



Regions of the Russian Arctic Zone: State and Problems at the Beginning of the New Development Stage

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Abstract

In recent years, a new market trading in cryptocurrencies and instruments based on them has been formed. The market of This paper The goal of the study is to analyze the degree of differentiation of the Arctic regions of Russia by the key indicators of socioeconomic development, dependence of their economic development on the raw materials industries, which should be accounted to shape an efficient regional policy by the state and achieve the strategic goals for the reclamation and development of the Russian Arctic zone. The methodology of the study is based on a systematic approach to assessing the socioeconomic and sectoral differentiation of the Arctic regions of Russia. A set of general scientific and special research methods was used. The conducted analysis indicates that all the Arctic regions under study have a narrow raw materials nature of the economy, the sectoral structure is poorly differentiated. The policy of equalizing the per capita income and the cost of living in the Arctic regions with other regions of Russia largely determined the outflow of population from the northern regions. The state regional policy in relation to the Arctic regions should take into account their heterogeneity in order to achieve the results outlined in the strategic documents.

Key words: Arctic, disproportions of development, index zones, raw-material economy, regions.

1. Introduction

In previous publications the authors explored the economic problems of developing the resources of the North and the Arctic, the reconciliation of economic interests and resolution of main contradictions between Russia and the EU member states in the supply of hydrocarbons, the problems of development of Russia's oil and gas industry amid sanctions and a falling oil price [12, 13]. At the same time, no matter what problems of development of the Russian oil and gas complex were touched upon, the problem of development of the regions where natural resources of the North and the Arctic had been developed was raised everywhere, as the development prosperity of them largely depended on the well-being in the raw materials sectors.

Regions of the Russian Arctic zone are facing a new stage of their development. The state has giant plans for the further reclamation and development of the Russian Arctic zone (Note 1). A number of strategic documents were adopted in a short time in order to implement large-scale projects (Note 2). According to the new version of the state program "Socioeconomic Development of the Arctic Zone of the Russian Federation" and the draft federal law "On the Index Development Zones in the Arctic Zone of the Russian Federation", it is assumed that the main mechanism for the development of the Arctic region will be the index zones that ensure the development of the territory as a whole project on the principle of ensuring the interconnection among all sectoral activities at the planning, goal-setting, financing and implementation stages. The index zones are created within the boundaries of all Arctic subjects of the Russian Federation.

There is no conflict of interest in the development of the Arctic regions of Russia. All stakeholders are unanimous in an effort to develop the Arctic territories. The regions of the country are most interested, since this is an opportunity for strong development of the northernmost regions of our country with the state support. However, this is also a big responsibility, because there are a lot of problems in the Arctic regions and it is required to arrange the measures in such a way that the regions are able to fulfill the mission entrusted to them by the state. Extractive companies have a great interest in the development of Arctic territories, since the Arctic is extremely rich in various minerals, and largely in hydrocarbons that are in demand throughout the world. It is of interest to the entire Russian society, since the development of the Arctic provides great opportunities for the further development of the country.

Enormous material, financial and technical resources are allocated for the further reclamation and development of the Arctic. A lot of problems have been accumulated in the regions over the past decade. To overcome them and solve the tasks set, it is required to arrange the measures in such a way that the regions are able to fulfill the mission entrusted to them by the state.

Arctic regions of the country are extremely rich in mineral resources, mainly hydrocarbons. The sector-specific nature of the economy in these regions, based on raw materials industries, is a distinctive feature of their development. In essence, until now they have been just a raw materials supplement to the Russian economy with declarative statements about the need for socioeconomic development of the Arctic to a level appropriate to its geopolitical, economic and infrastructural significance. However, as the Russian and world practice reveals, the raw development of the north-

ern and Arctic regions is extremely unstable with this approach [1, 3].

As the Russian state shifted from a planned economy to market relations, the territorial disproportion of the regions of the Russian Federation has begun to increase. It was especially pronounced between the Arctic regions and the rest of Russia [8]. On the one hand, the Arctic regions have a significant natural resource potential, especially that of hydrocarbon minerals, which are in demand in the world economy [20]. This has allowed the regions of the Arctic of Russia not only to live comfortably for a long time, but also to be the donor regions for the federal budget of the Russian Federation. On the other hand, extreme natural and climatic conditions, high costs for economic activities and transport isolation lead to higher costs of production and livelihoods [18].

