SECTION 2: CHINA AND NORTHEAST ASIA

Key Findings

- China's and the United States' divergent approaches to North Korea reflect their fundamentally different priorities in Northeast Asia. The United States has made denuclezarization its priority in its North Korea policy, whereas China appears willing to accept a nuclear North Korea rather than upset the status quo. Efforts by Washington to compromise in other areas of the U.S.-China relationship in the hopes of winning Beijing's support in pressuring North Korea risk disappointing results.
- Chinese actors appear to have complied with some provisions of UN sanctions against North Korea and violated others. Despite restrictions on the trade in coal and other goods, China-North Korea trade is robust, with Chinese exports to North Korea increasing significantly in 2017.
- China's objections to the deployment of a U.S. Terminal High Altitude Area Defense (THAAD) missile defense battery in South Korea most likely reflect a deep-seated desire to counter perceived encirclement by the United States by limiting the expansion of the U.S.-allied missile defense system in the region, rather than substantive objections to the practical effect of THAAD's presence in South Korea on China's security environment.
- China's efforts to punish South Korea for hosting THAAD marked a turning point in South Korean attitudes toward China, which until 2016 had been fairly positive. This trend likely will lead to warming U.S.-South Korea defense relations. At the same time, however, Seoul will continue to seek positive relations with Beijing, in part because South Korea is economically dependent on China and relies on China's support to manage the North Korean situation.
- China's continued regional assertiveness and military modernization is contributing to deteriorating Japan-China relations. Japan is likely to continue pursuing military capabilities that would enable it to counter China's expanding military might, as well as North Korea's growing nuclear and missile arsenal.
- Despite North Korea's advancing nuclear and missile programs and China's growing military capabilities, South Korea and Japan have not substantially increased their bilateral defense cooperation and have taken only small steps toward greater trilateral cooperation with the United States. Poor South Korea-Japan relations could hinder the United States' ability to harness its alliances with each country to pursue U.S. interests in the region.

• Most Korean Peninsula conflict or crisis scenarios would require large-scale evacuations of U.S. and other citizens from South Korea. Planning and coordination for noncombatant evacuation operations remain a challenge for the United States, South Korea, and Japan.

Recommendations

The Commission recommends:

- Congress support initiatives that enable cooperation between the U.S. Coast Guard and maritime Asian coast guards (possibly to include joint patrols, shiprider agreements, and the expansion of the Code for Unplanned Encounters at Sea [CUES] to include coast guard and other maritime law enforcement agencies), given the prominent role of the China Coast Guard in aggressively advancing China's territorial ambitions in the East and South China seas.
- Congress examine the state of the U.S.-Japan alliance in light of China's military modernization, paying particular attention to efforts to achieve a joint command structure for planning and executing complex combined operations.

Introduction

Northeast Asia is the locus of some of the most pressing security challenges in Asia. For the purposes of this section, Northeast Asia encompasses China, Japan, the Democratic People's Republic of Korea (North Korea), and the Republic of Korea (South Korea). Two of these countries—Japan and South Korea—are U.S. treaty allies. They host the majority of U.S. military forces deployed in Asia and play a central role in advancing U.S. interests in peace, prosperity, stability, and openness in the region. North Korea, on the other hand, is "the most urgent and dangerous threat to peace and security," according to U.S. Secretary of Defense James Mattis.¹ In addition to demonstrating the ability to conduct missile strikes against the continental United States, North Korea's arsenal of nuclear and conventional weapons already gives it the ability to inflict massive damage and military and civilian casualties on South Korea and Japan, which the United States is obligated by treaty to defend, and which are home to more than 300,000 U.S. citizens and tens of thousands of U.S. soldiers and support personnel.

China's relations with each of these countries are fraught in different ways. With Japan, tensions are driven primarily by a maritime dispute over the Senkaku Islands in the East China Sea, historical animosity, Japan's close ties with the United States, and Japan's concerns about China-North Korea cooperation. Similarly, South Korea's alliance with the United States and abiding apprehensions about the North Korean threat play a central role in tensions between Beijing and Seoul. Imbalanced trade relationships further complicate Tokyo's and Seoul's relations with Beijing. China is North Korea's top trading partner, most reliable supporter, and a treaty ally.* It is necessarily a key player in any significant inter-

^{*}The 1961 Treaty of Friendship, Cooperation and Mutual Assistance between China and North Korea states that each party should "adopt all measures to prevent aggression against either [country] by any state," and includes a mutual defense clause, though some Chinese observers

national effort to address nuclear and missile proliferation in North Korea through economic or diplomatic pressure. However, China's interests on the Korean Peninsula, and its overall security outlook in Northeast Asia, suggest it prefers the status quo to any decisive action to rein in North Korea. Understanding China's interests and goals in Northeast Asia is crucial for U.S. policymakers seeking to find solutions to the serious and escalating security challenge in the region.

region. This section examines China's bilateral relationships with North Korea, South Korea, and Japan; the U.S.-China relationship as it relates to Northeast Asia security issues; the state of the trilateral U.S.-South Korea-Japan relationship; and implications of recent developments in Northeast Asia for the United States. It is based on the Commission's May 2017 fact-finding trip to Japan and South Korea, a June 2017 Commission hearing on China's relations with Northeast Asia, open source research and analysis, and consultations with U.S. and foreign government and nongovernmental experts.

China-North Korea Relations

North Korea's hostile relationship with the United States and its allies in Northeast Asia, compounded by its development of nuclear weapons and its frequent tests of increasingly advanced and longer-range missiles, present China with a rapidly deteriorating security situation on its doorstep and a complicated and often contradictory array of policy options.

Several factors shape China's approach to its relationship with North Korea, which China has a limited treaty obligation to defend. Addressing many of these factors presents dilemmas for China. China has frequently stated its priorities for the Korean Peninsula are "stability, denuclearization, and peace."2 Among these priorities, China's desire for stability appears to be the overriding factor.³ Moreover, China's interests in denuclearization appear to differ from those of the United States and its allies. In testimony before the Commission, Andrew Scobell, senior political scientist at the RAND Corporation, wrote that "from Beijing's point of view, Pyongyang's nuclear and missile programs are most problematic in that they trigger what China sees as threatening military responses by the United States and its allies."⁴ A confrontation between North Korea and the United States and its allies could lead to several contingencies that would threaten China's interests (see textbox, "North Korea Contingencies and Implications for China," later in this section).

China faces a balancing act in applying pressure to and maintaining influence over North Korea. According to Dr. Scobell, China's top leaders "are afraid that if China gets too tough on North Korea that

question China's commitment to North Korea's defense in a contingency. The treaty automatically renews every 20 years and is up for renewal again in 2021. According to China scholar Bonnie Glaser of the Center for Strategic and International Studies, "Beijing has attempted on several occasions to persuade North Korea to excise the mutual assistance clause from the Treaty, but Pyongyang has not agreed." ChinaFile, "What Will China do if the U.S. Attacks North Korea?" September 21, 2017; South China Morning Post, "China Unlikely to Come to North Korea? Befnese if Tensions Escalate over Nuclear Weapons Tests, Say Chinese Experts," April 17, 2016; Zhu Feng and Nathan Beauchamp-Mustafaga, "North Korea's Security Implications for China," in Carla Freeman, ed., China and North Korea: Strategic and Policy Perspectives from a Changing China, Palgrave Macmillan, 2015, 46; and Treaty of Friendship, Cooperation and Mutual Assistance between the People's Republic of China and the Democratic People's Republic of Korea, July 11, 1961.

this will only exacerbate matters—Pyongyang will pull away and Beijing will lose what little influence it has, Pyongyang will escalate its provocations, or both."⁵ Andrei Lankov, professor at South Korea's Kookmin University, told the Commission in May 2017, "China doesn't have leverage; it has a hammer." In other words, the only way for China to change Pyongyang's behavior would be to completely destabilize the country.⁶ How Pyongyang responds to China's recent steps to sanction and otherwise apply pressure to the North Korean regime—the most forceful Beijing has taken to date—could shed light on the limits of China's influence.

North Korea Contingencies and Implications for China

- War on the Korean Peninsula: If war breaks out between North Korea and the United States and its allies, or if North Korea collapses into internal armed conflict, China would face a war on its border and beyond. The North Korean government might lose centralized control of its nuclear weapons in the course of a war, putting China's security at risk and creating a situation in which Chinese and U.S.-allied forces could come into conflict while seeking to secure nuclear sites.⁷
- Unified Korea under a U.S.-allied South Korean government: A South Korean-led government of a unified Korea might maintain a close defense relationship with the United States.⁸ In testimony before the Commission, Abraham Denmark, former deputy assistant secretary of Defense for East Asia, wrote that China "[worries] that a unified Korean Peninsula (which would presumably remain a U.S. ally) would extend American power and influence to China's border."⁹
- *Refugee crisis:* Instability or war on the Korean Peninsula could drive hundreds of thousands of North Koreans to flee to China, which could destabilize the fragile economy of north-eastern China and aggravate historical tension over sover-eignty in ethnic Korean-majority areas on the Chinese side of the border.*¹⁰ China most likely would use its military to establish a buffer zone on the North Korean side of the border to encamp North Koreans before they reach China.¹¹ South Korea could view this as a violation of its sovereign-ty.¹² China's refugee camps could draw international attention and, depending on conditions in the camps, international condemnation.¹³ Infectious diseases—such as tuberculosis, from which thousands of North Koreans suffer—could create disastrous health conditions in the camps and public health risks in China.¹⁴

^{*}Expert estimates of the number of North Koreans who would try to flee to China in a crisis vary from several hundred thousand to several million. Among other factors, obstacles to reaching and crossing the border with China suggest the lower end of these estimates is more likely. Bridget Coggins, "Refugees, Internal Displacement, and the Future of the Korean Peninsula," *Center for Strategic and International Studies*, February 2, 2017.



