

Sustainable Economic Development – Regional Imbalances

Anna Koltsova^{1, *}, Nadezhda Starobinskaya²

¹ Saint Petersburg State University, Saint Petersburg, Russia

² The Herzen State Pedagogical University of Russia, Saint Petersburg, Russia

*Corresponding author. Email: a.a.koltsova@spbu.ru

ABSTRACT

The materials of the article reflect the results of a study of regional imbalances that appear when achieving sustainable development goals in the Russian Federation. The authors made an attempt to prove the following hypothesis: the regions that demonstrated the lowest parameters for implementation of the SDGs are not able to independently form the basis for the potential growth, are significantly dependent on interbudgetary transfers. The purpose of the study is to identify the constituent entities of the Russian Federation that have significant problems with formation of a platform for sustainable development. To achieve this goal, a grouping of the national SDGs of the Russian Federation was carried out in order to identify a group of indicators characterizing the formed potential for economic growth. Based on the results of comparing the indicators of the selected group of SDGs, in the context of the constituent entities of the Russian Federation, three leaders and outsiders were identified for which the structure of budgetary provision was determined. The novelty of the provided paper lies in formation of groups of national SDGs of the Russian Federation, which made it possible to assess the formation of the potential for economic growth. As a result of the study, the hypothesis was confirmed.

Keywords: *Regional differentiation, Potential economic development base, Interbudgetary transfers, Vertical budget alignment tools.*

1. INTRODUCTION

2015 became the starting point for development of the world economy according to the new scenario. The UN member states have identified 17 priority goals, the implementation of which will make it possible to overcome global problems such as poverty and hunger, environmental disasters, presence of significant social, intercountry imbalances. The states were recommended to develop national programs covering the goals and objectives of sustainable development, concretizing the stages of achieving the set parameters within fifteen years. Active work at all levels of government and supranational associations made it possible to obtain certain results by 2019. So, according to the monitoring data "Government at a Glance 2019" by the OECD, a quarter of the countries in the total set of studies reflected or closely aligned the Sustainable Development Goals (SDGs) with the current and strategic budget plans. The best result was demonstrated by Norway, which structured the administrative budgeting system according to the departmental principle, entrusting individual

ministries with the functions of implementing each of the SDGs since 2016 [1].

The Russian Federation implements the SDGs in a complex composition of national projects in the following areas: demography, education, culture, safe and high-quality roads, housing and urban environment, ecology, science and universities, small and medium-sized businesses, digital economy, labor productivity, and etc. Adhering to international practice, our country conducts end-to-end monitoring of achievements, makes the results publicly available on the website of the Federal State Statistics Service.

Our country is characterized by a high degree of differentiation of regions in terms of the level of socio-economic development. There is no equality in terms of SDG indicators. The main hypothesis of our study is that the regions that demonstrated the lowest parameters for implementation of the SDGs are not able to independently form the basis for potential growth, and are significantly dependent on intergovernmental transfers.

2. MATERIALS AND METHODS

The study, the results of which formed the basis of the article, is based on the hypothetical-deductive method. The authors also applied selected elements of quantitative and qualitative analysis, synthesis and analogy.

The information base of the study was made by: National set of the SDG indicators [2]; data from the Treasury of the Russian Federation on execution of the consolidated budgets of the constituent entities of the Russian Federation [3], materials of the statistical collection "Regions of Russia. Socio-Economic Indicators. 2020" [4].

The object of the study was the regional disparities in achievement of the SDGs in the context of the subjects of the Russian Federation.

The subject of the study was the specifics of budgetary provision for the regions of leaders and outsiders in achieving the SDGs.

3. RESULTS AND DISCUSSION

The author's grouping of SDGs is carried out considering the specifics of state regulatory impact, planning horizons to achieve, the possibility of local, national or international optimization.

Group 1 "Compensatory", requires an immediate solution of current problems to overcome the distress, social imbalances: the elimination of poverty; the elimination of hunger; gender equality; reducing inequality. State funding in this area is associated with fulfillment of public obligations, possibly in the form of grants and subventions.

