Supplementary Notebook (RTEP - Brazilian academic journal, ISSN 2316-1493)

ASSESSMENT OF SOCIO-ECONOMIC DEVELOPMENT OF AGGLOMERATION TERRITORIES IN THE REGIONS OF RUSSIA

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Abstract: This paper proposes a methodology for assessing the impact of the quantity and nature of the subjective composition of agglomeration territories on their socio-economic development. The assessment of the level of socio-economic development is made on the base of the subject composition and socio-economic factors.

Keywords: Agglomeration territories, socio-economic development, monocentricc city, gross territorial product, sustainable development of the territory.

INTRODUCTION

At this stage of regional development in Russia and all over the world, and in connection with the targeted programmatic development of agglomerations, the question of evaluating the agglomeration development processes becomes more relevant. Comprehensive analysis of the development of agglomerations with studying all aspects of socio-economic conditions to optimize the strategic management of agglomeration processes is needed. It was suggested that regarding the subject composition and territorial location, most of the agglomerations, are monocentric. Also, the agglomeration territories vary greatly in the number and nature of the subject composition. The hypothesis was made that the studied agglomeration territories, except Moscow and St. Petersburg, are artificially created. The authors as Wang X., Zhou Y., Shi R. (2020), Robinson J. (2004) describe in detail the significant importance of the agglomerations in Sustainable Territory Development. Complete understanding of the

development of agglomeration territories is presented in the works of Krajnc D., Glavič P. (2005), Brülhart M., Mathys N.A. (2020), Ciccone A. (2002), Zeng L., Chen M. (2008). The modernized method of N.A. Trunova (2011), V.L. Somova, V.A. Markov, A.V. Brovkova (2018) was used as the basis of the study. Shlyenov Y., Bredikhina O.V., Slepneva L.R., Tsyrenov D.D. (2016), Glebova I.S., Vorobyev A.A. (2015), Volchkova I.V., Danilova M.N. (2016) also made a significant contribution to the methodological approaches to assessing the level of socio-economic development of agglomeration territories.

METHODOLOGY

This study was conducted at several stages. At the first stage, analyses of various methods of assessing were carried out. They showed that researchers mainly use complex indicators for comparative analysis. At the second stage, the author's technique was developed, and calculations were made. To determine the level of socio-economic development of the agglomeration territories is to define, the type of development of the agglomeration territory with the subsequent grouping of these territories according to common features. The analysis was based on certain calculations. Table 1 defines the main indicators used to assess the level of socio-economic development and further typology of the socio-economic development of agglomerations. The selection of indicators was made based on their presence in official statistics or on calculation of statistical data.

Table 1. Indicators of socio-economic development of the agglomeration territory

Factors of Development	Description	Indicators
Social factors	Factors characterizing the standard of living of the population	1. The ratio of per capita cash income and the cost of living 2. Population growth 3. The dynamics of migration growth (decrease) in the urban agglomeration on average over 5 years 4. Provision of population with comfortable housing 5. Provision of population with cars 6. The share of organizations localized in the urban agglomeration and performing research and development, of the total number of organizations localized in the agglomerations 7. The number of students of higher and secondary vocational education institutions (per 10 thousand people) in the city agglomeration
Economic factors	Factors characterizing the economic condition of the agglomeration	8. Gross territorial product per capita 9. The volume of investment in fixed assets per capita 10. The total income of municipalities, included in the agglomeration (consolidated budgets of municipalities), per capita, thousand rubles 11. The average monthly salary of employees of organizations of urban agglomeration in relation to the average monthly salary of employees of organizations in general in the Russian Federation. 12. Business density: profit divided by the area of the agglomeration (million rubles per 1 ha)

		13. Density of labor (number of employees per 1 ha of agglomeration, thousand people) 14. The level of registered unemployment 15. Transaction / commodity density (volume shipped products of own production in the agglomeration, million rubles per 1 km of the road network)

