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Veröffentlichungsversion / Published Version
Zeitschriftenartikel / journal article

Empfohlene Zitierung / Suggested Citation:
Fedorov, G. M., & Korneevets, V. S. (2015). Socioeconomic typology of Russia's coastal regions. *Baltic Region*, 4, 89-101. https://doi.org/10.5922/2079-8555-2015-4-7

SOCIOECONOMIC TYPOLOGY OF RUSSIA'S COASTAL REGIONS

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The relevance of this study stems from the importance of Russia's coastal regions for the development of the national economy and foreign economic ties. There are significant differences between coastal regions, which should be taken into account when devising a regional development policy. The article aims to identify specific features of Russia's coastal regions, compare them with other national regions, provide a typology of them, and identify possibilities and areas of their socioeconomic development. The author employs theoretical and empirical methods of classifying regions within J. Friedmann's theoretical framework. The article distinguishes between five socioeconomic types and a number of subtypes of Russian regions and identifies key areas of development for each types. The author's conclu-sions can be used for formulating the regional policy of Russia and development policies of its regions.

Key words: coastal regions, socioeconomic typology, types of Russia's coastal regions

Introduction

Natural and socioeconomic differences between Russian regions are very dramatic. On the one hand, some Russian regions have considerable advantages as to the degree of economic development and development rates. On the other hand, these differences create opportunities for the emergence of certain specialisations in the regions demonstrating different combinations of natural and socioeconomic development factors.

A large group is composed of Russian coastal regions. A seacoast creates opportunities for the development of

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Submitted on July 20, 2015.

doi: 10.5922/2079-8555-2015-4-7

marine economic sectors — maritime transport, fishery, tourism, and recreation. However, these opportunities are not identical in different regions. Therefore, an assessment of coastal position as a factor of regional socioeconomic development requires a classification of regions in view of their achievements in marine economic sectors and their contribution to the regional economy. This provides a basis for assessing the prospects of more extensive use of the benefits of coastal location for the purposes of economic development.

This article compares coastal and inland Russian regions as of 2012, assesses the performance of marine economic sectors, classifies coastal regions based on socioeconomic characteristics, and proposes avenues of development for different types of regions.

A comparison of coastal and inland regions of Russia

Most Russian coastal regions (i. e. constituent entities having access to the sea) are located in the East and North of the country — its least populated territories. Accounting for over 60 % of the country's territory, they are home for less than a quarter of the population. A low land occupation rate in the vast eastern and northern coastal regions is explained by unfavourable climate conditions and their periphery position in relation to the most populated parts of Russia. Their economies are driven by raw materials. At the same time, the European part boasts a number of coastal regions with developed agriculture, manufacturing industries, and services.

Due to the geographical patterns of economy inherited from the USSR, which was mostly oriented to the internal market, coastal position as a factor of economic development is of lower significance in Russia than in most other coastal countries. This feature was especially characteristic of the Soviet period, which was proven as early as the 1980s [4].

Today, coastal regions do not have considerable advantages over other regions in terms of economic development. In 2012, 21 coastal regions were home to 23 % of population accounting for 23.7 % of total GRP, i. e. their per capita GRP is only 3 % over the national average. Secondly, in terms of international trade, they did not outperform inland regions. On the contrary, the latter showed a better performance. In 2012, coastal regions accounted for 19.1 % of national exports and 25 % of imports. The ratio of foreign trade turnover to GRP across coastal regions was 46.8 % against 53.8 % in the other regions. Only four coastal regions had a ratio above the national average (Saint Petersburg, and the Leningrad, Kaliningrad and Sakhalin regions), although it would seem that coastal regions should be actively involved in international trade, being border territories and neighbours of international partners. However, largely unoccupied northern and eastern regions with limited involvement in international trade constitute a significant proportion of coastal regions.[1]

[1] Here and below, the author's calculations are based on [5; 6]. Due to the lack of more recent data on Russia's GRP, the composition of coastal regions (21 regions) is given as of 31.12.2012. The Nenets and Yamal-Nenets autonomous districts are considered as independent regions, whereas the Arkhangelsk and Tyumen regions are analysed without their autonomous territories.

