

# Asian Countries and Arctic Shipping: Policies, Interests and Footprints on Governance

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## Abstract

Most studies of Asian state involvement in Arctic affairs assume that shorter sea-lanes to Europe are a major driver of interest, so this article begins by examining the prominence of shipping concerns in Arctic policy statements made by major Asian states. Using a bottom-up approach, we consider the advantages of Arctic sea routes over the Suez and Panama alternatives in light of the political, bureaucratic and economic conditions surrounding shipping and shipbuilding in China, Japan and the Republic of Korea. Especially Japanese and Korean policy documents indicate soberness rather than optimism concerning Arctic sea routes, noting the remaining limitations and the need for in-depth feasibility studies. That policymakers show greater caution than analysts, links in with our second finding: in Japan and Korea, maritime-sector bureaucracies responsible for industries with Arctic experience have been closely involved in policy development, more so than in China. Thirdly, we find a clear tendency towards rising industry-level caution and restraint in all three countries, reflecting financial difficulties in several major companies as well as growing sensitivity to the economic and political risks associated with the Arctic routes. Finally, our examination of bilateral and multilateral Chinese, Japanese and Korean diplomatic activity concerning Arctic shipping exhibits a lower profile than indicated by earlier studies.

**Keywords:** *maritime transport; Northern Sea Route; Northeast passage; China; Japan; Korea; polar silk road; Arctic Council*

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## Introduction

How important are shipping and shipbuilding for the Arctic aspirations of leading Asian states? How much of their engagement is purely commercial, and how much is a reflection of political goals? We take a bottom-up approach, examining Arctic sea routes from the perspectives of Asian governmental agencies, companies and industry associations, rather than a top-down approach centered on Arctic change. A recent study ranked China highest among the leading maritime nations of the world, with Japan and the Republic of Korea as third and fourth.<sup>1</sup> Given the global orientation of their maritime industries, these nations will always assess Arctic options across a wide array of alternatives.

Since 2013, China, Japan and Korea have enjoyed formal observer status in the major international forum specifically targeting northern affairs, the Arctic Council.<sup>2</sup> All three countries emphasize the mutual benefits of cooperation with the Arctic states, but differ significantly in the salience they ascribe to various maritime business opportunities, in the centrality of their shipping ministries in Arctic policy development, and in the preparedness of their maritime industries to commit themselves financially to northern sea routes.

Three alternative transit routes are in focus in debates over trans-Arctic shipping: the Northeast Passage between the Atlantic and the Pacific north of Russia, the Northwest Passage through Canada's Arctic archipelago, and the Central Route across the North Pole. For the near future, it is only the Northeast Passage—specifically, the Northern Sea Route—that has attracted serious interest from Asian shipping actors.<sup>3</sup> The Northwest Passage has depth limitations and remains severely constrained by permanent or moving ice. Regular use of the Central Route remains a futuristic scenario, requiring far greater ice retreat than seen so far.<sup>4</sup> The “Northeast Passage” is the loose term historically applied to the entire Arctic passage between Europe and Asia: the *Northern Sea Route* is the clearly demarcated sea area between the Kara Sea in the west to the Bering Strait in the east, extending 200 nautical miles from the coast, developed and regulated by Soviet and Russian authorities since the 1930s.<sup>5</sup> In addition to its potential as a transit corridor, this route is of interest to the shipping industry because of transport-intensive resource extraction projects in the Russian North. Shipping out from the Arctic or into it is termed “destination shipping,” as distinct from *transit shipping* between the Pacific and the Atlantic.

Because most studies of Asian-state interest in the Arctic assume that shorter sea-lanes to Europe are a major driver, we begin by examining the prominence of shipping concerns in the Arctic policy statements of major Asian states.<sup>6</sup> Contrary to the impression left by many analysts, these policy documents—those by Japan and Korea in particular—reveal soberness rather than optimism with respect to Arctic sea routes, highlighting the remaining limitations and the need for more in-depth feasibility studies. This greater caution from policymakers than from analysts can be explained by our second finding: in Korea and Japan, maritime-sector bureaucracies

responsible for industries with Arctic experience have been closely involved in policy development, more so than in China. Our third finding concerns the tendency to greater industry-level caution and restraint in all three countries, reflecting financial difficulties in several major companies as well as growing sensitivity to the economic and political risks associated with Arctic routes. On this basis, our final substantive section examines bilateral and multilateral Chinese, Japanese and Korean diplomatic activity in Arctic shipping, finding much lower profiles than indicated by earlier studies of Asian states in Arctic affairs.

### **Shipping in Asian Arctic policies**

Of the major Asian states, only India has not published a comprehensive policy document with national priorities for the Arctic and how to pursue them. China issued its Arctic policy in January 2018, several years after Japan and Korea. As in all Arctic strategy documents so far, there is a fourfold emphasis on scientific research, economic opportunities, environmental protection, and the human dimension—notably the traditions and living conditions of indigenous peoples. While such documents do not reveal all aspects of state interests, they provide occasions for articulating priorities. Here we review these policy statements, noting their sensitivity to the privileged role enjoyed by Arctic coastal states and relatively little attention paid to maritime transport relative to scientific research and environmental protection.

### **Arctic-policy Olympics**

The flow of policy documents on the Arctic began shortly after the planting in 2007 of the Russian flag on the North Pole seafloor by an expedition led by the Russian scientist, explorer and politician Artur Chilingarov.<sup>7</sup> Previously, only Norway had issued a High North Strategy, defining this region as its “most important strategic priority area in the years ahead.”<sup>8</sup> A few years later, all eight member states of the Arctic Council as well as one Permanent Participant had specified their Arctic priorities and objectives—and by 2018 the same was true for six European and Asian observer states.<sup>9</sup>

The European Union too has issued a series of Arctic statements, gradually distancing itself from the European Parliament’s controversial call in 2008 for a comprehensive international environmental treaty applicable to the Arctic Ocean.<sup>10</sup> That resolution coincided with similar suggestions by some environmental NGOs and scholars, that a firmer legal framework might be needed for adequate Arctic governance: however, the five coastal states with maritime zones adjacent to the Arctic Ocean—Canada, Denmark/Greenland, Norway, Russia and the USA—were negative to these ideas.<sup>11</sup> The “Arctic Five” responded by issuing the 2008 Ilulissat Declaration, highlighting the law of the sea as a solid foundation for responsible management of the Arctic Ocean and stressing their “sovereignty, sovereign rights

and jurisdiction in large areas of the Arctic Ocean [which imply] ... a stewardship role in protecting” Arctic ecosystems.<sup>12</sup>

The Ilulissat Declaration and the accompanying diplomatic activity served to infuse greater caution in subsequent policy statements by the EU as well as other non-Arctic players.<sup>13</sup> Such caution is also evident in the Arctic statements by the Asian states examined here.

