

## **SOCIOECONOMIC ASYMMETRY IN REGIONAL DEVELOPMENT ACROSS RUSSIA**

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### **Abstract**

Issues of uneven distribution of wealth have been at the cornerstone of human geography since the inception of this discipline. Inequality in socio-economic values is found at all geographical scales both within and across regions – districts of cities, municipalities of regions, regions of countries. Polarization and alignment processes are subjected to close attention on behalf of research and political institutions worldwide, yet there is still no consensus on their assessment, forecast or possible measures of control and regulation. The aim of our research is to undertake comparative analysis and define the different methodological approaches to the assessment and evaluation of inter-regional divergence and convergence processes. The three major groups of methods are applied to test the divergence dynamics of Russian regions by their socio-economic characteristics – based on settlement patterns, industry clustering, and quality of life. The evaluation process is based on statistical grouping method, correlation and graph analysis using databases of the Federal State Statistics Service of the Russian Federation. Policy recommendations drawn upon the research results are addressed to public authorities for changes to be implemented in the regional policy.

**Keywords:** convergence, divergence, polarization, inequality, regional policy, Russia.

### **1. INTRODUCTION**

Spatial development has and always will be at the center of attention of public authorities, researchers and society. The habitat for humanity is highly uneven. Each country, region, the urban or rural settlement is characterized by unique features – a heterogeneous territorial capital, and an individual development trajectory that is based on its immanent properties and the contextual environment it is placed. With the development of transportation and logistics, the expansion of information and communication technologies, the globalization of value chains, and the creation of a single financial and commodity market the intersection of global and local ("glocal") externalities increasingly penetrate all

spheres of life. Localities have significantly intensified their competition for financial, intellectual and other resources since the second half of the twentieth century. Large cities are becoming megacities, small and medium-sized cities maintain their sustainability at the expense of rural areas. The concentration of population and industry in most favorable areas is a natural process, as it is often described with respect to coastalization phenomenon (see: Mikhaylov et al., 2018). However, lack of attention on behalf of the state to the status and the dynamics of regional divergence might cause numerous negative consequences: social tension, depopulation, increase in the share of subsidized regions, and even alienation of territories.

The conceptual grounds on spatial socio-economic polarization were elaborated in the early 1950-60s by Perroux (1955), Boudeville (1966), Friedmann (1967), and Lasuen (1969). Ever since, the debate over the balanced development has become widespread in the regional economy and constitutes an important component of many theoretical frameworks in economics and human geography. Spatial (socio-economic) inequality is particularly acute for socialist countries. The cohesion principles received great political importance in the USSR as its backbone idea and policy. Today, the cohesion policy is actively used in the EU member states in implementing the overall socio-economic strategy of the European Union (Bachtler et al., 2013; Bachtler et al., 2016; Barca et al., 2012; Camagni and Capello, 2014; Churski, 2014; European Commission, 2013; European Commission, 2014; Faludi, 2006; Ferrara et al., 2017; Molle, 2015). Meanwhile the Russian scholars increasingly argue for the rational concentration of resources being required for advanced development – the everlasting idea of catching up and outperforming the west (Gladkiy, 2014; Knyaginina, & Perelygin, 2007; Makhrova et al., 2016; Nizhegorodtsev, 2003; Pilyasov, 2014; Zubarevich, 2014).

In studying the relationship between processes of spatial divergence and convergence of the socio-economic development of countries and regions, three main dimensions are singled out: firstly, the ekistics: the study of socio-economic polarization in the system of resettlement; secondly, the economics: analysis of the concentration of production of goods and services in individual countries and regions on the one hand, and, assessment of the differentiation of the production of GRP per capita on the other hand; and thirdly, the social dimension: consideration of the level and dynamics of differences between countries, regions in per capita income.

In-depth assessment of the uneven settlement patterns is often related to population dynamics, including the aspects of gender and age composition, the evaluation of migration flows. Numerous studies on settlement patterns suggest that central (core) regions and large cities enjoy an inter-regional migration of younger age groups of the population, while it speeds up population aging in peripheral

areas (Karachurina, & Mkrtchyan, 2018; Clark, & Withers, 2007; Geist, & McManus, 2008). A recent study held by Antonov (2018) found that the scale of research has a significant impact on the results. The study revealed that while socioeconomic convergence is found at the regional level, the inequalities between cities increase. Antonov hypothesizes that state investments in the reduction of interregional disparities provoke increased inequality at lower territorial levels, thus, supporting depopulation of small towns and growth of regional capitals. Wolff and Wiechmann (2018) note that population distribution has a non-linear evolution as it is being influenced by a wide range of socio-economic factors.