In the 1990s, the population change rate increased more slowly in the coastal regions than on the other territories. In 1991—2000, the size of coastal regions' population decreased by 2.7 % as opposed to 1.6 % in the other regions.

Only in the 2000s, development of market relations and an increasing share in the global market helped Russia's coastal regions outperform the inland ones. Although in the 2000s, the population change rate increased in the regions of both types, the situation in the coastal regions was slightly better. In 2000—2013, their population increased by 0.5 % as compared to a 1.7 % decline in the inland regions.

Their per capita GRP growth rates were even more impressive. In 2000, GRP of coastal regions was at 97 % of the national average; in 2012, it was at 103 %. The regions' contribution to total GRP, which was at 22 % in 2002, grew by 1.7 percentage points. The ranking of 13 out of 21 coastal regions as to per capita GRP improved as compared to the national average, whereas that of eight coastal regions worsened.

Therefore, the comparative changes in population size and GRP of coastal and inland Russian regions approached those observed throughout the world corresponding to the prevalent global trend towards population concentrating in the coastal zone.

Socioeconomic differences in development relating to maritime activities in the coastal regions of Russia

Russian coastal regions show significant differences as to their natural and socioeconomic characteristics, and economic development rates. Qualitative differences are observed both at the level of marine basins identified in research literature and within them.

The effect of a seacoast on a region's economic function can vary depending on the marine basin. Maritime transport, fishery, and the recreation industry are closely connected to the presence of a seacoast.

Location of seaports and their cargo turnover by sea basin and region are presented in table 1.

As the data presented in the table suggest, seaports are absent in two coastal regions — the republics of Kalmykia and Karelia. The European part is home to 29 seaports accounting for three fourth of the national cargo turnover. Therefore, 33 ports of the Asian part of Russia handle one fourth of cargo turnover. In 2003—2010, the cargo turnover of the Asian part was increasing more rapidly (2.2-fold) than in the European part (1.9-fold). The largest increase was observed in the East of the country. The development of oil deposits on the Sakhalin shelf ensured full operation of ports in the Sakhalin and Khabarovsk regions. Transportation of cargoes between these two regions sustained the viability of Sakhalin accounting for most of the ports' turnover. In the West, the most significant increase was observed in the ports of the Leningrad region that maintained (as well as other Russian ports in the Baltic) the developing international economic connections. As to cargo turnover, the ports of the Baltic basin outperformed the previous leaders — the ports of the Black Sea basin.

Table 1

Maritime transport by Russian regions and sea basins, 2012

Region	Number of seaports	Cargo turnover, thousand tons		2012, % of 2003	Proportion in the cargo turnover of Russian seaports, 2012 %
		2003	2012		
Russian Federation	**62**	301559	574430	190	100
European part of Russia	**29**	235560	430635	183	74.97
Baltic Sea basin	**6**	76371	207210	271	36.07
Saint Petersburg	1	42039	57814	138	10.06
Leningrad region	4	21610	136676	632	23.79
Kaliningrad region	1	12722	12720	100	2.21
Black Sea basin	**11**	126207*	176727	140	30.77
Rostov region	2	12057*	19607	163	3.41
Krasnodar region	9	114151*	157120	138	27.35
Caspian Sea region	**3**	7378	10033	136	1.75
Republic of Dagestan	1	3548	6042	170	1.05
Republic of Kalmykia	0	—	—	—	—
Astrakhan region	2	3829	3990	104	0.69
Arctic Ocean basin, European part	**9**	25604	36666	143	6.38
Murmansk region	3	21572	28169	131	4.90
Republic of Karelia	0	—	—	—	—
Arkhangelsk region without Nenets autonomous region	3	3920	5231	133	0.91
Nenets autonomous region	3	112	3266	2929	0.57
Asian part of Russia	**33**	65999	143795	218	25.03
Arctic Ocean basin, Asian part	**10**	3696	2045	55	0.36
Republic of Sakha (Yakutia)	1	12	358	2914	0.06
Krasnoyarsk region	4	2947*	1132	38	0.20
Yamal-Nenets autonomous region	1	…	…	…	…

Chukotka autonomous region	5	736	554	75	0.10
Pacific Ocean basin	**22**	6234	141751	228	24.68
Primorsky region	7	44180	80813	183	14.07
Khabarovsk region	4	9817	27997	285	4.87
Magadan region	1	1006	1347	134	0.23
Sakhalin region	9	5765	29024	503	5.05
Kamchatka region	1	1536	2570	167	0.45

*The author's assessment
Calculated by the author based on [1].

