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Regions Supporting the Spatial Development of Russia: Budgetary Aspect

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ABSTRACT

The authors investigate the prospects for the spatial development of modern Russia highlighting the supporting regions considered in the budgetary aspect. The **relevance** of the study is due to the insufficient evidence for the effectiveness of the current policy of “equalization”, as well as the need for breakthrough growth of the Russian economy within the framework of national development goals. The present paper **aims** to identify one of the key elements of the supporting framework of the spatial organization of Russia in terms of the level of fiscal capacity. The research **methodology** is based on the use of complex, statistical and comparative analyses. The authors used official data of Rosstat on the population, tax and non-tax revenues, gratuitous receipts in 2010 and 2019 by regions of Russia. The authors highlight the key aspects of the spatial development of the Russian economy in the regional context: human capital development, economic development, the functioning of spatial structures of various types, fiscal capacity, environmental component, location of information and communication infrastructure, and geopolitical position. The influence of the fiscal capacity parameter on the sustainable socio-economic development of the region is justified. The fiscal capacity index of the constituent entities of Russia is analyzed at the end of 2010 and 2019, the main trends are identified. The study presents a cartographic visualization of the Russian regions by per capita fiscal capacity for tax and non-tax revenues of the consolidated budgets in 2019. The authors carried out a comparative analysis of the revenues of consolidated regional budgets on the macro-regional level, as a result of which the leading regions were identified and their budget parameters described. The present paper outlines one of the key elements of the supporting framework of Russian spatial organization from the point of view of fiscal capacity and identifies potential regions supporting spatial development in the context of macro-regions. The authors **conclude** that the supporting framework of the spatial organization of Russia, formed by the level of fiscal capacity, characterizes the financial potential of the territories, which can contribute to the development of interregional cooperation, including through the use of mechanisms for ensuring “horizontal” inter-budgetary transfers and budget loans. The prospect for further research on this topic consists in assessing and shaping other elements of the spatial development of Russia and identifying, by uniting them, supporting regions that can stimulate the development of not only the semi-periphery and periphery of their macro-regions but also of the entire country.

Keywords: region; spatial development; supporting regions; supporting framework; fiscal capacity; tax and non-tax revenues; gratuitous receipts; social and economic development

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INTRODUCTION

Improving the quality of regional development is an important mechanism for achieving the national goal of Russia's entry into the world's largest economies. A significant territory of the state with an uneven distribution of natural resources requires balanced spatial development. The "equalization" policy pursued in recent decades has not shown sufficient economic efficiency to implement a breakthrough growth in the country's economy. This is especially important in light of the new national goal — "to ensure the growth rate of the country's gross domestic product above the world average while maintaining macroeconomic stability".¹

In this regard, it seems appropriate to assess the trends, features, patterns, and prospects of the spatial development of modern Russia by identifying the supporting regions of spatial development. These regions, which combine various types of accumulated capital (human, economic, financial, etc.), have every opportunity to drive the development of their own territories, macro-regions, and economic growth on a national scale, provided that a state policy of polarized development is pursued scientifically [1, p. 12].

The main aspects of the spatial development of the economy in a regional context, according to the authors, are:

- development of human capital;
- economic development;
- functioning of spatial structures of various types;
- budgetary security;
- ecological component;
- publication of information and communication infrastructure;
- geopolitical position.

These aspects of spatial development form the main layers of the supporting structure of the spatial organization of Russia, as they

characterize the economic, environmental, infrastructural, institutional, and social spheres of development of territories.

The authors consider the budgetary provision of the constituent entities of the Russian Federation as one of the main factors of the stability of the socio-economic situation of the regions. This indicator is actively used within the framework of the budget regulation mechanism used both in Russia and abroad [2, p. 101]. It is the level of provision of the budget with tax and non-tax revenues that characterizes the financial potential of a constituent entity of the Russian Federation, i.e. the ability of the regional budget to finance the powers assigned to it, which directly affects the quality and efficiency, solving the problems of socio-economic development of the territory [3, 4]. A higher indicator of a budgetary provision in the supporting regions determines their ability to provide better quality budget services, to pursue a more active investment policy [5, p. 811].

For the purposes of this study, we used the indicator of budgetary provision of tax and non-tax income per capita, which is defined as [6, p. 129]

$$BP = \frac{\sum TNT}{P},$$

where BP — level of budgetary provision with tax and non-tax revenues of the constituent entity of the Russian Federation per capita, thousand rubles;

TNT — tax and non-tax revenues of the budget of the constituent entity of the Russian Federation, thousand rubles;

P — the population of a constituent entity of the Russian Federation, thousand people.

Currently, the budgetary provision of Russian regions is characterized by significant differentiation. Its degree is due to the heterogeneity of the socio-economic space, uneven resource availability, natural and institutional features of certain territories [7, p. 111].

¹ Presidential Executive Order as of July 21, 2020, No. 474 "On the national development goals of the Russian Federation through to 2030". URL: <https://www.garant.ru/products/ipo/prime/doc/74304210/> (accessed on 25.08.2020).

RESULTS

To analyze the average per capita budgetary provision of the constituent entities of the Russian Federation, based on data from Rosstat, the authors compiled their rating by the level of tax and non-tax revenues, considering gratuitous receipts from 2010 to 2019, which made it possible to identify current trends, including in the context of macro-regions (*Table. 1*).²

As a basis for structuring regions, a grid of macro-regions was chosen, provided for by the Spatial Development Strategy of the Russian Federation for the period up to 2025.³ This document is of a strategic nature and sets long-term guidelines for territorial development. In this regard, the analysis of the localization of the supporting regions is of particular importance in terms of assessing the socio-economic situation in the Russian Federation at the meso-level (in the context of macro-regions).

The results are an independent layer of the structure of the spatial development of Russia in accordance with the standard budget parameter, the cartographic visualization is presented in the *Figure*.

The leading regions that are in the top twenty of the rating are highlighted in dark green. The green color on the map is used for regions ranked 21–40 in the ranking of regions of the Russian Federation. The regions ranked 41–60 in the rating are highlighted in orange. The regions in which the volume of tax and non-tax revenues per capita is minimal are highlighted in red.

