The impact of the Covid-19 crisis on the economies of the Russian Arctic regions

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Abstract. The article examines the influence of the crisis caused by the Covid-19 on the economies of the Russian Arctic regions. In it, the authors demonstrate that even within one country, different economic conditions of the territories give rise to different forces and different characteristics of the manifestation of crisis phenomena, identifying the specifics of their manifestations in the regions of the Russian Arctic in comparison with the overall Russian situation, based on the analysis of statistical indicators. The approach of a comparative assessment of the impact of the crisis on the regions of the Russian Arctic used in the article gives visual and easily interpreted results. This analysis of the dynamics of indicators that characterize the situation in the labor market, in industrial production and retail trade in Russia as a whole and in the regions of the Russian Arctic indicated that the economy of the regions of the Russian Arctic demonstrates a specific reaction to the crisis caused by the Covid-19.

1. Introduction
The modern world economy is under the decisive influence of the crisis caused by the Covid-19. The non-economic nature of the crisis, the catastrophic consequences for the economies of every country of the world, the qualitative changes in the current trends in world trade, investment processes, etc., determine the relevance of economic research aimed at diagnosing the development of these crisis phenomena.

Consideration of the economic impact of the Covid-19 crisis development on countries and regions of the world shows the different magnitudes of the impact this crisis had on the economy and social processes in general. The depth of the impact of the crisis and the degree of economic losses of countries and regions of the world depend not only on the measures respective states take to counter the spread of the virus, not only on the success of these measures, not only on the state support for business and the population, but also on the internal features of the economy.

However, it is the current specificity of the economy what is generally poorly considered in studies on the economic impact of the Covid-19 crisis. Yet, this factor is significant and recognizing it will enhance management efficiency through a differentiated approach that takes into account genetically established trends, the ratios of the main factors of production that are specific for each territory.

In our paper, we will demonstrate that even within one country, different economic conditions of the territories give rise to different forces and different characteristics of the manifestation of crisis phenomena.
The object of the study is a specific territory, the Russian Arctic. This choice is determined by the contradictions in the development of the Russian Arctic. On the one hand, the Russian Arctic is important: 1) from the point of view of Russia's geopolitical interests, 2) from the point of view of Russia's economic interests, as extraction and processing of natural resources in the Arctic makes a significant contribution to the economy of the country; 3) from the point of view of strategic initiatives: in 2019–2020 a series of new regulations confirmed the orientation of the Russian state administration and corporate sector to the development of major infrastructure projects and the development of new deposits in the Russian Arctic. On the other hand, the Russian Arctic has traditionally been characterized by significant social and economic problems: population outflows, increasing poverty, increased costs of the economy functioning, including the problems of high environmental risks, lack of infrastructure, etc.

The goal of the study is to identify the specifics of the manifestations of crisis phenomena in the regions of the Russian Arctic in comparison with the overall Russian situation, based on the analysis of statistical indicators.

2. Literary review

The topic of the Economy of the Arctic, revealing the specifics of the impact of economic crises on it, and vice versa, phases of growth of the world economy, is the focus of world research. From the point of view of our study, variety of works can be conditionally divided into two groups.

The first group is research on the impact of the phases of crises and the growth of the world economy on specific territories, including the Arctic.

The issues of assessing the relationship between the world economy and the economies of individual countries and regions are extremely widely covered by researchers from all over the world. Among these studies, in recent years, work on various aspects of public policy aimed at shaping public opinion of the world's population and these specific territories on how to achieve the goals of economic development or how to respond to the crisis, conditions and ways to overcome it has become increasingly highlighted. We believe that a growing number of studies related to the formation of public opinion, the assessment of factors and conditions of management of this process, especially during a crisis, is the influence of postmodernism. Elements of this approach are also found in studies on the socioeconomic development of the Arctic [1-4]. Meanwhile, more attention is generally paid to traditional quantitative and qualitative assessments of the impact of world’s process on the socioeconomic development of the Arctic [5-7]. Moreover, the most large-scale and detailed studies among the studies of the socioeconomic space of the Arctic are characteristic of the Russian Arctic due to its vast territory, significant volumes of explored minerals and their active exploitation [4, 8–10].