Table 2

Proportion of fishery, hotels, and restaurants in regional GRP

Region	Fishery			Hotels and restaurants		
	Contribution to GRP, %		Change in proportion, percentage points	Contribution to GRP, %		Change in proportion, percentage points
	2005	2012		2005	2012	
Russian Federation	**0.3**	0.2	–0.1	0.9	1.0	0.1
European part of Russia						
The Baltic Sea basin						
Saint Petersburg	0.0	0.0	0.0	1.5	1.4	–0.1
Leningrad region	0.1	0.1	0.0	0.6	0.7	0.1
Kaliningrad region	2.2	1.3	–0.9	1.4	0.9	–0.5
Black Sea basin						
Rostov region	0.1	0.1	0.0	1.1	1.4	0.3
Krasnodar region	0.1	0.1	0.0	2.4	2.5	0.1
Caspian Sea region						
Republic of Dagestan	0.1	0.1	0.0	1.6	7.2	5.6

End of table 2

Region	Fishery			Hotels and restaurants		
	Contribution to GRP, %		Change in proportion, percentage points	Contribution to GRP, %		Change in proportion, percentage points
	2005	2012		2005	2012	
Republic of Kalmykia	0.2	0.1	–0.1	0.7	0.7	0.0
Astrakhan region	0.7	0.3	–0.4	1.2	1.8	0.6
Arctic Ocean basin, European part						
Murmansk region	8.2	7.4	–0.8	0.7	1.3	0.6
Republic of Karelia	0.7	1.3	0.6	0.6	0.9	0.3
Arkhangelsk region	1.0	1.3	0.3	0.6	0.8	0.2
Nenets Autonomous region	0.6	0.6	0.0	0.3	0.3	0.0
Asian part of Russia						
Arctic Ocean basin, Asian part						
Republic of Sakha (Yakutia)	0.0	0.0	0.0	0.9	0.6	-0.3
Krasnoyarsk region	0.0	0.0	0.0	0.8	0.8	0.0
Yamal-Nenets autonomous region	0.0	0.0	0.0	0.1	0.6	0.5
Chukotka autonomous region	4.2	1.4	–2.8	0.3	1.2	0.9
Pacific Oceayn basin						
Primorsky region	7.8	4.7	–3.1	1.1	1.0	-0.1
Khabarovsk region	1.9	1.2	–0.7	0.8	1.0	0.2
Magadan region	3.2	3.1	–0.1	0.9	1.1	0.2
Sakhalin region	6.1	2.1	–4.0	0.7	0.6	-0.1
Kamchatka region	19.5	13.9	–5.6	1.2	1.2	0.0

Calculated by the author based on [5; 6].

In the East, the leaders are the ports of the Primorsky region (56 % of the cargo turnover), which play an important role in maintaining the international economic connections of Russia's Far East and Siberia.

In 2005—2012, the contribution of fishery to GRP decreased from 0.3 % to 0.2 % following rapid development of other industries (table 2). The reduction took place in all major fishery districts — the regions of Russia's Far East accounting for 78.4 % of the national catch were followed by the Northwestern federal district with 12.2 % [6].

The leaders in the fishery's contribution to GRP are the coastal regions of the Pacific basin and the Chukotka autonomous region, the regions of the European part of the Arctic basin, and the Kaliningrad and Astrakhan regions. In the other nine coastal regions, this industry accounts for approximately 0.1 % of their GRPs.

Only several coastal regions boast a more developed recreational sector than the country's inland regions. Assuming that the proportion of the 'hotels and restaurants' industry is indicative of the development of tourism and recreation, one can observe a slight increase in its contribution to regional GRPs in Russia (from 0.9 до 1.0 %) (Table 2). Only in 10 out of 21 Russian coastal regions the proportion of 'hotels and restaurants' is above the national average (fig. 1).

