

IMPERFECT INTERCEPTORS: THE U.S., CHINA, AND BALLISTIC MISSILE DEFENSE

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“The THAAD issue occupies an entirely different dimension from issues of trade or human rights. [It] is a direct threat to China’s national security strategy, and has grave implications for the security of all of Northeast Asia. This is not something China can ignore.”

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INTRODUCTION

On April 21, 2017, the Wall Street Journal reported that hackers with identifiable links to the Chinese People’s Liberation Army (PLA) launched a barrage of cyberattacks against South Korea’s government, military, and private defense companies. While this is not the first time that South Korea has received cyberattacks from China, cybersecurity firms noticed an upward spike following South Korea’s decision to deploy Terminal High-Altitude Area Defense (THAAD), a ballistic missile defense installation, on its soil.² In recent months, THAAD has become a central issue in the upcoming South Korean presidential election³, a key test of South Korean sovereignty in the face of Chinese pressure to remove it⁴ as well as a cornerstone of the U.S.-South Korea security alliance which dates back to the beginning of the Korean War in 1950. THAAD has recently come to be regarded by the two most powerful states in the world—the U.S. and China—as a matter of critical importance for their strategic interests in the Asia-Pacific. The missile defense system, however, should not be analyzed in a vacuum; rather, the controversy surrounding THAAD is symptomatic of a broader dispute between the U.S. and China over the former’s ballistic missile defense (BMD) capabilities and, broader still, a competition for regional influence between two powerful nation-states.

It is clear—and has been so for quite some time—that the U.S. and China are engaged in a power struggle to accrue the greatest amount of influence in East Asia. On one side, the U.S. has been the leader of a unipolar world, establishing its dominance after the Soviet Union’s collapse at the end of the Cold War. On the other, China has stunned the rest of the world with its rapid economic and subsequent military development, quickly poised to exercise influence over East Asia at a level which challenges that of the United States. However, BMD provides the U.S. with a key military advantage over China in the region by allowing the former to neutralize the latter’s missile capabilities. While the U.S. maintains that its BMD installations in East Asia are solely for defending against the nuclear threat from North Korea,⁵

Chinese authorities believe that they also serve a more insidious purpose of “neo-containment” against their country’s rise to power.⁶

This paper seeks to answer the following questions: first, to what extent does China actually care about U.S. BMD, as opposed to various other factors that contribute to the Sino-U.S. competition, such as tensions over economic leadership or territorial disputes? Second, does BMD do more harm by instigating tension between the U.S. and China, or more good by successfully deterring North Korea? Third, how honest is the U.S. when it claims to use BMD only to deter North Korea, contrary to Chinese suspicions of ulterior motives? Finally, does BMD present or prevent a real risk of war in East Asia? Part I of this paper will establish elementary vocabulary and concepts in BMD literature and describe current U.S. BMD capabilities deployed in East Asia. Part II provides a brief history of U.S. BMD in East Asia, followed by Part III which explores Chinese response to BMD. Finally, Parts IV and V utilize prevailing theories of IR to both explain the current situation and analyze the risks of conflict over BMD.

I. BRIEF PRIMER ON BMD

The U.S. currently pursues two ballistic missile defense projects: a National Missile Defense (NMD) system to protect American soil from intercontinental ballistic missile (ICBM) threats from rogue states such as North Korea and Iran (as well as states with larger nuclear arsenals, such as China and Russia), and a Theater Missile Defense (TMD) system to protect overseas U.S. assets and allies from short- and medium-range ballistic missiles (SRBMs and MRBMs) of potential adversaries, including those of China.⁷ U.S. TMD is further separated into three distinct programs, depicted in Figure A below. Because the three TMD programs all have subtle differences in the type of radar they use and the phases at which they can intercept the target, the U.S. can use all three capabilities simultaneously to create a three-layered missile defense structure, thereby increasing the reliability with which a missile threat can be neutralized. As of 2016, seventeen ships with Aegis BMD capabilities have been deployed to the U.S. Pacific Fleet.⁸ A THAAD battery is deployed in Guam and another is in the process of installation in South Korea, while PAC-3 systems are operational in both Japan and South Korea.⁹