Since the regions of the Arctic are not homogeneous in their socio-economic potential, the approach in the development of regional policy must take the specific features of the development of each region into account. Therefore, the need arises to analyze the spatial differentiation of the socioeconomic development of the Arctic regions and the degree of their stratification by the main indicators of socioeconomic development in order to solve global problems in the development of the Arctic zone [14, 22]. Based on the above, this article analyzes both the degree of differentiation of the Arctic regions of Russia and the dependence of the level of development of their economies on the raw materials industries. It must be noted that in accordance with the new large-scale guidelines of the state, according to which each Arctic region is an index zone, this study analyzed not just regions but the index zones of the Arctic zone of Russia.

To analyze the situation, the article uses the results of studies obtained by Russian scientists and practitioners on various development problems in the Arctic regions of Russia, influence of the oil and gas sector on the development of their regions of operation, migration problems and causes of outflow of population from the Arctic territories, development of the Arctic shelf [16, 17, 19], as well as by foreign scientists [7, 15].

2. Methods

The spatial socioeconomic differentiation is reviewed in the presented article for the regions of the Russian Federation, the territories of which have completely entered the boundaries of the Arctic zone established by the Decree of the President of Russia and do not concern certain municipal entities.

Assessment of socioeconomic and sectoral differentiation of the Arctic regions of Russia was carried out using systematic and structural functional analysis. Application of these methods allowed studying the system-wide properties of the economy and industries of the regions, on the one hand, and to explore their specific properties that arise in the process of interaction of the components of the socioeconomic system of the Arctic regions, on the other hand. In order to reveal the degree of divergence or convergence of regions, a coefficient of variation was calculated according to a certain indicator. This indicator provides an idea of the degree of homogeneity of the statistical population. The smaller the value of the variation coefficient is, the more uniform the statistical population is.

The use of the economic and statistical method was due to the need to identify trends and patterns in the development of industries in the regions, since this method allows establishing the quantitative influence of individual factors on the result and identifying the main factors that caused changes in the course of economic processes. The following were selected as initial indicators for assessing the socioeconomic development of the regions: gross

regional product per capita, sectoral structure of gross added value, real monetary incomes of the population, real gross payroll, and dynamics of the permanent population.

In terms of the laws, regulations and strategic documents, special attention is paid to the "Fundamentals of the State Policy of the Russian Federation in the Arctic for the Period through to 2020 and Further Prospects" (approved by the President of the Russian Federation on September 18, 2008), "Strategies for the Development of the Arctic Zone of the Russian Federation and Ensuring National Security for the Period through to 2020" (approved by the President of the Russian Federation on February 8, 2013), and the State Program "Socioeconomic Development of the Arctic Zone of the Russian Federation for the Period through to 2020" (approved on April 14, 2014), because the analysis of these documents is important for clarifying state plans for the socioeconomic development of the Arctic regions.

Materials of periodicals were studied in the 2005-2018 interval. Of particular interest were the publications in *Rossiyskaya Gazeta*, *Argumenty i Fakty*, *Nauka i Zhizn*, etc. The selection of publications took the popularity rating and the frequency of citations of the publication into account.

Statistics was taken from the annual reports of the Federal State Statistics Service on the level of socioeconomic development of the regions, which is of particular interest for the classification of Russian regions within the research topic. The official data of the Federal State Statistics Service are provided for 2015, since the data of the later years are not yet available.

The materials of the official websites of state authorities of the subjects of the Russian Federation, the Ministry of Energy of Russia, the Ministry of Economic Development of Russia were a special information and legal base.

