Three-Way Power Dynamics in the Arctic

REBECCA PINCUS

Abstract

The Arctic is an emerging region of great significance to US-China-Russia great power competition. This is due to the concentration of natural resources in the Arctic, as well as its future use as a transportation corridor between the Pacific and Atlantic. Russia's dominant position in the Arctic complicates the US-China dyad. While most high-level US security strategies and discourse identify the return of great power competition as the dominant current security paradigm, China and Russia are generally treated in isolation from each other. However, when it comes to the Arctic, China-Russia cooperation is a crucial factor to consider when formulating US strategy. This article places Chinese ambitions in the Arctic in the context of Chinese grand strategy and assesses the basis of, and prospects for, Chinese-Russian Arctic cooperation. It also advances a three-track framework for understanding Chinese-Russian cooperation in the Arctic—economic, military, and political—in which issues of control and trust are contested.

he Arctic is an important locus for great power competition and triangular balancing between the US, China, and Russia. It is what political science professor Rob Huebert has dubbed the "New Arctic Strategic Triangle Environment" in which "the primary security requirements of the three most powerful states are now overlapping in the Arctic region," raising tension.¹ The Arctic is an emerging area of global economic activity and a highly militarized and strategic region. The future of Arctic development therefore will impact US grand strategic goals, including the international rule of law, freedom of the seas, the safety of the US homeland, and the future of NATO. Two US competitors, Russia and China, appear to have overlapping—although not well-aligned—interests in the region. The emergence of a strategic triangle complicates US and allied efforts to apply pressure to Russia in the high north, along with US efforts to counter growing Chinese global influence.

The US National Security Strategy (NSS) and National Defense Strategy (NDS) clearly identify great power competition as the dominant current global paradigm with Russia and China as US competitors. These strategies do not address the Arctic region, focusing instead on more traditional and higher-priority areas of concern. Arctic-specific discourse centers on challenges to the US posed by Russia and China. However, across both general and Arctic-specific statements of US strategy, the potential for Russia and China to cooperate in opposing US interests is largely discounted. In the Arctic, Russia and China have fundamental security interests. Thus, in the triangular geopolitical context of the region, US strategy must address the potential for China-Russia cooperation to avoid adverse policy choices.

In the 2017 National Security Strategy, the Trump administration laid out a vision for US security that warned of a new threat paradigm from states that are "steadily" implementing "long-term plans to challenge America and to advance agendas opposed to the United States, our allies, and our partners." The Summary of the 2018 National Defense Strategy of the United States of America elaborates on this vision of US security: "The central challenge to US prosperity and security is the reemergence of long-term, strategic competition by what the National Security Strategy classifies as revisionist powers" (emphasis in original). It is increasingly clear that China and Russia want to shape a world consistent with their authoritarian model—gaining veto authority over other nations' economic, diplomatic, and security decisions.

The two documents are signposts for a shift in US grand strategy. They lay out holistic threats to US security and prosperity and to the global order founded on liberal democratic values. Along with others, these documents specifically identify China and Russia as peer or near-peer challengers to the US and characterize them as seeking to revise the global order: "China and Russia are now undermining the international order . . . undercutting its principles." The collective emphasis, here and in other foundational documents, is on the return of great power or long-term strategic competition. While US grand strategy appears to focus on the two, the NSS and NDS documents establishing this emphasis do not address the Arctic region. The Arctic has the potential to become a significant area of Sino-Russian cooperation, yet higher-level US strategy does not appear to incorporate this prospect. The core strategy documents clearly identify Russia and China as threats to US and allied interests in the Arctic but generally treat them separately. The National Security

Strategy hints at why: "China and Russia aspire to project power worldwide, but they interact most with their neighbors."6

Recent commentaries illustrate this interpretation. In May 2019, US secretary of state Mike Pompeo delivered the speech "Looking North: Sharpening America's Arctic Focus" in advance of an Arctic Council ministerial meeting. In it, he sharply addresses both Chinese and Russian actions in the Arctic:

China's words and actions raise doubts about its intentions. . . .

... China's pattern of aggressive behavior elsewhere ... should inform what we do and how it might treat the Arctic.

Let's just ask ourselves: Do we want Arctic nations ... ensnared by debt and corruption? Do we want crucial Arctic infrastructure to end up like Chinese-constructed roads in Ethiopia, crumbling and dangerous ...? Do we want the Arctic Ocean to transform into a new South China Sea? . . .

Then there's Russia.⁷

Secretary Pompeo directs stern language against both Russia and China, but his remarks largely avoid the potential of meaningful cooperation between the two.

Similarly, Adm James Foggo, commander of US Naval Forces Europe— Africa and commander of NATO's Allied Joint Force Command Naples, highlights the threats posed by Russian and Chinese actions in the Arctic. His interpretation of Sino-Russia cooperation is dismissive: "Russia and China remain wary partners, with differing stances on proposed Arctic governance and development."8 In contrast, the 2019 Chinese Defense White Paper extols Sino-Russian military cooperation:

The military relationship between China and Russia continues to develop at a high level, enriching the China-Russia comprehensive strategic partnership of coordination for a new era and playing a significant role in maintaining global strategic stability. The Chinese and Russian militaries have continued the sound development of exchange mechanisms at all levels, expanded cooperation in high-level exchanges, military training, equipment, technology and counter-terrorism, and realized positive interaction and coordination on international and multilateral occasions. Since 2012, Chinese and Russian militaries have held 7 rounds of strategic consultations. From August to September 2018, at the invitation of the Russian side, the PLA participated in Russia's Vostok strategic exercise for the first time.⁹

Recent indications suggest that the US security establishment is finally beginning to consider Sino-Russian cooperation and pay more attention to the Arctic region. For example, in January 2019, the director of national intelligence provided testimony specifically addressing the issue: "We anticipate that [China and Russia] will collaborate to counter US objectives. . . . The two countries have significantly expanded their cooperation, especially in the energy, military and technology spheres, since 2014." Recently, a series of documents explicitly connect great power competition with China and Russia to the Arctic region. The June 2019 DOD Arctic Strategy builds on the concept of great power competition outlined in the NSS and NDS. The Arctic Strategy addresses China and Russia as major concerns: "China and Russia pose discrete and different challenges in their respective theaters. . . . In different ways, Russia and China are challenging the rules-based order in the Arctic." Also in 2019, the US Coast Guard issued an Arctic Strategic Outlook echoing the DOD's emphasis on great power competition in the Arctic. 12

This article explores the extent of Chinese-Russian cooperation in the Arctic in three dimensions: economic, military, and political. They offer a framework for understanding Russian and Chinese interests and activities in the Arctic and for assessing what kinds of challenges may emerge for the United States. While the term "great power competition" is helpful in characterizing the overall geopolitical paradigm, it does not provide the granularity needed for defining and responding to broad challenges—like Russian and Chinese interest in Arctic development—that cut across these dimensions.

Economic Dimension of Sino-Russian Cooperation

Aligning with the overall thrust of Chinese grand strategy, Beijing's primary strategic interest in the Arctic is economic—natural resources and potential shipping lanes. Chinese-Russian cooperation centers around these two axes, both of which also align with Russian economic interests in developing its Arctic resources. In seeking to develop these resources, Russia needs foreign capital. Following the imposition of Western sanctions in 2014, Moscow clearly pivoted East and began to court Chinese investment—to the point of inviting the Belt and Road Initiative (BRI) to include Russia's Northern Sea Route (NSR). However, Russian-Chinese economic partnership in the Arctic has foundered over issues of control.

