

ARCTIC GEOECONOMY AND NEW TRADE ROUTES: Sino-Russian logistics projects and strategic investments in the region

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ABSTRACT

The Arctic Sea melt tends to worsen throughout the 21st century. If, on the one hand, it is seen as an environmental catastrophe, on the other hand, it is also seen as an economic advantage by its neighbors. As the melting takes place, the more accessible the Arctic becomes, making it viable to explore natural resources and to build and consolidate a trade route capable of surpassing the current trade routes connecting Asia and Europe, in terms of time and savings. Thus, this work focuses on answering the following question: how does the Arctic melting impact the geo-economy of international trade? Using the perspective of geo-economic theory, introduced and developed by Edward Nicolae Luttwak, Robert Blackwill and Jennifer Harris, this paper aims to conceptualize global warming, compare current routes with the advantageous North Sea route from data collection and to critically analyze sino-russian cooperation in consolidating their ongoing commercial maritime projects in the Arctic region.

Keywords: Arctic; Geoeconomics; International Trade; Russia; China.

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INTRODUCTION

The Arctic territory, although not a continent, because it is a frozen ocean, is a region of great strategic potential, mainly to the bordering states³. Its importance begins to gain attention from the progress of new navigation flows.

Based on technological evolution, and with the melting in the Arctic region due to global warming, the region began to gain international attention, due to the existence of strategic natural resources and the potential and advantageous commercial sea routes, with the total melting of the Arctic. This thawing process, in addition to facilitating new routes (especially between the Atlantic and Pacific Oceans), also makes them cheaper and faster for countries located in the extreme north, also opening a new space for the intensification of geoeconomic disputes in the northern region of the world.

This work analyzes the Arctic space from the theoretical perspective of geoeconomics. In summary, it seeks to carry out a study on the advancement of geopolitical strategies in the region, which place economic factors as a means of accumulating power in a strategic territory in terms of routes and resources. The main actors in this process are States and large companies, whose geopolitical and commercial interests make the territory a space for geoeconomic disputes. According to the creator of the geoeconomy concept, Edward Luttwak, traditionally, world politics has as its objective the expansion and territorial control together with the gain of diplomatic influence over other States. Therefore, geoeconomics seeks to study the conquest or protection of States' roles in the international economy, where countries seek to limit the capacity of economic influence of other governments in the midst of the International System (LUTTWAK, 2001).

In addition to Luttwak, this concept is taken up and updated by Robert Blackwill and Jennifer Harris, in the book "War by other means: Geoeconomics and Statecraft" (2016). According to these authors, the power projection of States is currently instrumentalized by the economy. After the Cold War, the process of adopting the liberalization of the world market, together with the rise of new democratic governments, facilitated and fostered the dispute of States in the domain of the global market. As the present scenario is characterized by the decline of military confrontations, given the American military hegemony, consequently, the

³ Bordering States means States bordering the Arctic Ocean.

best option would be to exercise power through the economy to satisfy national interests (BLACKWILL; HARRIS, 2016).

The main objective of this research is to deal with the consequences of the Arctic thaw on international trade in the projection of economic power, based on the geoeconomic concepts of Luttwak, Blackwill and Harris. Therefore, as specific objectives, this work: analyzes the process of the melting of the Arctic Ocean, an important fact to consolidate the polar route of the Arctic; presents and compares this route with the others, pointing out its advantages; and notes the ongoing cooperation between Russia and China in building a strategic infrastructure in the Northern Hemisphere region. It becomes clear that the issues involving trade in the Arctic epitomize a dispute that is simultaneously economic and geopolitical, hence the choice of the geoeconomic approach.

Finally, in the face of a currently complex global economy, national policies are not only determined by military capacity, but also by international geoeconomic factors. In a post-Cold War world, currently multipolar, globalization confers greater economic expansion that, despite forming a global economy, also makes room for an increase in disputes in the international system. Consequently, what will be studied is the economic impact on Northern Hemisphere states in relation to the commercial and logistical routes of the Arctic territory.

Based on the research question “how does the Arctic melting impact the geoeconomy of international trade?”, through the geoeconomics perspective and the commercial potential of the Arctic, this research seeks to study and compare the impacts of Arctic commercial sea routes on the others, also analyzing the economic cooperation between the countries located in the north of the globe. In particular, Russia and China will be the main actors in this study, as they are already preparing plans and agreements mobilizing capital to finance infrastructure in the region. Therefore, the more the Arctic melts, the greater the interest in the region. Thus, in view of what has been presented so far, this work is based on the hypothesis that, as the Arctic ice melts due to global warming, countries such as Russia and China take the lead in building an infrastructure for a more advantageous trade route than the main current trade routes, which connect Asia to Europe (Suez-Malacca) which may make them less relevant, also concentrating great commercial power in the States that control these routes in the Arctic region, exercising a critical analysis of this Sino-Russian partnership.

The methodology to be used will vary, as it will have both a qualitative and a quantitative approach. Regarding the qualitative approach, this research is based on the survey of documents, historical analysis, and bibliographic research, to interpret and develop the presented study. In addition, even though it is used briefly, the quantitative method exposed in this work is summarized, objectively, in the important collection and comparison of statistical data on the Suez Canal (from data from the Suez Canal Navigations Statistics) in relation to the Northern Sea Route (from data from the Northern Sea Route Information Office), being one of the fundamental aspects in determining the strategic relevance of the presented geoeconomic space.

The research procedures of this work begin with the bibliographic survey, introducing materials and theoretical concepts already produced and discussed on geoeconomics by Edward Luttwak, Robert Blackwill and Jennifer Harris (2016), creating a link between the points presented, being resumed and applied to the central topic of this research in the last section. Therefore, a study will be presented that connects the theory of geoeconomics to research on global warming applied in the Arctic region and to trade routes located in the Arctic.

Second, a historical research will be carried out on the development of global warming based on a documental analysis, where official documents, reports and monitoring evidence of global warming and the melting of the Arctic will be presented. Among these documents are special reports from the Intergovernmental Panel on Climate Change (IPCC), and the National Aeronautics and Space Administration (NASA).

Then, the third section will also consist of a quantitative analysis. In this stage, statistical and numerical data will be collected, regarding the volume of transported cargo, number of vessels, time and distance, regarding the studies of the main commercial route used in the world that connects Europe to Asia, the from Suez and other routes, compared to the Arctic route, the Northern Sea Route. This analysis is fundamental, as it highlights the strategic geoeconomic potential of the Arctic region, providing a basis for the attention that countries have in this ocean.

In the last section, analyzes and interstate interactions on the Arctic region will be presented, explained by Camilla Sørensen and Ekaterina Klimenko (2017), Zhang Chun (2017), Tillman, Jian and Nielsson (2018), and Alina Kovalenko, Maria Morgunova, Victoria Gribkovskaya (2018), on the agreements established between China and Russia and the Arctic

Silk Road project proposed by China. In the same section, the concepts of geoeconomics, applied in the Sino-Russian infrastructure projects of the polar trade route and possible results will be taken up.

This research is substantial for several reasons. First, global warming is a recurring and widely discussed subject, but little is discussed about the repercussions that this phenomenon can impact on international trade. Second, this study emphasizes the importance of international trade as a means of expanding power, making the Arctic a space of growing disputes, especially between great powers.

When we identify these powers that participate in the geoeconomic dispute of the Arctic, that is, Russia and China (regional and global powers), we realize the conflicting potential that the Arctic region can present. This projection of power in the region has a profound impact on international trade, precisely because of its strategic potential, concentrating a large part of the main trade routes in the extreme north of the world. In other words, it strengthens North-North trade relations, and can undermine North-South relations with its main trade routes used today.

1. INTRODUCTION TO GEOECONOMICS

In this section, the principles of geoeconomics will be presented, a theory that gained space at the end of the 20th century and at the beginning of the 21st century in a globalized world⁴, with the aim of discussing what are its most efficient mechanisms for the accumulation of power between States. Understanding this theory is critical as it will be applied to the ambitious projects that China and Russia have on the Arctic.