An interesting feature of the conclusions of these studies is that the Russian Arctic is characterized by a high differentiation in quality of life, level of infrastructure development, and economy [11–13]. However, the extractive economy specialization of the regions of the Russian Arctic determines similar trends in response to crises and the recovery of the world economy [14, 15].

As for estimates of the impact of the Covid-19 crisis on the economies of countries and regions of the world, there are quite a lot of such estimates now. Several monographs have already been published, specialized collections and magazines on the economic and social consequences of the Covid-19 crisis have been published and continue to be prepared [16, 17]. However, reviewing the results of numerous studies allows to determine that their conclusions are contradictory.

The reasons for this situation are obvious. Firstly, it is the unique origin of the crisis, which is of non-economic nature. Accordingly, the trends of the crisis are determined not so much by the interaction of macroeconomic factors, familiar to analysts, but by the processes of the epidemic and the nature of restrictive measures in the social processes adopted by the governments of certain countries. Secondly, the qualitative changes in the economy, the breaking of the current trends of the key macroeconomic indicators, the relatively recent onset of the crisis, all this limits the study of the impact of the crisis to a short time series. These two factors make it difficult to conduct a full-fledged quantitative analysis, and the uniqueness of the origin and manifestation of the crisis limits the possibility of reliable qualitative
analysis. However, data are being accumulated every day, allowing us to diagnose the current situation more accurately and predict the future development of the crisis and its consequences.

As for estimates of the impact of the crisis on the socioeconomic space of the Arctic, including the Russian Arctic, the results of such studies have not yet been presented in the scientific information space.

The second part of the research is work on assessing the real socioeconomic processes in the Arctic and the priorities of regional policy in the Russian Arctic.

This part of the research is very diverse, both in terms of problem-solving and the findings of the studies. However, despite the diversity, we can distinguish a number of theses that determine the positions of scientists in assessing the situation in the Russian Arctic.

For example, the researchers note that Russia's current policy in the Arctic and its public administration are aimed at ensuring the sustainable socioeconomic development of this territory [9, 11]. The goal of improving the level of socioeconomic development is enshrined in the complex of legal documents relating to socioeconomic development and governance in the Russian Arctic. Foreign and Russian scientists note that the declared priorities align with priorities of other countries with Arctic territories [4, 5, 9, 12]. The researchers also note the existence of corporate social responsibility of the business in the territory of its presence in the Russian Arctic, which corresponds to the world experience [18, 19].

At the same time, the researchers note the main problem of the Russian Arctic, the poor quality of life of the population, which is reflected in the lack of infrastructure, the low level of development of the health care system, trade, services, and the growing problem of poverty [8, 10, 13, 15, 19]. This leads to the fact that the population actively migrates from the territory of the Russian Arctic to other regions of Russia, more favorable for living in [5, 15].

In many ways, the problems of the quality of life of the population of the Russian Arctic are explained by the primitive nature of the economy, mainly aimed at the extraction and processing of natural resources. It is obvious that the increased costs of the functioning of the economy, climatic conditions, remoteness, reduction of the population of the Arctic objectively limit the possibility of diversification of the economy.

The complex of ideas about modern processes in the Russian Arctic allows us to formulate the study hypothesis, the characteristic features of the economic space of the Russian Arctic, which consist of weak diversification of the economy, the focus on the extraction and processing of natural resources, the high corporate social responsibility of the business in the regions of presence, provide the specifics of the response to the development of the crisis caused by Covid-19, compared to the overall Russian situation. However, we cannot assume the nature of the impact of the crisis on the economy of the Arctic (whether it is a stronger impact, or a less strong impact) due to the unique nature of the crisis and its multifaceted impact on all processes of social life in the Arctic. The results of our research answer this question

3. Materials and methods

Our study will be based on an analysis of the dynamics of indicators presented by the Federal State Statistics Service of the Russian Federation.

Indicators analyzed:
1) industrial production index;
2) retail turnover;
3) unemployment rate.

Data processing: To identify the impact of the crisis, ratios (%) of indicators for January 2019 to June 2020 are calculated compared to similar monthly periods of previous years. For example, any figure for June 2020 was calculated relative to June 2019, for May 2020 was calculated relative to May 2019, etc.

