in industrial output; in the social sphere, there was a continuation of negative dynamics in socio-demographic indicators with

some improvement in the indicators of the economic situation of the population;

4. The sanctions period (from 2022) — is characterised by weak multidirectional dynamics of indicators with values close to the pre-pandemic level. In the social sphere, relatively stable positive dynamics is observed in the income inequality of the population, in the economy — in the degree of depreciation of fixed assets, in innovation — in the growth of the share of innovation-active enterprises, in ecology — in the discharge of polluted wastewater.

CONCLUSION

Thus, according to the results of the conducted research the following problems of balanced development of the regions can be identified:

- the general level of balanced development of the regions of the Volga Federal District does not meet the requirements of economic security and in its current form does not allow to ensure long-term sustainable socio-economic development of the territories;
- significant skewness, heterogeneity in the level of balance by development components, indicating their inconsistency as the most important characteristic of the concept of balance. The most difficult situation is in the innovation and environmental spheres, which, when considering the issue of balancing the development of territories in a comprehensive manner, negatively affects social and economic parameters. The low level of innovation activity restrains the growth of labour productivity, which forms the economic basis for increasing the material well-being of citizens, and environmental problems (the solution of which largely depends on the introduction of innovative developments in the field of green technologies) negatively affect the health of the population;
- the analysis of periodisation of territorial development shows that the COVID-19 pandemic and the sanctions pressure on the Russian economy as a whole did not have a significant impact on the balanced development

of the RF subjects under consideration, which indicates, on the one hand, a high margin of safety of territorial socio-economic systems, and, on the other hand, the need to find effective mechanisms for launching internal sources to ensure their balanced development.

As general recommendations for the subjects of the Volga Federal District to improve the balance of integrated development of the regions, we can suggest:

Firstly, given the interconnectedness of the components, it is necessary to increase labour productivity on the basis of stimulating innovative activity of enterprises by expanding the practice of using investment and other instruments available to development institutions (venture investments, grants to innovative start-ups, etc.) and the state (investment tax deductions for enterprises);

Secondly, a more active monetary policy to provide businesses with credit resources for the implementation of investment projects, including in the innovation and environmental spheres (in 2022, this indicator for the Volga Federal District was on average about half the norm (21.7% vs. 40% of GRP));

Thirdly, the growth of tax revenues from increased business and innovation activity of territories¹⁰ will form the basis for increasing the share of social expenditures on education and health care up to generally accepted standards (15% of gross product), but even at the current level of financing (5.5% in the Volga Federal District in 2022), a relevant area is the development of measures to improve the efficiency of the use of budget funds allocated within the framework of national projects and state programmes for socio-economic development of the regions (primarily in the field of social and economic development of the regions).

¹⁰ The analysis of the structure of consolidated budgets of the constituent entities of the Russian Federation shows that in the most balanced and economically strong regions (the Republic of Tatarstan, Nizhny Novgorod region, Perm Krai) the share of non-repayable revenues in 2022 did not exceed 20% (33.0% in the Volga Federal District excluding these regions).

Despite the similar general level of balanced development of the regions considered, there are undoubtedly certain peculiarities in one or another region, which implies the need to develop specific recommendations. As an example, let us consider several regions of the Volga Federal District:

The Republic of Bashkortostan — an increase in balanced development can be achieved by:

- expanding bank lending to the region's enterprises (including through the development of guarantee mechanisms in the form of the return of provisions on irrevocable state guarantees of the constituent entities of the Russian Federation to the legislation¹¹), the level of which is below the average for the district and demonstrates negative dynamics (if in 2019 the volume of loans to legal entities in the republic was 20.6% of GRP, in 2022–18.1%), as well as attracting investment in the form of issuing digital financial assets;

- formation of incentives for the development of innovation activity in the region (including on the basis of building a flexible system of grant programmes aimed at financial support for innovative start-ups, development of joint programmes for training personnel through the interaction of scientific and educational centers (Eurasian Research and Development Centre), educational organisations of higher and secondary education and industrial enterprises) in order to increase the share of innovative products (5.1% in 2022, with an average of 10.2% in the Volga Federal District and a 30% threshold), which is constrained by a relatively low level of domestic R&D expenditure to GRP (8th in the Volga Federal District in 2022), a decline in patent activity (9th) and the number of persons employed in R&D (8th);

- increased funding for projects aimed at introducing technologies to reduce air pollutant emissions, including under

¹¹ URL: <http://komitet-finans.duma.gov.ru/novosti/ce6e53de-0047-46bf-b420-3bfe5160c852> (accessed on 07.08.2024).

the federal Clean Air Project (despite the reduction of emissions from 3.3 tonnes per square kilometre in 2019 to 3.0 tonnes, this level is slightly higher than that of the Volga Federal District (2.2 tonnes)).