	Aegis System	Terminal High Altitude Area Defense (THAAD)	Patriot Advanced Capability-3 (PAC-3)
Altitude of Interception	High	High, Medium	Low
Intercept Phase	Midcourse (emphasis on ascent)	Midcourse, Terminal	Terminal
Deployment	Sea-based	Ground-based	Ground-based
Key Features	AN/SPY-1 radar Standard Missile-2 and -3 interceptor missiles	AN/TPY-2 X-Band radar Battery of 48 total interceptor missiles	K _a band active radar Specialized high-precision interceptor missiles

Figure A¹⁰

II. U.S. BMD IN EAST ASIA

U.S. BMD can be traced to the Eisenhower Administration; while NMD served American strategic interests for many decades (during the Nixon Administration, NMD was necessary to retain American bargaining power vis-à-vis the Soviet Union during the Strategic Arms Limitation Treaty in 1971),¹¹ it was not until the first Bush Administration that TMD arose as a potential method with which to provide protection to its forward-deployed forces and allied states.¹² Multiple events in the late-1990s pushed the U.S. to prioritize TMD over NMD: Chinese missile tests off Taiwan's coastline in 1995 and 1996, and North Korea's testing of the Taepodong-1 missile in 1998¹³ were two of the most important. The tests triggered increased interest by both Taiwan and Japan—potential targets of Chinese and North Korean missiles, respectively—to acquire TMD capabilities from the U.S.¹⁴ Since then, U.S. BMD capabilities in East Asia have gradually expanded to its current iteration, with missile defense systems now installed on Japan and Guam in order to defend against North Korea.¹⁵

In 2006, South Korea announced its creation of the Korean Air and Missile Defense (KAMD) system, an indigenous BMD capability. Until recently, South Korea insisted that it has no intention of integrating itself into the U.S.-Japan regional BMD architecture.¹⁶ However, recent missile tests by North Korea have mounted political pressure on Seoul to seek protection from the U.S.-Japan alliance's more robust BMD system, demonstrated in the recent agreement to install THAAD on South Korean soil.¹⁷

But just how effective is THAAD at neutralizing the North Korean nuclear

threat? Experts agree that the two-tier missile defense posture of THAAD and PAC-3 is substantially more effective than its single-tier counterpart for multiple reasons. First, they can cover a wider area and thus provide more opportunities to intercept a warhead. Second, because THAAD can intercept missiles at a much earlier stage of the strike, it enables a “shoot-look-shoot” strategy in which the Washington and Seoul fire interceptors from THAAD and wait until it can verify its success. In the event of a failure, PAC-3 interceptors provide a second chance to strike the warhead. This is particularly important in an attack with a high volume of warheads; a successful THAAD strike would obviate the necessity of firing a PAC-3 interceptor, which then enables the PAC-3s to be available to block the remaining missiles. Finally, even if THAAD is unable to intercept any of the incoming missiles, because it can integrate itself with PAC-3, the latter can utilize the former’s radar data to determine the location of a missile before it enters PAC-3 radar coverage, further enhancing PAC-3’s defensive footprint.¹⁸ Furthermore, THAAD boasts a 100% success rate over thirteen tests since 2006.¹⁹ Thus, it is reasonable to expect that the addition of THAAD to the BMD systems in South Korea will make it immensely more difficult for North Korea to launch a successful attack onto either South Korea or Japan with ballistic missiles. Combined with Aegis-equipped naval ships, which are able to sail into South Korean and Japanese waters at will, U.S. BMD in East Asia is likely to render the possibility of a successful North Korean attack on its southern counterpart or Japan incredibly slim. The benefits of THAAD certainly make it an enticing option for both the U.S. and South Korea, who wish to see the North Korean threat diminished as much as possible.

III. CHINESE RESPONSE

Chinese opposition to American BMD arose in the 1980s—long before North Korea acquired nuclear weapons—when Reagan announced the Strategic Defense Initiative (SDI). China has since consistently renewed its discontent at each stage of BMD’s evolution in East Asia.²⁰ In regards to U.S.-based NMD, China has expressed concern that the program would deny China a guaranteed second-strike capability, thus providing the U.S. with a structural military advantage.²¹ China’s opposition has been much louder, however, once the U.S. decided to shift focus from NMD to TMD. While NMD installations can be set up on U.S. soil, TMD’s shorter range means that it must be deployed within the same region as the target. To defend against missile threats from Iran and North Korea, the U.S. has deployed BMD systems in a ring that “begins in Japan, stretches through nations in the South China Sea to India, and ends in Afghanistan”. The result is a “crescent-shaped encirclement” around China.²² Unsurprisingly, China has displayed significant alarm at the notion of U.S. missile defense systems standing in the way of virtually every direction (except north, where China may strike Mongolia and Siberia as it pleases).

