

NORTH KOREA AND NUCLEAR WEAPONS

ENTERING THE NEW ERA OF DETERRENCE

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and
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Editors

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NORTH KOREA'S NUCLEAR DOCTRINE AND REVISIONIST STRATEGY

Sung Chull Kim

MORE THAN TWO DECADES have passed since North Korea's nuclear program became the focus of the international nonproliferation regime. Meanwhile, North Korea has made technological progress in its nuclear weapon program by means of five nuclear tests, numerous test-firings of ballistic missiles, and submarine-launched ballistic missile tests. The United States and South Korea believe that North Korea's efforts for miniaturizing warheads and reducing their weight have achieved a significant degree of progress. After conducting its fifth nuclear test on September 9, 2016, North Korea also insisted that it is able to produce "a variety of smaller, lighter, and diversified nuclear warheads."¹ Now North Korea's nuclear weapon issue has entered a new phase.

Sustained efforts have been made to analyze important topics related to the North Korean nuclear issue: the motives behind North Korea's bid to become a nuclear state, the international community's engagement strategies and use of sanctions to dissuade North Korea from this course of action, and the impact of Pyongyang's development of nuclear weapons on the global proliferation of nuclear and conventional weapons in general. In contrast, little effort has been made to examine the evolution of North Korea's nuclear doctrine and the exact nature of its nuclear deterrence strategy. It may be assumed that in line with its nuclear capability, a small nuclear state will also develop its own nuclear doctrine and deterrence

strategy, either clandestinely or in plain sight. Indeed, this is precisely what North Korea has done. North Korea's nuclear doctrine was articulated in the Law on Consolidating the Status of a Self-Defensive Nuclear Weapons State (hereafter the Nuclear Weapons State Law) in 2013, although it had evolved for a decade before that law was adopted. International efforts aimed at halting this dangerous move and resolving the problem, or at least alleviating the tension surrounding it, should be paired with a close examination of North Korea's evolving nuclear doctrine and its nuclear deterrence strategy.

This chapter addresses the following questions. First, what message is North Korea's nuclear doctrine trying to deliver to the United States and South Korea? Second, what is North Korea's nuclear deterrence strategy corresponding to the doctrine? Third, how has the United States' security strategy affected North Korea's nuclear doctrine and deterrence strategy? Finally, what challenges lie ahead?

As suggested in those questions, North Korea's nuclear doctrine and its deterrence strategy are situated in a standard extended deterrence setup. This setup on the Korean Peninsula is a *trilateral* relationship between a challenger (North Korea), a defender (the United States), and a protégé (South Korea). North Korea insists that the goal of nuclear armament is to deter an attack from the United States; however, because South Korea shelters under the US nuclear umbrella, that state is the first target upon which North Korea wants to demonstrate the credibility of its immediate nuclear threat. North Korea's nuclear doctrine and its related deterrence strategy are aimed at penetrating a particularly weak and vulnerable point in the extended deterrence: the different interests and perceptions of the defender and the protégé. This is a typical form of dilemma embedded in extended deterrence and alliance politics.² As a small nuclear state, North Korea may well see its nuclear deterrent as a "great equalizer" that helps it to cope with the US extended deterrence.³ This nuclear capability leads to further problems. The challenger tries to expand its deterrent while limiting the options available to the defender and the protégé, and it provokes the protégé while demanding arms control talks with the defender.

Evolution of North Korea's Nuclear Doctrine

North Korea used the term "nuclear deterrent" for the first time on June 6, 2003, when a foreign ministry spokesperson stated that "as far as the issue of nuclear deterrent force is concerned, the Democratic People's Republic of Korea (DPRK) has the same legal status as the United States and other states possessing nuclear deterrent forces."⁴ Three days later, the Korean Central News Agency carried a commentary explaining that because of the hostile

policy of the United States, “the DPRK will have no option but to build up a nuclear deterrent force.”⁵ Prior to these statements, North Korea had always maintained that its nuclear program was peaceful, that the late Kim Il-sung had advocated the denuclearization of the Korean Peninsula, and that this was something that his successors should follow. For example, when North Korea announced its withdrawal from the Non-Proliferation Treaty (NPT) on January 10, 2003, the government statement noted that “North Korea has no intention of developing nuclear weapons. . . . The nuclear activities will be limited to the production of electricity only.”⁶ Five months later, however, North Korea made a radical shift from its previous position when it announced that it had developed nuclear weapons. In view of the fact that the United States was deliberating a preemptive strike strategy at that time, this provocative statement is deemed to have originated from North Korea’s fear of such a strike. North Korea had continued to develop its nuclear program throughout the 1990s, and a crisis point was reached in 2002 when it admitted that it had a uranium-enrichment program. Therefore, it is fair to say that North Korea’s declaration concerning nuclear deterrence was in line with its nuclear development program, but its explicit admission was nonetheless a new development in its nuclear policy.