Spatial clustering of industrial activity is known since the early studies of Marshall (1920), who shared his observations on industrial districts. Ever since, scholars have been increasingly focused on describing the localization patterns of economic activity and its influence over regional welfare. As suggested by Becattini (1990), industrial district is a socio-geographical entity as it features natural bonds between a community of people and a population of firms. Clustering of high value added businesses is a “double-edged sword” – companies tend to cluster in prosperous regions with highly qualified population, strong financial institutions, favorable investment climate, high labor productivity, advanced science and technology facilities, while these regions are being further developed by these entities. The industry clusters are not a matter of the past, when the role of geographical distance was vital in production, but it is a matter of future – determining the knowledge transfer and the formation of innovative milieu. As it is noted by Sorenson et al. (2006), knowledge complexity defines the necessity of spatial proximity. The daily personal contacts and interactive learning are fundamental to the process of innovation and sustainability in the rapidly changing environment (Capello, 1999; Lundvall, 1995; Teece et al., 1997). Therefore, the geography of innovation predetermines the innovation security of regions (Mikhaylova, 2018).

Asymmetry in the quality of life is naturally related to the aforementioned factors. Significant differences are found between the quality of life in large urban centers with strong economies and small towns, featuring an increased share of elderly people (Nefedova et al., 2016). Large metropolises, capital cities, coastal agglomerations, industrial centers are the natural growth poles, attracting young and educated people, offering heterogeneous opportunities for self-realization. Decline in industrial activity and industry crisis, often observed in mono-industry cities, significantly influence the quality of life. Depopulation is one of the indirect indicators of population being unsatisfied with life quality (Chuchkalova, & Starodumova, 2010; Ouredníček et al., 2011; Spellerberg et al., 2007; Zvidriňš, 1998). For example, Fuks (2007) established the fact of compression of the populated space. Densely populated territories decrease in size, moving deep into the region to its most populated and urbanized nuclei. With that, recent studies suggest evidence on inverted relations. Urban shrinkage due to decline

in industrial activity of post-industrial cities is followed by the process of increasing life quality (Runge et al., 2018). Apart from the renaissance pattern of regional development, achieved by successful policy implementation, high life quality is found in with high level of FDI.

Three of these dimensions, although interrelated, have their own development trajectories. They also have temporal and territorial specifics. The study focuses on their consideration with reference to the conditions of modern Russia, incorporating the statistical data for the previous periods of the country's development.

## 2. METHODOLOGY

The research design is structured in to three sections: firstly, the assessment of the polarization in the settlement system; secondly, evaluation of divergence in the level of economic development; thirdly, consideration of differentiation in population income across regions. The scope of the study covers the entire territory of the Russian Federation over a period of 2010 – 2015. Whenever available, data is provided for an extended period – as early as 1926 with latest year being 2017. The classical gradation of cities by size is being adopted from Khorev (1975), who distinguished three groups of cities: millionaire cities (over 1,000,000 people), large cities (from 100,000 up to 1 million inhabitants) and medium and small urban settlements (under 100,000 inhabitants). The comparative analysis is based on well-known statistical methods of groupings, time series, the graphic-analytical method, and calculations of the linear correlation coefficient. The data source is the Russian Federal State Statistics Service (Rosstat). Indicators used are the dynamics of the total number of population of the Russian Federation by regions and cities, the population density, the share of the urban population and the migration growth of the population, the per capita gross regional product (GRP), and population income.

## 3. RESEARCH RESULTS

### 3.1. *Polarization in the settlement system*

The polarization in the settlement system is clearly visible, where it is a consequence of the urbanization process and is practically identified with it. At the initial stages, urbanization is measured by the proportion of the urban population. With the achievement of a sufficiently high level of urbanization, it is about the formation of agglomerations and metropolises. At an advanced stage of the process, the proportion of urban residents may decline, but the urban lifestyle that characterizes the essence of urbanization continues to spread throughout the country.

In Russia, the process of urbanization leads to a sharp polarization of settlement. In addition to the inequalities between the country's capital and the province, between regional centers and remote settlements described by Zubarevich (2001), we found deepening divergence between urban and rural settlements, between cities of different sizes.

Urban population dynamics for 1897-2017 shown in Table 1, confirm the worldwide quantitative characteristics of the urbanization process:

- an accelerated increase in the urban population compared to rural (only in the period 1989-2002, which was the period of the socio-economic crisis associated with the collapse of the USSR, the urban population was declining, and declining faster than the rural one);
- the growth of the population of large cities at a higher rate than the increase in the urban population in general (except 1979-1989);
- an even more rapid growth in the population of cities-millionaires in the 2000s, whereas in the preceding period (except for 1926-1939), their growth rates were lower than not only for large cities, but for the urban population as a whole.

