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THE GLOBAL DISPUTE FOR SEA ENERGY RESOURCES AND ITS REPERCUSSIONS IN THE WORLD GEOPOLITICS OF ENERGY

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ABSTRACT

In this article, we highlight the geopolitical rise of ocean resources in the expected scenario of growth in the world energy demand, changes in the global energy matrix and increased conflicts resulting from the dispute over the control of international shipping routes. The purpose is to present a general picture of the global geopolitics of energy in which we can visualize the potential of exploring our plentiful maritime resources and perceive possible implications of the projection of external interests on such wealth. Thus, we intend to contribute with the identification of relevant issues that should be incorporated into the maritime, external and Defense and Security policies of our region.

Keywords: Energy Security. Geopolitics of the Oceans. Energy Geopolitics.

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INTRODUCTION

Since the middle of the twentieth century, technological advances have considerably expanded the possibilities for exploration of ocean resources. Over the years, as the traditional maritime sectors (transport, shipping, and fishing) grew, other activities emerged, such as deep and ultra-deep offshore oil and gas exploration, ocean floor mining, production of energy from offshore renewable sources (wind, tide, waves, etc.), coastal and maritime tourism, marine biotechnology, etc. Today, ocean industries are one of the pillars of the global supply of resources considered critical to the energy security and industrial production of the States, consolidating themselves also as a highly promising field of technological innovation because of their ability to create entire value chains across important competitive sectors.

Our proposal in this study is to analyze the importance of ocean energies in the larger context of the global dispute for access to sources of energy and mineral resources and for the control of major international shipping routes. Estimating the influence of maritime resources on these two major matrices of world conflicts highlights some key factors in the current configuration of the global geopolitical scene, and allows us to enrich the agenda of essential determinants of the national strategy.

Initially, before contextualizing the importance of oceanic sources in the future world energy matrix, we highlight the rise of the Asian great powers as a factor of great repercussion in the global geopolitics of energy. We then analyze the estimates for each type of source and consider the situation of marine energy in the coming decades. Subsequently, we examine the oceans as an essential vehicle for the global trade of energy resources, highlighting some conflicts related to the dispute over the control of major international shipping routes. Finally, we point to some issues that, in our view, should be better considered in the development of national maritime policies and in the process of integration of South America.

THE "ASIAN BOOM" AND THE INCREASE IN THE WORLD ENERGY DEMAND

According to the energy market forecasts released by British Petroleum (BP, 2018) and the International Energy Agency (IEA, 2017), the world GDP is expected to double over the next two decades. Much

of this growth will be driven by the industrialization and urbanization of emerging economies, with particular emphasis on China and India, which together will account for more than half of the increase. In addition to the global economy's expansion, the world's population will rise from about 7.5 billion to 9.2 billion in the same period. The African continent, surpassing the aforementioned Asian countries, will register the highest rate of population growth, accounting for almost 50% of the increase (but will contribute to less than 10% of the growth of GDP).

These two factors are essential determinants of the increase in the world energy demand over the next 20 years. Although recent figures point to a considerable drop in the post-2009 crisis period, beyond the current scenario, long-term forecasts suggest that, by 2040, energy consumption will grow substantially, by around 25% (EXXONMOBIL, 2018). China and India will account for more than half of the total increase in energy demand by 2040 (BP, 2018).

The average annual growth rate of the Chinese economy over the past three decades has been around 10% per year, which has exponentially increased the country's energy needs and placed it in its current position as the world's second largest oil consumer, behind the USA only. However, following this trend, in a few years, by around 2020, China may reach the first place in the world ranking (YERGIN, 2014). According to Yergin (2014, p.205), China, as an increasingly relevant player in the oil industry, has instituted new trade realities and established itself as a market of decisive importance, with a significant impact on the supply of and demand for oil and other commodities, consequently influencing also their price.

China's remarkable economic development instigates scholars around the world for posing complex challenges to prevailing theoretical paradigms. More than that, however, this phenomenon greatly haunts mainstream geostrategic thinking, as it signals a structural transformation that, in turn, will lead to a resettlement of positions in the world power hierarchy.

In such a short time, China developed so rapidly that it began representing, for most strategists, the power capable of robbing the US of its hegemonic position in the future. In a recent article, for example, John Mearsheimer and Stephen Walt (2017) suggest that the US adopts a strategy called "offshore balancing", aimed at concentrating direct military intervention on regions that pose real threats to its hegemony, namely: Asia, Europe and the Middle East. According to the authors, since

it involves its likely opponent in the dispute for global hegemony, special attention should be paid to Asia, where the US must make great efforts to ensure that China does not consolidate its regional supremacy.

