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China's Response to U.S.-South Korean Missile Defense System Deployment and its Implications

Ethan Meick, Policy Analyst, Security and Foreign Affairs

and

Nargiza Salidjanova, Senior Policy Analyst, Economics and Trade

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Executive Summary

- 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 deploy a U.S. Terminal High Altitude Area Defense (THAAD) antimissile battery in South Korea to defend against the increasing North Korean missile threat. THAAD reached initial operating capability on May 2, 2017.¹ The election of Democratic Party Chairman Moon Jae-in as South Korea's president on May 9, 2017 caused uncertainty with the deployment, given his promise to review the decision during the campaign. Shortly after taking office, President Moon suspended the installation of additional launchers necessary to reach full operational capability pending an environmental assessment of the deployment site (possibly lasting one to two years). As of the writing of this report, THAAD remains operational.
- Beijing perceives THAAD as mostly directed at China and as a regional security concern, according to its official statements. Chinese observers claim the THAAD deployment signals the expansion of the U.S.-allied ballistic missile defense architecture in the Asia Pacific, weakens China's nuclear deterrent, and confirms longstanding fears of U.S. containment of China.
- Beijing has used economic coercion, among other tools, to try to compel Seoul to abandon the THAAD deployment. These levers used against South Korean businesses, groups, and individuals reflect a Chinese government pattern of adverse actions toward other countries it perceives as defying or undermining China's national security interests, although the Chinese economic coercion against South Korea is greater in scope and depth.
- China's forceful opposition to THAAD has significant implications for the United States and the geopolitical landscape in the Asia Pacific. These implications include: China's potential use of economic coercion against other countries during future disputes; the potential use of Chinese countermeasures to overcome the U.S.-led regional missile defense network; increased Chinese missile defense coordination with Russia; additional complications in coordinating U.S. policy toward North Korea with allies and partners in the Asia Pacific; and potential improvements in U.S.-South Korea-Japan cooperation.

Background

What Is THAAD?

THAAD is designed to intercept short- and medium-range ballistic missiles up to 200 kilometers (125 miles) away and up to 150 kilometers (93 miles) in altitude as they descend to their target, and is far superior to other land-based missile defense systems deployed in South Korea (Republic of Korea or ROK).^{* 2} A single THAAD battery usually consists of six to nine truck-mounted launchers, 48 to 72 interceptors, a fire control and communications unit, and an AN/TPY-2 X-band radar (see Appendix Figure 1). According to most estimates, THAAD's X-band radar has a range up to approximately 2,000 kilometers (1,243 miles) in "forward-based mode,"[†] which reaches most of the eastern half of China from the deployment site in the southeastern county of Seongju, North Gyeongsang Province, South Korea.³ (As discussed later, this feature drives much of China's stated opposition to the system's deployment.) Notably, however, operating THAAD in this mode disables the system's core capability: missile interception. Raytheon, the U.S. defense firm that manufactures the X-band radar, notes that using this mode

* The only other THAAD deployment outside the continental United States is in Guam, where it was deployed on a temporary basis starting in 2013 and became a permanently stationed unit in 2016. Jonathan C. Stafford, "How to Build an Armadillo: Lessons Learned from the First Forward-Deployed THAAD Battery," *Military Review*, May–June 2017, 109. <http://www.armyupress.army.mil/Portals/7/military-review/Archives/English/Online-Exclusive/Stafford.pdf>.

† U.S., South Korean, and Chinese analysts and media regularly use ranges for the X-band radar of 1,500–3,000 kilometers (2,414–4,828 miles) or greater. This disparity, according to several U.S. missile defense experts, is a result of varying assumptions regarding the radar's operating parameters and nature of the target. The official range of the radar is classified. Union of Concerned Scientists, "Shielded from Oversight: The Disastrous U.S. Approach to Strategic Missile Defense, Appendix 10: Sensors," July 2016, 9–10. <http://www.ucsusa.org/sites/default/files/attach/2016/07/Shielded-from-Oversight-appendix-10.pdf>; George Lewis, "THAAD Radar Ranges," *Mostly Missile Defense*, July 17, 2016. <https://mostlymissiledefense.com/2016/07/17/thaad-radar-ranges-july-17-2018/>.

