Under whose flag? The race to dominate natural resources: an examination of the evolving power dynamics of superpowers and flag protectionism on global trade and maritime security

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Abstract

Shipping is the lifeblood of world trade and the global economy, but in order to maintain its growth and manage its impact on the social-economic climate, agreement of global rules, specifically the flagging of its vessels, is critical. The international shipping industry is responsible for the carriage of around 90% of world trade and there are over 50,000 merchant ships trading internationally, under flags registered in over 150 nations. Although 98 per cent of world trade has taken place under World Trade Organisation (WTO) rules (UNCTAD, 2018), the use of Flags of Convenience (FOC) and protectionism is on the rise and is viewed as a viable policy option by some countries. This paper examines growing concerns regarding the increased protectionist approach taken by the United States of America (USA), Russia and China regarding the carriage of their energy exports. Two potential game-changing trends are the Energizing American Maritime Act (2017) which proposes that 15 percent of American exports of crude oil and liquefied natural gas (LNG) should to be transported on USA-flagged vessels by 2020 and 30 percent by 2025, and, Russia's plans to restrict loadings of hydrocarbon cargoes at Northern Sea Route ports, to Russian-flagged vessels. Further, in January 2018, China issued a White Paper on its strategic approach to the Northern Sea Route (NSR) signaling its move from partnership to a position of dominance taking advantage of this shortcut to Europe and the for extracting natural resources from the Arctic seabed as a result of global climate change. Although the details of these inward-looking policies and restrictions are not yet clear, these intended actions are concerning, and could create a precedent for other nations to follow.

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Introduction

This paper examines growing concerns regarding the flagging of vessels and the increased protectionist approach taken by the United States of America (USA) and Russia regarding the maritime carriage of their energy exports, especially liquefied natural gas (LNG), in addition to the growing impact of China on maritime trade. Two potential game-changing trends are the *Energizing American Maritime Act* (2017) which proposes that 15 percent of American exports of crude oil and LNG to be transported on American flagged vessels by 2020 and 30 percent by 2025, and, Russia's plans to restrict loadings of

hydrocarbon cargoes at Northern Sea Route ports to Russian-flagged vessels. These, and the ambitious reordering of global trade infrastructure by China, have important implications for global shipping and maritime trade. These developments are set in the context that the international shipping industry is responsible for the carriage of around 90% of world trade with over 50,000 merchant ships trading internationally, currently under flags registered in over 150 nations (UNCTAD/RMT/2018). The scale of this is illustrated in Fig.1 which shows the relationship between national and foreign flag dead-weight tonnage.