1.1 WHAT IS GEOECONOMICS?

As geoeconomics would be a sub-branch of geopolitics, according to the authors cited throughout the text, to avoid misunderstandings, it is also important to define the concept of geopolitics. Geopolitics, also an analytical form of foreign policy, in its nature, seeks to establish a relationship of political power of the State over the territory, based on

⁴ Globalization is defined by worldwide social, economic and cultural integration. This approximation takes place through the technological improvement of the means of communication and the transport of goods and people, particularly intensified from the end of the 20th century (DICIONÁRIO FINANCEIRO, 2020).

geographical factors, such as population, natural resources, military capacity, territory, economic performance, among others. In this sense, geopolitics is a way of analyzing foreign policy seeking to explain, understand and predict international political behavior based on geographical factors and to defend national interests. Thus, geoeconomics, which uses economic tools, is a means of achieving geopolitical goals.

Classical geopolitics traditionally considers that the dispute for power reproduces the theory of “zero-sum games”, that is, the victory of one State means the failure of another. The same occurs in geoeconomics, since economic tools can have long and short-term effects that are so powerful that they reproduce the results of a zero-sum game at the international level, as well as in geopolitics. In other words, the geoeconomy and economic interdependence between states do not generate positive results in a generalized way for all other states (BLACKWILL; HARRIS, 2016).

According to the creator of the geoeconomy concept, Edward Nicolae Luttwak, traditionally, as states are rivals by nature, world politics aims at territorial expansion and control along with gaining diplomatic influence over other states. Geoeconomy is the form of rivalry that emphasizes the conquest or preservation of the power of States in the international economy, where countries seek to limit the capacity of economic influence of other governments in the midst of the International System (LUTTWAK, 2001).

Luttwak also states that, in the post-Cold War period, States would be substantially more prone to the geoeconomy, as their most relevant functions would be to provide individual benefits, different infrastructures, varied services, their “raison d’être”, and their responsibility most essential, which would be to provide security against internal and external enemies. In this logic, states, fundamentally, are entities with the purpose of surpassing each other on the world stage. Of course, not every country has enough resources and influence to use economic means for international projection, therefore, the use of geoeconomics varies according to the State, with some ignoring it, simply practicing *laissez faire*⁵ (LUTTWAK, 1990).

The tools, or means, of geoeconomics, according to the author, is the role of the State in encouraging, coordinating, and advising its economic activities. Within these dynamics are: investments in strategic

⁵ From French, “let it be done”. Term used by liberal economic strands. An advocate model in which the State should not intervene in the economy, as the market would adjust itself.

industries (investments); in product development (development and research); and the ability to enter the global market (LUTTWAK, 2001).

In other words, geoeconomic competition between states, or blocks, follows a logic. According to Luttwak, this logic is generally based on: supporting the development of new technologies and products in order to obtain advantages over the competition; maximize revenue, being able to tax the gains of others; increase your finances; and offer services, pay benefits and provide infrastructure, in order to gain space in the market, the latter being the crucial point studied here in this article due to infrastructure expansion projects and the Sino-Russian partnership in the Arctic (LUTTWAK, 1990) .

The authors of the book “War by Other Means - Geoeconomics and Statecraft”, Robert Blackwill and Jennifer Harris, define geoeconomics as the use of economic instruments by the State, in the search for positive geopolitical results, strengthening domestic economic policies to defend national interests. Again, power for a state is not just about controlling territory, having effective defense and military power, but having developed strategic industries, market power, and having an advanced and efficient supply chain. This last point presented is also precisely the object of study of this article, the importance of the Arctic region as a faster, more economical supply chain with little foreign influence compared to other trade routes, which will be developed later. Therefore, the geoeconomy can be understood as a form of state policy as well as an analytical study. In other words, geoeconomics does not propose the enrichment of the State and the accumulation of power through the economy alone, but the use of economic tools to achieve objectives of accumulation of power and international projection (BLACKWILL; HARRIS, 2016).

Right at the end of the Second World War (1939-1945), one of the main weapons of mass destruction produced by humanity since then was introduced to the world: the nuclear bomb. In the following period, in the Cold War (1947-1991), the mass production of this weapon by the main powers (and the fear of a nuclear war), the creation of intergovernmental bodies, the high costs that modern warfare produces and the demand for society for economic well-being, are some reasons that resulted in the transition from military to economic dispute.

It is evident that the wars have not completely ceased. Even in certain parts of the world, such as the Persian Gulf and the Balkans, combat by military means still takes place. Thus, what must be understood is that

current wars are regional or internal and no longer global. Following this logic, from the geoeconomic point of view, at the end of the Cold War, powers such as Japan, the US and some European countries, taking into account the process of liberalization of emerging markets in the 1990s, began to give more importance to trade instead of classical diplomacy (diplomatic influence) or by military means (control of physical spaces). This means that the dominance of the market and the conquest of part of the world economy has become the priority or the strategic modality of modern States (LUTTWAK, 2001).

1.2 GEOECONOMICS TOOLS

As previously mentioned, there are economic tools that the State can use to its advantage in the practice of geoeconomics. According to Harris and Blackwill, there are seven types of mechanisms.

Business policy can be used both positively (mutual gains) and repressively. An example of coercion is the practices adopted by Russia since its entry into the WTO (World Trade Organization) in 2012. The ban on products and trade embargoes resulted in weakened revenue for Lithuania, the USA, Ukraine, and Georgia. In the case of Ukraine and Moldova, Russia discontinued imports from these countries, to constrain the agreement of these States with the European Union, on the grounds that the imported product was inappropriate (BLACKWILL; HARRIS, 2016).

As the largest cross-border flows are currently financial compared to forty years ago, investment policy is of great importance in the global economy. Capital transfers to emerging markets have quintupled since 2000, and foreign capital flows between these economies have increased greatly, increasing their reserves. This resulted in the strengthening of state-owned companies, representing a growing share of the stock market. Therefore, the flow of capital affects the foreign policy of countries, being able to narrow or expand them (BLACKWILL; HARRIS, 2016).

Economic sanctions are a way of penalizing a country's gains or even breaking a country's economy, after being internationally accused of practices considered illegal. These sanctions can shrink the penalized country's domestic market, as well as reduce its global market share. But for a sanction to happen, international support to the accuser is occasionally needed, that is, allies (BLACKWILL; HARRIS, 2016). Despite economic sanctions being efficient, some countries manage to circumvent

them, such as the help that North Korea received from Chinese companies to maintain its nuclear program even after US sanctions (REUTERS, 2019).

Cyberspace can also be considered a powerful geoeconomic tool. As part of the economy, sensitive data and infrastructure are stored on computers through networks, cyberattack can be an efficient means found by states and rival groups to destabilize, for example, the electrical failure in an atomic plant in Iran, from a cyberattack coming from Israel in April 2021 (O GLOBO, 2021). It is important to note that, for a cyberattack to be a real geoeconomic tool, it needs to be derived from a state to destabilize the finances of another State or company (BLACKWILL; HARRIS, 2016).

Another efficient geoeconomic tool is national energy and commodity policies. As investment in infrastructure is essential for the development framework, the application in energy production, distribution, and new energy technologies, as well as in the capture of commodities, the State needs to bear the internal demand and its geopolitical objectives. In this sense, the State can count on private and state-owned companies or dealing directly with other States. In addition, States that own energy sources or commodities can use them as a coercive instrument against other States deficient in these goods (BLACKWILL; HARRIS, 2016).

Every state needs a financial and monetary policy consistent with its objectives. The movements and management of capital, that is, the national financial system, are behind every project, negotiation and even demonstration of power. Therefore, it is more than fundamental for the State to have an adequate management of its capital, to keep its economy sustainable, profitable, and flexible in times of crisis. As the global reserve is linked to the dollar, in times of world crisis, for example, the money flow tends to be exchanged for dollars, giving the US the power to create deficits, being able to borrow in its own currency. A geoeconomic privilege that only the US has (BLACKWILL; HARRIS, 2016).

Economic assistance can be considered a silent tool of the geoeconomy, as its objective would be a way of “buying” influence, whether by lending money, through humanitarian or military aid in a broad sense. In this way, a state can form an ally, finance companies, internal or external groups that are of interest to it. The BRICS Bank, for example, can be considered an alternative form with loans more attractive to developing countries than the IMF (International Monetary Fund) or the World Bank, a BRICS strategy to gain more support, relevance, and economic power (BLACKWILL; HARRIS, 2016).