TABLE 1 - URBAN POPULATION DYNAMICS IN RUSSIA, 1897-2017

Indicator	Population dynamics, %								
	1926 to 1897	1939 to 1926	1959 to 1939	1970 to 1959	1979 to 1970	1989 to 1979	2002 to 1989	2010 to 2002	2017 to 2010
<b>Total population</b>	149.5	107.4	108.4	110.7	105.7	107.2	98.5	98.4	101.8
<b>Urban population</b>	166.3	220.6	169.7	131.4	117.2	113.7	97.2	100.4	103.5
<b>Large cities*</b>	187.2	221.4	154.2	134.4	119.9	112.9	101.0	103.9	105.9
<b>Millionaire cities*</b>	185.5	224.8	140.0	125.5	115.0	108.9	102.6	106.5	106.7

\* by January 1, 2017

Source: based on the Rosstat

Proceeding from the often-found assertion about higher labor productivity and economic efficiency of large cities, many experts conclude that it is advisable to channel most of the funds allocated for the implementation of regional policies to stimulate the development of urban agglomerations. For instance, Zubarevich (2017) argues that polarized development of space is an obvious prospect for Russia with its vast area and relatively small population. An alternative is the now-rarely mentioned concept of the 'unified system of settlement' (Khodzhayev, & Khorev, 1972). Discussion on development strategies of the resettlement system in Russia became active already in the 1970s. It is, on the one hand, about an urbanization concept, according to which priority is given to large cities and urban agglomerations. On the other hand, about the concept of a unified system of settlement, when human settlements of different sizes and functional types are offered their own development trajectories, and a hierarchical system is formed in which the settlements of a higher level of hierarchy for a particular functions service

towns and villages of a lower level (Khorev, 1975). The difference in opinions on this issue is well reflected by Agafonov et al. (1982) – the supporters of the concept of the unified system of settlement.

By expanding our assessment from cities on to the whole administrative regions of the Russian Federation, the higher economic efficiency of the more developed and urbanized regions is not found at all. Thus, there is no significant correlation between the pairs of indicators ‘population density – migration growth’ and ‘urban population share – migration growth’ observed. The total correlation coefficients for the period 2010 – 2015 are 0.35 and 0.15 respectively; in 2016 they were 0.23 and 0.12. Thus, there is no significant direct connection between these indicators.

An insignificant tendency towards increased migration growth in more populated regions is reflected in Figure 1. The straight-line correlation between the share of urban population and migration growth, if guided by the analysis of the data in Figure 2, is practically absent.

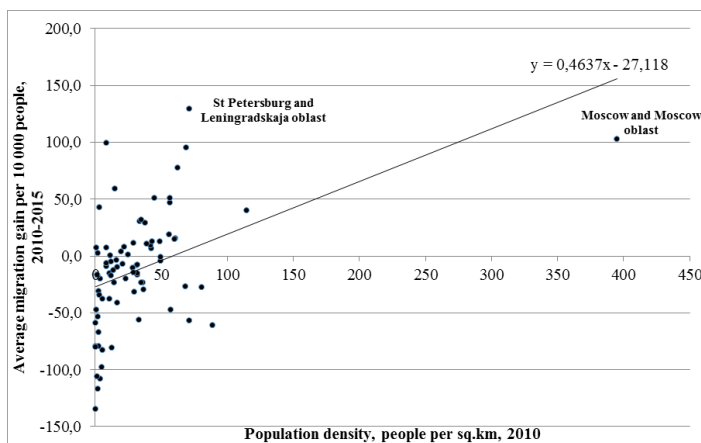


FIGURE 1 - DISTRIBUTION OF REGIONS BY POPULATION DENSITY AND MIGRATION GROWTH RATES  
Source: based on the Rosstat

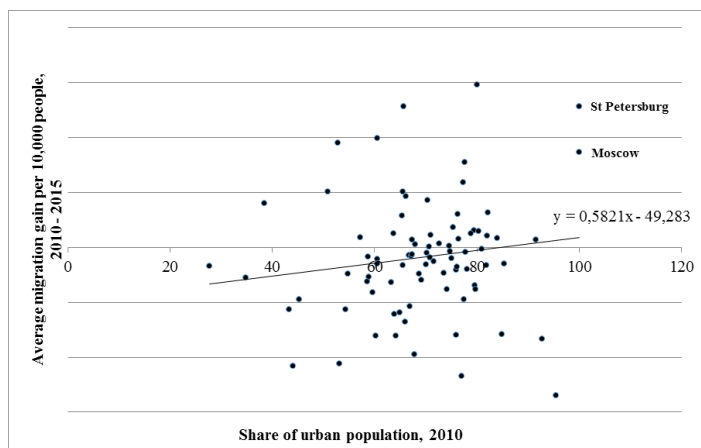


FIGURE 2 - DISTRIBUTION OF REGIONS BY URBAN POPULATION SHARE AND MIGRATION GROWTH RATES  
Source: based on the Rosstat

The combined grouping of regions in terms of density and share of the urban population indicates the presence of some dependence of migration growth (Table 2). The top of the table featuring high population density levels is dominated by regions with a positive balance of migration. This indicates the inflow of migrants to the more developed regions of the country. However, there is no such distribution of the results of the migration process in the regions depending on the proportion of the urban population.

