The Economic Aspect of Sustainability in Russian Arctic Areas

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Abstract: The article explores different approaches to the term "sustainability" existing in academic literature and used in practice. It describes three methods – two well-known ones and another one developed by the authors – used for quantitative assessment of the degree of economic and financial sustainability in regions. The regions include four Russian federal subjects in the Russian Arctic and three macroregions that include the aforesaid regions. The indicators used for the assessment are grouped by the following aspects: relevance to national projects, type of assessment scale, internal or external economic factors, and income or spending in a consolidated regional budget. The article explores and draws a distinction between the influence of external factors – indicators of the demographic and natural environments – on the economic sustainability of an area. A comparative analysis is done for three Russian macroregions and four Arctic regions by degree of economic and financial sustainability. The regions and macroregions are ranked based on the results of the comparative analysis using the selected indicators. The ranking helps identify potential strategic vectors and their succession as well as criteria for improvement of economic sustainability in the Russian Arctic.

1 INTRODUCTION

The relevance of the study is determined by the fact that there are several approaches to the term "sustainability".

The first approach implies that sustainability is a balanced and proportionate development of three macro-environments – economy, demographics, and (natural) environment – in any area. The approach became widespread in the late 20th century after the Rio de Janeiro UN Conference followed by the signature of a number of environment-related documents, including influential ones, such as the Kyoto Protocol and the Paris Agreement. The approach has dominated in many developed countries with a post-industrial service-based economy (Concept, 1993; Towards, 2018).

Russia is currently implementing its national projects aimed at improved sustainability in its regions, including land areas of the Russian Arctic (On national projects, 2020). Therefore, out of all interconnected processes, we have to focus on the economic ones and view the achievement results of demographic and environmental goals as external factors to these economic processes (Bulletin, 2020).

The second approach to sustainability is used in financial relations on both the micro level, i.e. in business entities, and macro level, i.e. in regional financial management systems. Therefore, financial sustainability applies to both businesses and territories, including regions. It is determined by internal factors.

Consequently, economic sustainability is determined by two groups of factors: internal and external. In this study, factors are expressed as indicators of annual government statistics reports.

The third approach is not based in research but often used in practice, when sustainability is understood as stability. Stability, in its turn, can be understood either as a long-term stagnation or as a distinct trend. Stagnation means lack of economic

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growth. A trend is determined by an increasing positive or negative change in economic indicators. A steady-state economy is an economy with relatively stable major indicators, such as population or consumption, whose scope does not exceed the carrying capacity of the ecosystem. The term often applies to national economies but can be used to analyse economic systems of cities, regions, or the world.

2 THE STUDY METHODOLOGY

The study is based on the main principles of the systemic, comprehensive, and qualimetric methodological approaches, employing a proportionate and balanced assessment of the condition of, pollution levels in the environmental components, and conservation spending. The study uses the statistical and index methods of regional qualimetry and the methods of financial and economic analysis.

Developing methodological approaches to studying regional economies. For example, academic literature suggests using economic digitalisation tools to identify extreme structural components of economic potential growth in regions (Babkin et al., 2019).

It is possible to use the qualimetric methodological approach to address the major issue of using a novel scholarly and methodological framework in managing territorial processes in the Arctic (Kozin and Plotnikov, 2019).

A number of studies are dedicated to minimising and mitigating environmental risks in the Russian Arctic (Bykovskaia et al., 2021).

3 RESULTS AND DISCUSSION

Regional sustainability assessment is important because development of Arctic areas has been declared a priority strategic activity by the Russian Government, where the Ministry for Development of the Russian Far East and Arctic was established in 2012 (Concept, 1992). Out of all Russian Arctic land areas, we have chosen only four regions as objects of study. They all have their indicators in annual government statistics reports. It is Murmansk Oblast and three Autonomous Okrugs: Nenets, Yamalo-Nenets, and Chukotka (On Land Territories, 2016).

Sustainability of Russian Arctic regions will be improved, as a whole and in terms of economic processes, by implementation of the respective national and federal projects adopted in 2018 and 2020. The projects contain strategic development goals until 2024 and 2030 and their implementation criteria in each region for both internal and external economic factors. (On national development goals, 2020).

In particular, scholarly literature contains studies on how and to what extent (degree) the national projects implemented in demographics and the environment affect the upward and downward changes in major economic indicators (National Projects, 2020). Those national projects include Demographics and Ecology implemented via their respective five and ten federal projects.