restricts tracking only to missiles in their ascent phase of flight.⁴ U.S. defense officials have said that the THAAD radar installed in South Korea will operate in “terminal mode,” which, according to Raytheon, enables it to “detect, acquire, track, and discriminate ballistic missiles in their [decent] phase of flight.”⁵ Using this mode limits the radar’s range to approximately 600 kilometers (373 miles),⁶ which would cover a minimal amount of Chinese territory near the China-North Korea border and part of China’s Shandong Province. According to the U.S. Department of Defense, it takes approximately eight hours to convert the system’s radar from one mode to the other.⁷

The Deployment of THAAD

Since 2014, the U.S. Department of Defense has considered deploying THAAD in South Korea,⁸ 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 their close economic ties.⁹

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.¹⁰ 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 by late 2017, at an estimated cost of \$1.6 billion.*¹¹ 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.¹² On April 26, U.S. Forces Korea began delivering major THAAD components to the deployment site and installing them, including the X-band radar, launchers, and interceptors.¹³ A week later, U.S. Forces Korea announced that THAAD “is operational and has the ability to intercept North Korean missiles and defend the Republic of Korea.”¹⁴ As of the writing of this report, U.S. and South Korean officials have confirmed the THAAD battery is at initial operating capability with two launchers installed, in addition to the X-band radar and other equipment.¹⁵

Major changes in South Korean domestic politics have caused uncertainty with the deployment: the impeachment of President Park Geun-hye, who led South Korea’s efforts to adopt THAAD, and the victory of opposition candidate and Democratic Party Chairman Moon Jae-in in the May 9, 2017 runoff election to replace President Park. During the campaign, Mr. Moon emphasized the need for further transparency and oversight with the deployment, and his party largely opposed THAAD.¹⁶ In late May, the Moon Administration launched an internal investigation into allegations that the South Korean Ministry of National Defense transferred four launchers to the deployment site without informing the administration. As a result, President Moon ordered the suspension of further THAAD component and equipment installations pending a full environmental assessment (while THAAD remains operational). South Korean media cited an unnamed South Korean official that said the assessment could take one to two years to complete, noting a similar review performed for the THAAD deployment in Guam, which lasted 23 months.¹⁷

China’s Stated Concerns about THAAD

China has consistently expressed its strong opposition to THAAD since the initial February 2016 announcement of formal talks between South Korea and the United States. On the day of the announcement, Beijing summoned the

* 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 Seung-woo, “Seongju Picked as Site for THAAD Battery,” *Korea Times*, July 13, 2016. http://www.koreatimes.co.kr/www/news/nation/2016/07/205_209205.html; Jung Sung-ki, “South Korea Eyes THAAD despite China’s Fear,” *Defense News*, February 14, 2016. <http://www.defensenews.com/story/defense/show-daily/singapore-air-show/2016/02/14/south-korea-eyes-thaad-despite-chinas-fear/80067558/>.

South Korean ambassador to China to formally protest the move.¹⁸ Hours after the July 2016 decision to deploy THAAD, Beijing demarched the U.S. and South Korean ambassadors to China to lodge a formal protest and convey its strong disapproval.¹⁹ Beijing has also undertaken an aggressive public campaign to denounce the deployment through official statements and state-run media. In the months since the decision to deploy the system was announced, Beijing's opposition to THAAD has been a consistent theme in official statements, as China's Ministry of Foreign Affairs alone has spoken out against it more than 50 times.²⁰ Beijing appeared to be intensifying its anti-THAAD campaign as the system moved closer to deployment, reflected in the uptick in foreign ministry remarks and heightened rhetoric of Chinese media commentary as well as rising economic retaliation against certain segments of South Korea's economy.²¹ In addition to its own remarks, Chinese officials have issued multiple joint statements with their Russian counterparts expressing opposition to THAAD.²²

Chinese officials, media commentaries, and experts have expressed concerns about THAAD and offered justifications why South Korea should cancel the plan to deploy the system. However, these arguments overlook or ignore important details about the missile defense system's technical capabilities and misrepresent the security dynamics in Northeast Asia.