What should be noted is that North Korea’s declaration on nuclear deterrence took place three years before it demonstrated its nuclear weapon capability by conducting its first nuclear test in 2006. In the history of nuclear proliferation, it is unusual for the leader of a new nuclear state to make such a declaration before actually proving that the country possesses a nuclear deterrent. For example, India and Pakistan did not publicize their nuclear status or the related doctrine until they had successfully tested nuclear weapons in 1998, although they had already established clandestine doctrines and employed them. Israel has nuclear weapons, but it has neither announced this publicly nor published its nuclear deterrence doctrine.

North Korea conducted five nuclear tests, on October 9, 2006, May 25, 2009, February 12, 2013, January 6, 2016, and September 9, 2016, demonstrating significant progress in its development of nuclear technology. Along with these tests, North Korea has expedited the development of ballistic missiles, although it insisted that some of its missile tests were actually satellite launches.⁷ In line with these provocations, North Korea conducted low-intensity provocations against South Korea in 2010—the sinking of a naval vessel and the shelling of an island in the Yellow Sea. Under Kim Jong-un, North Korea declared itself to be a nuclear weapon state in the preamble of its constitution, which was amended in April 2012. More important, on April 1, 2013, just months after the third nuclear test, the Supreme People’s Assembly adopted the Nuclear Weapons State Law, which includes the following ten points:

Nuclear weapons are a self-defensive means of coping with the hostile policy of and nuclear threat from the United States.

Nuclear weapons serve the purpose of deterring and repelling aggression and retaliating against enemies.

The DPRK is strengthening its nuclear deterrence and retaliatory strike power both in quantity and quality.

Nuclear weapons will only be used on the final order of the Supreme Commander of the Korean People's Army.

Nuclear weapons will not be used against non-nuclear weapons states unless they join a hostile nuclear weapons state in its invasion of the DPRK.

The DPRK maintains safe management of nuclear weapons and ensures stable nuclear tests.

The DPRK has established a mechanism to prevent the illegal export of nuclear technology and nuclear materials.

The DPRK will cooperate with international efforts toward nuclear non-proliferation and the safe management of nuclear materials.

The DPRK strives to avoid the danger of a nuclear war and fully supports international nuclear disarmament efforts.

The relevant institutions will take steps to implement this ordinance.⁸

The Nuclear Weapons State Law was the means by which North Korea announced its nuclear doctrine; however, within the country, its adoption as a law had a special meaning concerning the direction of its related policies. In general, important national policies are embodied in laws before they are implemented; some examples are the Rason Economic and Trade Zone Law (2002), the Gaesong Industrial Complex Law (2002), and the Space Development Law (2013), which were all related to either economic or military policies. The Nuclear Weapons State Law demonstrates the strategic direction of North Korea's use of nuclear weapons in both its diplomatic and military dimensions. It also hints at some elements of the nuclear strategy that is probably under deliberation by a core inner circle of the leadership. Some provisos of the doctrine guide the nuclear strategy, and other provisos give the appearance that Pyongyang is committed to international nonproliferation efforts.

The adoption of the law, and the development of the situation afterward, suggests the following points. First, in view of its broad scope, the doctrine does not seem to be a product of deliberation by the military; instead, it appears to be a result of civilian deliberation, specifically that of Kim Jong-un and his associates in the Korean Workers' Party (KWP). Kim Jong-un's official rise in 2010 and his assumption of power in 2011 coincided with the restoration of the status of the KWP, which had been downgraded since the famine of the 1990s.⁹ Particularly with the Sixth Congress of the KWP in May 2016, it became clear that North Korea is ruled by a supreme leader, the *suryeong* (now Kim Jong-un), and the KWP. The declared

nuclear doctrine has both military and diplomatic implications—objectives of possessing nuclear deterrent; command, control, operations, and safety management of the nuclear weapons; and international collaboration with regard to nonproliferation. It is obvious that the military alone could not have come up with such a comprehensive doctrine; only diplomats or party leaders in charge of external affairs would have known how to employ the official doctrine and messages and signals embedded in it internationally. It is highly probable that the doctrine was closely examined by the Central Military Commission and the Politburo of the KWP in consultation with the Ministry of Foreign Affairs before it was passed into law by the Supreme People's Assembly.