China is well aware that the recent bolstering of BMD in East Asia is motivated by a desire to negate North Korea’s missile threat. Nevertheless, top authorities

in Beijing also believe that defending against North Korea is merely a pretext that the U.S. invokes to achieve a broader strategic objective: contain a rising China and prevent it from taking its rightful place as the predominant power in East Asia.²³ China is especially concerned about the deployment of THAAD in South Korea because of one particular capability: the X-Band radar. Equipped to be a part of the system, the radar would be configured in “terminal mode”, according to U.S. officials, to intercept missiles in North Korea, with China outside of its range. However, if configured in “look mode”, the radar range would be wide enough to surveil the Chinese mainland and provide the U.S. with augmented early warning and detection capabilities, sufficient to undercut China’s nuclear deterrent and therefore provide Washington with a critical advantage in nuclear strike capability.²⁴ This opinion is not just held by the most paranoid strategists in China; the Chinese Foreign Minister specifically flagged the radar as a serious threat to the Chinese nuclear deterrent.²⁵ In response to American BMD’s encroachment on what it believes to be its sphere of influence, China has undertaken a litany of actions to overcome the challenges posed by BMD and pressure South Korea into renegeing on its agreement to deploy THAAD.

Amassing a military force that is on par with that of the U.S. would be and has been economically unfeasible, especially for a country like China, which has spent considerable effort in continuing its current trajectory of rapid economic growth. As a result, a core pillar of Chinese nuclear strategy is minimal deterrence, which has been able to mitigate the daunting costs of defense spending while also maintaining some degree of security. Minimal deterrence and the corresponding posture of assured retaliation have been long part of its “asymmetric defense” strategy against the U.S.; acknowledging that it cannot overwhelm U.S. military power with brute force, it focuses instead on maintaining just enough nuclear warheads and missiles to guarantee itself a second strike capability in the event that it is attacked. As a result of U.S. BMD developments, China has sought to modernize its missile capabilities in order to overwhelm BMD. Chinese military strategists are in agreement that nuclear expansion is the necessary step in maintaining a credible nuclear deterrent. Some, speaking more bluntly, assert that the Chinese nuclear “lance” must be able to pierce the American “shield” in order to restore the nuclear balance.²⁶ In recent years, Chinese modernization efforts have been geared specifically towards developing strategic missiles with multiple warheads, increasing the number of missiles that must be fired to completely neutralize the threat, subsequently increasing the chance of a successful strike. The Pentagon publicly declared that China possesses the capability to equip its missiles with multiple independently-targetable re-entry vehicles (MIRV) in 2015.²⁷ Additionally, China has seen breakthroughs in its submarine-launched ballistic missile (SLBM) technology, providing China with a virtually invulnerable—albeit limited—second strike capability that is highly mobile and concealed in deep waters. Alongside qualitative advances in its arsenal, China has also been increasing its quantitative size to achieve redundancy against a multi-layered missile defense system.²⁸

As for South Korea, China has been more direct and punitive. As South Ko-

rea's largest trading partner, China has a significant amount of influence on the South Korean economy, and has recently resorted to a variety of tactics to punish a diversity of South Korean industries that profit from business with China. Lotte Group, one of the biggest conglomerates in South Korea, has received particularly harsh retaliation for having agreed to hand over its golf course to the South Korean government in order to house the incoming THAAD battery. Despite the CCP's denial that it is taking direct action against Lotte over THAAD, Lotte has encountered multiple setbacks to its operations in China, including the abrupt halting of construction for a theme park in northeastern China and the closure of twenty-three Lotte Mart stores across China by local and provincial authorities.²⁹ China has also ordered its travel agencies to halt trip sales to South Korea, denied entry to K-Pop artists seeking to perform in China,³⁰ and removed Korean TV dramas from the Chinese internet.³¹ South Korean conglomerate operations in China, Chinese tourism to South Korea, and South Korean pop culture are all major sources of South Korean revenue; as a result, there is a fear among South Korea that recent Chinese actions could have a serious effect on its economy. With the upcoming presidential election on May 9, THAAD has become a core political issue for the candidates. The freshly-elected South Korean President Moon Jae-in has recently shifted his historically anti-THAAD stance to one of ambivalence,³² and has called on China to halt its economic retaliation.³³ It is unlikely that Moon will support the outright removal of THAAD; it remains to be seen as to whether he can successfully renew relations with China without compromising its security in the face of an increasingly dangerous North Korean threat.