3. Results

3.1. Sectoral Structure of the Economy of the Arctic Regions

An analysis of the sectoral structure of the economy, based on gross value added (GVA) by main types of activity, revealed that extraction of commercial minerals was dominant in all studied regions (Table 1), its share in industrial production ranges from 34% to 93% (Table 2). In the Murmansk region there are solid commercial minerals: copper-nickel and iron ores, rare and rare-earth metal ores, phosphorites and apatites; in the Nenets and Yamal-Nenets autonomous districts there are hydrocarbon raw materials: gas, oil and gas condensate; in the Chukotka autonomous district there are ores of non-ferrous metals (primarily gold)

Table 1. Sectoral structure of gross value added (in current prices, percentage of the total) in 2015

Sector	Russian Federation	Murmansk region	Nenets autonomous district	Yamal-Nenets autonomous district	Chukotka autonomous district
Agriculture and forestry, hunting	5.2	0.4	0.5	0.1	2
Fishery, fish farming	0.3	10.2	0.9	0.01	0.3
Extraction of commercial minerals	11.2	14.7	67.5	54.9	46.5
Processing industries	17.1	11.3	0.3	2	0.4
Production and distribution of electricity, gas and water	3.6	5.7	0.9	1.7	10.6
Construction	6.9	7.4	16.6	11.6	3.5
Wholesale and retail trade; repairs	18.1	8.8	0.7	9.4	6.9
Hotels and restaurants	1.1	1.5	0.2	0.5	0.3
Transport and communication	9.4	11.4	5.9	8.6	5
Financial activities	0.5	0.1	0	0	0
Operations with real estate, lease and services	12.7	8.1	2.5	6.4	1.5
Public administration and military security; compulsory social security	5.2	8.6	1.7	1.8	10.7
Education	3.1	3.5	0.9	1	4.4
Healthcare and social services	4.1	6.4	1	1.5	5.4
Other utilities, social and personal services	1.5	1.9	0.4	0.5	2.5

Source: compiled by the authors on the basis of Rosstat data

As can be seen from the data presented, the contribution of processing industries to the GVA of Arctic regions is insignificant. The share of processing industries in the total volume of industrial production is also low (Table 2). The Murmansk

region is an exception, where processing industries follow the extraction of commercial minerals in the sectoral structure of the GVA.

Table 2. Share of production by types of economic activities in total production in 2015, %

	Extraction of commercial minerals	Processing industries	Production and distribution of electricity, gas and water
Russian Federation	22	67	10
Murmansk region	34	48	18
Nenets autonomous district	93	6	1
Yamal-Nenets autonomous district	80	17	3
Chukotka autonomous district	87	1	12

Source: compiled by the authors on the basis of Rosstat data

It must be noted that the sectoral structure of the economy of the Murmansk region is more differentiated than the sectoral structure of the other regions under study. The larger differentiation of the economy of the Murmansk region is due to the specifics of its economic and geographical situation, which facilitates the integration of economic relations, development of cooperation and involvement in the global economic space [23]. For example, a favorable economic and geographical position and the availability of energy resources allow not only supplying the produced electricity to the domestic market, but also exporting it to foreign countries.

The structure of the economy of the two oil and gas producing regions of the Arctic zone, the Nenets and Yamal-Nenets autonomous districts, is less diverse. In fact, these regions can be called sector-specific. As already mentioned above, the extraction of commercial minerals makes the main contribution to the GVA and the volume of industrial production. It is mainly the extraction of liquid and gaseous hydrocarbons. The extraction of fuel and energy minerals in these regions makes up 99.9% in the structure of the volume of products shipped by the type of "Extraction of minerals" economic activity. Construction somewhat stands out:

16.6%, Yamal-Nenets autonomous district – 11.6%. This is explained by the fact that fuel companies operating in these regions are building large infrastructure facilities.

Thus, only oil and gas production is developed in the Yamal-Nenets and Nenets autonomous districts, followed by the sectors of the economy that it cannot do without: construction, transport and communications, as well as areas of activity aimed at servicing the immediate needs of residents – wholesale and retail trade, operations with real estate.

The sectoral structure in the Chukotka autonomous district is more diverse than in the oil and gas producing regions, despite the fact that the third part of the GVA is formed due to the extraction of commercial minerals. The high share of the electric power industry is primarily related to the needs of the major gold mining industry, to the need to supply electricity and heat to the population living in harsh climatic conditions, as well as to the ability to supply electricity to the neighboring region – the Republic of Sakha (Yakutia).

The analysis of the GVA sectoral structure revealed that agriculture, forestry and hunting play an insignificant role in all Arctic regions. The GVA indicators are much lower than the average for Russia. It is, first of all, due to the specifics of natural and climatic conditions: severe climate, infertile soils, insignificant reserves of wood, etc.

