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Analysis of the economic relations of the circumpolar countries

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Abstract. The article analyzes the relationship of the circumpolar countries in the framework of the sustainable development concept. The hypothesis of the interdependence of the development of circumpolar countries is considered. Interdependence in the development of the Arctic territories of the circumpolar countries has two conditions. The first condition means that it is obligatory to coordinate the policies of the circumpolar countries, aimed at developing the links between the circumpolar countries. The second condition means that income growth in the Arctic territory in one country stimulates income growth in the Arctic territory of the other countries. Foreign trade turnover is adopted as an indicator for assessing the volume and dynamics of trade cooperation among the countries. External debt and the volume of foreign direct investment in the circumpolar countries are adopted as indicators for the analysis of investment interaction and credit-and-financial interaction of the countries. The analysis of interaction in the field of ecology and environmental management was based on the study of the treaties regulating the issues of international interaction and legal regulation of ensuring the environmental safety of the Arctic region. The analysis of the cooperation among the countries does not demonstrate interdependence in the development of the Arctic territories of the circumpolar countries. The cooperation among the circumpolar countries exists, but the hypothesis of interdependence in the development is rejected.

1. Introduction

Eight countries of the world, including Norway, Sweden, Finland, Russia, the USA, Canada, Denmark and Iceland, have a territory that includes the Circumpolar Region at 55 ° North latitude around the Arctic Ocean. The unfolding struggle for the control over the Arctic is due to a number of economic and political factors. According to some estimates, a quarter of the world's undiscovered hydrocarbon reserves are located in the region. In case of further release of ice from the Arctic waters, considerable economic benefits are also promised by the use of the Northern Sea Route for year-round transit of goods by the shortest route from Europe to the countries of East Asia. For transportation carried out in 20 of the 24 largest sea ports in the world, transportation via the Northern Sea Route will provide significant time and fuel savings. The analysis of the links between the circumpolar countries is of great practical importance [1].

When analyzing the sustainable development of the circumpolar countries, the study of the interdependence between these countries plays an important role. Interdependence of countries is a growing economic interaction of states as a result of the increasing volume and diversity of goods



and services supplies, the international flow of capital and labor, due to the achievements of scientific and technological progress, in particular, the rapid transfer of technology. Trade, investment and credit-and-financial relations between the circumpolar countries play an important role in the development of each of the eight states. Without trade between countries, development is impossible in the economic-and-production, innovation-and-technological, and social spheres of human activity. Strong trade relations between states allow them to satisfy the needs of partner countries for goods the production of which is not economically profitable or not developed in these countries. They provide for the exchange of technologies, without which the development of the economy and society as a whole is impossible. Investment relations between these countries contribute to the development of both the entire sectors of the economy and individual projects of global importance. Cooperation in the credit-and-financial sphere helps to support the economies of circumpolar countries in a volatile global environment. Interaction in the field of ecology and environmental management allows, together with other states, to develop long-term environmental strategies aimed at maintaining an acceptable state of the environment.

The purpose of the article is to analyze the development of relations between circumpolar countries, to analyze the forms of relationship, the possibility of transition to the existence of conditions for interdependence in the development of the Arctic territories. In our opinion, the sustainable development of the Arctic, as a territory which is important for the whole world, is possible only if the conditions of interdependence in the development of the Arctic territories of the circumpolar countries are met. Interdependence in the development of the Arctic territories of the circumpolar countries has two conditions. The first condition means that it is obligatory to coordinate the policies of the circumpolar countries, aimed at developing the links between the circumpolar countries. The second condition means that income growth in the Arctic territory in one country stimulates income growth in the Arctic territory of the other countries.

2. Methodology and data

The following approaches and hypotheses were used: (1) an analytical review of the literature, focused on geographical, technological, and institutional characteristics and the ability to implement the concept of sustainable development of the Arctic territory; (2) logical-graphic modeling of the prospects for sustainable development of the Arctic territory; (3) the method of prognostic analysis of the advance-delay development analogies applied to advanced and lagging economies related to their regional development in the same or similar environments.