## China

Due to China’s steadily rising geopolitical status, its foreign-policy moves are followed with keenness by the outside world. China acquired its first (and as yet only) ice-breaking research vessel in 1993; in 2004, the Polar Research Institute of China set up an Arctic research base in Svalbard. This Norwegian archipelago is the most accessible among high-latitude research sites—for climatic reasons, and because the Spitsbergen Treaty ensures “equal liberty of access and entry for any reason or object whatever” for nationals of all signatories.<sup>14</sup> China is an original signatory to the Spitsbergen Treaty; as with the other Asian states examined here, its Arctic engagements have expanded during the past decade from an early focus on scientific research, orchestrated by polar research agencies more heavily engaged in Antarctic than in Arctic research.

China’s Arctic policy document is thorough and specific, reflecting a longstanding process of developing regional priorities and defining four principles: respect, cooperation, win–win results, and sustainability. “Respect” and “cooperation” refer primarily to international institutions, notably the UN Law of the Sea Convention (LOSC) and the network of “global, regional, multilateral and bilateral channels” for facilitating joint endeavors.<sup>15</sup> Reciprocity is highlighted - that coastal states must respect the rights that non-Arctic states enjoy in the region—a point reiterated in official Chinese statements on the Arctic over the past decade. A speech by the Assistant Minister of Foreign Affairs, Hu Zhengyue, on a visit to Svalbard in 2009 was the first prominent articulation of how China perceives its role in this region. Only slightly modified, this speech titled “China’s view on Arctic cooperation” was published on the Ministry website, indicating that it represented official policy.<sup>16</sup> Like the 2018 policy document, the 2009 speech reflects China’s longstanding foreign-policy line of reassuring the outside world that it accepts the international order.<sup>17</sup> Three points emphasized by the Assistant Minister in 2009 are no less prominent in the 2018 official policy document: the requirements under LOSC for cooperation with non-Arctic states on matters such as shipping, the gains derivable from joint scientific research and peaceful pursuit of win–win opportunities, and the transregional effects of Arctic environmental change.<sup>18</sup>

How one’s own country is affected by Arctic environmental change is a prominent and recurrent feature of all Asian-state policy statements on the Arctic, explicitly justifying a greater scientific presence in the region and implicitly suggesting some level of stakeholder saliency.<sup>19</sup>

The third principle put forward in Chinese policy, “win–win results,” has become increasingly prominent in official statements and was in 2015 already cited among the central norms underlying China’s practice in the Arctic.<sup>20</sup> The term, with variants like “common interest” or “mutual benefit,” occurs throughout China’s Arctic policy document. Also the final principle, “sustainability,” present in early statements, has become more elaborate and pronounced with time—in the policy document, references to sustainability or environmental or ecological protection are outnumbered only by those to “China.”

China’s Arctic policy devotes considerable attention to maritime transport, and makes some bold claims: “The utilization of sea routes and exploration and development of the resources in the Arctic may have a huge impact on the energy strategy and economic development of China ... [and] China’s capital, technology, market, knowledge and experience is expected to play a major role in expanding the network of shipping routes in the Arctic and facilitating the economic and social progress of the coastal States along the routes.”<sup>21</sup> Shipping is mentioned first among the economic sectors of interest to China—but references to the economy appear only *after* China’s policies and positions concerning scientific research and protection of the Arctic environment are elaborated.<sup>22</sup> Highlights include the “constructive role” China has played in “the formulation of Arctic-related international rules,” presumably including the negotiation of the legally binding Polar Code under the International Maritime Organization, as well as the “Polar Silk Road” branch of the broader infrastructure project known as the Belt and Road Initiative (see below).

The four principles articulated in China’s Arctic policy sit well with Bennett’s argument that China is systematically building two mutually reinforcing narratives to gain legitimacy as a regional stakeholder: one territorial, highlighting its “near-Arctic” location and involvement in Arctic research, and one globalist, highlighting the extra-regional impacts of Arctic change.<sup>23</sup> This balancing of territorial and globalist arguments for a role in Arctic affairs is also highly compatible with the general direction of policy spelt out in Japan’s and Korea’s Arctic documents.

### Japan and Korea

Arctic sea routes feature prominently but soberly in the Japanese and the Korean policy documents. The framing introductory sentence of Japan’s Arctic strategy mentions the first liquefied natural gas carrier to sail from Europe to Japan through the Northeast Passage in 2012. Examination of the feasibility of this route is one of three focus areas for the strategy, along with scientific research and international cooperation.<sup>24</sup> Japan’s Arctic engagement began early, with accession to the Spitsbergen Treaty in 1925. In 1973, Japan established its National Institute of Polar Research; in 1990, a research station on Svalbard was opened. Along with European polar-research heavyweights like Germany and the UK, Japan was accepted as a full member of the International Arctic Science Committee in 1991, shortly after that organization was formed; research cruises in the Arctic Ocean began in 1998.

Further, Japanese institutions, together with Russian and Norwegian partners, carried out the International Northern Sea Route Program (INSROP) 1993–1999, gathering and analyzing an extensive information base on the conditions for shipping.<sup>25</sup> An experimental voyage from Yokohama to Kirkenes, Norway, was organized in 1996.<sup>26</sup>

In Japan's Arctic policy document, attention to business opportunities is couched in language highly sensitive to the sovereignty interests of Arctic coastal states. At the first mention of the term "resources," there is a footnote reminding readers that not only the land areas but also a "large part of the Arctic Ocean consists of the territorial waters of the coastal states, and these have sovereignty or sovereign rights to exclusive economic zones (EEZ) and continental shelves."<sup>27</sup> On maritime transport, while noting that the freedom of navigation is to be respected in the Arctic Ocean, it points out that in ice-covered waters LOSC Article 234 accords coastal states a special status as regards means for protecting and preserving the marine environment.<sup>28</sup> Sixteen of the nineteen specific initiatives laid out in Japan's policy document refer to international cooperation involving Arctic partners—the few exceptions concern building Japanese capacities that can contribute to global public goods like Arctic science and infrastructures for safer Arctic maritime operations.

The Korean policy document also balances attention to northern sea routes with sensitivity to the interests of the Arctic Five, aiming "to contribute to sustainable future of the Arctic by enhancing cooperation with the Arctic coastal states and relevant international organizations."<sup>29</sup> Korea has a shorter Arctic history than Japan, first acceding to the Spitsbergen Treaty in 2012. However, the Korean Polar Research Institute had already established a research station in Ny-Ålesund in 2002 and has conducted polar research cruises with its own icebreaking vessel since 2009.<sup>30</sup> The list of implementing actions is structured under similar headings as in Japan's strategy, but business opportunities, rather than international cooperation or scientific research, feature notably in the Korean document. Among the business opportunities, maritime transport and shipbuilding/logistical services loom much larger than involvement in resource development activities. Contributing to development of the Northern Sea Route and Arctic cooperation was among the national priorities defined in 2013 by then-President Park Geun-hye for achieving a "creative economy."<sup>31</sup>

Yet, both the Korean and the Japanese documents are moderate in their assessments of the material benefits derivable from pursuing Arctic business opportunities. Although commercialization of Arctic routes features prominently among the business opportunities that motivate the Korean policy document, explicit shorter-term objectives mention only feasibility assessments.<sup>32</sup> Similarly, the Japanese document notes that "the Arctic Sea Route is not ready yet for safe and reliable use" and that the "private sector and the government should work together to give the future potential of this route serious consideration."<sup>33</sup> In contrast to the boldness of China's policy as regards shipping, Japan pledges only to "[i]dentify the natural, technical, systemic and economic challenges of the Arctic Sea Route, and preparation

of an environment for its utilization by Japanese shipping companies and others.”<sup>34</sup> Like Korea, Japan emphasizes that Arctic shipping offers options that might become important in the future but hardly in the short term.