3.2 Trend of the Economy of the Arctic Regions Development of Extractive Industries and a Service Sector

A range of recent studies have shown that deindustrialization is taking place in Russia with a rapid growth in the service sector [3, 4, 5]. Such trends, when the extracting and processing industries do not grow, while the service sector observes significant growth not based on the growth of these industries, form an inefficient economy. Creation of material production is of paramount importance, while services are a derivative of the sectors producing material goods, and their development is conditioned by the level of production automation and saturation of the market with material products. The opposite trend is observed in Russia, where the service sector is paramount and is largely based on the material production of other countries.

What are the trends in the Arctic regions of Russia? Economic activities in the structure of gross value added were grouped into three sectors of the economy for analysis, proposed in the works of A. Fisher and C. Clark: primary, secondary and tertiary [6, 9]. The primary sector included activities related to the extraction of primary resources: mining, fishing, hunting, agriculture and forestry. The secondary sector included processing industries: processing enterprises, production and distribution of electricity, gas and water. The tertiary sector of the economy included activities related to the service sector.

The development of the sectors of the economy in the sectoral structure of gross value added included in the gross regional product (GRP) is presented in Table 3.

Table 3. Development of the sectors of the economy in the sectoral structure of gross value added

Indicator	2005	2009	2010	2011	2012	2013	2014	2015	2015/ 2005
GRP in current prices, bln rub.	18034	39007	37688	45392	49926	54103	58745	64997	3.60
Primary sector of the economy, bln rub.	3300	5812	5653	7308	7788	8224	9164	10855	3.29
Secondary sector of the economy, bln rub.	4022	8348	8367	9986	10534	11416	12395	13454	3.35
Tertiary sector of the economy, bln rub.	10712	24848	23668	28098	31603	34464	37186	40688	3.80
Primary sector of the economy, %	18.3	14.9	15	16.1	15.6	15.2	15.6	16.7	-
Secondary sector of the economy, %	22.3	21.4	22.2	22	21.1	21.1	21.1	20.7	-
Tertiary sector of the economy, %	59.4	63.7	62.8	61.9	63.3	63.7	63.3	62.6	-
GRP in current prices, bln rub.	132.9	202.2	234.6	263.8	283.8	307.5	320.3	390	2.94
Primary sector of the economy, bln rub.	26.0	39.4	52.8	71.2	69.8	81.5	73.0	99	3.79
Secondary sector of the economy, bln rub.	42.5	46.1	55.8	55.1	54.8	52.0	59.3	66	1.56
Tertiary sector of the economy, bln rub.	64.3	116.7	126.0	137.4	159.2	174.0	188.0	225	3.50
Primary sector of the economy, %	19.6	19.5	22.5	27	24.6	26.5	22.8	25.3	-
Secondary sector of the economy, %	32	22.8	23.8	20.9	19.3	16.9	18.5	17	-
Tertiary sector of the economy, %	48.4	57.7	53.7	52.1	56.1	56.6	58.7	57.7	-
GRP in current prices, bln rub.	44.7	130.2	145.9	165.4	157.1	171.8	183.7	218	4.87
Primary sector of the economy, bln rub.	33.7	101.5	115.9	123.4	112.9	131.1	138.5	150	4.45
Secondary sector of the economy, bln rub.	0.5	1.6	1.6	1.7	1.6	2.1	2.6	3	4.87
Tertiary sector of the economy, bln rub.	10.5	27.1	28.5	40.4	42.6	38.6	42.6	65	6.19
Primary sector of the economy, %	75.3	78	79.4	74.6	71.9	76.3	75.4	68.9	-