The Ecology Project has had a generally positive effect on economic growth in Russian regions, which was 0,05% in 2020 and projected to reach 0,06% in 2021. The projections will, however, be adjusted because of the pandemic.

Academic studies show that the Demographics Project has had a negative influence on regional economies. However, experts predict that the negative effect on economic indicators will slightly decrease in 2021 compared with 2020 (-0,23%).

Thus, the share of the National Projects for Demographics and Ecology in the overall Russian economic growth was 24,34% in 2020, expected to reach 27,26% in 2021 or 30,96% given the projected changes.

It should be noted that the National Project for Demographics has influenced the annual economic growth significantly more that the National Project for Ecology: by a factor of 4,19 in 2020 and 3,92 in 2021 or 4,21 given the projected changes.

Not one but four national projects have been developed for improvement of economic indicators: Productivity and Employment, Digital Economy in Russia, Small and Medium Businesses and Support to Private Enterprise, and International Cooperation and Exports. The biggest increase in economic development, equal to 0,09% in 2020, resulted from the Project for a Digital Economy in Russia, and the Project for Productivity and Employment accounted for the lowest increase of 0,01%, which is different by a factor of 15,33. Lower growth degrees of the indicator in question were obtained from the Projects for International Cooperation and Exports (0,07%) and Medium Businesses and Support to Private Enterprise (0,05%), which is lower than the top value by 26,03% and 76,92%. In 2021, the National Project for a Digital Economy in Russia should account for a 0,1% economic growth, but, given the changing internal and external factors, the figure is expected to

be 0,07%, which is lower by a factor of 1,32 or by 32,43% than otherwise would in favourable conditions. The expected growth figures in 2021 for the other three projects – Productivity and Employment, Small and Medium Businesses and Support to Private Enterprise, and International Cooperation and Exports – will be lower than in 2020 by 20%, 30%, and 23,73%, respectively, given favourable conditions. In unfavourable conditions, the indicator will be lower by a factor of 3, 1,44, and 1,66, i.e. by 200%, 44, and 66%, respectively.

Consequently, the most significant negative effect on growth rates in regional economies, including those in the Arctic, is caused by the National Project for Demographics. The other national projects have a less significant yet positive effect. The second place is held by the Project for a Digital Economy in Russia, the third by International Cooperation and Exports. Two projects hold the fourth place: Small and Medium Businesses and Support to Private Enterprise and Ecology. The final, fifth place is held by the Project for Productivity and Employment.

We believe that the classification of the national projects by their influence reflects the spending on the projects. The share of spending for the National Project for Demographics amounted to 4,19% of the government spending on its social policy. The Project for Ecology accounted for 38,46% of the environment conservation spending.

The largest share, equal to 2,43% of the consolidated government spending on the national economy, belonged to the National Project for a Digital Economy in Russia, one of the four economic projects. The smallest share of 0,16% was spent on the Project for Productivity and Employment. The National Projects for International Cooperation and Exports and Medium Businesses and Support to Private Enterprise accounted for their respective shares of 1,94% and 1,36%. As a result, the cumulative share of spending on the four projects was 12,96% in 2019.

The comparative analysis of economic indicators in the Arctic regions has been done using the transparency principle. All of the required absolute and relative indicators, including those required for calculation of specific values, are taken from the annual government statistics reports (Regions of Russia, 2020). The main idea behind the comparative analysis is to identify the positions of each region in a reporting year by the selected quantitative indicators in order to compare and rank them relative to the other Arctic regions. Besides, the suggested comparative analysis involves comparing the quantitative regional indicators with, first, the average figures in the respective macroregion (federal district), secondly, with the quantitative indicator values in Russia as a whole. A similar comparison is also made for each indicator between the macroregions (federal districts), identifying the position of the macroregion relative to the other ones and the indicator value in Russia as a whole.

For further studies, the available indicators were grouped by several aspects.

The first aspect is whether the indicator applies to national projects, e.g. Digital Economy in Russia. By this aspect, the group includes the indicators required for monitoring the performance of national projects.

The second aspect is the type of assessment scale (direct or inverse), which means that the comparative ranking of the region depends on the meaning of the absolute or relative indicator. The aspect can also be called a vector of influence: positive or negative. Positive influence means the highest indicator value is ranked the highest, with an increase in the value improving the position of the region. Negative influence means that an increase in the indicator value describes a deteriorating situation in the region. The first (direct) scale means that the top rank is assigned to the region with the highest (maximum) indicator value, the other ranks to be assigned in descending order. The second (inverse) scale means that top rank is assigned to the lowest indicator value, the other ranks to be assigned in ascending order.