China, Japan and Korea have all formulated shipping and other maritime objectives within fairly comprehensive sets of policies on Arctic affairs. China most clearly stresses the rights of non-Arctic states in the region. All three note the mutual benefits derivable from cooperation with Arctic states in science and commerce, within and beyond national waters. Korea has the greatest emphasis on business opportunities, highlighting shipbuilding and maritime transport—but its general assessment here is sober, as is Japan’s.

We now examine the roles played by the maritime sectors of government in developing these Arctic policies, and the preparedness of maritime industries in the three countries to commit themselves financially to Arctic sea routes.

### **Bureaucratic involvement**

The scope of governmental agencies involved in the formulation of Arctic policy statements has broadened in all three states examined here. The prominence of the ministry responsible for maritime shipping ranges from very high in Korea to very modest in China.

In Japan, the ministry responsible for science and technology (MEXT) allocates the largest funding for Arctic activities and has traditionally been the key player on Arctic matters.<sup>35</sup> This situation changed with the rising prominence of the Arctic in Japan’s Basic Plan on Ocean Policy, renewed every five years in a process coordinated by the Cabinet Office and its Headquarters for Ocean Policy.<sup>36</sup> The Headquarters, whose task is to “promote measures with regard to the oceans comprehensively and systematically,” is directed by the Prime Minister and includes all other ministers with ocean competence.<sup>37</sup> It was this body that formally adopted Japan’s Arctic policy in 2015. Among the participants active in formulating this policy was the Ministry of Foreign Affairs—as evident in the Arctic Task Force it set up in 2010 to assess the scope of Japan’s interest in the region,<sup>38</sup> its active diplomacy for obtaining Arctic Council observer status, and the subsequent appointment of an Ambassador for Arctic Affairs. The Ministry responsible for shipping (MLIT) also left a mark on the process, commissioning reports on economic as well as legal aspects of the Northern Sea Route, and successfully pressing for greater attention to Arctic shipping when the Basic Plan on Ocean Policy was up for renewal in 2013.<sup>39</sup> When the bid for Arctic Council observer status succeeded in 2013, an inter-ministerial Liaison Committee on Arctic Issues was established; in Japan, such committees are often created when turf struggles are seen as impeding necessary cross-agency coordination.<sup>40</sup> In summary: the shipping segment of government has participated actively in the formulation of Japan’s Arctic policy—but the coordinating role, and the greatest financial muscle for Arctic activities, are located elsewhere.

In contrast, Korea's process of developing an Arctic policy has been driven by the Ministry of Oceans and Fisheries (MOF), a bureaucratic heavyweight responsible not only for shipping, maritime infrastructure, and marine living resources, but also for polar research.<sup>41</sup> Six other ministries contributed to the policy document; the process was reportedly harmonious, not least because the list of implementing actions is essentially a compilation of ongoing or already financed Arctic activities.<sup>42</sup> The Ministry of Foreign Affairs participated in this process; it represents Korea in Arctic Council meetings—since 2015 by a designated Arctic ambassador—but its role in the formulation of a national Arctic policy has been less prominent than in Japan. In Korea, the MOF holds not only the formal coordinating role in policy development, but also the issue-area expertise that derives from budgetary responsibility for Arctic research logistics. This allocation of administrative responsibilities is in line with our observation that maritime business opportunities figure more saliently in the Korean document than in that of Japan.

China's slow pace in publishing an Arctic policy document is in line with its generic foreign-policy approach, originally advanced by Deng Xiaoping, of seeking to avoid unnecessary alarm about the country's gradually increasing financial and geopolitical weight.<sup>43</sup> It also reflects the high degree of fragmentation typical of Chinese foreign policy, with the Party, the government, and the military offering largely separate paths for influencing the many issues that never reach the main coordinating mechanism, the Leading Small Group for Foreign Affairs.<sup>44</sup>

In the development of China's Arctic policy, no single bureaucratic entity has had an aggregating role comparable to that of the Cabinet Office in the Japanese process or MOF in Korea—and the ministry responsible for shipping has not been much involved. The Ministry of Foreign Affairs coordinates China's participation in the Arctic Council as well as its "track-2" level of Arctic diplomacy—attendance at salient international Arctic conferences arranged by non-governmental organizations. Two salient track-2 annual events are the Arctic Frontiers in Tromsø (Norway) and the Arctic Circle in Reykjavik (Iceland); China has used both venues for articulating its views on Arctic affairs.<sup>45</sup> Since 2017, the ministry has had a special representative for Arctic affairs, but the governmental agency with the broadest scope of Arctic-relevant expertise, widely portrayed as the pivotal player in China's Arctic activities, was the State Oceanic Administration (SOA) under the Ministry of Land and Resources.<sup>46</sup> The SOA was responsible for marine research, marine environmental protection, as well as some maritime industries other than shipping proper. It was also the lead agency for the Chinese Arctic and Antarctic Administration, orchestrator of polar expeditions, and headed the Chinese Advisory Committee for Polar Research (CACPR). In 2018, the ministerial structure was changed: the SOA was dismantled, and most of its functions were transferred to the new Ministry of Natural Resources.<sup>47</sup> The Chinese Arctic and Antarctic Administration became an agency under this Ministry.



Because the CACPR serves as a linchpin between polar research organizations and relevant governmental or military bureaucracies, institutional membership offers a low-threshold indicator of Arctic interest among Chinese agencies. Interestingly, China's Ministry of Transport, responsible for the world's biggest shipping industry, which is often portrayed as eyeing northern sea routes with special interest, is not among the CACPR members—unlike a large number of other ministries or agencies under the State Council, as well as the People's Liberation Army Headquarters of the Central Staff.<sup>48</sup>

To summarize, the Arctic portfolios of the three states examined here have traditionally belonged to the ministry overseeing polar research, but the scope of bureaucratic involvement has broadened significantly in recent years. In Korea, the Ministry of Oceans and Fisheries is responsible for polar research logistics as well as shipping and other maritime industries, and is the undisputed nucleus of the country's Arctic policy development. In Japan, the shipping sector of government has played a more modest role in policy development, coordinated by the Cabinet Office; this also applies to China's relatively fragmented process, which has not yet engaged the Ministry of Transport to any significant extent.