TABLE 2 - DISTRIBUTION OF REGIONS BY POPULATION DENSITY, URBAN POPULATION SHARE, AND MIGRATION, IN 2010-2015

Population density, people per sq.km	Share of urban population, %					
	25.0 - 49.9	50.0 - 64.9	65.0 - 74.9	75.0 - 84.9	85.0 - 99.9	100.0
over 100.0	1* - 0**			1* - 0**		2* - 0**
50.0 - 99.9	0* - 2**	2* - 3**	1* - 0**	4* - 0**		
20.0 - 49.9	0* - 1**	1* - 4**	7* - 6**	5* - 3**	0* - 1**	
10.0 - 19.9		0* - 3**	2* - 5**	1* - 2**		
5.0 - 9.9		1* - 0**	0* - 2**	0* - 1**	1* - 1**	
1.0 - 4.9	0* - 2**	0* - 2**	2* - 3**	1* - 5**		
under 1.0		0* - 2**		0* - 2**	0* - 1**	

\* – the number of regions with a positive migration balance

\*\* – the number of regions with a negative migration balance

Note: darkened cells are dominated by regions with a positive migration balance

Thus, the statistical data considered confirm the further settlement polarization. The population is increasingly concentrated in cities, especially large and extra-large. Similar conclusions are being made with respect to processes occurring within regions.

However, there is no direct relationship between the urbanization of the regions, on the one hand, and the level and dynamics of their development, as shown by the results of the above analysis of empirical data (Table 3). Meanwhile, the negative consequences of resettlement polarization in the form of deep differences in the living conditions are well known.

TABLE 3 - COEFFICIENT OF LINEAR CORRELATION BETWEEN INDICATORS, 2016

Indicator	Indicator				
	Population density	Share of urban population	GRP per capita*	Per capita income	Net migration rate
Population density	1	0.34	0.09	0.49	0.23
Share of urban population	0.34	1	0.27	0.61	0.12
GRP per capita	0.09	0.27	1	0.80	-0.18
Per capita income	0.49	0.61	0.80	1	0.18
Net migration rate	0.23	0.12	-0.18	0.18	1

\* data presented for 2014

Source: based on the Rosstat

### **3.2. Divergence in the level of economic development**

The concept of polarization was used as a basis for the development of the initial version of the Concept of the Strategy for Long-Term socio-economic development of the Russian Federation for the Period to 2020<sup>1</sup>, published on the website of the Ministry of Regional Development in 2005. The first among the principles of federal regional policy was the principle of polarized (or focused) development, which replaces the policy of equalizing the level of regional development. However, in 2008, the Government of the Russian Federation approved the Concept of Long-term socio-economic development of the Russian Federation for the Period to 2020, based on a compromise between the concepts of divergence and convergence. It provides for 'balanced spatial development' – the formation of new territorial growth poles, both in areas where new raw materials are being developed and in traditional regions of concentration of innovative, industrial and agrarian potential; the scale of regional inequality will diminish. In the new Strategy of Spatial Development of the Russian Federation for the period up to 2025<sup>2</sup> approved at the beginning of 2019 declares a combination of polarization and alignment policies, providing for:

- advanced development of territories with a low level of socio-economic development, which have their own potential for economic growth, as well as areas with low population density and a predictable increase in economic potential;
- development of promising centers of economic growth with an increase in their number and maximum dispersal over the territory of the Russian Federation;
- social improvement of territories with low population density with insufficient own potential for economic growth.

It should be noted that the European Union, implementing an active regional policy, as one of the most important components includes the cohesion policy, which focuses mainly on supporting less developed European countries and regions "to help them catch up and reduce economic, social and territorial disproportions that still exist in the EU" (Williamson, 1965).

In assessing the two different approaches to the correlation of divergence and convergence in justifying the strategy of Russia's socio-economic development, we agree with Gladkiy (2014), who, assessing

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<sup>1</sup> The concept of long-term socio-economic development of the Russian Federation for the period up to 2020. Approved by the order of the Government of the Russian Federation of November 17, 2008. URL: [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_82134](http://www.consultant.ru/document/cons_doc_LAW_82134) (Accessed 25.06. 2019).

<sup>2</sup> Strategy of Spatial Development of the Russian Federation for the period up to 2025. P. 9. URL: <http://static.government.ru/media/files/UVAIqUtT08o60RktoOXI22JjAe7irNxc.pdf> (Accessed 25.06. 2019).



the positions of supporters of both approaches, denies the advisability of polarization and defends the need to ensure balanced development of regions.

The process of economic polarization of the subjects of the Russian Federation was very intensive in the 1990s and early 2000s. In 2003, Nizhegorodtsev (2003) wrote that in the last 10 years, the gap between the richest and poorest areas in the levels of domestic product and final consumption per capita has been continuously increasing. For a comparative evaluation of the processes of economic polarization and equalization in the subjects of the Russian Federation, we consider regional differences in the level and dynamics of per capita GRP production (as the most commonly used generalized indicator characterizing the level of regional development).

Indeed, in the 1990s, the differentiation between regions increased. In 1995, the per capita GRP production of the Tyumen region (with autonomous districts) – the leading region by this indicator, was 17.7 times more than in the Republic of Ingushetia with its minimum indicator level (Rosstat, 2002). In 2005, the differences between these subjects of the Russian Federation reached 38.6 times (Rosstat, 2016). But later regional differences in the production of GRP per capita began to decline although they remained very large amounting to 12.8 times gap in 2014. For 2005 – 2014, the gap between the maximum per capita GRP production in the Yamalo-Nenets Autonomous District and the lowest in the Republic of Ingushetia was reduced from 49 times to 26 times (Rosstat, 2016).