China's political-economic expansion, which has a strong repercussion on its geographical environment, is extremely worrying for the US because it is creating, in the opinion of some authors, a new global power pole. According to Fiori, American-led financial globalization and rapid Asian economic development are processes that have intertwined and are producing a new phenomenon for the system: an antagonism between powers whose economies have complementarities (FIORI, 2014, p.35).

While on the one hand, in the economic and financial sphere, Fiori points to an "antagonism with complementarities", on the other, Yergin (2014) argues that in the field of energy, this clash grows and takes on very concrete and hostile proportions. The "oil rivalry" between the US and China has intensified the disputes both in diplomacy and in arenas of possible real confrontation, such as in the South China Sea. The reciprocal fear of the effect of diverging Energy Security policies has sparked distrust and disagreement between the two countries. Americans and the Chinese have been showing concern about the stability of the global energy market, seeking communication and cooperation channels to reduce tensions. However, when it comes to oil trade routes, especially maritime routes, the rivalry between them takes a tangible form.

The Asian growth, beyond the issue of energy, has major repercussions on the current structural transformations of the International System and, therefore, the "Chinese miracle" is inevitably a central determinant in any analysis of the recent worldwide appreciation of the maritime space. As we will see below, the sea, besides being the global energy market's main communication channel, is also a provider of vital resources in the current and future scenario of the world energy matrix.

THE IMPORTANCE OF MARITIME SOURCES IN THE FUTURE GLOBAL ENERGY DEMAND

BP and IEA studies estimate that the expansion of energy demand will be partly offset by the development of various renewable sources and advances in energy efficiency. Faced with the growing need to secure the future supply of energy, the States have been expanding their understanding that the policy of "diversification" should not only aim at

increasing the number of suppliers of oil resources, but also at varying the types of source (YERGIN, 2014). Coupled with this, concerns about CO2 reduction targets and lowering production costs will lead to a more intense pursuit of better energy performance and clean energy.

Currently, about 86% of the energy consumed in the world is still supplied by fossil fuels – oil (33%), gas (24%) and coal (28%) (BP, 2017). In BP estimates, over the next two decades, this percentage will be lower due to possible changes in the global energy mix. Renewable and nuclear energies are expected to show the highest growth rates. Among fossil sources, gas registers the largest increase; oil grows, but at a slower rate; and coal decreases. Even with a relative reduction in the total energy demand, carbon-based fuels will continue to be the main source for the next 20 years.

GAS AND OIL IN THE EXPECTED TRANSFORMATIONS OF THE WORLD ENERGY MATRIX

In the scenario presented by BP (2018) for 2016-2040, while steady growth is expected for all fuels, natural gas and oil will continue to be the basis of the global energy system. The significant increase in the share of gas in the global energy matrix has been made possible by two key factors: the increased availability of liquefied natural gas (LNG) and the expansion in supply promoted by the recent exploration of shale gas.

Until the late 1990s, the high LNG transport costs restricted trading to the regional level. Today, however, after the huge investments some countries have made to scale up production and trade and thereby reduce costs, LNG has become an industry with global reach. New technological advances in the sector have made it possible, at the same time, to carry larger volumes of gas (with the construction of liquefaction trains, LNG carriers with double the size, etc.) and achieve greater logistical flexibility due to transport being carried out by sea. The use of floating liquefaction and regasification terminals has significantly increased the number of importing and exporting countries and, consequently, world trade by sea has become even more expressive (IGU, 2017, p.3).

At the same time, other technological innovations in the US – the combination of hydraulic fractionation and horizontal drilling techniques – have allowed the extraction of gas trapped in a type of hard and porous rock called shale. The exploration of these previously inaccessible reserves is considered the biggest energy innovation since the beginning of the 21st

century and, due to the strong impact on the global gas supply, this feat has become known as the "shale gas revolution".

The need to meet the huge growth in the future electricity demand and the pursuit of cleaner energy, coupled with the newfound viability of global LNG trading, will lead to considerable appreciation of gas in the world energy market in the coming decades. Gas is considered an efficient power generation source, and among the fossil fuels, it emits the least amount of CO2.

The expansion of the LNG market and appreciation of this source as a cleaner and more viable short-term power generation alternative puts gas in a more prominent position in the global geopolitics of energy. Therefore, in this context, the maritime space, being the depository of significant gas reserves and the vehicle of a growing resource of international maritime trade, also has its importance heightened.

Currently, about 60% of total oil demand comes from the transportation sector (BP, 2016). According to the IEA, this segment represents almost two thirds of the growth in oil consumption in the world. The intense urbanization in Asia and the rising income levels of the populations of emerging markets stimulate the demand for urban mobility (cars and collective vehicles) and freight transport. As a result, the demand of the road transport sector, where oil supremacy is still unquestionable, has been growing rapidly and substantially.