Second, and in connection with my first point, the development of the nuclear weapons and the command and control of them seem to be in *centralized* civilian hands. The law states that nuclear weapons are controlled by the supreme commander, a position held by Kim Jong-un. If this is true, the North Korean case is less risky than the South Asian cases where command-and-control procedures are decentralized, diversified, and complex, something that, as Scott Sagan, Vipin Narang, Michael Krepon, and Julia Thompson point out, is likely to jeopardize the safety and security of the weapons.¹⁰ In the Indian case, despite the fact that the military is under civilian control, the prime minister lacks control over the nuclear weapons and the corresponding operational posture, which is a highly risky situation. Pakistan also has adopted a risky “asymmetrical escalation” posture. Not only does the civilian leader in Pakistan not have control over the military commanders, but also command-and-control procedures are complicated by the delegation of authority over the use of nuclear weapons to field commanders, which is also a high-risk practice.¹¹ It is said that in March 2012, North Korean leader Kim Jong-un established the Strategic Forces as the control and command structure over the nuclear weapons and the strategic missiles.¹² It is impossible to know the reality of the commandership of the Strategic Forces; however, in view of North Korea's limited nuclear arsenal and its emphasis on political loyalty in the commandership in the military, the command and control of nuclear weapons is likely to remain centralized in the hands of the supreme leader, Kim.

Third, the Nuclear Weapons State Law delivers a dual message about North Korea's nuclear strategy, and it tries to reveal a typical vulnerability in the extended deterrence. North Korea has apparently adopted assured retaliation instead of first use; however, this is actually conditional no-first-use on non-nuclear-weapon states. In principle, assured retaliation requires, and thus concentrates on, second-strike capability, and its basic premise is to counter a nuclear attack. Any state that adopted assured retaliation would maintain a posture of no-first-use and, automatically, no use on non-nuclear-weapon states. However, the doctrine's adoption of both retaliation

and conditional no-first-use on non-nuclear-weapon states, principles that are in conflict with one another, is intended to drive a wedge between the United States and its allies and to weaken US extended deterrence. The doctrine is trying to show that in the event of an immediate deterrence situation—for example, an imminent military conflict between the United States and North Korea (or between the US-Korea or US-Japan alliance on the one hand and North Korea on the other)—the United States’ allies, particularly South Korea, would become the first target of North Korea’s nuclear attack. According to the logic of the Nuclear Weapons State Law, it would be up to Pyongyang to decide what kind of cooperation between the United States and its allies constitutes a combined attack on North Korea.¹³

Finally, but most important of all, North Korea’s nuclear doctrine evolves. North Korea has elaborated its nuclear doctrine still further since the Nuclear Weapons State Law was adopted. North Korea insists that its nuclear weapons will not be used as bargaining chips for economic gain and that it will continue to be a nuclear weapon state “until the day when the United States lifts its nuclear threat and blackmail.”¹⁴ It also maintains that its ultimate aim is denuclearization through US-DPRK nuclear arms control negotiations.¹⁵ North Korea’s arguments have certainly impeded international efforts to achieve denuclearization of the Korean Peninsula. Furthermore, during the US-ROK joint military exercises that took place two months after the fourth nuclear test in January 2016, North Korea, in a statement issued by the National Defense Commission, openly expressed its will to use the nuclear weapons preemptively.¹⁶ This statement dashed its official position of no-first-use that appeared in the 2013 Nuclear Weapons State Law. In view of above-mentioned points about the evolving nuclear doctrine, North Korea’s nuclear doctrine is associated with a revisionist strategy. It aims at breaking the status quo on the Korean Peninsula and in the Asia-Pacific more broadly.