Figure 1: Map of Northeast Asia

Developments in North Korea's Nuclear and Missile Programs

In the past two years, North Korea has conducted three nuclear tests and numerous tests of missiles with new capabilities and longer ranges. Its September nuclear test—its sixth—had an estimated explosive yield of up to 280 kilotons (by comparison, the nuclear bomb dropped on Hiroshima had a 15-kiloton yield).¹⁵ North Korean ruler Kim Jong-un has presided over 19 missile launches in 2017 alone, more than the total number of missiles launched during his father's entire 17-year-long rule.¹⁶ North Korea has demonstrated its missiles can reach South Korea, Japan, Guam, and, with the successful test of two intercontinental ballistic missiles (ICBMs)* in July 2017, the continental United States. Moreover, North Korea has produced miniaturized nuclear warheads. An indication of how tense the situation has become, in 2017 Japan staged several missile attack evacuation drills and Hawaii's Emergency Management Agency released guidance for surviving a nuclear attack.¹⁷

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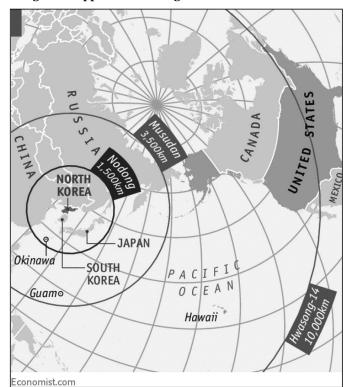
Source: Washington Post, "McAuliffe Attempts to Defuse Dilemma over Textbook Maps of Sea of Japan," January 30, 2014.

^{*}The U.S. Department of Defense defines an ICBM as having a range greater than roughly 3,400 miles; a medium-range ballistic missile as having a range of roughly 600–1,800 miles; and a short-range ballistic missile as having a range of roughly 180–600 miles. U.S. Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2015, April 2015, 46; U.S. National Air and Missile Intelligence Center, Ballistic and Cruise Missile Threat, 2013, 9.

ICBM Tests and Nuclear Bomb Miniaturization

On July 4, 2017, North Korea conducted its first test of an ICBM, the KN–20 (Hwasong–14), which terminated in the Sea of Japan. The missile's 37-minute flight time and highly-lofted trajectory suggested it could have a range of at least 4,000 miles (mi).¹⁸ However, based on this test, many experts placed upper estimates of the KN–20's range at nearly 6,000 mi or more, and able to reach much of the continental United States (see Figure 2).¹⁹ On July 28, 2017, North Korea conducted its second test of an ICBM, reportedly another KN–20, which also terminated in the Sea of Japan.²⁰ Initial analyses of the missile's flight time and trajectory indicated it could have traveled at least 6,200 mi.²¹ According to Jeffrey Lewis, director of the East Asia Nonproliferation Program at the Middlebury Institute of International Studies at Monterey, imagery and technical analysis of the KN–20 indicate it "should be able to deliver a nuclear-weapon-size payload ... to targets throughout most of the continental United States."²²

Figure 2: Approximate Range of North Korean Missiles



Source: Economist, "How Close Is North Korea to Having a Missile that Can Hit LA?" August 5, 2017.

In July 2017, the *Washington Post* reported that the U.S. Defense Intelligence Agency had made a confidential assessment that North Korea could field a "reliable, nuclear-capable intercontinental ballistic missile" as early as 2018.²³ North Korea is developing two other missiles—the Taepodong–2 and the road-mobile KN–08—that U.S. government sources estimate will be capable of reaching the continental United States.²⁴ The Taepodong–2 has been used for satellite launches, but has never been tested as an ICBM;²⁵ the KN–08 has never been tested.²⁶

In March 2016, the North Korean state-run Korean Central News Agency (KCNA) reported that North Korea had developed nuclear warheads "standardized to be fit for ballistic missiles by miniaturizing them."²⁷ North Korean state media also released a photograph of a purported miniaturized warhead.²⁸ The U.S. intelligence community confirmed this development in August 2017.²⁹ North Korea said a miniaturized nuclear weapon was the weapon detonated in its September 2016 nuclear test, and reaffirmed its claimed ability to mount miniaturized warheads on its ballistic missiles.³⁰

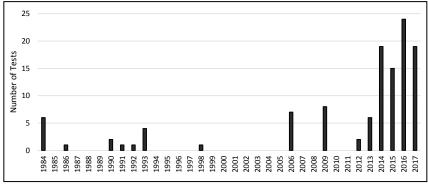
Other Missile Tests

In addition to the KN–20, North Korea has tested shorter-range missiles in 2017 that increase its ability to strike U.S. forces and territory and U.S.-allied countries in the region. The frequency of these tests has risen sharply since Kim Jong-un took power in 2012 (see Figure 3).³¹ Recently-tested missiles include the following:

- *Hwasong-12*: North Korea conducted the first six tests of its Hwasong-12 intermediate-range ballistic missile in 2017.³² The missile's reported range—about 2,800 mi—reaches Guam.³³
- *KN-15*: North Korea conducted its first test of the road-mobile KN-15 medium-range ballistic missile, with a reported range of 750-1,250 mi, in February 2017.³⁴ The KN-15 is a road-mobile variant of the KN-11 submarine-launched ballistic missile.
- *KN-18 Maneuvering Reentry Vehicle Scud:* In May 2017, North Korea conducted its first test of its road-mobile maneuvering reentry vehicle Scud short-range ballistic missile, with a range upwards of 280 mi.³⁵
- *Extended Range Scud:* North Korea conducted four tests of its Extended Range Scud missile in 2017.³⁶ These missiles have a range of roughly 430–620 mi.³⁷

North Korea's advances in missile technology are making its arsenal more survivable. The mobility of some North Korean missiles, which is growing as North Korea fields indigenously-built tracked transporter erector launchers, greatly increases the difficulty for opposing forces to monitor and target them.³⁸ In addition, since its first tests of solid-fuel ballistic missiles in 2016 North Korea has continued testing these missiles, including the solid-fuel KN–15. Solid-fuel missiles are less vulnerable to preemptive strikes because they have shorter launch preparation times and require fewer support vehicles—shortening the time for detection and intervention and reducing their visibility.³⁹ Moreover, in 2017 North Korea simultaneously launched four Extended Range Scuds that landed in the Sea of Japan.⁴⁰ A barrage of simultaneously-launched missiles might stretch or overwhelm U.S.-allied missile defenses in the region.⁴¹

Figure 3: Number of North Korean Missile Tests, 1984 to September 2017



Source: Nuclear Threat Initiative, "The CNS North Korea Missile Test Database."

North Korean Biological and Chemical Weapons

According to the U.S. Department of Defense, North Korea is pursuing and may consider using biological weapons in a conflict and "probably has had a longstanding chemical weapons program with the capability to produce nerve, blister, blood, and choking agents and likely possesses a [chemical weapons] stockpile."⁴² Some analysts estimate North Korea has stockpiled thousands of tons of chemical agents.⁴³ North Korea might be capable of delivering these agents with ballistic missiles and artillery.⁴⁴ According to Balbina Hwang, visiting professor at American University, a biological and chemical attack from North Korea is a "more immediate threat to South Korea than the potential use of nuclear weapons, and perhaps even more than a massive conventional military attack."⁴⁵

U.S. and South Korean military forces drill for a chemical or biological attack from North Korea. In 2016 and 2017, hundreds of U.S. and South Korean troops conducted exercises simulating assaults on North Korean chemical weapons laboratories.⁴⁶ The South Korean public, however, almost certainly is not prepared to respond to a chemical or biological attack. On its fact-finding trip to South Korea in 2017, a U.S. military official told the Commission that the South Korean public does not take drills for these contingencies seriously.⁴⁷ A 2014 survey reported only 7 percent of South Koreans own gas masks.⁴⁸

China's Role in North Korean Sanctions Enforcement

China's dominant trading position with North Korea makes it the most important actor in international efforts to restrict the flow of money and sanctioned resources into North Korea. China accounted for 90 percent of North Korea's foreign trade in 2016, and provides nearly all North Korea's critical energy and food resources and foreign investment.⁴⁹ The legal bilateral trade relationship comprises billions of dollars in investments and exchanges. The best available data suggest Chinese actors have observed some UN sanctions and violated others.

The UN Security Council has enacted several resolutions to curtail the flow of money and military and dual-use equipment into North Korea. In 2016–2017 it unanimously passed the following resolutions:

- Resolution 2270, passed in March 2016 in response to North Korea's January 2016 nuclear test, prohibited imports of North Korean coal, iron and iron ore, gold, titanium ore, vanadium ore, and rare earth minerals.⁵⁰ However, Resolution 2270 includes a clause that allows imports of these goods "exclusively for humanitarian purposes or exclusively for livelihood purposes."⁵¹ China cited this exemption to import more than \$1 billion in North Korean coal from March to December 2016.⁵²
- Resolution 2321, passed in November 2016 in response to North Korea's September 2016 nuclear test, closed the livelihood exemption for coal imports and capped global imports of North Korean coal at \$400 million for 2017.⁵³ It banned all imports of copper, nickel, silver, and zinc, but preserved the livelihood exemption for North Korean iron and iron ore. It also led to the creation in December 2016 of a list of dual-use items banned for transfer to North Korea.⁵⁴
- Resolution 2356, passed in June 2017 after a series of North Korean missile tests, imposed travel bans and asset freezes on 14 North Koreans and asset freezes on 4 North Korean institutions, including a bank with a presence in China.⁵⁵
- Resolution 2371, passed in August 2017 following North Korea's two ICBM tests, fully banned North Korean coal, iron, iron ore, seafood, lead, and lead ore exports; sanctioned additional North Korean individuals and entities; enabled the UN Security Council to deny international port access to ships with links to sanctions violations; banned countries from accepting additional North Korean migrant laborers; and allocated additional resources for the UN Panel of Experts to monitor North Korean sanctions enforcement.⁵⁶
- Resolution 2375, passed in September 2017 following North Korea's sixth nuclear test, capped oil exports to North Korea and banned natural gas exports altogether; prohibited, with some exceptions, the employment of North Korean migrant laborers; banned North Korean textile exports; and strength-ened requirements for interdictions of suspected North Korean cargo ships.⁵⁷

The following is a discussion of China's recent record of compliance with sanctions targeting large-scale trade with North Korea.