The gap between the regions of the Russian Federation in terms of per capita budget

revenues at the end of 2019, which ranks first and last, was 11 times.

An analysis of incoming cash flows (per capita) shows that the Nenets Autonomous Okrug remains the unchanged leader from 2010 to 2019, where the change in tax and non-tax revenues was 114%, and gratuitous receipts increased by 62%. At the same time, at the end of 2019, tax and non-tax incomes per capita in the Nenets Autonomous Okrug exceed the average value for the Russian Federation (74.92 thousand rubles) by more than 6 times.

The five leaders among the constituent entities of the Russian Federation in terms of tax and non-tax revenues in 2010 also included the Chukotka Autonomous Okrug, the Yamalo-Nenets Autonomous Okrug, the Khanty-Mansi Autonomous Okrug, and Moscow. In 2019, the Sakhalin Region entered the top five, displacing the Khanty-Mansi Autonomous Okrug to 7th place in the final rating. This is due to the fact that in Khanty-Mansy Autonomous Okrug the growth in the volume of tax and non-tax revenues amounted to only 14%, and gratuitous receipts have grown almost 5 times.

Traditionally, the leading positions in the ranking are occupied by resource-extracting and small-numbered northern regions, which, on the one hand, is due to a greater concentration of minerals, and on the other, a higher cost of living [8, p. 69]. Moreover, such significant values of average per capita budgetary provision in these regions also affect the average values for the Russian Federation, as a result of which more than 70 regions of Russia have a level of budgetary provision per capita lower than the national average [9]. However, for the purposes of this study, such differentiation is not critical, since it is assumed that the benchmarks will be determined within each macro-region in which the constituent entities of the Russian Federation are relatively comparable.

At the end of 2019, the following regions are among the outsiders in the ranking of tax

² The level of estimated budgetary provision and the index of budgetary expenditures of the constituent entities of the Russian Federation for 2017–2019. The Ministry of Finance of the Russian Federation official website. URL: https://www.minfin.ru/ru/document/?id_4=116795 (accessed on 25.12.2020).

³ Spatial development strategy of the Russian Federation for the period up to 2025. URL: https://www.economy.gov.ru/material/directions/regionalnoe_razvitie/strategicheskoe_planirovanie_prostranstvennogo_razvitiya/strategiya_prostranstvennogo_razvitiya_rossiyskoy_federacii_na_period_do_2025_goda/ (accessed on 22.01.2021).

Table 1

Comparative analysis of revenues of the consolidated regional budgets per capita in 2010 and 2019

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipt, %
Nenets Autonomous Okrug	414.72	53.19	472.65	86.36	1	1	0	114	162
Yamalo–Nenets Autonomous Okrug	213.86	4.52	456.31	18.77	3	2	1	213	415
Sakhalin Region	105.33	26.02	369.93	49.42	6	3	3	351	190
Chukotka Autonomous Okrug	313.65	84.66	322.09	818.58	2	4	–2	103	967
Moscow	107.97	3.91	203.64	5.75	5	5	0	189	147
Magadan Region	86.69	67.88	195.54	112.43	8	6	2	226	166
Khanty-Mansi Autonomous Okrug – Ugra	151.82	4.14	172.67	18.84	4	7	–3	114	455
Republic of Sakha (Yakutia)	82.49	50.32	165.64	91.87	9	8	1	201	183
Tyumen Region	44.61	11.71	151.72	7.09	24	9	15	340	61
Kamchatka Krai	64.93	90.21	122.60	172.15	12	10	2	189	191
Murmansk Region	61.45	12.47	116.67	19.40	15	11	4	190	156
St. Petersburg	87.22	7.82	115.05	5.49	7	12	–5	132	70
Komi Republic	70.10	8.69	108.10	11.29	10	13	–3	154	130
Krasnoyarsk Region	65.16	10.95	101.46	12.61	11	14	–3	156	115
Leningrad Region	42.49	5.44	88.35	7.07	29	15	14	208	130
Moscow Region	53.76	4.90	87.82	9.47	19	16	3	163	193
Amur Region	52.86	19.20	77.27	27.95	20	17	3	146	146
Khabarovsk Region	61.77	13.44	77.05	23.39	14	18	–4	125	174
Republic of Tatarstan	42.78	16.37	76.71	9.75	28	19	9	179	60
Irkutsk Region	59.20	10.24	73.26	21.47	16	20	–4	124	210
Arkhangelsk Region	47.07	17.25	71.82	26.23	22	21	1	153	152
Vologda Region	44.38	8.06	71.57	18.64	25	22	3	161	231

Table 1 (continued)

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipt, %
Kaluga Region	44.08	6.95	68.78	14.86	27	23	4	156	214
Primorsky Krai	35.96	19.96	66.11	19.51	40	24	16	184	98
Sverdlovsk Region	34.93	5.53	65.66	6.97	42	25	17	188	126
Belgorod Region	39.88	12.51	63.75	15.88	34	26	8	160	127
Kemerovo Region	41.65	6.90	60.79	11.82	30	27	3	146	171
Perm Region	40.40	6.58	60.29	10.17	32	28	4	149	155
Samara Region	40.15	6.47	58.52	8.66	33	29	4	146	134
Novosibirsk Region	40.64	7.45	58.07	12.33	31	30	1	143	166
Tomsk Region	37.87	10.70	57.43	16.74	36	31	5	152	156
Republic of Karelia	39.09	13.64	56.69	38.04	35	32	3	145	279
Tula Region	32.00	8.69	56.66	11.44	49	33	16	177	132
Nizhny Novgorod Region	44.79	6.31	56.65	10.06	23	34	–11	126	160
Krasnodar Region	32.34	7.12	56.32	8.58	48	35	13	174	121
Yaroslavl Region	47.77	10.36	55.55	9.55	21	36	–15	116	92
Kaliningrad Region	36.59	11.12	55.08	76.11	38	37	1	151	684
Lipetsk Region	34.81	6.49	52.83	13.55	43	38	–5	152	209
Kursk Region	29.71	8.60	51.35	17.82	55	39	16	173	207
Novgorod Region	44.19	7.70	50.77	19.95	26	40	–14	115	259
Chelyabinsk Region	59.19	6.73	50.74	11.20	17	41	–24	86	166
Jewish Autonomous Region	29.30	29.46	50.28	43.52	57	42	15	172	148
Republic of Khakassia	35.47	8.57	49.56	19.62	41	43	–2	140	229
Tver Region	36.25	8.65	49.35	13.79	39	44	–5	136	159
Orenburg Region	32.45	7.08	47.48	13.01	47	45	2	146	184
Udmurt Republic	29.69	7.15	47.19	15.44	56	46	10	159	216
Ryazan Region	22.14	10.72	46.61	17.23	72	47	25	210	161