However, many efforts have been made worldwide to diversify the sector's fuel sources, and BP and IEA analyses indicate that the global oil demand could be affected by the advance of these initiatives. At the present time, the remodeling of transport and the development of cars of the future have strongly mobilized some world powers seeking to stay at the top of the world power hierarchy. For Daniel Yergin, "the stakes are high in this new race: the fuel of the future for cars, the format of the transport of the future, and the global political and economic power" (YERGIN, 2014, p.691).

By way of example of how relevant this issue is, in an official document published in 2010, the Chinese government identified seven "Strategic Emerging Industries" (SEIs) that would form the central axis of the next stages of industrial modernization and technological development of the country. Among these seven industries are the so-called New Energy Vehicles (NEVs): electric vehicles, plug-in hybrids, and fuel cell vehicles.

Countries wishing to enter this market should pay particular attention to the technologies that make up the core of electric vehicles: the battery.

Nevertheless, for Yergin (2014), due to the volume, durability and complexity of the current world fleet, the replacement of cars in already consolidated markets may take several decades. In emerging economies, however, with a favorable expansion of the automotive industry, the penetration of new vehicles may take place faster. Even so, the author argues that no change will occur quickly and points out that in the most optimistic scenarios, the insertion of electric vehicles would correspond to only 14%.

International maritime transport, a segment that makes intensive use of oil products, can significantly contribute to reducing oil consumption by the transportation sector. Currently, the adaptation of ships to use gas instead of oil has been encouraged. This conversion not only caters to recent market pressures (e.g., the need to reduce costs), but also contributes to meeting the new requirements of the International Maritime Organization (IMO) for control of air pollution.

It seems that concerns about energy efficiency and carbon dioxide (CO2) and sulfur dioxide (SO2) emissions will continue to promote a significant transformation in the current transport system, gradually reducing the almost absolute dependence on oil as fuel. The anticipated reduction in the demand for oil in the transport sector may therefore suggest a gradual slowdown in the growth of the total demand. However, there are sectors in which, even in the long term, oil substitution alternatives are quite scarce, namely: road transportation, aviation and petrochemicals. Despite all the possible changes, forecasts from both Yergin and the statistical sources cited indicate that oil has its dominance in the transport sector secured for the next two decades.

No matter how many transformations occur in the global energy matrix as a result of variations in both the type and volume of energy demanded, oil and gas, two strategic marine resources, will continue to occupy an undisputed preeminence among energy sources in the coming decades.

However, it should be noted that reserves in maritime areas are one of several sources of oil and gas that have been growing in importance in the world market. Still, offshore production is one of the pillars of today's fuel supply, and is likely to become even more important in the future. However, its relevance needs to be somewhat relativized given the recent

emergence of new exploration possibilities, which have greatly increased the world oil stocks in the last decade.

OFFSHORE OIL AND GAS PRODUCTION IN THE WORLD

The U.S. Energy Information Administration (EIA) points out that, in the last decade, offshore oil production has accounted for about 30% of the total produced in the world. Approximately 37% of proven oil reserves are estimated to be offshore, and one third of them are deep-sea reserves (OECD, 2016, p.65). Moreover, given the rapid evolution of the sector and continuous technological innovation in the offshore segment, it is likely that, in the not too distant future, new discoveries will be made and these figures will be even higher. Among the ocean industries, offshore oil and gas production is the most representative, accounting for about one third of the total added value (OECD, 2016).

Over the past few decades, technological advances in the offshore industry have enabled and expanded productivity in ever-deepening seawater. Despite these advances, deep and ultra-deepwater production is still quite complex, and requires high levels of investment compared to shallow water or onshore activities. Given these factors, most countries acting in offshore fields operate in shallow water only.

In recent years, still reflecting the 2009 crisis, the activities of the offshore sector, as well as all segments of the oil industry, have decreased after several years of significant increase. In the current context of supply shocks and low oil prices, deepwater projects, in addition to being typically hampered by their high operating costs, generally also face larger declines in investment rates. In this way, in world recession scenarios, the importance of offshore production seems to diminish. However, several research institutes, considering the medium and long term, argue that the participation of this sector in the global oil supply tends to increase.

According to IEA (2016), between 2010 and 2015, the countries that invested the most in deepwater production were Nigeria, the United States, Brazil, Angola, Norway and, in a still small amount, China. In relation to ultra-deepwater projects, the number of countries that made investments was even smaller, namely: the United States, Brazil and Angola. The so-called "golden triangle" – Gulf of Mexico, Brazil and West Africa – is the main deepwater producing axis in the world. Most deepwater oil operations take place in four countries: Brazil, the United

States, Angola and Norway. In addition, according to EIA (2016) data, the United States and Brazil are responsible for over 90% of the world's ultra-deepwater production.