We now assess how Asian shipping industries perceive Arctic opportunities, drawing partly on official statements and private survey responses by companies and industry associations, but mostly on what these players have actually done in terms of investments or other tangible commitments to Arctic projects.

### **Economic commitment**

Rather than focusing on Arctic opportunities, an analysis of the material interests that Asian states may have in Arctic sea routes must start with the maritime policies and the shipping-sector characteristics of each state. Only this point of departure can provide a realistic picture of the extent of interest in Arctic shipping and help clarify whether other factors, like geopolitical considerations, affect Asian involvement in Arctic shipping.

When the Northern Sea Route (NSR) was opened to foreign vessels in 1991, the international shipping community showed little interest—partly due to unattractive commercial and administrative conditions but also to the perception that ice remained a major obstacle, posing severe risks likely to generate prohibitive insurance costs.<sup>49</sup> Twenty years later, the combination of climate change, receding ice-cover, and rising prices on Arctic natural resources had drastically boosted global interest in the NSR.<sup>50</sup> Russian authorities had begun promoting it actively, and several practical steps had improved conditions for international usage.<sup>51</sup> The first transit sailing through the entire route without entering a Russian port occurred in 2010. Steadily rising numbers of international sailings took place in subsequent years, some using the entire North-East passage but most bringing

raw materials from Russian ports to Europe or Asia. A host of scholarly articles appeared, most of them concluding that the NSR could become a regular transport route in the near future.<sup>52</sup>

These developments caught the attention of major shipping actors in the three countries examined here—but their points of departure differed widely. China and Korea had little prior experience with Arctic shipping issues, whereas Japanese business and government circles had a long track record of evaluating prospects for the use of northern sea routes. These differences have affected their approaches to Arctic shipping—we note Japan’s cautious concentration on transport needs deriving from ongoing Arctic resource extraction, Korea’s focus on shipbuilding services, and China’s initially ambitious and comprehensive approach to business opportunities in the maritime Arctic.

### Japan and destination shipping

Among the Asian countries, Japan has the greatest potential to gain from use of NSR in terms of reduced sailing distance between the Atlantic and Pacific, due to its northerly location. This interest manifested in Japanese involvement in the International Northern Sea Route Programme (INSROP), conducted in the 1990s to clarify the conditions and outlook for international use of the NSR.<sup>53</sup> INSROP ended in 1999, with largely negative conclusions on the short-term commercial prospects.<sup>54</sup>

When attention to the NSR resurged around 2010, these conclusions were still well remembered in Japan. Its shipping sector in particular was reluctant to explore new possibilities in the Arctic. However, some research organizations pushed for more attention on the region—notably the well-connected Ocean Policy Research Foundation, which had been the Japanese coordinator in INSROP and for the Japanese follow-up project, JANSROP.<sup>55</sup> From 2010, this organization convened annual conferences aimed at establishing a unified view on Arctic developments among stakeholders; in 2012 an outline for an Arctic strategy was presented to the government, urging a more active Japanese role in the Arctic.<sup>56</sup> These efforts were reflected in Japan’s Arctic strategy launched in October 2015, but, as noted, the formulations concerning shipping were cautious.

A survey of Japanese shipping companies confirmed this picture: any interest in Arctic shipping is highly modest at most.<sup>57</sup> The arguments for caution mentioned by the industry representatives surveyed echo the findings of the INSROP project: higher construction and operational costs, unpredictable ice-situation for some of the year, and limitations on vessel size due to shallow straits, impeding economies of scale. Such factors carry differing weight for different shipping segments, but the overall industry perception reported is that the additional costs outweigh the benefits deriving from shorter sailing distance and associated fuel savings. There is some interest in destination shipping, transporting cargo to or from Arctic ports, but very little interest in the trans-Arctic option.<sup>58</sup>

Future Japanese involvement in Arctic shipping is closely linked to ongoing raw material projects in the Russian north, particularly oil and natural gas. Japanese shipbuilders made bids to build carriers for the huge Yamal LNG project in West Siberia but lost out to Korean competitors (see below). However, a Japanese shipping company within the Mitsui group partnered with China Shipping in a joint venture established to own and operate a subset of the carriers under construction for this project.<sup>59</sup> Another Japanese company, NYK Line, reportedly sought cooperation with Russia's Sovcomflot on the management of five carriers, but the deal fell through when Sovcomflot reneged on four of the five carriers it had originally intended to order.

Prefectural authorities in the northern province of Hokkaido have demonstrated interest in the NSR, since the northern location of its ports, notably Tomakomai, could make them attractive as transshipment hubs.<sup>60</sup> Studies have shown the feasibility of container shipping as well as vehicle transportation on the NSR, in combination with the Suez route when ice conditions prevent Arctic transit.<sup>61</sup> Others have noted the inconvenience and extra cost of operating two logistical chains and have questioned the distance benefit of Arctic shipping, now that Asian industrial production has tended to migrate further south in Asia.<sup>62</sup>

All things considered, Japan remains a potential player in the development of Arctic shipping, but it is not in the forefront commercially—and commercial shipping interests have not been a strong driver for its Arctic policy.

### Korea and shipbuilding

Shipping and shipbuilding rank high on the Arctic agenda of Korea, which became an important shipbuilding nation relatively late. The first major yard was established in 1968 as part of a deliberate and focused government policy that quickly yielded results. By the early 2000s, Korea was the world's leading shipbuilder, but fierce competition loomed, particularly from China. Seeking to sustain the global position of its shipbuilding, the Korean government cooperated closely with the *chaebols*, the large industry conglomerates that control the yards, encouraging a focus on advanced, high-value ships like LNG carriers.<sup>63</sup> When Arctic shipping began attracting global attention, it was only logical for major Korean companies to explore opportunities in a market expected to grow. In July 2013, the Korean yard DSME won the tender for building 15 ice-breaking LNG carriers for the Yamal LNG project in the Russian Arctic, the first of its kind.<sup>64</sup>

The Korean government is eager to develop and broaden this engagement: it has made development of Arctic shipping a national priority and encouraged shipping companies to engage in Arctic operations.<sup>65</sup> In 2013, Hyundai Glovis, a shipping company closely connected to Hyundai Motors and with transportation of cars and trucks as its main line of business, announced that it would test the NSR for oil transport, conducting a trial voyage with 37,000 tons of naphtha from the Baltic Sea

to Korea.<sup>66</sup> However, plans for developing a regular cargo route were abandoned; in interviews conducted by Korean researchers, company representatives cited several problems. Chief among them were the extra costs deriving from the need to reload containers, relatively small cargo volumes, and difficulties in matching cargo and ships.<sup>67</sup> Other negative factors were unpredictable escort fees and icebreaker availability as well as costs associated with protection of cargo on board, crew training and ship maintenance due to extreme environmental conditions.