Under the broad umbrella of economic cooperation fall two linked objectives. First is the development of the Northern Sea Route, the great shipping lane across Russia's northern coast that connects northeast Asian ports to northern ports in Europe and North America. Second is the extraction of renewable and nonrenewable resources from the Rus-

sian Arctic Zone. (Although China is ultimately interested in trans-Arctic shipping, its ships will rely on Russian ports for refueling, resupplying, and emergency stops.)

China experts concur that economics are at the center of Chinese grand strategy. A CSIS net assessment report concludes as much, stating that "China's economic progress, and regional economic outreach, will often be more of the central focus of its grand strategy than the modernization and expansion of its military forces." This interpretation is supported by Chinese documents as well. For example, China's 2015 Military Strategy states, "Subsistence and development security concerns, as well as traditional and non-traditional security threats are interwoven. Therefore, China has an arduous task to safeguard its national unification, territorial integrity and development interests." The strategy goes on to note that "with the growth of China's national interests, its national security is more vulnerable to international and regional turmoil, . . . and the security of overseas interests concerning energy and resources [and] strategic sea lines of communication (SLOCs) . . . has become an imminent issue." 14

Rather than promoting a values-based agenda, Beijing appears to be positioning itself as a good partner for mutually beneficial investment and global prosperity, particularly in less-developed regions—including the Arctic. China does not appear to be intent on spreading communism, although Andrew Erickson, professor of strategy at the US Naval War College's China Maritime Studies Institute, draws attention to some statements that indicate otherwise.¹⁵ Instead, it has pursued a global agenda of win-win development in which Chinese investment, and infrastructure development in particular, provides shared prosperity. China appears to be pursuing a grand strategy based on economics rather than on values. Military strength appears to follow, rather than lead, investment. Such a development-focused path also enables China to highlight its past as a victim of imperialism and build common identity with other postcolonial states. As its 2019 Defense White Paper explains, "China has grown from a poor and weak country to be the world's second largest economy neither by receiving handouts from others nor by engaging in military expansion or colonial plunder. . . . China has made every effort to create favorable conditions for its development through maintaining world peace, and has equally endeavored to promote world peace through its own development."16 In this way, official Chinese language connects peace and development and emphasizes identity differences between China and Western nations.

It would be sensible for an economics-based grand strategy to spread globally along trade routes and toward resource-rich areas. Indeed, this is apparent from the global pattern of Chinese investment. President Xi's emphasis on the BRI as a keystone of his foreign policy is an indication of Chinese grand strategy. The crown jewel in China's grand strategy is the BRI. A massive system of transportation and infrastructure corridors linking China with adjacent regions, the BRI promises to grow trade through increasing interconnectivity and market access. Erickson argues that Xi's signature BRI is an integral element of operationalizing current Chinese grand strategy: "[The] BRI leverages infrastructure and trade to integrate Eurasia and its periphery, perhaps ultimately within a Sinocentric geoeconomic and geopolitical order."17 Beyond spurring growth in target countries, the BRI will improve the flow of raw materials to China and provide new markets for Chinese goods. Of course, linking the world to China through the BRI will increase Chinese influence and position it as the go-to partner. As observes Ashley Tellis, a senior fellow at the Carnegie Endowment for International Peace, if the BRI is successful, "it will have secured political influence by serving as a new source of infrastructure investment around the world, while also acquiring new facilities for military operations along the way."18

The BRI frames China's approach to the world, including the Arctic region. China is naturally drawn to the Arctic for many reasons, such as natural resources, trade corridors (and supply route diversity), and climate change. China's grand strategy is economics-based and therefore naturally follows along global trade routes and toward natural resources. Therefore, it is not at all surprising that China should express distinct interest in the Arctic region since the Arctic basin is resource-rich. Elizabeth Wishnick, associate professor of political science at Montclair State University, points to a report from a Chinese institute affiliated with the PLA that described the Arctic "as a potential 'lifeline' for the growing Chinese economy." 19 As the sea ice retreats, shipping routes across the Arctic are increasingly feasible, offering desirable alternatives to current routes between China, northern Europe, and North America. While Arctic coastal states are generally high-income countries, the region as a whole suffers from a significant lack of infrastructure, further aligning the Arctic well within Chinese grand strategic parameters.

In early 2018, it was announced that Russia's Northern Sea Route would be folded into China's massive Belt and Road Initiative. Sometimes called the Arctic Silk Road or Ice Silk Road, this new crossover project has received widespread attention. According to an analysis by Yun Sun of the

Stimson Center, contrary to widespread opinion, the Russians originally proposed the Polar Silk Road.²⁰ Sun traces Russian proposals regarding the Polar Silk Road to 2015, with a follow-up proposal made by President Putin himself in 2017. Sun notes, "The pre-2014 cold-shoulder by Russia forms a sharp contrast to its enthusiasm to cooperate with China on the Northern Sea Route after the Ukraine Crisis."²¹ In addition, scholars Olga Alexeevna and Frederic Lasserre state that China's BRI was perceived as a threat to Russian interests and influence in Central Asia previous to 2014, and "so the decision to officially link the Russian Arctic" to the BRI "marks an important change" and the recognition by Moscow of "the necessity to deepen Sino-Russian cooperation in the Arctic."²²

In June 2018, the China Development Bank and Russia's Vnesheconombank (VEB) signed a deal intended to facilitate investment in Belt and Road initiatives and tie together the BRI with the Russia-led Eurasian Economic Union. The Northern Sea Route received special emphasis in the announcement of the banking agreement: while the partnership covers about 70 projects, the NSR was the only project discussed in the press release.²³

Understanding the Belt and Road Initiative also benefits from an extended consideration of shipping and maritime activity in the northwestern Pacific area. An interesting aspect of Sino-Russian cooperation is the potential development of origination points for shipping from Asia. The North Korean port of Rajin has been identified as possibly a strategically critical port for China.²⁴ Other alternatives include the Russian port of Zarubino, in the process of being upgraded through combined Chinese-Russian investment. Less than a dozen miles from Chinese territory, Zarubino is less politically fraught than Rajin and also offers year-round access to the northern Pacific.²⁵ The future trajectory of Sino-Russian cooperation in the economic and military domains may intersect here.

Despite these cooperative adventures, expert opinion varies on the extent of Sino-Russian partnership regarding the NSR and the integration of the NSR into the BRI. Yun Sun, co-director of the Stimson Center East Asia Program, contends that Sino-Russian cooperation on the NSR has been held back by "divergent interests, conflicting calculations and vastly different cost-benefit analyses." At the same time that Chinese observers point to Russian recalcitrance, Russian commentary often pushes back. For example, Alexander Vorotnikov states that while there is shared interest in Arctic development and cooperation, "Russia takes a firm position here" (твердую позицию) and that "priority must remain with Russia, since the Arctic is the most important region" (Арктика

является важнейшим регионом).²⁷ The imposition of sanctions appears to have spurred Russia to more eagerly seek Chinese investment, although Russia remains a difficult partner and there are fewer tangible results than might be expected, given the level of rhetoric. One expert notes that European firms are using Chinese intermediaries to finance investments in Russia, bypassing the Western financial system altogether.²⁸

In addition to NSR infrastructure development, Moscow and Beijing have trumpeted cooperation in the sphere of Arctic resource development, especially in oil and gas projects. In 2014, Gazprom and the China National Petroleum Corporation (CNPC) signed a contract—in the presence of Presidents Putin and Xi—obligating Gazprom to supply 38 billion cubic meters of gas annually to China for 30 years. According to Gazprom's Alexey Miller, this is "the biggest contract in the entire history of the USSR and Gazprom." As a resource-extractive economy, Russia depends on development of raw materials to sustain its economy. As of 2017, oil and gas exports still made up 59 percent of export goods and about 25 percent of fiscal revenue, making Russia overly reliant on these exports. China is a resource-importing state, and therefore the marriage of Russian resources and Chinese demand might appear to be a sound basis for economic partnership.