IV. BMD and International Relations Theory

The Sino-U.S. competition has long been a topic of study in international relations, and many scholars have utilized different theoretical approaches to study the ways in which the U.S. and China directly and indirectly respond to each other. Three theoretical approaches have established themselves above others for their explanatory power: realism, institutionalism (also referred to as liberalism), and constructivism. While all three theories are able to explain many of the events and trends present in East Asian international relations, they hold differing amounts of explanatory power when specifically applied to the developments regarding BMD in the region.

REALISM

Realism is the most attractive theory in the context of BMD. The ongoing dispute over missile defense is in line with the central assumptions of realism: states are the primary actors (the U.S. and its allies, and China), the region operates under a state of anarchy (there is no international governing body or rule of law that is able to determine the legality of BMD or punish the U.S. and its allies for it), and security is a primary concern for the actors involved. In 2006, John Mearsheimer offered a realist analysis of China's recent rise to great power status. Rather than offering an offensive realist interpretation in which China seeks to establish regional hegemony by maxi-

mizing its military power disparity vis-à-vis that of neighboring states, he concludes that Chinese actions more accurately reflect defensive realism. Instead of aggressively maximizing power, which would inevitably be met by a regional counter-balancing coalition of India, Japan and the U.S., all with nuclear weapons, China would advance its military capabilities in order to guarantee its own security while expanding its regional influence through alternative means, such as trade and leadership in multilateral institutions.³⁴ China's longtime commitment to asymmetric defense, in the form of minimal deterrence and assured retaliation, has provided defensive realism with a significant amount of credibility when assessing Chinese behavior.

However, in response to challenges posed by BMD, China has shifted its strategy to a more offensive posture. At the foundational level, China does not believe BMD is a defensive system; given that the U.S. already possesses a superior offensive missile capability, its experts believe that missile defense is rather a supplementary tool to bolster the effectiveness of an offensive nuclear strike.³⁵ In other words, in Chinese eyes, BMD is a shield only in the sense that it allows America's sword to be immune to any counterattack. As a result, the aforementioned nuclear modernization programs that China has been pursuing—MIRVed missiles, SLBMs, and quantitative upscaling, among others not mentioned in this essay—signals that China has begun to shift away from its current posture of minimal deterrence and assured retaliation to a strategy of effective deterrence and assured destruction.³⁶ This change is symptomatic of a broader trend that is visible when analyzing China's recent security strategy: using offensive means for defensive ends.

For example, the Chinese “anti-access and area denial” (A2/AD) strategy—an acronym coined by the Pentagon in 2010—³⁷blurs the lines between offensive and defensive military actions, causing great concern in the region. In 2013, China declared an Air Defense Identification Zone (ADIZ) over the East China Sea without consulting any of the nearby states, even as the Chinese ADIZ overlapped with Japanese airspace and U.S. military installments, in order to assert its claim over the disputed islands located there.³⁸ China has also aggressively pushed its territorial claims in the South China Sea, most notably by building artificial islands off its southern coast and establishing military bases and stations on them.³⁹ China's aggressive posturing is partially motivated by a desire to hamstring the effectiveness of U.S. intervention in the event of a conflict over Taiwan.⁴⁰ The Chinese reaction to THAAD, then, can be seen as yet another instance in which it pursues a defensively-motivated offensive strategy: China claims that BMD is a serious threat to its security by denying it of a guaranteed second strike capability. In response, it enhances its missile capabilities to overcome BMD, re-securing itself through offensive modernization.

Chinese behavior also supports the realist argument that material power is the primary concern for states; regardless of whether or not the U.S. will use THAAD to spy on Chinese missile capabilities, the fact that the U.S. could do so is a great source of concern. Chinese skepticism over U.S. intent is by no means unreasonable. A senior U.S. official has acknowledged that “physics is physics” and that the alternative to

placing both China and North Korea in range of BMD capabilities is to place neither of them in it.⁴¹ A 2012 CSIS report highlighted the necessity of the U.S. and its allies to overwhelm Chinese A2/AD and prescribed additional missile defense capabilities as part of the solution.⁴² The same report even provides special emphasis to the interoperation of PAC-3 and THAAD as a necessary hedging tool against China.⁴³