And finally, geoeconomic effectiveness. In the same way as Luttwak (1990), Harris and Blackwill (2016), point out that, as each state has different characteristics, as they have different origins, they can project their geoeconomic power at different levels of effectiveness. The attributes that govern geoeconomic effectiveness are presented below.

Control over foreign investments, that is, investments in foreign companies, in short, affects the insertion of the State in other markets and the acquisition of new resources. The attributes of the domestic market are based on the degree of control of the domestic market (import and export), market size, growth prospects and inequalities in economic relations with other countries. The influence on the flows of energy and commodities is based on the properties that the State has in the market, its purchasing power and influence over trade routes. And the centrality for the global financial system, translates into the participation that a State has in the global financial system, so countries with a large and complex financial system, in addition to being able to impact other countries more easily, can ask for loans at lower rates as also collect and mobilize their capital effectively (BLACKWILL; HARRIS, 2016).

The degree that China has reached is the result of a geoeconomic tactic deployed for decades and is related to its most varied strategic investments: education, industry, technology, infrastructure, communication systems, flow of strategic raw materials, and of course, in its own propaganda. The New Silk Road, investments in the African continent and the “Made in China 2025” plan are some of the main national projects proposed by China in the achievement of its geoeconomic goals. Therefore, from the geoeconomic concepts discussed above, the cut of this work will address the New Silk Road extended to the Arctic, the partnership between Russia and China in the region and how these phenomena can impact logistics and international trade from tools geoeconomic.

2. ARCTIC OCEAN: PAST, PRESENT, AND FUTURE

In this section, the main factor that gave rise to Sino-Russian projects in the Arctic region will be analyzed: the phenomenon of the greenhouse effect and global warming. The logistical benefits that China and Russia can obtain in the Arctic would never materialize if it weren't for the rise in temperature worldwide. According to most scientists, this is due to the increase in harmful gases in the atmosphere and the depredation of

ecosystems over the last two centuries, which consequently have resulted in the melting of sea ice in the northern region of the globe (PACHAURI *et al.*, 2019). Next, scientific studies will be presented on the climate history of the Arctic region, as well as on how global warming will completely dissolve the sea ice of this territory in the 21st century, giving space for ambitious logistical projects.

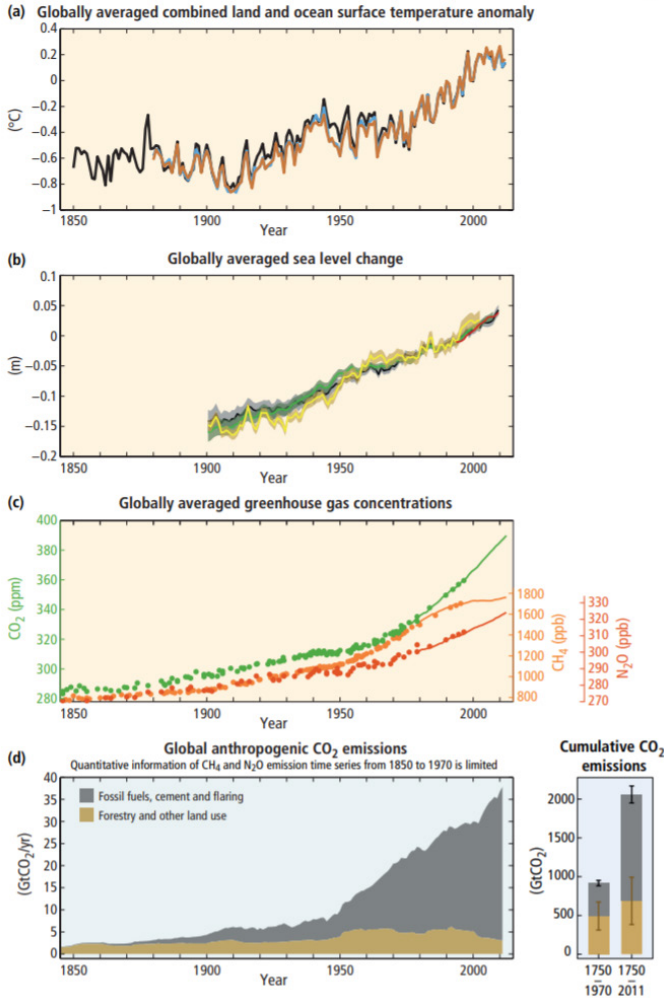
2.1 GLOBAL WARMING

Although there is a certain denialism regarding the veracity of global warming by a portion of society, even though it is the main theory accepted by the scientific community, the gradual increase in global temperature since the pre-industrial period (around 1750), is related to continuous and crescent emission of carbon dioxide (CO₂), methane gas (CH₄) and nitrous oxide (N₂O) into the atmosphere⁶ by human activities. According to data from the 2018 IPCC (Intergovernmental Panel on Climate Change) report, the cumulative emission of anthropogenic CO₂ between the period 1850 to 2011, about 40% of emissions remained in the atmosphere and the remainder was stored in soils and oceans. It is also important to point out that 30% of this remainder was deposited in the oceans, making them more acidic (PACHAURI *et al.*, 2019).

First, we must understand that the greenhouse effect is a natural process on the planet. Of the energy that the Sun emits to Earth, some is reflected into space, and the rest is absorbed and radiated back to Earth as heat. In other words, the heat that the Sun emits is absorbed into the planet's atmosphere by greenhouse gases, and about 90% of this heat absorbed by the gases is propagated back to the Earth's surface. Thus, when more GGEs are released into the atmosphere, more heat is absorbed, more heat is radiated to the surface, resulting in an increase in temperature on Earth (NASA, 2020). The following graphs represent respectively: the increase in temperature in °C in soils and oceans (graph a); the sea level variation in meters (graph b); the concentration of greenhouse gases in the atmosphere (graph c); and global anthropogenic CO₂ emissions (graph d).

⁶ The atmospheric concentration of these three gases: carbon dioxide, methane and nitrous oxide, are collectively called greenhouse gases (GHGs).

Graph 1 - History of monitoring the relationship between temperature, sea level and emission and concentration of greenhouse gases



Source: IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, p. 3.

During the period that gives rise to the Second Industrial Revolution (1850), there is a gradual increase in the gases that make up the greenhouse effect (graphs a, b and d). These gases originate from the burning of fossil fuel for energy generation, driven by economic development and population growth, characteristic of this event. In the set of graphs 1.c, the emission of greenhouse gases, in the period from 1850 to mid-2010, makes explicit the atmospheric concentrations of carbon dioxide from greenhouse gases (CO₂ ppm, green), methane (CH₄ ppb, orange) and nitrous oxide (N₂O ppb, red) in the world. It is also noted that from the set of graphs 1.a, from 1880 to 2012, there was an increase of about 0.85°C, which, despite seeming little, is enough to cause a natural imbalance. Therefore, the increase in the amount of greenhouse gases accompanies the rise in the planet's temperature (PACHAURI *et al.*, 2019).

The consequences caused by the amplification of the greenhouse effect vary from region to region of the planet. On certain occasions, and depending on the point of view, the results can be beneficial or negative. In certain regions, for example, agriculture can benefit from the increase in temperature during the winter period, but it can also be harmed in the summer. It can result in the increase, duration, severity of hot flashes and droughts; there are changes in rainfall patterns; sea level rise due to melting ice; ecosystem imbalance; and of course, the main point to be studied in this work, the melting of the Arctic, where between the period from 1979 (the year in which satellite observations began) to 2020, between 3.5 and 4.1% of its average total ice extent per decade. It is also important to note that the extent of Arctic Sea ice has decreased in all decades, in all seasons, since 1979 (PACHAURI *et al.*, 2019).

2.2 THE GRADUAL END OF GLACIERS

The Arctic, located at the North Pole, that is, at the northern end of the globe, reaching the northern seas of Russia, Europe, Canada, Iceland, and Greenland, is an ocean with approximately 14 million km², where its center maintains frozen due to low temperatures throughout the year, unlike Antarctica (South Pole) which is in fact a continent, a piece of land surrounded by water. The following map shows the region, in which the white dotted circle delimits the arctic polar circle space; the blank area, the frozen Arctic Sea, in September 2018; and the green lines, the trajectories of several fishing boats in the same year (CHAMPINE *et al.*, 2018).