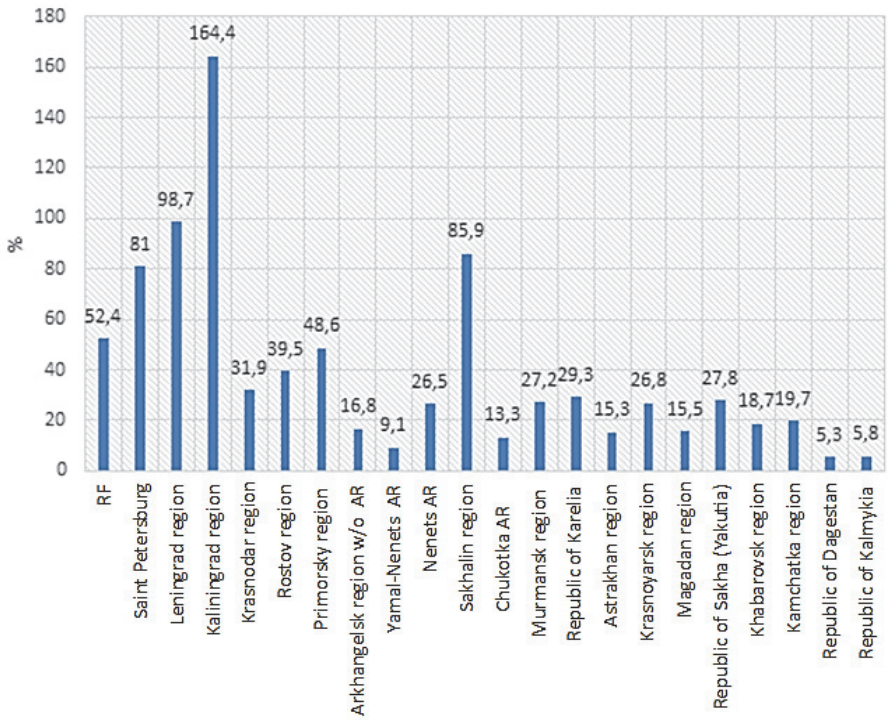

Fig. 1. Ratio of international trade turnover to GRP, 2012,%

Based on [6].

These are Saint Petersburg, and the Leningrad, Kaliningrad, and Sakhalin regions. The Primorsky region's performance is close to the national average. This is accounted for by the fact that Russia's foreign trade is primarily maintained by railroad, automotive, and pipeline transport through regions with external land borders.

Therefore, many but not all coastal regions boast developed marine sectors. Primarily, these are regions, whose coasts belong to the Baltic and Black Sea and Pacific Ocean basins, and the European part of the Arctic Ocean basin. Some of them belong to the regions of the Caspian Sea basin and the Asian part of the Arctic Ocean basin.

Classification of Russian coastal regions

Different approaches to theoretical and empirical classification of regions have been developed. A detailed review is presented in a textbook authored by N. A. Ermakova and A. T. Kaloeva (2011). Coastal regions per se comprise a theoretically identified type of regions, the second type in the classification being inland regions. The qualitative differences between coastal regions make it possible to identify types within them as well. To this end, we will combine the methodology of theoretical and empirical classification.

The theoretical typology of coastal regions will be based on George Friedman's classification of regions [7]. Based on empirical data, types and subtypes of regions will be identified.

George Friedman distinguishes between the following types of regions:

- *core regions,*
- *upward-transition regions*,
- *development corridors*,
- *resource-frontier regions*,
- *downward-transition regions*.

We suggest supplementing this classification, firstly, through placing two or more countries between core regions (as opposed to one country in Friedman's classification) [3; 8]. Secondly, in some cases, a region can combine characteristics of two or more types. Thirdly, we identify types based on regions' development rates (GRP and population changes) in 2000—2012 (Table 3).

Core regions, international development corridors, and upward-transition regions show increased rates of economic development.

Type 1. Saint Petersburg and the Leningrad region are core regions determining the areas of the country's socioeconomic development. These are developed and strongly urbanised regions with a high per capita GRP level and a population increase. They also demonstrate features of international development corridors, playing an important role in the country's international economic ties.