Beijing's stated concerns about THAAD include the following:

THAAD's X-band radar weakens China's nuclear deterrence: In February 2016, Chinese Foreign Minister Wang Yi said, "The coverage of the THAAD missile defense system in the ROK, 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."²³ Several Chinese missile defense experts argue that the radar could detect most Chinese missile tests in northeast China and strategic intercontinental ballistic missiles in the western part of the country targeted at the United States.²⁴ According to Li Bin, a professor at China'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 capability."²⁵

U.S. defense officials and analysts believe, however, that this concern is exaggerated. In July 2016, Pentagon spokesman and U.S. Navy Commander Gary Ross argued in an interview with South Korea's Yonhap News Agency that THAAD does not undermine China's strategic deterrent.²⁶ According to University of Maryland scholar Jaganath Sankaran and former director of the National Security Office at Los Alamos National Laboratory, Brian L. Fearey, because THAAD must be operated in terminal mode to intercept an incoming North Korean missile, its radar would be unable to detect Chinese missile launches from mainland China targeted at the United States (even considering the high-end range estimate for terminal mode radar: 800 kilometers [497 miles]).²⁷ Abraham Denmark, who served as Deputy Assistant Secretary for East Asia at the U.S. Department of Defense from 2015 to 2017, notes that Beijing refused numerous offers for briefings on the technical capabilities of the system, which Mr. Denmark assesses as suggesting China is already well aware of the radar's capabilities and limitations.²⁸ Moreover, U.S. defense experts point out that the United States' existing missile defense assets in East Asia obviate any new "threat" that X-band radar capabilities in South Korea would present to China: (1) the United States already has two X-band radars deployed in Japan, and another THAAD battery in Guam; (2) the United States and South Korea deploy ships equipped with Aegis ballistic missile defense systems in the region (these systems possess AN/SPY-1 radar with an estimated range of over 310 kilometers [192 miles]²⁹); and (3) U.S. early warning satellites can be used to track Chinese missile launches.³⁰

THAAD provides only minimal defense against North Korean missiles and therefore must be targeted at China: Chinese experts and media commentaries (as well as some in South Korea who oppose THAAD³¹) also argue that 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.³² An October 2016 *People's Daily* editorial authored by "Zhong Sheng"* asserts that given THAAD's radar range of 2,000 kilometers (1,243

* "Zhong Sheng" (which could be translated as "voice of China" or "voice of the center"), is a pseudonym that appears as a byline in *People's Daily* editorials and is widely understood to indicate the views espoused in the article are somewhat representative of the Chinese government. According to Michael Swaine, senior fellow at the Carnegie Endowment for International Peace, "Zhong Sheng" pieces are "probably more important than articles written by ordinary Chinese academics" but not necessarily reflective of official Chinese views.

miles) and minimum intercept altitude of 40 kilometers (25 miles), and accounting for the “geographic environment of the Korean Peninsula,” the system is not a genuine “response to the North Korean threat.”³³

According to assessments of the U.S. government and U.S. security experts, these arguments overlook several crucial details. Dr. Sankaran and Dr. Fearey assert that while THAAD is not optimized for missiles at trajectories under 40 kilometers (25 miles), in recent years North Korea has created a significant vulnerability for South Korea by testing medium-range missiles with higher-loft trajectories over shorter distances, a capability THAAD counters.³⁴ Moreover, the U.S. Department of Defense and U.S. defense analysts argue that THAAD provides South Korea with much-needed layered missile defense, complementing currently deployed Patriot Advanced Capability (PAC)-2 batteries (soon to be upgraded to PAC-3s) and U.S. PAC-3s that cover low-altitude threats, and improving efficiency for addressing all potential North Korean missile threats.³⁵

THAAD causes instability on the Korean Peninsula and will lead to a regional arms race: In an October 2016 speech to the UN, Ambassador Wang Qun, Director-General of the Arms Control Department in China’s Ministry of Foreign Affairs, said, “The deployment of global missile defense systems by the U.S. ... will impede the nuclear disarmament process, trigger [a] regional arms race, and escalate military confrontation. Particularly the deployment of the THAAD system ... will in no way ... realize denuclearization of the Korean Peninsula and maintain peace and stability on the Peninsula.”³⁶ Other Chinese media commentaries and experts have echoed these concerns and argued that the THAAD deployment will lead to further escalation of tensions and military buildup.³⁷ One month after the announced deployment in July 2016, Fan Gaoyue, a retired People’s Liberation Army (PLA) senior colonel and former researcher at the PLA Academy of Military Science, argued the system will most benefit North Korea by providing a justification for developing new missiles and speeding up development of its nuclear weapons program, among other things.³⁸