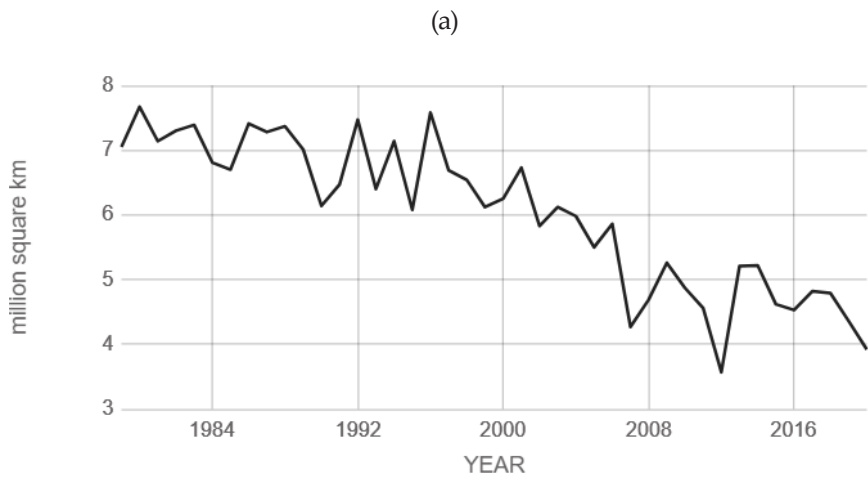
Map 1 - Arctic Circle and the extent of sea ice in September 2018



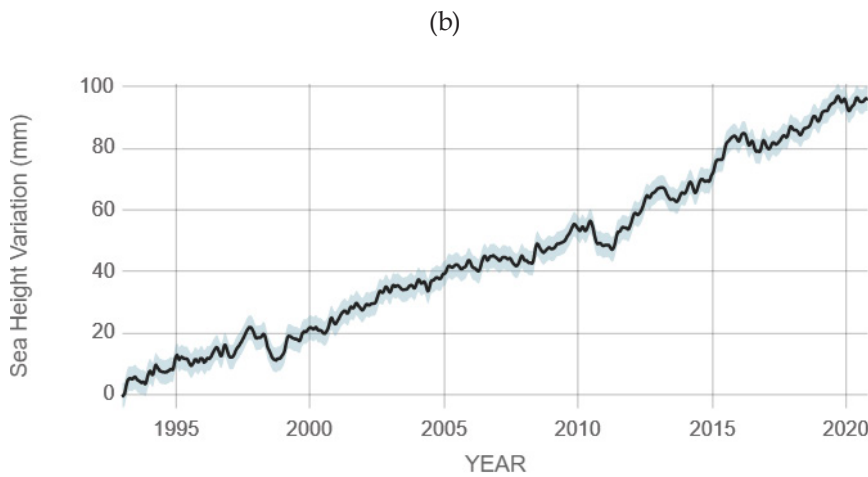
Source: CHAMPINE; MORRIS; ELDER; NGM staff, National Geographic, 2019.

Although the region does not have defined seasons of the year, the temperature can reach a maximum of approximately 26°C in the hottest season (during the months of June to September) reaching the minimum extent of ice, up to approximately -50°C during the rest of the year (mid-September to May) in the central polar region. And as previously mentioned, one of the consequences of the aggravation of the greenhouse effect is the increase in global temperature, directly reaching the Arctic (MARSHAL, 2018). From 1979 to 2020, during periods of minimum extent, there was an average loss of 13.1% of the extent of sea ice, from 7.05 million km^2 to 3.94 million km^2 in the respective years, one of the vectors in the total sea level rise, 93 mm from 1993 to 2020, as illustrated in the graphs below.

Graph 2 - Minimum average extent of the Arctic in September (a); Satellite sea level observations (b)



Source: climate.nasa.gov

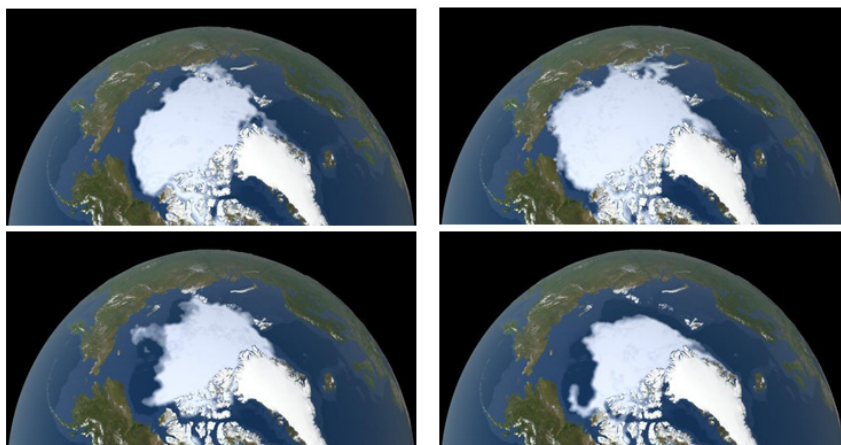


Source: climate.nasa.gov

Source: NSIDC/NASA Satellite Observations.

With the monitoring of satellite images, every ten years, the sea ice has been visibly losing space, and in 41 years it melted about 3.11 km² during periods of minimum extension (being September the months analyzed) (NASA, 2020). Therefore, according to projections, the Arctic ice, from the second half of the 21st century, would completely disappear in up to 50 years. It is also important to point out that during these decades, while the Arctic ice decreases both in its total and in its warmest periods, maritime traffic in the region has grown to the point of becoming an important commercial route with high economic strategic potential for the neighboring states of the Arctic (main point to be studied in the next section). As previously indicated, sea ice has also decreased during all seasons of the year, that is, it can be concluded that in the coming decades the route may become navigable even during winter, a period that is currently more difficult for navigation. And the more ships travel in the region, the greater the contribution of anthropogenic gases emitted, helping to further accelerate the local temperature rise and the melting of glaciers (CHAMPINE *et al.*, 2018).

Map 2 - Satellite images of Arctic Sea ice in 1980, 1990, 2010, 2020 (from left to right)



Source: NSIDC/NASA Observações de satélites, 2020

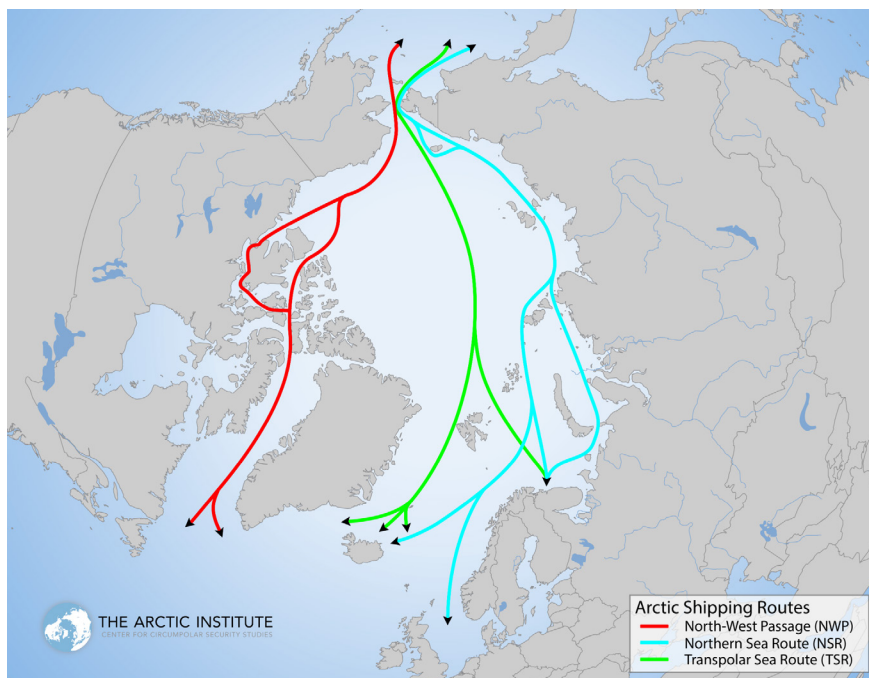
3. THE ARCTIC OPEN FOR BUSINESS

From the process of total melting of the Arctic already underway, a route that connects the entire northern hemisphere connecting Europe, Asia and North America is already becoming a reality. In this section, this new route in formation will be presented, as well as the existing ones in the Arctic, establishing a comparison with the most relevant maritime routes today, in particular, the route that crosses the Suez Canal and the Strait of Malacca. Through statistical data and its particularities, the main factors that will consolidate the Arctic Sea route as the main sea route of international trade in the coming decades will be pointed out (LEPCZYK; DURKIN, 2018).