Table 3

Major characteristics of Russian coastal regions classified by socioeconomic types

Region	Type (subtype)*	Sea basin	Population density, as of beginning of 2014, people per sq km	Proportion of urban population, as of beginning of 2014,%	GRP per capita, 2012 thousand roubles	Contribution of extraction industry to GRP, 2012,%	Ratio of foreign trade turnover to GRP, 2012, %	Population change (as at the beginning of the year)		Increase in percentage ratio of per capita GRP to the total of 2012 GRPs of Russian regions as compared to 2000, points
								2000, % of 1991	2014,% of 2000	
Russia (total)			8.4	74.2	348.6	11.2	52.4	98.2	98.7	0
Saint Petersburg	1. 2	Baltic	3711	100	459.3	0.1	81.0	93.2	110.1	30.3
Leningrad region	1. 2	Baltic	21.2	64.9	386.7	1.5	98.7	100.2	105.8	28.9
Kaliningrad region	2	Baltic	64.1	77.6	278.3	4.8	164.4	107.0	101.5	16.1
Krasnodar region	3.1	Black	72.2	53.9	271.0	0.6	31.9	107.1	107.9	8.7
Rostov region	3.1	Black	42.0	67.8	197.4	1.0	39.5	100.2	97.8	5.6
Primorsky region	3.1. 2	Pacific	11.7	76.7	284.8	1.2	48.6	94.6	89.2	11
Arkhangelsk region without the Nenets autonomous region	3.2	Arctic	2.8	76.7	261.7	1.7	16.8	83.3	95.6	–6
Yamal-Nenets autonomous region	4.1	Arctic	0.7	83.9	2211.6	52.0	9.1	100.6	107.1	49
Nenets autonomous region	4.1	Arctic	0.3	70.8	3841	71.0	26.5	92.8	81.3	635.5
Sakhalin region	4.1	Pacific	5.6	81.2	1297.9	61.6	85.9	83.4	82.0	231
Chukotka autonomous region	4.1	Arctic.	0.1	67.5	960.1	35.2	13.3	49.4	64.6	140.3
Murmansk region	4.2	Arctic	5.3	92.7	357.5	16.5	27.2	85.0	77.0	–35.4
Republic of Karelia	4.2	Arctic	3.5	79.2	253.8	13.5	29.3	95.9	82.9	–13.3

End of table 3

Region	Type (subtype)*	Sea basin	Population density, as of beginning of 2014, people per sq km	Proportion of urban population, as of beginning of 2014,%	GRP per capita, 2012 thousand roubles	Contribution of extraction industry to GRP, 2012, %	Ratio of foreign trade turnover to GRP, 2012, %	Population change (as at the beginning of the year)		Increase in percentage ratio of per capita GRP to the total of 2012 GRPs of Russian regions as compared to 2000, points
								2000, % of 1991	2014, % of 2000	
Astrakhan region	4.2	Caspian	20.8	66.7	208.3	19.2	15.3	101.6	100.1	–13.2
Krasnoyarsk region	4.2	Arctic	1.2	76.4	419.6	15.2	26.8	96.2	93.5	–45.3
Magadan region	4.2	Far East	0.3	95.3	501.1	18.6	15.5	61.9	62.8	15.6
Republic of Sakha (Yakutia)	4.2	Arctic	0.3	65.2	565.5	42.9	27.8	88.1	96.6	–31.8
Khabarovsk region	4.2	Pacific	1.7	81.7	323.4	6.6	18.7	93.0	89.0	–12.1
Kamchatka region	4.2	Pacific	0.7	77.4	396.4	4.4	19.7	81.2	82.3	2.4
Republic of Dagestan	5.1	Caspian	59.5	45.1	128.6	0.6	5.3	115.5	138.4	14.1
Republic of Kalmykia	5.2	Caspian	3.8	44.9	119.2	2.2	5.8	95.4	89.8	–30.7

*1 — core regions; 2 — international development corridors, 3 — upward-transition regions, 4 — raw material-driven regions, 5 — downward-transition regions.

Sources: calculated by the author based on [5; 6].