Coal Imports and Oil and Natural Gas Exports

According to the U.S. Department of the Treasury, "North Korea generates a significant share of the money it uses to fuel its nuclear and ballistic missile programs by mining natural resources and selling those resources abroad. In particular, coal trade has generated over \$1 billion in revenue per year for North Korea."⁵⁸ Through February 2017, China was on pace to greatly exceed UN Resolution 2321's annual cap on global imports of North Korean coal, but that month, China announced a total ban on imports of North Korean coal through December 31, 2017, to comply with the resolution.⁵⁹ However, Chinese customs data released in September show China imported 1.75 million tons of coal worth \$138 million from North Korea in August, just before Resolution 2371's coal ban took effect.⁶⁰ Chinese Ministry of Commerce spokesperson Gao Feng insisted the imports were not in violation of UN sanctions, but declined to explain how they comported with China's self-imposed ban from February.⁶¹ Traders and industry experts concluded it must have been a sudden clearance of accumulated coal imports held at Chinese ports since Beijing's ban was announced in February.⁶²

announced in February.⁶² In late August 2017, Treasury designated* three Chinese coal companies—Dandong Zhicheng Metallic Materials Co., Ltd., JinHou International Holding Co., Ltd., and Dandong Tianfu Trade Co., Ltd.—for collectively importing almost \$500 million in coal from North Korea from 2013 to 2016.⁶³ The network of companies to which Dandong Zhicheng belongs allegedly used tactics like bartering and the use of multiple shell companies to avoid detection.⁶⁴ According to a North Korean defector cited by U.S. officials, Dandong Zhicheng's owner is one of "a relatively small group of trusted individuals who have reliably provided the North Korean government with desired services."⁶⁵

Most of North Korea's oil imports come from China (although China has not published data on oil exports to North Korea since 2014).⁶⁶ Following Resolution 2375's restrictions on oil and natural gas exports to North Korea, China announced it would begin limiting refined oil product exports in October and banning lique-fied natural gas exports immediately.⁶⁷ The resolution allows for 2 million barrels of oil exports to North Korea annually starting in 2018—close to estimates of China's total oil exports to the country in 2016.⁶⁸

Dual-Use Exports

In January 2017, to comply with Resolution 2321, China's Ministry of Commerce incorporated the UN's December 2016 list of banned dual-use items into a list of products it would ban from export to North Korea, such as "modeling and design software related to aerodynamics and thermodynamics analysis of rockets."⁶⁹ Although it is too soon to assess whether Beijing has adhered to its latest obligations, previous transfers by Chinese actors—including state-owned enterprises (SOEs)—of resources to North Korea that would support its nuclear and missile programs despite long-standing UN sanctions targeting these transfers give reason to doubt Beijing's commitment. Examples include the following:

^{*}Treasury's Office of Foreign Assets Control publishes and regularly updates "a list of individuals and companies owned or controlled by, or acting for or on behalf of, targeted countries. It also lists individuals, groups, and entities, such as terrorists and narcotics traffickers designated under programs that are not country-specific. Collectively, such individuals and companies are called 'Specially Designated Nationals' or 'SDNs.' Their assets are blocked and U.S. persons are generally prohibited from dealing with them." U.S. Department of the Treasury, *Specially Designated Nationals and Blocked Persons List (SDN) Human Readable Lists*, August 22, 2017.

- In September 2017, the *Wall Street Journal* reported North Korean researchers in China and elsewhere almost certainly have acquired expertise and know-how that could be applied to North Korea's weapons programs, possibly in violation of a 2016 UN ban on teaching certain subjects related to advanced and dual-use technologies.⁷⁰
- In August 2017, Treasury reported the aforementioned company Dandong Zhicheng "allegedly used the foreign exchange received from the end users of North Korean coal to purchase other items for North Korea, including nuclear and missile components."⁷¹
- In May 2017, the *Wall Street Journal* reported that Limac Corp., a Chinese SOE, had participated since 2008 in a joint venture with a North Korean company that had been sanctioned by the UN in 2009 for its involvement in North Korea's nuclear and missile programs.⁷²
- In April 2017, trucks built by Sinotruk, a subsidiary of the Chinese SOE China National Heavy Duty Truck Group, carried North Korean submarine-launched ballistic missiles in a military parade in Pyongyang.⁷³ In June 2013, the UN Panel of Experts reported a Chinese company sold North Korea six lumber transport vehicles that North Korea later likely converted to transporter erector launchers.⁷⁴ These launchers were displayed in a military parade in Pyongyang in April 2012, and one reportedly was used to launch the ICBM North Korea tested on July 3, 2017.⁷⁵
- In February 2017, the UN Panel of Experts reported that Chinese companies exported to North Korea parts used in an Unha-3 rocket that put a satellite in orbit in February 2016.⁷⁶
- In September 2016, the Asan Institute and the Center for Advanced Defense Studies reported that one Chinese trading conglomerate, the Liaoning Hongxiang Group (a private Chinese trading conglomerate that conducted more than \$500 million in reported trade with North Korea from 2011 to 2015) exported to North Korea at least four dual-use products—including \$253,219 in aluminum oxide, which is used to enrich uranium.⁷⁷

The involvement of SOEs in these activities suggests Beijing actively or tacitly approves some of these activities.⁷⁸

Mineral, Seafood, and Labor Imports

According to data from Korea International Trade Association, China has continued to import silver, copper, and zinc from North Korea, despite an outright ban on the import of these materials under UN Resolution 2321.⁷⁹ Chinese customs data for many banned minerals are unavailable, but China has reported \$44,000 in copper imports since Resolution 2321 came into effect.⁸⁰

In mid-August 2017 China banned all North Korean seafood imports in accordance with Resolution 2371, worth \$196 million in 2016.⁸¹ China's initial implementation appeared fairly forceful. When the ban went into effect, several Chinese seafood traders suffered losses when truckloads of seafood imports were turned away or left to rot at the border.⁸² Chinese companies specializing in processing North Korean seafood imports, as well as the restaurants serving them, are likely to lose business, and some wholesalers have closed.⁸³ The seafood trade is notoriously opaque and poorly managed, and smuggling continues despite the ban.⁸⁴ A Chinese seafood trader told Bloomberg, "As long as there's demand, smugglers will keep coming ... no matter how hard Beijing tries."⁸⁵

Following the passage of Resolution 2371, Chinese factories notified North Korean traders that they will no longer hire North Korean workers, and some workers currently in the country are being asked to leave.⁸⁶ An estimated 50,000–150,000 North Koreans work abroad, primarily in China and Russia;⁸⁷ the majority of North Korean migrant workers in China are in the textile industry (the exports of which are banned under Resolution 2375).⁸⁸ Kim Byung-yeon, an expert on the North Korean economy and a professor at Seoul National University, told the Commission the North Korean migrant worker industry is North Korea's second-highest source of income (the foreign goods trade is the highest).⁸⁹ According to Dr. Lankov, North Korean migrant laborers are essentially indentured servants; nevertheless, for many poor North Korean citizens, migrant work can be more profitable than finding work domestically.⁹⁰

The Effect of China's Sanctions Enforcement

A total loss of income from coal exports to China, combined with restricted oil and natural gas imports from China, could have an enormous impact on North Korea's economy. Coal reportedly accounted for 40 percent of North Korea's exports to China in 2016.⁹¹ However, China's apparent reversal of its February pledge to ban all North Korean coal imports will limit the immediate impact, and it is too soon to assess its implementation of the UN coal import ban, which went into effect in early September. Moreover, the UN oil and natural gas export restrictions do not go into effect until 2018. August 2017 data on Chinese imports of North Korean iron ore showed a year-on-year increase in value and volume; during this time, North Korean iron ore imports were sanctioned but subject to a livelihood exemption under Resolution 2321 (data on Chinese imports of North Korean iron ore following the full ban required by Resolution 2371 are not yet available).⁹² All in all, North Korea's imports from China increased 17 percent between the first eight months of 2016 and the same period in 2017.93 The growth in North Korea's imports from China can also be attributed to legal trade (such as food),* unreported illegal trade, including trade in sanctioned goods such as coal and in-kind trade in goods; remittances from North Korean businesses and forced labor overseas; financial assistance from China; cyber theft from foreign financial institutions; or foreign currency reserves and overseas accounts.94

^{*}For example, China's agricultural exports to North Korea jumped sharply in July and August 2017, with corn exports increasing to nearly 100 times the level of the same period in 2016, and rice exports increasing by 79 percent. Lucy Craymer, "China's Food Exports to North Korea Surge," *Wall Street Journal*, September 27, 2017.

North Korea's Domestic Economy

North Korea's domestic economy reportedly is stable and growing. The Bank of Korea, South Korea's central bank, reported the North Korean economy grew by 3.9 percent in 2016.95 Moreover, although it is difficult to measure the conversion rate of the North Korean won to the U.S. dollar, the best available data suggests the rate has been consistent since 2012-a dramatic improvement over the rampant inflation under Kim Jong-il.96 Many analysts attribute the apparent health of North Korea's economy to liberalization of local markets under Kim Jong-un.⁹⁷ These reforms may have contributed to a rise in the standard of living of ordinary North Koreans by further opening local markets to goods imported from China through low-level-and sometimes illegal-trade across the border.98 According to South Korea-based journalists Daniel Tudor and James Pearson, "Chinese traders make regular crossings at border towns like Dandong, bringing with them all manner of items sought after by North Koreans.... Though the overall value of trade is high, it is mostly conducted by small traders that authorities aiming to uphold UN goods sanctions would find it extremely difficult to monitor."99 However, dry weather in recent years, including a severe drought in 2017 threaten North Korea's economic stability and food security.¹⁰⁰

Outsourcing the production of fraudulent goods to North Korea by Chinese companies might also be an important factor in its economic growth. In 2012-2013 Professor Kim of Seoul National University conducted a survey of 138 firms based in Dandong, China, that showed 31 percent of them outsourced some of their business to North Korea, and "the majority of the outsourcing firms were engaged in clothes manufacturing."¹⁰¹ (Clothing is North Korea's second-largest export behind coal and other minerals, totaling \$752 million in 2016.)¹⁰² Experts with whom the Commission met in Seoul and other analysts report that this outsourced production includes the manufacture of goods fraudulently labeled "made in China" and later sold abroad through Chinese companies.¹⁰³ Some of these goods make their way to the United States, Europe, Japan, South Korea, Canada, and Russia.¹⁰⁴ These activities could account for a significant portion of the \$500 million in reported clothing exports from North Korea to China in 2016.¹⁰⁵

China's formal support for and apparent selective enforcement of UN sanctions might reflect a sincere desire to apply pressure to North Korea to halt its nuclear and missile programs. China also might be trying to offer a symbolic concession to the United States that signals its willingness to cooperate on resolving tension on the Korean Peninsula and downplay criticism that it is shielding North Korea from international pressure.¹⁰⁶ However, some Chinese actors' violations of other sanctions undermine its claim to being a responsible partner.