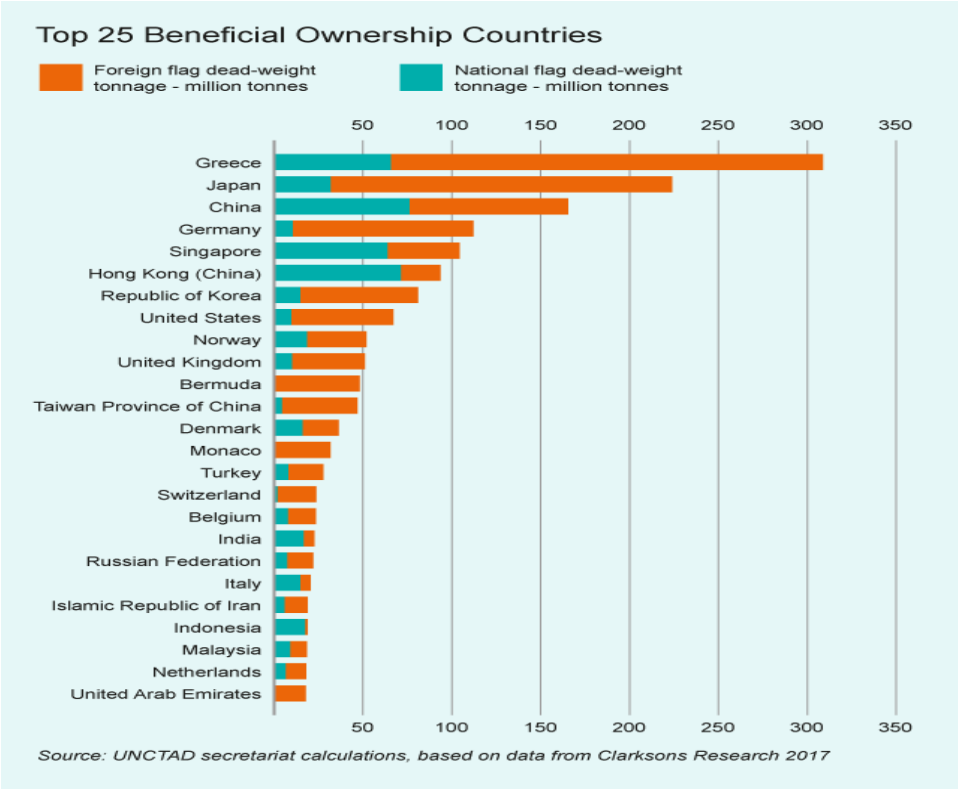

Figure 1: Top 25 Beneficial Ownership Countries
Source: UNCTAD statistics based on data from Clarkson (2017)
Figure used with permission from the International Chamber of Shipping 2019, (ics-shipping.org)

Commercial vessels are high value assets and merchant shipping generates an estimated annual income of over half a trillion US Dollars in freight rates. The industry is characterised by both environmental and economic change. The drive to curb the carbon footprint and improve the environmental performance of international shipping remains a global priority. The initial strategy adopted in April 2018 by the International Maritime Organization to reduce annual greenhouse gas emissions from ships by at least 50% by 2050, compared to 2008, is an important development. A global limit of 0.5% on sulphur in fuel oil to combat air pollution will come into effect on 1 January 2020 requiring operators to install scrubbers and switch to liquefied natural gas and other low-sulphur fuels.

Concurrently, growing e-commerce has the potential to boost seaborne trade in volume, while the digitalization of maritime transport will help the industry respond to the increased demand with enhanced efficiency. In this climate, the market lends itself to risk-taking, the repercussions of which have a long-term impact on the industry. Overly optimistic carriers competing for market-share engaging in ordering excessive new capacity, have the potential to worsen shipping-market conditions and upset the supply and demand balance of the market and lead to direct repercussions on freight-rate levels and volatility, transport costs, and earnings. Liner shipping consolidation through mergers and alliances has been on the rise over recent years in response to lower demand and an oversupplied shipping capacity dominated by mega container vessels, effecting competition and increasing the potential for market power-abuse by large shipping lines. There has been a redefining of the relationship between ports and container shipping lines, alliance restructuring, and larger vessel deployment shipping. This highlights the need for Competition Authorities and Maritime Transport Regulators to analyse the impact of market concentration and alliance deployment on the relationship between ports and carriers. Specific areas of interest comprise: the selection of ports-of-call, the configuration of liner shipping networks, the distribution of costs and benefits between container shipping and ports, and current approaches to container terminal concessions.

It is within this evolving context that issues specifically related to global maritime security, energy security, transparency and safety, and the financial and legislative implications underlying flag registration of ships, need to be considered.

Flag registration

The concern for maritime security underpins the discussion in this section. Flag registration complies with the standards articulated by the International Maritime Organization (IMO) (1992; 2013) whereby ships must have a name and nationality and bear the flag of the country which they have the closest connection. Flag registration offers protection in terms of the law of the land represented by the flag and takes responsibility for the implementation and enforcement of international maritime regulations for all ships granted the right to fly its flag, including investigating situations "where life has been lost as a consequence of the use of force" (Frostad, 2015: 236). However, the decision to register a vessel under a flag of convenience (FOC) may be motivated by the reduction of operating costs and bypassing laws that protect the wages and working conditions of crew, offering foreign owners the potential to employ cheaper foreign labour and in some cases avoiding income taxes. The research of Alcaidea et al. (2016: 378) show a relationship between ship registry selection and ships that are about to end their lives and the use of re-flagging solely for the purpose of scrapping, noting, "If we observe the evolution of the different flag states at the end of the ship's life, we find incremented use of new open registers or 'Mirror Flags'".