Secondary sector of the economy, %	1.2	1.2	1.1	1	1	1.2	1.4	1.2	-
Tertiary sector of the economy, %	23.5	20.8	19.5	24.4	27.1	22.5	23.2	29.9	-
GRP in current prices, bln rub.	441.7	649.6	771.8	966.1	1191.3	1373.5	1611.6	1813	4.11
Primary sector of the economy, bln rub.	271.7	311.2	373.5	466.6	621.8	721.1	810.6	997	3.67
Secondary sector of the economy, bln rub.	15.5	29.9	29.3	33.8	38.1	50.8	56.4	67	4.34
Tertiary sector of the economy, bln rub.	154.6	256.6	368.9	465.7	531.3	601.6	744.5	749	4.84
Primary sector of the economy, %	61.5	47.9	48.4	48.3	52.2	52.5	50.3	55	-
Secondary sector of the economy, %	3.5	4.6	3.8	3.5	3.2	3.7	3.5	3.7	-
Tertiary sector of the economy, %	35	39.5	47.8	48.2	44.6	43.8	46.2	41.3	-
GRP in current prices, bln rub.	12.4	45.1	39.0	44.8	45.6	47.0	56.6	64	5.17
Primary sector of the economy, bln rub.	1.6	19.2	18.3	19.9	17.4	17.1	25.5	31	18.98
Secondary sector of the economy, bln rub.	2.0	6.3	5.0	5.1	5.3	7.0	6.7	7	3.45
Tertiary sector of the economy, bln rub.	8.7	19.6	15.7	19.8	22.9	22.9	24.3	26	2.96
Primary sector of the economy, %	13.3	42.7	46.9	44.5	38.1	36.3	45.1	48.8	-
Secondary sector of the economy, %	16.5	13.9	12.7	11.3	11.7	14.9	11.9	11	-
Tertiary sector of the economy, %	70.2	43.4	40.4	44.2	50.2	48.8	43	40.2	-

Source: compiled by the authors on the basis of Rosstat data

It can be seen from the data in Table 3 that there has been a declining trend for the share of processing industries (secondary sector) in GRP and an increasing trend for the contribution of the service sector (tertiary sector) in the Murmansk region over the past decade. As such, trends similar to those in the whole of Russia are observed in the Murmansk region, where the role of the primary and secondary sectors producing material goods is falling, but the area of services is unjustifiably growing, due to which the regional economy becomes dependent on the sectors of other regions and countries producing material products.

The share of the extractive sectors of the economy in the structure of the GVA is decreasing, while the production volumes of these sectors are growing in the leading gas producing region of the country, which accounts for 80% of the Russian gas production – the Yamal-Nenets autonomous district. The secondary sector, with its insignificant value, almost does not change, providing a small increase in the economic crisis periods. The tertiary sector is growing steadily – in fact, it captures positions that the primary sector loses. As a result, deindustrialization and unjustified growth of the service sector take place while preserving the resource type of the economy. The industries producing material goods do not develop, there is no saturation of the market with material products, and economic agents move to the area of services, since it requires a minimum of resources, capital and technology, unlike producing industry. The situation is further aggravated by the fact that the primary and tertiary sectors are forced to consume the material products of the secondary sector produced either in other regions or in foreign countries, without having sufficient material production of its own secondary sector that could be sold in neighboring regions, thus involving additional funds in the commodity-money turnover. As a result, both the minerals extracted in the region and the proceeds from their sale leave the region.

The Nenets autonomous district, which produces hydrocarbons, has a typical resource-type economy. The GVA has been formed by the primary sector (up to 79%) over the past decade, with almost no secondary sector (1-1.5%) and the average role of the tertiary sector (25% on average). In terms of the growth rates of

the economic sectors, the processing industry attracts attention both in the Nenets and Yamal-Nenets autonomous districts, which observes the highest growth rates, given its weak development, which also indicates the profitability of the development of the secondary sector in the region's economy.

In the first half of the 2000s, the share of the tertiary sector was high with a low contribution to the gross value added of the primary and secondary sectors in the Chukotka autonomous district. Such a situation was typical for Russia in the 1990s, when production and processing industries massively shut down, and the workforce moved to the service sector (Baranov, 2015). In the past decade, the situation in the Chukotka autonomous district has changed: the importance of the primary sector increased with a significant decrease in the tertiary sector in the GVA. For example, the share of the primary sector was 13.3% in 2005 and 48.8% in 2014; in turn, the share of the tertiary sector fell from 70.2% to 40.2%, respectively. The role of the secondary sector also decreased from 16.5% to 11.0%.

4. Discussion

The conducted analysis allows stating that a highly specialized raw materials economy has been formed in the Yamal-Nenets, Nenets and Chukotka autonomous districts. The extracting industries are developed there, the service sector is rapidly establishing, and the role of processing industry is extremely small. Despite the fact that the profitability of processing industries is significant, the established way of managing the economy, aimed at extracting minerals by large vertically integrated companies, does not allow them to develop. There is a process of deindustrialization in the Murmansk region, accompanied by a growth in the service sector. The decrease in the importance of the own production and intensification of interregional ties lead to an increase in output produced in other regions and countries.