Table 1 (continued)

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipt, %
Astrakhan Region	26.25	6.43	46.55	11.74	62	48	14	177	182
Republic of Bashkortostan	37.81	6.07	46.37	12.74	37	49	–12	123	210
Zabaykalsky Krai	32.62	15.88	46.22	37.94	46	50	–4	142	239
Voronezh Region	31.08	9.48	46.13	14.89	52	51	1	148	157
Ulyanovsk Region	26.08	9.48	44.58	11.43	64	52	12	171	121
Vladimir Region	29.88	8.96	44.02	13.33	54	53	1	147	149
Smolensk Region	63.65	8.22	43.62	13.68	13	54	–41	69	167
Rostov Region	27.73	8.43	42.95	9.72	60	55	5	155	115
Omsk Region	54.70	6.47	41.66	15.92	18	56	–38	76	246
Kostroma Region	31.88	12.05	41.23	24.56	50	57	–7	129	204
Sevastopol			38.07	48.66		58			
Republic of Buryatia	28.63	21.82	37.76	43.69	58	59	–1	132	200
Volgograd Region	33.26	5.89	37.40	14.97	45	60	–15	112	254
Pskov Region	28.29	13.46	37.15	28.06	59	61	–2	131	209
Republic of Mordovia	26.19	20.70	36.93	21.83	63	62	1	141	105
Kirov Region	26.82	14.11	36.30	20.39	61	63	–2	135	145
Oryol Region	29.94	11.70	35.46	20.50	53	64	–11	118	175
Saratov Region	24.59	7.35	35.25	14.43	67	65	2	143	196
Penza Region	25.42	12.84	33.57	17.70	65	66	–1	132	138
Republic of Adygea	19.64	16.08	33.32	28.86	75	67	8	170	179
Republic of Crimea			32.86	67.90		68			
Altai Republic	33.57	49.95	32.83	81.84	44	69	–25	98	164
Altai Region	24.76	13.72	32.74	21.47	66	70	–4	132	157
Stavropol Region	23.13	8.27	32.55	17.11	70	71	–1	141	207
Chuvash Republic	31.62	10.00	32.06	22.45	51	72	–21	101	224
Tambov Region	23.18	13.62	31.98	21.74	69	73	4	138	160
Bryansk Region	20.41	11.20	31.90	29.97	74	74	0	156	268
Mari El Republic	23.93	14.13	31.68	22.40	68	75	–7	132	159

Table 1 (continued)

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipt, %
Kurgan Region	23.04	15.04	30.90	34.33	71	76	–5	134	228
Republic of Kalmykia	19.45	19.61	30.57	35.86	76	77	–1	157	183
Ivanovo Region	21.21	12.09	29.42	21.65	73	78	–5	139	179
Tyva Republic	19.11	37.85	25.25	78.64	77	79	–2	132	208
Republic of North Ossetia – Alania	13.16	13.91	23.89	31.18	81	80	1	181	224
Kabardino–Balkar Republic	17.41	14.06	19.54	28.03	78	81	–3	112	199
Karachay–Cherkess Republic	16.75	19.76	18.95	46.22	79	82	–3	113	234
Republic of Dagestan	9.21	14.84	14.16	29.52	82	83	–1	154	199
Chechen Republic	13.35	44.06	12.93	54.08	80	84	–4	97	123
Republic of Ingushetia	6.91	34.92	8.91	44.80	83	85	–2	129	128
AVERAGE FOR RUSSIA	49.53	15.90	74.92	36.99	–	–	–	151	233

Source: Rosstat data and the authors' calculations.

and non-tax revenues: the Kabardino-Balkar Republic, the Karachay-Cherkess Republic, the Republic of Dagestan, the Chechen Republic, and the Republic of Ingushetia. Since 2010, all of the above regions of the Russian Federation have worsened their positions, losing from 1 to 4 positions in the rating. Thus, Chechnya dropped from 80th to 84th place, where tax and non-tax revenues per capita dropped by 3% over ten years. At the same time, the Republic of Ingushetia is in the last place, where the volume of tax and non-tax sources of income is 53 times less than that of the leader of the rating and 8.4 times less than the average value for the Russian Federation. (8.91 thousand rubles per capita).

The most significant drop in the rating of tax and non-tax revenues was noted in the Smolensk Region, from 30th to 54th place. Change in the volume of tax and non-tax revenues for 2010–2019 was –31%, and gratuitous receipts increased by 67%, which indicates a significant increase in financial dependence on a higher budget.

The highest growth in the rating is observed in the Ryazan Region, which has risen from 72nd to 47th place (+25 positions), where the change in tax and non-tax revenues remained 210%, and gratuitous receipts – 161%. It should be noted that, despite such rapid growth, in terms of the absolute value of tax and non-tax income per capita, the Ryazan