However, like the underdevelopment of the NSR, Sino-Russian cooperation on Arctic resource projects has not yet matched the high expectations and rhetoric. A 2018 analysis by Alexeevna and Lasserre, based on Russian and Chinese data on Arctic development cooperation, reveals two interesting patterns. The first is that Sino-Russian projects in the Arctic "are frequently misrepresented" in each country and by different publications. The second is that actual projects are fewer and less successful than might be expected given the level of publicity for Sino-Russian cooperation in the Arctic. The authors note that "moving beyond political declarations is very difficult."31 They suggest that the lower-than-expected level of actual partnership is due to a mismatch of expectations: on one hand, Russians want to retain full control over Arctic development, given its strategic importance to national interests, and therefore want Chinese investment funds—without Chinese involvement in decision-making. On the other hand, Chinese investors "are reluctant to invest in very expensive and risky projects, unless they can secure a role in the management and have a voice and voting rights." In addition, China is interested in participating in Arctic development projects to increase technological expertise and industrial capabilities, whereas Russia is generally protective of its expertise.³²

Anemic development can also be partially explained by the investment climate in Russia. Analysts suggest that Russian investment protocols are neither transparent nor consistent and that regulations are frequently changed.³³ As one Chinese scholar observed, "the environment for investment in Russia is unfriendly. The legal system functions poorly and corruption is rampant. Russia usually pays lip service but exhibits little action in cooperation."³⁴ Experts indicate that while Russian laws on foreign investment are very strong—"a model of clarity," implementation is generally uneven, and "there is not much evidence regarding the effectiveness of the agencies that implement" the law.³⁵

It appears that Russian-Chinese cooperation in the Arctic may hinge on the question of control and trust. With this in mind, the Yamal megaproject becomes especially interesting. As Alexeevna and Lasserre note, "Yamal LNG [liquefied natural gas] is a national flagship project" for Moscow, "with both economic and political implications not only for Moscow's foreign policy but also for domestic strategy." In a bit of uncomfortable contrast, the Yamal project is also "a showcase for China's skills and competence in the development of Arctic resources that, in turn, will strengthen the Chinese presence in the region."36 The Yamal LNG project, which came online in 2018, made a major contribution to Russia's economy; it increased Russian LNG production by 70.1 percent, according to Bloomberg.³⁷ Statistics reveal that "about 90% of Russia's natural gas and about 12% of oil is today produced in the Yamal Nenets region," and the region is anticipated to hold large additional fields, including Tambey, with more than 7 trillion cubic meters of gas.³⁸ A new giant gas project is in the works, Arctic LNG 2, located in the Gydan peninsula near the existing Yamal megaproject.³⁹ Production for the new project is estimated at nearly 20 million tons of LNG per year, most of which will be shipped via ice-capable tankers east to Asian markets.

According to expert assessments, the Russian zone of the Arctic contains potentially 48 billion barrels of oil and 43 trillion cubic meters of gas, both significant shares of total Russian reserves. 40 Another estimate of the overall Russian endowment is 287 billion barrels of oil equivalent. 41 According to data from the Organization for Economic Cooperation and Development (OECD), Russia is one of the top three oil-producing countries in the world along with Saudi Arabia and the United States. 42 In 2017, Russia became the largest exporter of oil in the world, surpassing both Saudi Arabia and the US. 43 Further, Russia is the world's largest exporter of natural gas. The Russian companies Rosneft and Gazprom dominate the region and have exploration plans in Shtokman, near Novaya

Zemlya, as well as Yuzhno-Kirinskoye in the Far East and Leningradskoye in the Kara Sea (Gazprom). Rosneft has plans in Khatanga as well as the Barents and the Kara Seas.⁴⁴

However, Beijing does not simply want to exchange cash for energy in the Arctic. China is using cooperation with Russia in the Arctic to gain expertise and know-how in the critical energy sector. Chinese firms are beginning to move into the Arctic offshore oil and gas sector, reflecting advancing technological savvy. In 2017 and 2018, a Chinese offshore oil rig, the Nan Hai Ba Hao, explored for oil in the Russian far north. 45 In 2017, the rig made a significant discovery in the Leningradskove field, and in 2018 it explored the Rusanovskoye field, both under development by Gazprom. Guangzhou Shipyard International just completed an icebreaking tanker with an Arc7 (highest) ice class rating, designed by Aker Arctic. 46 The tanker, Boris Sokolov, will carry LNG from Sabetta in the Yamal Peninsula to markets in Asia and Europe. It is capable of breaking up to 2 meters of ice and sailed the Northern Sea Route in January 2019 without icebreaker escort.⁴⁷ These signs of increasing Chinese technical capacities to operate in Arctic conditions—without dependency on Russia—may eventually change the dynamics of their relationship.

In addition to oil and gas and technical expertise in polar operations, China has a strategic interest in Russian minerals in the Arctic. Jiayu Bai of the Ocean University of China, and Alexandr Voronenko, now executive director, Research Center for Shanghai Cooperation Organization and Asia Pacific Region, also highlight potential Russian-Chinese cooperation on rare earths mining in the Arctic. These strategic minerals are important to many advanced electronics and military systems. Rare earth deposits have been identified in the Kola and Taimyr Peninsulas and in Yakutia, and talks between Nornickel and General Nice Group (which is also developing rare earths in Greenland) are "in progress." A 2017 CNA report detailed Russian mining prospects and deposits. Mining in the Russian Arctic connects to broader strategic resource goals for Beijing, which has global interests in rare earth elements.

Another Arctic resource that may be of interest to China is seafood. The world's two most productive fisheries are found in the region: the Barents Sea and the Bering Sea fisheries. As yet, there is no commercial fishery in the central Arctic Ocean; in fact, in 2017, a group of Arctic and non-Arctic states, including China, signed an agreement to hold off on fishing in the central Arctic.⁵⁰ The moratorium is intended to give scientists enough time to adequately understand the structure of Arctic fisheries and prepare sustainable fisheries management plans. Chinese influence has

been identified in the process of negotiating the moratorium.⁵¹ As global fisheries decline, the as yet untapped seafood resources of the central Arctic Ocean may be increasingly in demand.⁵²

While their interests align (Russia as a resource vendor, China as a resource client), their cooperation has been impeded by each partner's desire to maintain control or a leading position in projects. Russian interests in partnering with China were clearly given a boost following the 2014 sanctions. The stakes for US strategy are clear: in a triangular context, US efforts to weaken Russia's economy may strengthen China's economic influence in Moscow and its political cooperation.