Regions of the Russian Arctic are regions of Russia, the territories of which are fully located in the Arctic zone of the Russian Federation, which is normatively set in the Decree of the President of the Russian Federation No. 296 "On the land territories of the Arctic zone of the Russian Federation,"
approved on May 2, 2014. These regions include the Murmansk region, the Nenets Autonomous Okrug, the Yamalo-Nenets Autonomous Okrug, and the Chukotka Autonomous Okrug.

4. Results and discussion
It is believed that the situation in the labor market is most clearly characterized by the development of crisis phenomena caused by restrictions (pandemic lockdown) imposed to prevent the spread of infection. These restrictions (pandemic lockdown) in Russia were introduced at the end of March 2020.

The sharp increase in the number of officially registered unemployed in Russia as a whole is noteworthy: in April by 160%, in May by 280%, in June by 370% compared to the same period of the previous year (Table 1). We need to note that this growth is determined not only by the curtailing of activity in a number of sectors of the Russian economy, but also by a significant increase in unemployment benefits and significant one-off payments to the unemployed. This encouraged the undocumented unemployed to register with the Employment Service.

The situation in the Arctic regions is different. There is a much lower rate of growth in the number of officially registered unemployed (relative to the same period of the previous year): in the Murmansk region, in April by 116%, in May by 160%; in the Yamalo-Nenets Autonomous Okrug by 167% and 139% respectively. In the Nenets Autonomous Okrug, growth was observed in May, 117%, and June, 133%. In the Chukotka Autonomous Okrug, there was a slight increase only in June, 107%.

We believe that this is due to the fact that the economy of the Arctic regions is based on large extractive and processing industries. Some enterprises reduced production, but none of them suspended their operation during the epidemic.

Table 1. Number of officially registered unemployed (January 2019 to June 2020) compared to the corresponding period of the previous year for Russia and the regions of the Russian Arctic, %.

|        | Russia | Murmansk region | Yamalo-Nenets Autonomous Okrug | Nenets Autonomous Okrug | Chukotka Autonomous Okrug |
|--------|--------|-----------------|-------------------------------|-------------------------|---------------------------|
| Jan-2019 | 94     | 100             | 103                           | 100                     | 98                        |
| Feb-2019 | 100    | 103             | 112                           | 88                      | 97                        |
| Mar-2019 | 104    | 106             | 104                           | 88                      | 99                        |
| Apr-2019 | 108    | 109             | 103                           | 100                     | 99                        |
| May-2019 | 106    | 108             | 85                            | 86                      | 100                       |
| Jun-2019 | 106    | 105             | 83                            | 100                     | 97                        |
| Jan-2020 | 95     | 94              | 101                           | 57                      | 94                        |
| Feb-2020 | 91     | 92              | 109                           | 71                      | 94                        |
| Mar-2020 | 89     | 89              | 108                           | 71                      | 89                        |
| Apr-2020 | 160    | 116             | 167                           | 75                      | 89                        |
| May-2020 | 280    | 160             | 139                           | 117                     | 94                        |
| Jun-2020 | 370    | n/a             | n/a                           | 133                     | 107                       |

Source: authors' calculations based on the data of the Federal State Statistics Service of the Russian Federation.

This conclusion is consistent with the dynamics of industrial production in Russia and its Arctic regions. The consideration of industrial production indices shows a strong drop in production since April 2020 in Russia as a whole (Table 2). The Murmansk region, Yamalo-Nenets Autonomous Okrug and Nenets Autonomous Okrug have also seen a decline in production during the pandemic period starting April 2020, but less than in Russia as a whole. The Chukotka Autonomous Okrug shows a drop in production during the pandemic only in June 2020, and less than the average for Russia for June 2020. In April and May 2020, the Chukotka Autonomous Okrug saw an increase in industrial production due to an increase in gold and silver mining.
Table 2. Industrial production indices (January 2019 to June 2020) compared to the corresponding period of the previous year for Russia and the regions of the Russian Arctic, %.