2. Republic of Tatarstan — the main constraints are concentrated in the field of ecology. During the period under consideration, there is a decrease in expenditures on environmental measures in relation to GRP, as well as an increase in emissions into the atmospheric air, which indicates the need for increased attention to ESG-agenda, given the more than twofold excess of the level of this type of pollution compared to the average values for the Volga Federal District (4.7 tonnes per square kilometre versus 2.2 tonnes). In this regard, it seems advisable to consider the possibility of participation of the republic's cities in the federal project "Clean Air" or increase (return) the level of Tatarstan's budget expenditures on the environment to the average level in the Volga Federal District (0.8% of GRP in 2022, which would give 10 billion rubles of additional expenditures on the environment), as well as stimulate the issuance of green bonds by enterprises. The implementation of this instrument, including as part of social investment (in the improvement of public space, environmental projects) will have a favourable impact on the quality of life of the population.

3. The Republic of Mordovia is the region with the lowest level of social sphere development, where the main efforts should be directed to the development and implementation of measures in the field:

- reduction of imbalances in socio-demographic indicators (indicators 4–6 of *Table 1*), which, given the high inertia of these indicators, requires the formation of a long-term state programme to support an increase in the birth rate. Currently, a demographic programme,¹² is being implemented in the

republic, but it is designed only until 2025 and does not have its own resource support. The regional project "Financial support for families at the birth of children" is also operating in the region within the framework of the national project "Demography". At the same time, in our opinion, the shortcomings of the project include weak interconnection with the final indicators of the development of this sphere (for example, among the target indicators of the project there are no indicators directly characterizing the birth rate), as well as discrete dynamics of the forecast values of some indicators. In addition, one of the constraints to increasing the birth rate, which is not considered by the project, is the low level of income of families with children, and in this regard, the creation of high-paying jobs in the territory of the constituent entity of the Russian Federation is important;

- increase in the level of average per capita income of the population. According to this indicator in 2022 the republic was in last place in the Volga Federal District, which at the level of subsistence minimum as in the Republic of Tatarstan provided one of the lowest values of the ratio of these indicators (2.2 rubles against 3.8 rubles in Tatarstan and the norm of 3.5 rubles). Also, the region is the most subsidized in the Volga Federal District and its budgetary capacity is very limited (the share of non-repayable payments in total consolidated budget revenues in 2022 was 51.0%). In this regard, in 2021 the Government of the Russian Federation adopted a programme for the development of the region until 2026¹³ in order to increase investment activity, create new highly skilled and highly paid

in the Republic of Mordovia for the Period 2023–2025". URL: <http://publication.pravo.gov.ru/document/1300202307030001?index=1> (accessed on 07.08.2024)

¹³ Order of the Government of the Russian Federation No. 3955 from 29 December 2021 "On approval of the programme of socio-economic development of the Republic of Mordovia for 2022–2026". URL: <https://docs.cntd.ru/document/727709769> (accessed on 07.08.2024).

¹² Resolution of the Government of the Republic of Mordovia of 29 June 2023 No. 303 "On Approval of the Regional Programme to Increase the Birth Rate and Support Families with Children

jobs, and increase the population's income as a basis for the formation of material well-being of families with children. In our opinion, it would be advisable to expand the sections of the programme devoted to the development of small and medium-sized enterprises (3 measures) and the social sphere (1 measure) by linking them through measures to support innovative and socially oriented entrepreneurship (including the development of medical equipment and drugs for the rehabilitation of SWO participants and the provision of social services in this area).

Theoretical significance lies in the proposal of an approach to assess the balance of

development at the regional level on the basis of the formed system of indicators of economic security, allowing to take into account the level of sufficiency of ensuring sustainable development of the territory in a multidimensional section.

The practical significance of the conducted research is the identification of problem areas in the balanced development of the subjects of the Russian Federation in the Volga Federal District, specified by components and time periods, as well as the development of recommendations for the harmonization of integrated socio-economic development of the regions.

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P. A. Ivanov — selection of indicators to be analysed, description of methods and calculations used, participation in calculations and analysis of obtained results, formation of research conclusions.

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