In the annual government statistics reports, regional economic conditions are monitored using just one performance indicator from the National Project for a Digital Economy in Russia. It is the share of households with broadband Internet access. The share of those households is 73,2% in Russia on average. In the Northwestern Macroregion, the share is larger and equal to 76,5% (1st rank), with the share being 75,4% (2nd rank) in the Urals and 71,2% (3rd rank) in the Far East. In the regions, the largest share of households with Internet access is in Yamalo-Nenets AO (96,3%), ranked first. The second rank belongs to Murmansk Oblast (82,4%), the third to Chukotka AO (59,1%), and the fourth to Nenets AO (56,0%). The difference (96,3–56,0) is 40,3%, with the maximum being different from the minimum by a factor of 1,72.

There are no monitored indicators in the other economy-related national projects: Productivity and Employment, Digital Economy in Russia, Small and Medium Businesses and Support to Private Enterprise, and International Cooperation and Exports. We will therefore use the main socioeconomic indicators describing the conditions in Russian regions as well as other statistical data

(Regions of Russia, 2020).

To assess the performance of the National Project for Productivity and Employment, we will use two indicators. The first indicator is a specific one, calculated as the gross regional product (GRP) per employed person. The second indicator is a statistical one: unemployment. The calculations show that the gross regional product per employed person was 1047,024 thousand RUB in 2018 in Russia on average. In the Ural Macroregion, the indicator was 1,61 times higher, equal to 1680,772 thousand RUB. In the Northwest, the indicator value was 1157,47 thousand RUB, slightly exceeding the Russian average by a factor of 1,1 or by 10,5%. The Far Eastern Macroregion had a lower indicator value of 962,219 thousand RUB, which is lower than the Russian average by 8,1% and by a factor of 1,75 (74,7%) and 1,2 (20,3%) that the Ural and Northwestern Macroregions, respectively.

A comparison of the indicator in the Arctic regions shows that the highest value of 8694,5 thousand RUB per capita belongs to Nenets AO (1st rank), the lowest, 1225,048 thousand RUB per capita, to Murmansk Oblast (4th rank). The second rank is held by Yamalo-Nenets AO, with its GRP per employed person being 5892,848 thousand RUB. The third rank is held by Chukotka AO, where the indicator value is 2063,93 thousand RUB per capita. The respective values are lower than the maximum value by a factor of 1,48 (47,54%) and 4,21 (321,26%). The difference is 7469,45 thousand RUB per capita, with the ratio of the maximum value to the minimum value being 7,1 (609,76%).

The second indicator, unemployment, was 4,8% in Russia. The areas are ranked on an inverse scale, and for the macroregions, it was as follows: the first rank was held by the Northwest (3,9%), the second by the Urals (4,7%), and the third by the Far East (6,3%). The unemployment level was therefore lower that the national average in two macroregions by a factor 1,23 and 1,02. In the third macroregion (Far East), it is 1,31 times higher.

A comparison of the unemployment level in the Arctic regions has shown that the lowest indicator value of 2,1% was observed in Yamalo-Nenets AO (1st rank), the highest, 8,1%, in Nenets AO (4th rank), with the variation of 6% or 3,86 times. That lowest unemployment level is lower than the national average and the Ural Macroregion by a factor of 2,29 and 2,24, respectively. It is noteworthy that the Nenets region has both the highest GRP per employed person and the highest level of unemployment. Chukotka AO is ranked second (3,1%) and Murmansk Oblast third (6,8%). The lowest unemployment level is therefore exceeded by the two regions by a factor of 1,48 and 3,24, respectively.

The average number of (non-outsourced) small business employees per 1,000 people annually employed in the regional economy can be considered a performance criterion for National Project for Small and Medium Businesses and Support to Private Enterprise. There are no statistical data for medium businesses.

On average, there are 149,8 people employed by small businesses per 1000 employed people in Russia. In the macroregions, the following numbers of those employees were observed: 177,36 people in the Northwest, 140,06 people in the Urals, and 134,42 people in the Far East. Therefore, the value exceeded the national average only in the Northwestern Macroregion, by a factor of 1,18 (18,4%). In the Ural and Far Eastern Macroregions, the number was lower by a factor of 1,07 (6,95%) and 1,11 (11,44%).