General abuse of new registries in the ship-breaking industry would lead to an industry without rules or transparent procedures, which could violate both labour and environmental standards. Statistics show that there is a disparity between owners' nationality (refer to Table 1) and the flag under which vessels are registered since most commercial ships are registered under a flag of convenience, one that differs from the flag of the country of ownership. Transparency, the patterns of flag registration and the underlying economic considerations such as crew costs, and risk factors inherent in the adoption of FOCs, are critical for the safety and security of the maritime industry.

Top 35 Beneficial Ownership Countries

Rank (dead-weight tonnage)	Country or territory	Number of vessels	Dead-weight tonnage	Foreign flag as a percentage of total (dwt)	Rank (dollars)	Total value (million dollars)	Average value per ship (million dollars)	Average value per dead-weight ton (dollars)
1	Greece	4,199	308,836,933	78.76	3	72,538	17.3	235
2	Japan	3,901	223,855,788	85.89	2	77,898	20	348
3	China	5,206	165,429,859	53.97	4	65,044	12.5	393
4	Germany	3,090	112,028,306	90.77	8	38,412	12.4	343
5	Singapore	2,599	104,414,424	39.02	7	39,193	15.1	375
6	Hong Kong (China)	1,532	93,629,750	23.98	9	25,769	16.8	275
7	Republic of Korea	1,656	80,976,874	81.98	11	20,928	12.6	258
8	United States	2,104	67,100,538	85.73	1	96,182	45.7	1,433
9	Norway	1,842	51,824,489	64.62	5	58,445	31.7	1,128
10	United Kingdom	1,360	51,150,767	80.55	6	40,671	29.9	795
11	Bermuda	440	48,059,392	98.93	13	19,691	44.8	410
12	Taiwan Province of China	926	46,864,949	90.62	17	10,857	11.7	232
13	Denmark	920	36,355,509	56	15	18,694	20.3	514
14	Monaco	338	31,629,834	100	23	7,903	23.4	250
15	Turkey	1,563	27,732,948	71.57	20	9,055	5.8	327
16	Switzerland	405	23,688,303	92.58	22	8,458	20.9	357
17	Belgium	263	23,550,024	67.81	27	6,505	24.7	276
18	India	986	22,665,452	27.35	25	6,938	7	306
19	Russian Federation	1,707	22,050,283	67.38	19	9,081	5.3	412
20	Italy	768	20,609,725	29.36	10	23,184	30.2	1,125
21	Islamic Republic of Iran	238	18,838,747	68.8	32	2,799	11.8	149
22	Indonesia	1,840	18,793,019	7.96	26	6,613	3.6	352
23	Malaysia	644	18,351,283	51.07	16	14,641	22.7	798
24	Netherlands	1,256	18,033,334	64.72	12	19,970	15.9	1,107
25	United Arab Emirates	883	17,876,272	97.3	24	7,406	8.4	414
26	Saudi Arabia	283	15,659,518	77.97	30	4,101	14.5	262
27	Brazil	394	14,189,164	72.25	14	19,676	49.9	1,387
28	France	452	11,931,397	69.93	18	10,616	23.5	890
29	Canada	376	10,235,954	75.48	28	5,231	13.9	511
30	Kuwait	86	10,208,147	49.92	31	3,749	43.6	367
31	Cyprus	277	9,257,094	63.95	33	2,711	9.8	293
32	Viet Nam	943	8,801,765	17.84	29	4,161	4.4	473
33	Oman	49	7,490,956	99.92	34	2,215	45.2	296
34	Thailand	393	7,022,484	27.84	35	1,949	5	278
35	Qatar	117	6,640,467	87.56	21	8,827	75.4	1,329
Subtotal, top 35 shipowners		**44,036**	**1,755,783,748**	**70.3**		**770,109**	**17.5**	**439**
Rest of world and unknown		6,119	91,847,146	64.3		58,509	9.6	637
World total		**50,155**	**1,847,630,894**	**70.01**		**828,618**	**16.5**	**448**

Source: UNCTAD secretariat calculations, based on data from Clarksons Research 2017