The values for each of the indicators of socio-economic development are found by summing the values of this indicator from the agglomeration of territories. To determine the type of socio-economic development of the agglomeration territory and to obtain general coefficients for assessing socio-economic development, the arithmetic mean indicators of socio-economic development on social and economic factors is calculated. Thus, the calculated values for each of the indicators of socio-economic development of the agglomeration territories are compared with the values of: a) the Moscow agglomeration; b) average Russian indicator. In this case, there are three possible points: I research agglomeration territories indicator < I Moscow agglomeration indicator I average Russian indicator is a point 1; I average Russian indicator <I research agglomeration territories indicator <I Moscow agglomeration indicator is a point 2; I Moscow agglomeration indicator I average Russian indicator <I research agglomeration territories indicator is a point 3. Therefore, if the obtained indicator values are lower than all the reference values, a point of 1 is assigned. If the indicator value is between the average Russian level and the value of the Moscow metropolitan area, the indicator is assigned the value 2. If the indicator is higher than the Moscow city metropolitan area and the average Russian - 3.

RESULTS

To test the hypothesis the analysis of each indicator of socio-economic development of agglomeration territories was carried.

Table 2. The ratio of per capita cash income and the minimum cost of living

	2014		2015		2016		2017		2018	
The average Russian Level	4,067		3,946		3,600		3,739		3,775	
The agglomeration territory	2014	Point	2015	Point	2016	Point	2017	Point	2018	Point
The Moscow Agglomeration	4,219	–	4,044	–	3,881	–	4,129	–	4,184	–
The St. Petersburg agglomeration	4,816	3	4,227	3	4,322	3	4,592	3	4,755	3
The Ufa metropolitan area	3,336	1	3,054	1	3,298	1	3,616	1	3,737	1
The	3,535	1	3,449	1	3,631	2	3,865	2	3,933	2

Kazan Agglomeration										
The Krasnoyarsk agglomeration	3,167	1	2,857	1	2,948	1	3,066	1	3,071	1
The Perm Agglomeration	3,807	1	3,323	1	3,557	1	3,595	1	3,783	2
The Voronezh Agglomeration	3,505	1	3,279	1	3,367	1	3,653	1	3,849	2
The Nizhny Novgorod Agglomeration	3,507	1	3,274	1	3,438	1	3,696	1	3,557	1
The Novosibirsk agglomeration	3,148	1	2,911	1	3,038	1	3,209	1	3,325	1
The Omsk Agglomeration	2,930	1	2,673	1	2,779	1	2,977	1	2,979	1
The Rostov Agglomeration	3,022	1	2,759	1	2,867	1	3,109	1	3,231	1
The Samara-Tolyatti agglomeration	3,153	1	2,967	1	2,855	1	3,136	1	3,172	1
The Ekaterinburg agglomeration	3,792	1	3,305	1	3,409	1	3,675	1	3,657	1
The Chelyabinsk agglomeration	2,979	1	2,795	1	3,023	1	3,285	1	3,289	1

Table 2 shows that the ratio of per capita income to the cost of living in the agglomerations is significantly lower than the Moscow agglomeration and the average Russian indicators (except for the St. Petersburg agglomeration). However, taking into account the effect of agglomeration effects, by 2018 already 3 out of 13 agglomerations exceeded the average Russian indicators (Kazan, Perm, Voronezh agglomerations). Throughout the research period, the St. Petersburg agglomeration is characterized by an excess of the Moscow agglomeration, which is associated with an approximately equal income level and a lower cost of living.

Table 3. Population growth

	2014		2015		2016		2017		2018	
The average Russian level	3855		3325		3349		3120		916	
The agglomeration territory	2014	Point	2015	Point	2016	Point	2017	Point	2018	Point
The Moscow agglomeration	134500	–	255792	–	387412	–	238666	–	83616	–
The St. Petersburg	80682	2	26137	2	43138	2	77951	2	102512	3