In the Arctic, the largest number of people employed by small businesses was observed in Murmansk Oblast: 110,74 people per 1,000 employed people (1st rank). However, it is 1,35 times lower than the Russian average (by 35,27%) and 1,6 times lower than that of the Northwestern Macroregion (by 60,16%). The lowest value was in Nenets AO, where the number was 50,31 people (4th rank), which is lower than in leading Murmansk Oblast by 60,43 people or by a factor of 2,2 (by 120,1%).

Chukotka AO had a number almost identical to that of Nenets AO: 54,05 people (3rd rank), 2,05 times (by 104,88 %) behind the leading region and by 15,22% behind Nenets AO. The second rank belongs to Yamalo-Nenets AO with its number of 62,49 people, lagging behind Murmansk Oblast by a factor of 1,77 (77%).

To assess the performance of the National Project for International Cooperation and Exports, an indicator was calculated for exports to neighbouring and other countries per employed person in the regional economy. The value for Russia is 6,280 USD. In the Northwestern, Ural, and Far Eastern Macroregions, it is 7184,4 USD, 6446,3 USD, and 7244,88 USD, respectively. Therefore, the indicator in the Northwestern Macroregion exceeds the export amount per employed person in Russia by a factor of 1,144 (by 14,4%). The positions of the Far Eastern and Northwestern Macroregions are almost the same, the difference being a mere 0,9%, with the Urals exceeding the national average by a factor of 1,026 or 2,6%.

In the Arctic region, Murmansk Oblast was ranked first, with its export amount of 10026,4 USD per employed person in its economy. The second

rank was held by Yamalo-Nenets AO (7181,95 USD), the third by Chukotka AO (4000 USD), with their respective values below leading Murmansk Oblast by a factor of 1,4 (39,6%) and 2,5 (150%). There are no statistical data for Nenets AO. The variation was 6026,4 USD or 2,5 times.

Thus, as shown in Table 1, the macroregions are ranked by five economic indicators, and the Northwestern Macroregion has received an additive rank of 6 points, the Ural Macroregion 9 points, and the Far Eastern Macroregion 13 points.

The cumulative (additive) rank of the Arctic regions by the five economic indicators is 9 points in Murmansk Oblast and Nenets AO. The difference is that Nenets AO was ranked by the four indicators available in the statistical reports. Yamalo-Nenets AO is ranked higher (7 points) and Chukotka AO lower (11 points).

The second approach is based on the following factors determining regional financial sustainability:

solvency of all economic agents;
good regional balance of payments;
low internal and external debt;
deficit-free regional budget.

Table 1: Positions of Russian Arctic regions in 2018 by economic situation.

Region	Share of households with broadband Internet access		Gross regional product per employed person		Unemployment level		Average number of small business employees per 1000 employed people (annual average)		Exports to neighbouring and other countries per employed person (annual average)		ADDITIVE RANK
	%	rank	Mln RUB/ pers.	rank	%	rank	People/ 1000 people	rank	Thousand USD	rank	
Russia	73,2	-	1,05	-	4,8	-	149,8	-	6,28	-	-
Northwestern Macroregion	76,5	I	1,16	II	3,9	I	177,4	I	7,18	I	VI
Murmansk Oblast	82,4	2	1,23	4	6,8	3	110,7	1	10,02	1	11
Nenets Autonomous Okrug	56,0	4	8,69	1	8,1	4	50,3	4	-		13
Ural Macroregion	75,4	II	1,68	I	4,7	II	140,1	II	6,45	II	IX
Yamalo-Nenets Autonomous Okrug	96,3	1	5,89	2	2,1	1	62,5	2	7,18	2	8
Far Eastern Macroregion	71,2	III	0,96	III	6,3	III	134,4	III	7,24	I	XIII
Chukotka Autonomous Okrug	59,1	3	2,06	3	3,1	2	54,1	3	4,00	3	14

Table 2 shows a history of macroregional and regional budget performance in the Arctic land areas in order to find out whether there is a budget deficit and how financially sustainable the regions are.

Table 2: Historical budget performance in Arctic regions, %.

