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TERRITORIAL DIFFERENTIATION OF RUSSIA'S ECONOMIC DEVELOPMENT

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Abstract

Interregional differentiation in modern Russia is manifested in significant differences between poor and fairly wealthy subjects in terms of gross regional product, investments and the standard of living of the population. The study conducted by the authors confirms that the stratification of regions according to the level of socio-economic development observed in Russia is caused by objective reasons. The strategic orientation of the state's economic policy to the priority development of resource-extracting industries, the destruction of the centralized management system and centrally regulated logistics of interterritorial cooperation schemes are the factors that led to the gradual separation of the subjects of the federation, their division into "donors" and "recipients". The trends of spatial development that have taken shape in the past 15 years have proved to be resistant to external factors. During the period under study, a high level of interregional differences persisted in such indicators as gross regional product per capita, average income, investments in fixed capital, budgetary security. Ensuring a balanced socio-economic development of the regions is impossible without an active state policy. However, despite the efforts undertaken by the state authorities with the aim to level up the pace of territorial development, it has so far not been possible to provide any noticeable reduction in socio-economic disproportions. Nonlinearity and imbalance of territorial and sectoral development necessitate the development of innovative methods and tools to restore business activity in the real sector of the economy in depressed regions.

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Keywords: Destabilization factors, development disproportions, spatial differentiation.

1. Introduction

It is necessary to develop fundamentally new methods and tools for restoring business activity in the real economy to ensure economic growth and overcome the imbalances in the development of the country's territories in a strategic perspective.

The study of territorial disproportions of socio-economic development associated with the natural disparity of the resource potential is the subject of study of many scientists from Europe (Benedek, 2015; Ejupi and Ramadani, 2016; Gavurova, Soltes, & Kovac, 2017; Isaksen, 2015; Polednikova, 2017; Viturka, 2010), North America (Kemeny and Storper, 2015), Asia (Yeung and Coe, 2015) and Russia (Golaydo, Parshutina, Gudimenko, Lazarenko, & Shelepina, 2017; Lygina, Rudakova, & Soboleva, 2015).

The evolution of scientific views on the problem of economic growth, the region's macroeconomic stability and concepts of spatial development is reflected in the following publications (Kleiner, 2011; Petrisor, 2017; Pike, Rodriguez-Pose, & Tomaney, 2017; Saito & Wu, 2016).

Conceptual approaches to the management of spatial development, aimed at reducing socio-economic disparities and ensuring the macroeconomic stability of the regional economy are presented in scientific works (Beyer and Stemmer, 2016; Pechenskaya and Uskova, 2016; Sacchi and Salotti, 2016; Viturka, 2014).

Mechanisms for restoring, gaining and maintaining the stability of economic systems through the effective management of internal and external system resources are reflected in the works (Boschma, 2015; Kleiner, 2017; Martin and Sunley, 2015; Trifonov, Osipov, Loyko, & Strekovtsova, 2017).

Advanced technological development models (Holm and Ostergaard, 2015; Morkovkin, Shmanev, & Shmaneva, 2017) and principles of institutional regulation of spatial development (Coenen, Benneworth, & Truffer, 2012; Risin, Treshchevsky, Tabachnikova, & Franovskaya, 2017; Sibirskaya, Stroeva, & Simonova, 2015) were used in the development of the concept of management of investment attractiveness of the region (Minakova, Krylova, Armanshina, Dumnova, & Ilminskaya, 2018).

Publications devoted to the impact of the global economic crisis (Olesya, Sibirskaya, & Shmanev, 2015) and economic sanctions (Aalto and Forsberg, 2016) on structural changes in the economy of the Russian Federation also played an important role in our study.

The scientific novelty of this study lies in the development and justification of new methodological approaches to improving the mechanisms for restoring business activity in the real sector of the economy, facilitating flexible adaptation of economic actors to changes in the institutional environment.

The research results are necessary for the development of an innovative model of managing the development of territorial socio-economic systems.

2. Problem Statement

The study of the causes of disproportions in the economic development of regions is a necessary stage for substantiating the parameters of the innovation model of managing the development of territorial socio-economic systems.

Management model of balanced development of territories developed by a team of authors under the leadership of S.A. Ilminskaya is based on the wave model of repeatability in business activity of economic entities (Mitrofanova, Demjanchenko, Novikov, Rudakova, & Shmanev, 2017; Morkovkin et al., 2017); considering the dependence of the strategic stability of the controlled system on the magnitude of the dysfunction established in the works (Barnett & Duzhak, 2010; Martin & Sunley, 2015), as well as the influence that the dynamics of investment processes and the level of innovativeness of regional industrial policy have on the spatial structure of the economy (Olesya et al., 2015; Sibirskaya, Lyapina, Ushakova, Makarova, & Lebedeva, 2017; Wagner and Zidorn, 2017).