Modes of North Korea’s Nuclear Deterrence Strategy

Alongside its underground nuclear tests, North Korea has made efforts to expand its nuclear capability. According to the *2014 Defense White Paper* published by the ROK Ministry of National Defense, North Korea holds about forty kilograms of plutonium extracted through reprocessing and continues to operate a uranium-enrichment program. In particular, North Korea has made continued efforts to miniaturize its warheads in order to allow them to be carried by missiles of various ranges.¹⁷ Apparently North Korea’s fifth nuclear test in September 2016 aimed to verify technological feasibility of smaller and lighter warheads. North Korea has made parallel

efforts to improve its delivery systems as well. Since 2014, it has focused on not only extending the maximum range of the ballistic missiles but also increasing their accuracy.¹⁸ It has also made additional efforts to diversify its delivery systems. In 2015 and 2016, it tested its submarine-launched ballistic missile (SLBM) several times and made significant progress. The test-firing conducted in August 2016 is considered a success, and the SLBM is likely to become operational within a year.¹⁹ With the success of a test of the Musudan missile in June 2016, North Korea indicated that this intermediate-range missile is capable of reaching US bases in Guam.²⁰

As its nuclear capability improves, North Korea is also upgrading its deterrence strategy. Normally, nuclear deterrence strategy details how to use the threat involving nuclear weapons (and development of them) on both military and diplomatic fronts—including what are the objects of deterrence, what kinds of attacks should be deterred, how to deploy the weapons, and what are the targets of attack.²¹ In this section, I project the four modes of North Korea’s nuclear deterrence strategy, as shown in table 2.1.

In general, nuclear deterrence seeks to maintain the status quo. Its aim is to persuade the enemy to restrain its military provocation for fear of the disastrous consequences. In this regard, despite the absence of open dialogue, nuclear deterrence is a kind of negotiation between adversaries. The message is that destruction on an unacceptable scale will occur to you if you fail to understand me.²² From 2003 to 2008, North Korea participated in the Six-Party Talks, on the one hand, and it concentrated on strengthening its nuclear weapon program, for which it conducted an underground test in October 2006, on the other. It is noteworthy that North Korea’s stance has moved from maintaining the status quo to breaking it and that

Table 2.1. Four Modes of Nuclear Deterrence Strategy

		Objectives	
		Status quo	Revisionist
Aspects	Military	I. Prevention of preemptive attack (demonstration of assured retaliation)	III. Breaking military balance between Koreas (low-intensity attacks)
	Symbolic, diplomatic	II. Prevention of war (threat of nuclear war)	IV. Nuclear weapon state and peace treaty, arms control (coercing South Korea, change in regional balance)

Note: This table sets out North Korea’s nuclear deterrence strategy but does not include domestic factors of the nuclear advancement, such as regime legitimization and national pride. Also, it does not include the case of actual use of weapons as warfighting instruments, whether for defensive or offensive purposes.

the turning point was the breakdown of the Six-Party Talks in 2008 and Pyongyang's second nuclear test in 2009. Now North Korea regards nuclear deterrence not merely as a means of ensuring national security and the survival of the regime but also as a means of changing the military balance on the Korean Peninsula and of coercing South Korea. North Korea's posture has become more revisionist over time.

Among the four modes presented in table 2.1, both I and II are aimed at maintaining the status quo, or balancing deterrence. North Korea's posture is gradually moving from status quo modes I and II to revisionist modes III and IV. Evidence of this change can be seen in a series of actions: the sinking of the ROK naval vessel *Cheonan* by a North Korean torpedo and the artillery attack on Yeonpyeong Island in 2010, the declaration of nuclear weapon state status in the preamble of the constitution in 2012, the adoption of the Nuclear Weapons State Law in 2013, the continued cyberattacks on South Korean information technology infrastructure, the repeated threats of nuclear war, the argument for nuclear arms control, and the warning of preemptive nuclear attack on South Korea. Unlike in the status quo modes, North Korea with the revisionist modes III and IV tries to escalate threats on South Korea, seeks recognition of its nuclear weapon state status, and openly demands nuclear arms control negotiations, apparently with the United States. This is a serious challenge to stability on the Korean Peninsula and in the Asia-Pacific more broadly. This is so because neither recognition of the North's status by neighboring states (particularly by South Korea and Japan) nor their entrance into nuclear disarmament negotiations is likely to occur before their own nuclear armament. Let us analyze North Korea's deterrence strategy embedded in the four different modes.