Region	2010	2013	2014	2015	2017	2018	2019
1	2	3	4	5	6	7	8
Russia	98,49	92,71	95,22	98,19	99,52	104,30	100,03
Northwestern Macroregion	97,42	95,41	95,74	98,45	94,44	102,88	100,82
Murmansk Oblast	104,92	89,08	85,48	97,84	99,18	99,59	103,44
Nenets Autonomous Okrug	102,82	95,88	96,73	89,42	103,70	108,54	100,99
Ural Macroregion	118,39	103,65	118,09	115,64	98,36	133,34	123,65
Yamalo-Nenets Autonomous Okrug	111,72	87,49	101,28	99,37	109,01	124,18	114,04
Far Eastern Macroregion (without Koryak AO in 2010–2014)	97,50	93,91	97,17	107,90	108,21	97,59	95,50
Chukotka Autonomous Okrug	79,69	65,67	95,73	108,15	95,60	101,21	100,61

As seen from the data in Table 2, regional budget performance is defined as the proportion of the budget income to the spending. In Russia, a federal budget deficit existed until 2018, varying from the maximum of 7,28% to the minimum of 0,48% within the range of 6,8%.

In the Northwestern Macroregion, a budget deficit also existed for the same period, albeit to a smaller extent, from 5,56% to 1,55% within the range of 4,01%.

In Ural Macroregion, a budget deficit was observed only once in 2017. It was 1,64%, and the variation is therefore 0%.

The budget deficit in the Far Eastern Macroregion was 6,09% at its highest and 2,41% at its lowest, with no deficit in 2015 and 2017. The variation was 3,68%. Thus, the macroregions were more financially sustainable than Russia as a whole, given the variation range.

However, if financial sustainability means a budget deficit or surplus lower than 1%, i.e. applying the principle of balance, Russia had that balance in 2017 and 2019, the Northwestern Macroregion in 2019, with no such balance observed in the Ural and Far Eastern Macroregions.

In Murmansk Oblast and Nenets Autonomous Okrug, both parts of the Northwestern Macroregion, the highest budget deficit was 14,52% and 10,58% and the lowest 0,41% and 3,27% within the respective ranges of 14,11% and 7,31%. Murmansk Oblast had a balanced budget in 2017 and 2018 and Nenets Autonomous Okrug in 2019.

Similar to the Ural Macroregion as a whole, Yamalo-Nenets Autonomous Okrug generally had a budget surplus. A budget deficit was observed in that Autonomous Okrug only in 2013 and 2015, its maximum value being 12,51% and the minimum value 0,63%. The 2015 budget was therefore balanced. The figure varied within the range of 11,68%.

The budget deficit in Chukotka Autonomous Okrug was 34,33% at its highest and 4,6% at its lowest within the range of 29,73%. The budget was balanced only in 2019.

Consequently, given the variation ranges, the Urals was the most financially sustainable macroregion and the Northwest the least financially sustainable one. Out of the four Arctic regions, the first place by financial sustainability is held by Nenets Autonomous Okrug, the second by Yamalo-Nenets AO, the third by Murmansk Oblast, Chukotka Autonomous Okrug holding the worst and the least financially sustainable position.

The third approach involves studying changes in the gross domestic product as the main indicator of economic sustainability. In the annual government statistics reports on Russian regions, it is the gross regional product (GRP) (Regions of Russia, 2020). There are, however, two essential conditions.

First, the GRP has to be adjusted for inflation. However, the indicator shown in Russian statistical reports is called the fixed-price index of the actual GRP volume. We will therefore analyse the changes in this indicator value. Instead of an inflation level indicator, which is also unavailable, we will use two similar indicators: consumer price index and industrial producer price index.

It is believed that the actual price-adjusted (inflation-adjusted) GRP volume in a sustainable economy has to be sufficiently stable, without growth or reduction from year to year. Put differently, this state is called stagnation, as we have already described above.

Secondly, additional investment amounts and sources have to be excluded. To assess whether this condition is fulfilled, we will use the statistical indicator call the comparable-price index of capital investment volumes.

In order to analyse the changes in the indicators and identify the degree of sustainability in the macroregions and the regions included therein, we will use a stage-by-stage methodology.

At the first stage, we will find the maximum and minimum deviation of the indicator in question from 100%, expressed as a positive value (growth) or a negative value (reduction).

At the second stage, we will calculate the variation range based on the identified growth or reduction values. To do that, we will sum up the extreme positive and negative values of growth and reduction.

At the third stage, we will find the variation interval, using a formula where a double value of the minimum deviation from 100%, irrespective of its positive or negative sign, is subtracted from the sum of deviation expressed as the variation range.