Two other major shipping companies—the container liners Hanjin Shipping and Hyundai Merchant Marine—announced in 2013 that they would conduct trial navigation on the NSR in line with the priorities declared by the government. However, these plans were also cancelled, mainly due to developments *within* the Korean shipping industry.<sup>68</sup> Several major Korean shipping companies were financially overstretched, and some were on the verge of bankruptcy in 2015–16. In a situation where companies had to restructure and cut costs, exploring long-term possibilities in the Arctic through costly trial voyages could not be prioritized.<sup>69</sup> However, in 2017 Hyundai Merchant Marine came back with a new plan for a regular route with relatively small container ships starting trial runs in 2020.<sup>70</sup> Korean shipping companies have also been involved in deliveries of equipment to oil and gas projects on the Yamal Peninsula.

In addition to shipbuilding and shipping, Korea has aspired to become a hub for the distribution of oil and other commodities transported through or from the Arctic;<sup>71</sup> the authorities have singled out Busan port as well as Ulsan further north as particularly well placed logistical hubs, should the NSR become commercialized.<sup>72</sup> But a low oil price has postponed several Arctic projects, perhaps indefinitely; and although some Arctic oil projects are likely to be implemented, volumes will be much smaller than previously expected.<sup>73</sup>

To sum up, although a Korean yard won the largest Arctic shipbuilding tender to date (for Yamal LNG), the Arctic ‘market’ as a whole has not developed as rapidly as foreseen, exposing broader Korean vulnerabilities. The country is expected to undergo a phase of economic restructuring—shipbuilding and shipping will remain important, but the Arctic can form only a small part of the solution to the problems at hand.

### China and rising caution

Shipping opportunities in the Arctic have also attracted industrial attention in China. In 2010, Jakobson identified an internal Chinese debate beginning around 2008 on China’s role in the Arctic, with an emphasis on maritime issues and especially the attraction of a shorter sailing route to Europe and the US East Coast.<sup>74</sup> Subsequently, several articles were published in English-language journals, detailing the attractions of a shorter sailing route to the Atlantic and giving the outside world an impression of strong Chinese commitment to exploring the Arctic routes. Zhang and associates argued that, under certain conditions, container traffic on the Northern Sea Route

could reach up to 1180 million TEUs by 2030, corresponding to 50% of expected volumes between the North Pacific and Northwestern Europe.<sup>75</sup> Such huge figures took on a life of their own and were soon interpreted as official predictions rather than the theoretical exercise they in fact were.<sup>76</sup> The impression of a comprehensive Chinese maritime strategy towards the Arctic was reinforced by the cruise in August/September 2012 by the Chinese icebreaker research vessel *Xuelong* (Snow Dragon) belonging to the Polar Research Institute of China, for the first time traversing the Arctic Ocean, including the NSR.<sup>77</sup> Chinese interest in commercial exploitation of Arctic shipping was also reflected in the effort to send a ship through the NSR on an experimental voyage in 2013. The journey with the combined bulk carrier/container ship *Yong Shen* in August/September 2013 drew headlines worldwide. *China Daily* quoted industry experts as saying: “Cosco Shipping Co’s new shortcut route to Europe and North America via the Arctic Northeast Passage is expected to change China’s industrial layout in its coastal provinces and reshape the prospects for the global shipping sector.”<sup>78</sup>

But how strong was the commitment by the Chinese shipping sector? In sharp contrast to the optimistic projections by Chinese scholars, interviews and surveys among Chinese shipping companies conducted in 2013 indicated a striking dis-interest in Arctic routes among Chinese shipping companies.<sup>79</sup> COSCO was the sole company to announce specific plans for exploring the NSR, with the *Yong Shen* sailing as the only one scheduled. However, in 2015, COSCO—which presents itself as the world’s largest maritime operator and provider of logistics services—announced that it would start a regular container shipping service through the Arctic;<sup>80</sup> and in early 2016 it agreed with the ABS classification society on trans-arctic shipping development, aiming to “expand Cosco’s use of the Northeast Passage for more regular trading, explore navigation in Northwest Passage, and develop ice-classed vessels.”<sup>81</sup>

Such statements can be interpreted as expressions of keen interest in Arctic shipping from a major player. However, actual shipping activity has remained modest. In 2014, not a single ship under Chinese flag transited the whole NSR, in 2015 only one (*Yong Shen* again), and in 2016 two.<sup>82</sup> In 2017 there were three sailings westwards and two eastwards.<sup>83</sup> A similar pattern emerges for destination shipping, showing very low levels of traffic between the NSR and Chinese ports in 2012 and 2013 (respectively, five and four sailings into China; six and two out of China). In 2014 there was no traffic; 2015 and 2016 saw two and five destination sailings respectively.<sup>84</sup> The actual numbers were higher in 2017, perhaps as many as 12,<sup>85</sup> but the accuracy of all figures for reported sailings can be questioned because of unclear definitions and poor reporting procedures. It is clear, however, that most of the destination sailings went to Sabetta, with materials and equipment for the port and the Yamal LNG plant. These transports were conducted mainly by COSCO’s division for ultra-heavy and super-large transport. As that development project was completed in 2017, this particular customer will vanish, but extension of the Sabetta port

and new hydrocarbon development projects in the same region will spur demand for similar shipping services.

Shipment of LNG from Yamal will in itself give a boost to Arctic destination shipping, and Chinese shipping interests will be heavily involved. There are Chinese owner interests in 14 of the 15 icebreaking LNG carriers under construction in South Korea. Chinese companies are partnering in three joint ventures with shipping companies from Japan, Greece and Canada—but all will be operated by the non-Chinese partners. That arrangement underscores China's lack of experience in Arctic shipping operations, but also the financial strength of Chinese companies and their determination to take part in projects that can be termed "strategic."

All the same, Chinese shipping activity in the Arctic falls short of the expectations created a few years ago. There has been no boom in Chinese Arctic shipping—certainly not in the international-transit segment that formed the basis for those expectations. China's very modest use of the NSR for transit must be seen in connection with the generally weak development of international transit traffic there, the annual number of full NSR transits between the Pacific and the Atlantic never exceeding 15.<sup>86</sup> In addition, problems in the Chinese shipping industry, unrelated to the Arctic but similar to those facing Korean shipping, have played a role. Soon after the trial journey in 2013, it became clear that COSCO was in deep financial trouble due to over-contracting of ships;<sup>87</sup> in late 2015, it was announced that the company would merge with China Shipping Group, another state-owned shipping holding.<sup>88</sup> The merger entailed a major reorganization of the state-owned Chinese shipping industry, spurred by overcapacity in the global shipping market. Moreover, the ultimate potential of the NSR for China may be questioned. As noted by Humpert, "trade with Northern Europe, the region most relevant to Arctic shipping, accounts for just 2.9 percent of China's international trade."<sup>89</sup>

Since 2013, announcements of upcoming container routes have tended to be brief and unspecific on implementation schedule, scope and service frequency, indicating that COSCO prefers to keep longer-term options open. But in 2018, the company announced that three new 36,000 DWT ice-class multi-purpose carriers would be ready in the course of the year.<sup>90</sup> Intended as the company's main operating ships in the Arctic, they will be used to establish a route with three to four westbound and four to six eastbound voyages annually.<sup>91</sup> COSCO realizes that the ships will not be filled up with cargo initially;<sup>92</sup> the company is prepared to conduct a loss-making operation for some time—not unusual in connection with Chinese infrastructure investments. This is clearly an important step, but a relatively cautious one.<sup>93</sup>

How much of this development is commercially driven, and how much is dictated by political priorities? A company like COSCO must take political signals into account. According to the head of the State-Owned Assets Supervision and Administration Commission of the State Council (SASAC), which is the chief regulator of Chinese state-owned assets, "state firms should become 'the most trustworthy' entities upon which the party and the country rely and an important force for China's

ambitious trade and infrastructure strategy, known as the Belt and Road initiative.<sup>94</sup> This implies that state companies will invest some of their resources to help realize the government's ambitions.