According to U.S. government and observer views, increasing North Korean provocations—not U.S. and allied responses to those provocations—are the underlying causes of instability in the region.³⁹ In April 2017, Susan Thornton, acting assistant secretary of the Bureau of East Asian and Pacific Affairs at the U.S. Department of State, said, “The main reason why we are proceeding with [the THAAD deployment] is that there is this imminent threat from North Korea that threatens South Korea, threatens our allies, and threatens our troops in the region.”⁴⁰ Moreover, China’s claims ignore important factors causing countries in the region to bolster their defense capabilities, according to security experts: North Korea’s accelerated nuclear and missile development and China’s decades-long rapid expansion of its own military capabilities—including its arsenal of ballistic and cruise missiles—and increased power projection.⁴¹

THAAD is aimed at constraining Chinese power in the region: China’s most pressing concern about THAAD appears to be that the system serves as an expansion of the U.S.-allied missile defense architecture in the region, a development Beijing would perceive as limiting its power in Asia.⁴² In March 2017, China’s Ministry of Foreign Affairs spokesperson said, “The deployment of THAAD systems in the ROK is a part of the move by the U.S. to boost its global missile defense system and has a bearing on the peace and stability of Northeast Asia.”⁴³ Chinese officials and experts have also repeatedly argued that THAAD is harmful to the regional “strategic balance” and nuclear deterrence capabilities of China and Russia.⁴⁴ Some Chinese experts have asserted that the expansion of the U.S.-led regional missile defense network is part of a broader U.S. strategy to contain China.⁴⁵

THAAD’s deployment to South Korea does expand U.S.-allied missile defense architecture in Asia, but U.S. defense officials insist—and other experts agree—that THAAD is aimed at North Korea, not China.⁴⁶ Mr. Denmark’s assessment that China’s refusal to be briefed on the details of the system indicates Beijing is well aware of this point.⁴⁷ Beijing’s protests conform to a longstanding pattern of accusations that the United States seeks to “contain” China, despite U.S. statements that it welcomes China’s rise and its contributions to regional security and prosperity.⁴⁸ Further, the claim that the United States is constraining Chinese regional power ignores the reality of U.S. military presence upholding stability in the region, which is regularly underscored by U.S. officials. In April 2017, U.S. Pacific Command Commander Admiral Harry Harris said, “Ironically, China is the country that has benefited the most [from the rules-based international order] ... that produced the longest era of peace and prosperity in modern times. [This era was] made possible by a security order underwritten by seven decades of robust and

Michael D. Swaine, “Chinese Views on the South China Sea Arbitration Case between the People’s Republic of China and the Philippines,” *China Leadership Monitor* 51 (Fall 2016): 2–3. <http://www.hoover.org/sites/default/files/research/docs/clm51ms.pdf>.

persistent U.S. military presence and credible combat power [in the Indo-Asia-Pacific].”⁴⁹ U.S. officials have also consistently emphasized that, as South Korea’s ally and mutual defense partner, the United States is committed to supporting South Korea’s defense by bolstering its capabilities as needed to meet rising threats from North Korea.⁵⁰

China’s Economic Coercion and Other Measures Directed against South Korea

In response to South Korea’s decision to install THAAD, the Chinese government launched an aggressive public campaign of economic retaliation. Since the July 2016 announcement that the THAAD system would be deployed in South Korea, China blocked market access of South Korean goods and services in a range of sectors, including:

- *Entertainment:* Shortly after the THAAD announcement, several events featuring South Korean pop music (K-pop) and actors were suspended or cancelled without any explanation.⁵¹ China Central Television (CCTV), a state-owned TV channel, reported that the government’s broadcast regulator had banned the airing of South Korean TV shows, another popular cultural export, effective September 2016.⁵² A performance by a South Korean soprano was cancelled in January 2017.⁵³ South Korean video games were also caught in the dragnet: in March 2017, Chinese regulators stopped granting South Korean online video games regulatory approvals, essentially banning their sale in China.⁵⁴
- *Consumer products:* 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.⁵⁵ South Korean exports of food products to China fell 5.6 percent year-on-year in March 2017 as a consequence of retaliatory actions,⁵⁶ but exports of South Korean cosmetics jumped in January and February, underscoring their immense popularity in China.⁵⁷ Chinese sales of South Korean carmakers Hyundai and Kia dropped 52 percent year-on-year in March 2017 as consumer boycotts hit the brands.⁵⁸
- *Tourism:* Chinese regulators rejected several applications from Korean airlines to add charter flights between the two countries.⁵⁹ In March 2017, the Chinese National Tourism Administration ordered travel agencies to stop selling package tours to South Korea.⁶⁰ This is a significant hit to South Korea’s tourism industry—according to the Korea Tourism Organization, visitors from China accounted for 47 percent of all tourists and 70 percent of sales at duty free shops in South Korea in 2016.⁶¹ June 2017 data from the Korea Tourism Organization shows only 254,930 Chinese tourists visited South Korea, down from 758,534 in June 2016—a 66 percent drop.⁶²