Russia's foreign trade turnover was analyzed on the basis of the data from the Rosstat site [2].

Denmark's foreign trade turnover with circumpolar countries was analyzed on the basis of the data from the Statistics Denmark website [3].

The dynamics of Norway's foreign trade turnover with circumpolar countries was analyzed on the basis of the data from the Statistics Norway website [4].

The dynamics of the United States' foreign trade turnover with circumpolar countries was analyzed on the basis of the data from the website of the US Bureau of Statistics [5].

Statistics on the volume of external debt of the circumpolar countries is taken from the CIA website [6].

3. Analysis of trade cooperation between the countries

Today it is difficult to underestimate the role that trade plays in the countries' economies. First of all, it is the branch of trade that provides the population with goods and services necessary to satisfy their needs. No less important is the fact that the trade industry contributes to filling the countries' budgets. As a source of cash, trade contributes to the financial stability of countries and creates conditions for the development of health care, education, culture [7], [8], [9].

Foreign trade turnover can be considered a key indicator for assessing the volume and dynamics of trade cooperation between countries. Foreign trade turnover is an economic indicator, measured in

monetary terms, characterizing the volume of foreign trade of a country or a group of countries over a certain time period, calculated as the sum of export and import values over a certain period.

If we consider the circumpolar countries in terms of the volumes of foreign trade turnover between them, then the United States, Finland and Sweden will be the key partners for Russia. Metals and metal products prevail in the structure of the foreign trade turnover between Russia and the USA. In the structure of the foreign trade turnover between Russia and Finland, the main positions are mineral products and chemical products. In the structure of the foreign trade turnover between Russia and Sweden, the main role is played by mineral products, machines, equipment and apparatus.

It can be concluded that the dynamics of Russia's foreign trade turnover with the main trading partners - the United States, Finland and Sweden - has been positive in recent years, with jumps in the indicator values periodically observed throughout the presented time period, which may indicate a strong influence from external factors on the dynamics of the indicator. External factors can be understood as economic processes within countries, as well as trade restrictions, for example, sanctions imposed in 2014 against Russia.

For Denmark, the United States, Norway and Sweden are key partners in terms of assessing foreign trade. The structure of the foreign trade turnover between Denmark and the United States is dominated by computers, machines and tools, products of the chemical, pharmaceutical industry. The main positions in the structure of the foreign trade turnover between Denmark and Norway are products of the chemical and food industry. The structure of the foreign trade turnover between Denmark and Sweden is dominated by food products, machinery, equipment and apparatus.

When analyzing Denmark's foreign trade turnover, a conclusion can be made that the dynamics of Denmark's foreign trade turnover with its main trading partners - the United States, Norway and Sweden - has been positive in recent years. At the same time, throughout the time period given, there were generally no jumps in the indicator values, which may indicate the absence of a strong influence from external factors on the indicator dynamics.

For Norway, the United States, Denmark and Sweden will be the key partners in terms of assessing foreign trade. The structure of the foreign trade turnover between Norway and the United States is dominated by computers, machines, products of the chemical, pharmaceutical industry. The main positions in the structure of the foreign trade turnover between Denmark and Norway, the main positions are products of the chemical and food industry. The structure of the foreign trade turnover between Norway and Sweden is dominated by food products and chemical industry products.

The dynamics of Norway's foreign trade turnover with its main trading partners - the United States, Denmark and Sweden - has been positive in recent years, while over the time period given there were generally no jumps in the indicator values, which may indicate the absence of a strong influence from external factors on the indicator dynamics.

For the United States, Canada is the absolute leader among its trading partners in terms of assessing foreign trade turnover. The structure of the foreign trade turnover between Canada and the United States is dominated by mechanical equipment and machinery, computers, cars, fuel.

The dynamics of US foreign trade with its key trading partner, Canada, has been positive in recent years, with jumps in the indicator values periodically observed throughout the given time period, which may indicate a strong influence from external factors on the dynamics of the indicator.