agglomeration										
The Ufa metropolitan area	24589	2	15488	2	12720	2	9146	2	11174	2
The Kazan agglomeration	18159	2	19231	2	15973	2	19382	2	16502	2
The Krasnoyarsk agglomeration	21030	2	19114	2	17094	2	18262	2	11418	2
The Perm agglomeration	13912	2	11485	2	6675	2	7373	2	5614	2
The Voronezh agglomeration	9407	2	10094	2	15799	2	7996	2	-349	1
The Nizhny Novgorod agglomeration	1558	1	975	1	-1116	1	-5134	1	-3560	1
The Novosibirsk agglomeration	28385	2	20898	2	20369	2	21944	2	13949	2
The Omsk agglomeration	6393	2	8096	2	4323	2	-776	1	-7128	1
The Rostov agglomeration	9165	2	9800	2	6932	2	7396	2	7132	2
The Samara-Tolyatti agglomeration	1109	1	4853	2	-2739	1	712	1	-6112	1
The Ekaterinburg agglomeration	19839	2	18926	2	18003	2	12555	2	13431	2
The Chelyabinsk agglomeration	14632	2	15305	2	9974	2	10652	2	3401	2

Table 3 shows that the population of agglomeration territories is growing faster than the average Russian indicators. The absolute leader is the Moscow agglomeration. Population decline is in the Voronezh agglomeration (in 2018), in the Nizhny Novgorod agglomeration (since 2016), the Omsk agglomeration (since 2017), the Samara-Togliatti agglomeration (in 2016 and 2018).

Table 4. Dynamics of migration growth (decrease) in the urban agglomeration on average over 5 years, people

	2014		2015		2016		2017		2018	
The average Russian level	3565		3298		2887		3082		2493	
The agglomeration territory	2014	Point	2015	Point	2016	Point	2017	Point	2018	Point
The Moscow agglomeration	294535	–	318659	–	314913	–	339532	–	531821	–
The St. Petersburg agglomeration	56836	2	58476	2	62026	2	75834	2	71622	2
The Ufa metropolitan	5763	2	5925	2	5532	2	5470	2	5603	2

area										
The Kazan agglomeration	12145	2	12529	2	11674	2	11444	2	11391	2
The Krasnoyarsk agglomeration	16007	2	15463	2	14524	2	12731	2	11695	2
The Perm agglomeration	8956	2	9282	2	8331	2	6512	2	5259	2
The Voronezh agglomeration	13404	2	13677	2	13042	2	12615	2	12382	2
The Nizhny Novgorod agglomeration	2980	1	3337	2	3186	2	3703	2	3240	2
The Novosibirsk agglomeration	21122	2	21434	2	19467	2	17177	2	15612	2
The Omsk agglomeration	4031	2	4264	2	2979	2	819	1	-112	1
The Rostov agglomeration	11947	2	12003	2	11146	2	9863	2	9321	2
The Samara-Tolyatti agglomeration	5001	2	2413	1	2570	1	3412	2	3760	2
The Ekaterinburg agglomeration	17672	2	17114	2	12780	2	10807	2	9876	2
The Chelyabinsk agglomeration	12392	2	12703	2	11101	2	8943	2	7870	2

Table 4 shows that the agglomeration territories are characterized by migration growth (exception Omsk agglomeration in 2018). The absolute leader is the Moscow agglomeration followed by the St. Petersburg and the Novosibirsk agglomerations.

Table 5. Provision of population with comfortable housing, sq. m per person

	2014		2015		2016		2017		2018	
The average Russian level	23,375		23,739		24,444		24,884		25,351	
The agglomeration territory	2014	Point	2015	Point	2016	Point	2017	Point	2018	Point
The Moscow agglomeration	28,751	–	31,241	–	32,316	–	31,633	–	32,278	–
The St. Petersburg agglomeration	21,681	1	20,799	1	22,396	1	23,058	1	23,706	1
The Ufa metropolitan area	22,991	1	23,675	1	24,144	1	24,942	2	25,499	2
The Kazan agglomeration	24,604	2	25,038	2	25,507	2	25,938	2	26,578	2
The Krasnoyarsk agglomeration	22,394	1	22,541	1	23,653	1	24,074	1	24,396	1