The linear correlation coefficient between the GRP production per capita in the regions of Russia in 1995 and the change in this indicator for 1995-2000 was positive and amounted to 0.29. For the period 2000 – 2005, the decrease is typically by 0.02. In the following periods, the correlation coefficient changes positive values to negative values, reflecting the tendency to inverse relationship of the reached level of GRP per capita in 2005 and its dynamics. Between the GRP per capita in 2015 and its change in 2005-2015, the correlation coefficient was -0.45 (and in 2005-2010 it reached even -0.65), that is, there was a certain negative correlation between the level of regional development and the dynamics of their development. The statistical data cited testify to the false conclusions on the strengthening of the regional differentiation in the development level as patterns of the entire post-Soviet stage of the country's economic development. On the contrary, it is rather a tendency to smooth out these differences in 2005-2010, with a slight increase in manifestations of crisis phenomena in the economy in 2010-2014.

It should also be taken into account that in reality the distribution of indicators of per capita GRP and dynamics in the context of regions has a dependence that differs from linear. Table 4 shows the dependence close to parabolic: some regions with higher per capita GRP have the worst indicators,

while others – the best. At the same time 16 regions analyzed worsened their indicators in relation to the national average level, and 66 – improved.

TABLE 4 - DISTRIBUTION OF REGIONS BY GRP PER CAPITA IN 2005 RELATIVE TO THE NATIONAL AVERAGE VALUE OF 2005-2014

GRP per capita, thous. rubles, 2005	GRP per capita dynamics to the national average, 2005-2014, %						
	-350 – -51	-50 – -21	-20 – -1	0 – 9	10 – 19	20 – 49	50 – 249
350 or more	1						1
150 – 349	1	1			1		2
100 – 149		2	2	2	3	1	
75 – 99			8	3	5	1	
50 – 74			1	12	7	2	
35 – 49				7	8	2	
34 or less				3	6		

Note: administrative-territorial division of the Russian Federation as of January 1, 2014; Arkhangelsk region is evaluated with the Nenets Autonomous District.

Source: based on the Rosstat (2002, 2016)

It can be argued that economic theories on regional disproportions and stages of regional development are confirmed. The dynamics of the differences between the Russian regions fully align with the well-known Williamson curve (1965): at the initial stages of regional development, the differentiation of regions is increasing, but as the economy grows, regional economic disproportions decrease. This, as can be judged from the analysis of statistical data, occurs in the Russian Federation starting in 2005.

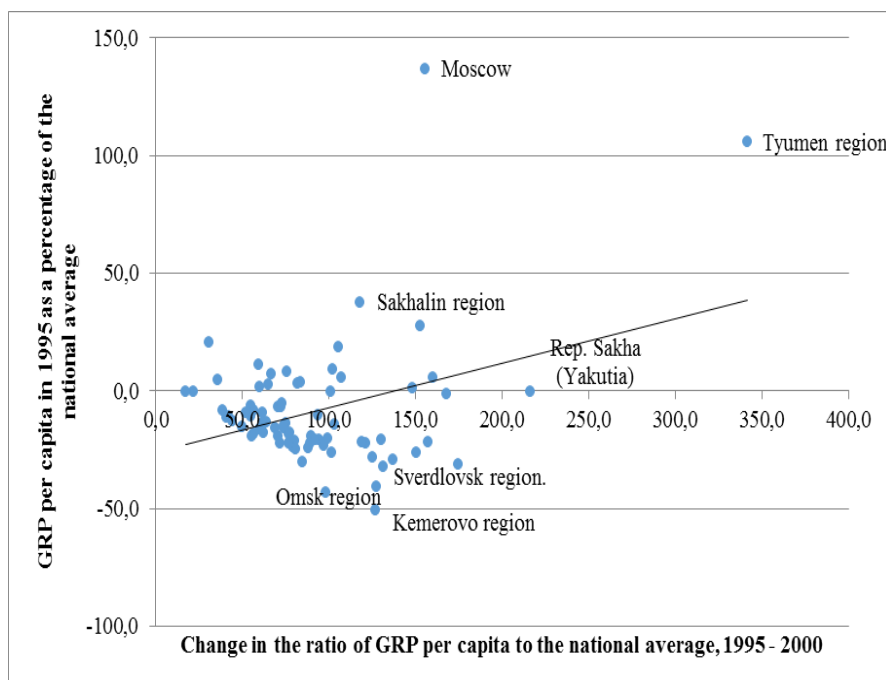


FIGURE 1 - THE 1995 - 2000 CHANGE IN THE RATIO OF GRP PER CAPITA TO THE NATIONAL AVERAGE AS OF 1995  
Source: based on the Federal State Statistics Service of the Russian Federation