In regulating foreign trade transactions and addressing emerging issues in international trade, circumpolar countries are guided by the regulatory legal documents of such international organizations as: the United Nations Commission on International Trade Law (UNCITRAL), the International Institute for the Unification of Private Law (UNIDROIT), the World Trade Organization (WTO), UNCTAD / WTO International Trade Center (ITC).

4. Analysis of investment and credit-and-financial interaction

International financial and credit relations include activities based on the creation, management, monitoring and analysis of international markets, management and accounting in the field of international finance. International credit plays an important role in the formation of financial-and-

credit relations between countries. International credit is one of the forms of movement of capital and material resources in the process of developing international economic relations. It is based on temporary provision by the lender to the borrower currency and commodity resources on terms of repayment, maturity and payment [10].

Direct loans from such global financial institutions as the Paris Club, the World Bank, the IMF, and the issue of government bonds serve as instruments of foreign borrowing. The total amount of monetary liabilities of the state expressed in a sum of money to be repaid to external creditors on a specific date, i.e. the total debt of the country on foreign loans and interest not paid on them, is called a foreign debt.

Analyzing the data, we can conclude that Canada has the largest foreign debt among the circumpolar countries. Both the USA and Finland also have high volumes of foreign debt. A large amount of foreign debt of the countries is a threat to the entire world economy due to the possibility of bankruptcy of these countries. Closely connected with GDP, foreign debt also has a negative effect on the state of national economies.

Russia has the smallest amount of foreign debt, 11.8% of GDP, which is almost ten times less than Canada. Russia does not invest heavily in high-tech business. The country's economy is developing mainly due to the extraction and sale of resources. Therefore, it does not make sense for the government to increase foreign debt, since the inflation rate in the country will only increase against this background. As the statistics show, the Scandinavian countries - Sweden, Norway and Denmark are closest to each other in terms of the value of the foreign debt volume.

Foreign direct investment plays an important role in strengthening the world's economies and contributing to their development. Foreign direct investment (FDI) is a form of participation of foreign capital in the implementation of investment projects in the territory of the recipient state, which is a long-term investment of a foreign investor in manufacturing, trade and other commercial enterprises for profit. The methodology of the International Monetary Fund (IMF), which annually calculates the volume of foreign direct investment at an international level, states that foreign investment can be considered direct foreign investment if it implies acquiring by a foreign investor of at least 10% of the share capital of a commercial organization on the territory of the recipient state and allows the investor (or his representative) to exert strategic influence on the enterprises which are invested in, including partial or full control over them. Foreign direct investment in general should be large enough and long-term in order to allow a foreign investor to establish effective control over the management of the enterprise which is invested in and ensure his long-term interest in the successful work and development of this enterprise. At the same time, long-term investment as FDI limits the possibility for investors to quickly leave the market and thereby increases the interest of FDI importing countries to them. In many countries, the implementation of investment projects with the participation of foreign capital is regulated by law, and in the structure of the executive branch, as a rule, there is a state body responsible for the development and implementation of the state investment policy.

Analyzing the investment dynamics, we can conclude that the dynamics of the volume of foreign direct investment in Norway, Russia, Denmark, Iceland, Sweden, Finland has a positive trend, while in the dynamics of this indicator in these countries there are no sharp jumps and falls, which can testify to the stability of this indicator over time and the absence of strong influence of market factors on it. At the same time, considering the dynamics of the volume of foreign direct investment in the USA and Canada sharp fluctuations of this indicator should be noted. This may be due to a decrease in the competitiveness of these countries' economies, monopolization processes and other factors. For the United States, the decline in oil prices and internal administrative barriers may be the reasons for this spasmodic dynamics.