The Assassination of Kim Jong-nam

In February 2017, two women allegedly affiliated with a network of North Korean agents killed Kim Jong-nam, the half-brother of Kim Jong-un, by smearing VX nerve agent on his face at Kuala Lumpur International Airport in Malaysia.¹⁰⁷ Kim Jong-nam was the eldest son of former North Korean leader Kim Jong-il and half-brother of Kim Jong-un. He fell out of favor with his father in 2001, was exiled from North Korea in 2003, and was replaced by Kim Jong-un as Kim Jong-il's designated successor.¹⁰⁸

Kim Jong-nam's assassination was widely seen as an affront to China, as he was reportedly under China's protection at the time of his death.¹⁰⁹ Many analysts speculated that China's protection of Kim Jong-nam was a sign it wanted to preserve him as an alternative to Kim Jong-un as the leader of North Korea, and cited this as a motive for Kim Jong-un to order the assassination.¹¹⁰ However, it is unclear whether China saw strategic value in protecting Kim Jong-nam; despite an alleged standing order from Kim Jong-un for Kim Jong-nam's assassination and an attempt on his life in 2012, China does not appear to have provided him any security in Malaysia, a country with relatively close people-to-people ties to North Korea.¹¹¹ The assassination might have been aimed primarily at a domestic audience. While in exile, Kim Jong-nam criticized the leadership of Kim Jong-un and called for reform in North Korea.¹¹² According to Marcus Noland and Stephan Haggard of the Peterson Institute for International Economics, "The assassination was a warning to elite North Korean leadership to toe the line or end up like Kim Jong-nam."¹¹³

Shifting Chinese Views on North Korea

Criticism of North Korea from Chinese state media, including the state-run newspaper the People's Daily and the Global Times—a news source that is backed by the Chinese Communist Party but is not authoritative-and the response from North Korea has been unusually harsh. An April 30, 2017 editorial in the People's Daily said, "North Korea's development of nuclear missiles is tantamount to putting itself and the entire region in a very insecure position."¹¹⁴ A May 1 editorial in the *Global Times* criticized North Korea's "reckless pursuit of nuclear and long-range missile technologies."¹¹⁵ North Korea's state-run KCNA responded to this criticism with an editorial accusing China of "the cowardly act of dancing to the tune of the United States."¹¹⁶ KCNA said, "The 'red line' of [North] Korea-China relations is not being crossed by [North Korea] but is being violently trampled down and unabashedly crossed by China." A subsequent Global Times editorial said, "[Beijing] should ... make Pyongyang aware that it will react in unprecedented fashion if Pyongyang conducts another nuclear test."¹¹⁷ One Chinese expert on Korean affairs told Foreign Policy that China's leaders would view North Korea's September nuclear test as deliberately timed to pressure Beijing during the sensitive period ahead of the Chinese Communist Party's 19th Party Congress in October.¹¹⁸

The Chinese government is also tolerating blunt criticism within China of its North Korea policies—criticism it almost certainly would have censored several years ago.¹¹⁹ In April, Shen Zhihua, a prominent Chinese scholar of China-North Korea relations, published a speech in which he said, "Outwardly, China and North Korea are allies, while the United States and Japan support South Korea against North Korea.... [But] my basic conclusion is judging by the current situation, North Korea is China's latent enemy and South Korea could be China's friend."¹²⁰ The speech is available in Chinese on East China Normal University's website.¹²¹ In July 2017, Zhu Feng, director of the Institute of International Studies and Executive Director of the China Center for Collaborative Studies of the South China Sea at Nanjing University, wrote in *Foreign Affairs* that "abandoning Pyongyang ... is both the strategic and the moral choice" for China.¹²²

These statements do not necessarily reflect a shift in the views of China's leadership. Beijing sometimes uses state media to float policy ideas that it does not pursue or to create the impression of a debate where there is none. For example, in April 2017 the *Global Times* suggested China would restrict oil exports to North Korea "if the North makes another provocative move [in April]."¹²³ North Korea conducted six missile tests in April and May; China did not appear to restrict oil exports in response.¹²⁴

U.S.-China Divergence on North Korea

In April 2017, U.S. Secretary of State Rex Tillerson, Secretary of Defense Mattis, and Director of National Intelligence Dan Coats echoed China's stated interest in "stability, denuclearization, and peace," saying the United States seeks "stability and the peaceful denuclearization of the Korean peninsula."¹²⁵ China's desire for stability, however, outranks its desire for denuclearization—the primary goal of the United States.¹²⁶

Although China and the United States have agreed on UN resolutions targeting North Korea, they disagree sharply on the causes of tension on the Korean Peninsula. China advances the narrative that the United States has incited North Korea to take provocative actions.¹²⁷ China's position on North Korea reflects China's perception of the role of the United States in Northeast Asia. China sees U.S. policy on North Korea as designed to strengthen Washington's regional alliances and military posture to contain China.¹²⁸

regional alliances and military posture to contain China.¹²⁸ On July 4, 2017, Secretary Tillerson said, "Any country that ... provides any economic or military benefits [to North Korea] or fails to fully implement UN Security Council resolutions is aiding and abetting a dangerous regime."¹²⁹ China has rejected criticism from the United States and others that it has not applied enough pressure to North Korea and that it is responsible for reining in North Korea. On July 11, 2017, a spokesman from China's Ministry of Foreign Affairs said:

The crux of the Korean nuclear issue rests on the conflict between [North Korea] and the U.S... The Chinese side is neither the focal point of the conflict of the Korean nuclear issue nor the catalyzer for escalation of tensions at present, and it does not hold the key to solving the Korean Peninsula nuclear issue. In recent days, certain people have been exaggerating and playing up the so-called "China responsibility" theory. Those people have either failed to grasp the Korean Peninsula nuclear issue comprehensively and accurately, or done this out of ulterior motives with an attempt to shirk responsibility.¹³⁰

China has called for mutual concessions from North Korea and the United States to deescalate rising tensions on the Korean Peninsula. Hours after North Korea's ICBM test on July 4, 2017, China and Russia released a joint communiqué reiterating China's proposal for a "suspension for suspension" solution in which "North Korea suspends the nuclear missile activities and the United States and South Korea suspend large-scale joint military exercises."131 The U.S. and South Korean governments have consistently rejected this tradeoff. Speaking a few days before the ICBM test, South Korean President Moon Jae-in called U.S.-South Korea exercises "legitimate" and said, "I believe we cannot trade an illicit activity for something that is legal. Furthermore, I believe that we cannot reward bad behavior."132 On July 5, U.S. Forces Korea and the South Korean military conducted a joint ballistic missile defense drill.¹³³ On July 7, the U.S. Air Force cited an "ironclad U.S. commitment to our allies against the growing threat from North Korea's ballistic missile and nuclear programs" as two U.S. Air Force B-1 bombers conducted exercises with South Korean aircraft over the Korean Peninsula.¹³⁴ U.S. and South Korean forces have continued to hold military exercises. From August 21 to 31, South Korea and the U.S. Combined Forces Command held their annual Ulchi Freedom Guardian exercise despite North Korean warnings that the exercise would be "pouring gasoline on a fire."¹³⁵ This year's iteration featured a computer simulation involving 17,500 U.S. personnel across all services, as well as observers from seven other countries.¹³⁶

In 2017, the United States imposed secondary sanctions on several Chinese actors over their relationships with North Korea. In addition to the three aforementioned coal companies sanctioned in August, Treasury moved to cut off the privately-owned Bank of Dandong from the U.S. financial system in June for "facilitating millions of dollars of transactions for companies involved in North Korea's weapons of mass destruction and ballistic missile programs."137 At that time, it also designated two Chinese individuals for their connections to banks that conducted financial transactions for North Korea, as well as the privately-owned Dalian Global Unity Shipping Co., Ltd., for smuggling luxury goods into North Korea.¹³⁸ U.S. Secretary of Treasury Steven Mnuchin said the United States "in no way target[ed] China with these actions" and that U.S. officials "look forward to continuing to work closely with the government of China to stop the illicit financing in North Korea."¹³⁹ The day after Treasury announced the sanctions, a spokesman from China's Ministry of Foreign Affairs said China "opposes unilateral sanctions out of the UN Security Council framework, especially the 'long-arm jurisdiction' over Chinese entities and individuals exercised by any country in accordance with its domestic laws."140

On September 21, the White House issued Executive Order 13810, a "simultaneously precise, detailed, and sweeping" sanctions package constituting "the most significant experiment in the use of secondary sanctions on North Korea to date," according to Mr. Haggard.¹⁴¹ Five days later, pursuant to this and a similar executive order from 2015, Treasury sanctioned 19 China-based individuals linked to North Korean financial networks.¹⁴² Mr. Haggard predicts "Beijing clearly does not like secondary sanctions and may feel like they have gone too far and need to recalibrate. If they do, there are a myriad of ways they could throw Kim Jong-un political and economic lifelines." 143

China-South Korea Relations

In the years leading up to 2016, China-South Korea relations were generally positive, buoyed by robust trade relations and a mutual commitment to good relations by Chinese President Xi Jinping and Park Geun-hye, president of South Korea from 2013–2017. Tensions would arise periodically, usually from disagreements over managing relations with North Korea, or over Seoul's close military cooperation with Washington, but in general, the China-South Korea relationship was among the most stable in Northeast Asia. Facing the dual challenge of a more assertive China and a more threatening North Korea, however, South Koreans have become more pessimistic about relations with China.¹⁴⁴

The China-South Korea relationship took a negative turn starting in 2016 over the planned deployment of a U.S. Terminal High Altitude Area Defense (THAAD) missile defense system to South Korea.* China's economic retaliation over the deployment reflects a desire to influence South Korea's policies toward China and North Korea, as well as its defense engagement with the United States. China's response to the THAAD deployment illustrates President Moon's challenge in balancing South Korea's relationships with the United States, its security guarantor, and China, its largest trading partner and most powerful neighbor—all while facing an increasing military threat from North Korea.