Table 1: Top 35 Beneficial Ownership Countries
Source: UNCTAD statistics based on data from Clarkson (2017)
Table used with permission from the International Chamber of Shipping, 2019 (ics-shipping.org)

Whereas the top vessel ownership countries comprising Greece, Japan, China, Germany and the Republic of Korea, account for 50% of world fleet tonnage (UNCTAD, 2018: 76), Table 2 (based on UNCTAD, 2018, data) shows that in fact five flags (FOC) are responsible for over half the world dead-weight tonnage. An important feature is that the three leading flags of registration Panama, the Marshall Islands and Liberia, are those of countries that are not themselves major ship owners. The Marshall Islands has continued to increase its market share, and in January 2018, became the world's second largest registry with an increase of 9.91%. The fourth and fifth largest registries, Hong Kong (China) and Singapore, accommodate both owners headquartered in each economy, and owners from other economies.

Table 2: Leading FOC responsible for 57.53% of world dead-weight tonnage (extract from Flags of Registration by dead-weight tonnage (source UNCTAD, 2018) based on Clarkson Research data)

Flag	Dead-weight tonnage (thousands of tons)	Share of world total dead-weight tonnage (percentage)
Panama	335,888	17.46%
Marshall Islands	237,826	12.36%
Liberia	223,668	11.63%
Hong Kong (China)	181,488	9.43%
Singapore	127,880	6.65%
Totals	I,106,750	57.53%

An example that illustrates the complexity and the potential pitfalls in terms of transparency and responsibility between vessel flag state and ownership, ineffective flag control and the ensuing environmental and economic impact, is one illustrated by the *Prestige* incident in which the tanker eventually sank in the Atlantic with the loss of 77,000 tonnes of heavy grade oil on the 17 November 2002. Antunes (2015: 101-102) reported that the *Prestige* flew a Bahamian flag (FOC); had been charted by a Swiss-based trading business with ties to Russia; carried a cargo of 77,000 tonnes of heavy-grade oil from Russia; that the corporate vehicle through which the ship was owned was a Liberian company (which has apparently remained veiled throughout the events); was apparently ultimately owned and managed by Greek interests; was classed by an American society; with Insurance taken out with a British entity; and where the latest class surveys and certification (required under the 1974 International Convention for the Safety of Life at Sea (SOLAS) had been conducted in China and the United Arab Emirates, and finally, had a crew which comprised Greek, Filipino and Romanian nationals. The implications for maritime, environmental and energy responsibility and security are effectively hidden beneath layers which only become transparent following major incidents such as the one illustrated by this incident.

The rise of protectionism

Protectionism is presented as a response to the uncertainty arising from wide-ranging geopolitical, economic, and trade policy risks as well as specific structural shifts. An immediate concern is that inward-looking policies and rising protectionist sentiment could undermine global economic growth, restrict flows and shift trade patterns in maritime trade. The Organisation for Economic Co-operation and Development (OECD) (2018), published a case for open markets and against protectionism, citing that full liberalisation of trade in goods and services would help increase average real incomes in developing countries only by 1.3%, and by 0.76% in high-income countries. The United Nations Conference on Trade and Development (UNCTAD) Review of Maritime Transport (2018), identified key trends that currently

serve to redefine the landscape of maritime transport and shape the sector's outlook, specifically that these trends entail challenges and opportunities which require continued monitoring and assessment for effective and sound policies (UNCTAD, 2018). In 2017, Indonesia and Russia passed laws that aimed to reserve certain export cargoes for their own shipping industries. Indonesia planned to require exporters to use Indonesian vessels for the carriage of crude palm oil (CPO) and coal, whilst Russia planned to restrict loadings of hydrocarbon cargoes at Northern Sea Route ports to Russian vessels (MAREX, 2018) and although domestic cabotage restrictions are common, it is unusual for a modern state to limit the nationality of vessels used in international trade.