In the deepest areas, Brazil deserves attention. Since the beginning of the twentieth century, with new discoveries and a significant increase in offshore oil production and, subsequently, the start of commercial exploration of the Pre-salt region in December 2010, the country has become the world's largest deep and ultra-deepwater producer (EIA, 2016). The technological achievements applied by Petrobras allowed major advances in the development of Brazilian production throughout the 2000s – which, as the study by IPEA (MORAIS, 2013, p.275) points out, were substantially superior to those achieved in other parts of the world.

Today, Brazil occupies the 14th and 9th positions in the world ranking of proved reserves and oil production, respectively (BP, 2017). In terms of volume, the distance from the first on the list is quite wide, but a few years ago, the combination of Brazilian deepwater expertise and Présal's huge reserves were seen as clear signs that the country would go up the ranks among the world's largest producers. According to Yergin:

> Today Brazil is on its way to becoming one of the largest oil producers in the world, surpassing Venezuela, which for almost a century was the main producer in Latin America. The reason for that is the major advance in its technological conditions, allowing a new and massive horizon of possibilities to be envisioned (...). If development proceeds more or less as planned and there are no major disappointments, Brazil could, within fifteen years, produce almost six million barrels a day, double Venezuela's current production. The investment would be huge – US$ 500 billion or more –, but it would make Brazil one of the largest oil producers in the world, becoming one of the foundations of the world energy supply in the coming decades" (YERGIN, 2014, p.264-266).

Recently, important offshore reserves have also been identified in other parts of the world. In 2014, one of the biggest discoveries of recent years was made in Russia, the Universitetskaya field, located in the

Kara Sea, a sector of the Arctic Ocean. In 2015 and 2016, four other large deposits were found: Liza, in Guyana, and the Dolphin (oil), Katambi and Zalophus (gas) fields in Angola. There are also promising regions in East Africa, namely, the continental shelf of Mozambique and Tanzania, where deepwater gas deposits were discovered.

Russia, already a major player in the energy market, has as one of its main goals the exploration of offshore fields located in the Arctic regions and on its northern coast. Estimates of Arctic's untapped energy resources are quite auspicious: it is believed to house about 13% of the world's undiscovered oil reserves, and 30% of the world's natural gas deposits (EIA, 2012). Klare (2013) states that the Russian government, due to the country's high dependence on oil and gas exports, has a special interest in the exploration of Arctic deposits – even more so given the recent declines in Siberia's reservoirs.

Russia, the country with the largest jurisdiction in the Arctic, holds 69% of the region's oil reserves. For Suárez de Vivero and Rodríguez Mateos (2010), this may ensure to Russians the future control of oil production in this location, and a key role in global shipping routes. Klare (2013, online) points out that Russia has been drilling wells in several areas of the Arctic and expanding efforts to find new deposits and make their exploration feasible.

However, the author notes that the Russians are not alone in their ambitions. Large companies have found huge reserves in Greenland and Alaska – such as Repsol, which in May 2017 announced the greatest discovery of conventional oil in the United States in 30 years. Oil extraction operations in Alasca are about to begin. In December 2017, President Donald Trump was able to get his tax reform proposal approved in the Congress, which included an amendment to authorize oil exploration in an environmental protection area in the region. In Norway, extractive activities are already underway in the Barents Sea, where 13 companies hold licenses to operate, including Norwegian state-owned company Statoil.

Despite all this progress, exploration in the Arctic is not yet a consolidated reality. The high degree of complexity and the operating costs of oil production in this area are still obstacles to be overcome by further technological advances.

OTHER SEA ENERGY RESOURCES

The study on the growth of the global maritime industry and its recent transformations, published in 2016 by the OECD, points to the emergence of new ocean-based economic activities with significant future development potential. These include marine renewable energies, namely offshore solar, wind, tidal, wave, osmotic, and thermal energies. These resources are considered clean energy sources with high power generation potential, the development of which may contribute to the future diversification of the global energy matrix and reduction of carbon emissions.

The interest of companies and countries in ocean energies has grown significantly, but the exploitation of these resources is still very incipient. OECD, IEA and BP statistics all indicate that in the medium term, except for offshore wind energy, the global maritime energy market should not grow significantly; however, its long-term potential is huge. In fact, the commitments made under the Paris Agreement can encourage the sector by attracting more investment (OECD, 2016, p. 65).

Currently, the share of offshore wind energy in the world market is not very significant, but estimates indicate that this sector tends to stand out as an important renewable source in the future. The costs of offshore projects are quite high, but in contrast, the industry offers some relevant advantages compared to onshore production. Compared to land currents, ocean winds are stronger and more stable. In addition, the marine environment allows the installation of larger turbines, which, coupled with increased production capacity, provides a more satisfactory use of these resources. It is therefore argued that the better yield could partially offset the high initial investments.