Mode I: Prevention of Preemptive Attack (Assured Retaliation)

One of the many objectives of North Korea's nuclear strategy is to deter a preemptive strike by the United States and to retaliate in the event of such an attack. The North Koreans frequently refer to the "Iraq War phenomenon"—that the United States invaded Iraq because Saddam Hussein did not possess nuclear weapons, so nuclear arms are the only effective means of defense. But there are limitations on the ability of small nuclear weapon states such as North Korea to compete with nuclear superpowers such as the United States. North Korea has openly demonstrated its resolve to launch a nuclear war in the event of a US preemptive attack, whereas it is uncertain what kind of retaliation North Korea would take.²³ For the United States, it would be difficult to make a decision on a preemptive attack, as any retaliation by Pyongyang—whether conventional or nuclear or both—might inflict unacceptable damage on South Korea in particular.

Mode II: Prevention of War (Threat of Nuclear War)

Since 2008, North Korea has escalated the threat level, emphasizing that any military conflict could develop into a “nuclear war” or an “all-out nuclear war.”²⁴ In general, threats involve the question of credibility. In the North Korean case, credibility is often questionable. North Korea’s nuclear tests are a typical means of both improving its technological capability and demonstrating the credibility of its threats. Apart from this, North Korea’s threats are often considered to be no more than bluffing.²⁵ But North Korea believes that bluffing does at least attract attention.²⁶ North Korean bluffing leads to speculation of various kinds: For instance, North Korean media’s use of the word “nuclear disaster” set observers wondering whether this was a reference to an attack on nuclear power plants or the threat of a nuclear war.²⁷ (One empirical analysis demonstrates that the power succession in North Korea and the US war with other states were important factors behind Pyongyang’s raising of the threat level.²⁸) Regardless of its credibility, North Korea’s threat is intended not only to prevent a war against itself but also, in the long run, to change the agenda of negotiations—from the denuclearization of North Korea to nuclear arms control as shown in mode IV.

Mode III: Breaking Military Balance between the Two Koreas

As for the impact of nuclear weapons on international relations, there are several competing explanations. For example, Kenneth N. Waltz argues that nuclear weapon states, owing to the destructive power of the weapons themselves, act carefully and moderately, and thus a balance of power emerges between them. In contrast, Scott D. Sagan, who does not view the state as an integrated unit, warns that “imperfect individuals and normal, self-interested organizations” may cause failures in nuclear nonproliferation and increase the chances of a nuclear holocaust. Each of these arguments has its merits in logic, but empirically they are disputable.²⁹

Theoretical discussions and empirical analyses of the stability-instability paradox, particularly in the South Asian case, have some implications for North Korea. The key point of this paradox is that the risk of a nuclear war between nuclear states is low, but low-intensity armed conflicts are highly likely.³⁰ In this case, North Korea’s main target is not the United States with its superior nuclear capability but South Korea, a state that relies on US extended deterrence.³¹ The stability-instability paradox on the Korean Peninsula arises from the vulnerability of the extended deterrence. North Korea’s low-intensity provocations tend to expose the different interests and perceptions of the defender (the United States) and its protégé (South Korea). For many reasons, it is not easy for the defender and its protégé to

take swift and concerted action against low-intensity provocations. For example, there was no retaliation for the infiltration of the South in 1968 by North Korean commandos, who got as far as the environs of the presidential residence, or for the Rangoon bombing of 1983. More recently, South Korea's responses to the sinking of the *Cheonan* in March 2010 and the artillery attack on Yeonpyeong Island in November of that year were minimal, although both of the attacks were no less serious than the North's provocations during the Cold War. North Korea's cyberattacks also have not been properly retaliated. Unlike in the case of military provocations, the North Korean authorities behind the cyberattacks can choose provocation tactics that are easily hidden and free of direct responsibility. This is why North Korea is likely to continue to use cyberattacks as a means of low-intensity provocation.³² What South Korea really fears is that if North Korea's low-intensity provocations are not followed by South Korea's and the United States' concerted punishment, North Korea will see South Korea as a nuclear hostage. With a strategy that may be described as hostage deterrence, North Korea would use its military provocations, backed by its nuclear threat, to extort its gains in the inter-Korean relations—for example, the North's excessive, repeated demands since 2009 for increasing wages at the Gaesong Industrial Complex. After the North's fourth nuclear test in January 2016, South Korea decided to close the complex the following month. In the event of resumption of any inter-Korea economic exchanges, North Korea is likely to exert a more coercive approach than before.