Political Dimension

China is building relationships with all the Arctic states to increase its influence over decisions about the future of the Arctic region. The political dimension offers a relatively direct collision between Chinese and Russian long-term grand strategic objectives. Russia has traditionally been jealously protective of its special position in the Arctic region. In contrast, Beijing is seeking to legitimate its interest in the region and gain a shaping role in the future of Arctic development. Partnering with Russia, the dominant Arctic power, is unmistakably desirable although complicated.

In this, Russia is made less vulnerable by its status as the Arctic superpower; however, the underdeveloped and brittle Russian economy acts as a constraint on Moscow's freedom of action. Chinese-Russian cooperation was given a jolt in 2014 when Western countries imposed sanctions on Russia in response to its annexation of Crimea. Suddenly cut off from access to Western capital and partnering for Arctic energy projects, Russia pivoted East.

In the short term, Arctic cooperation suits both Chinese and Russian strategic interests and complicates US objectives. From a geographic perspective, Russia dominates the Arctic basin. The prospect of effective Sino-Russian cooperation therefore raises the possibility of a localized sphere in which the capacity of the PRC could operate in conjunction with Russian geography to create an Arctic trajectory outside the system of international rule of law.

The Chinese journal *Advances in Polar Science* published an article coauthored by Russian and Chinese scholars directly addressing Sino-Russian cooperation in the Arctic region. The authors summed up the alignment of Russian and Chinese interests in the Arctic: "Russia is interested in Chinese investments and technology; in turn, Russia can grant China access to mineral resources and the NSR.... Furthermore, through cooperation with Russia, China can expand its role in the Arctic [C]ouncil and the process of formulating the regional agenda." The authors observed that Russia and China "can play a major role in forming the system of international relations in the Arctic using their advantages and authority." In addition, "cooperation with Russia will give Chinese actions in the region more validity." ⁵³

Beijing is clearly aware that its efforts to gain a seat at the Arctic table have not been uniformly welcomed and that Russia in particular has mixed opinions. The executive director for the Institute for China-America Studies, Nong Hong, observes that "unfortunately, China's intentions have been met with suspicion by Arctic states" and identifies Russia, Canada, and Iceland as the most "vigilant"; she specifically cites "the vigilance of the Russian military" regarding Chinese interest in the Arctic.⁵⁴

One means of gaining entrée into Arctic governance is through participation in the Arctic Council: China was granted observer status at that forum in 2013 after some years of effort. In part, the delay in admitting China to the Arctic Council as an observer was due to Russian reluctance: "the Russian government initially expressed wariness about allowing Beijing any formal role within the organization," according to Marc Lanteigne (Massey University, Auckland).⁵⁵ However, other observers also point to Canadian reluctance to admit China and other observers.⁵⁶ Established in 1996, the Arctic Council is the highest-level intergovernmental forum and de facto governance organization for the region. While only the eight Arctic states have votes at the Arctic Council, the indigenous peoples of the Arctic region are represented by their organizations as Permanent Participants and can fully participate in discussions. In addition to these participatory categories, there is a category of Observer states and organizations. Observers do not have equal right to participate in council discussions but may attend meetings and participate on invitation.

In January 2018, the State Council Information Office of China published the white paper "China's Arctic Policy." This long-anticipated statement of China's official Arctic policy has received a great deal of analysis. A helpful explanation came in March 2018 from the Washington-based, Chinese-funded Institute for China-America Studies. This report clearly states China's approach to gaining influence in Arctic decision-making:

China is also active in promoting bilateral relations with Arctic states for strategic purposes. . . . China should deal with Arctic states on an individual basis. . . . This way, China will have much more leeway for strategic operations. This one-on-one model is similar to China's stance in the

South China Sea issue, where China insists on bilateral rather than multilateral negotiation....

China is also focusing on improving diplomatic relations with the five North European nations: Iceland, Denmark, Norway, Sweden and Finland. Cooperation with these countries is not only aimed at acquiring resources, but also to expand[ing] China's influence in the Arctic. The Northern European states are not strong enough to compete with Russia or with their ally the United States—both state parties in the Arctic region—so these states are willing to turn to China for help. If China can establish a long-term strategic cooperation mechanism on Arctic affairs with the Northern European states, it will achieve a greater say in Arctic affairs.⁵⁷

As this quote illustrates, Russia is not the only focus of Chinese interest in the Arctic. In fact, China's influence-seeking strategy may be even more of a problem for the United States vis-a-vis the small Nordic countries, which may be more vulnerable.

The example of Norwegian-Chinese relations is illustrative. In 2010, following the awarding of the Nobel Peace Prize to Chinese dissident Liu Xiaobo "for his long and non-violent struggle for fundamental human rights in China," the Chinese government retaliated by imposing import controls on Norwegian salmon that effectively closed the market.⁵⁸ For six years, Norway worked to restore relations with Beijing, finally succeeding in 2016—at the cost of an extraordinary joint declaration:⁵⁹

Due to the Nobel Peace Prize award and events connected to the Prize, China-Norway relations have deteriorated. The Norwegian side is fully conscious of the position and concerns of the Chinese side and has worked actively to bring the bilateral relations back to the right track. . . .

The Norwegian Government reiterates its commitment to the one-China policy, fully respects China's sovereignty and territorial integrity, attaches high importance to China's core interests and major concerns, will not support actions that undermine them, and will do its best to avoid any future damage to the bilateral relations.⁶⁰

As the Norwegian example demonstrates, Beijing is willing to use its advantageous trade position relative to smaller states—even formidable small states like Norway—to extract significant political concessions and deference. Therefore, economic leverage may pave the way for political goals to be achieved. The hallmark of grand strategy is the leveraging of all means of state power toward overarching objectives, and Norway's experience provides a clear example of Beijing's capabilities. This instance also gives a clear warning to Russia about the possible consequences of overreliance on China for capital and markets. Moscow has been making clear efforts to diversify its sources of investment into Arctic oil and gas projects, possibly to backstop against this danger.

Chinese-Russian cooperation in the Arctic can be understood as an unresolved balancing act between the two states. Russia needs outside capital to fund Arctic development but seeks to maintain control—both politically and over specific investment projects. China wants access to both Arctic resources and the political decision-making process and is willing to use economic tools as leverage. A third dimension is important to understanding the prospects for Russian-Chinese cooperation in the Arctic: military security. While this is the least-developed area of cooperation, it also has the potential to pose the most direct threat to the United States.

Military Dimension

Many signs point to a growing security partnership between China and Russia. In October 2019, President Putin stated that Russia is "helping our Chinese partners" develop an antimissile early warning system. ⁶¹ He also described Russian-Chinese relations as "an allied relationship in the full sense of a multifaceted strategic partnership." ⁶² While China has no Arctic military presence, it maintains interests in the region as stated above. Therefore, assessing the current level of, and prospects for, Chinese-Russian security cooperation is crucial to understanding the overall prospects for great power competition in the Arctic.

The Arctic is a security bastion for Russia, and therefore this dimension of potential Russia-China cooperation is of great sensitivity. The Russian navy and some other elements of the Russian military have been hawkish on China, and in some parts of Russia—particularly the Far East—Chinese influence is perceived as a potential threat. China appears to be seeking polar capabilities, including icebreakers and polar-capable submarines. The two countries have been ramping up joint military exercises and operations recently, including in near-Arctic areas. The future of Sino-Russian military cooperation in the Arctic will directly affect the security position of the US and its NATO allies in the region. As in the economic dimension, while security cooperation serves Chinese and Russian interests in balancing against the US, there is deep-rooted friction that may ultimately sink cooperation.