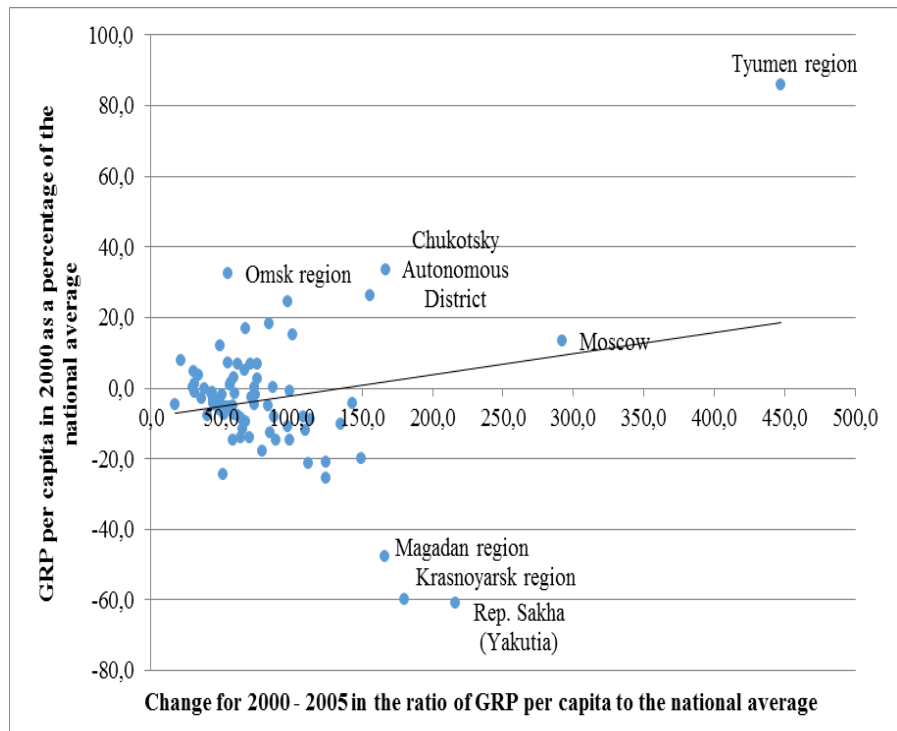


FIGURE 2 - CHANGE FOR 2000-2005 IN THE RATIO OF GRP PER CAPITA TO THE NATIONAL AVERAGE AS OF 2000  
Source: based on the Federal State Statistics Service of the Russian Federation