On October 31, 2017, Indonesia's Ministry of Trade passed a regulation to restrict export loadings of crude palm oil and coal to vessels controlled by Indonesian maritime transportation companies to take effect at the end of April 2018. The Indonesian National Ship owners Association (INSA), one of the regulation's biggest backers, supported gradual implementation in order to avoid disruption and INSA chairman Carmelita Hartoto called for government support and lower bank interest rates to help build up the fleet of available vessels. To ensure a smooth roll-out, INSA has worked with the coal and palm oil associations to create a 'roadmap' for the availability of Indonesian ships. According to Hartoto (2018), the type, size and number of available vessels will be used to set the volumes that will be carried on Indonesian ships each month, ensuring that "export activities are not disturbed". Whether disruptive to trade or not, it is unclear whether the protectionist measures are permitted under Indonesia's existing treaty agreements. In a recent letter to the Indonesian Ministry of Trade, the International Chamber of Shipping (ICS) raised concerns about the regulation's compatibility with WTO requirements and with basic commitments to the freedom of maritime trade. ICS has warned that the decree could increase shipping costs and reduce Indonesian export volumes and could create an "unwelcome precedent" for other nations to follow.

The following three case studies of the USA, the Russian Federation and China show the complexity of current developments in the evolving maritime landscape.

Case study 1: USA

'The Energizing American Maritime Act' (H.R. 1240) (2017), requires that 15 percent of American exports of crude oil and liquefied natural gas to be transported on USA flagged vessels by 2020 and 30 percent by 2025, an important move since the USA currently has no LNG carriers and or large crude oil carriers. The H.R. 5893/S.2916, Energizing American Maritime Act, seeks to rebuild America's domestic shipbuilding and maritime industry by requiring a small percentage of exported crude oil and LNG be transported on U.S. built and U.S. flagged vessels by 2040.

U.S. Congressman John Garamendi (H.R. 5893 / S.2916) claimed that a robust maritime industry was vital for national security, especially since the USA as the world's commercial superpower, was the largest importer and second-largest exporter of merchandise. The bill is essentially a symbolic act to call attention to the underdeveloped state of the country's maritime industry and bring it into the 21st century. In the meantime, however, America's strategic energy assets will continue to be transported by foreign-flagged ships. Of further concern is that as the largest maritime power in the world, the United States has only two functional icebreakers. The acquisition cost of a new heavy polar icebreaker had been estimated informally at roughly $1 billion and despite the need expressed by both the Coast Guard and Department of Homeland Security; the political will to fund icebreakers has been absent. In economic terms there are currently no American flag LNG carriers, and virtually all existing American crude tankers are confined to protected Jones Act trades.

Case study 2: the Russian Federation and the Northern Sea Route

It is predicted that 90% of recoverable hydrocarbon resources of the entire continental shelf of Russia are located in the Arctic zone of the Russian Federation. The region also accounts for 90% of natural gas production and 80% of gas reserves that are commercially feasible to extract. Predicted hydrocarbon reserves in the deep-water of the Arctic Ocean are 15-20 billion tons of equivalent fuel. The region is also home to 90% of Russia's nickel and cobalt, 60% of its copper, and most of the diamond deposits. According to Gautier and Moore (2017: 4)

"Russia, which already has enormous gas reserves, probably also has the largest resources of undiscovered conventional natural gas— most of it in the Arctic. Its large undeveloped gas resource indicates that Russia will continue to derive political clout from energy resource development..."

Figure 2 shows the interrelationship and the boundaries of the countries of the Arctic region and the on-going Russian claims to the continental shelf and potential access to undeveloped resources.