Some observers note the strategic military interest China may have in the Arctic. The Fort Greely missile complex could potentially be directed against China, and northern deep-water routes might offer desirable submarine routes.⁶³ Arctic routes also offer China an alternative to the Malacca dilemma and would bolster its security by having Russian oil as a strategic alternative to the Middle East. Yang Zhirong of the People's Liberation Army Navy (PLAN) Naval War College states that China should develop a military component to its Arctic strategy. It would include "dedicating naval staff to Arctic affairs, as well as information-gathering, developing Arctic-capable equipment, improving communication in the region, making ports of call visits," and recognizing the strategic importance of the Arctic.⁶⁴ The journey of PLAN vessels to the Baltic Sea, including port calls in Finland and exercises with Russian navy ships in 2017, can be interpreted through this lens.

Sino-Russian military cooperation outside the Arctic region has grown in recent years and received widespread attention. Relevant PRC-Russia military cooperation includes arms sales and a growing number of live exercises. According to a recent DOD report, in September 2017 the Chinese and Russian navies conducted exercises—including antisubmarine, submarine rescue, and joint air defense—in the Baltic Sea and Sea of Okhotsk, both adjacent to the Arctic region. These were the sixth joint exercises since 2012. The Sea of Okhotsk is interesting in that it is also a "Russian lake" that is key to Russian Arctic and Asian strategy, as Stephen Blank of the American Foreign Policy Council has argued, and therefore Russian-Chinese joint exercises there are suggestive of a closer functioning relationship.

PLAN submarine operations already include the North Atlantic, and observers maintain that Arctic operations are likely to soon become an element of PLAN missions.⁶⁷ One of the joint Sino-Russian military design and construction programs underway is focused on diesel-electric submarines.⁶⁸ While a Chinese submarine has not yet surfaced in the Arctic Ocean, that achievement is considered likely within a decade, according to Lyle Goldstein of the China Maritime Studies Institute.⁶⁹ In support of this belief, he points to an April 2018 paper in a leading Chinese scientific journal, the *Chinese Journal of Ship Research*, on submarine hull design for surfacing through ice. The abstract for this paper notes, "With deepening research on the geographical and climatic environment of the Arctic, the political and military value of submarines in the region has been well recognized."⁷⁰

The Chinese navy is increasingly focused on long-range missions that will take its platforms farther and for longer periods. By 2020, according to a 2018 OSD assessment, China will likely field between 69–78 submarines, mostly diesel attack but with some SSBNs and SSNs.⁷¹ By the early

2020s, China will begin construction on its next-generation SSBNs, the Type 096, to be armed with JL-3 SLBMs. A 2015 Office of Naval Intelligence report, while not mentioning the Arctic specifically, comments that the PLAN is increasingly "expected to defend major SLOCs" and that this new and expanding role for the Chinese Navy will demand "the capability to sustain a maritime presence in strategic locations, in hostile conditions, and for extended periods." China and the PLAN are moving purposefully in the direction of multimission naval capabilities in service of grand strategic objectives "to preserve China's interests and commensurate with its role as an emerging major power." In addition, Chinese ocean science in support of military operations and seabed mining is highly advanced and may surpass US efforts. China's military spending has increased in recent years in line with its economic growth. President Xi has made public declarations of his intent to modernize the Chinese military into a multi-theater force.

China has recently embarked on an icebreaker building program: its first icebreaker, the *Xue Long*, was purchased; it recently completed domestic construction of its second, the *Xue Long 2*; and in June 2018, the Chinese nuclear corporation opened a call for bids for the country's first nuclear-powered icebreaker.⁷⁵ While China has two icebreakers already, a nuclear-powered icebreaker would mark both a significant advance in polar capabilities and a step toward fielding a nuclear-powered carrier. The construction of the nuclear-powered icebreaker appears to be part of a broader Chinese effort to develop domestic nuclear propulsion and reactor technology expertise.⁷⁶

The military cooperation between China and Russia has been described as "a more balanced (though limited) security partnership between two countries that are neither adversaries nor allies, but share certain security concerns such as . . . balancing the United States and its allies." The extent to which Russia is willing to share its expertise in Arctic submarine operations with China may indicate the limits of their security partnership. Cooperation on joint submarine production and joint exercises on submarine rescue suggest that Russia is sharing expertise with the PLAN.

Any Sino-Russian security partnership in the Arctic will be vastly complicated by the high priority of the Arctic in Russia's overall grand strategy. The Arctic region is a core national interest for Russia. A NATO analysis of Russian Arctic strategy and policy concluded in 2018 that Russian policy language reflects an increased emphasis on national security in the Arctic and a growing belief that "security is a precondition for successful resource development" in the Russian Arctic. ⁷⁸ In recent years, Moscow

has made strong statements of its intentions to build out the military infrastructure required to fully secure the Russian Arctic. While these declarations of intent have not yet been fully funded, some construction has indeed moved ahead.⁷⁹

Of note, in December 2014 Russia established the Arctic Joint Strategic Command (AJSC). In addition, Russia has moved ahead with upgrading and extending its airfields along its northern perimeter. To the west, on Franz Josef Land, the Nagurskoye air base was shown off in 2017 with great fanfare. 80 The base has a 2,500-meter airfield that was recently resurfaced to accommodate heavy planes year-round. 81 In December 2015, the AJSC received its own air force and army with the formation of the 45th Air Force and Air Defense Army of the Northern Fleet. According to Russian sources, 50 bases are expected to be built across the Arctic. 82 Russia is reportedly developing polar-adapted versions of the Pantsir surfaceto-air missile and the S-400 antiaircraft system. 83 The AJSC controls all of these resources, in addition to other combat units, radar stations, and other units in the region. As one expert remarks, "Rebuilding and upgrading regional military infrastructure and enhancing command and control have emerged as consistent themes in Russia's strategic thinking on the Arctic. [Creating] the [AJSC] as the fifth military district of Russia, with the Northern Fleet as its mainstay, reflected the priority that Russia began to attach to the defense of the Arctic."84

It is important to underline that the Arctic is a core national interest for Russia. If Russia's leaders indeed have a grand strategy, developing the Arctic is one of its objectives. In addition, the bulk of Russia's strategic forces are concentrated in the Kola Peninsula in the western Arctic. As a result, the Arctic is among the most sensitive parts of Russia and among its top security priorities.

Chinese experts appear to recognize that Russia perceives a security problem in the Arctic. One of China's leading scholars of international politics wrote, "Russia's northern border is no longer peaceful. As for China, developing strategic ties with Russia can help it in 'stabilizing its northern border so that it can turn to the ocean'—in other words it can give it more space to deal with maritime disputes with its southern neighbors." In the context of a strategic triangle in the Arctic, China benefits from a Russian security focus on the US and NATO.

Deepening Chinese and Russian military cooperation may be in response to increasing tension with the United States. While China does not yet have a military presence in the Arctic, it appears to be pursuing both icebreaker and Arctic submarine capabilities. China's interest in ac-

cessing and protecting strategic Arctic SLOCs, which provide it access to strategic resources and an alternative to Malacca, makes sense in a Russia partnership context. In seeking to secure its Arctic resources and territory, Russia may welcome Chinese arms purchases and the counterbalance a Chinese partnership provides against the US. However, a great deal of tension is inherent in this developing partnership. As China becomes increasingly Arctic-capable, how will Beijing and Moscow manage their relationship? How can the US best manage competition without providing more impetus for Chinese-Russian alignment?