Group 2 "Environmental", a complex of systemic problems that are often not solved by the forces of one region, one state: clean water and sanitation; conservation of marine ecosystems; conservation of terrestrial ecosystems; combating climate change. For this group, expanded funding is expected, mainly in such forms as budget allocations for provision of public services, multi-channel support for implementation of international programs, budget investments.

Group 3 "Structural", systematic actions on these goals often require general, systemic transformations of individual socio-economic and political segments: low-cost and clean energy; sustainable cities and towns; responsible consumption and production; peace, justice and effective institutions; partnership for sustainable development. Financial resources can be directed in the form of budgetary investments, budgetary allocations for implementation of public services, in the form of interbudgetary subsidies.

Group 4 "Potential", implementation of these goals forms a high level of development of human capital,

infrastructural and innovative components: good health and well-being; the quality of education; decent work and economic growth; industrialization, innovation and infrastructure. Regions with a high level of budgetary provision, as a rule, do not require the redistribution of budgetary funds from a higher level to co-finance the implementation of these goals. It is possible to build up financial flows when implementing federal target programs.

The constituent entities of the Russian Federation that received high marks in the 4th group of indicators demonstrate an effective basis for potential economic development. The territories with the lowest ratings require increased attention of the federal authorities, possibly restructuring of financing, and use of other forms of interbudgetary transfers.

Assessment by indicators characterizing the degree of achievement of the SDGs in this group, with actual data, are provided in Table 1. From the whole variety of statistical data, according to the authors, parameters have been selected that allow for a qualitative assessment of the components of the region's human capital (education and health); productivity at the regional level and the available opportunities for increasing employment in the segment of small and medium-sized businesses, as well as the characteristics of innovation potential. We will record the time parameter for 2019.

It is worth noting that difficulties arose when choosing the data. Therefore, according to the SDG "Quality of Education," according to the indicators of the coverage of educational programs of higher education, distorting estimates could be obtained related to the centralization of education in a priority subject within the Federal District. According to the SDGs "Decent Work and Economic Growth", the indicators "growth of labor productivity", "consumption of fuel and energy resources per one employed person in the economy" and "average hourly earnings of women and men by occupation group and age" are not indicated in the context of federal subjects. The indicator "the number of people employed in the field of small and medium-sized businesses, including individual entrepreneurs" refers to the group of absolute ones and can be replaced by the relative "share of people employed in the relevant area of the total population of the region". Also, without detailing, in the aggregate for the Russian Federation, the following indicators are provided: "expenditures on study and development works as a percentage of the GDP" and "number of researchers (in full-time equivalent)". It is worth noting that a regional section would be indicative when assessing the "Industrialization, Innovation and Infrastructure" SDGs.

According to the table, three constituent entities of the Russian Federation demonstrate the worst indicators in the "Potential" SDG group. Nenets Autonomous Okrug – health, education

Table 1. Regional differentiation by indicators of the 4th group of SDGs (compiled by the authors according to [2]).