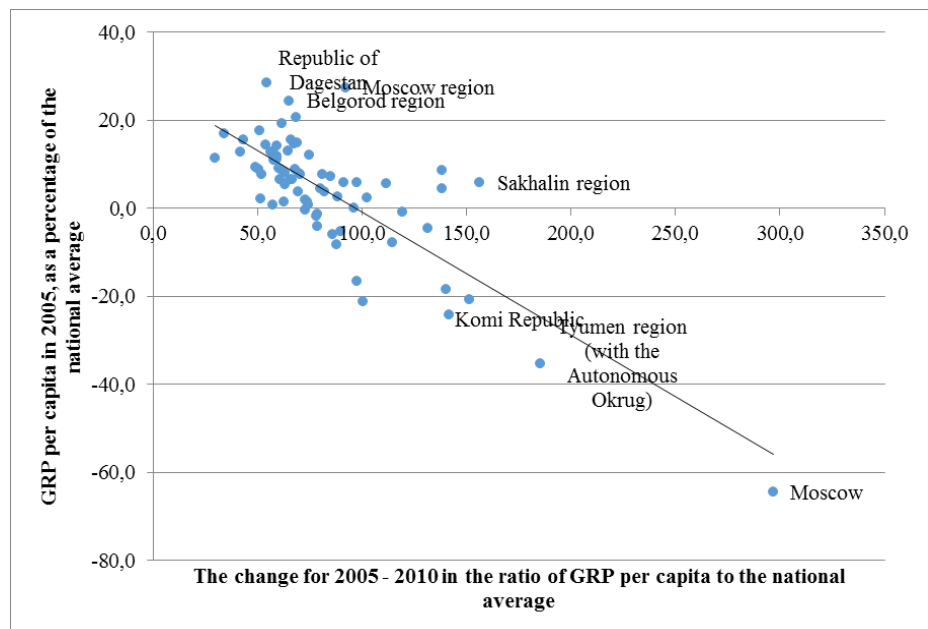


FIGURE 3 - CHANGE FOR THE 2005 - 2010 IN THE RATIO OF GRP PER CAPITA TO THE NATIONAL AVERAGE AS OF 2005

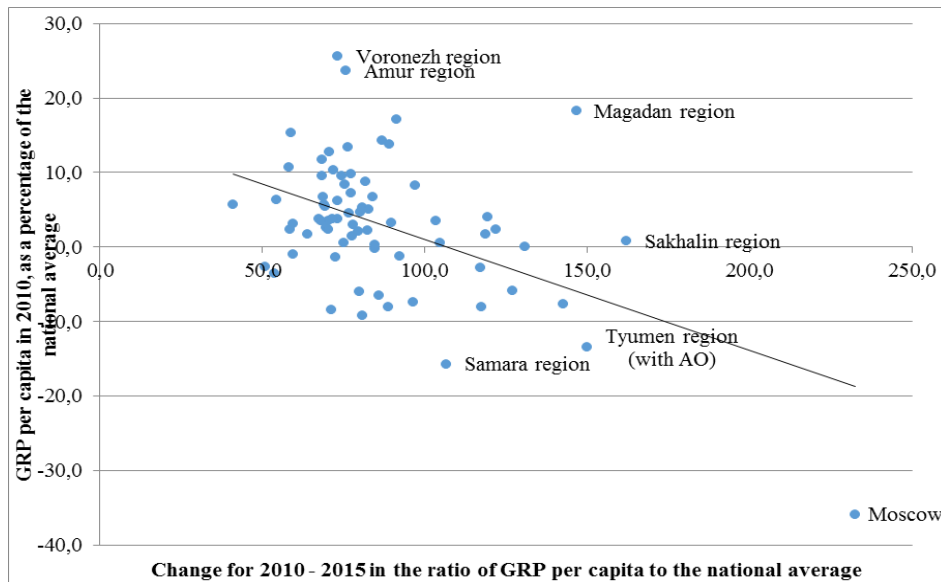


FIGURE 4 - CHANGE FOR 2010 - 2015 IN THE RATIO OF GRP PER CAPITA TO THE NATIONAL AVERAGE AS OF 2010

In addition to the above arguments about qualitative changes in the dependence of the dynamics of per capita GRP on its initial level, we present the following illustrative materials. Figures 1 – 4 show the changes in the nature of the relationship between per capita GRP and its dynamics in the context of 82 region of Russia (for which the official statistical data of the Federal State Statistics Service of the Russian Federation is available). The vertical axes measures the per capita GRP of the regions in relation to the national average level, calculated at the beginning of the period under review. Horizontal axes is the change in this indicator over a five-year period (based on the Rosstat data URL: <http://www.gks.ru/dbscripts/cbsd/dbinet.cgi>).

Figures 1 and 2 are qualitatively different from Figures 3 and 4, which is shown by the trend lines. In the first case, in 1995 - 2005, there is a direct correlation between the increase in per capita GRP in the regions from the level achieved. In the second case, in 2005-2010, there is an inverse relationship.

### 3.3. Differentiation of regions by population income

Regional social imbalances are mitigated by a lower wage differentiation, the lowest level of which is regulated by legislation, as well as payments to the population of allowances and scholarships from the federal budget and subsidies that come to the regions in the form of interbudgetary transfers. So, per capita monetary incomes in 2015 in terms of regions varied 4.6 times, while per capita GRP – 65 times (Rosstat, 2016). Per capita income between the region with largest differences in 2005 – the Yamal-Nenets Autonomous District and the Republic of Kalmykia, from 9.3 times to 4.4 times. Between Moscow and the Republic of Ingushetia in 2005 the differences were 8.8 times, in 2015 – 4.1 times (Rosstat, 2016).

The per capita income of the population in 1990 was the highest in the Magadan region, the lowest in Dagestan, and they were 3.5 times different. By 2000, the differences between these regions were 3.3 times, but the biggest difference in per capita income was between Moscow and the Republic of Ingushetia – 19.1 times. The decrease in differences in income levels began earlier than the leveling of the levels of GRP per capita. In 2005, the differences between Moscow and the Republic of Ingushetia amounted to 8.8 times, and by 2015 they decreased to 4.1 times gap. But by this time the highest per capita incomes were in the Nenets Autonomous District, and the lowest in the Republic of Kalmykia. They differ 5 times, but this indicator is still much lower than between regions with a polar level of income in 2005 (Moscow and the Republic of Kalmykia), which differed by a factor of 10.

Calculations show that, like the dynamics of GRP per capita, the growth of per capita income in the 1990s showed a small positive connection, which in the 2000s was replaced by a negative one. The coefficient of linear correlation between the level and the dynamics of per capita income in 1990-1998 was 0.33, in 1998-2005 – -0.31, in 1995-2010 – -0.67, in 2010-2015 – -0.40, in 2016 – -0.67 (Federal State Statistics Service of the Russian Federation).

Figure 5 reflects the distribution of regions by the level of average per capita income in 2005 and its change in 2005 - 2016. The location of the points on the chart reflects a tendency to reverse relationship of these indicators. The polynomial trend line reflects the relationship between the sizes and dynamics of per capita income in the regions, which is similar to the parabolic dependence shown in Table 3.