3.   Research Questions

This study was based on the hypothesis that the main reasons for the territorial differentiation of the socio-economic development of Russian regions are the disparity of the geographical distribution of natural resources, the uneven spatial distribution of productive forces, the local investment climate and the mobility of the economically active population.

While the study, the authors attempted to determine the degree of dependence of the indicators of the macroeconomic development of the federal districts of Russia on the state of the business environment in the real economy, the dynamics of budget financing and socio-demographic factors.

4.   Purpose of the Study

The purpose of this study is a retrospective analysis of the state and level of business activity of the subjects of the real sector of the economy in the sectoral and territorial aspects, the identification of disproportions in the socio-economic development of the territories (federal districts) of Russia and an assessment of the key factors causing their appearance.

5.   Research Methods

The methodology of a retrospective study of the state and level of business activity of economic entities of the real sector of the Russian economy is based on the fundamental principles of spatial economics and applied aspects of an integrated approach based on the principles of systems analysis.

The statistical data provided by the Federal State Statistics Service (Rosstat) was used as an information base for calculating analytical indicators through the website: http://www.gks.ru/.

The study of the relationship between the level of business activity and the socio-economic development of individual territories of the country was carried out using the methods of deterministic and stochastic analysis, which made it possible to identify the adaptive responses of open socio-economic systems to new environmental challenges.

It is possible to build up an innovative model of managing the development of socio-economic systems of depressed regions based on fixing the spatial projections of development priorities determined by the strategic imperatives of the country's scientific and technological development.

6. Findings

Nonlinearity and imbalance of territorial and sectoral development necessitate the study and analysis of the level of business activity in the real sector of the economy in the context of the regions of the Russian Federation. This analysis allows identifying the relationship of the level of business activity and socio-economic development of the country's territories and the adaptive responses of open socio-economic systems to new environmental challenges.

One of the reasons for interregional imbalances is structural imbalances in the development of the state's economy as a whole. It is necessary to focus on the development of methods for identifying socio-economic disparities of regional development to overcome this problem.

During the period under review, there is a steady growth trend in the absolute value of GRP per capita of the Russian Federation (Table 01). In 2016, the gross regional product per capita amounted to 472,161.9 rubles. It grew by 48.7% for the period of 2011-2016. It should be noted that the dynamics of changes in this indicator in the territorial context coincides with the national average in general.

Table 01. Gross regional product per capita, rubles/person.

Federal District	2011	2012	2013	2014	2015	2016
Central (CFO)	417 288.1	451 517.2	494 482.7	536 607.9	580 706.6	616 366.2
Northwestern (SZFO)	350 764.2	383 339.4	403 612.9	430 130.6	520 253.4	562 371.6
Southern (UFO)	200 306.5	229 214.5	256 444.6	255 076.2	283 856.1	298 585.7
North Caucasian (SKFO)	112 647.6	127 042.1	146 117.2	163 950.4	176 399.5	184 466.3
Volga (PFO)	236 240.2	263 976.2	284 810.4	308 995.4	339 075.0	349 884.7
Ural (UralFO)	521 192.2	583 243.9	619 540.9	662 531.0	737 316.0	758 885.0
Siberian (SFO)	249 420.1	269 171.0	287 293.8	317 784.6	353 119.2	369 150.3
Far Eastern (DFO)	403 572.5	431 768.1	454 144.1	516 739.8	577 684.3	607 004.2
Average for the Russian Federation	317 515.3	348 641.5	377 006.0	405 147.7	449 097.9	472 161.9

Analysis of GRP in the context of federal districts allows assessing the level of economic development of a particular region.

The highest GRP per capita is produced in the Urals Federal District. In 2016, it was 758,885 rubles, which is 1.6 times higher than the average value for the Russian Federation. This value is not accidental, because the main raw material areas of Russia are located in the UFO6 including, in particular, the Khanty-Mansiysk Autonomous Okrug, which is one of the largest oil-producing regions of the world.

The most economically developed regions include the Central and Far Eastern Federal Districts. In 2016, the GRP per capita in them amounted to, respectively, 616366.2 rubles and 607,004.2 rubles. The Central Federal District includes 18 subjects, but, obviously, the largest share of GRP is produced in

Moscow. Moscow is the largest financial and business center of the Russian Federation. It concentrates most large companies and financial institutions.

The Far Eastern Federal District is the largest in Russia. The most developed sectors of the economy are mining, fishing and forestry.