The maritime space is also seen as an excellent opportunity for the development of solar energy because, besides the availability of large areas, it makes it possible to make the most of the sun's rays during the day. In addition, seawater can offer magnesium chloride to this industry as a potential substitute for cadmium chloride, a key component of highly toxic, scarce and expensive photovoltaic panels.

Currently, some companies have been developing floating solar plants and artificial islands of photovoltaic panels in very large areas. However, the viability of these projects depends on them being compatible

with other maritime activities for which there are also facilities along the coast, such as the offshore wind, oil and gas industries.

Power production from waves and tides is still not expressive, and there are few plants operating on a commercial scale. Ocean thermal energy technologies (OTEC) and osmotic energy, while promising, are still being tested and in the early stages of their commercialization phase. There are studies evaluating the possibility of carrying out hybrid projects that integrate different ocean energies through the shared use of the facilities. The idea is to considerably reduce the high costs involved in the implementation of offshore structures and reduce the environmental impact resulting from the buildings and activities of these industries.

While these projects are not a viable short-term opportunity today, OECD forecasts predict that the future use of wave and tidal energy is likely to be linked to the development of other maritime industries. According to the agency, there are excellent possibilities for the interconnection of technologies, common use of rigs and integration of supply chains (OECD, 2016, p.137).

The interest in the development of ocean energy is growing and attracting the attention of international institutions, such as the International Energy Agency (IEA) and the International Renewable Energy Agency (IRENA), and of the European Union, which already has an action plan for supporting the sector. Several of the recent national sea-oriented policies also show a growing enthusiasm for this new industrial sector.

In addition, in recent decades, countries around the world have been adapting their maritime policies to an integrative approach aimed at halting the growing decline in the health of oceans, expanding Defense and Security instruments and coordinating the various maritime sectors, in order to promote a higher yield. In this sense, hybrid ocean energy projects would emerge, complementing the global efforts to improve the management of oceans. And finally, the development of the marine renewable energy industry, in addition to generating clean energy, is also being seen as a great opportunity to create jobs in coastal communities and reduce the cost of the energy used by desalination plants, naval bases and offshore oil and gas rigs.

INTERNATIONAL MARITIME TRADE AND ITS MAIN ROUTES

In the history of the Interstate System, maritime navigation has always been a highly strategic activity for the States for allowing access to raw material sources, the manufacturing process flow, and the control of key strategic positions to ensure the safety of the merchant navy and prevent expansive actions by other powers. Without its command of the sea, the European system's internationalization would not have been possible, not only because it connected distant regions and expanded trade networks, but mainly because conquering overseas territories increased the capacity for accumulation of capital – and, therefore, the political, economic and military power – of the European powers.

Today, despite the great evolution in the means of transport and the military industry, international trade and defense still lack the seas as a fundamental instrument. Cargo transportation by sea is the cheapest medium for long distance transactions, accounting for approximately 80% of global trade in terms of volume, and 55% in terms of value (UNCTAD, 2016). Most exports are transported by tankers, bulk carriers and container ships; of the total traded, about 33% corresponds to energy resources (gas, oil and derivatives) and 32% to bulk products (IEA, 2016, p.118).

> "Maritime transport is the backbone of globalization and lies at the heart of cross-border transport networks that support supply chains and enable international trade. (...) Maritime transport enables industrial development by supporting manufacturing growth; bringing together consumers and intermediate and capital goods industries; and promoting regional economic and trade integration" (UNCTAD, 2016, p.5).

The above figures provide a small sample of how the energy security of countries and the stability of global energy supplies and other essential commodities depend on international shipping. Although the importance of this sector may vary according to conjunctural determinants, from a long-term perspective, this branch of activity has always occupied a central place in the list of vital interests of nations.

Regarding the conjunctural aspect, in general, the volume of maritime trade follows the variations of global economic growth, industrial activity and trade of global goods. In times of recession in the world economy, such as the one that began in 2009, the sector also tends to shrink. However, under the influence of other factors, the size and speed of this retraction may vary. Although global commodity trade declined in 2015 (UNCTAD, 2016), the low prices of oil and derivatives boosted their trade, which partly offset the decrease in the maritime segment as a whole. While dry bulk shipping decelerated substantially in 2015, transportation in the oil sector has grown, registering its best performance since 2008 – yet another element that signals that oil is not losing relevance in the global energy matrix.

> "Growth in dry bulk trade has been decelerating and reached just 1.4% in 2016, the slowest pace since 2010. After several years of volatility, oil trade growth stabilized around 3.6% in 2016, refl ecting the impact of low oil prices and the switch away from coal. Container throughput growth is at one of its lowest levels since 2010, reaching 1.5% in 2016" (BRS, 2017, p.8).