3.1 OVERVIEW OF ARCTIC OCEAN TRADE

We must understand that the Arctic Ocean is already used as a sea route, but that compared to the main ones in the world at the present time, its use is negligible. It is also important to remember that both existing routes are used during the hottest period of the year, when the extent of the ice is smaller, at the same time with the use of special ships, the “ice breakers”. There are currently two routes in the Arctic, exemplified in the following map: the Northwest Passage (NWP, in red), on the coast of northern Canada and southern Greenland, and the Northern Sea Route (NSR, in blue), in northern Russia and Europe. And the future trade route, the Transpolar Sea Route (TSR, in green), traced in the center of the Arctic Ocean, will be fully navigable when there is no sea ice, as predicted in the previous section (LEPCZYK; DURKIN, 2018).

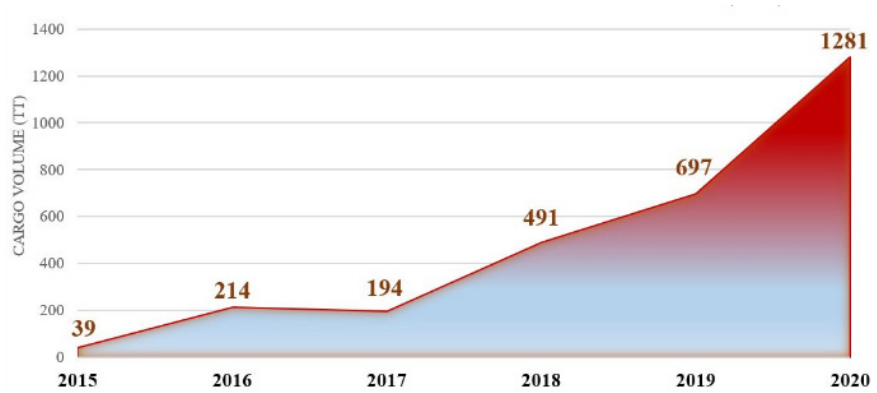
Map 3 - Arctic Ocean shipping routes



Source: The Arctic Institute, 2016

According to data provided by the Center of High North Logistics (CHNL), despite the traffic being small when compared to the main routes, the use of NSR has been growing and gaining notoriety precisely because of the ease of navigation and because of the advantages that this route presents. In the period from 2015 to 2020, during the moments of minimum sea ice extension, there was an increase in the transit of ships and in the volume of cargo in the NSR (18 vessels in 2015 to 64 in 2020), highlighting the year 2020, which compared to 2019, the volume of cargo transported almost doubled, from 697 thousand to 1.281 million tons (an increase of 45.6%), and the number of vessels increased from 37 to 64, with commodities being the main type of cargo transported. It was also found that, in 2020, most vessels sailed without difficulties, in which the fastest trip took 5.9 days and the average time to complete the entire route took 8 days, with only one vessel needing the help of an ice breaker (CENTER OF HIGH NORTH LOGISTICS, 2020).

Graph 3 - Cargo transit via NSR from 2015 - 2020 (in tons)



Source: Centre of High North Logistics, 2020

Table 1 - Cargo flow in the NSR (2019 x 2020)

	ANO	
	2019	2020
Cargo Flow (T)	697277	1281010
Number of Vessels	37	64
Dominant Load, (Type/ T)	Crude Oil/ 302151	Iron Ore/ 1004134
	Iron Ore/ 150172	
Largest Vessel (T)	Laden - 113000, Tanker	Laden - 105000, Dry Cargo
	Ballast - 113000, Tanker	Ballast - 113000, Tanker

Source: Own elaboration based on data from Centre of High North Logistics, 2020

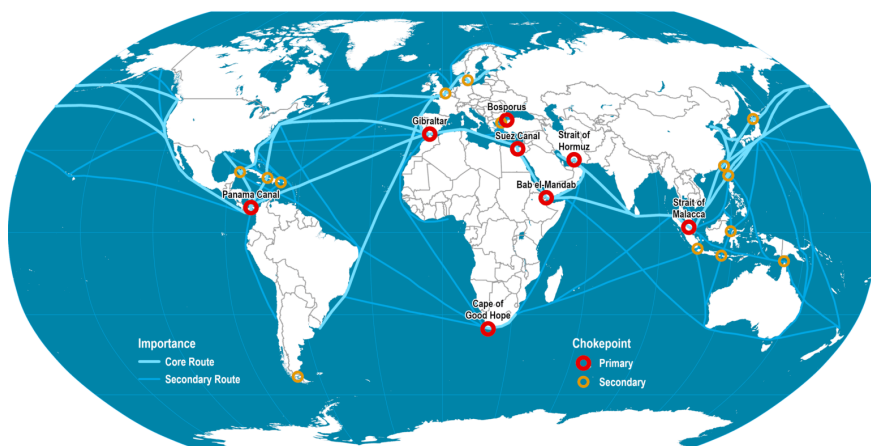
On the other side, the NWP, does not have as much movement as the NSR. According to data provided by R. K. Headland, from the Scott Polar Research Institute and the University of Cambridge, there were a total of 319 voyages from the Bering Strait to the Atlantic Ocean from the beginning of the 20th century to 2020, where in this last year, only six vessels sailed through this route. In short, in 2020, 70 vessels sailed across the Arctic Ocean, with the NSR representing about 91% of total navigations, and the rest by the NWP. From these data, it is concluded

that the polar sea route that connects Asia to Europe (NSR) has a much greater importance and impact on trade than the NWP, precisely because it logistically integrates several economic powers, among them: Russia, China, South Korea, Japan and the European Union, and the fact that the NWP is territorially fragmented (Northern Canada has an extensive archipelago) and without deep water, making it impossible for medium to large vessels to pass through (HEADLAND et al., 2020; MURPHY, 2018).

3.2 OVERVIEW OF MARITIME TRADE ROUTES

After understanding the current maritime trade in the Arctic, it is also necessary to understand its “competing maritime routes”, in particular the main one, the Suez Canal. The following map illustrates the main maritime routes used (light blue), and the primary chokepoints (from left to right in red): Panama Canal; Gibraltar; Cape of Good Hope; Bosphorus; Suez Canal; Babelmandebe; Strait of Hormuz; and the Strait of Malacca (PORT ECONOMICS, MANAGEMENT AND POLICY).

Map 4 - Main trade routes and chokepoints



Source: PORT ECONOMICS, MANAGEMENT AND POLICY.

The routes that use the Panama Canal are mostly used by the American continent, shortening trips from the east and west coast of the continent (or rather, connecting the Pacific and Atlantic oceans) to Europe and Asia. In this way, it is considered one of the most important maritime

channels in the world, as it avoids long journeys in which vessels are forced to go around the entire continent. Since its creation in 1914, about 815 thousand vessels have used the strait, 13 thousand annually, representing 6% of world trade in 2020, making it the second most used channel in the world (PANAMA CANAL AUTHORITY, 2020; PAÚL, 2021).

One of the main canals in the world, the Suez Canal, located in Egyptian territory, connects the entire European continent, North Africa, the Middle East, and Asia. Although these continents are connected to the same extension of land, the transport by land would be extremely extensive, forcing them to move through several countries that go through political instabilities, in addition to a high-cost infrastructure, as it would have to cross all Eurasia. Therefore, the creation of this artificial channel, in 1869, so that it could connect the Atlantic Ocean to the Indian Ocean, was essential for international trade, since this route supplies both Europe and China in a substantially reduced time and expense compared to the old ones. routes that circumvent the entire African continent through the Cape of Good Hope, taking an average of nine days longer. Compared to previous years, the Suez Canal, in general, continued to grow in terms of vessel crossings and tones transported in the period from 2011 to 2019. In 2020 alone, in total, 18,829 vessels crossed the Suez Canal carrying around of 1.17 billion tons, representing 12% of world trade, with a not very expressive drop compared to 2019 (with 18,880 vessels and 1.21 billion tons), in view of the global pandemic context, with the reduction of international trade (SUEZ CANAL AUTHORITY, 2020; PAÚL, 2021; THE MARITIME EXECUTIVE, 2021).