Type 2. In the Kaliningrad region, these features are more pronounced. The region can be considered as an emerging international development corridor. The region's ratio of international trade turnover to GRP is 164.4 %, which is well-above that of other Russian regions. Development rates are above the national average; the population is increasing. The region is distinguished from the core regions by a lower per capita GRP level.

Type 3. Upward-transition regions — developed and medium-urbanised (subtype 3.1) territories — include the Krasnodar and Primorsky regions (with per capita GRP close to the Kaliningrad region), and the Rostov region (with lower per capita GRP). In the Primorsky region, the population decrease rate is above and in the Rostov region below the national average. The population of the Krasnodar region is increasing. These regions are characterised by a significant proportion of international economic ties (however, below the national average), demonstrating emerging features of international development corridors (which is especially true for the Primorsky region).

Subtype 3.2 is represented by the Arkhangelsk region without the Nenets autonomous district. This is one of the old but sparsely populated (due to less favourable environmental conditions) coastal regions of the Northwestern federal district. Its per capita GRP is similar to those of most regions of type 2 and 3, i. e. slightly below the national average. The population decrease rate is above the national average, per capita GRP is increasing slowly, whereas the GRP growth rate is close to that observed across the country.

Type 4. 12 Russian coastal regions are raw material-driven. They are characterised by an increased proportion of extracting industries in GRP. Population is decreasing at a higher rate than across the country. These territories have unfavourable environmental conditions; large areas remain unoccupied. Population density is rather low, and the urbanisation level is high. Regions of subtype 4.1 (three of the four being oil and gas producing regions) are characterised by high GRP. Subtype 4.2 shows a lower GRP growth rate (in the Magadan and Kamchatka regions, per capita GRP was increasing at a rate above the national average). However, their population was decreasing more rapidly. Subtype 4.2 is characterised by GRP growth rates below the national average, which is typical of depressive regions.

Type 5. Depressive agrarian regions with a low urbanisation level, low per capita GRP, and poorly developed international economic ties:

5.1 characterised by population increase and an increasing per capita GRP growth rate — Dagestan;

5.2 characterised by a population decrease rate above the national average and a slow per capital GRP increase rate — Kalmykia.

Conclusions

The present types of Russian coastal regions have been developing over a long period of time so they are rather stable. They were not affected by the collapse of the Soviet Union as much as the inland regions that be-

came borderlands after the disintegration. However, in a number of cases, their earlier specialisations developed further. For example, it happened in the Leningrad region: several new ports were built to accommodate tens of millions of tons of transit cargoes a year, which were earlier handled by now foreign ports of the Baltics. Significant changes in the economies of the Nenets autonomous region and the Sakhalin region were brought about by oil extraction on the shelf. Gas extraction increased in the coastal North of the Yamal-Nenents autonomous region. A special case is the Kaliningrad region, where a radical economic restructuring took place as the territory became an exclave.

The most economically prosperous regions developing at increased rates are located in the Baltic and Black Sea basins. These Russian regions, especially those situated in the Baltic basin, are approaching the international development corridor type. This process contributes to the inevitable strengthening of Russia's position in the international division of labour and development of economic ties with neighbouring countries. At the same time, part of these regions, although situated on the periphery of the country's European territory, perform the functions of core regions. As to the Pacific Ocean basins, similar processes are taking place in the Primorsky region.

The most difficult socioeconomic situation, despite the ongoing increase in production, is observed in most raw material-driven regions. There is a need for large public capital and current expenditure to sustain their viability and support the reproduction of social infrastructure. A steep decline in population as a result of intensive migration outflow (against a background of a slight natural increase characteristic of the country in general) is a more accurate indicator of the complexity of the situation than a low GRP growth rate.

Two type 5 republics lagging behind in economic development — Dagestan and Kalmykia — show different patterns of natural reproduction and GRP growth rates. However, they have a common problem associated with the development of processing industries, partly due to the unwillingness of local population to work in this field.

The identified qualitative differences united under socioeconomic types stress a need for a differentiated regional policy of the state aimed at creating favourable conditions for the development of economic activities and industries in view of the local environmental and socioeconomic conditions.

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