Institutionalism

While its assumption about the world are similar to that of realism (anarchic world, states are unitary and rational actors), institutionalism disagrees with the presumption that accruing material power is the only way to secure oneself. Instead of viewing international relations as a zero-sum game (in which one state's security trades off with the security of all other players), institutionalists believe IR to be positive-sum. In other words, they emphasize the role that international regimes and institutions can play in resolving interstate differences, and argue that economic interdependency will encourage states to cooperate with each other and with nongovernmental organizations in order to acquire the desired outcomes for every state. For institutionalists, the lack of a regional institution to develop measures for confidence-building and conflict resolution would give way to a rise in states' skepticism of each other's intents and ultimately lead to armed conflict.⁴⁴ This understanding certainly holds some weight when explaining certain regional phenomena, such as North Korea's decision to withdraw from the Agreed Framework of 1994 and nuclearize. An isolated state that was not integrated into any multilateral security collective or economic framework, the DPRK had little incentive to follow the rules placed upon it by the Non-Proliferation Treaty.⁴⁵ If North Korea had a significant stake in the global economy, institutionalists argue, it may have been compelled to commit to the treaty and remain a non-nuclear state.

However, the case for institutionalism lacks a compelling theoretical basis in the context of BMD in East Asia. Neither tenet of institutionalism—international regimes or economic interdependence—seems to be applicable. For starters, Beijing has become a participating state in a number of international regimes since the 1990s, such as APEC, the ARF, the APT and the WTO. It has even taken the initiative in spearheading some institutions, most notably the Asian Infrastructure Investment Bank (AIIB). Perhaps most importantly in the context of BMD, it acceded to the Non-Proliferation Treaty (NPT) in 1992. These organizations, however, either do not address regional security concerns, or are woefully weak in its ability to enforce treaties; the concept of an effective security collective has yet to make its way into Northeast Asia, where security is almost invariably a bilateral affair. With regard to the NPT, it is safe to assume that Chinese accession was motivated more by its desire to legitimize its nuclear arsenal than a genuine commitment to multilateral peace.⁴⁶

As for economic integration, Sino-Japanese, Sino-Korean and critically, Sino-U.S. interdependence has only grown since the Chinese reforms of the 1970s under Deng Xiaoping.⁴⁷ Regardless, China has chosen to risk economic gains in order to punish South Korea in the form of informal sanctions. Additionally, China's stance on

Taiwan is a glaring counterexample to institutionalists' notion of economic interdependence as a precondition for peace. Despite Taiwan's overwhelming dependence on the mainland, the PRC nevertheless remains highly sensitive to any rhetoric or event that hints at Taiwanese independence, and consistently reiterates its right to use force to absorb the island. In the context of missile defense, Beijing has displayed serious concern that BMD in East Asia would undermine the Chinese military deterrent against Taiwan, emboldening the latter to resist the former's efforts at reunification.⁴⁸ In conclusion, institutionalism certainly explains a variety of trends in East Asia, most notably the unwillingness of the U.S. and China to go to war (this particular phenomena will be discussed in detail below); however, it holds little explanatory power when understanding state behavior in regards to BMD. Experts predicted China to not follow through with the informal sanctions on South Korea due to projected economic losses outweighing the benefits;⁴⁹ it is no longer far-fetched to believe that China is willing to risk further losses if they bring Beijing one step closer to removing THAAD from the Korean Peninsula.

CONSTRUCTIVISM

Constructivism is another IR theory that may provide meaningful insight on BMD in East Asia. It calls into question the very presumption of international "anarchy" itself, claiming that the concept is not a natural state of the world, but rather is one formulated by states based on their respective senses of self-identity and the international norms that constitute the parameters within which a state reacts to the global environment.⁵⁰ Constructivism is certainly more parsimonious than institutionalism when it comes to Chinese reaction to BMD. The wartime atrocities committed by the Imperial Japanese Army during the Second Sino-Japanese war had a direct influence on the leadership circle of the CCP during its formative years; the identity that Communist China crafted for itself has left behind a legacy for future Chinese leaders, giving rise to an animosity that casts itself over Sino-Japanese relations.⁵¹ Indeed, Deng Xiaoping found enormous success in utilizing anti-Japanese sentiment to portray the Party as patriotic and consolidate political power after the 1989 Tiananmen Incident.⁵² This animosity would foment into a suspicion of Japanese motives even after it was pacified by the U.S. after World War II; Chinese leaders may believe that BMD in Japan are based on offensive, not defensive, motives;⁵³ much like how it views BMD as an offensive supplement, China views Japanese support and deployment of BMD as a manifestation of the latter's desire to once again establish a Japanese empire in the region.