THAAD Deployment

Since 2014, the U.S. Department of Defense has considered deploying THAAD in South Korea,¹⁴⁵ but until recently, Seoul has been reluctant to proceed with the system. South Korean officials raised concerns about the cost of hosting THAAD; uncertainty about THAAD's effectiveness against the North Korean threat; and South Korea's existing plan to develop an indigenous missile defense system. Seoul also may have been concerned that THAAD would contribute to the U.S.-allied regional ballistic missile defense network which it seemed averse to join because of longstanding frictions with Japan—and, perhaps most importantly, may have been reluctant to antagonize China due to the two countries' close economic ties.¹⁴⁶

The increased security threat posed by continued North Korean missile development, however, changed Seoul's calculus on THAAD. Hours after North Korea's February 2016 satellite launch testing ballistic missile technology, South Korea said it would pursue formal talks with the United States about the system.¹⁴⁷ In July 2016, the U.S. Department of Defense and South Korean Ministry of National Defense announced in a joint statement the alliance decision to proceed with the deployment of a THAAD battery in South Korea

^{*}For a thorough examination of the THAAD deployment and China's reaction, see Ethan Meick and Nargiza Salidjanova, "China's Response to U.S.-South Korean Missile Defense System Deployment and Its Implications," U.S.-China Economic and Security Review Commission, July 26, 2017.

by late 2017, at an estimated cost of \$1.6 billion.*¹⁴⁸ In March 2017, the United States began delivery of the first major THAAD components, amid U.S. and South Korean defense officials' calls for an accelerated deployment schedule in response to increased North Korean missile launches and additional nuclear tests.¹⁴⁹ In April, U.S. Forces Korea began delivering major THAAD components to the deployment site and installing them, including the X-band radar, two launchers (of a total of six), and interceptors.¹⁵⁰ In early September, the remaining four launchers were deployed.¹⁵¹

China's Opposition to the THAAD Deployment

Beijing has vocally opposed the deployment since the announcement of formal U.S.-South Korea talks on THAAD in February 2016. China's Ministry of Foreign Affairs has spoken out against the deployment more than 50 times.¹⁵² The following are examinations of several of China's stated objections to the THAAD deployment.

- X-band radar: Chinese officials and experts have said THAAD's X-band radar, which is capable of monitoring missiles launched from northeastern China, harms China's nuclear deterrent.¹⁵³ In February 2016, Chinese Foreign Minister Wang Yi said, "The coverage of the THAAD missile defense system, especially the monitoring scope of the X-band radar, goes far beyond the defense need of the Korean Peninsula. It will reach deep into the hinterland of Asia, which will ... directly damage Chinese strategic security interests."¹⁵⁴ Chinese missile defense experts argue that the radar could detect Chinese missiles targeting the United States.¹⁵⁵ According to Li Bin, a professor at Chi-na's Tsinghua University, the X-band radar allows the United States to detect the radar signature from the back of the warhead and could discern between a real Chinese warhead and a decoy, which would "[undermine] China's nuclear deterrent ca-pability."¹⁵⁶ Although the X-band radar is capable of monitoring northeastern China, the battery in South Korea is to operate in "terminal mode," during which it will be oriented toward intercepting North Korean missiles. In this mode, radar coverage would not extend to inland launch sites in China.¹⁵⁷
- *THAAD's target:* Chinese experts and media commenters have said THAAD is designed to intercept high-altitude missiles, which would be ineffective against North Korea's short- and tactical-range missiles that would likely be employed against South Korea, but suited to intercepting high-altitude Chinese missiles.¹⁵⁸ However, North Korea's recent tests of missiles with higher trajectories demonstrate THAAD provides a valuable layer of defense against North Korea.¹⁵⁹
- Arms race: In October 2016, a Chinese Foreign Ministry official said THAAD's extension of the U.S.-allied missile defense network in Northeast Asia will "trigger [a] regional arms race."¹⁶⁰ These statements overlook an existing trend of military mod-

^{*}Under the Status of Forces Agreement between the United States and South Korea, the United States will fund the battery's deployment and maintenance costs and contribute the necessary operational forces, while South Korea will provide the necessary land and facilities. Kang Seungwoo, "Seongju Picked as Site for THAAD Battery," *Korea Times*, July 13, 2016; Jung Sung-ki, "South Korea Eyes THAAD despite China's Fear," *Defense News*, February 14, 2016.

ernization in all countries in Northeast Asia—including China—and THAAD's role and capabilities as a response to North Korea's missile development, and overestimate THAAD's practical effect on China's nuclear deterrent.¹⁶¹

China's primary concern with the THAAD deployment appears to be that THAAD's X-band radar and interceptors could harm Beijing's strategic security interests by expanding the U.S.-allied missile defense and intelligence, surveillance, and reconnaissance network in the region and contributing to perceived encirclement by U.S. and U.S.-allied forces.¹⁶² These fears are not entirely unfounded. In the face of the growing North Korean threat, Japan and the United States are strengthening cooperation on missile defense as well (see "Japan's Military Modernization," later in this section).

Economic Retaliation

China has exerted significant economic pressure on South Korea in response to the THAAD deployment. Given China's increasingly dominant position in the bilateral trade relationship (see "China-South Korea Trade Relationship," later in this section), this development was particularly concerning for the South Korean public, business elites, and political establishment.

The largest target of China's economic retaliation has been the South Korean conglomerate Lotte. In November 2016, Lotte agreed to give one of its golf courses to the South Korean government for the THAAD deployment site; in exchange, Lotte received a plot of military-owned land.¹⁶³ In December 2016, Chinese authorities launched an investigation into Lotte operations in Shanghai, Bei-jing, Shenyang, and Chengdu.¹⁶⁴ In March 2017, construction of a chocolate factory jointly operated by Lotte and Hershey was suspended.¹⁶⁵ That same month, Lotte announced that its Chinese website came under a cyber attack from unidentified Chinese hackers.¹⁶⁶ (More than two months later, the website was finally back online.¹⁶⁷) By April 2017, 87 of 99 Lotte Marts in mainland China had been closed by Chinese regulators, citing safety violations.¹⁶⁸ In the case of Lotte and other South Korean companies, Chinese retaliation has involved informal coercion. China has interfered with the operations of some South Korean companies by launching investigations into tax evasion and various regulatory violations.¹⁶⁹ These actions were accompanied by Chinese state media editorials attacking Lotte and demanding it reject the land-swap agreement or face economic repercussions.¹⁷⁰ Some reports indicate Lotte will lose hundreds of millions of dollars because of China's retaliation.¹⁷¹ In September, Lotte announced plans to sell its Lotte Mart stores in China.¹⁷²

Beijing has also applied economic pressure to other South Korean entities in response to the THAAD deployment. In January 2017, Chinese regulators banned the sale of some South Korean products, including certain types of air purifiers, high-tech toilet seats, and cosmetics, citing safety concerns.¹⁷³ June 2017 data from the Korea Tourism Organization showed a 66 percent year-on-year drop in Chinese tourism to South Korea.¹⁷⁴ China accounted for 47 percent of all tourists and around 70 percent of sales at duty-free shops in South Korea in 2016.¹⁷⁵ South Korea's entertainment industry was impacted as well. Several events in China featuring South Korean pop music performers and actors were suspended or canceled without any explanation.¹⁷⁶

In March 2017, South Korea complained to the World Trade Organization (WTO) that because of the THAAD deployment, China had retaliated against South Korean companies.¹⁷⁷ South Korea has not pursued further action at the WTO. On the Commission's 2017 trip to South Korea, General Kim Hee-sang, deputy director of the South Korean Ministry of Foreign Affairs Bilateral Economic Affairs Bureau, told the Commission that South Korea is cautious about taking action against China at the WTO because Lotte's losses from China's retaliation have not been very high.¹⁷⁸ South Korea has partially made up for China's retaliation with other sources of income, such as an increase in tourism from Southeast Asian countries—though non-Chinese tourists spend less than half of what a typical Chinese tourist spends.¹⁷⁹

China's retaliation over THAAD appears to be backfiring. South Korea has not reversed the THAAD deployment. At the same time, anti-China sentiment is growing in South Korea, along with an awareness that China has enormous leverage over South Korea's economy.¹⁸⁰ Lee Sook-jung and Chun Chae-sung of the South Korean East Asia Institute told the Commission on its 2017 trip to South Korea that before the THAAD controversy, many South Koreans believed China would become more important to South Korea than the United States, but public opinion has become more skeptical of China, and South Korean citizens and businesses are interested in diversifying away from China.¹⁸¹ General Kim told the Commission that "we're finding our economy is too reliant on China," and that South Korea is trying to diversify its trade and investment relationships to emerging markets, such as India and countries in Southeast Asia.¹⁸²

South Korea's Position on THAAD

THAAD has been a contentious issue in South Korean politics. In December 2016, as the campaign to replace former President Park Geun-hye ramped up, a poll showed 51 percent of South Koreans opposed the THAAD deployment.¹⁸³ During the campaign, Mr. Moon emphasized the need for transparency and oversight of the deployment, and his party largely opposed the deployment.¹⁸⁴ On May 2, one week before his election and just after the announcement that THAAD had become operational, Mr. Moon said the "deployment of THAAD is not over. [The deployment] should be considered and decided anew by the next administration. The process should involve diplomatic efforts, and be subjected to ratification by the [South Korean] National Assembly."¹⁸⁵ President Moon claimed the deployment of THAAD—which was originally planned for late 2017—was accelerated to take place days before the election.¹⁸⁶ In May 2017, he ordered an investigation into the deployment of the four remaining THAAD launchers, which his office said the South Korean Ministry of National Defense had accepted from the United States without his knowledge.¹⁸⁷ Ultimately, however, President Moon indicated he did "not intend to change the existing decision or send a different message to the U.S." on THAAD.¹⁸⁸ President Moon's shifting position on THAAD could be a response to South Korean public opinion, which is now favorable toward THAAD overall. An August poll revealed that more than 70 percent of South Koreans supported the deployment of the remaining four launchers.¹⁸⁹

President Moon's reaction to the acceptance of the additional launchers illustrates what appears to be a movement toward the United States and away from widely-perceived South Korean strategy of hedging between the United States and China. Although his campaign rhetoric suggested he would seek greater independence from the United States on defense issues, he appears unlikely to reverse the THAAD deployment, the most prominent recent development in the bilateral defense relationship, and after North Korea's July 28, 2017 test of an ICBM, he moved to discuss with the United States the deployment of additional missile defense systems.¹⁹⁰

Resentment of China's retaliation over THAAD might be an additional factor in the Moon Administration's apparent turn toward the United States.¹⁹¹ In June 2017, President Moon said, "The biggest pending issue currently in Korea-China bilateral relations is China's strong opposition to [the] THAAD deployment and China's economic retaliatory measures in order to force a hand in Korea's decision."¹⁹² On the Commission's fact-finding trip to Asia, Hahm Chaibong, president of South Korea's Asan Institute for Policy Studies, told the Commission that China's economic coercion over THAAD was the "final straw" in what he described as South Korea's years-long retreat from hedging.¹⁹³

China-South Korea Fishing Disputes

Chinese fishermen and South Korean authorities have frequently clashed over illegal Chinese fishing in South Korean-claimed waters. These incidents are not new—in 2011, a Chinese fisherman stabbed a Korea Coast Guardsman to death during a Korea Coast Guard (KCG) boarding operation—but several significant recent incidents have coincided with the general trend of cooling ties between China and South Korea. In September 2016, the KCG killed three Chinese fishermen who were illegally fishing in South Korea's exclusive economic zone (EEZ)* in a boarding operation.¹⁹⁴ In October 2016 a Chinese fishing boat rammed and sunk a KCG vessel in South Korean waters; later that month, a KCG vessel fired warning shots with a machine gun in response to attempts by a group of Chinese fishing boats to ram KCG vessels.¹⁹⁵

Many confrontations between South Korean authorities and Chinese fishermen occur near the Northern Limit Line—the disputed maritime border between South Korea and North Korea where Chinese fishermen buy fishing rights from North Korea.¹⁹⁶ Confrontations between Chinese fishing boats and the KCG near the Northern Limit Line, which in recent years have been the site

^{*}An EEZ is a 200-nautical-mile zone extending from a country's coastline, within which that country can exercise exclusive sovereign rights to explore for and exploit natural resources, but over which it does not have full sovereignty. UN Convention on the Law of the Sea, "Part 5: Exclusive Economic Zone."