A rather high level of economic development is also observed in the North-West Federal District. It houses such large enterprises as OJSC Severstal, nuclear power plants, fisheries and fish processing enterprises. Accordingly, the size of the GRP per capita in the Northwestern Federal District is also above the average in the Russian Federation. Its value amounted to 562 371.6 rubles in 2016.

In four federal districts, the GRP per capita is lower than the average in the Russian Federation. The minimum GRP is observed in the North Caucasus Federal District. In 2016 it was 184 466.3 rubles, which is 2.5 times lower than the average value in the Russian Federation. Despite the unique natural and climatic conditions, the economic development of this region lags far behind the rest.

GRP per capita of the Southern Federal District in 2016 amounted to 298 585.7 rubles. Along with the development of agriculture, minerals, coal, gas and oil are mined in the region. The SFD occupies an important place in the transport system of Russia. large ports and the most important federal highways are located in the region. However, in terms of GRP per capita, the district occupies the penultimate place.

The economic development of the Siberian and Volga federal districts is slightly below the average in absolute terms. The basis of the economics of the Siberian Federal District is mining. GRP per capita in 2016 amounted to 369 150.3 rubles. The economy of the Volga Federal District is based on industrial production and agriculture. This allowed reaching a GRP per capita in 2016 in the amount of 349,884.7 rubles.

The peculiarity of the budget system development of the Russian Federation is in the wide use of transfers from the federal center to the budgets of regional entities. During the period under review, there is a decrease in the share of transfers in local budget revenues (Table 02). In 2011 its average value was 23.1%, while in 2016 it was 16.5%. The level of economic development of the region has a direct impact on this indicator. As a donor region, the Urals Federal District has a minimum amount of transfers from the federal budget. In 2011, this share was 15.5%, and in 2016 it was 8.5%. Also, a rather low share of transfers is observed in the Central Federal District. In 2016, transfers formed only 9.6% of local budgets.

The unconditional recipient region is the North Caucasus Federal District. More than half of local budgets in this region are formed from transfers from the federal center. In 2011, their share was 65.5%, and in 2016 it decreased to 56.6%.

Table 02. The share of transfers from the federal budget in local budget revenues, %

Federal District	2011	2012	2013	2014	2015	2016
Central (CFO)	16.0	13.7	11.1	10.4	11.2	9.6
Northwestern (SZFO)	17.6	17.4	15.2	14.5	12.3	13.6
Southern (UFO)	27.9	26.9	19.4	33.0	28.4	26.0
North Caucasian (SKFO)	65.5	64.2	61.0	60.9	60.3	56.6
Volga (PFO)	25.6	22.5	20.6	20.3	20.1	17.3
Ural (UralFO)	15.5	12.6	12.0	10.9	9.3	8.5

Siberian (SFO)	25.9	24.2	24.6	25.6	24.1	20.2
Far Eastern (DFO)	38.3	33.2	37.7	29.9	23.9	24.7
Average for the Russian Federation	23.1	20.8	19.3	19.4	18.1	16.5

The Far Eastern Federal District is somewhat out of the general economic picture. Despite the relatively high level of GRP per capita, the share of transfers in local budgets is about 25%.

The key to a stable economic development of the region is investment in fixed assets. The general trend of the change of this indicator is characterized by stable, but not high growth (table 03). However, in a number of regions, the value of investments in 2016 decreased compared with the previous period.

Table 03. Investments in fixed capital per capita, rubles/person

Federal District	2011	2012	2013	2014	2015	2016
Central (CFO)	63866	76709	85979	91819	91683	96928
Northwestern (SZFO)	97484	108512	102922	101754	103799	125563
Southern (UFO)	77827	90303	108060	85123	79359	70302
North Caucasian (SKFO)	36711	42326	46617	51357	49116	49862
Volga (PFO)	57044	67565	77340	80208	82956	82215
Ural (UralFO)	151733	167423	177459	193267	191824	218062
Siberian (SFO)	63319	75740	74615	76903	71598	74790
Far Eastern (DFO)	168994	155201	135027	130339	145911	161707
Average for the Russian Federation	77194	87891	93725	95165	94922	100555

The Ural Federal District is the leading region in absolute value of investments per capita and their growth rates. This situation is logical, since large, stably developing enterprises requiring significant capital investments are located in this region.

The amount of investment in the DFO is quite large. It amounted to 161,707 rubles per capita in 2016. It should be noted that this value is lower than the value of 2011 by 7287 rubles. Despite the significant decline in investment in 2013-2014 their total value has had a tendency to increase since 2015.

Investments in the North-West Federal District make over 100 thousand rubles per capita. At the same time, their significant growth was observed in 2016.