The Perm agglomeration	22,903	1	22,341	1	23,148	1	23,439	1	23,623	1
The Voronezh agglomeration	27,243	2	27,789	2	28,393	2	28,858	2	29,527	2
The Nizhny Novgorod agglomeration	23,308	1	23,877	2	23,541	1	24,064	1	24,258	1
The Novosibirsk agglomeration	22,318	1	22,919	1	23,768	1	24,356	1	24,824	1
The Omsk agglomeration	22,645	1	22,973	1	23,379	1	23,885	1	24,295	1
The Rostova gglomeration	22,736	1	23,148	1	23,687	1	24,682	1	25,359	2
The Samara-Tolyatti agglomeration	23,376	2	24,286	2	24,999	2	25,644	2	26,265	2
The Ekaterinbur gagglomeration	23,819	2	24,462	2	25,016	2	26,323	2	26,718	2
The Chelyabinsk agglomeration	24,304	2	24,794	2	25,159	2	25,491	2	25,955	2

Table 5 shows that, in a metropolitan area in average there is 1 room per person, which generally corresponds to the average Russian level. However, if we compare these indicators with world, namely, with the Better Life Index index, which is the Organization for Economic Cooperation and Development (OECD), we can see that this indicator is much lower than the average rating - 1.8 rooms per person.

Table 6. Provision of population with cars, motor vehicles. per 1000 people

	2014		2015		2016		2017		2018	
The average Russian level	273		283		289		294		305	
The agglomeration territory	2014	Point	2015	Point	2016	Point	2017	Point	2018	Point
The Moscow agglomeration	455	–	474	–	471	–	482	–	486	–
The St. Petersburg agglomeration	452	2	437	2	435	2	437	2	439	2
The Ufa metropolitan area	184	1	223	1	227	1	230	1	250	1
The Kazan agglomeration	188	1	198	1	199	1	204	1	220	1
The Krasnoyarsk agglomeration	205	1	233	1	230	1	222	1	228	1
The Perm agglomeration	194	1	212	1	213	1	221	1	232	1
The Voronezh agglomeration	213	1	217	1	245	1	246	1	251	1
The Nizhny Novgorod agglomeration	202	1	226	1	229	1	238	1	241	1
The Novosibirsk agglomeration	219	1	232	1	236	1	241	1	246	1
The Omsk agglomeration	193	1	203	1	205	1	198	1	205	1
The Rostov agglomeration	217	1	222	1	223	1	228	1	237	1
The Samara-Tolyatti agglomeration	214	1	221	1	222	1	221	1	224	1
The Ekaterinburg agglomeration	234	1	240	1	265	1	271	1	278	1
The Chelyabinsk agglomeration	232	1	225	1	225	1	227	1	233	1

Table 6 shows that in terms of the provision of cars per 1000 people in terms of the level of motorization of the population, the indicators of the Moscow agglomeration are 1.6 times higher than the average Russian level. At the second place, above the average Russian indicators, is the St. Petersburg agglomeration. However, the remaining analyzed agglomerations for this indicator are far behind the average Russian level, which shows a low economic development rate. The calculation results for the indicator "Share of organizations localized in the city agglomeration and performing research and development, of the total number of organizations localized in the agglomerations" showed negative dynamics. The average Russian level and indicators of the most agglomerations decreased (except the Kazan and the Rostov agglomerations). The leader in this indicator is the St. Petersburg agglomeration, which is slightly ahead of the Moscow agglomeration; the Kazan agglomeration takes the third place. Regarding the analysis of the number of students of higher and secondary educational institutions (per 10 thousand people) in the city agglomeration, it should be noted that the Moscow agglomeration in this indicator is 2 times higher than the average Russian level. This is because the metropolitan region attracts applicants from all over the country and from abroad. At the second place is St. Petersburg agglomeration, which also has a network of large and developed educational institutions. At the third place of the Omsk agglomeration is largely ensured due to the development of the secondary vocational education system in the territory of this agglomeration, in terms of which the Omsk agglomeration exceeds the average Russian level. Based on the results of the indicators of the social block, a generalizing coefficient for assessing the social development of the agglomeration (I social) was determined. The results of the calculations of I are shown in Figure 1.