No South Korean company has been more subjected to China’s economic retaliation than Lotte, a South Korean conglomerate.* 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.⁶³ The next month, Chinese authorities launched an investigation of Lotte operations in Shanghai, Beijing, Shenyang, and Chengdu.⁶⁴ In March 2017, construction of a chocolate factory jointly operated by Lotte and Hershey was suspended.⁶⁵ That same month, Lotte announced its Chinese website came under a cyberattack from unidentified Chinese hackers⁶⁶ (more than two months later the website was finally back online).⁶⁷ By early April 2017, Lotte reported that 75 of its 99 Lotte Marts in mainland China had been closed by Chinese regulators for safety violations.⁶⁸ These actions were accompanied by Chinese state media editorials attacking Lotte and demanding it reject the land-swap agreement or face economic repercussions.⁶⁹

According to private cybersecurity experts, Lotte was not the only target of Chinese hackers, with a notable uptick in the number and intensity of intrusions since South Korea said it would deploy THAAD.⁷⁰ On April 21, 2017, John Hultquist, director of cyberespionage analysis at FireEye, a U.S. cybersecurity firm, noted in an interview with the *Wall Street Journal* that “two cyberespionage groups that [FireEye] linked to Beijing’s military and intelligence agencies have launched a variety of attacks against South Korea’s government, military, defense companies and a big conglomerate,” without naming the targets.⁷¹ Mr. Hultquist also said “patriotic Chinese hackers acting independently of the government” have joined the government-led cyber intrusions against South Korea.⁷² In a

* Lotte operates in a wide range of industries, including candy manufacturing, tourism, retail, financial services, petrochemicals, and IT. Lotte, “Business.” http://www.lotte.co.kr/eng/02_bussiness/food.jsp.

separate interview, Mr. Hultquist noted China uses cyber espionage “pretty regularly” to gather information, adding that FireEye had evidence China targeted “at least one party” associated with THAAD, though only to gather intelligence, “not to disrupt it.”⁷³ Kaspersky Lab ZAO,* a Russian cybersecurity company, also reported new cyber intrusions against South Korea, using what appeared to be Chinese-developed malicious software, though Kaspersky would not provide attribution.⁷⁴

China also appears to have used diplomatic levers to punish South Korea. All official interactions between the South Korean and Chinese militaries, including at low levels (such as military academy visits), were reportedly frozen during the second half of 2016.⁷⁵ In November 2016, Beijing suspended high-level defense consultations with Seoul and postponed a planned meeting between defense ministers.⁷⁶ Organizers of the Boao Forum for Asia, China’s response to the Davos Global Summit, cancelled a March 2017 panel originally scheduled to include South Korea’s trade minister.⁷⁷

Thus far, South Korea has resisted China’s economic coercion, staying committed to THAAD. In April 2017, South Korea filed a formal complaint with the World Trade Organization (WTO) over Chinese retaliation, citing restrictions on the sale of baby formula and medical equipment.⁷⁸ China did not offer a direct response to South Korea’s complaint. When South Korea first lodged an informal complaint with the WTO in March, a Chinese Foreign Ministry spokeswoman only said, “We support normal business and other exchanges between China and South Korea, but everyone knows this needs a corresponding basis in public opinion.”⁷⁹ Seoul may find it challenging to prove Beijing’s actions are deliberate retaliation. The Chinese government has not publicly acknowledged any of its retaliatory actions, citing safety regulations or routine investigations as justifications for various bans. Beijing has also tacitly stoked consumer boycotts of South Korean products, which are rationalized as actions of patriotic Chinese protesting foreign aggression.⁸⁰