The development of investment activity in the Central, Volga and Siberian federal districts is fairly stable, although it is not dynamic enough. An increase in the value of investments is observed almost throughout the entire period, which ultimately ensures the overall development of the region's economic potential.

Investments in the economy of the North Caucasus Federal District are much lower than in other regions. Only 49,862 rubles of investment in fixed assets accounted per capita population of the North Caucasian Federal District in 2016. This is 4.4 times lower than in the Urals Federal District, and 2 times lower than the average in Russia.

The negative investment dynamics has been observed in the Southern Federal District since 2014. This is the only region of the Russian Federation that shows such a sharp decline in investment in the economy. The amount of investments in fixed assets in 2016 was lower than the value of 2011 by 7,525 rubles.

This situation is a direct consequence of the sharp decline in foreign investment in the Russian economy due to the economic sanctions and counter sanctions imposed in 2014 and subsequent periods (Figure 01).

A significant decrease in foreign investment was observed in most regions at that time. The sharpest drop in foreign investment occurs in the Central Federal District. There is also a decline in foreign investment in the Volga, Southern, and Ural districts.

The North-West and Far Eastern Federal Districts stand out against this background. There is an increase in the amount of foreign investment per capita in these regions in 2016.

The amount of foreign investment in the economy of the North Caucasus Federal District changes unstably and ranges from $ 7 per capita to $ 59.8.
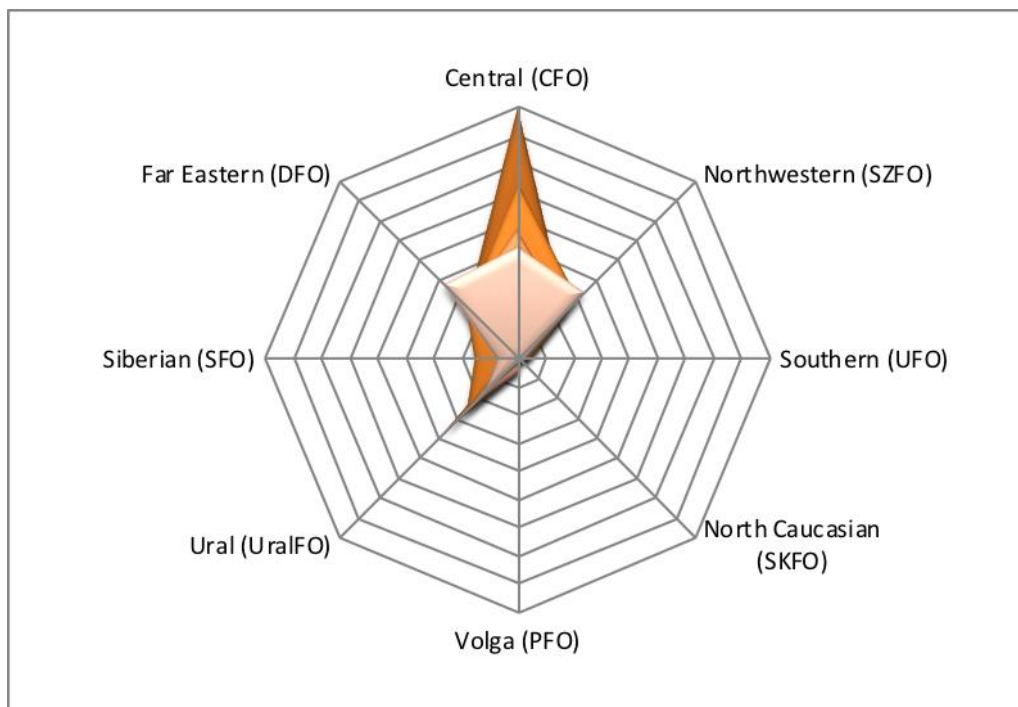
Figure 01. The volume of foreign investment per capita by federal districts of the Russian Federation in 2011-2016