The framework for China's international transport initiatives is the far-flung BRI (Silk Road Economic *Belt* and Maritime Silk *Road*) initiative first presented in 2013. The initiative—or plan—is a broad policy for integrating China with world markets, including the establishment of new transport routes. At the core is a vision of new railway, road and pipeline connections via central Asia and Russia to Europe, with new shipping and logistics chains in Asia.<sup>95</sup> In the 2015 Action Plan released jointly by the National Development and Reform Commission, the Ministry of Foreign Affairs and the Ministry of Commerce, the list of potential infrastructure and logistics developments was very long—but the Arctic was *not* mentioned.<sup>96</sup> True, the Silk Road Fund, established in 2014, has invested in the Yamal LNG project in Russia's Arctic, indicating, according to Bennett, that the initiative is also about access to resources.<sup>97</sup> In the 13th Five-Year Plan for Marine Development (2016–2020), however, Arctic shipping was not mentioned at all.<sup>98</sup>

Things changed when a new “Vision for Maritime Cooperation under the Belt and Road Initiative” was released on June 20, 2017. It stated that “Another blue economic passage is also envisioned leading up to Europe via the Arctic Ocean.”<sup>99</sup> There has been some discussion about the origin of this initiative, with Chinese sources indicating that it was initially a Russian idea.<sup>100</sup> Considerable frustration existed in Russia that the BRI seemed to entail the establishment of new transport routes largely bypassing Russia, at a time when Russia had ambitious ideas for developing its NSR. In the autumn of 2015 deputy premier Dmitriy Rogozin, who had a coordinating role in Russia's Arctic policy, proposed the creation of a “Cold Silk Road,” explicitly linking the NSR to the Belt and Road Initiative.<sup>101</sup> However, China seemed reluctant to extend the BRI to the Arctic; the idea was mentioned only briefly and cautiously by Putin in a long speech to the major conference “One Belt, One Road” in Beijing, May 14, 2017.<sup>102</sup> With the vision document published just a month later, China declared interest—however, without specific commitment to develop the route: “China supports efforts by countries bordering the Arctic in improving marine transportation conditions, and encourages Chinese enterprises to take part in the commercial use of the Arctic route.”<sup>103</sup> This formulation places the Arctic route in a different category than other maritime Silk Road stretches where specific investments and diplomatic efforts are underway. When Xi Jinping met Prime Minister Medvedev in November 2017, support for a Polar Silk Road was couched in very general terms in the official statement.<sup>104</sup>

China's long-awaited 2018 Arctic policy document again encouraged Chinese enterprises “to participate in the infrastructure construction for these routes and conduct commercial trial voyages in accordance with the law to pave the way for their commercial and regularized operation.”<sup>105</sup> But the document strongly stressed international cooperation in developing Arctic shipping routes and did not mention

Russia specifically. It seems that Chinese authorities do not want their vision of a Polar Silk Road—or a “Silk Road on Ice”—to be seen as an appendix to Russian plans, although they realize that Russia must play a key role in any development of trans-Arctic shipping for the foreseeable future.

Even if the development of Arctic shipping corresponds with China’s broad policy goals, we find no evidence that Arctic options enjoy high priority. Chinese shipping companies are encouraged—but not strongly—to take part in Arctic shipping. To Chinese policymakers, it would appear commercially advantageous for Chinese companies to be involved in the opening of a new international transport route, and cooperation in developing NSR infrastructure would sit well with the numerous proposals under the Russian–Chinese partnership agreement on more Chinese foreign direct investment in Russia.<sup>106</sup> A financial mechanism was created in 2018 with a USD 9.5 billion credit line from China, aimed at “joint integration processes on the area of the Eurasian Economic Union and the Chinese Belt and Road initiative,” with the NSR mentioned as a priority.<sup>107</sup> However, even if commitments to this Arctic seaway would be positive for bilateral relations with Russia, the Chinese authorities are unlikely to undertake large-scale investments without serious consideration of the long-term commercial potential. For Chinese commercial shipping companies, the time horizon in evaluating profitability is a short one. There are also political obstacles in the bilateral relationship that may slow down developments. Chinese representatives have occasionally alluded to the need for some sort of joint management of the NSR, if China is to invest heavily in infrastructure.<sup>108</sup> This has remained totally unacceptable to Russia.

As with Japan and Korea, China’s interest in Arctic shipping is real but increasingly cautious, and expectations are considerably lower today than in 2012/2013. Whereas Korea has emphasized the market for ice-strengthened vessels, exploration by Chinese companies has revolved around transport, with COSCO as the most active player by far. Despite optimistic projections, transits through the entire North-East passage have remained rare; the only large-scale financial commitments by Asian vessel operators to Arctic shipping opportunities are those by the Chinese and, to a lesser extent, Japanese owners of custom-made gas carriers serving the major resource development project in the Russian North, the Yamal LNG.

### **Diplomatic engagement**

As with policy documents, bureaucratic involvement, economic commitment and diplomatic engagement in the regulation of Arctic shipping offer important indicators of Asian-state interest. International law generally reflects the preference of leading shipping states for globally uniform standards, constraining the regulatory leeway for coastal states to act alone or regionally. That is why a UN specialized agency, the International Maritime Organization (IMO), forms the centerpiece of the institutional complex that governs Arctic shipping, a complex that includes



states, private classification societies, regional bodies like the Arctic Council, and a string of port-state control arrangements.<sup>109</sup> Asian states have kept low profiles in these multilateral arenas for Arctic governance thus far. Nor have they used bilateral channels to challenge existing unilateral shipping regulations, to which we now turn.

### Positions on coastal-state unilateralism

Among the regional states, Canada and Russia have by far the longest Arctic coastlines, and both are assertive on Arctic jurisdictional matters. The LOSC generally confirms the regulatory near-monopoly that flag states have traditionally had whenever passage occurs outside the internal waters of another state, reflected in the right to innocent passage through the territorial sea where the coastal state has sovereignty. Within its EEZ, a coastal state cannot legally impose standards higher than those “conforming to and giving effect to generally accepted international rules and standards established through the competent international organization,” meaning the IMO.<sup>110</sup> Yet, as Japan noted in its Arctic policy document, the LOSC tempers this general restrictiveness by granting coastal states “the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone,” provided those rules “have due regard to navigation.”<sup>111</sup> Ambiguity remains concerning the precise meaning of “due regard” and whether these regulatory rights also apply landward of the EEZ, in the territorial sea – which might affect the right of foreign vessels to unimpeded transit passage in the Arctic.<sup>112</sup> While Article 234 expands the coastal-state regulatory competence, the precise extent of that competence is contestable, and contested—but not by the Asian states studied here.