The Chinese historical narrative that portrays itself as a victim of imperialism, alongside the futurist narrative that portrays itself as a "peaceful rising power", may provide a solid theoretical basis for Chinese criticism of BMD in East Asia. The peaceful rise narrative, endorsed by Hu Jintao, seeks to dispel the China Threat Theory espoused by western scholars, which Chengxin Pan believes is in turn a manifestation of the American self-imagination as an omniscient and exceptional nation-state.⁵⁴ Chi-

na's commitment to the peaceful rise narrative is outlined in a 2005 white paper titled *China's Peaceful Development Road*, a five-part report that emphasizes Chinese desires to seek harmonious relations over hegemony, reducing global poverty and energy consumption, improvements in education, economically open borders, peaceful resolution of border disputes, and arms control.⁵⁵ For the constructivist, Chinese rhetoric denouncing BMD as neo-containment is symptomatic of China viewing itself own as a victim of imperialism,⁵⁶ receiving an unjust punishment from the unnecessarily aggressive Americans despite having been a peaceful rising power. Modernization, then, is a solely defensive measure in order to ensure its protection against the malevolent U.S.-Japan alliance, led by a new imperialist force from across the Pacific Ocean and backed by a former imperialist that took over Asia. Constructivism argues that states' self-identities and perceptions of the identities of other states, rather than material interests, shape international relations, rather than material interests.

While China's peaceful rise narrative may be able to sufficiently explain Chinese response to BMD stationed in Japan and its modernization against the U.S., its recent response to THAAD suggests that reality shapes threat perception and not the other way around. South Korea does not fit the imperialist identity that China has ascribed to Japan and the U.S.; China and South Korea both suffered at the hands of Imperial Japan during World War II. Despite being a U.S. ally, South Korea experienced incredibly warm relations with China under the Xi and Park, with their relationship at its "best in history" during 2014.⁵⁷ The rhetoric behind this "charm offensive" was consistent with the peaceful rise narrative, with Xi proposing to jointly forge a community of shared interests, tightened by historical and cultural intimacy.⁵⁸ Even during the honeymoon phase, some scholars were wary that the charm offensive was more representative of a shrewd gambit by China to expand its influence by driving a wedge between the U.S. ally and its regional rivals, rather than a genuine desire to create a peaceful East Asia.⁵⁹

Once the THAAD issue surfaced, however, those doubts quickly turned to reality. The economic sanctions and barrage of cyberattacks seem to confirm what Robert Kelly had been suspicious of all along: that ultimately, the peaceful rise narrative was only adopted because it fit Chinese interests at the time, and that at its core, China is an aggressive rising power that "expects regional states to bend to its demands conveniently packaged as uncontestable and expanding 'core interests'."⁶⁰ Ironically, it has so forced South Korea's hand on THAAD that the missile defense battery is now tied to a broader question of South Korean sovereignty in the face of mounting Chinese pressure, which will make a decision to roll back deployment plans look like weakness.⁶¹

Beijing's charm offensive—as well as its demise—was driven by material interests rather than identity. Constructivism, which makes the sequencing claim that identity shapes material interests, cannot explain Beijing's behavior to THAAD. China is no longer a peaceful power, and its transition to a more assertive stance is more in line with offensive realism, driven by material interests in the form of a guaranteed

second strike capability rather than its self-identity in relation to other states. Establishing this finding is critical to understand how China can be expected to behave in the future.

V. FUTURE RISKS OF WAR OVER BMD

If it is true that Chinese behavior related to BMD is best explained by realism, this is a cause for concern. Realism, after all, seeks to explain war and short-term respites between wars, rather than protracted peace. At the same time, IR theories that do provide explanations for peace may provide us with reasons to be optimistic about the future. Institutionalists, while they may not be able to explain Sino-Korean, Sino-Japanese, and Sino-Taiwanese tensions, can be more confident when they claim that the sheer volume of economic exchange that occurs between the U.S. and China every day would make war far too costly for the two states to seriously consider it.⁶² Instead, they would argue, the realist tensions can and ought to be mitigated by establishing additional linkages in the form of multilateral institutions and further economic interdependency. Constructivists also raise a fair point when they argue that because China has adopted a nuclear No First Use policy and adheres to the norms that accompany it, China has significantly mitigated the security dilemma between itself and the U.S.⁶³ Both statements hold significant weight in explaining peace in the region to date and are not directly impacted by BMD. The conflict over BMD, however, displays three key characteristics that isolates itself from most other sources of tension between the U.S. and China and, more importantly, allows it to indirectly bypass institutional and norms-based checks against warfare: its capacity to shift the offense-defense paradigm towards increased instability, its adverse impact on regional nuclear parity, and its potential to make states more vulnerable to miscalculation.