At the fourth stage, we will rank the macroregions and regions separately, assigning the first rank to the smallest variation interval and the third rank for the macroregions and the fourth rank for the regions to the largest interval.

At the fifth stage, we will sum up the ranks of the areas to get an additive rank.

At the sixth stage, we will identify the degree of sustainability for each area relative to the others in accordance with their additive ranks.

An analysis of the changes in the first indicator – fixed-price index of the actual GRP volume – from 2010 to 2018 has shown that, in Russia as a whole, the maximum growth as a deviation from 100% was 4.6% and the minimum was minus 0.6%. The corresponding variation range was 5,2% and the variation interval was 4,0% (4,6%+0,6%−0,6×2).

In the macroregions, the largest variation interval (7,4%) was observed in the Urals, a slightly smaller one (6,2%) in the Far East, and the smallest (4,2%) in the Northwest. In the Arctic regions, the negative leadership by the variation interval belonged to Chukotka Autonomous Okrug (31,4%). In Nenets and Yamalo-Nenets Autonomous Okrugs, the values were 16,7% and 12,9%, respectively. The smallest interval of 1,1% was in Murmansk Oblast.

By the second indicator – consumer price index – the variation intervals from 2010 to 2019 varied from the highest value of 10,6% in the Ural Macroregion to the lowest value of 9,9% in the Far East. In the Northwestern Macroregion, the value was 10,1%. In Russia, it was 10,4%. In the Arctic regions, the difference in the variation intervals was more pronounced because it was 13,7% in Nenets AO and 9,0%. In Chukotka AO and Murmansk Oblast, the variation interval was 9,7% and 10,3%, respectively.

The third indicator is the industrial producer price index. An analysis of how it changed from 2013 to 2019 has shown that the Russian average variation interval was 9,4%, with the deviation values in the areas varying more significantly than those of the consumer price index did. For instance, in the Ural Macroregion, the value was the highest, equal to 15,7%. In the Far Eastern and Northwestern Macroregions, the respective variation intervals were 15,7% and 13,7%, much lower than in the Urals. In the Arctic regions, the variation intervals were even larger, from 37,2% in Chukotka AO to 23,9% in Murmansk Oblast. In Yamalo-Nenets and Nenets Autonomous Okrugs, those values were 30,0% and 29,4%, respectively.

Finally, the fourth indicator is the comparable-

price index of capital investment volumes. An analysis of positive and negative deviations from 2010 to 2019 has shown their most significant differences. In Russia as a whole, the difference between the maximum investment growth in 2010 (6,3%) and the minimum growth in 2015 (−10,1%) accounted for a respective variation range of 16,4%. The variation interval adjusted for the minimum value was 16,0%. In the macroregions, the variation intervals were as follows: 25,7% in the Northwest, 25,2% in the Far East, and 16,6% in the Urals. In the Arctic regions, the negative leadership belonged to Chukotka AO, where the difference between the positive and negative extremes (variation range) was 122,3%, the variation interval being 122,1%. In Murmansk Oblast, the variation range was more than two times smaller, equal to 53,8%. The variation interval was 51,0%. In Nenets and Yamalo-Nenets Autonomous Okrugs, the variation range was below 50%, equal to 45,2% and 41,6%, respectively, the variation intervals being 40,8% and 40,2%.

In accordance with the ranking rule, we will assign ranks to the macroregions and regions, the first rank being for the smallest variation interval. The additive rank is a sum of the ranks for the four indicators in question. As a result, the Northwestern Macroregion has a rank of 6 points (1+2+1+2) relative to the other two macroregions. The additive ranks of the Far Eastern and Ural Macroregions had more points, equal to 7 (2+1+2+2) and 10 (3+3+3+1), respectively.

4 CONCLUSIONS

We can therefore conclude that the degree of economic sustainability in the Northwestern Region is higher than in the Urals. The Far Eastern Region is insignificantly behind the Northwest as far as this indicator is concerned. The highest degree of economic sustainability in the four Arctic regions has been identified in Murmansk Oblast (1+3+1+2) and Yamalo-Nenets AO (2+1+3+1). These two areas have received identical additive ranks of 7 points. A lower degree of sustainability is found in Nenets AO with its additive rank of 10 (3+4+2+1). The lowest degree of economic sustainability has been identified in Chukotka Autonomous Okrug. Its additive rank is 13 (4+2+4+3).

The study can be continued further to identify the positions of the Russian macroregions and Arctic regions in all national projects and their respective incorporated federal projects.

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