It is necessary to consider the value of the average per capita income of the population for a full assessment of the socio-economic development of the region. It is undoubtedly related to the level of economic development of the region. The average per capita incomes of the population in the four most economically developed regions were at a level above 30 thousand rubles per month (Figure 02). This is the Central Federal District, the Far East, the North-West and the Urals.
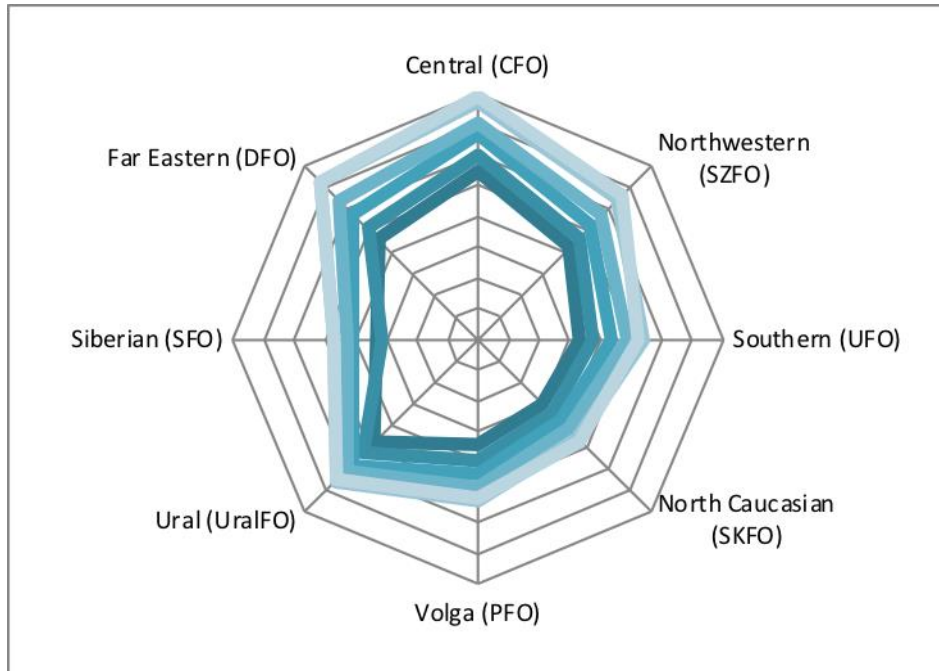
Figure 02. Per capita incomes of the population by federal districts of the Russian Federation in 2011-2016

Incomes below the average for the Russian Federation were formed in the remaining federal districts: Southern, North Caucasian, Volga and Siberian. The value of per capita income per month was about 24 thousand rubles in 2016 there. At the same time, incomes in the NCFD exceed the average salary in the region. Low incomes are a consequence of high unemployment (table 04).

Table 04. Unemployment rate in the Russian Federation in 2011-2016, %

Federal District	2011	2012	2013	2014	2015	2016
Central (CFO)	4.1	3.1	3.3	3.1	3.5	3.5
Northwestern (SZFO)	5.1	4.0	4.3	4.1	4.7	4.6
Southern (UFO)	7.0	6.2	6.5	6.2	6.7	6.4
North Caucasian (SKFO)	14.5	13.1	13.0	11.2	11.1	11.0
Volga (PFO)	6.5	5.3	4.9	4.5	4.8	4.8
Ural (UralFO)	6.8	6.0	5.7	5.8	6.2	6.1
Siberian (SFO)	8.1	7.1	7.2	7.0	7.7	8.0
Far Eastern (DFO)	7.4	6.7	6.5	6.4	6.3	5.8
Average for the Russian Federation	6.5	5.5	5.5	5.2	5.6	5.5

The highest unemployment rate is observed in the North Caucasus Federal District. In 2016, 11% of the population in this region were not able to find a job. It is most difficult to find work for university graduates, people of pre-retirement age and people with disabilities. The main problem of youth employment is that employers require work experience.

A rather high level of unemployment is observed in the Siberian Federal District as well – 8% in 2016. At the same time, its growth is observed in the Siberian Federal District against the background of a general decline in the level of unemployment in Russia for the period under review.

The number of registered unemployed does not reflect the true employment situation in Russia. It is necessary to consider that the real unemployment in the country is significantly higher than the official. In particular, the statistics do not take into account the unemployed persons sent on unpaid leave or transferred to the schedule of incomplete working week. The methods of registering persons in need of employment are also quite imperfect.

The trends of spatial development that have emerged over the past 15 years have proved to be resistant to external factors, therefore neither the financial crisis, nor the economic recovery that followed, nor the current economic challenges, led to any noticeable change in the territorial proportions of production and consumption. At the same time, there is a high level of interregional differences in such indicators as GRP per capita, incomes of the population, investments in fixed capital and budget provision.

Thus, overcoming the inequality of development in the socio-economic development of regions is impossible without an active state policy. Systematic identification and solution of problems in the development of regions of the country should be the main task of such a policy.

7. Conclusion

Disproportionality of the levels of socio-economic development of regions is observed in many countries. However, in Russia, the differentiation is significant even within a single federal district and is huge across the country. Obviously, even today, the joint actions taken by the federal executive authorities, the state authorities of the constituent entities of the Russian Federation and the local governments have so far failed to balance the socio-economic development of the regions.

Acknowledgments

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