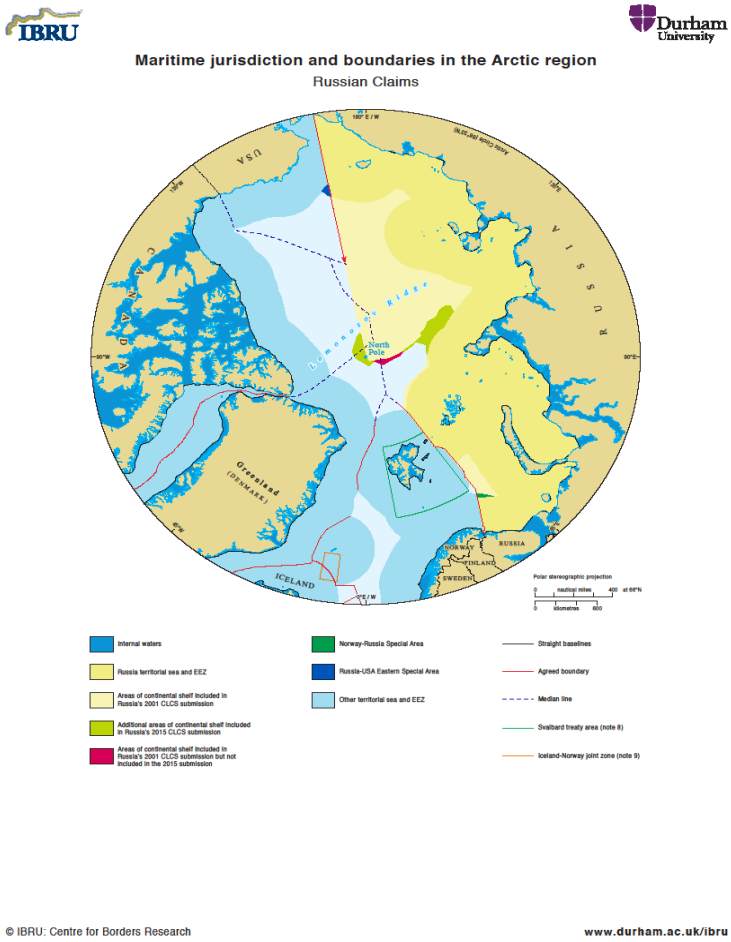

Fig 2 Maritime jurisdiction and boundaries in the Arctic region denoting revised 2015 submission Russian Claim Map used with permission by IBRU, Durham University UK (www.durham.ac.uk/ibru/resources/arctic)

In 2017, Vladimir Putin the Russian President, signed a law stipulating the exclusive rights of vessels under the Russian flag to carry oil, oil products and gas through the Northern Sea Route (NSR), the main sea artery in Arctic Russia (Tass, 31.12.2017). As an Arctic power Russia is certainly more strategically and geographically placed, and better equipped to deal with shipping in this region. Russia has 46 icebreakers of all types in the Arctic, four of which are heavy polar icebreakers. However, in economic terms, Russia's dominance is more ostensive than real, given that several of the most important ships, while operating under a Russian flag, in fact belong to other countries. The Vladimir Rusanov a LNG carrier that came online this year is jointly owned not by Russia, but by Japan's Mitsui Company and China's COSCO shipping corporation. The second ship, the Edward Toll, is owned not by Russia but by Canada's Teekaw Company. According to The Maritime Executive (2018), the new Russian law covers Sabetta, the seaport for Yamal LNG's icebreaking LNG tankers operated by Russia's Sovcomflot, but critically, none of the vessels are Russian-built, Russian-owned or Russian-flagged.

The Maritime Executive (2018) reported that Danish Shipping, the industry association for Denmark's ship owners, met with Russian and Danish government officials to ascertain the new restrictions at Russia's Northern Sea Route ports. Thomas Sylvest, senior advisor at Danish Shipping stated,

"We are concerned with the new Russian legislation. The meetings of the transport working group and the government council are therefore a welcome opportunity to discuss the new initiatives - and to create greater clarity for the industry about the scope and implementation of legislation (2018).

Even if the law's immediate impact is limited, Danish ship owners are concerned that Russia's policy could set an example for other nations. "It's a regrettable signal to send to the world at a time when other nations are also starting to talk about protectionism," observed Danish Shipping's executive director, Jacob Clasen, speaking to the Danish industry outlet 'ShippingWatch' (2018).

Russia is therefore moving towards controlling access to the Northern Sea Route which is the shortest waterway from Europe to the Pacific Ocean, viewing it as an exclusive economic zone to boost profits from potential oil and gas extraction in its Arctic region. The caveat to this plan, according to industry experts, is dependent on the Arctic region of Russia actually becoming a major oil and gas hub.