|        | Russia | Murmansk region | Yamalo-Nenets Autonomous Okrug | Nenets Autonomous Okrug | Chukotka Autonomous Okrug |
|--------|--------|-----------------|--------------------------------|-------------------------|---------------------------|
| Jan-2019 | 102    | 102             | 117                            | 99                      | 80                        |
| Feb-2019 | 104    | 97              | 121                            | 103                     | 81                        |
| Mar-2019 | 102    | 95              | 123                            | 101                     | 138                       |
| Apr-2019 | 104    | 103             | 138                            | 98                      | 108                       |
| May-2019 | 100    | 111             | 129                            | 97                      | 98                        |
| Jun-2019 | 102    | 104             | 125                            | 99                      | 111                       |
| Jan-2020 | 101    | 99              | 101                            | 98                      | 116                       |
| Feb-2020 | 103    | 103             | 103                            | 101                     | 121                       |
| Mar-2020 | 100    | 99              | 97                             | 98                      | 71                        |
| Apr-2020 | 93     | 91              | 98                             | 101                     | 111                       |
| May-2020 | 90     | 95              | 93                             | 82                      | 113                       |
| Jun-2020 | 91     | 98              | 91                             | 79                      | 93                        |

Source: authors' calculations based on the data of the Federal State Statistics Service of the Russian Federation.

Retail trade in Russia as a whole during the pandemic naturally demonstrates a sharp drop in retail turnover, observed since April 2020 (Table 3). The smaller drop in retail turnover is typical of the Murmansk region, Yamalo-Nenets Autonomous Okrug and Nenets Autonomous Okrug. It is worth mentioning that in the Chukotka Autonomous Okrug there is no drop in retail turnover during the pandemic.

Table 3. Retail turnover (January 2019 to June 2020) compared to the corresponding period of the previous year for Russia and the regions of the Russian Arctic, %.

|        | Russia | Murmansk region | Yamalo-Nenets Autonomous Okrug | Nenets Autonomous Okrug | Chukotka Autonomous Okrug |
|--------|--------|-----------------|--------------------------------|-------------------------|---------------------------|
| Jan-2019 | 102    | 99              | 101                            | 103                     | 104                       |
| Feb-2019 | 102    | 100             | 99                             | 102                     | 104                       |
| Mar-2019 | 102    | 100             | 100                            | 101                     | 102                       |
| Apr-2019 | 102    | 99              | 104                            | 98                      | 103                       |
| May-2019 | 102    | 101             | 105                            | 95                      | 101                       |
| Jun-2019 | 102    | 103             | 104                            | 97                      | 104                       |
| Jan-2020 | 103    | 99              | 102                            | 102                     | 100                       |
| Feb-2020 | 105    | 99              | 102                            | 105                     | 102                       |
| Mar-2020 | 106    | 101             | 100                            | 102                     | 101                       |
| Apr-2020 | 77     | 89              | 83                             | 90                      | 100                       |
| May-2020 | 81     | 92              | 88                             | 92                      | 100                       |
| Jun-2020 | 92     | 105             | 98                             | 98                      | 100                       |

Source: authors' calculations based on the data of the Federal State Statistics Service of the Russian Federation.

5. Conclusion
Consideration of the dynamics of indicators that characterize the situation in the labor market, in industrial production and trade in Russia as a whole and in the regions of the Russian Arctic, indicates
that the economy of the regions of the Russian Arctic demonstrates a specific reaction to the crisis caused by the Covid-19. This confirms the study hypothesis that the characteristics of the economic space of the Russian Arctic provide a specific response to the development of the crisis caused by the Covid-19. It has been established that during the development of the crisis, the economy of the Russian Arctic demonstrates greater stability in comparison with the overall Russian situation.

Summing up, we note that the proposed approach of a comparative assessment of the impact of the crisis on the regions of the Russian Arctic gives visual and easily interpreted results. However, the limitation of our study is a short dynamic series of observations. In fact, we just reflected the phase of shock for the economy caused by the suddenness, depth, and scale of the crisis of non-economic nature. Thus, to clarify the impact of the crisis on the regions of the Russian Arctic, we should consider a longer dynamic series, which is possible only with the accumulation of retrospectives of the development of the event.

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