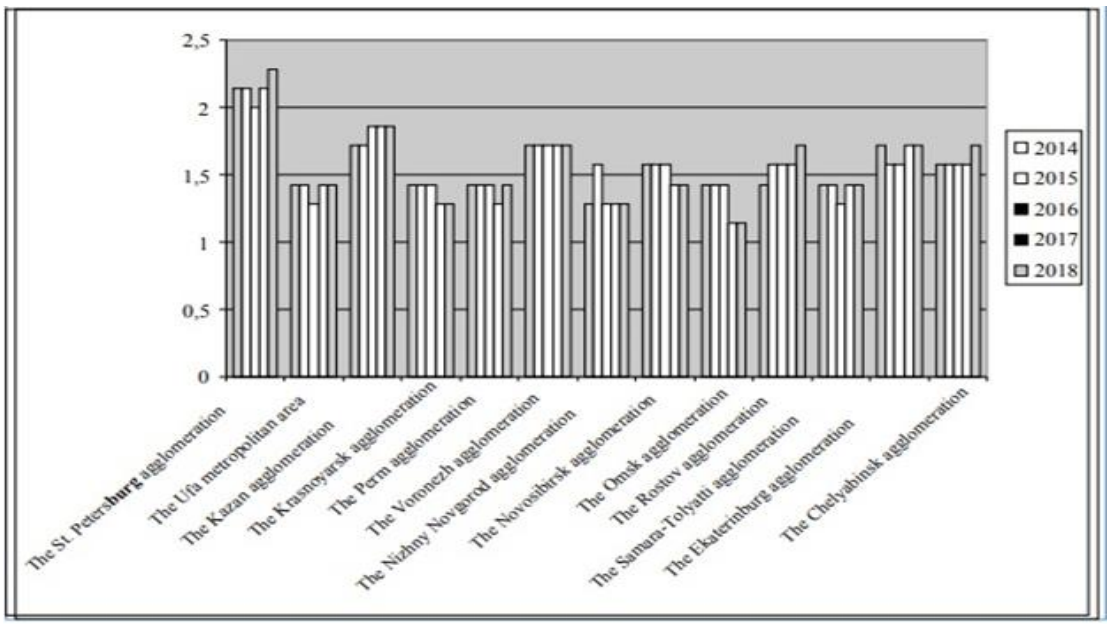

Fig. 1. The coefficient of assessment of the social development of the agglomeration (Ioc) for 2014-2018

The calculations of Isoc showed that the St. Petersburg agglomeration territory came closest to the level of the Moscow agglomeration; the Kazan and Voronezh agglomerations are following them. Positive dynamics in development is observed in the

St. Petersburg, the Kazan, the Rostov, the Yekaterinburg and the Chelyabinsk agglomerations, negative in the Krasnoyarsk, the Novosibirsk and the Omsk agglomerations. It should be noted that the development of the analyzed agglomerations in social sphere is below average, of course, is a negative result. Further, the indicators of the economic bloc were analyzed.

Table 7. Gross territorial product per capita, thousand rubles per person

	2014		2015		2016		2017		2018	
The average Russian level	494,203		541,353		569,195		586,846		626,528	
The agglomeration territory	2014	Point	2015	Point	2016	Point	2017	Point	2018	Point
The Moscow agglomeration	758,674	–	873,634	–	902,293	–	932,097	–	1076,418	–
The St. Petersburg agglomeration	486,306	1	560,317	2	603,002	2	708,399	2	796,490	2
The Ufa metropolitan area	396,104	1	606,063	2	645,641	2	644,637	2	755,702	2
The Kazan agglomeration	183,175	1	353,842	1	418,684	1	460,137	1	452,005	1
The Krasnoyarsk agglomeration	216,098	1	436,398	1	442,169	1	454,436	1	479,836	1
The Perm agglomeration	484,786	1	641,497	2	620,082	2	605,542	2	666,705	2
The Voronezh agglomeration	118,324	1	241,782	1	265,550	1	270,886	1	309,858	1
The Nizhny Novgorod agglomeration	345,061	1	502,445	1	529,677	1	581,337	1	629,968	2
The Novosibirsk agglomeration	224,266	1	265,090	1	267,306	1	280,387	1	306,838	1
The Omsk agglomeration	613,260	2	554,648	2	619,246	2	667,858	2	703,737	2
The Rostov agglomeration	158,958	1	263,739	1	285,436	1	309,232	1	324,096	1
The Samara-Tolyatti agglomeration	296,380	1	437,450	1	452,502	1	451,827	1	484,143	1
The Ekaterinburg agglomeration	281,690	1	500,014	1	557,909	1	609,810	2	671,744	2
The Chelyabinsk agglomeration	346,408	1	364,282	1	398,167	1	428,096	1	471,191	1