The oceanic routes through which the largest trade flows in the world circulate and, mainly, through which oil transits, are considered the main international maritime routes. These primary sea lanes have few economically viable (or advantageous) alternatives, and therefore, any obstruction of these routes could severely compromise world trade. In addition, given that about 61% of the global production of oil and other liquids is shipped by sea and that oil tankers account for 28% of international shipping in terms of volume (EIA, 2017), any impediment to their flow has a strong impact on the world's energy supply. According to Yergin, sea lanes, as key players in the global energy supply chain, must be viewed as a critical element of energy security.

> "Energy security needs to be considered not only in terms of energy supply alone, but also in terms of protecting the entire chain through which the product leaves initial production and reaches the final consumer (...). As energy trade takes on a global

> scale and crosses more and more borders, growing in scale on both land and water, the security of supply chains becomes more urgent (...). Critical bottlenecks along sea lanes create specific vulnerabilities for oil and LNG transport, whether in the form of accidents or terrorist attacks and military conflicts." (YERGIN, 2014, p. 293).

The geographic bottlenecks located along primary sea lanes are considered critical areas, called chokepoints. Secondary sea lanes, which connect smaller or less distant markets, are generally inter-regional communication routes, but some of them may, in critical situations, replace the primary lanes and assume a prominent role in international maritime transport. The route around the Cape of Good Hope is one of these lanes and has traditionally been considered an important alternative route for Europe if there are impediments in the Suez Canal. However, its increasing participation in the world oil trade is making this lane increasingly relevant.

Although the Strait of Hormuz is the most important chokepoint in terms of energy resources, the fact that US and Chinese interests coincide at this strategic point makes it not as vulnerable to geopolitical conflicts as the Strait of Malacca. According to Yergin (2014, p. 316), while Iran has a strong claim to this passage, "an effort to block or close the strait would be seen as an attack on the world economy and would likely spur a global coalition, as happened in response to the invasion of Kuwait by Iraq in 1990."

As for the Strait of Malacca, more than concentrating the flow of the second largest volume of oil transported in the world, it is located in a region where there are several intense regional and global conflicts. In addition to being a vital route for energy resources destined to two fast-growing economies, India and China, it is in a maritime area where: several countries vie for jurisdiction over overlapping territories and access to promising mineral and energy resources from the ocean floor, also being where the competition for global hegemony between China and the USA takes on a concrete character.

Michael Klare (2016), in a recent analysis of the international conjuncture, points to an increase in the frequency and aggressiveness of confrontations in three regional stress zones: Asia, Europe and the Middle East. The intensification of friction in these areas may be signaling,

according to the author, a pre-world war scenario. In Asia, Klare points to the South China Sea as one of these conflict zones, where the US, China and Japan have been progressively engaging in a rather hostile dispute for control of the islands of the East and South Asian Seas. In this context, for the strategist, the keynote is the conflict between American and Chinese interests: while the former, weakened by the wars in Iraq and Afghanistan, seek to repel any threat to their global supremacy, the latter seek to regain regional hegemony (a goal that, if achieved, jeopardizes the United States' position as a global guarantor of access to energy resources, one of the mainstays of its unilateral primacy).

Although occurrences of armed combat are almost nonexistent, the actions of both powers show a high degree of aggressiveness, such as the installation of bombers or warships in border areas, the expansion of naval bases, threatening military maneuvers, etc. The Chinese built a powerful naval infrastructure, including nuclear-powered submarine forces, underground facilities and missile storage buildings, covered tunnels and railroads for circulation of military forces, in addition to creating a controversial air defense zone over the islands (KLARE, 2016, online).

From China's perspective, therefore, securing control of this region means protecting the base of support for its economy and development project. However, its expansionism in this area interferes with the global "new great game" and thus amplifies the competitive pressure in the region, making it one of the biggest Defense and Security hotspots in the country.

As a result of this pressing need, the Chinese government has been developing a consistent strategy for the region, seeking to create alternatives to the Strait of Malacca while simultaneously strengthening its military presence and deepening regional cooperation. To increase the margin of protection of its energy supply, the country has been attempting to expand the possibilities of supply by land and reduce its dependence on oil transported by sea. To this end, for the past decade, it has been investing in the construction of pipelines in the Central Asian region; so far, the Myanmar pipeline is the main project in operation.

For Fiori, the "US siege" should propel China to search for greater regional integration. Indeed, Beijing has sought to expand its trade relations and strengthen economic integration, which is becoming increasingly necessary to mitigate the distrust its expansion has been instilling in neighboring countries.