President Vladimir Putin has announced that vessels under the Russian flag may receive exclusive right to transport hydrocarbons along the route with the relevant bill now being considered in the State Duma. The Russian president said the move "will increase the volume of sea transportation, strengthen the positions of domestic shipping companies, and create opportunities for the renewal of their fleet". Importantly, as evidenced in terms of time, costs and profits, the NSR would allow cargo owners from northeast Asia to move cargo to northern Europe, nine days faster as the distance from St. Petersburg to Vladivostok along the NSR is approximately 14,000 km, whilst the widely used traditional route through the Suez Canal amounts to over 23,000 km. "Providing Russian shippers with a monopoly on transportation of oil and gas produced in the Arctic Sea should bring them additional profits, which could be invested in the industry," stated Artyom Lukin (2017) of the School of Regional and International Studies, Far Eastern Federal University, Vladivostok, Russia.

Through its new law (2017) giving exclusive rights of vessels under the Russian flag to carry oil, oil products and gas in its exclusive economic zone of the Northern Sea Route, Russia plans to bar access to this route to foreign vessels whilst the country itself seeks to boost profits from potential oil and gas extraction in the Arctic region. Although at present there is only one operational project in the region, Yamal LNG, there are preparations under way for the construction of a second, the Arctic-LNG 2. Lukin noted that although a range of gas and oil production projects were under consideration, they might never be realised, especially given the high cost of producing hydrocarbons in the Arctic, and the instability of global oil and gas prices. Interestingly, analysts note that the era of high prices for hydrocarbons is a thing

of the past and that the world will gradually give up oil and gas, resulting in Arctic reserves remaining unclaimed, with a consequent impact on the demand for hydrocarbon transportation services. Lukin's view was that monopolizing the Northern Sea Route carried international risks, observing that "any monopoly inevitably causes discontent and questions. For example, how do granting exclusive rights to Russians correspond with the General Agreement on Tariffs and Trade (GATT) and the World Trade Organization (WTO), of which Russia is a member? Not all countries agree that Russia has the right to exclusive jurisdiction over the Northern Sea Route".

The Maritime Executive (2018) reported that the new Russian law could also affect VostokCoal, a giant project on the Taymyr peninsula that expects to ship tens of millions of tons of anthracite per year by 2025. VostokCoal's backers announced a major shipping contract with Danish firm Nordic Bulk Carriers, last March. Despite the law's apparent restrictions, these giant contracts are likely to remain in place. Russia's Duma included a loophole to exempt energy companies that already have contracted for foreign shipping services, so sparing existing business arrangements. Novatek, as the largest independent natural gas producer in Russia, accounting for half of the LNG cargo volume on the route in 2018, won an exemption from the ban and will be allowed to operate foreign flag LNG carriers. As Arctic Today (22.03.2019) reports, the economic realities emphasizing Russia's dependence on foreign finances and technical expertise, have made possible the softening of the ban.

It is clear that Russia has major strategic plans for its Artic region and according to Maxim Kulinko, a top representative of Russia's state nuclear energy corporation Rosatom, Russia will build eight nuclear-powered icebreakers by 2035; 16 rescue and support ships, several major seaports and 12 new satellites planned to be launched (The Moscow Times, 10 Oct, 2019).

Russia is de-facto controlling the Northern Sea Route and according to Artyom "if Moscow wants to provide ships with the Russian flag exclusive rights, it is unlikely that anyone will be able to effectively prevent it".

Case study 3: China

China is the largest producer and market on the Asian continent, and not surprisingly has become Moscow's biggest customer seeking access to the NSR. However, the Kremlin leader has always insisted that Russia must control this passageway, and some in the Duma have even pressed for excluding the ships of other countries. At present, Russia would appear to dominate this route, given that it is the only country with four nuclear-powered icebreakers and one nuclear-powered container ship in the region and although Moscow has ordered three additional icebreakers of this class, the delivery dates are uncertain (IA REX, July 12, 2016).