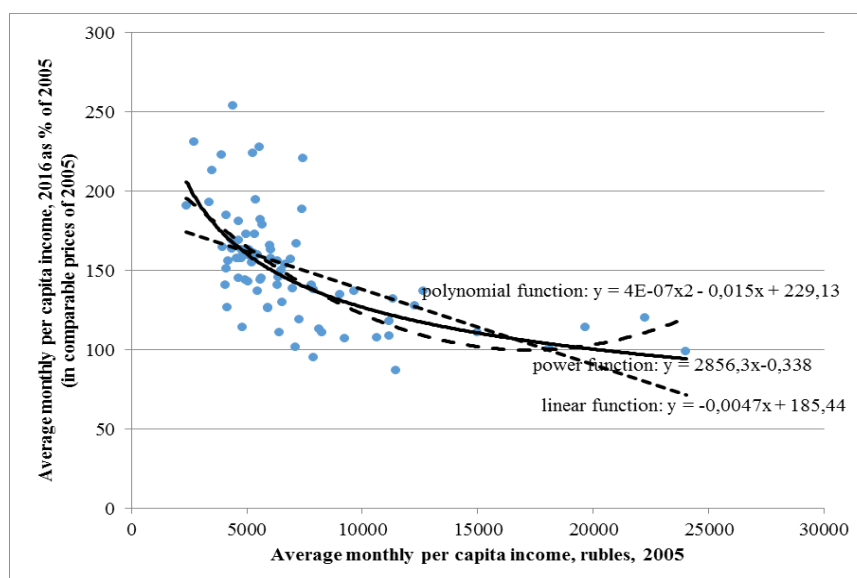


FIGURE 5 - DISTRIBUTION OF REGIONS BY THE LEVEL OF AVERAGE PER CAPITA INCOME IN 2005 AND CHANGE IN 2005 - 2016

Source: based on Rosstat URL: <http://www.gks.ru/dbscripts/cbsd/dbinet.cgi>

The inverse dependence of income dynamics is also evident in Table 5. The values are located mainly along the diagonal, going from the upper left corner of the table to the right lower corner. The highest growth rates of per capita income are found in Ivanovo region and the Republics of Adygea, Dagestan and Ingushetia, which in 2005 belonged to the group of subjects of the Russian Federation with the lowest incomes. While the Khanty-Mansiysk, Yamal-Nenets and Chukotka autonomous regions and the city of Moscow are those with the highest incomes of the population.

The differences in the regions in terms of average per capita monetary incomes are lower than their differentiation in terms of per capita GRP. This is due both to the lower (compared to the variation in per capita GRP) differences in the level of wages and social payments in different regions, and to the consequences of the policy of supporting the lagging regions by the federal center.

TABLE 5 - REGIONS BY POPULATION INCOME IN 2005 AND DYNAMICS IN 2005 – 2016, CURRENT PRICES

Average monthly per capita income, 2016 in % to 2005	Average monthly per capita income, rub., 2005			
	2000 – 4999	5000 – 9999	10000 – 14999	15000 – 24999
200 – 259	4	3	-	-
150 – 199	18	18	-	-
100 – 149	5	20	7	3
85 – 99	-	1	1	1

Note: Note: administrative-territorial division of the Russian Federation as of January 1, 2014; Arkhangelsk region is evaluated with the Nenets Autonomous District.

Source: based on Rosstat URL: <http://www.gks.ru/dbscripts/cbsd/dbinet.cgi>

#### 4. CONCLUSIONS

The analysis of statistical data shows fundamental differences in the ratio of the processes of polarization and alignment 1) in the development of settlement systems, 2) in the economic development of regions and 3) in changing regional differences in the standard of living of the population.

The polarization process continues in the settlement system:

- the migration flow of the population is directed mainly from less populated and relatively poorly urbanized regions to more developed and urbanized regions;
- due to migration, the share and number of the urban population increases, while the rural one decreases;

- the fastest growing population is in millionaire cities, slower growth is registered – in large cities (100,000 – 1 million people), and in medium and small cities (under 100,000 inhabitants) population grows slowly or declines.

By the level of economic development of regions, the deepening of the socio-economic differentiation of Russian regions, characteristic of the 1990s and the very beginning of the 2000s, was replaced in 2005–2015 by a slow alignment. Although the differences in the level of economic development of the regions of the Russian Federation remain very significant. The fact is that identical absolute values of GRP growth mean higher growth rates in economically less developed regions and low growth rates in more developed regions of the Russian Federation. In addition, less developed regions have relatively large reserves of growth due to extensive sources (commissioning of new production capacities and growth in the number of employees) and economic restructuring. The more developed regions have already exhausted these sources of growth and can ensure dynamic development mainly due to the growth of labor productivity (which is still has a low rate).

The differentiation of the regions of the Russian Federation in terms of the standard of living of the population is very high, but it is declining, and at a higher rate compared with differences in the level of economic development. It can be argued that this is facilitated by measures taken at the federal level to support lagging regions. The implementation of such measures is also ensured by the Strategy for the Spatial Development of the Russian Federation for the period up to 2025.

The revealed differences in the ratio of polarization and equalization processes – the deepening of polarization in population resettlement, on the one hand, and the slow leveling in economic development and living standards in the regions, on the other hand, dispute the thesis of the excessive economic advantages of urbanized settlement systems. Their hypertrophied development at the expense of other territories does not lead to acceleration, but to a slowdown in economic development. The way out is in the implementation of the concept of a unified system of settlement, in which each settlement, depending on size and functional type, has pronounced development prospects, and the entire regional settlement system develops as a whole, in which larger settlements participate in servicing smaller ones.

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