> "There is no doubt that this will be the game played in the coming decades: on the one hand, the United States distancing itself and intervening only ultimately; on the other, the other regional powers trying to escape the US siege through power coalitions that counteract the divisiveness stimulated by the United States. This is the case of China, which has already been making an explicit and militarized movement to assert its power and dispute supremacy in the South Pacific Sea and across East Asia, taking increasingly more evident and expansive positions in the struggle for imperialist control in Africa. (FIORI, 2014, p.33)

In early 2013, Chinese President Xi Jinping announced the One Belt, One Road (OBOR) strategy, an initiative aimed at improving and expanding the trade and financial flow between Asia, Europe and Africa. The project is divided into two fronts, one terrestrial, called Silk Road Economic Belt, and one maritime, called Maritime Silk Road. The focus of the terrestrial front is to connect China to three regions: Europe, through Central Asia and Russia; the Middle East, through Central Asia; and South and Southeast Asia, which directly border the Chinese territory. The maritime front is designed to unite China with Europe through the Indian Ocean, and with the South Pacific through the South China Sea.

The initiative also aims to build six corridors of economic cooperation for expanding the existing transport and infrastructure routes between major cities and ports, namely: China-Mongolia-Russia, New Eurasia Land Bridge, China-Central Asia-West Asia, China-Pakistan, Bangladesh-China-India-Myanmar and China-Indochina.

Although crossing Russian territory is in one of the projects of the Chinese initiative, the rapprochement between China and Russia is still in process. Contributing to this is the hostility that the Russian government has been facing on the part of Europe and the USA after the Ukraine crisis. Given this context, Russia, which has always been more focused on European markets and Central Asia, has been more receptive to China's proposal for a transcontinental partnership. According to Fiori, the integration between Russians and the Chinese, which has been

consolidating itself since the end of the USSR, could be further deepened in response to recent American attempts to contain China's ascent.

> After the end of the Soviet Union, China re-approached Russia and redefined its strategic map, but maintained its loyalty from Deng Xiaoping's political point of view: China's development must always be at the service of its defense policy. In this sense, if our hypothesis is correct, and even if history does not repeat itself, the new Obama doctrine of containment of China is likely to strengthen and expand the country's war economy, accelerating and deepening its conquest of the West and its integration with Russia and Central Asia. Finally, this story leaves a startling lesson: for the Chinese, capitalist development is but one more instrument for defending their millennial civilization against the successive sieges and innovations of the "barbarian peoples." (FIORI, 2014, p.91)

The impact of the Chinese initiative divides opinions between those who believe it can contribute to the balance of the interstate system and those who believe it promotes its disruption. The advancement of One Belt, One Road, on the one hand, may destabilize the world geopolitical landscape as competition for global hegemony intensifies; but on the other hand, it can contribute to stabilizing international energy security by expanding the infrastructure and trade network supporting it.

RELEVANT CONSIDERATIONS FOR BRAZIL AND LATIN AMERICA

The recent intensification of the States' expansion over the seas is a phenomenon that is becoming increasingly important in the current transformations of the international system. As we have seen, the dispute over the access to sources of energy and mineral resources and the competition for control of major international shipping routes continue to be at the center of the global competition for power, and today, involve the maritime space more intensely. Thus, a greater incorporation of issues related to the current geopolitics of the oceans into national policies has

been imposing itself to States that have control of strategic oceanic areas as an inescapable demand.

In addition to having an extensive maritime jurisdiction heavily favored by natural resources, such as the huge Pre-salt oil deposits, Brazil also has a remarkable technological toolkit with which to explore this wealth. If, on the one hand, having the necessary Science and Technology to harness these assets is an advantage in the pursuit of development and autonomy, on the other hand, it is also an additional element that encourages the projection of external interests on the country.

In our view, today, understanding Brazil's position in the global geopolitical scene necessarily requires understanding the nuances and effects of the ongoing process of territorialization of maritime spaces, both regionally and internationally. Great efforts have been made worldwide to incorporate the oceans into the national legal apparatus. There is a growing and widespread understanding that public policies aimed at industrialization, economic growth and Defense and Security must include the seas more forcefully in their agendas. In addition to seeking to move in this same direction, Brazil must also pay attention to the impacts this global movement may have on the domestic policy and process of integration of South America.

Oceans can be important catalysts for regional integration. In addition to stimulating the development of technologies and economic activities (shipbuilding, offshore oil and marine renewable energy) that could underpin productive integration, an integrated use of the region's maritime space can help optimize the productivity and performance of existing industries, strengthen the much needed environmental protection measures, set and achieve goals to meet global sustainable development commitments, and develop joint international insertion strategies that comprehensively contemplate the external pressures arising from the global geopolitics of energy.