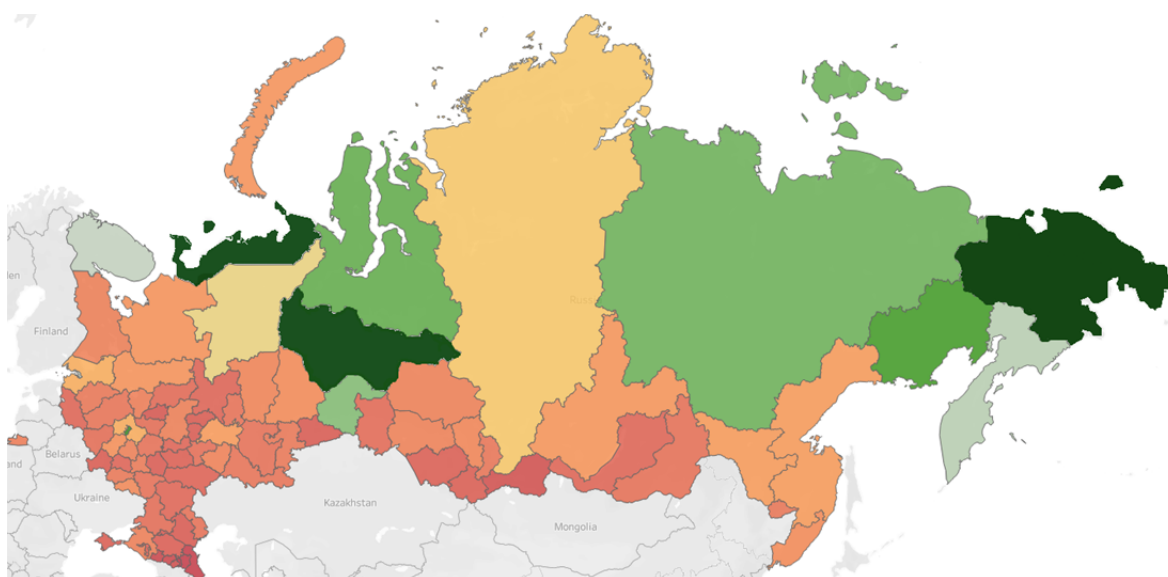


Fig. Range of regions by the level of per capita fiscal capacity (tax and non-tax revenues of consolidated budgets) in 2019

Source: compiled by the authors.

Region lags behind the average value for the Russian Federation by 37.79%.

Characterizing the budgetary provision of the regions, one cannot fail to note the tendencies in the provision of gratuitous receipts, which, on the one hand, allow the regions to fulfill their underfunded obligations, and on the other hand, indicate a decrease in financial independence of these budgets [10, p. 27].

Thus, the largest increase in the volume of gratuitous receipts (per capita) for the analyzed period was noted in the Chukotka Autonomous Okrug (by 733 thousand rubles) and the Kaliningrad Region (by 65 thousand rubles). The decrease in gratuitous receipts for 2010–2019 occurred in Primorsky Krai (–2.3%), Yaroslavl Region (–7.81%), St. Petersburg (–29.7%), Tyumen Region (–39.4%), the Republic of Tatarstan (–40, four%).

To determine the potential supporting regions of the spatial development of Russia, within the framework of this study, a comparative analysis of revenues to the regional budget was carried out, taking into account the ranking of the money supply per capita in the context of macro-regions. The distribution of 15 leading constituent entities

of the Russian Federation by macro-regions in 2019 by the tax and non-tax revenues per capita is as follows (*Table 2*).

The largest number of regions of the Russian Federation, leading in terms of the volume of income tax per capita, is concentrated in the Far Eastern macro-region, which, as noted above, is mainly due to resource and population characteristics. Three leading regions are located in the North-West and Ural-Siberian macro-regions, one each in the Central and Angara-Yenisei macro-regions.

As part of the formation of the supporting structure for spatial development, a detailed analysis of the average per capita income of the consolidated budgets of the constituent entities of the Russian Federation for the macro-region was carried out.

The distribution of regions of the Russian Federation in the Central macro-region by the tax and non-tax and gratuitous receipts is presented in *Table 3*.

Moscow is the undisputed leader of the entire Central macro-region. Despite the stable growth of tax and non-tax revenues (189%), the capital has taken only 5th place in the ranking over the past 10 years. In 2019, the volume of tax and non-tax income per capita

Table 2

Range of 15 regions leading by the level of per capita fiscal capacity of tax and non-tax revenues by macro-regions at the end of 2019

Macro-region	The number of regions leading by fiscal capacity	Region
Central	1	Moscow
Northwestern	3	St. Petersburg, Leningrad Region, Murmansk Region
Ural-Siberian	3	Khanty-Mansi Autonomous Okrug, Yamal-Nenets Autonomous Okrug, Tyumen Region
Northern	2	The Komi Republic, Nenets Autonomous Okrug
Angara-Yenisei	1	Krasnoyarsk Region
Far Eastern	5	Sakhalin Region, The Saha Republic, Kamchatka Krai, Magadan Region Chukotka Autonomous Okrug

Source: compiled by the authors.

amounted to 203.64 thousand rubles, which is 2.71 times higher than the average value in the Russian Federation, with the volume of gratuitous receipts — 5.75 thousand rubles per capita. The existing proportions indicate a fairly high level of budgetary provision of this region.

The territorial advantages of the Moscow Region make it possible to demonstrate positive growth in tax and non-tax revenues (163%). Over the past decade, the position of the Moscow Region has increased by three points in the ranking (from 19th to 16th place) due to an increase in tax and non-tax revenues by 34.06 thousand rubles (per capita), which is 1.17 times higher than the average for the Russian Federation.

Another benchmark for the development of the entire Central macro-region can be the Kaluga Region. The volume of tax and non-tax revenues of the regional budget in 2019 amounted to 68.78 thousand rubles per capita, which is 56% more than in 2010. The volume of gratuitous receipts amounted to 14.86

thousand rubles, having increased by 114% over the analyzed period. However, in terms of the absolute value of tax and non-tax income per capita, the Kaluga Region is 8.2% lower than the national average.

The average value of the level of budget security with tax and non-tax revenues per capita in the Central macro-region at the end of 2019 amounted to 61.08 thousand rubles (18.47% lower than the average for the Russian Federation), and in terms of the volume of gratuitous receipts — 15.83 thousand rubles (57.2% lower than the average for the Russian Federation). Despite the lag of the Central macro-region as a whole in terms of tax and non-tax income compared to the average values for the Russian Federation, a rather low level of gratuitous receipts should be noted as a positive fact, indicating a higher level of financial autonomy of the regions of this macro-region [11, p. 92]. Selected leading regions are ahead of the average macro-regional values.