Conclusion

Many analysts point to 2014 as a turning point in Russia-China relations overall and in Arctic cooperation more specifically. Frankly, many observers identify a downturn in US/West–Russia relations—particularly the sanctions—as pushing Russia toward China. Multiple scholars, including Evan Medeiros and Michael Chase, have observed that "for China, the Western sanctions on Russia . . . were a welcome buying opportunity." China was happy to fill the market gap created by sanctions. Liu Fenghua of the Chinese Academy of Social Sciences remarked in 2016 that "since the outbreak of the Ukraine crisis, the US has once again chosen to contain China and Russia simultaneously, thus greatly enhancing a China-Russia strategic partnership." While the sanctions are an important element of the broader US-Russia relationship, their effect on Sino-Russian cooperation in the Arctic may be an unintended outcome.

While US discourse frequently lumps China and Russia together, it generally does not follow through to consider the implications or effects of this pairing. There is not yet clear evidence that US strategists are taking seriously the prospect of cooperation between China and Russia in the Arctic region. By symbolically grouping China and Russia together as competitors, the US may inadvertently provide impetus for more substantive Sino-Russian cooperation. Given Russia's influence and dominant geographic position in the Arctic region, this consequence may be costly.

This article has argued for the importance of the Arctic to China at a grand strategic level, including economic, political, and military elements. Russia's dominant position in the Arctic region and avowed interest in challenging American global leadership make Russia a natural partner of interest for China. Sino-Russian cooperation in the Arctic serves the short-term interests of both states as well as longer-term Chinese goals. However, Russia does not want to be a junior partner to China. Moreover, Russia's strategic military position in the Arctic region would be chal-

lenged by a Chinese military presence there, and therefore significant questions remain about the long-term viability of Sino-Russian partnership as China moves further toward its goal of fielding a multi-theater modern military force.

The central position of Russia in the Arctic lays bare the discontinuities in US strategy: at least in the Arctic, it is problematic to treat China and Russia as separate strategic rivals. Their emerging partnership in the region is fitful and laced with fissures, but current US policies of applying pressure drive them closer together—as the aftereffects of the sanctions regime demonstrate. In the context of a strategic triangle in the Arctic, US strategy toward either China or Russia must be considered in tandem. Actions taken toward one will invariably affect the other given the close linkages in the region.

In July 2019, the first-ever China-Russia joint air patrol made headlines around the world when one of the Russian A-50s violated South Korean airspace over the Dokdo/Takeshima Islands. 90 As one commentator concluded, "the Russo-Chinese 'strategic partnership' is now a force to be reckoned with.... Seoul and Tokyo should no longer see the US as the sole military hegemon in the region."91 The bold actions taken in concert by Russia and China may reflect growing confidence in their strategic partnership. Under pressure from the US, both China and Russia may determine that continuing to work together may be advantageous. The Arctic is a natural place for this cooperation to grow.

The future contours of Arctic development and governance are elastic. While the extent to which China and Russia will be able to meaningfully cooperate to shape the region is unclear, the US has begun to actively grapple with the concept of great power competition with both. However, it appears that US strategy has not yet fully engaged the ramifications of growing Sino-Russian cooperation across economic, military, and political dimensions in the Arctic region. Without a linked strategic approach, the US runs the risk of strategic misstep.

Rebecca Pincus

Dr. Pincus is an assistant professor in the Strategic and Operational Research Department at the US Naval War College and focuses on Arctic security and politics. The views and opinions presented here are her own and do not represent the official position of the Naval War College, United States Navy, or DOD. This article refines ideas first presented in her testimony before the US-China Economic and Security Review Commission on 21 March 2019 (see report at https://www.uscc.gov/). Dr. Pincus thanks the China Maritime Studies Institute at the Naval War College for helpful suggestions and feedback.

Notes

- 1. Rob Huebert, "The New Arctic Strategic Triangle Environment (NASTE)," in Breaking the Ice Curtain: Russia, Canada, and Arctic Security in a Changing Circumpolar World, eds. P. Whitney Lackenbauer and Suzanne Lalonde (Calgary: Canadian Global Affairs Institute, 2019), 76, https://www.academia.edu/.
- 2. President Donald J. Trump, *National Security Strategy of the United States of America* (Washington, DC: White House, 2017), 2, https://www.whitehouse.gov/.
- 3. Department of Defense, Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge (Washington, DC: Department of Defense, 2018), 2, https://dod.defense.gov/.
 - 4. Department of Defense, Summary of the 2018 National Defense Strategy, 2.
- 5. A December 2018 DOD report focused on China, although it listed expanding military cooperation between China and Russia and noted that the Belt and Road Initiative includes the Arctic Ocean. Department of Defense, Assessment on U.S. Defense Implications of China's Expanding Global Access (Washington, DC: Department of Defense, December 2018), 12, https://media.defense.gov/.
 - 6. Trump, National Security Strategy, 45.
- 7. Secretary Michael R. Pompeo, "Looking North: Sharpening America's Arctic Focus" (speech, Rovaniemi, Finland, 6 May 2019), https://www.state.gov/.
- 8. Adm James Foggo III, "Russia, China Offer Challenges in the Arctic," *Defense One*, 10 July 2019, https://www.defenseone.com/.
- 9. State Council Information Office of the People's Republic of China, *China's National Defense in the New Era*, Defense White Paper (Beijing: State Council Information Office, People's Republic of China, July 2019), full text posted by Andrew S. Erickson on his website, http://www.andrewerickson.com/.
- 10. Daniel R. Coats, Director of National Intelligence, *Statement for the Record: Worldwide Threat Assessment of the US Intelligence Community* (Washington, DC: Office of the Director of National Intelligence, 29 January 2019), 24, https://www.odni.gov.
- 11. Office of the Under Secretary of Defense for Policy, *Report to Congress: Department of Defense Arctic Strategy* (Washington, DC: Department of Defense, June 2019), 6, https://media.defense.gov/.
- 12. United States Coast Guard, Arctic Strategic Outlook: The United States Coast Guard's Vision for the Arctic Region (Washington, DC: US Coast Guard, April 2019), https://www.uscg.mil/.
- 13. Anthony H. Cordesman, with Max Molot, "China and the U.S.: Cooperation, Competition and/or Conflict: An Experimental Assessment," working draft (Washington, DC: Center for Strategic and International Studies, 1 October 2019), https://www.csis.org/.
- 14. The State Council Information Office of the People's Republic of China, *China's Military Strategy 2015*, white paper (Beijing: State Council Information Office of the People's Republic of China, 2015), Jamestown Foundation, China Brief, 4–6, https://jamestown.org/.
- 15. He quotes Xi, "China's success proves that socialism can prevail and be a path for other developing countries to emulate and achieve modernization." Andrew S. Erickson, "China," in *Comparative Grand Strategy: A Framework and Cases*, eds. Thierry Balzacq,

Peter Dombrowski, and Simon Reich (Oxford: Oxford University Press, 2019), 86, http://www.andrewerickson.com/.