The Strait of Malacca is considered the busiest and most strategic strait in the world. Located in Southeast Asia, between Malaysia and Indonesia, on an annual average, it represents 25% of international maritime trade, with 84,000 ships transiting the region. This strait is the main gateway from the Indian Ocean to the South and East China Sea, through which goods and commodities pass, supplying the economies of all Southeast Asia, the powers of Japan and South Korea, and of course, the Chinese superpower. Recently, this region, known as the entrance to the South China Sea, is characterized by its high militarization, as China claims a large part of the sea, invading the maritime territory of countries in the region. The US, defending the idea of freedom and the maintenance of maritime rights, has also been increasing its fleet of military ships in the region, amplifying tensions. Thus, in terms of safety, the Arctic route

overlaps the Suez-Malacca route (PAÚL, 2021).

In this way, the main current major route of global trade is marked by major geographical challenges, as there is a major maritime route that extends from the Northern European Sea, which passes through the Suez Canal, entering the strait to Malacca (here we will name this route the “southern route”). Such challenges will be presented below, making explicit the advantage of the NSR and the future TSR over the southern route (LAPCZYK; DURKIN, 2018).

When we consider the total melting of the Arctic in this century, firstly, there is the advantage of time and logistical economy of the NSR when making this comparison. According to estimates by the organization The Arctic Portal, an average bulk carrier on a journey from Norway to China would save 18 days, 540 tons of fuel and a total of 180 to 300 thousand euros (from 1.17 to 1.96 million reais) when confronted with the Suez-Malacca route. Therefore, the route taken through the Arctic is shorter in relation to the southern route, exemplified again by another model. The journey of a vessel from Vladivostok to Bremerhaven, for example, would take 34 days and 19,400 km by the southern route, while by the NSR it would take 23 days and 13,300 km (ARCTIC PORTAL, 2013; ENTERPRISE, 2018).

Map 5 - Comparison of the southern route with the NSR



Source: ENTERPRISE, 2018.

In addition to the time savings that inevitably affect fuel and resource expenditures, there are also other factors that make the Arctic route preferable. The blockade of the Suez Canal that took place on March 23, 2021, due to a container ship of about 400 meters running aground on the road for 6 days, affected the entire global economy, delaying deliveries and supplies. According to analysts, an estimated \$9.6 billion worth of trade was being blocked each day, demonstrating that the channel has limitations capable of affecting all global trade, and that its isolated dependence is a high economic risk. Another point is the additional cost of security along the southern route, due to the piracy present in the Gulf of Aden (one of the main points of pirate activity in the world, precisely because of the high traffic at the exit of the Suez Canal) and the political instabilities present in the Middle East, something that does not occur in the NSR, as there is currently no type of security instability in the region (RUSSON, 2021; MARINE INSIGHT, 2019).

In this way, in the geoeconomics view, the Arctic Ocean presents a variety of benefits and, as seen in this section, the logistic-strategic space advantage. In addition, several geoeconomic tools can be applied to Arctic logistics, as presented in section 1, such as business policy, investment policy, national energy and commodity policies, economic assistance and geoeconomic effectiveness. The geoeconomy of the Arctic will be presented in the following section (LUTTWAK, 2001; BLACKWILL; HARRIS, 2016). Although the Arctic route is gradually gaining notoriety for its economy, speed and safety, this polar route has several aspects that could make the Suez route obsolete in the middle of the 21st century due to the thaw. It is also important to note that, historically, after the creation of the Suez route, the Cape of Good Hope route became inefficient in terms of time and economy (but not in terms of safety), something that tends to repeat itself again with the route of the Arctic in a few decades. Since the northern route is superior, countries such as China and Russia have already presented strategies for exploring the region in logistical, energy and military terms, through partnerships and ambitious infrastructure projects, previously guaranteeing the domain of the region, as will also be analyzed. in the next section (SØRENSEN; KLIMENKO, 2017).

4. GEOECONOMIC DISPUTE IN THE ARCTIC

The melting of the Arctic Ocean goes far beyond trade routes,

also heating up discussions on natural resources, in particular gas and oil found in the ocean subsoil, and even on security issues in the region, explained in the speech of Vladimir Putin: “the Arctic is a concentration of virtually all aspects of national security - military, political, economic, technological, environmental and resources”⁷. Given that, under international law, no state has sovereignty over the Arctic, countries such as Russia and China have taken the lead as the main influencers in the region, predicting the great advantages that the sea thaw can offer (KHANNA, 2016). Limiting itself to the subject of this work, this section aims to present the Sino-Russian logistical projects and strategic investments in the Arctic region, in order to control the future main Eurasian Sea route, from a geo-economic perspective.

4.1 SINO-RUSSIAN COOPERATION

Since the late 20th century, the Arctic Ocean is slowly manifesting itself as a new “land of opportunity”. As the planet is heated by greenhouse gases from human activities, the melting of Arctic Sea ice facilitates the activities of some States in the region, such as the extraction of oil, gas and minerals contained in the marine subsoil, fishing activities, and of course, the advancement of logistics and trade activities. This means that in the coming decades we will have a gradual increase in naval activities (whether military or commercial) and in local infrastructure, from ports to military and scientific bases. These advantages, therefore, have attracted the attention of countries located in the north of the globe, in particular, Russia and China for being pioneers in such projects (KHANNA, 2016; SØRENSEN; KLIMENKO, 2017).

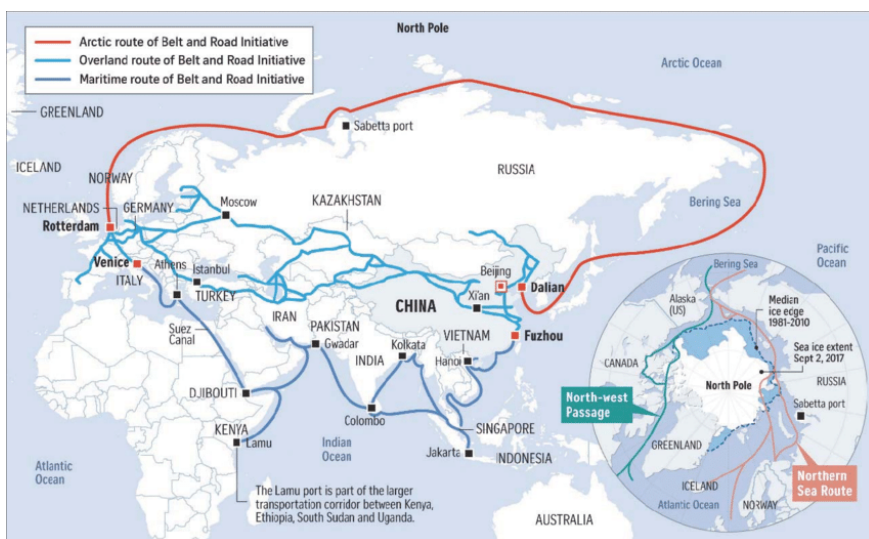
The approach that China has with the Arctic so far is quite direct, economic, and scientific, where, among Chinese scholars, there is an emerging consensus that part of Chinese activities should be moved to the region. As the country has grown substantially and has sought new opportunities and partners around the world since the late 20th century, the Arctic region is not out of its plans. If any region of the world has any benefit in general, China is looking in advance for possible cooperation so that in the future it can benefit and maintain its growth, but cautiously, so as not to show an aggressive image of its projects outside its region.

⁷ Vladimir Putin speaking at the Security Council meeting, Kremlin, Moscow, on state policy in the Arctic on April 22, 2014.