Table 3

**Comparative analysis of consolidated budget revenues of the Russian regions
in the Central macro-region per capita in 2010 and 2019**

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipts, %
Moscow	107.97	3.91	203.64	5.75	5	5	0	189	147
Moscow Region	53.76	4.90	87.82	9.47	19	16	3	163	193
Kaluga Region	44.08	6.95	68.78	14.86	27	23	4	156	214
Tula Region	32.00	8.69	56.66	11.44	49	33	16	177	132
Yaroslavl Region	47.77	10.36	55.55	9.55	21	36	–15	116	92
Tver Region	36.25	8.65	49.35	13.79	39	44	–5	136	159
Ryazan Region	22.14	10.72	46.61	17.23	72	47	25	210	161
Vladimir Region	29.88	8.96	44.02	13.33	54	53	1	147	149
Smolensk Region	63.65	8.22	43.62	13.68	13	54	–41	69	167
Kostroma Region	31.88	12.05	41.23	24.56	50	57	–7	129	204
Oryol Region	29.94	11.70	35.46	20.50	53	64	–11	118	175
Bryansk Region	20.41	11.20	31.90	29.97	74	74	0	156	268
Ivanovo Region	21.21	12.09	29.42	21.65	73	78	–5	139	179

Source: Rosstat data and the authors' calculations.

As for the rest of the regions, despite the growth in tax and non-tax revenues, their revenues are still significantly lower than those of the designated leaders. Compared to other constituent entities of the Russian Federation, the reduction in income is noticeable in the Smolensk Region, where, with a decrease in the volume of tax and non-tax revenues by 20 thousand rubles, there is an increase in gratuitous receipts by 5.46 thousand rubles (per capita).

The distribution of the constituent entities of the Russian Federation of the Central Chernozem macro-region by the tax and non-tax income and gratuitous receipts is presented in *Table 4*.

The leader of the macro-region of the Central Chernozem Region is the Belgorod Region, where the budgetary provision of tax and non-tax revenues per capita in 2019 amounted to 63.75 thousand rubles, which is 60% more than in 2010. However, it should be

Table 4

Comparative analysis of consolidated budget revenues of the Russian regions in the Central Chernozem macro-region per capita in 2010 and 2019

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipts, %
Belgorod Region	39.88	12.51	63.75	15.88	34	26	8	160	127
Lipetsk Region	34.81	6.49	52.83	13.55	43	38	5	152	209
Kursk Region	29.71	8.60	51.35	17.82	55	39	16	173	207
Voronezh Region	31.08	9.48	46.13	14.89	52	51	1	148	157
Tambov Region	23.18	13.62	31.98	21.74	69	73	–4	138	160

Source: Rosstat data and the authors' calculations.

noted that this cost is almost 15% lower than the national average. In addition, the average value of tax and non-tax income per capita in the Central Chernozem macro-region is 49.21 thousand rubles, which is more than 30% lower than the average for the Russian Federation; gratuitous receipts per capita in the macro-region on average amount to 16.78 thousand rubles against 36.99 thousand rubles on average across the Russian Federation.

Another driver for the development of the macro-region may be the Lipetsk Region, which has risen by 5 positions in ten years and occupies 38th place in 2019 due to an increase in tax and non-tax income by 52%.

The Kursk Region does not lag behind the Lipetsk Region, its revenues to the regional budget in 2019 amounted to 53.25 thousand rubles per capita, an increase of 73%. However, the indicators of the average per capita budgetary provision of the tax and non-tax

income in the Lipetsk and Kursk regions are more than 1.4 times lower than the national average.

The distribution of constituent entities of the Russian Federation in the North-West macro-region by the tax and non-tax income and gratuitous receipts is presented in Table 5.

In 2019, the largest volume of tax and non-tax revenues in the macro-region was noted in the Murmansk Region due to the growth of tax and non-tax income by 90%. In 2010, St. Petersburg was the leader in terms of tax and non-tax revenues, which, despite an increase of 32%, dropped to 12th place in the ranking of regions of the Russian Federation, losing 5 positions. The highest growth in tax and non-tax revenues (+108%) occurred in the Leningrad Region, providing 88.35 thousand rubles in 2019 per capita and an additional 14 positions in the ranking in relation to 2010.

Table 5

**Comparative analysis of revenues of the consolidated budgets of the Russian regions
in the North-Western macro-region per capita in 2010 and 2019**

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipts, %
Murmansk Region	61.45	12.47	116.67	19.40	15	11	4	190	156
St. Petersburg	87.22	7.82	115.05	5.49	7	12	–5	132	70
Leningrad Region	42.49	5.44	88.35	7.07	29	15	14	208	130
Vologda Region	44.38	8.06	71.57	18.64	25	22	3	161	231
Republic of Karelia	39.09	13.64	56.69	38.04	35	32	3	145	279
Kaliningrad Region	36.59	11.12	55.08	76.11	38	37	1	151	684
Novgorod Region	44.19	7.70	50.77	19.95	26	40	–14	115	259
Pskov Region	28.29	13.46	37.15	28.06	59	61	–2	131	209

Source: Rosstat data and the authors' calculations.

The average per capita budgetary provision of tax and non-tax revenues per capita for the leaders of the North-Western macro-region exceeds the national average: Murmansk Region — by 55.73%, St. Petersburg — by 53.56%, Leningrad Region — by 17.93%. This indicates a fairly high level of budgetary provision of the selected regions, as well as the position of the macro-region as a whole since the average value of the tax and non-tax income per capita is 73.92 thousand rubles, with the national average — 74.92 thousand rubles.

The distribution of the constituent entities of the Russian Federation in the Northern macro-region by the tax and non-tax income and gratuitous receipts is presented in *Table 6*.

In this macro-region, the Nenets Autonomous Okrug has become the leader in terms of revenues to the regional budget throughout Russia, which should be singled out as a benchmark for the Northern macro-region. Despite a slight increase since 2010 (+14%), the volume of tax and non-tax revenues in 2019 amounted to 447 thousand rubles per capita, which is 6.3 times higher than the national average.

The distribution of the constituent entities of the Russian Federation in the Southern macro-region by the tax and non-tax income and gratuitous receipts is presented in *Table 7*.