Mode IV: Pursuing Recognition of Nuclear Weapon State Status

North Korea has maintained, even before it carried out its nuclear tests, that the denuclearization of the Korean Peninsula means the withdrawal of the US nuclear umbrella. North Korea reiterated this argument during preparations for the September 19 Joint Statement of the Six-Party Talks in 2005. After its third nuclear test, North Korea formalized this argument by using the term “nuclear arms control negotiations.” The vice foreign minister, Park Gil-yon, presented this term in his speech delivered at the United Nations (UN) in October 2013. In this vein, North Korea reiterated in 2016 that it is not interested in the Six-Party Talks, which had aimed to denuclearize North Korea and the Korean Peninsula. Right after the fifth nuclear test in September, Kim Yong-nam, North Korea's chairman of the Standing Committee of the Supreme People's Assembly, stated that North Korea “will . . . continue to expand and develop international relations in a way that fits its status as a nuclear powerhouse.”³³

For North Korea, nuclear arms control negotiations mean recognition of North Korea's nuclear weapon state status. Thus, both the recognition of

the North as a nuclear weapon state and the ensuing US-DPRK arms control negotiations, if they were to take place, would be a radical shift in the strategic balance in the Asia-Pacific and a catastrophic result for the nonproliferation regime. Inasmuch as the magnitude of the consequences would be great, the two issues are associated with other important questions, such as what should be contained and what should be tolerated as to the North Korean nuclear issue, whether arms control is possible without a US-China agreed framework about the future of the Asia-Pacific, and whether the United States would be willing to give up its strategic advantage in the region in exchange for the elimination of the nuclear threat from North Korea. The more important question is what impact the recognition of North Korea's nuclear weapon state status would have on South Korea and Japan—that is, whether the two US allies would accept it without nuclear armament of themselves.

It is noteworthy that North Korea, while advancing its nuclear capability and intensifying low-intensity provocations, has called for establishing a peace treaty with the United States. North Korea presented the idea right after its artillery attack on Yeonpyeong in 2010, reiterated its call for a treaty in 2015, and repeated it after the fourth nuclear test in 2016. The objective that North Korea wants to obtain here is its status as a nuclear weapon state; North Korea reconfirmed its status of the self-proclaimed nuclear weapon state at the Seventh Congress of the KWP held in May 2016.³⁴ North Korea's call for a peace treaty seems to have two motives. One is a minimalist motive: North Korea perceives the US extended deterrence as the primary source of its insecurity, and thus it wants to eliminate the source of insecurity with the establishment of a US-DPRK peace treaty.³⁵ This motive makes sense, particularly when the international community strengthens the sanctions regime and increasingly puts pressure on Pyongyang. The other is a maximalist motive: North Korea wants to gain more time for the solidification of de facto status of a nuclear weapon state. Once North Korea develops a credible nuclear deterrent, it would not have to worry about the "Iraq War phenomenon," and indeed it would then have the upper hand on the security front and in inter-Korean relations. In this case, North Korea's call for a peace treaty is certainly aimed at achieving a significant change in the status quo in the region.

In addition to the above-mentioned four modes, North Korea may take into account the use of nuclear weapons as warfighting instruments. This consideration would also involve a nuclear war. Because of the asymmetry in nuclear capability between the United States and North Korea, there are two possible ways in which North Korea might become engaged in a nuclear war. One is through the defensive use of nuclear weapons on the inter-Korean border, and the other is through offensive, suicidal use to destroy enemies outside its territory. Regarding the former, North Korea

might use tactical weapons or dirty bombs to defend its territory.³⁶ It might do this if it feared that the enemy's forces were about to enter its territory or when such an incursion was actually in progress. This mode of defensive use assumes that the North Korean authorities remain rational and defensive and that they perceive the situation to be controllable.³⁷ Regarding the latter possibility, this would involve all-out nuclear war, although the chances of this happening are small.³⁸ In this situation, North Korean nuclear and conventional weapons could inflict unacceptable damage on South Korean cities, US bases in South Korea and the Asia-Pacific, and US cities. That is, North Korea as a small nuclear state would go for civilian as well as military targets.