Let's see what happens with other indicators describing the differentiation of the Arctic regions.

The most important indicator of the socioeconomic differentiation is the GRP per capita. The Arctic regions differ significantly by this indicator, the variation coefficient was 79.75% in 2015. The divergence with other regions of Russia is even greater, the variation coefficient reached 93.24% in 2015.

The highest GRP per capita is in the oil and gas regions (the Nenets autonomous district – 4.26 mln rub., and the Yamalo-Nenets autonomous district – 2.99 mln rub.), the lowest GRP is in the Murmansk region – 0.42 mln rub., while an average for Russia is 0.41 mln rub. (Fig. 1).

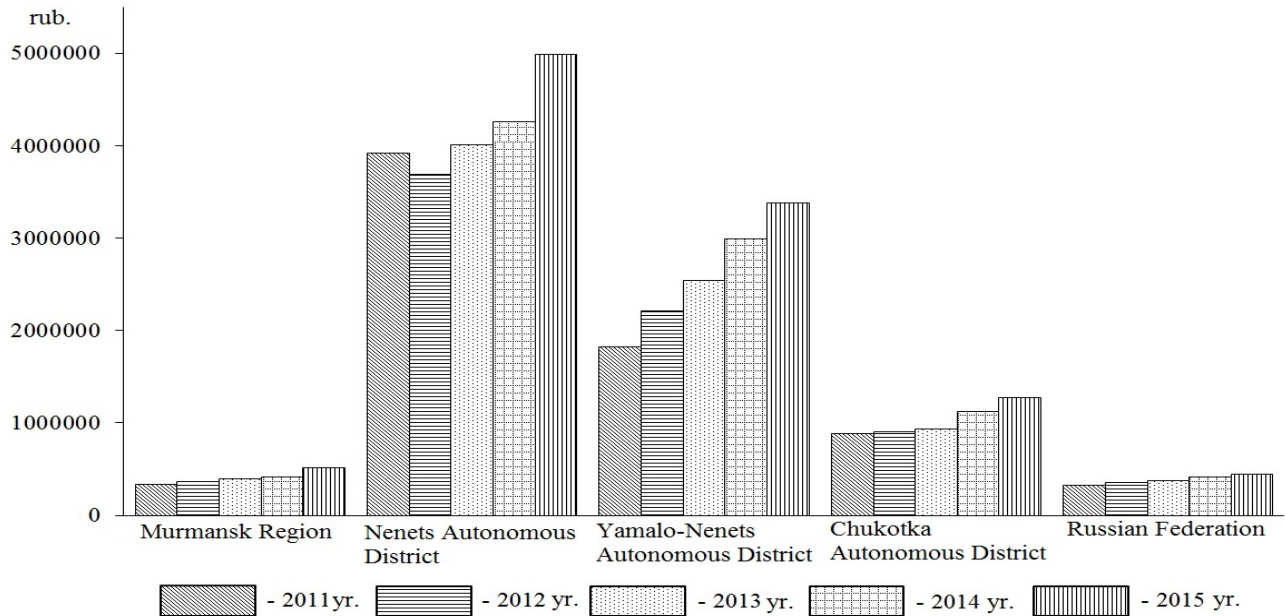


Fig. 1. Gross regional product per capita, rub.

Source: compiled by the authors on the basis of Rosstat data

Unlike GRP per capita, the differentiation of the Arctic regions among themselves and with other regions of Russia by average per capita income and monthly nominal gross payroll is much lower. According to these indicators, there is an alignment of more prosperous regions with less prosperous. The variation coefficient in the regions classified as the Arctic zone was 25.8% by income and 22% by wages in 2015, whereas the variation coefficient was 40% by income and 35% by nominal gross payroll in 2000. The divergence with the more southern regions of Russia has also decreased recently: in terms of incomes, the variation coefficient fell from 47% in 2000 to 34% in 2015.