GTP per capita is a general indicator of the region's economic activity, characterizing the process of production of goods and services for final use and allowing comparisons. So, the GTP per capita of the Moscow agglomeration is 1.5-1.7 times higher than the average Russian level. It shows the faster pace of economic development of this agglomeration in relation to the development of the Russian economy. The economies of the Omsk (2014-2018), the St. Petersburg, Ufa, the Perm (2015-2018), and the Yekaterinburg (2017-2018) agglomerations are also developing faster.

Table 8. Volume of investments in fixed assets per capita, rub. per person

	2014		2015		2016		2017		2018	
The average Russian level	93599		95028		94861		100469		108692	
The agglomeration territory	2014	Point	2015	Point	2016	Point	2017	Point	2018	Point
The Moscow agglomeration	119130	–	113435	–	111889	–	118774	–	138097	–
The St. Petersburg agglomeration	88697	1	90378	1	98806	2	119243	3	118363	2
The Ufa metropolitan area	67501	1	78718	1	80640	1	80161	1	84669	1
The Kazan agglomeration	96010	2	78452	1	88161	1	86778	1	90355	1
The Krasnoyarsk agglomeration	68671	1	67167	1	62999	1	57786	1	73361	1
The Perm agglomeration	102619	2	93057	1	102620	2	89559	1	90055	1
The Voronezh agglomeration	37207	1	42386	1	40895	1	95576	1	91412	1
The Nizhny Novgorod agglomeration	43382	1	75420	1	62631	1	63748	1	65731	1
The Novosibirsk agglomeration	61597	1	58692	1	46451	1	40092	1	42665	1
The Omsk agglomeration	50077	1	52744	1	48408	1	44995	1	47035	1
The Rostov agglomeration	64979	1	59952	1	76948	1	77821	1	88795	1
The Samara-Tolyatti agglomeration	78987	1	91784	1	91257	1	74938	1	64974	1
The Ekaterinburg agglomeration	89087	1	86163	1	73816	1	72611	1	79205	1
The Chelyabinsk agglomeration	50981	1	64974	1	58590	1	45703	1	38402	1

In terms of per capita investment, the absolute leadership of the Moscow agglomeration is also observed (except of 2017). A slightly smaller amount of investment per capita is observed in the St. Petersburg metropolitan area; then followed by the Kazan, the Perm and the Ufa agglomerations. It is explained by the location of industries and the development of the services sector on the territory of these

agglomerations. Analysis of the indicator of total income of municipalities included in the per capita agglomeration shows that it is much lower than the average Russian level. In addition, even the income of the Moscow agglomeration is 1.5 times lower than the average Russian level. As for other agglomerations, only in the St. Petersburg agglomeration per capita incomes exceed 60 thousand rubles, and the rest range from 12-28 thousand rubles per person.

Table 9 shows data on the ratio of the average monthly salary of employees of agglomeration organizations to the average monthly salary of employees of the Russian Federation organizations. The excess of the average monthly salary of employees of urban agglomeration organizations in relation to the average monthly salary of employees of the Russian Federation organizations indicates that the economy of the agglomeration territory is developing faster Thus the agglomeration population can afford better and more expensive goods and services. Excess is observed in the following agglomerations: the St. Petersburg agglomeration (2014-2018), the Perm agglomeration (2014, 2016), the Yekaterinburg agglomeration (2014, 2016-2018). The lowest rates are in the Omsk agglomeration.