China-South Korea Fishing Disputes-Continued

of deadly clashes between North Korea and South Korea, raise the risk that North Korea could intervene with military force to assert its sovereignty over the area and its right to sell fishing rights there.¹⁹⁷

These incidents fit a pattern of assertive and sometimes aggressive incursions by Chinese maritime actors into the seas claimed by its East Asian neighbors.¹⁹⁸ For a discussion of these maritime challenges, see Chapter 2, Section 3, "Hotspots along China's Maritime Periphery."

China-South Korea Trade Relationship

China's large share of South Korea's trade-intensive economy makes South Korea vulnerable to disruptions or restrictions in China's market, such as the restrictions China imposed against South Korean entities in in response to the THAAD deployment. China is South Korea's largest trading partner and South Korean goods exports to China accounted for almost 9 percent of South Korea's gross domestic product (GDP) in 2016.¹⁹⁹ Chinese goods exports to South Korea accounted for less than 1 percent of China's GDP that same year.²⁰⁰ Since China joined the WTO, its share of South Korea's total trade has increased from 8 percent in 1998 to 23 percent in 2016, while South Korea's share of China's trade has held steady at 5–7 percent over the same time period (see Figure 4).²⁰¹

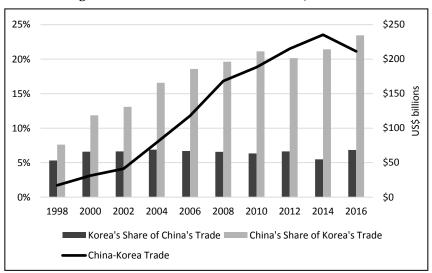


Figure 4: South Korea-China Goods Trade, 1998-2016

Source: United Nations Comtrade, "International Trade Statistics Database." https://comtrade. un.org/.

As China has moved up the value chain, it has competed in many of South Korea's traditional export sectors. Competition from Chinese government-subsidized companies, which have lowered their costs by up to 20 percent through Chinese government subsidies and created significant excess capacity, has driven South Korea's shipbuilding industry-which accounted for 6.5 percent of South Korea's GDP in 2015-into debt and bankruptcy.²⁰² South Korea remains a world leader in higher-tech sectors, but Chinese firms are gaining market share. For example, South Korea's Samsung remains the world's largest supplier of mobile phones, but in the first half of 2017 its global market share declined to 21.6 percent from 22.8 percent in the first half of 2016; the market share of China's Huawei increased from 8.6 percent to 9.4 percent over the same period.²⁰³ Overall, as China exports higher-tech products its exports increasingly overlap with South Korea's, sparking competition. According to the Korea Institute for Industrial Economics and Trade, the export competition index* between China and South Korea in Association of Southeast Asia Nations (ASEAN) countries increased from 66.2 in 2010 to 70.2 in 2014.204

China and South Korea concluded a four-year negotiation of a bilateral free trade agreement (FTA) in June 2015.²⁰⁵ In 2012, South Korea began negotiations with China and Japan to form a trilateral FTA. Negotiations continued with the 12th round of talks in April 2017, but no agreement has emerged.²⁰⁶ Since November 2012, South Korea, Japan, and China have been negotiating members of the Regional Comprehensive Economic Partnership (RCEP), a so-called "mega-FTA" among 16 countries in the Asia Pacific that account for 47.6 percent of the world's population and 31.1 percent of global GDP as of 2016.²⁰⁷ Differing policy priorities may delay RCEP negotiations. China reportedly has pushed for a quickly negotiated agreement focused on tariff reduction, but Japan and other parties reportedly have worked to include provisions on trade in services and investment.²⁰⁸

A South Korean Foreign Ministry official told the Commission, "We're finding our economy is too reliant on China."²⁰⁹ The extent of South Korea's trade dependence on China necessarily impacts Seoul's broader strategy toward and approach to China. According to South Korea scholars Scott A. Snyder, Darcie Draught, and Sungtae Park:

In recent times, China's integration into the global economic order has been an enormous boon for South Korea. Nevertheless, this dependence on China means that as the Chinese economy has slowed, so has the South Korean economy. Chinese companies are also competing with their South Korean counterparts, sometimes through unfair practices that have undercut South Korean companies on price, and have copied or stolen South Korean designs. South Korea's ability to shift its economy away from heavy dependence on trade

^{*}An export competition index measures the similarity of exports of two countries to a single market. A score of 0 shows no similarity while a score of 100 denotes perfect similarity. Yonhap News Agency, "Competition between Korea, China Intensifies in ASEAN Market," September 9, 2016.

to domestic consumption will influence its strategic options. Less dependence on trade could mean a country that is more flexible in the conduct of its foreign policy, particularly in regard to China.²¹⁰

China-Japan Relations

Currently, tensions over military and security issues dominate the China-Japan relationship, with the East China Sea dispute remaining the primary driver. In addition, the proliferation of North Korean nuclear weapons and missiles and the rapid and ongoing modernization of China's military rank among Japan's top security concerns. In testimony before the Commission, Sheila Smith, senior fellow for Japan Studies at the Council on Foreign Relations, said "For Tokyo ... it has become apparent that both the Chinese military expansion and the North Korean success in its proliferation [have] changed the balance of military forces in the region and in a direction that undermines Japanese security."211 These concerns bear on China-Japan relations directly, through the East China Sea dispute and China's expanding military footprint in the Asia Pacific, and indirectly, through China's relationship with North Korea. As with South Korea, tensions over imbalanced trade relations also play a role.

China's approach to its relationship with Japan features incremental advances in disputed territory that strengthen China's hand without rising to the level of armed conflict. Its military modernization—particularly the development, production, and deployment of advanced military aircraft and naval vessels—supports these activities and its pursuit of military superiority over the United States and its allies in the Western Pacific.

The East China Sea and China's Military Modernization

China's military modernization and its growing capability to project force into and beyond the East China Sea have significant implications for Japan's security outlook and have been a factor in adjustments to Japan's defense posture. According to Dr. Smith, "Chinese conventional military forces now pose a direct threat to Japanese control over its maritime and air domains. The growing reach of Chinese maritime forces, in particular, has raised the bar" for Japan's naval and air forces.²¹² Japan has deployed more soldiers, missiles, airborne early warning aircraft, and jet fighters near the Senkaku Islands to address China's growing air and maritime capabilities.²¹³ The stakes of the routine confrontations between the Japan Coast Guard and Chinese official and unofficial vessels around the Senkaku Islands are rising along with these trends.

Although tension between China and Japan over their competing claims to the Senkaku Islands (called the Diaoyu Islands by China) and much of the East China Sea has declined since its peak in 2012–2013, the dispute continued to simmer in 2017 with persistent Chinese maritime operations near the Senkaku Islands and sharply increasing Chinese air operations in the East China Sea.



Senkaku/Diaoyu

750 km

Source: Economist, "China, Japan, and America: Face-off," November 30, 2013.

South

China Sea

Since September 2012, Chinese civilian government and fishing vessels have had a large presence in the territorial seas (a 12-nautical mi [nm] area surrounding an island or rock) and contiguous zones (a 12-nm area adjacent to the territorial sea) of the Senka-kus.* The China Coast Guard (CCG), a civilian law enforcement agency, conducts most official Chinese maritime activity near the Senkakus. During the Commission's May 2017 trip to Japan, a senior U.S. military official told the Commission the CCG's operations are "very predictable";²¹⁴ a Japanese defense official called them "checkbox incursions."²¹⁵ Although the CCG has acted predictably, and reportedly keeps in radio contact with its Japan Coast Guard counterparts, its ability to exert force in a contingency is growing.²¹⁶

China's ability to ram, out-gun, and out-number Japan Coast Guard vessels will increase as the CCG rapidly produces larger, more heavily-armed vessels, such as its new 12,000-ton cutters. Two of these ships, the Type 818s, adapted from the hull of the Type 054A frigate, are armed with 76-millimeter guns.²¹⁷ Another, *Zhongguo Haijing* 3901, is the world's largest coast guard cutter; both the 3901 and its sister ship, the 2901, are larger than a U.S. Navy Arleigh Burke-class guided-missile destroyer (see Figure 6).²¹⁸

^{*}In its territorial sea, a state has full sovereignty, subject to the right of innocent passage. In its contiguous zone, a state can enforce customs-related laws. Under the UN Convention on the Law of the Sea, foreign civilian and military ships may transit through a country's territorial sea according to the principle of innocent passage, which prohibits activities that are "prejudicial to the peace, good order or security of the coastal State," such as military exercises or intelligence gathering. UN Convention on the Law of the Sea, "Part 2: Territorial Sea and Contiguous Zone."

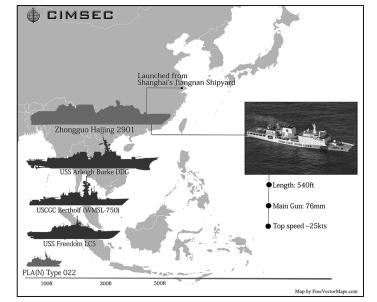


Figure 6: Comparison of China Coast Guard Cutter and U.S. Naval Vessels

Source: Ryan Martinson, "East Asian Security in the Age of the Chinese Mega-Cutter," Center for International Maritime Security, July 3, 2015.

While the CCG's capabilities have grown, the People's Liberation Army (PLA) Navy has ventured closer to the islands, ratcheting up tensions. In 2016, a PLA Navy frigate entered the contiguous zone around the Senkakus for the first time.