The Krasnodar Region is the leader of the entire macro-region, which ranked 35th in 2019

Table 6

Comparative analysis of consolidated budget revenues of the Russian regions in the Northern macroregion per capita in 2010 and 2019

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipts, %
Nenets Autonomous Okrug	414.72	53.19	472.65	86.36	1	1	0	114	162
Komi Republic	70.10	8.69	108.10	11.29	10	13	–3	154	130
Arkhangelsk region	47.07	17.25	71.82	26.23	22	21	1	153	152

Source: Rosstat data and the authors' calculations.

Table 7

Comparative analysis of revenues of the consolidated budgets of the Russian regions in the Southern macro-region per capita in 2010 and 2019

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipts, %
Krasnodar Region	32.34	7.12	56.32	8.58	48	35	13	174	121
Astrakhan Region	26.25	6.43	46.55	11.74	62	48	14	177	182
Rostov Region	27.73	8.43	42.95	9.72	60	55	5	155	115
Sevastopol			38.07	48.66		58			
Volgograd Region	33.26	5.89	37.40	14.97	45	60	–15	112	254
Republic of Adygea	19.64	16.08	33.32	28.86	75	67	8	170	179
Republic of Crimea			32.86	67.90		68			
Republic of Kalmykia	19.45	19.61	30.57	35.86	76	77	–1	157	183

Source: Rosstat data and the authors' calculations.

Table 8

Comparative analysis of consolidated budget revenues of the Russian regions in the North Caucasus macro-region per capita in 2010 and 2019

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipts, %
Stavropol Region	23.13	8.27	32.55	17.11	70	71	–1	141	207
Republic of North Ossetia – Alania	13.16	13.91	23.89	31.18	81	80	1	181	224
Kabardino-Balkar Republic	17.41	14.06	19.54	28.03	78	81	–3	112	199
Karachay-Cherkess Republic	16.75	19.76	18.95	46.22	79	82	–3	113	234
Republic of Dagestan	9.21	14.84	14.16	29.52	82	83	–1	154	199
Chechen Republic	13.35	44.06	12.93	54.08	80	84	–4	97	123
Republic of Ingushetia	6.91	34.92	8.91	44.80	83	85	–2	129	128

Source: Rosstat data and the authors' calculations.

due to the growth of tax and non-tax income per capita by 74%. The growth of gratuitous payments during this period was only 21%.

Another growth point of the Southern macro-region can be the Astrakhan Region, which in ten years has shown an increase in tax and non-tax revenues by 77% and has risen in the ranking by 14 positions.

However, the level of per capita budgetary provision of the Southern macro-region as a whole and of its leaders, in particular, is lower than the average Russian indicators. Thus, the average tax and non-tax income in the macro-region is 39.76 thousand rubles per capita, almost half the average for the Russian Federation. The average per capita budgetary provision of tax and non-tax revenues in the

Krasnodar Region is lower than the average for the regions of Russia by 24.83%, in the Astrakhan Region — by 37.87%.

Separately, it is worth noting gratuitous receipts to the Republic of Crimea and Sevastopol, which significantly exceed the level of tax and non-tax receipts in these regions associated with the corresponding federal programs and development projects. [12, p. 65].

The distribution of the constituent entities of the Russian Federation in the North Caucasus macro-region by the tax and non-tax income and gratuitous receipts is presented in Table 8.

The North Caucasus macro-region showed the lowest values among the regions of Russia

Table 9

Comparative analysis of consolidated budget revenues of the Russian regions in the Volga-Kama macro-region per capita in 2010 and 2019

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipts, %
Republic of Tatarstan	42.78	16.37	76.71	9.75	28	19	9	179	60
Perm Region	40.40	6.58	60.29	10.17	32	28	4	149	155
Nizhny Novgorod Region	44.79	6.31	56.65	10.06	23	34	–11	126	160
Udmurt Republic	29.69	7.15	47.19	15.44	56	46	10	159	216
Republic of Mordovia	26.19	20.70	36.93	21.83	63	62	1	141	105
Kirov Region	26.82	14.11	36.30	20.39	61	63	–2	135	145
Chuvash Republic	31.62	10.00	32.06	22.45	51	72	–21	101	224

Source: Rosstat data and the authors' calculations.

in terms of the level of budgetary provision with tax and non-tax income per capita. However, despite the fact that almost all the subjects of this macro-region have shown a loss of positions in the ranking (compared to 2010), there is an undoubted leader in the macro-region – the Stavropol Region. The growth of tax and non-tax revenues to the budget per capita amounted to 41%, 32.55 thousand rubles, which is 56.55% lower than the national average, but 1.74 times higher than the macroregional, which was equal to 18.7 thousand rubles in 2019. In other constituent entities of the Russian Federation of this macro-region, the volume of gratuitous receipts per capita is significantly higher than tax and non-tax income, which indicates a sufficiently high financial dependence on the federal budget [13].

The distribution of the constituent entities of the Russian Federation in the

Volga-Kama macro-region by the tax and non-tax income and gratuitous receipts is presented in *Table 9*.

There are two main leaders on the territory of the Volga-Kama macro-region that could become guidelines for the development of the entire macro-region: the Republic of Tatarstan and the Perm Region. Due to an increase in tax and non-tax revenues by 79% (up to 76.71 thousand rubles per capita, which is 2.39% higher than the national average), the Republic of Tatarstan was able to take 19th place in the rating, providing growth by 9 positions compared to 2010. At the same time, the level of gratuitous receipts decreased to 9.75 thousand rubles, which indicates a fairly high level of fiscal autonomy of the regional budget.

In the Perm Region, the volume of tax and non-tax income per capita increased

Table 10

**Comparative analysis of consolidated budget revenues of the Russian regions
in the Volga-Ural macro-region per capita in 2010 and 2019**

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipts, %
Samara Region	40.15	6.47	58.52	8.66	33	29	4	146	134
Orenburg Region	32.45	7.08	47.48	13.01	47	45	2	146	184
Republic of Bashkortostan	37.81	6.07	46.37	12.74	37	49	–12	123	210
Ulyanovsk Region	26.08	9.48	44.58	11.43	64	52	12	171	121
Saratov Region	24.59	7.35	35.25	14.43	67	65	2	143	196
Penza Region	25.42	12.84	33.57	17.70	65	66	–1	132	138

Source: Rosstat data and the authors' calculations.

over the same period by 49%, amounting to 60.29 thousand rubles, which is almost 20% lower than the average value for the regions of Russia. At the same time, the average per capita budget provision with tax and non-tax revenues on average in the Volga-Kama macro-region in 2019 amounted to 49.45 thousand rubles (34% lower than the national average).