With the election of President Moon in May 2017, signs that China’s retaliation against South Korea is easing started to appear. Although nearly all Lotte Mart stores remain closed, three South Korean musicals were scheduled as early as June, and K-pop music became available again on QQ Music, one of China’s biggest music streaming sites.⁸¹ Chinese budget airline Spring Airlines said it would restore flights to South Korea, while South Korean carriers are reportedly preparing for a return of Chinese travelers.⁸² Nonetheless, during the Commission’s trip to Seoul in May 2017, some South Korean interlocutors expressed concerns about China’s continued use of economic coercion against South Korea.⁸³

China’s economic retaliation against South Korea follows a pattern of Chinese actions toward countries with which it finds itself in a diplomatic or security dispute. Other countries that experienced China’s wrath include Japan (China temporarily suspended exports of rare earth minerals amidst heightened tensions in the East China Sea in 2010⁸⁴), Norway (China boycotted Norway’s salmon exports after Liu Xiaobo, a Chinese dissident, was awarded the Nobel Peace Prize in 2010⁸⁵), the Philippines (China subjected exports of Philippine tropical fruit to a quarantine following a standoff over disputed territory in the South China Sea in 2012⁸⁶), and Mongolia (China called off senior-level talks and imposed additional fees on imports following the visit by the Dalai Lama, Tibet’s exiled spiritual leader, in 2016⁸⁷). Taiwan is a frequent target of Chinese retaliation. Following the inauguration of President Tsai Ing-wen in May 2016, the Chinese government has been reducing the number of Chinese tourists visiting Taiwan as part of a pressure campaign on President Tsai.⁸⁸ What distinguishes the retaliation against South Korea is the breadth of China’s actions, and the public nature of the row. That the tensions are centered on a weapons system provided to South Korea by the United States complicates the geopolitical calculus for the parties involved.

South Korea’s economic dependence on China makes it particularly vulnerable to retaliation. China is South Korea’s largest export market: China has, on average, accounted for about 25 percent of South Korea’s annual exports over the past decade (see Appendix Table 1).⁸⁹ In 2016, South Korean exports to China reached \$124 billion, nearly twice as much as exports to the United States, South Korea’s second-biggest export market.⁹⁰ Such economic leverage means a prolonged clash would be very problematic for South Korea. At the same time, China’s reliance on exports from South Korea has been declining since 2014.⁹¹ Part of the reason for this decline—independent of any political motivations—is the changing nature of China’s domestic manufacturers, which are increasingly

* In mid-2017, allegations surfaced that Kaspersky may have close links to the Russian government and intelligence services. Jordan Robertson and Michael Riley, “Kaspersky Lab Has Been Working with Russian Intelligence,” *BloombergBusinessweek*, July 11, 2017. <https://www.bloomberg.com/news/articles/2017-07-11/kaspersky-lab-has-been-working-with-russian-intelligence>.

competitive with South Korean producers, reducing China’s need to import South Korean parts and components (mostly electronics).⁹²

During the Commission’s May 2017 trip to South Korea, representatives of South Korean government and business noted South Korea is pursuing trade partner diversification, particularly in Southeast Asia, though expectations are moderate.⁹³ Interlocutors at South Korea’s Ministry of Foreign Affairs pointed to the high spending power of Chinese tourists compared to their counterparts in Southeast Asia, calling Chinese tourists “irreplaceable.”⁹⁴

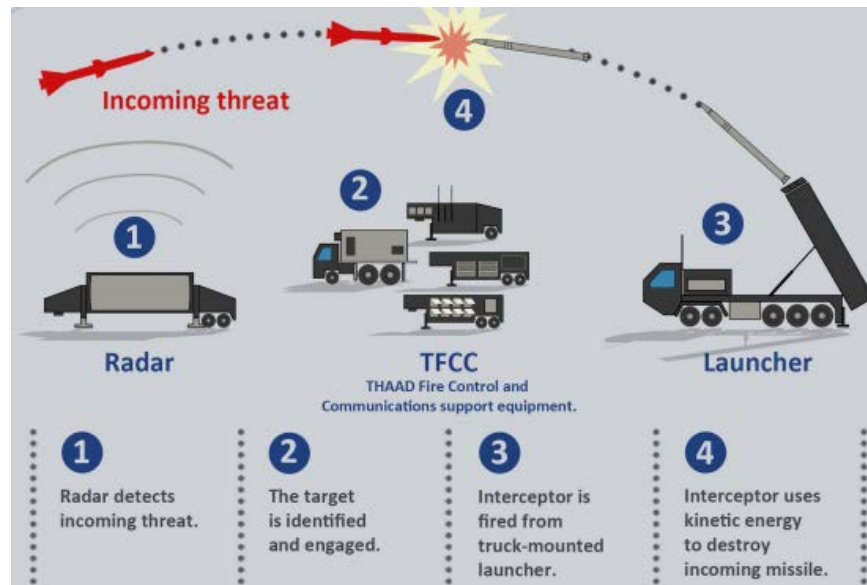
Implications for the United States and the Geopolitical Landscape in the Asia Pacific