Table 9. The average monthly salary of employees of organizations of urban agglomeration in relation to the average monthly salary of employees of organizations in Russian Federation

	2014		2015		2016		2017		2018	
The average Russian level	29792		32495		34030		36709		39144	
The agglomeration territory	2014	Point	2015	Point	2016	Point	2017	Point	2018	Point
The Moscow agglomeration	1,54	–	1,47	–	1,49	–	1,51	–	1,52	–
The St. Petersburg agglomeration	1,25	2	1,22	2	1,25	2	1,28	2	1,28	2
The Ufa metropolitan area	0,81	1	0,78	1	0,81	1	0,82	1	0,85	1
The Kazan agglomeration	0,83	1	0,83	1	0,87	1	0,88	1	0,89	1
The Krasnoyarsk agglomeration	0,98	1	0,93	1	0,94	1	0,92	1	0,93	1
The Perm agglomeration	1,05	2	0,98	1	1,01	2	0,99	1	0,98	1
The Voronezh agglomeration	0,83	1	0,80	1	0,80	1	0,80	1	0,83	1
The Nizhny Novgorod agglomeration	0,88	1	0,84	1	0,87	1	0,88	1	0,86	1
The Novosibirsk agglomeration	0,95	1	0,91	1	0,91	1	0,90	1	0,92	1
The Omsk agglomeration	0,71	1	0,69	1	0,69	1	0,69	1	0,71	1
The Rostov agglomeration	0,81	1	0,77	1	0,79	1	0,78	1	0,80	1
The	0,84	1	0,81	1	0,81	1	0,80	1	0,83	1

Samara-Tolyatti agglomeration										
The Ekaterinburg agglomeration	1,02	2	0,98	1	1,02	2	1,02	2	1,02	2
The Chelyabinsk agglomeration	0,79	1	0,78	1	0,80	1	0,80	1	0,81	1

The results of calculations for the indicator "Business density, thousand rubles profit per 1 hectare" showed that the highest density of business is in the Moscow, the St. Petersburg, the Perm agglomerations, the lowest in the Voronezh, the Novosibirsk and the Omsk. However, on average the profitability of a business per 1 hectare of territory increases and reaches 80-82 thousand rubles. According to analysis of the indicator "Labor density, number of employees per 1 hectare of agglomeration", the average Russian level of labor density is very low due to the large area of the country. The highest labor density was recorded in the Moscow metropolitan area, which is explained by the attractiveness of this region for the country's population due to its developed infrastructure and high salaries. It is followed by the St. Petersburg and Nizhny Novgorod agglomerations. The lowest labor density was recorded in the Novosibirsk and Krasnoyarsk agglomerations.

Table 10. The registered unemployment rate, %

	2014		2015		2016		2017		2018	
The average Russian level	5,2		5,6		5,5		5,2		4,8	
The agglomeration Territory	2014	Point	2015	Point	2016	Point	2017	Point	2018	Point
The Moscow Agglomeration	2,3	–	2,1	–	2,6	–	2,6	–	2,3	–
The St. Petersburg Agglomeration	2,9	2	2,9	2	3,6	2	3,1	2	3,2	2
The Ufa metropolitan area	5,8	1	5,3	2	6,1	1	5,8	1	5,6	1
The Kazan Agglomeration	4,0	2	3,9	2	4,0	2	3,8	2	3,5	2
The Krasnoyarsk Agglomeration	5,7	1	5,0	2	6,2	1	6,1	1	5,7	1
The Perm Agglomeration	6,5	1	5,8	1	6,3	1	5,8	1	6,1	1
The Voronezh Agglomeration	4,7	2	4,5	2	4,5	2	4,5	2	4,3	2
The Nizhny Novgorod Agglomeration	4,3	2	4,2	2	4,3	2	4,3	2	4,2	2
The Novosibirsk Agglomeration	5,9	1	5,1	2	6,9	1	7,4	1	6,0	1
The Omsk Agglomeration	6,8	1	6,7	1	6,8	1	7,2	1	7,0	1

The Rostov Agglomeration	6,0	1	5,9	1	6,1	1	5,8	1	5,6	1
The Samara-Tolyatti agglomeration	3,2	2	3,0	2	3,4	2	4,1	2	4,2	2
The Ekaterinburg Agglomeration	5,9	1	6,1	1	6,5	1	6,2	1	5,5	1
The Chelyabinsk Agglomeration	6,0	1	6,2	1	7,0	1	7,1	1	6,6	1