The distribution of the constituent entities of the Russian Federation in the Volga-Ural macro-region by the tax and non-tax income and gratuitous receipts is presented in *Table 10*.

The leader in the Volga-Ural macro-region for the analyzed period is the Samara region, which showed an increase in tax and non-tax revenues by 46% and moved up in the ranking by 4 positions. The highest revenue to the regional budget in 2019 besides the Samara Region on the territory of the macro-region are noted in the Orenburg Region — 47.48 thousand rubles per capita in the form of tax and non-tax revenues and 13.01 thousand

rubles of gratuitous receipts. Comparable provision of tax and non-tax income per capita in the Republic of Bashkortostan — 46.37 thousand rubles (+2 positions in the rating for 2010–2019).

However, it should be noted that the amount of tax and non-tax incomes per capita in the leading regions of the macro-region is more than 20% lower than the national average, and the average position on tax and non-tax income per capita in the Volga-Ural macro-region is 40.8% lower than the average across Russia and amounts to 44.3 thousand rubles.

The distribution of the constituent entities of the Russian Federation in the Ural-Siberian macro-region by the tax and non-tax income and gratuitous receipts is presented in *Table 11*.

The leaders of the rating of the Russian regions are concentrated in the Ural-Siberian macro-region. The clear points of growth in the macro-region in terms of the amount of

Table 11

Comparative analysis of consolidated budget revenues of the Russian regions in the Ural-Siberian macro-region per capita in 2010 and 2019

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipts, %
Yamalo-Nenets Autonomous Okrug	213.86	4.52	456.31	18.77	3	2	1	213	415
Khanty-Mansi Autonomous Okrug – Yugra	151.82	4.14	172.67	18.84	4	7	–3	114	455
Tyumen Region	44.61	11.71	151.72	7.09	24	9	15	340	61
Sverdlovsk Region	34.93	5.53	65.66	6.97	42	25	17	188	126
Chelyabinsk Region	59.19	6.73	50.74	11.20	17	41	–24	86	166
Kurgan Region	23.04	15.04	30.90	34.33	71	76	–5	134	228

Source: Rosstat data and the authors' calculations.

tax and non-tax revenues per capita in 2019 include the Yamalo-Nenets Autonomous Okrug (456.31 thousand rubles — more than 6 times higher than the national average), Khanty-Mansi Autonomous Okrug (172.67 thousand rubles — more than 2 times higher than the national average) and the Tyumen Region (151.72 thousand rubles — more than 2 times higher than the national average). At the same time, the average value of the tax and non-tax income per capita for the macro-region as a whole is also higher than the average Russian level by 106.45 and amounts to 154.67 thousand rubles. The highest gratuitous receipts in the Ural-Siberian macro-region in the Kurgan Region — 34.33 thousand rubles per capita.

The distribution of the regions of the Russian Federation in the macro-region of South Siberia by the tax and non-tax income and gratuitous receipts is presented in Table 12.

The leader of the South Siberian macro-region in terms of tax and non-tax revenues to the regional budget in 2019 is the Kemerovo Region, which has improved its position relative to 2010 by 3 rating points, amounting to 60.79 thousand rubles per capita, which is 18.86% lower than the national average. At the same time, the volume of gratuitous receipts for the period under review increased by 71% and amounted to 11.82 thousand rubles per capita.

The second leader of the macro-region is the Novosibirsk Region, which grew in 2010–

2019 in terms of the volume of tax and non-tax income by 43% to 58.07 thousand rubles per capita. At the same time, the existing level of per capita budgetary provision of tax and non-tax income in the Novosibirsk Region is lower than the average for the regions of Russia by 22.5%, and the average value for the macro-region is 36.9%.

The distribution of the constituent entities of the Russian Federation in the Angara-Yenisei macro-region by the tax and non-tax income and gratuitous receipts is presented in *Table 13*.

In the Angara-Yenisei macro-region, the amounts of tax and non-tax revenues to regional budgets are distributed unevenly, which hinders the active development of the entire macro-region: Krasnoyarsk Region and Irkutsk Region are among the top 20 leading regions. The Republic of Khakassia is in the middle of the rating, and the Republic of Tyva is among the ten most lagging regions of the Russian Federation [14, p. 38].

The key points of the macro-region can be Krasnoyarsk Region (the volume of tax and non-tax income per capita in 2019 amounted to 101.46 thousand rubles, which is 35.42% higher than the average Russian level) and Irkutsk Region (the volume of tax and non-tax income calculated per capita in 2019 amounted to 73.26 thousand rubles — 2.22% lower than the national average). At the same time, the average value of the budgetary provision of the tax and non-tax income in the Angara-Yenisei macro-region, due to significant differences, was at the level of 62.38 thousand rubles per capita, which is 16.74% less than the average for the constituent entities of the Russian Federation.

The distribution of the constituent entities of the Russian Federation in the macro-region of the Far East by the tax and non-tax income and gratuitous receipts is presented in *Table 14*.

The main leaders in the volume of financial receipts among the constituent entities of

the Russian Federation are concentrated in the Far Eastern macro-region, which is one of the most numerous in terms of the number of regions [15]. The largest growth in tax and non-tax revenues for 2010–2019 is noted in the Sakhalin Region (the change was 351%). The amount of tax and non-tax revenues in the Sakhalin Region is 369.93 thousand rubles per capita, which is almost 5 times higher than the national average.

The second leader of the macro-region is the Chukotka Autonomous Okrug: the volume of tax and non-tax revenues in 2019 amounted to 322.09 thousand rubles (4.3 times more than the national average), gratuitous payments — 818.58 thousand rubles per capita. Accordingly, the average value for the Far Eastern region was at a higher level (1.86 times) than the national average and amounted to 139.14 thousand rubles.