China’s response to the U.S.-South Korean deployment of THAAD and its array of coercive levers used to try to compel South Korea to abandon the missile defense system have a number of significant implications for the United States and the Asia Pacific.

- China’s willingness to use economic coercion as a tool to compel South Korea to reverse its decision to deploy THAAD could portend similarly aggressive moves on future occasions where China feels its national security interests are being threatened, creating a powerful deterrent for other countries involved in potential diplomatic or security disputes with China. This is particularly relevant for countries in the Asia Pacific region, where production networks are very closely integrated, with China serving as a top—or among the top—consumer of their exports.⁹⁵
- Beijing is likely to pursue continued cooperation and coordination with Moscow on their own missile defenses and deployments in response to THAAD. In May 2016, several months after U.S.-South Korean discussions about deploying the system started, China and Russia jointly announced they would hold their first computer-simulated missile defense exercise just weeks later (another missile defense exercise is planned in 2017).⁹⁶ In January 2017, Beijing and Russia agreed to “take further countermeasures” in response to THAAD.⁹⁷ Such future countermeasures may involve actions designed to overcome the U.S.-allied missile defense architecture, potentially including more complex missile defense exercises, development of new missile variants and technologies, coordinated missile deployments, and increased data and information sharing between the two countries.⁹⁸
- If China-South Korea relations further deteriorate over THAAD, particularly if Beijing decides to restrict diplomatic ties, such as suspending high-level contacts, it could lead to increased difficulty in the already-strained regional cooperation to rein in North Korea’s nuclear program.⁹⁹
- Beijing’s retaliatory actions against Seoul for deciding to deploy THAAD could encourage South Korea to further deepen its alliance with the United States, improve cooperation with Japan, and enhance trilateral coordination. Increased North Korean provocations have already led to closer security coordination among the three countries.¹⁰⁰ THAAD’s ability to connect with the U.S.-allied missile defense network in the Asia Pacific increases regional capabilities to defend against the expanding North Korean threat. The U.S. military and U.S. defense experts agree that a layered defense system in the region improves the ability of the United States and its regional partners and allies to respond to this threat.¹⁰¹
- Following the election of President Moon Jae-in, Beijing appears to be slowly lifting pressure on South Korea,¹⁰² but China is unlikely to cease using a variety of tools at its disposal to compel South Korea to abandon THAAD until it does so. The continued use of economic coercion, cyber attacks, diplomatic pressure, and other levers by China could backfire as South Korean citizens become increasingly wary of Beijing’s forceful retaliation.¹⁰³ During the Commission’s May 2017 trip to South Korea, scholars at the East Asia Institute, an independent think tank in Seoul, asserted that public opinion has already become more skeptical of China after the THAAD deployment because of its retaliatory measures, and South Korean citizens and businesses are interested in diversifying away from China.¹⁰⁴

Appendix

Figure 1: The Basic Operations of a THAAD Battery



Source: Lockheed Martin, "Terminal High Altitude Area Defense." <http://www.lockheedmartin.com/us/products/thaad.html>.

Table 1: South Korea's Exports to the World and to China, 2007–2016

(US\$ billions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
World	371.5	422.0	363.5	466.4	555.2	547.9	559.6	572.7	526.8	495.4
China	82.0	91.4	86.7	116.8	134.2	134.3	145.9	145.3	137.1	124.4
<i>China's share</i>	22.1%	21.7%	23.9%	25.1%	24.2%	24.5%	26.1%	25.4%	26.0%	25.1%

Source: Korea International Trade Association. http://www.kita.org/kStat/byCount_AllCount.do.

Endnotes

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