OFFENSE-DEFENSE PARADIGM

Perhaps the most important factor of BMD in East Asia is its capacity to change the terms of the security dilemma itself in a uniquely destabilizing way. Robert Jervis argues that the security dilemma becomes “doubly dangerous” and therefore the most prone to escalation when two criteria are met: first, offensive postures are indistinguishable from defensive ones, and second, the offense has the advantage.⁶⁴ By design, BMD is a defensive strategy; however, constructing a defensive system is incredibly expensive and is rendered useless the moment the enemy can develop the technology to bypass it. By contrast, offensively modernizing a nuclear arsenal to overcome BMD is always significantly cheaper and less resource-intensive,⁶⁵ and therefore offense holds a clear advantage over defense. Additionally, as mentioned above, China’s response to U.S. BMD can be characterized as “offensive means for defensive ends”, meaning that it is unclear as to whether Chinese modernization is offensive or defensive. This makes BMD a uniquely destabilizing factor in East Asia. Territorial disputes, unlike offensive measures indistinguishable from defensive ones, do not favor offensive incursions. Though other destabilizing factors offer the poten-

tial for de-escalation, BMD does not offer the same luxury. Once the trigger is pulled, escalation will be quick and destabilizing, launching the world into war.

NUCLEAR PARITY

Economic interdependence certainly raises the costs associated with war; however, according to Aaron Friedberg, it contributes little to a lasting stability. Even if mutual hostilities are suppressed, the U.S. and China will inevitably compete with each other to secure the status of regional hegemon. Competitive behavior such as arms races and opposing alliance structures can lead to escalatory spirals of mistrust and pave the way for open conflict;⁶⁶ given China's offensive nuclear modernization and American alliance treaties that are used to hedge against China, the status quo offers little reason to place faith in interdependence to maintain a lasting peace. Friedberg goes on to claim that ultimately, security concerns trump trade.⁶⁷ Interdependence has been able to ward off warfare not because the U.S. and China place a higher value on wealth than security, but because neither state has advanced a flagrant challenge to the other's strategic interests. For China, the economic threats of going to war outweigh the security threats of not doing so.

BMD, however, may flip that Chinese calculus; if Beijing believes that BMD will compromise its second-strike capability and subsequently render its nuclear deterrent impotent, it would be willing to risk significant economic losses to restore the nuclear parity that it desires. China is particularly sensitive to BMD in ways that are radically different from other sources of tension with the U.S.; China's denunciation of American Freedom of Navigation exercises in the South China Sea as "infringements" upon Chinese sovereignty⁶⁸ is a far cry from its perception of BMD as a "fundamental threat to its strategic deterrence"⁶⁹. A PLA nuclear strategist has publicly stated that missile defense is the single most important influence on Chinese nuclear thinking;⁷⁰ thus Beijing's uniquely high sensitivity to BMD may push it to discard interdependence for war.

MISCALCULATION

Constructivists argue that the problem does not lie in BMD per se, but rather in a broader lack of transparency on both sides' nuclear strike and/or denial capabilities. Confidence-building measures, then, would ameliorate both sides' concerns by verifying that neither side wishes to enter a war, thus avoiding an arms race. At worst, Chinese adherence to a nuclear No First Use Policy would prevent the security dilemma from spiraling out of control. Unfortunately, current attempts to mitigate the security dilemma provide little room for optimism. At the foundational level, China can abandon its NFU policy at any time. Given the quickness with which it abandoned its charm offensive toward South Korea, it is not unlikely that China will also drop NFU if it believes itself to be seriously threatened. Even if China does not abandon it, its NFU policy contains an element of "limited ambiguity" and therefore maintains the Chinese right to fire nuclear weapons if it believes that a conventional attack on its ar-