CONCLUSIONS

The analysis of the average per capita budgetary provision of tax and non-tax revenues of the constituent entities of the Russian Federation in the spatial aspect made it possible to distinguish the constituent entities of the Russian Federation in the context of macro-regions that have the potential to become a support for the regions in one of the key factors — the budgetary provision of the regional budget, since this aspect is important in the implementation of the policy of accelerated economic development of the territory:

- Central: Moscow, Moscow Region, Kaluga Region;
- Central Chernozem: Belgorod Region, Lipetsk Region, Kursk Region;
- North-West: St. Petersburg, Murmansk Region;
- Northern: Nenets Autonomous Okrug;
- South: Krasnodar Region, Astrakhan Region;
- North Caucasian: Stavropol Region;
- Volgo-Kama: Republic of Tatarstan, Perm Region;

Table 12

Comparative analysis of consolidated budget revenues of the Russian regions in the South Siberian macroregion per capita in 2010 and 2019

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipts, %
Kemerovo Region – Kuzbass	41.65	6.90	60.79	11.82	30	27	3	146	171
Novosibirsk Region	40.64	7.45	58.07	12.33	31	30	1	143	166
Tomsk Region	37.87	10.70	57.43	16.74	36	31	5	152	156
Omsk Region	54.70	6.47	41.66	15.92	18	56	–38	76	246
Altai Republic	33.57	49.95	32.83	81.84	44	69	–25	98	164
Altai Region	24.76	13.72	32.74	21.47	66	70	–4	132	157

Source: Rosstat data and the authors' calculations.

Table 13

Comparative analysis of revenues of the consolidated budgets of the Russian regions in the Angara-Yenisei macro-region per capita in 2010 and 2019

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipts, %
Krasnoyarsk Region	65.16	10.95	101.46	12.61	11	14	–3	156	115
Irkutsk Region	59.20	10.24	73.26	21.47	16	20	–4	124	210
Republic of Khakassia	35.47	8.57	49.56	19.62	41	43	–2	140	229
Tyva Republic	19.11	37.85	25.25	78.64	77	79	–2	132	208

Source: Rosstat data and the authors' calculations.

Table 14

**Comparative analysis of consolidated budget revenues of the Russian regions
in the Far East macro-region per capita in 2010 and 2019**

Region	2010		2019		2010	2019	2010–2019		
	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Tax and non-tax income per capita (thousand rubles)	Gratuitous receipts per capita (thousand rubles)	Rank by tax and non-tax income per capita		Rank change	Change of tax and non-tax income, %	Change of gratuitous receipts, %
Sakhalin Region	105.33	26.02	369.93	49.42	6	3	3	351	190
Chukotka Autonomous Okrug	313.65	84.66	322.09	818.58	2	4	–2	103	967
Magadan Region	86.69	67.88	195.54	112.43	8	6	2	226	166
Republic of Sakha (Yakutia)	82.49	50.32	165.64	91.87	9	8	1	201	183
Kamchatka Region	64.93	90.21	122.60	172.15	12	10	2	189	191
Amur Region	52.86	19.20	77.27	27.95	20	17	3	146	146
Khabarovsk Region	61.77	13.44	77.05	23.39	14	18	–4	125	174
Primorsky Krai	35.96	19.96	66.11	19.51	40	24	16	184	98
Jewish Autonomous Region	29.30	29.46	50.28	43.52	57	42	15	172	148
Zabaykalsky Krai	32.62	15.88	46.22	37.94	46	50	–4	142	239
Republic of Buryatia	28.63	21.82	37.76	43.69	58	59	–1	132	200

Source: Rosstat data and the authors' calculations.

- Volgo-Ural: Samara Region, Orenburg Region;
- Ural-Siberian: Yamalo-Nenets Autonomous Okrug, Khanty-Mansi Autonomous Okrug, Tyumen Region;
- South Siberian: Kemerovo Region, Novosibirsk Region;
- Angara-Yenisei: Krasnoyarsk Region, Irkutsk Region;
- Far East: Sakhalin Region, Chukotka Autonomous Okrug.

The selected regions form one of the key layers (along with human capital, economic

development, the location of transport infrastructure, etc.) of the supporting structure of the spatial organization of Russia in terms of the level of budgetary provision, which characterizes the financial potential of the territories. The proposed scientific approach, combined with an analysis of the constituent entities of the Russian Federation on other aspects of spatial development, makes it possible to identify and evaluate all layers of the spatial development of Russia and their totality — in general, regions supporting the spatial development of Russia [16, 17].

The definition of supporting regions is of practical importance in two aspects.

First, the allocation of supporting regions allows forming the “points of growth” and centers of attraction of resources throughout the country (and not only in metropolitan agglomerations, which pull together the resources of both near and distant territories, effectively depriving them of opportunities for development). Acting as drivers of development at the meso-level, the supporting regions ensure their attractiveness at the macro-level, contributing to the preservation and accumulation of human and economic capital of the macro-region as a whole [18, p. 829]. Thus, conditions are created for the formation of a polynuclear spatial structure of the country, which in the future can provide greater stability of the spatial organization as a whole [19, 20].

Second, the supporting regions can become drivers for the development of semi-periphery and periphery of their macro-regions through the more active building of cooperation ties at the meso-level, implementation of joint

projects, including in the field of infrastructure development. Comprehensive programs for the socio-economic development of macro-regions based on the support of regions using their human, economic, financial, and other resources can act as a development mechanism, which will make it possible to implement measures aimed at enhancing interregional ties and achieving a synergistic effect at the meso-level, which will reduce the differences of the constituent entities of the Russian Federation within the macro-region [21, 22].

The development of interregional cooperation is possible, including through the use of mechanisms for providing “horizontal” inter-budgetary transfers and budget loans [23, p. 53]. The implementation of measures in this area will also help to level out interregional differences and will contribute to a more efficient use of the potential of lagging territories. [24, p. 905].

In the future, at the level of macro-regions, special funds for socio-economic development can be formed for the implementation of joint projects.

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