In this case 3 points are given to those regions where unemployment is lower than the average Russian level and the level of the Moscow metropolitan area, 2 points - to those agglomeration territories where unemployment rate is higher than Moscow but lower than the average Russian, 1 point - if the unemployment rate of the agglomeration is higher than the average Russian and Moscow. So, there are no agglomerations where the unemployment rate would be lower than in Moscow. However, in 5 out of 14 agglomerations, the unemployment rate is lower than the average in Russia It indicates more developed economy in these territories and their attractiveness for labor in terms of supply and demand. According to the calculations of the indicator "Transaction / commodity density, the volume of shipped products of own production in the metropolitan area, thousand rubles per 1 km of the road network", it should be noted that the average Russian level is much higher than the agglomeration due to high rates of industrial regions. Only the St. Petersburg agglomeration in 2017-2018 exceeds the level of the Moscow agglomeration.

SUMMARY

Based on the results of the indicators of the economic block, an aggregate coefficient for assessing the social development of the agglomeration (Icos) was determined. The results are shown in Figure 2.

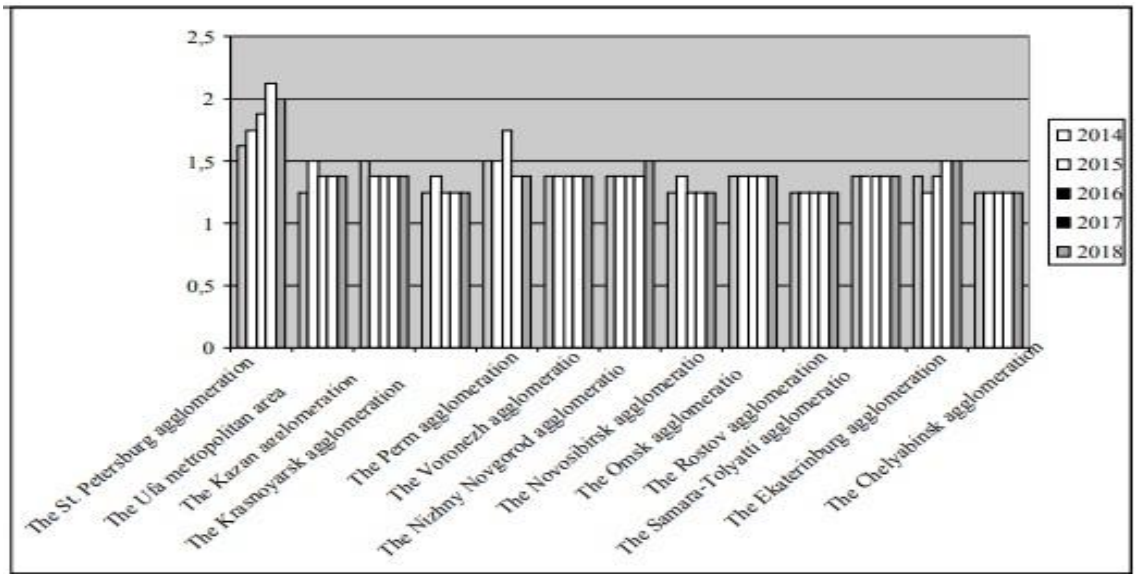

Fig. 2. The coefficient of assessment of the economic development of the agglomeration (I ec) for 2014-2018.

Iec calculations showed that the St. Petersburg agglomeration territory is the closest to the level of the Moscow agglomeration; the Nizhny Novgorod and Yekaterinburg agglomerations follow. Positive dynamics in development is observed in the St. Petersburg, the Nizhny Novgorod, the Yekaterinburg agglomerations, negative dynamics in development is in the Ufa, the Kazan, the Krasnoyarsk, the Perm and the Novosibirsk agglomerations. It should be noted that the development of the analyzed agglomerations in the economic sphere is below average, of course, it is a negative point.

CONCLUSION

The socio-economic development of the Moscow agglomeration is much faster than the development of other analyzed agglomerations. However, according to the number of indicators of socio-economic development, the St. Petersburg agglomeration exceeds Moscow, which indicates the stage of active development. The development of other agglomerations often is faster than the average Russian, but slower than in of the Moscow and St. Petersburg agglomerations, due to agglomeration effects, but not to the full extent.

ACKNOWLEDGEMENTS

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

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