Indicators	Leaders	Outsiders
Good health and wellbeing		
Healthy life expectancy, years	Republic of Dagestan – 68.2 Republic of Tatarstan – 66.9 Chechen Republic – 66.4	Chukotka Autonomous District – 37 Jewish Autonomous Region – 48.3 Nenets Autonomous District – 43.9
Coverage of citizens with preventive medical examinations, %	Ryazan region – 120.7 Tuva Republic – 103.7 Lipetsk region – 101.5	Trans-Baikal Territory – 45.9 Leningrad region – 65.8 Astrakhan region – 73.2
Education quality		
ICT skills, youth [5], %	Moscow – 99.2 Yamalo-Nenets Autonomous Okrug – 98.7 Penza region – 98.5	Republic of Dagestan – 81.9 Karachay-Cherkess Republic – 78.7 Chechen Republic – 63
The share of students of general education organizations aged 10 and over who have not reached the basic level of training in accordance with the Federal State Educational Standard, %	Bryansk region -11.5 Khanty-Mansi Autonomous Okrug - Yugra Autonomous Okrug - Yugra – 13.4 Republic of Kalmykia – 14.3	Nenets AO – 45.7 Kamchatka Territory – 44.2 Tuva Republic – 42.5
Decent work and economic growth		
Index of physical volume of gross regional product per capita (% value of the indicator for the year)	Vladimir region – 107.2 Magadan region – 106.7 Murmansk region – 105.9	Tyumen region – 96.3 Lipetsk region – 98.7 Krasnodar Territory – 98.7
The number of people employed in small and medium-sized enterprises (SMEs), including individual entrepreneurs, people	Moscow – 2563386 St. Petersburg – 1224538 Moscow region – 1094238	Chukotka Autonomous Okrug – 4226 Nenets Autonomous District – 4599 Republic of Ingushetia – 7700
Industrialization, innovation and infrastructure		
The share of innovative goods, work performed, services in the total scope of goods shipped, works performed, services of organizations, % (OKVED 2)	Republic of Mordovia – 23.8 Belgorod region – 13.9 Nizhny Novgorod region – 13.7	Tuva Republic – 0.1 Republic of Crimea – 0.1 Kaliningrad region – 0.2
Internal costs for studies and development from all sources (in current prices), mln. rubles	Moscow – 398462.4 St. Petersburg – 144851.5 Moscow region – 121838.1	Arkhangelsk region – 31.5 Republic of Kalmykia – 90.7 Republic of Khakassia – 104.8

Russian Federation for 2019 and the planning period of 2020 and 2021". We will trace the aggregated statistical data using the statistical collection "Regions of Russia.

and the number of people employed in the SME sector. Chukotka Autonomous Okrug – health and employment in the SME sector. Tuva Republic – education and innovative development.

Next, we will assess the budgetary provision for these constituent entities of the Russian Federation, determining the level of dependence on various interbudgetary transfers. As the main detailed information, we will take the indicators of the report "Results of the distribution of subsidies to equalize the budgetary provision of the constituent entities of the Russian Federation for 2019 and the planning period of

2020 and 2021". We will trace the aggregated statistical data using the statistical collection "Regions of Russia.

Socio-economic indicators. 2020", for the period of 2017-2019.

Figure 1 demonstrates the general dependence of the budgets of the selected subjects of the Russian Federation on gratuitous receipts. According to the provisions of Art. 41. The RF BC [6], budget revenues are represented by three components: tax, non-tax revenues and gratuitous receipts. The latter include grants, subsidies, subventions and other interbudgetary transfers from other

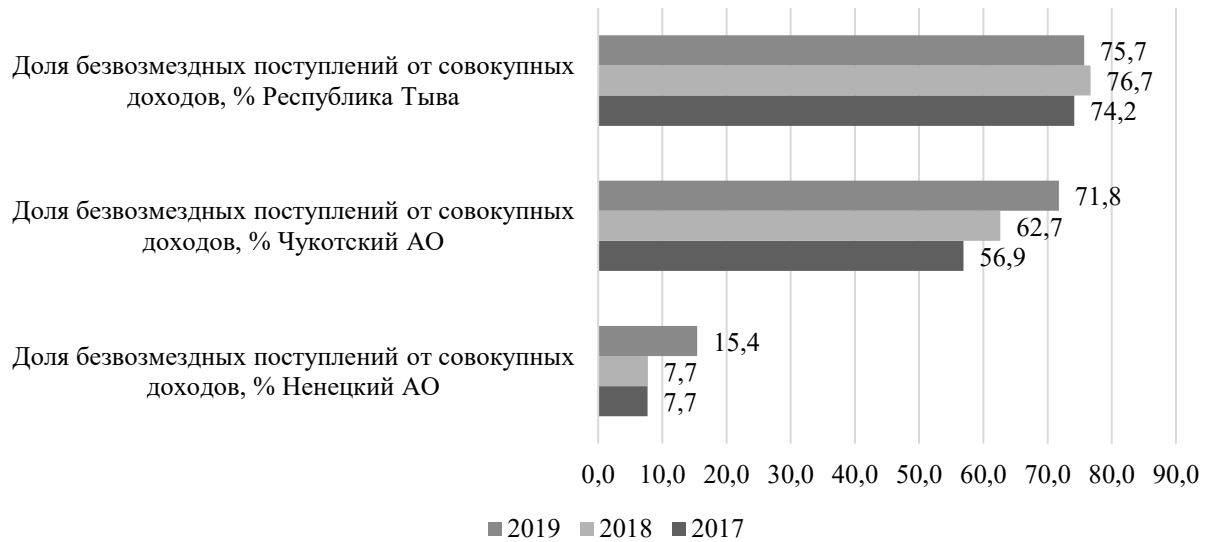


Figure 1 The general dependence of the budgets of the constituent entities of the Russian Federation on gratuitous receipts.