Speaking about the investment attractiveness of the Arctic, considering the history of this issue is no less important. The trend of investment in various sectors of the Arctic economy has changed: while in the early 1970s capital investment in the timber, woodworking and metallurgical industries exceeded investment in the oil and gas complex many times, by the early 1980s there was a steady increase in investment in the extractive industries of the oil and gas complex, first of all, in Norway,

the USA and Canada. In addition to the oil and gas complex, logging and woodworking industries have a high investment attractiveness. The potential of these industries is especially great in Canada, Sweden, Finland, and also in Alaska. China is one of the most active investors, each year increasing its economic and political presence in Iceland and Greenland. In addition to the mining and woodworking industries, fishing is developing as well, including breeding of valuable fish species, which attracts a large amount of Norwegian investment. Canada's northern provinces and territories Nunavut, Labrador, Yukon are considered a traditional center of investment activity of Canadian business. In addition to the richest deposits of uranium, cobalt, potash salts and asbestos, vast areas are covered with timber, highly valued throughout the world. Hydropower industry is highly developed in the province of Quebec. The state is actively seeking to attract foreign investment in this industry. Attracting foreign investment, first of all, neighboring US and Danish investment to the development of the Northwest Passage, would be beneficial to all the parties, since its stable operation can bring big profits, by shortening the time it takes to sail from the North Atlantic to the Asia-Pacific region many times.

However, minerals alone and a favorable geographical position are not enough for the economic viability of the region. But there are other favorable factors in the Arctic. Most countries whose territory extends beyond the Arctic Circle have a strong economy and a stable financial system. The ratio of public debt to GDP in such countries as Denmark, Norway, Finland and Sweden is below 54%, and in Russia it is less than 12%. Although the US debt is about 75% of GDP, the country is protected from high interest rates by the fact that the US dollar remains the main reserve currency of the world. Canada's debt to GDP ratio is even higher, but at the same time it demonstrates enviable stability. For the fifth year in a row, Canada's banking system has been rated by the World Economic Forum as the healthiest in the world. Iceland is still struggling with the effects of the 2008 crisis, but the economy is rapidly recovering. In general, the favorable financial condition of the Arctic countries means that this region is attractive for private investment, especially in comparison with other territories rich in natural resources.

5. Analysis of interaction in the field of ecology and environmental management

The anthropogenic impact on the environment has been growing rapidly over the past centuries. The wasteful consumption of natural resources in order to meet the ever-increasing needs of the society leads to the exhaustion of the resource potential. In this situation, the Arctic is considered by many states as a strategic reserve for future development. Initiatives are being launched to expand research, economic and military presence in the region. The Arctic, to a greater extent than other regions, is subject to the negative consequences of human activity, since it is one of the most fragile ecosystems on the planet. The environmental problems of the Arctic due to its natural geographic features are highly likely to develop from regional to global ones [11].

The main challenges of the modern times related to the Arctic region are climatic warming, the possibility of developing vast reserves of hydrocarbons under the ice, the biological resources of the northern seas. Climate disturbance is the main cause of anomalies of meteorological phenomena, desertification, shifts in the geographical zones and the spread of carriers of dangerous diseases to new territories.

The reduction of ice cover in the Arctic Ocean is one of the manifestations of dangerous climate changes in the Arctic. At the same time, reduced ice cover in the Arctic Ocean can facilitate access to the resources of the continental shelf and make the year-round use of the Northern Sea Route for transcontinental transportation real.

The complexity of the climatic issues of the Arctic territories is determined by the uncertainty in the assessments of current and predicted climate changes and their impact on the ecological, economic, political and social spheres of human activity. The key distinctive features of the Arctic as a special economic, ecological and social space are the increased susceptibility of the natural environment to anthropogenic impact and the slow rate of recovery of disturbed natural objects.

Western countries assign the main responsibility for environmental pollution in the Arctic to Russian organizations, since Russia's territory has serious sources of pollution, including mining and metallurgical, and pulp and paper enterprises, oil and gas complexes, the nuclear industry, and infrastructure facilities. At the same time, a significant contribution to the pollution of the Arctic zone is also made by enterprises processing nuclear fuel in Europe, industrial enterprises in North America, Western and Central Europe. The complexity of the problems of the development of the Arctic led to understanding the fact that the existing challenges in the region should be the priorities in international cooperation in the field of ecology and environmental management, replacing the geo-economic benefits for which the countries claiming these territories and natural resources are fighting. Under current conditions, no Arctic country is able to implement large projects independently.