- 16. State Council Information Office of the People's Republic of China, *China's National Defense in the New Era*, 8.
 - 17. Erickson, "China," 83-84.
- 18. Ashley J. Tellis, "Pursuing Global Reach: China's Not So Long March toward Preeminence," in *Strategic Asia 2019: China's Expanding Strategic Ambitions*, eds. Ashley J. Tellis, Alison Szalwinski, and Michael Wills (Seattle, WA: The National Bureau of Asian Research, 2019), 34.
- 19. Elizabeth Wishnick, *China's Interests and Goals in the Arctic: Implications for the United States*, The Letort Papers (Carlisle, PA: Strategic Studies Institute, US Army War College, 2017), 37.
- 20. Yun Sun, *The Northern Sea Route: The Myth of Sino-Russian Cooperation* (Washington, DC: Stimson Center, East Asia Program, 5 December 2018), 2–3, https://www.stimson.org/.
 - 21. Sun, 7.
- 22. Olga Alexeevna and Frederic Lasserre, "An Analysis on Sino-Russian Cooperation in the Arctic in the BRI Era, *Advances in Polar Science* 29, no. 4 (30 December 2018): 276.
- 23. Atle Staalesen, "Chinese Money for Northern Sea Route," *The Barents Observer*, 12 June 2018, https://thebarentsobserver.com/.
- 24. For more on Rajin/Rason, see Salvatore Babones, "If North Korea Opens Up, Rason Could Become North Korea's Shenzhen." *Forbes*, 2 May 2018. https://www.forbes.com/.
- 25. For more on Zarabino, see Michael Lipin, "China's Landlocked Northeast Turns to Russian Port as Trade Outlet," *Voice of America (VOA) News*, 28 September 2014, https://www.voanews.com/.
- 26. Yun Sun, *The Northern Sea Route: The Myth of Sino-Russian Cooperation* (Washington, DC: Stimson Center, East Asia Program, 5 December 2018), https://www.stimson.org/.
- 27. Aleksander Vorotnikov, "Чем выгодно России сотрудничество с Китаем по Арктике? [How does Russia benefit from cooperation with China in the Arctic?"], Regions, 9 July 2018. Thanks to Dr. Lyle Goldstein for highlighting this article. Quotation originally appeared in testimony from Dr. Rebecca Pincus in An Emerging China-Russia Axis? Implications for the United States in an Era of Strategic Competition: Hearing before the U.S.-China Economic and Security Review Commission, 116th Cong., 1st sess., 21 March 2019, 197, https://www.uscc.gov/.
- 28. Nikolas K. Gvosdev, "How Europe and Russia Are Fighting U.S. Sanctions," *The National Interest*, 6 October 2018, https://nationalinterest.org/.
- 29. "Alexey Miller: Russia and China Signed the Biggest Contract in the History of Gazprom," Gazprom, press release, 21 May 2014, http://www.gazprom.com/. The Russian company Gasprom also noted that "USD \$55 billion will be invested in construction of production and transmission facilities in Russia" (ibid.).
- 30. In addition, metals made up another 10.4 percent of exports; overall, raw materials (including energy products, metals, wood products, precious metals and stones, and other minerals) comprised well over three-fourths of Russia's exports. World Bank Group, *Preserving Stability; Doubling Growth; Halving Poverty—How?*, Russia Economic Report No. 40 (Washington, DC: World Bank Group, November 2018), 20.
 - 31. Alexeevna and Lasserre, "An Analysis on Sino-Russian Cooperation," 274.
 - 32. Alexeevna and Lasserre, 276.

- 33. Alexeevna and Lasserre, 271.
- 34. Chen Yu, "On 'Pivot to East' in Russian Diplomacy," *Contemporary International Relations* 26, no. 6 (2016): 22.
- 35. Mark E. Rosen and Cara B. Thuringer, *Unconstrained Foreign Direct Investment:* An Emerging Challenge to Arctic Security (Arlington, VA: Center for Naval Analyses, November 2017), 45–46.
 - 36. Alexeevna and Lasserre, "An Analysis on Sino-Russian Cooperation," 277.
- 37. Leonid Bershidsky, "Russia's Growth Expectations Fall Back to Earth," Bloomberg, 13 February 2019, https://www.bloomberg.com/.
- 38. Atle Staalesen, "Under the Surface of Russia's Arctic Super-Region Is a Looming Disaster," *The Barents Observer*, 17 January 2019, https://thebarentsobserver.com/.
- 39. Atle Staalesen, "Frenchmen Sign Landmark Deal with Novatek, Boost Presence in Russian Arctic," *The Barents Observer*, 5 March 2019, https://thebarentsobserver.com/.
- 40. Stanislav Pritchin, "Russia's Untapped Arctic Potential," Chatham House, 29 January 2018, https://www.chathamhouse.org/.
 - 41. Rosen and Thuringer, Unconstrained Foreign Direct Investment, 20.
- 42. OECD, Crude oil production (indicator), accessed 7 March 2019, https://doi.org/10.1787/4747b431-en.
- 43. Apurva Sanghi et al., *Russia Economic Report: Preserving Stability; Doubling Growth; Halving Poverty—How?*, Russia Economic Report no. 40 (Washington, DC: World Bank Group, November 2018), 17, http://documents.worldbank.org/.
- 44. Jason Corcoran, "Russia Seeks to Revive Offshore Arctic Ambitions," *Petroleum Economist*, 6 March 2018, https://www.petroleum-economist.com/.
- 45. The Chinese rig was brought to Russia by the Chinese heavy-lift vessel *Hai Yang Shi You* 278. Atle Staalesen, "Chinese Oilmen Ready to Go Home after 5 Months in Russian Arctic," *The Barents Observer*, 22 November 2018, https://thebarentsobserver.com/.
- 46. Atle Staalesen, "New Condensate Tanker Sails North, Gets Ready to Break Ice on Northern Sea Route," *The Barents Observer*, 6 December 2018. https://thebarentsobserver.com/.
- 47. Atle Staalesen, "Two New-Built Tankers Are Crossing the Arctic in Midwinter," *The Barents Observer*, 11 January 2019, https://thebarentsobserver.com/.
- 48. Jiayu Bai and Alexandr Voronenko, "Lessons and Prospects of Sino-Russian Arctic Cooperation, *Advances in Polar Science* 27, no. 3 (September 2016): 188, http://www.aps-polar.org/.
 - 49. Rosen and Thuringer, *Unconstrained Foreign Direct Investment*, 25.
- 50. See NOAA Fisheries, "U.S. Signs Agreement to Prevent Unregulated Commercial Fishing on the High Seas of the Central Arctic Ocean," 3 October 2018, https://www.fisheries.noaa.gov/.
- 51. Nengye Liu, "How Has China Shaped Arctic Fisheries Governance?," *The Diplomat*, 20 June 2018, https://thediplomat.com/.
- 52. According to a study by the European Commission's Joint Research Center, China is the world's largest consumer of seafood on a total basis, at 65 million tons annually, although it is ranked only seventh in per capita seafood consumption. European Commission, "How Much Fish Do We Consume? First Global Seafood Consumption Footprint Published," EU Science Hub, 27 September 2018, https://ec.europa.eu/
 - 53. Bai and Voronenko, "Lessons and Prospects," 185-91.