Both Canada and Russia have unilaterally adopted laws on reporting, discharge, as well as the design, construction, equipment and manning of vessels operating in Arctic waters adjacent to their coasts—laws stricter than those agreed in IMO instruments.<sup>113</sup> Unlike most IMO treaties, these regulations also apply to foreign government ships on non-commercial service. Neither state relies solely on Article 234 for these standards: Canada’s original Arctic Waters Pollution Prevention Act (AWPPA) legislation preceded the LOSC negotiations and was a major motivation for the Canadian initiative to include an Article on ice-covered waters. Both states argue that parts of the shipping lanes in question are internal waters and thus subject to the same regulatory sovereignty as that applicable on land.<sup>114</sup> Nevertheless, both Canada and Russia have adapted their legislation to Article 234. In 2009, Canada expanded the spatial scope of AWPPA from 100 to 200 nm, in line with the spatial scope of Article 234; and in 2012, Russia included an explicit reference to the EEZ when amending its 1991 NSR legislation, interpreted by observers as a means to invoke the legitimacy of the LOSC for bolstering its unilateral regulation.<sup>115</sup>

Unlike the USA and the EU, none of the Asian states has explicitly contested Canada’s or Russia’s unilateral regulation of shipping northwards of their Arctic coasts.<sup>116</sup> True, China notes in its Arctic policy that “disputes over the Arctic shipping

routes should be properly settled in accordance with international law”,<sup>117</sup> which could be interpreted as a hint at multilateral dispute resolution. As yet, there have been no signs of such dispute. When China’s ice-breaking research vessel *Xuelong* traversed the Northwest Passage in August 2017, the vessel applied for permission in accordance with Canadian legislation;<sup>118</sup> a practice pursued consistently with Russia when sailing in the NSR. Indeed, all Chinese, Korean and Japanese commercial or government ships that have transited the NSR in recent years have complied with Russian regulations: applying for a permit to enter the NSR, presenting relevant information about the ship’s capabilities and voyage plan, and agreeing to pay for ice pilotage and icebreaker services if such services are deemed necessary by Russian authorities.<sup>119</sup> Asian shipping actors see the high pilotage and icebreaker fees as a major drawback when assessing the Arctic route towards the Suez alternative; informally, they have proposed that such fees be subject to bilateral or regional negotiations.<sup>120</sup> The misgivings of potential users of the NSR have apparently had some impact: whereas the Russian practice had been to charge such fees regardless of whether the services proved necessary, the NSR legislation in force from 2013 mandates payment only for services rendered, as part of broader efforts to make the NSR administration more palatable to foreign users and also more in line with LOSC Article 234.<sup>121</sup> The main point here, however, is that unlike the USA, the leading Asian states have so far refrained from politically challenging the unilateral shipping regulations Russia and Canada have put in place in ice-covered waters adjacent to their coasts.

### The IMO Polar Code

By far the most prominent international negotiations on Arctic shipping of the past decade have concerned the IMO Polar Code, adopted in 2015 and setting forth mandatory regulations and standards for ships operating in ice-covered waters with respect to vessel design, construction, equipment, manning and training.<sup>122</sup> Formal negotiations began in 2009; representatives of China, Japan and Korea all participated in the Correspondence Group that worked on draft texts between sessions, but they generally kept a low profile.<sup>123</sup>

A review of the documents submitted to the IMO subcommittee tasked with the Polar Code negotiations, including reports of the Correspondence Group, provides no indication that any Asian state saw these negotiations as an opportunity to influence developments in an arena important for Arctic governance.<sup>124</sup> Most of the documentation from these meetings was submitted by Arctic states or by European states with observer status in the Arctic Council, like Germany and France. Of the 141 documents on the matter submitted to this subcommittee before the adoption of the Polar Code, none originated with an Asian state.<sup>125</sup> This changed somewhat towards the end of the process, when the draft text had reached the committee level. China and Korea co-sponsored two papers prior to final adoption by the Council,

including a successful proposal for more stringent language on the scope of the Code's double-hull and double-bottom requirement for new vessels.<sup>126</sup> In contrast, Japan's single submission to that committee took the shipper's perspective, not the shipbuilder's or an environmental one, joining a successful industry-backed proposal for widening an exemption for small tankers from the same requirement.<sup>127</sup> Environmental groups like the WWF, industrial organizations like the Cruise Lines International Association, and even the South Pacific micro-state Vanuatu were all considerably more active in submitting papers to the Polar Code negotiations than any of the Asian shipping giants examined here.

There is one exception: China (but not Japan and Korea) joined the USA in a proposal to delete a savings clause in a draft Preamble that would have upheld the priority of national regulations over the Polar Code by providing that, until the adoption of a harmonized system, "States may retain local navigation rules and regulations for certain routes and waterways under their jurisdiction."<sup>128</sup> This savings clause, proposed by Russia and supported by Canada, was not included in the final Polar Code.

As with the absence of Asian-state challenges to regulatory unilateralism in the Arctic, the generally low profile held by these states during the global Polar Code negotiations indicates that the Asian footprint on Arctic shipping governance is modest at best.

### Arctic Council engagement

At the regional level of Arctic shipping diplomacy, China and Korea have attended Arctic Council meetings as *ad hoc* observers since 2008, and Japan since 2009. However, their involvement in the activities overseen by this high-level forum has been quite limited, also as regards shipping issues.

One indicator of a state's engagement in an international institution is the size of its delegations to important meetings. The numbers of officials or experts dispatched to Arctic Council events by the Asian states examined here are comparable to those for European observer states like Germany or the UK, and considerably lower than those for Arctic states.<sup>129</sup> Twice a year, Senior Arctic Officials (SAO) meetings are held, overseeing the core activities conducted under six working groups as well as various *ad hoc* expert groups and task forces, all reporting to the Council's highest body, the biennial Ministerial Meeting.<sup>130</sup> Attendance at a SAO meeting is the least demanding in terms of specialized expertise and substantive contribution. Asian-state attendance has been higher and more frequent at the SAO level than in working groups, but even here delegations rarely exceed two persons. Meeting attendance in the working group with prime responsibility for shipping issues, that of Protection of the Arctic Marine Environment (PAME), has been regular but with a small delegation from Korea and only an occasional presence from China and Japan.<sup>131</sup> Unsurprisingly, the visibility of these states in PAME documents has been low, although some Korean initiatives are reported in recent years. In the PAME

documents available in the Council archives, no more than a quarter even mention an Asian state—typically only once and in passing.<sup>132</sup>