In the Arctic, there are a number of treaties regulating the issues of international cooperation and legal regulation of ensuring the environmental safety of the region, including: the Convention on Civil Liability for Oil Pollution Damage (1969), the Declaration of the United Nations Conference on the Human Environment (1972), the Convention on Long-range Transboundary Air Pollution (1979), the United Nations Framework Convention on Climate Change (1992), the Rio de Janeiro Declaration on Environment and Development (1992) and a number of others. International environmental organizations and financial structures are of great importance in the implementation of international environmental cooperation in the Arctic, they are: the International Arctic Science Committee (IASC), the International Independent University of Environmental and Political Sciences (IIUEPS), the Arctic Monitoring and Assessment Program, the Program for the Conservation of Arctic Flora and Fauna, The Protection of the Arctic Marine Environment Working Group (PAME) and others. In order to solve the environmental problems of the region eight Arctic countries - Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States - adopted the Arctic Environmental Protection Strategy in 1991. In 1996, the Ministries of Foreign Affairs of these countries signed the Ottawa Declaration and formed the Arctic Council, which is designed, among other things, to provide a program for the comprehensive promotion of sustainable development.

The Arctic Council is a key institution of international environmental cooperation in the Arctic. It sets the following goals and objectives: conducting environmental monitoring, obtaining reliable and sufficient information about the state of the Arctic environment, developing proposals and pollution prevention and control recommendations for circumpolar states and observer countries.

An important contribution to the development of international environmental cooperation, and above all to the implementation of specific projects, is made by the Barents Euro-Arctic Council established in 1993. A number of environmental projects have been implemented by the Council, a promising climate strategy for the region, aimed at mitigating climate change and adaptation to climate change has been developed. The proclaimed goal of the Council is strengthening stability, ensuring sustainable development of the region, multilateral cooperation in economy, trade, science, environmental issues, infrastructure, education and culture, as well as the implementation of projects aimed at improving the situation of the indigenous population of the North.

Based on the above, it can be concluded that the Arctic is a special complex ecosystem that is unique from the point of view of international relations. Many factors of the modern world are included and closely interact in the transnational space of the Arctic: states, international organizations, transnational companies. The balance between the ecosystem approach and the industrial development of the Arctic is possible and necessary in the context of international interaction. International cooperation opens up prospects not only for environmental research, but also for social and economic development in compliance with environmental safety requirements.

6. Conclusion

The study underlying this article was carried out using the following approaches and hypotheses: (1) an analytical review of the literature focused on the geographical, technological, and institutional characteristics and abilities to implement the concept of sustainable development of the Arctic territory; (2) logical-graphic modeling of the prospects for sustainable development of the Arctic

territory; (3) the method of prognostic analysis of the advance-delay development analogies applied to advanced and lagging economies related to their regional development in the same or similar environments.

The unique features of the Arctic as a territory of development are identified: Uneven distribution of resources, production capacity and complex logistics. Population outflow (negative migration). High cost of energy production and distribution. A development model based on the export of raw materials. High vulnerability to severe weather changes and natural disasters. Quite high risk for investors. Poor development of the logistics infrastructure. Lack of a holistic computerized information network for the Arctic as a whole. Insufficient level of scientific analysis and forecasting. Slow implementation of special Arctic innovations. The lack of qualified managers, competent in the Arctic.

The analysis of trade cooperation among the countries, the investment and credit-and-financial interaction, the interaction in the field of ecology and environmental management does not demonstrate the interdependence in the development of the Arctic territories of the circumpolar countries. Cooperation among the circumpolar countries exists, but the hypothesis of the interdependence in the development is rejected.

The interdependence in the development of the Arctic territories of the circumpolar countries can become the basis for sustainable development and an important area for future research.

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