In 2013, China testing the NSR with its vessel “Eternal Life”, using the route from Dalian (Chinese province) to Rotterdam during the Arctic summer, took just 33 days, about 30% faster than compared to the Suez-Malacca route. This means that China has a new option of extricating itself not only from a more time-consuming and expensive route, but also from the diplomatic and territorial complications in the South China Sea with its neighbors and the US naval presence, cited in the previous section (SØRENSEN; KLIMENKO, 2017). After this result, the Chinese state-owned company COSCO SHIPPING since 2016 has been increasing its logistics services at NSR annually, also investing in new vessels capable of transporting the most varied types of cargo. In 2015, the company led two vessels along the route, in 2016 six vessels, five in 2017 and eight in 2018, making it the country with the most vessels to transit the region, and COSCO the first logistics company to make the route of NSR as regular (HUMPERT, 2019). At the end of 2020, China announced that it will launch a satellite around 2022, with the objective of monitoring traffic and sea ice in the Arctic, seeking to identify the safest routes in the region for its vessels, an important instrument for capturing information. to make commuting more efficient (HUMPERT, 2020).

In addition to the above, China has so far one of the largest projects in the region: the “Polar Silk Road” (PSR). Derived from China’s Belt and Road Initiative (BRI) and agreed between President Xi Jinping and Russian Prime Minister Dmitry Medvedev in May 2017, it was put in place by the Chinese government in 2018 and aims to encompass cooperation between China, Russia, and the Nordic countries in the construction of this infrastructure (PSR). In other words, it aims to develop the region’s security and logistical capacity, illustrated in the following map in red. China is interested in having this route running until 2030, including a “5-year plan” for this project, seeking to significantly develop its infrastructure in a short period of time, through a high volume of investments, starting in 2021 and ending in 2025. It is important to point out that the NSR and PSR are not identical routes, but complementary. The first is exclusively for Russia, as it is within its maritime territory, while the second is a route that extends from the Pacific Ocean to the Atlantic across the Arctic Ocean. At first, the idea of a “polar silk road” was expressed in 2011 by Russia itself, as in Vladimir Putin’s speech in the same year, at the second International Arctic Forum: “we see your future (NSR) as an artery of transport international market capable of competing with traditional

Map 6 - Routes of the Belt and Road Initiative



Source: KOVALENKO, MORGUNOVA, GRIBKOVSKAIA, 2018.

The Russian coast, bordered by the Arctic Ocean, currently consists of approximately 50 ports used by the NSR route and communications, navigation, and weather stations along the route. In comparison, the NSR, in the Soviet period, since 1932, had about 100 polar stations, port stations and settlements. This means that, with the dissolution of the Soviet Union, part of the infrastructure was dissolved, due to economic instabilities that it had been presenting in its final years. It was only in 1999 that NSR received investments again from some companies and from Russia itself, and continues to renovate and open new ports, terminals, in addition to investing in a new fleet of vessels. According to Russian government strategy documents, one of the main priorities of the State is to integrate the NSR into the infrastructure.

⁸ "Speech by Vladimir Putin at the Forum", presented at the second International Arctic Forum: "Arctic: Territory of Dialogue". Arkhangelsk, September 22, 2011.

The internal land transport structure, as it is the key to socioeconomic development in the Arctic region. This is due to the still undeveloped connection between the ports and Russian internal logistics, which can be explained by the exploitation of Arctic resources being focused mainly on export, inducing, and directing investments to specifically naval and port areas. Therefore, for there to be a complete and efficient development of the Russian polar coastal regions, mutual development with regard to Russian national and international infrastructure is necessary, according to some experts (KOVALENKO, MORGUNOVA, GRIBKOVSKAIA, 2018).

It is important to point out that only Russia's efforts to develop the NSR is not enough, it needs foreign investment and partners to do so, and China, given the logistical advantages, has so far become Russia's main partner. Projects in the region are numerous and audacious, and Chinese investments in Russia to solidify a trade route have become substantial. There are about 150 projects in the Arctic, priority projects by 2030, of which two thirds are directly related to the extraction of natural resources, and it is clear that infrastructure development can significantly reduce the initial costs of these projects, in addition to making them more economically attractive (KOVALENKO, MORGUNOVA, GRIBKOVSKAIA, 2018). In addition, The Export-Import Bank of China, to make the NSR a regular trade route, has committed to provide loans to Russia together with the support of COSCO among other Chinese oil, international trade and fuel companies. Chinese investment in the Russian port in Arkhangelsk, for example, predicts that by 2030 it will receive a total of 30 million tons in cargo, aiming to become one of the main points in the export and import of goods in the region (TILLMAN; JIAN; NIELSSON), 2018). For a better understanding of the Chinese plans in the Arctic, the table in Annex 9 (p. 46), registers the main cooperative projects that make up the PSR (also known as, "Arctic Silk Road", the Arctic Silk Road).

In summary, cooperation projects between China and Russia in the Arctic can be divided into two parts: logistics (referring to the NSR and PSR) and the exploitation of natural resources, where both need investments in infrastructure. After Russia's intervention in Crimea in 2014 resulted in some sanctions on the Russian economy by the West, restricting the government's access to technology and investments, also needed for infrastructure development on Russia's northern coast. In this way, this partnership with a powerful economy on the rise like China,

which also seeks to expand its economic power, makes this cooperation fundamental for the Sino-Russian ventures to be carried out. Despite everything, these projects are still at the beginning, so some may be discontinued or reformulated, even because there are some frictions regarding the difficulties in reaching an agreement, something that will be explored further with the help of the geoeconomics vision (SØRENSEN; KLIMENKO, 2017).

From the concepts of geoeconomics introduced in section 1 and all the elements discussed so far, the Arctic is a promising source of economic resources, which has gradually gained notoriety since 2010, especially after the closing of the Sino-Russian investment partnership in the region. In 2018, and the ambitious Chinese project entitled Polar Silk Road, with the aim of complementing and financing NSR's maritime logistics. And following Luttwak's principles about geoeconomics, applied to the Arctic, this partnership does not necessarily mean a bilateral economic cooperation between China and Russia for mutual gains in the exploration of the region, but an apparent overlap of Chinese geoeconomic interests over the Russian, given that China has financed most of the projects, which shows the country a greater ability to control the routes.

Resuming the concepts of geoeconomics from the first section, Luttwak identifies that States are rivals by nature, which, on this side, seek to expand the economic influence of a State over its competitors. In this regard, China can be considered an agent of excellence, since, based on the concepts of Luttwak's geoeconomy, China makes good use of it in advising its economic activities. First, China invests extensively in its strategic industries, in the development of new products and technologies, seeking greater participation in the international market, where in this way it directs and captures resources and goods from all over the world, fueling its continuous growth. And this strategy is no different in the Arctic. The dialogue that China has been building with Russia involves the participation of banks and state-owned companies, acting directly in the region and in the negotiations, that is, these state-owned companies, which literally are extensions of the investment policy outside their State, act directly in the negotiation as providers of technology, infrastructure and loans to Russia, such as COSCO, Chimbusco, Poly Group, the Export-Import Bank of China, China Development Bank and the China Marine Fuel Service Corporation. However, this whole apparatus in the development of trade routes and resource exploitation can be interpreted

as an economic trap from China to Russia (LUTTWAK, 2001; TILLMAN; JIAN; NIELSSON, 2018).

After the annexation of Crimea by Russia, to avoid a direct confrontation between States, there were severe sanctions from the West (European Union and USA) on the Russian economy (emphasizing that sanctions are powerful tools of the geoconomy as punishment for acts considered illegal or abusive by States), which resulted not only in the loss of 40 billion dollars, but also with the fall in the price of oil, reaching a total of 140 billion annually, according to the Russian prime minister of finance in 2014. This also implies the difficulty of investments in the polar infrastructure, but also in the impediment to finding economic partners from the West to jointly invest and explore the Arctic (SMITH, 2014). If these sanctions cease, these negative aspects can be reversed. In the end, China became the main partner and influencer in the region, that is, essential for this objective, being able to take advantage of this situation.