Commercial and semiofficial Chinese actors, such as fishing boats and vessels that are part of China's maritime militia,* have accounted for the majority of China's maritime activity near the Senkakus.²¹⁹ In August 2016, China deployed roughly 230 fishing boats and 15 CCG vessels within 24 nm of the Senkakus—the largest number of vessels China has deployed to the area since tensions spiked in September 2012.²²⁰ More than 100 maritime militiamen reportedly were identified on these fishing boats, many of them apparently commanding fishing boats while dressed in Chinese military fatigues.²²¹ With this operation, China demonstrated it can control these vessels and integrate them into operations with law enforcement. This capability has been enabled by multiple joint drills involving Chinese military, law enforcement, and civilian agencies in recent years.²²²

The huge number of nongovernment vessels at China's disposal—including roughly 200,000 fishing boats—and the CCG's growing capabilities increase the possibility that China could swarm and overwhelm the Japan Coast Guard near the Senkakus.²²³ During the Commission's trip to Japan, a Japanese defense official told the

^{*}China has the world's largest maritime militia, a quasi-military force of fishermen that are tasked by and report to the PLA. They are trained to participate in a variety of missions, including search and rescue, reconnaissance, deception operations, law enforcement, and "rights protection," which often entails activities like harassing foreign vessels in China's claimed waters. Andrew Erickson and Conor M. Kennedy, "China's Fishing Militia Is a Military Force in All but Name," War Is Boring, July 9, 2016.

Commission that PLA Navy ships and Japan Maritime Self-Defense Force ships always "hover over the horizon" as Chinese civilian vessels enter waters near the Senkakus.²²⁴

Meanwhile, China's military presence in disputed East China Sea airspace has continued to rise. The China-Japan contest over airspace sovereignty reflects disagreement about each country's claim to a large portion of the waters of the East China Sea and their overlapping air defense identification zones (ADIZs) in the area.* According to Japan's Ministry of Defense, Japanese scrambles † against Chinese aircraft—a useful though imperfect indicator of Chinese activity in airspace over the East China Sea-increased from 571 in fiscal year 2015 to a record-high 851 in fiscal year 2016.^{‡225} The likelihood of miscalculations and mid-air collisions increases with the frequency of these scrambles.

As encounters between Chinese and Japanese forces in the East China Sea become more frequent, the likelihood of a confrontation between China and Japan and the chance that such a confrontation would escalate to military conflict grows. (For more information on how a China-Japan East China Sea conflict might arise and unfold, see Chapter 2, Section 3, "Hotspots along China's Maritime Periphery.")

Military and paramilitary forces are not the only means by which China advances its objectives in the East China Sea. In July, China deployed its 17th mobile natural gas drilling rig to a gas field near the so-called "median line" dividing the East China Sea between China and Japan.²²⁶ China began deploying the rigs in 2015. Although they are located on the Chinese side of the line, they could tap into a natural gas field that extends into Japanese waters.²²⁷ Japan has protested the deployment of the rigs, but China has not relocated any of them.²²⁸

Tensions over Yonaguni Island

In May 2017, Admiral Harry B. Harris, Jr., Commander, U.S. Pa-cific Command, visited a new Japan Self-Defense Force radar station on Yonaguni Island,229 Japan's southernmost island, and part of Okinawa Prefecture in the East China Sea. The new radar facility will enhance Japan's maritime domain awareness in the East China Sea as China's naval and air presence there grow; China's response to the facility's establishment in 2016 was negative but muted.²³⁰ One Japanese defense scholar with whom the Commission met in Tokyo opined that China may one day challenge Japan's control over Yonaguni and other nearby islands, saying "it is 15 years too early" for China to claim sovereignty over Yonaguni, but that eventually it will have the power to do so.²³¹

^{*}An ADIZ is a publicly declared area, established in international airspace adjacent to a state's national airspace, in which the state requires that civil aircraft provide aircraft identifiers and location. Its purpose is to allow a state the time and space to identify the nature of approaching aircraft before those aircraft enter national airspace in order to prepare defensive measures if necessary. In November 2013, China established an ADIZ in the East China Sea that encompasses the Senkakus. An ADIZ does not have any legal bearing on sovereignty claims. Michael Pilger, "ADIZ Update: Enforcement in the East China Sea, Prospects for the South China Sea, and Implications for the United States," U.S.-China Economic and Security Review Commission, March 2, 2016. *An ADIZ is a publicly declared area, established in international airspace adjacent to a state's

[†]In military aviation, scrambling refers to directing the immediate takeoff of aircraft from a ground alert condition of readiness to react to a potential air threat. ‡Japan's fiscal year 2016 ran from April 1, 2016 to March 31, 2017.

The North Korean Missile Threat to Japan

The number and variety of North Korean missiles capable of reaching Japan is large and expanding.²³² Dr. Smith testified to the Commission that "even short of the ability to put a nuclear warhead on a missile, Pyongyang could wreak considerable damage on the Japanese people or on U.S. military forces stationed in Japan."²³³ North Korean missiles frequently land in Japan's EEZ and in the past five years two North Korean rockets flew over Japanese territory on a trajectory to enter outer space.²³⁴ In an unusually grave provocation, North Korea launched a ballistic missile over the Japanese island of Hokkaido in August 2017, the first time a North Korean missile crossed a main Japanese island since 2009.²³⁵ If North Korea is capable of mounting an operational nuclear warhead on its medium-range ballistic missiles, then Japan is within range of a North Korean nuclear strike.

Japan's Military Modernization

Military challenges from China and North Korea are creating political momentum for a more robust Japanese military. Under Japanese Prime Minister Shinzo Abe, Japan has increased its defense spending, expanded Japan's right to exercise "collective self-defense,"* reversed its ban on weapons exports, expanded security cooperation with Southeast Asian countries, and for the first time invoked the principle of collective self-defense to escort U.S. naval vessels near Japan.²³⁶ Prime Minister Abe hopes to enshrine and further legitimize Japan's military modernization by amending Article 9 of the Japanese Constitution to allow the military to conduct offensive operations, which the constitution currently strictly limits.²³⁷

The Japanese public has been ambivalent about whether to amend the constitution to expand the Japan Self-Defense Forces' mandate to use force. A May 2017 poll of public opinion showed the public almost evenly split on the issue.²³⁸ On its fact-finding trip to Japan, U.S. government officials told the Commission that North Korean nuclear and missile advances were "giving [Prime Minister] Abe the political green light" to pursue constitutional reforms, but the path to reform will be "slow and sensitive."²³⁹ In March 2017, a panel of defense experts of Japan's ruling Liberal Democratic Party said Japan should consider acquiring cruise missiles, among other weapons, to build a long-range strike capability that would allow Japan to fire back at North Korea if attacked.²⁴⁰ Čhina's growing offensive strike capabilities are another factor in Japan's consideration of its defense needs. In May 2017, Japan Self-Defense Force Lieutenant General Osamu Onoda (Ret.) told the Commission that China's missiles pose a greater threat to Japan than North Korea's missiles do.²⁴¹

Japan is acquiring advanced platforms that could be adapted for offensive strike operations, including the F-35 joint strike fighter. Japan received its first F-35 in December 2016,²⁴² and its first domestically assembled F-35 was unveiled in June 2017.²⁴³ Japan has agreed to purchase a total of 42 F-35s from Lockheed Martin and

^{*}The right to collective self-defense is enshrined in the 1945 UN Charter, but Japan's pacifist constitution precluded Japan from exercising this right until 2014, when Prime Minister Abe's cabinet reinterpreted Article 9 of the constitution to allow for the limited use of force "when an armed attack against a foreign country that is in a close relationship with Japan occurs." This reinterpretation was codified in a series of legislative actions in 2015. Sasakawa Foundation, "Collective Self-Defense," October 27, 2017.

its Japanese partner, Mitsubishi Heavy Industries.²⁴⁴ In June 2017, the *Yomiuri Shimbun* reported that the Japanese government was considering equipping Japan's F–35s with air-to-surface missiles, which Japan Self-Defense Force planes have never carried.²⁴⁵

Japan is also considering the acquisition of missile defense systems to supplement its existing network of Aegis destroyers and Patriot III land-based interceptors.²⁴⁶ Japan reportedly is interested in acquiring the Aegis ashore missile defense system from the United States.^{*247}

China-Japan Trade Relationship

Since joining the WTO, China's share of Japan's total trade has grown, while Japan's share of China's trade has declined (see Figure 7).²⁴⁸ Although overall China-Japan trade has declined in recent years, a high degree of economic dependence prevails, despite political and security tensions, leading to a similar dynamic as in China's trade with South Korea. For example, in 2016, China was Japan's top source of imports (accounting for a quarter of Japanese imports) and second highest export destination (17.6 percent of Japanese exports) after the United States (20.2 percent). In contrast, while Japan is China's trade of China's trade: only 6.1 percent of China's exports, and 9.2 percent of China's imports.²⁴⁹

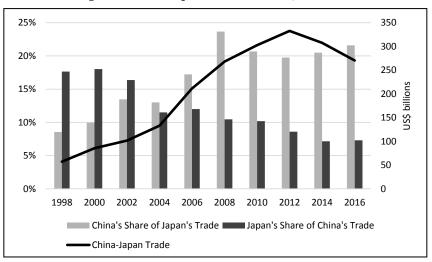


Figure 7: China-Japan Trade in Goods, 2000-2016

Source: United Nations Comtrade, "International Trade Statistics Database." https://comtrade. un.org/.

^{*}There is occasional debate in Japan about the utility of acquiring nuclear weapons in order to preserve Japan's national defense, although this debate is generally downplayed by national security elites. Calls for the acquisition of nuclear weapons generally emerge in times of increased tension with North Korea. Calls to reintroduce nuclear weapons are more common in South Korea; in August 2017, the country's main opposition party called for discussions to redeploy U.S. tactical nuclear weapons in South Korea, though President Moon has dismissed the possibility (U.S. nuclear weapons were withdrawn from the Peninsula in 1991). Paula Hancocks and James Griffiths, "No Nuclear Weapons in South Korea, Says President Moon," CNN, September 14, 2017; Yonhap News Agency, "Main Opposition Party Adopts U.S. Tactical Nuke Redeployment as Official Party Line," August 16, 2017; Mina Pollman, "Japan's Nuclear Weapons Conundrum," *Diplomat*, April 6, 2016; Eric Johnston, "Osaka Governor Says Japan Should Debate Need for Nuclear Weapons," *Japan Times*, March 30, 2016.