In Russia, there is a significant divergence in per capita GRP and convergence in per capita incomes and cost of living both between the Arctic regions and other regions of Russia and among the regions included in the Arctic zone of the Russian Federation. However, convergence is achieved not due to the fact that less prosperous regions improve their performance and reach the indicators of regions with large GRP per capita, but rather due to the fact that per capita incomes in regions are averaged at the expense of the state redistribution policy. Such a redistribution policy is implemented, first of all, through the existing tax policy in Russia, when the bulk of tax proceeds go not to regional or municipal budgets, but to the federal budget of the Russian Federation [2]. Such a redistributive policy in many ways can result in the loss of regional interest in interregional cooperation and the increasing effect of competition for obtaining budgetary funds. There are no macroeconomic mechanisms or a qualitative regional policy that lead to the convergence of Arctic regions among themselves or with other regions of Russia [11, 21].

The inefficiency of regional policy is confirmed by the fact that a low population density, accompanied by an annual decrease in the number of permanent residents, has been a significant problem in the Arctic regions over many years. For example, the total population of regions under study has decreased by 9% since 2000. In many respects, the outflow of the population is connected with the equalization of per capita incomes and the cost of living in the Arctic regions with other subjects of Russia. Sociological studies

conducted in the cities of the Yamalo-Nenets autonomous district revealed that more than 65% of respondents consider the region as a permanent place of residence, but in the long term, the majority of respondents are ready to leave the Yamalo-Nenets autonomous district (73.2% of respondents). The main reason why urban residents of the autonomous district are willing to live there is higher well-being than in other regions, the possibility of having higher wages [10]. In other words, despite the fact that the population considers it acceptable to permanently reside in the Arctic region, the Yamalo-Nenets autonomous district's residents do not see the point of staying in the Arctic if the material situation worsens or aligns with the Russia's average. In fact, this is confirmed by the recent outflow of population that coincided with the decrease in real incomes of the population.

5. Conclusions

Based on the study of socioeconomic and sectoral differentiation of Arctic regions of Russia, the following conclusions can be drawn.

The economy of the westernmost region of the Russian Arctic, the Murmansk region, is the most diversified: apart from the decisive role of extraction of commercial minerals, the positions of processing industries are also strong. The structure of the economy of the other regions under study is especially narrowly specialized and is aimed only at extracting commercial minerals: the Nenets autonomous district specializes only in oil and (to a lesser extent) gas production, the Yamalo-Nenets autonomous district specializes in the extraction of natural gas, as well as oil and gas condensate, the Chukotka autonomous district specializes in the extraction of non-ferrous metals.

The policy on the uniform socioeconomic development of the regions of the Russian Federation pursued in recent years has led to a certain slowing of the spatial divergence of the Arctic regions between themselves and with the non-Arctic regions. However, the convergence is observed only in terms of average per capita

incomes and the cost of living; the divergence continues to grow in terms of purely economic and production indicators. The decrease in the difference in income and expenditure between the Arctic and non-Arctic regions results in an outflow of population from the Arctic zone. The greatest outflow is recorded in the regions where convergence with non-Arctic regions is particularly strong (for example, the Murmansk region).

In fact, the spatial concentration of economic activity in the Arctic regions continues, and the interregional economic divergence intensifies. It is also seen that the market economy has not significantly affected the redistribution of production and output factors. This is due to the fact that the factors of the primary nature, the availability of useful minerals being the main among them, compensate for any advantages of the secondary factors (developed infrastructure) and the tertiary factors (capacious markets and agglomeration effect) in these regions today. Moreover, the conducted research reveals that the majority of the Arctic regions of Russia today are outside the zone of a favorable economic situation: the only thing that supports them is the export-focused raw materials industries. However, the availability of sufficient raw materials does not yet guarantee sufficient opportunities for the development of the production and social areas, since the budgets of the regions and cities where the export and raw materials sectors function are devoid of the corresponding direct tax revenues.

The course taken in recent years to reclaim and develop the Arctic zone of Russia assumes that index zones will be the main tool for the development of the Arctic region. At the same time, much attention is paid to the problem of the complex socioeconomic development of the Arctic territories of Russia, i.e. development of all sectors of the economy and departure from narrow raw materials orientation are expected. Thus, there are great opportunities in choosing directions for further research. The most probable direction of further research is the creation and development of index zones in the Arctic zone of Russia, the implementation of energy projects certainly remaining the central one.

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