Доля безвозмездных поступлений от совокупных доходов, % Республика Тыва – Share of uncompensated receipts from total income, %, Republic of Tyva

Доля безвозмездных поступлений от совокупных доходов, % Чукотский АО – Share of uncompensated receipts from total income, %, Chukotka AO

Доля безвозмездных поступлений от совокупных доходов, % Ненецкий АО – Share of uncompensated receipts from total income, %, Nenets AO

budgets of the budgetary system of the Russian Federation.

Most often, when redistributing budget funds, they resort to subsidies, the main purpose of which is vertical alignment, bringing the level of budgetary provision of the region to the calculated level necessary to finance implementation of state functions and fulfill their own and those imposed by the highest level of government, obligations. Perhaps this is the most ineffective form of financial interaction between the federal budget and the regional one. Since the subsidy does not stimulate the subject to build up its own tax potential. Subsidies, subventions, and other interbudgetary transfers do not have such a drawback, but their significant diversity makes it difficult to control spending and can lead to a decrease in returns. Multichannel subsidies and subventions require systemic monitoring, which creates the need for digital transformation of the structure of public administration [7].

Let us find out to what extent the Nenets AO, Chukotka AO and the Republic of Tyva are dependent on subsidies aimed at budgetary equalization.

Nenets Autonomous Okrug in 2019 did not receive subsidies for budget equalization. A more detailed analysis of the structure of interbudgetary transfers, carried out according to the data of the Treasury of the

Russian Federation on execution of the consolidated budgets of the constituent entities of the Russian Federation [3], made it possible to determine the following parameters: the subsidy was provided for achievement of the performance indicators of the executive authorities of the constituent entities of the Russian Federation (9.4 %), subsidies and subventions accounted for 17 % and 7.4 % of total gratuitous receipts, respectively. It shall be noted that 24.5 % of subsidies are focused on the healthcare sector, and 19.3 % on state support for small and medium-sized businesses. 67.1 % of gratuitous receipts were other interbudgetary transfers. For this subject, we observe a low dependence on federal funds. Receiving targeted grants and subventions, in part, can help solve problems in achieving goals: good health and well-being; decent work and economic growth. Further structural analysis of the region's financial resources, factors that determine the socio-economic situation of the subject, both in the context of the district and interregional, is required in order to identify the reasons for the low indicators demonstrated in the sample of national SDGs. As a basic tool, it is possible to use the economic and statistical apparatus for assessing the results of transferring interbudgetary transfers from the federal budget to the constituent entities of the Federation, presented in the paper of E.A. Kolomak and T.V. Sumskaya [8].

The Chukotka Autonomous Okrug received 11,240,160.8 thousand rubles, which was 1.7 % of the total amount of subsidies allocated in the budgetary system of the Russian Federation for vertical alignment. In 2019, 16,932,597.8 thousand rubles of subsidies of this type were allocated to the consolidated budget of the Republic of Tuva. That was 2.5 % of the total amount of subsidies provided in the Russian Federation for budget equalization [9]. These regions are characterized by a high degree of dependence on intergovernmental transfers. The settlement of problem areas for implementation of the SDGs associated with formation of the basis for economic growth is not possible with the own financial resources of the constituent entities of the Federation. Not only additional funding is required, but also a regulatory impact aimed at changing the administrative component of the budgetary complex. It is important to note that work in this direction began in 2020. So, in accordance with the provisions of the order of the Ministry of Finance of the Russian Federation of November 15, 2019 under No. 1032, Chukotka AO is attributed to the first group of entities in the budgets of which the share of subsidies from the federal budget for two of the last three financial years exceeded 10 % of the scope of own revenues of the consolidated budget. The Republic of Tyva belongs to the 2nd group of regions, in the budgets of which the share of subsidies from the federal budget for two of the last three financial years exceeded 40 % of the volume of own revenues of the consolidated budget [10]. It implies the application for them of all the restrictions and external control parameters established by clauses 3 and 4, Art. 130 of the Budget Code of the Russian Federation.