senal is imminent. Limited ambiguity has allowed China to access nuclear deterrence while maintaining a smaller arsenal.⁷¹ BMD, however, may cause limited ambiguity to backfire by forcing China to develop a larger arsenal, stoking fears by neighboring states that China will proactively use force.⁷² This anxiety is by no means unfounded alarmism. States have an incentive to exaggerate their willingness to actually go to war in the hopes that the opposite party will balk, creating a more favorable outcome.⁷³ Additionally, states have an incentive to hide their true military capabilities if it believes that revealing them would make them more vulnerable (after all, the enemy cannot counter your strongest weapon if they do not know of its existence).⁷⁴ This is reflected in Beijing's track record of military secrecy despite over a decade of international pressure.⁷⁵ Confidence-building measures, then, would have a marginal effect on mitigating the security dilemma for two reasons. First, there would be little incentive for the U.S. to provide greater transparency in regards to its BMD capabilities if it had virtually no assurance that China would reciprocate. Second, even if the U.S. was open to unconditionally increase its transparency levels, China would view this as an unnatural concession and have a difficult time trusting the information that the U.S. shares with them.⁷⁶ Given the numerous volatile flashpoints and deep-seated mistrust for each other, it seems unlikely that norms-based checks on power are unlikely to hold at bay the looming threat of warfare over BMD.

Chinese ambiguity over NFU and lack of military transparency makes it a perfect storm for miscalculation. Neighboring states have limited knowledge on what China's true intent is, and most of them are already locked in territorial disputes with Beijing. Taiwan, the South China Sea and the East China Sea are all sites of bitter contestation in which China has immensely high stakes.⁷⁷ Given the doubly dangerous environment in which BMD places the region, the offense holds a clear advantage: an expanded arsenal may embolden China to use its missiles to signal resolve in any one of those already-volatile flashpoints. While Chinese sensitivity to BMD and its implications for the regional flashpoints are intense, it seems to have only a limited concern for the potential of its deterrence posture to cause an escalatory arms race in the region.⁷⁸ Those warning strikes could then easily be interpreted by neighboring states and the U.S. not as a sign of resolve but preparation for actual nuclear strikes, triggering catastrophic escalation.⁷⁹

CONCLUSION

A war between the U.S. and China is by no means certain. Indeed, it is not even probable. The costs involved in a war, however, are of such a magnitude are so appallingly great that the risk must be taken seriously and every action that can be taken to reduce the likelihood of war ought to be taken.⁸⁰ American BMD installations in East Asia, and the corresponding Chinese response, are at the heart of the risks of war. Because the Chinese response to BMD in East Asia is best explained by realism, the solution to the conflict will require realist solutions. China shows no signs of halting its intense opposition to BMD, and it is equally unlikely that the U.S. will withdraw

its missile defense systems in East Asia. Solutions will require deep consideration and maneuvering around the sensitive strategic interests of two nation-states who are directly competing against one another for undisputed power in East Asia. The path ahead is treacherous, but positive steps can be made to further decrease the likelihood of war. At the very least, there are measures that can be taken to prevent an increase in its probability.

First, the U.S. must acknowledge and respect China's guaranteed second strike capability. Assured retaliation lies at the root of Chinese fears over BMD; if the U.S. is able to assure Beijing that it will always have a viable nuclear deterrent, thus rendering obsolete the fear of preemption or the necessity to strike first.⁸¹ Second, the U.S. and China must engage in constructive dialogue over the future of its BMD installations and its nuclear arsenal, respectively. Even if the dialogue does not offer groundbreaking protection from instability, it would nevertheless establish opportunities for both the U.S. and China to reaffirm their lack of desire to go to war, fostering a culture against miscalculation.⁸² Third, any agreement reached by Beijing and Washington cannot convey to the latter's allies in East Asia that their individual security interests are not being disregarded. South Korea and Japan both are deeply invested in their respective security alliances with the U.S., and fears of American abandonment will prompt them to believe that they are on their own to deal with a daunting and aggressive China, causing them to attempt to acquire their own nuclear capabilities, plunging the region into a destabilizing arms race.⁸³

These criteria will be difficult to meet, especially in a region that is ridden with conflict and skepticism about the willingness of each other to work for peace. The onus is on both the U.S. and China to establish and set in place the necessary measures that will stabilize the region and prevent it from spiraling into conflict. The existential threat of a U.S.-China war looms in the vicinity, and the world anxiously looks on as the two most powerful states in the world lock themselves into a global power competition. Even at the precipice of crisis, competition does not have to lead to war. Beijing and Washington must make sure that this remains true.

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