A DISPUTA GLOBAL POR RECURSOS ENERGÉTICOS OCEÂNICOS E SUA REPERCUSSÃO NA GEOPOLÍTICA MUNDIAL DA ENERGIA

RESUMO

No presente artigo, sublinhamos a ascensão geopolítica dos recursos oceânicos no esperado cenário de crescimento da demanda mundial por energia, de transformações da matriz energética global e de acirramento dos conflitos resultantes da disputa pelo controle das principais rotas de navegação internacional. O intuito é expor um quadro geral da geopolítica global da energia no qual possamos visualizar o potencial de aproveitamento de nossas abundantes riquezas marítimas e perceber possíveis implicações da projeção de interesses externos sobre tais recursos. Julgamos, assim, contribuir com a identificação de questões relevantes a serem incorporadas às políticas marítimas, externas e de Defesa e Segurança de nossa região.

Palavras-chave: Segurança energética. Geopolítica dos Oceanos. Geopolítica da Energia.

REFERENCES

BP (2018). BP Energy Outlook 2018 edition. Disponível em: <https://www.bp.com/content/dam/bp/en/corporate/pdf/energyeconomics/energy-outlook/bp-energy-outlook-2018.pdf>. Acesso em: 04/10/2018.

_____ (2017). BP Statistical Review of World Energy 2017. Disponível em: <http://www.bp.com/content/dam/bp/en/corporate/ pdf/energy-economics/statistical-review-2017/bp-statistical-reviewof-world-energy-2017--full-report.pdf> Acesso em: 04/10/2018.

BROZOSKI, Fernanda. (2018). A geopolítica contemporânea dos oceanos: a territorialização do espaço marítimo no século XXI. Tese de doutorado. PEPI-UFRJ.

BRS (2017). BRS Group Annual Report 2017. Disponível em: <www.brsbrokers.com/flipbook_en2017/> Acesso em: 18/09/2018.

EIA (2016). Offshore oil production in deepwater and ultradeepwater is increasing. 28 out. Disponível em: <https://www.eia. gov/todayinenergy/detail.php?id=28552> Acesso em: 04/02/2018.

_____ (2017). World Oil Transit Chokepoints. 25 jul. Disponível em: <https://www.eia.gov/beta/international/regions-topics.cfm?RegionTopicID=WOTC>. Acesso em: 19/10/2018.

EXXONMOBIL (2017). Outlook for Energy: A view to 2040. Disponível em: <http://cdn.exxonmobil.com/~/media/global/files/ outlook-for--energy/2017/2017-outlook-for-energy.pdf>. Acesso em: 11/04/2018.

FIORI, José Luis (2014). História, estratégia e desenvolvimento: para uma geopolítica do capitalismo. São Paulo: Boitempo.

IEA (2016). World Energy Outlook 2016. Disponível em: <https:// www.iea.org/newsroom/news/2016/november/world-energyoutlook-2016.html>. Acesso em: 04/02/2018.

_____ (2017). World Energy Outlook 2017. Disponível em: <https://www.iea.org/weo2017/>. Acesso em: 04/02/2018.

IGU (2017). IGU World LNG Report 2017. Disponível em: <http:// www.igu.org/news/igu-releases-2017-world-lng-report>. Acesso: 26/08/2018.

MEARSHEIMER, John J.; WALT, Stephen M. (2017). The case for offshore balancing: a superior U.S. grand strategy. Foreign Affairs. n.95, 4 jul/ago.

KLARE, Michael (2013) Rushing for the Arctic's Riches. The New York Times, 7 dez. Sunday Review - The opinion pages. Disponível em: <http://www.nytimes.com/2013/12/08/opinion/sunday/rushingfor-the-arctics--riches.html?pagewanted=all&_r=2> Acesso em: 11/04/2017

_____ (2016). Are the Major World Powers Blundering Toward War? The Nation, 3 mar.

MORAIS, José Mauro de (2013). Petróleo em Águas Profundas - Uma história tecnológica da PETROBRAS na exploração e produção offshore. Brasília: IPEA - Petrobras.

OCDE (2016). The Ocean Economy in 2030. Disponível em: <http://www.oecd.org/environment/the-ocean-economy-in-20309789264251724-en.htm> Acesso em: 18/11/2017

SUÁREZ DE VIVERO, Juan Luis; MATEOS, Juan C. Rodríguez (2010). Ocean governance in a competitive world. The BRIC countries as emerging maritime powers—building new geopolitical scenarios. Marine Policy, n. 34 p. 967-978.

UNCTAD (2016). Review of Maritime Transport 2016. Disponível em: <http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=1650>. Acesso em: 18/08/2017

YERGIN, Daniel (2014). A busca: energia, segurança e reconstrução do mundo moderno. Rio de Janeiro: Intrínseca.