- 54. Nong Hong, China's Interests in the Arctic: Opportunities and Challenges; Examining the Implications of China's Arctic Policy White Paper (Washington, DC: Institute for China-America Studies, March 2018), 17–18, https://chinaus-icas.org/.
- 55. Marc Lanteigne, "Northern Crossroads: Sino-Russian Cooperation in the Arctic," National Bureau of Asian Research, 27 March 2018, https://www.nbr.org/.
 - 56. Wishnick, China's Interests and Goals in the Arctic, 33.
 - 57. Hong, China's Interests in the Arctic.
- 58. The Norwegian Nobel Committee, "The Nobel Peace Prize for 2010," 8 October 2010, https://www.nobelprize.org/. For example, see Mark Lewis, "Norway's Salmon Rot as China Takes Revenge for Dissident's Nobel Prize," *Independent*, 6 October 2011, https://www.independent.co.uk/.
- 59. For additional coverage, see Sewell Chan, "Norway and China Restore Ties, 6 Years after Nobel Prize Dispute," *The New York Times*, 19 December 2016, https://www.nytimes.com/.
- 60. Government of Norway, Ministry of Foreign Affairs, "Full Normalisation of Relations with China," press release, 19 December 2016, with link to joint statement: Statement of the Government of the People's Republic of China and the Government of the Kingdom of Norway on Normalization of Bilateral Relations, https://www.regjeringen.no/.
- 61. Stepan Kravchenko, "Putin Says Russia Is Helping China Build Missile Warning System," *Bloomberg*, 3 October 2019, https://www.bloomberg.com/.
- 62. Vasily Kashin, "Russia and China Take Military Partnership to New Level," *Moscow Times*, 23 October 2019, https://www.themoscowtimes.com/.
 - 63. Elizabeth Wishnick, China's Interests and Goals in the Arctic, 29.
 - 64. Wishnick, 32.
 - 65. Department of Defense, Implications of China's Expanding Global Access, 8.
- 66. Stephen Blank, "The Arctic and Asia in Russian Naval Strategy," *The Korean Journal of Defense Analysis* 29, no. 4 (2017): 575–97.
- 67. Joseph Trevithick, "The Scope, Not the Scale, of Russian and Chinese Naval Ops in the Atlantic Is Worrisome," *The Drive*, 10 August 2018, http://www.thedrive.com/.
 - 68. Department of Defense, Implications of China's Expanding Global Access, 15.
- 69. For more on Sino-Russian security cooperation, see Lyle J. Goldstein, "A China-Russia Alliance?," *The National Interest*, 25 April 2017, https://nationalinterest.org/; Lyle J. Goldstein, "The Real Russia-China Connection That Should Worry America," *The National Interest*, 22 January 2017, https://nationalinterest.org/; and Lyle J. Goldstein, "Does China Need Allies?," *The National Interest*, 31 March 2016, https://nationalinterest.org/.
- 70. Ye Liyu et al., "Peridynamic Model for Submarine Surfacing through Ice," *Chinese Journal of Ship Research* 13, no. 2 (April 2018). Thanks to Lyle Goldstein for bringing this paper to light.
- 71. Office of the Secretary of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2018* (Arlington, VA: Department of Defense, 16 August 2018), 28–29, https://media.defense.gov/.
- 72. Office of Naval Intelligence, *The PLA Navy: New Capabilities and Missions for the 21st Century* (Washington, DC: Office of Naval Intelligence, 2015), 9, https://fas.org/.
- 73. Ryan D. Martinson and Peter A. Dutton, *China Maritime Report No. 3: China's Distant-Ocean Survey Activities: Implications for U.S. National Security*, CMSI China Maritime Reports (Newport, RI: China Maritime Studies Institute, US Naval War College, November 2018), 3, https://digital-commons.usnwc.edu/.

- 74. To that end, in 2019 China plans to grow its defense spending by 7.5 percent; SIPRI estimates that Beijing devotes roughly 2 percent of GDP to military spending. After the US, China is now the second-largest military spender in the world. David Tweed, "China Defense Spending Set to Rise 7.5% as Xi Builds Up Military," Bloomberg, 4 March 2019, https://www.bloomberg.com/.
- 75. Kyle Mizokami, "China Is Planning a Nuclear-Powered Icebreaker," Popular Mechanics, 25 June 2018, https://www.popularmechanics.com/.
- 76. Trym Aleksander Eiterjord, "Checking in on China's Nuclear Icebreaker," The Diplomat, 5 September 2019, https://thediplomat.com.
- 77. Richard Weitz, Parsing Chinese-Russian Military Exercises, the Letort Papers (Carlisle, PA: Strategic Studies Institute and US Army War College Press, April 2015), 2, https://publications.armywarcollege.edu/.
- 78. Nazrin Mehdiyeva, Russia's Arctic Papers: The Evolution of Strategic Thinking on the High North, Russian Studies Series 4/18 (Rome: NATO Defense College, 19 November 2018), http://www.ndc.nato.int/.
- 79. For a full analysis, see Mathieu Boulègue, Russia's Military Posture in the Arctic: Managing Hard Power in a 'Low Tension' Environment (London: Chatham House [the Royal Institute of International Affairs], June 2019), https://www.chathamhouse.org/.
- 80. For example, see Thomas Nilsen, "Take a Look Inside Russia's Northernmost Arctic Military Base," The Barents Observer, 18 April 2017, https://thebarentsobserver.com/.
- 81. Atle Staalesen, "Russia Giving Major Upgrade to Airstrip in High Arctic," Eye on the Arctic, 27 September 2018, http://www.rcinet.ca/.
 - 82. See Mehdiyeva, Russia's Arctic Papers.
- 83. Mary Ilyushina and Frederik Pleitgen, "Inside the Military Base at the Heart of Putin's Arctic Ambitions," CNN, 5 April 2019, https://edition.cnn.com/.
 - 84. Mehdiyeva, Russia's Arctic Papers.
- 85. Wang Sheng and Luo Xiao, "Building a New Type of Sino-Russian Relationship," Contemporary International Relations 23, no. 5 (2013): 91.
- 86. For example, see Alexeevna and Lasserre, "An Analysis on Sino-Russian Cooperation."
 - 87. See Alexeevna and Lasserre.
- 88. Michael S. Chase et al., Russia-China Relations: Assessing Common Ground and Strategic Fault Lines, Special Report #66 (Seattle, WA: The National Bureau of Asian Research, 2017), 9, https://www.nbr.org/.
- 89. Liu Fenghua, "China-Russia Comprehensive Strategic Partnership: Formation, Features, and Prospects," China International Studies, July/August 2016. 67.
- 90. BBC News, "Russia and South Korea Spar over Airspace Intrusion," July 2019, https://www.bbc.com/.
- 91. Artyom Lukin (@ArtyonLukin), Twitter, 23 July 2019, https://twitter.com/, in response to Ben Westcott, Brad Lendon, and Yoojung Seo, "Warplanes from Four Countries Face Off in Asian Confrontation," CNN World, 23 July 2019, https://edition.cnn.com/.

Disclaimer and Copyright

The views and opinions in SSQ are those of the authors and are not officially sanctioned by any agency or department of the US government. This document and trademarks(s) contained herein are protected by law and provided for noncommercial use only. Any reproduction is subject to the Copyright Act of 1976 and applicable treaties of the United States. The authors retain all rights granted under 17 U.S.C. §106. Any reproduction requires author permission and a standard source credit line. Contact the SSQ editor for assistance: strategicstudiesquarterly@us.af.mil.