Also based on the geoeconomic tools presented by Blackwill and Harris (2016), China's business and investment policy in the Arctic region may present a repression to the Russian economy in the future, due to the loans that Chinese banks are willing to pay, which, as much as this may initially seem friendly, Russia may become a debtor to China, also counting the impositions and restrictions of Chinese state-owned companies in the negotiations (at this moment, I take the opportunity to mention another geoeconomic tool to be associated: economic assistance, with to influence partners through loans). In view of this, the Russian government has shown resistance and caution during negotiations in the construction of the infrastructure of the routes and exploration of the Arctic with China, where at first it may seem like a partnership, in the future, Chinese power in the region may trigger conflicts, disagreements and especially in the submission of Russia to the predominance of exploitation of resources and possession of trade routes by China and its state-owned companies in the region, and for becoming a debtor of Chinese banks (BLACKWILL; HARRIS, 2016; SØRENSEN; KLIMENKO, 2017). Although it currently requires large investments to take advantage of the polar routes, China has interest and financial resources for the consolidation of this infrastructure. In other words, for the country, it pays to pay for the large investments needed for land, maritime and vessel infrastructure, as Chinese interests indicate that they are more geopolitical than immediate profitability. In the long term, it is more important for China to consolidate a geopolitical influence over this

region than the expenses necessary for its short-term use.

Finally, we have the last point to be worked on, the use of the Arctic trade route as an expansion of economic effectiveness. First, we must understand that Russia is a kind of “gatekeeper” of the Arctic, that is, the country is strategically positioned, meaning that most of the routes that connect Asia to Europe, passing through the Arctic, will possibly enter the Russian sea, in addition to taking advantage of its infrastructure and port services. In other words, Russia is the main actor that governs the NSR, and is fundamental to the realization of the Chinese project, the PSR, due to its geographical positioning. For political reasons already mentioned, Russia currently has few potential partners with available capital to implement structural financing, leaving China as a great ally with every financial disposition. It is evident that there are other actors in this process, such as the Nordic countries, but these have not had major direct impacts on these commercial projects.

China, with its ingenious project of becoming the most advanced economy in the world (planned for 2049 centenary year of the Chinese communist revolution), with the logistical and promising advantages that the Arctic presents, would be an important flow of goods and commodities in which she herself, to a large extent at least, would be coordinator. This means that China would have a trade route connecting the West quickly, safely, and economically, an option superior to the Suez Canal and the Straits of Malacca, where the Chinese themselves would have control (influence over energy and commodity flows).

In the same question on trade flows, Russia has always been restricted to the sea, so the melting of the Arctic would be an excellent opportunity to expand maritimately, in addition to managing an important and promising route such as the NSR, and of course, exploring the natural resources in the region. as a new flow of raw material. The consolidation of these routes also means for both countries a greater centralization of their financial system at a global level, meaning that China and Russia will become more complex economies, being able to mobilize and collect financial resources more effectively, and even, at a certain level, become more independent in international trade by managing their own trade routes. Another point, as mentioned before, regarding investments, China took the lead in moving its investments and state-owned companies to Russia in the development of infrastructure. However, the more China manages to enter the Russian economy with loans and advantages for its

state-owned companies, this would mean an expansion of its economic power and influence in the Arctic region and Russia, given the principle of control over foreign investments (BLACKWILL; HARRIS, 2016).

5. FINAL CONSIDERATIONS

As presented, this work aimed to specifically analyze one of the several recent events in the Arctic region from the thaw process: the development of infrastructure, logistics and economic relations between Russia and China, in relation to maritime routes in the region. Although this work focuses on just one topic, the Arctic has become much more complex as the region warms. This means that issues such as the exploitation of natural resources, and especially the increasing militarization in the region by Russia and the US, can be explored in future works. As it is also a recent issue, so far there are few studies and research on the progress of states in the Arctic, which makes the study of these contents important for a prior understanding of what the Arctic is becoming: a potential point of tension between global powers.

Following the chronological order of events, it is first necessary to understand climate change in the world, the increase in temperature through human emission of greenhouse gases into the atmosphere for centuries, in the name of development, as detailed in the second section. This relationship is proven through scientific studies on this subject, easily understood by the continuous monitoring by means of satellites in the Arctic region, making the marine melting visible over the decades. In addition, it is important to emphasize the future of the Arctic according to these studies, where around 2050, it is suggested that sea ice during the summer periods may disappear completely, in addition to being navigable even during the winter period. If, on the one hand, this represents an environmental catastrophe, on the other hand, it is also equivalent to a new opportunity to be explored, with regard to the strategic economic development of countries that seek to take advantage of the situation.

These economic advantages are expressed in the exploitation of natural resources, deposited in the Arctic seabed, as well as in the opening of new trade routes. As explained in the third section, currently the main commercial maritime route that connects Asia to Europe and the Middle East (called the southern route) proves to be less beneficial compared to the NSR, in terms of time and expenses such as fuel, supplies and security,

for example (in this case, when it is free of much of the sea ice). Currently, travel in the Arctic uses special vessels, icebreakers, during navigation on these routes, which increases expenses, given the difficulty of getting around in the region, but given the future of the Arctic, ships of this size may no longer be necessary, making routes in the region much easier and more advantageous when compared to the southern route (Suez-Malacca). Therefore, there is a great chance that the southern route will lose some of its movement and expressiveness in international trade to the northern routes in the coming decades.

With the thaw in the region, the northern coast of Russia begins to prove to be important for the future of maritime trade, which, in order to make these routes advantageous and profitable, commercial partnerships are needed to bring several projects to reality. The Russian coast is very extensive and needs not only investments in port and maritime infrastructure, but also a rail and road network that integrates this coastal region with the interior, in the movement of goods, resources and personnel. Although this is a challenge for Russia in the costly financing of this internal infrastructure, China can subsidize part of this infrastructure with the immediate costs of these projects. It is also important to remember that the sea thaw represents a solution to a problem Russian chronic motto regarding access to the sea. Therefore, due to the high costs that these investments have presented to Russia, China emerges as the main ally in the region's infrastructural development. At this point, the interests of both countries in the Arctic region ratify the studies on the thaw in the region, and the potential economic advantages that this territory has.

This apparently peaceful Sino-Russian partnership could in the future turn into a conflict of economic interests. From the perspective of geoeconomics presented in this work, China has an ambitious project of nation where the Arctic becomes just another arm of the Belt and Road Initiative in the capture of global resources. The loans of resources from China to countries that are part of the initiative have a great chance of making them future debtors to Chinese banks and state-owned companies, where Russia will be part of this reality, if it does not conduct negotiations with China cautiously, in addition to being able to lose influence over the route, due to a greater participation of Chinese companies in the region.

In this way, we can conclude that both countries are enjoying and managing the geoeconomy tools, as presented in this work, but at different levels. Russia is looking more towards an expansion of its

economic power at the regional level, which, on the other hand, perceives that the Arctic for China is just another step towards becoming a global hegemonic power, apparently, to be achieved in 2050, through economic and military strategies. The advancement of these negotiations, both in the field of exploitation of natural resources and in the financing of a maritime route, could not only raise tensions in the Arctic between the West (US and Europe) due to Sino-Russian expansionism in the region, but also become more a reason for the US to stiffen and contain Chinese growth in the world, evident since the Trump administration in the so-called trade war with China, a topic that can also be very well explored from a geoeconomic perspective.

A GEOECONOMIA DO ÁRTICO E AS NOVAS ROTAS COMERCIAIS: OS PROJETOS LOGÍSTICOS E INVESTIMENTOS ESTRATÉGICOS SINO-RUSSOS NA REGIÃO

RESUMO

O degelo marinho do Ártico tende a se agravar ao longo do século XXI. Se por um lado é observado como uma catástrofe ambiental, em contrapartida, é visto também como uma vantagem econômica por parte de seus vizinhos. À medida em que o degelo sucede, mais acessível o Ártico se torna, tornando viável a tanto a exploração de recursos naturais quanto a construção e consolidação de uma rota comercial capaz de superar as atuais rotas comerciais que conectam a Ásia à Europa, em termos de tempo e economia. Neste sentido, este trabalho tem como foco responder a seguinte pergunta: como o degelo do Ártico impacta a geoeconomia do comércio internacional? Utilizando a perspectiva da teoria da geoeconomia, introduzida e desenvolvida por Edward Nicolae Luttwak, Robert Blackwill e Jennifer Harris, esta produção tem como objetivo conceitualizar o aquecimento global, comparar as rotas atuais com a vantajosa rota do mar do norte a partir do levantamento de dados estatísticos, e analisar de forma crítica a cooperação sino-russa na consolidação de seus projetos comerciais marítimos na região do Ártico em andamento.

Palavras-chave: Ártico; Geoeconomia; Comércio Internacional; Rússia; China.

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