In 2009, the Arctic Council published a comprehensive Arctic Marine Shipping Assessment (AMSA); implementation of recommendations from that assessment has been a stable item at subsequent PAME meetings.<sup>133</sup> However, only the last of four AMSA progress reports makes any reference to an Asian state. In the single exception to this silence, Korean inputs are mentioned a few times in connection with a workshop co-arranged with PAME's Shipping Expert Group on potential future projects, one that looms large in Korea's most recent observer activity report to the Arctic Council.<sup>134</sup>

The relatively low profile kept by these Asian states in the foremost regional forum for Arctic issues is partly explained by certain limitations that Arctic states have placed on observer participation. The Arctic Council Observer Manual encourages observers to “make relevant contributions through their engagement primarily at the level of working groups,” but requires that projects be proposed through an Arctic state or a Permanent Participant; and joint funding from observers to a project may not exceed that of Arctic states unless the SAO decides otherwise.<sup>135</sup> Especially during Canada's 2013–2015 chairmanship, many observers considered the Arctic-state encouragement of active observer participation to be rather lukewarm. In its 2016 observer activity report, for instance, China noted that of the 25 experts it had nominated as participants in relevant programs, only eight were invited to join.<sup>136</sup>

For several reasons, therefore, Asian states have been modest in making use of opportunities to participate in Arctic Council meetings and projects on Arctic maritime transport. This approach at the regional level of shipping diplomacy is in line with the low profile they have maintained in bilateral interaction with Arctic coastal states and during global IMO negotiations of the Polar Code.

## **Conclusions**

Shipping and shipbuilding are not quite as powerful drivers of the Arctic aspirations pursued by China, Japan and the Republic of Korea as many believe. Arctic maritime transport is viewed with rising caution at governmental as well as industry levels in these countries. Soberness in evaluating maritime business opportunities is evident, particularly in Japanese and Korean policy documents and industry statements. China's Arctic policy is more upbeat on Arctic shipping options, subsuming them under the larger Belt and Road Initiative as a “Polar Silk Road.” However, the Chinese shipping industry's actual moves into the region have been cautious, and increasingly so over time.

The bottom-up approach we have taken here means that any distinct advantages that Arctic sea routes enjoy over the Suez and Panama alternatives—notably, shorter distances and associated savings of fuel and time—are seen in light of the specific

political, bureaucratic, and economic conditions that surround shipping and shipbuilding in China, Japan and Korea.

The political attention those countries pay to the Arctic is clearly rising, but not as steeply as the rise in attention to Asia among Arctic-policy analysts. Claims to saliency as Arctic stakeholders are based primarily on the effects of Arctic climatic developments on their home territories and on the rights all non-coastal states enjoy under international law. However, China, Japan and Korea also emphasize their own contributions to scientific investigations in the Arctic as well as the relevance of their capital and technology for regional economic development. Especially in China's policy document, those reasons are reinforced by explicit references to its own prominence in global governance and international affairs. All three underscore that they fully respect the sovereign rights of coastal states, and none of them has explicitly challenged the controversial unilateral shipping regulations that Canada and Russia have established for ice-covered waters adjacent to their coasts. At regional and global levels too, the Asian states have maintained relatively low profiles, in shipping-oriented activities under the Arctic Council and in the negotiations of a legally binding Polar Code under the International Maritime Organization.

The significance of shipping and shipbuilding for Asian engagement in the Arctic has also been conditioned by bureaucratic structures in each country and their proximity to industry associations and fluctuations in the relevant markets. The ministries of foreign affairs, and in Japan the Cabinet Office, have played important roles in the aggregation of comprehensive Arctic policies; in Korea the main driver has been the powerful Ministry for Oceans and Fisheries, which also has responsibility for shipping and polar research. Deep involvement of the segment of government closest to shipping and shipbuilding, characteristic of policy development in Korea and Japan, implies that elaboration of goals, priorities, and specific projects build on sector expertise sensitive not only to opportunities but also to political or economic constraints. In China as well as Korea, the two countries whose Arctic policies convey the clearest emphasis on economic use, the shipping industries have been financially overstretched in recent years and thus less prepared to commit themselves to heavy investments where the expected returns are potentially high, but uncertain and still far in the future.

For all three countries, rising attention to Arctic developments as well as broader aspirations of playing visible roles in global governance mean that maritime transport projects involving this region are assessed with considerable interest, but we find nothing to indicate that they will be pursued unless the expected returns equal or exceed those of other options. "Arcticness" matters—but competitiveness decides.

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44. E.g. Heungkyu Kim, “Principles and Practices in Chinese Foreign Policymaking: Implications for its South Korea Policies,” *Korean Journal of Defense Analysis* 24 (2012), 41; also Chen, “China’s Emerging Arctic Strategy,” 365. At the time of writing, the Leading Small Group is headed by Party Secretary and President Xi Jinping and comprises leaders of foreign-affairs related bureaucracies within the Communist Party (Politburo), the government (State Committee ministries), and the military (People’s Liberation Army).
45. Most of the Chinese official Arctic statements cited above were made at one of these conferences; on China’s emphasis on being visible on these track-2 events, see Ping Su and Marc Lanteigne, “China’s Developing Arctic Policies: Myths and Misconceptions,” *Journal of China and International Relations* 3 (2018).
46. E.g. Jakobson and Peng, “China’s Arctic Aspirations,” 3; Tonami, *Asian Foreign Policy*, 30.
47. [http://english.gov.cn/state\\_council/ministries/2018/03/13/content\\_281476076304160.htm](http://english.gov.cn/state_council/ministries/2018/03/13/content_281476076304160.htm) (accessed August 10, 2018).
48. In 2013, CACPR members included the ministries of foreign affairs, finance, land and resources, industry and information technology, health, agriculture, education, as well as science and technology and also several second-tier governmental agencies such as the National Development and Reform Commission and the China Meteorological Administration. See Linda Jakobson and Seong-Hyon Lee, “The North East Asian States’ Interests in the Arctic and Possible Cooperation with the Kingdom of Denmark” (Stockholm International Peace Research Institute, 2013), 6. Reports from the 15th (2013) to the 17th CACPR (2016) conferences list a total of 16 CACPR members, the Ministry of Transport not being among them (Professor Wangchuanxing, Tongji University, personal communication, 17 December 2018).
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50. Dag Harald Claes and Arild Moe, “Arctic Petroleum Resources in a Regional and Global Perspective,” in *Geopolitics and Security in the Arctic*, eds. R. Tamnes and K. Offerdal (London: Routledge, 2014), 97–120.
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55. Also Tonami, *Asian Foreign Policy*, 48 and 58. At the time of INSROP the name was the Ship and Ocean Foundation; from 2015: The Ocean Policy Research Institute, Sakakawa Peace Foundation. The Russian coordinator was the Central Marine Research and Design Institute in St. Petersburg. The Fridtjof Nansen Institute was the Norwegian coordinator and also hosted the program secretariat. See also Brubaker and Ragner 2010.
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