In January 2018, Beijing issued a White Paper on its strategic approach to the Northern Sea Route. The document notes that China wants to take advantage of this shortcut to Europe and the possibilities it opens for extracting natural resources from the Arctic seabed as a result of global climate change. At the same time, the White Paper stresses that China will pursue these objectives by cooperating closely with the Russian Federation and other Arctic powers (Xinhua, January 26 2018). China's actions both before and especially since that date suggest that it is seeking, not equality with others in the global frozen North, but rather, a dominant position. This prospect has already prompted some Russian commentators to suggest that China wants to reduce Russia to the status of "a younger brother" in the Arctic (Nezavisimaya Gazeta, June 29 2018); IA REX, July 12, 2018).

China's expansive moves in the region have, to date, taken three forms. First, in increasing its share of orders for goods carried across Arctic waters by the ships of other countries, especially those of the Russian Federation, something that gives it standing in Moscow (IA REX, July 12, 2018). In addition, China has boosted its ownership stake in ships flying the Russian flag. Second, China has launched a

programme to build both ice breakers and ice-capable ships so that it will be able to carry more of the goods and raw materials that it wants with its own vessels rather than having to rely on a second party. Finally, and perhaps most dramatically in terms of Beijing's long-term goals, is that Chinese firms are establishing drilling platforms in areas of the Arctic Ocean that Moscow claims as part of its own exclusive economic zone (EEZ). Similarly, port facilities are being built on Russian territory that is located far from China and that may soon eclipse those of Russia. All three of these developments merit close attention, both for what they say about China's intentions as well as Beijing's increasing upper hand regarding a region and waterway that Moscow has long insisted, are exclusively Russian.

In March, a large Chinese delegation came to Arkhangelsk to reach agreements on Beijing-financed development of both a seaport there and a new 800-kilometer railway needed to link the region to parts of Siberia and northern Russia with significant oil and gas deposits (Fmprc.gov.cn, March 22, 2017; The Barents Observer, March 27, 2017). The Russian news agency *TASS* reported that China is committed to financing all three phases of both projects and to have them completed by 2025 (TASS, March 16, 2017). Russia, of course, will profit from some of this activity. China, however, will benefit even more. Beijing will not have dominance over the Northern Sea Route immediately and Moscow may yet block or at least seek to limit, China's role there.

The issue of Chinese shipbuilding is from Moscow's perspective, more threatening. Although China is not an Arctic power on the basis of geography, in June 2019, its National Nuclear Corporation called for bids from Chinese yards to construct Beijing's first nuclear-powered icebreaker (Global Times, June 22). Once completed, that ship will join the Ukrainian-built Xue Long (Snow Dragon), an icebreaking research vessel that attracted widespread attention last summer for sailing across the central portion of the Arctic ice cap, far north of the Russian coastline (The Barents Observer, August 21, 2017; see EDM, October 3, 2017). With its own icebreaker, Beijing will be able to convoy ships across the NSR without any dependence on Russia. The new ship and its support vessels will not be ready for at least five years; but by building it, Beijing has sent a clear message about its intentions. China clearly signals that it intends to be an Arctic power, even without having an Arctic coastline.

Conclusions

Global trade and global shipping are strongly interrelated and exist in a complex interdependence. The elements highlighted in this paper give an indication of the complexity of the global trade, global maritime industry and the developing power dynamics of superpowers based on control of specific routes and regions, highlighting global financial implications, and critically, issues of state and maritime security and the race to dominate natural resources irrespective of global impact. In order to overcome serious challenges of international transport and trade, there is a need to raise regulatory standards and aim for a consensus in global rules. Alarmingly, the ongoing U.S. display of aggressive unilateralism with its trade partners has resulted in a serious disruption of the global economic order, particularly so since on the 10th of December, 2019, the World Trade Organization (WTO) loses its ability to intervene in trade wars (Reuters, 10.12.2019).

In order for trade and commerce to develop a more even playfield and to become evenly spread enabling sustainable global development, there is a requirement for the implementation of effective and inter-operable International Trade Laws, International Shipping and Flagging Standards. Fundamentally, there is a need for internationally agreed rules, collective action and collaboration, and importantly, international organisations to implement them.

It is anticipated that today's access to technology, information, communication and Artificial Intelligence (AI), offers an opportunity to create a common platform comprising databases, interests,

standards, regulations and solutions that although currently a challenge, may represent a real possibility in the near future.

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