China has attempted to use its growing economic leverage over Japan in its territorial disputes with Japan in the East China Sea. In 2010, after Japan detained the captain of a Chinese fishing boat that collided with a Japan Coast Guard vessel off the Senkaku Islands, China enacted an unofficial ban on shipment to Japan of rare earth minerals necessary for the production of many high-tech electronic products.* In 2012, after the Japanese government announced it would purchase the Senkaku Islands chain from a Japanese citizen, Chinese protestors boycotted Japanese products, protests closed Japanese automobile factories in China, and Chinese authorities asked booksellers to stop selling Japanese works.²⁵⁰ Some Japanese carmakers had to temporarily shut down Chinese plants amid anti-Japan protests, leading to at least \$250 million in losses due to suspended operations in China.²⁵¹ Jun Saito, senior research fellow at the Japan Center for Economic Research, told the Commission on its fact-finding trip to Japan that in recent years, Japan has been working to reduce its economic dependence on China and diversify its trading partners to include more Southeast Asian countries.²⁵²

South Korea-Japan Relations and Trilateral Security Cooperation

Although South Korea-Japan relations are generally positive, the relationship is plagued by nationalistic tendencies, lingering historical challenges related to Japan's occupation of the Korean Peninsula in the first half of the 20th century, and competing claims for maritime territory. These longstanding grievances often stand in the way of deeper cooperation, particularly on defense issues.²⁵³ In each country, some politicians stoke public outrage toward the other country in order to garner support. Consequently, negative sentiments persist and efforts by both governments to take steps toward collaboration are hamstrung by domestic opposition. These limitations benefit China, which would rather see the United States' two Northeast Asian allies at cross-purposes than strengthening co-operation and advancing U.S. objectives in the region.

Persistent grievances and disagreements about the enslavement of South Korean "comfort women" by the Japanese military during World War II present recurring challenges to bilateral and trilateral cooperation.²⁵⁴ In December 2015, Japan and South Korea formally settled the issue "finally and irreversibly" with an apology from Prime Minister Abe and the Japanese government's transfer of approximately \$8 million for the establishment of a fund in South Korea for surviving comfort women.²⁵⁵ The dispute reopened in January 2017, when Japan recalled its ambassador to South Korea and its consul general in Busan, South Korea, after activists installed a statue near the Japanese Consulate in Busan commemorating comfort women.²⁵⁶ In June 2017, President Moon said, "The candid reality is the South Korean people don't accept the agreement on the comfort women, and, more than any-thing else, those comfort women don't accept the deal."²⁵⁷ President

^{*}Rare earth minerals are used in several products, including solar panels, batteries, electric motors, and automobile engines. At the time, China was the source of 93 percent of the world's rare earth minerals. For more background on China's rare earths production see Lee Levkowitz and Nathan Beauchamp-Mustafaga, "China's Rare Earths Industry and Its Role in the International Market," U.S.-China Economic and Security Review Commission, November 3, 2010. Keith Bradsher, "Amid Tension, China Blocks Vital Exports to Japan," New York Times, September 22, 2010.

Moon has said the issue should be revisited, but should not affect other aspects of the South Korea-Japan relationship.²⁵⁸ At times, China has appeared to use South Korea-Japan historical grievances to attempt to drive a wedge between them.²⁵⁹

South Korea and Japan are also embroiled in a territorial dispute over the Liancourt Rocks (called the Dokdo Islands in South Korea and the Takeshima Islands in Japan), a group of islets in the Sea of Japan.* Both countries claim sovereignty over the islets, though they are controlled by South Korea. The dispute has been ongoing for several decades, but is less tumultuous than disputes in the East and South China seas. Nevertheless, periodic attempts by both countries to consolidate their respective claims raise tensions and contribute to mutual distrust in the broader relationship.²⁶⁰

Hideaki Kaneda, adjunct fellow at the Japan Institute for International Affairs, told the Commission on its 2017 fact-finding trip to Japan that the U.S.-South Korea-Japan trilateral relationship re-mains at a "very primitive level."²⁶¹ Japan and South Korea took a significant step to expand their strategic cooperation when in November 2016, in the wake of North Korea's fifth nuclear test, they entered a bilateral agreement to share military intelligence on North Korea's nuclear and missile programs. South Korean public opposition had delayed the agreement since its proposal in 2012.²⁶² In March 2017, shortly after North Korea conducted four tests of its Extended Range Scud missile that terminated in the Sea of Japan, the United States, South Korea, and Japan conducted a joint missile defense drill in the Sea of Japan with Aegis warships, and in April 2017 the three navies conducted their first-ever joint antisubmarine warfare exercise.²⁶³ Beyond these developments, cooperation has been limited and rising bilateral tension over historical grievances will dampen the possibility of closer cooperation. However, advances in North Korea's nuclear and missile programs could spur warmer relations. According to a Japanese defense official who spoke to the Commission on its 2017 trip to Japan, "North Korea is helping [Japan and South Korea] overcome" their differences.264

U.S. and Allied Preparedness for a Military Contingency in Northeast Asia

In the event of a military contingency in Northeast Asia, the United States and its allies and UN partners would execute military operations to advance U.S. interests and protect U.S. and allied citizens and troops. Capability gaps and insufficiently integrated command and control networks could hamper such operations.

A U.S.-Japan joint or combined operation responding to a contingency in the East China Sea or on the Korean Peninsula would be hampered by the absence of a standing joint task force by which to coordinate the two forces. Michael J. Green, senior vice president for Asia and Japan Chair for the Center for Strategic and International Studies, testified to the Commission that the

 $[\]ast North$ Korea also claims the Liancourt Rocks. The United States does not take a position on the sovereignty of the islets.

U.S. and Allied Preparedness for a Military Contingency in Northeast Asia—Continued

2015 U.S.-Japan Alliance Coordination Mechanism^{*} "has been used effectively to share information and coordinate responses [in peacetime]....Whether the mechanism is adequate for a full-blown military crisis is another question. The United States and Japan do not currently have a joint and combined command structure like NATO or the Combined Forces Command in Korea.... [The Center for Strategic and International Studies] warned that the United States and Japan would not be fully prepared to respond to a military crisis in the Western Pacific without some form of well-established bilateral command and control relationships.... U.S. Forces Japan are not currently joint task force capable."²⁶⁵ Japanese defense scholars echoed this concern in meetings with the Commission in Tokyo in May 2017.²⁶⁶

On the Korean Peninsula, a central challenge in a military conflict involving North Korea will be to evacuate U.S. citizens and other foreign nationals, as well as military personnel. Currently, 250,000 U.S. citizens, 899,000 Chinese citizens, and 60,000 Japanese citizens live in South Korea.²⁶⁷ Because a noncombatant evacuation from the Korean Peninsula would involve relocating citizens to Japan, extensive U.S.-South Korea-Japan coordination would be necessary. Noncombatant evacuation operations are difficult to rehearse. Although the U.S. Eighth Army (which commands all U.S. Army personnel in South Korea) regularly stages evacuation drills for U.S. personnel and their families,²⁶⁸ U.S.-South Korea planning and coordination for noncombatant evacuation operations is less robust.²⁶⁹ South Korea-Japan talks on planning for such operations, plagued by mutual distrust, are even less productive.²⁷⁰

Implications for the United States

Tensions in Northeast Asia reached alarming levels in 2017. With some exceptions, China has not been constructive in mitigating these tensions, and in many cases, has actively stoked them.

With North Korea, China has taken some steps to implement the strictest sanctions on Pyongyang to date. It is too soon to measure China's compliance with the latest rounds of sanctions, which, if implemented fully, would significantly constrain the North Korean regime's ability to fund its nuclear and conventional weapons programs. If China's lackluster record of previous sanctions enforcement is any guide, however, the United States and the international community should keep their expectations low. Because China is North Korea's dominant economic partner and sole ally, its fulfillment of these sanctions is essential to their efficacy. However, even

^{*}In 2015, the United States and Japan established the Alliance Coordination Mechanism, which aims to "strengthen policy and operational coordination related to activities conducted by the Self-Defense Forces and the United States Armed Forces in all phases from peacetime to contingencies. This mechanism also will contribute to timely information sharing as well as the development and maintenance of common situational awareness." Japan's Ministry of Foreign Affairs, *The Guidelines for Japan-U.S. Defense Cooperation*, April 27, 2015. *http://www.mofa.go.jp/files/000078188.pdf*.

with China's full compliance with sanctions, its larger trade relationship with North Korea allows it to deliver crucial economic inputs to North Korea.

Despite the inflammatory actions North Korea has taken in testing missiles capable of reaching U.S. territory and developing nuclear weapons to mount on these and other missiles, as well as the international condemnation North Korea has drawn, China still prefers the status quo to taking decisive actions to denuclearize North Korea, possibly because it is willing to accept a nuclear North Korea or perceives that exerting significant pressure on North Korea could backfire. If these developments have not changed China's perception of its interests and best policy options in North Korea, it is unclear what further North Korean actions would.

China's adoption of bullying and economic coercion tactics in its relations with South Korea in response to the THAAD deployment marked a sharp departure from the generally positive relations enjoyed by Beijing and Seoul in previous years. Comparing China's rhetorical and policy responses to the THAAD deployment on the one hand and North Korea's numerous dangerous provocations on the other, it appears Beijing finds U.S.-South Korea missile defense cooperation to be a greater threat to Chinese security interests than a nuclear-armed North Korea. China has clearly signaled to South Korea that cooperation with the United States will be met with punishment from Beijing. This puts South Korea, which already struggles to balance its relations with the United States and China, in a strategically difficult position, and will necessarily complicate U.S. efforts to enhance cooperation with South Korea going forward.

With Japan, China has gradually but decisively moved to consolidate its claims in the East China Sea, with its coast guard and maritime militia forces leading the charge. China's use of nonmilitary actors to advance its claims handicaps Japan's ability to mount an effective countervailing force; the Japan Coast Guard is highly capable, but will meet significant difficulties engaging China's maritime forces. China's growing competence in conducting "gray zone" operations below the threshold of kinetic military conflict could also complicate the United States' ability to fulfil its treaty obligation to defend Japan from an armed attack.

In the near term, China's aggressive actions toward Japan and economic coercion campaign against South Korea seem to be driving both countries toward closer security cooperation with the United States. Prospects for enhanced South Korea-Japan security cooperation are less certain, however, and longstanding tensions between the two countries complicate U.S. efforts to evolve Northeast Asia's security architecture from a "hub and spokes" model to a more integrated trilateral cooperative structure.²⁷¹ China can be expected to thwart efforts by the United States to build a stronger U.S.-South Korea-Japan trilateral security architecture and to use its economic leverage to raise the costs of cooperation with Washington for Seoul and Tokyo.

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