4. CONCLUSION

In general, it can be argued that, within the framework of the study, we have confirmed the main hypothesis for two constituent entities of the Russian Federation (Chukotka Autonomous Okrug and the Republic of Tyva). At the same time, the most "problematic" region for implementation of the SDGs of the author's group "Potential" - the Nenets Autonomous District, had more of its own funds, accumulated, including for the possible solution of problems. The identified targeting of subsidies and subventions characterizes the possibility of compensating for low parameters in the healthcare sector and the small, medium-sized business sector of the regional economy.

We provide general conclusions in the following areas:

1. the data reflected in the statistical materials "National set of SDG indicators" can be used to identify problem regions in order to further improve the budgetary policy of the Russian Federation;

2. it is worth noting the need for the subsequent specification of a number of indicators: the transition from absolute to relative values, the calculation in certain areas in the regional context;

3. the targeted nature of subsidies and subventions allocated to the regional level is mainly focused on overcoming significant imbalances. It is important in the future to track changes in the analyzed indicators in dynamics.

CONTRIBUTION OF AUTHORS

The authors' contribution consists in grouping the SDG indicators, carried out in order to identify the constituent entities of the Russian Federation that have problems in forming a base for potential economic development.

REFERENCES

- [1] Budgeting for environmental and sustainable development, Government at a Glance, 2019. <https://www.oecd-ilibrary.org/>.
- [2] National set of the SDG indicators, Federal State Statistics Service. <https://rosstat.gov.ru>.
- [3] Consolidated budgets of constituent entities of the Russian Federation and budgets of territorial state off-budget funds, Official site of the Federal Treasury <https://roskazna.gov.ru/>.
- [4] Regions of Russia. Socio-economic indicators - 2020. Federal State Statistics Service. <https://gks.ru/>.
- [5] Sustainable Development Goals in the Russian Federation. 2020: Brief statistics collection. Rosstat, 2020, p. 79. <https://rosstat.gov.ru/и,%202020%20-%20сборник.pdf>.
- [6] BC RF Article 41. Types of budget revenues: Budget Code of the Russian Federation of July 31, 1998 No. 145-FZ (rev. July 1, 2021, as amended on July 15, 2021) (as amended and supplemented, effective from July 12, 2021). <http://www.consultant.ru>.
- [7] M.V. Tsurkan, M.A. Liubarskaia, A.P. Silchenko, Integration of Monitoring Systems in the Public Administration of the Region Under the Conditions of Technological Transformation. *Advances in Economics, Business and Management Research*, In: 2nd International Scientific and Practical Conference "Modern Management Trends and the Digital Economy: from Regional Development to Global Economic Growth" (MTDE 2020), pp 689-693. DOI: <https://doi.org/10.2991/aebmr.k.200502.111>.

- [8] E.A. Kolomak, T.V. Sumskaya, Assessing federal transfers' role in the subnational budget system of the Russian Federation. *Economic and Social Changes: Facts, Trends, Forecast* 13(2) (2020) pp. 89- 105. DOI: <https://doi.org/10.15838/esc.2020.2.68.6>.
- [9] Results of the distribution of subsidies for equalizing the budgetary provision of the constituent entities of the Russian Federation for 2019 and the planning period of 2020 and 2021. Official website of the Ministry of Finance of Russia. <https://minfin.gov.ru>.
- [10] Order of the Ministry of Finance of Russia dated November 15, 2019 No. 1032 "On approval of the lists of constituent entities of the Russian Federation in accordance with the provisions of clause 5 of Article 130 of the Budget Code of the Russian Federation". Official website of the Ministry of Finance of Russia. <https://minfin.gov.ru>.