Background of North Korea's Revisionist Strategy: Deciphering the US Security Strategy

Why did North Korea publicly announce that it had a nuclear deterrent in 2003 and adopt the Nuclear Weapons State Law in 2013? North Korea placed the blame for this on the United States, saying that it was a response to the George W. Bush administration's policy of preemptive attack. By calling the Cold War rivals "fearful warriors," Ralph K. White underscored the fallacies that led to the arms race; one of these is the belief that decisive action, rather than inaction, will prevent the worst outcome. He points out that this belief is the product of fear.³⁹ North Korea's announcement must have been based on such a belief: that the pursuit of nuclear deterrence (action) would be its best strategy for preventing a perceived threat of a US attack.

The Nuclear Posture Review (NPR) submitted to the US Congress on December 31, 2001, noted that North Korea had posed threats to the United States and its allies and that the US government needed contingency plans for the use of nuclear weapons.⁴⁰ In his 2002 State of the Union address, President Bush said that North Korea was part of an "axis of evil," and in his address at West Point on June 1, 2002, he strongly suggested the possibility of launching preemptive attacks and preventive wars against terrorists and dictators. These speeches coincided with the preparation by the White House of a US National Security Strategy (NSS) that also included such possibilities. Indeed, the NSS, published on September 20 that year, declared that the United States would seek out terrorist threats in advance and adopt all possible means to destroy them.⁴¹ On September 22, the report was denounced by the official North Korean newspaper, *Nodong Sinmun*, which pointed out that the Bush administration's plans for a preemptive attack in the war on terrorism had been formulated at the Texas Republican Party Convention held on June 14 and that the United States

had adopted a new strategy for dealing with terrorists and preventing the proliferation of weapons of mass destruction (WMDs) among rogue states, which differed from its previous strategy of deterrence. This analysis was quite accurate, and the report must have struck fear in the hearts of the North Korean regime. It is hardly surprising, then, that following the US invasion of Iraq in March 2003, North Korea declared its policy of “nuclear deterrence.” It is obvious that this declaration was a result of fear inspired by the “Iraq War phenomenon” and belief that, in response to the newly evolving US security strategy, action would be better than inaction. In this vein on June 18, 2003, *Nodong Sinmun* argued that North Korea could not accept the United States’ denuclearization demands as Iraq had been invaded precisely because it did not possess deterrent power. A foreign ministry spokesperson, through the Korean Central News Agency, repeated this position on October 2, that nuclear deterrence was the only way to resist the confrontational policy of the United States.

The extent of the fear that Washington’s preemptive-strike policy inspired in the North Koreans can be seen in the way its leader went into hiding at particular times. During the time shortly after March 2003, when the United States launched its attack on Iraq, the North Korean leader at the time, Kim Jong-il, disappeared for forty-nine days. He disappeared again for nine days during the US-ROK joint military exercises from November 28 to December 1, 2010. It is said that Kim was particularly scared of US F-22 stealth aircraft.⁴² Kim’s disappearance can be interpreted as due to fear of a similar US attack on North Korea and the need to prepare military measures in the event of such an attack.

North Korea’s actual provocation—its first nuclear test—took place as the perceived US threat escalated in 2006 with the publication of two documents: the Quadrennial Defense Review (QDR) and the NSS that specifically noted the danger posed by North Korea. On February 6, the QDR raised the idea of “tailored deterrence,” which was supposed to respond to new challenges that would go beyond the capabilities of the previous one-size-fits-all deterrence strategy. Tailored deterrence would be able to deal with diverse threats from advanced military powers, regional WMD states, and nonstate terrorists. The QDR also stated that the issue of Iran’s and North Korea’s nuclear capabilities still posed a serious challenge to global security. In March of that year, the NSS noted that the United States’ most important strategic objective lay in the restoration of human dignity through the realization of democracy in dictatorships such as those in North Korea, Iran, Syria, Cuba, Belarus, Myanmar, and Zimbabwe. The Bush administration’s second-term security strategy, laid out in these two documents, was focused on terrorists and rogue states, and North Korea apparently remained on Washington’s list of targets of a US preemptive attack.

At the end of the Bush administration in January 2008, North Korea started to use the term “nuclear war deterrence.”⁴³ It was a critical year for US-DPRK relations in particular and the Six-Party Talks in general. Concerning the disabling of North Korea’s nuclear reactor in Yongbyon and Pyongyang’s willingness to undergo inspection by the International Atomic Energy Agency (IAEA), differences between the two sides expanded, but none of the states involved in the Six-Party Talks could mediate between them. The multilateral talks showed signs of stumbling. After more twists and turns, North Korea handed over documents detailing its nuclear program to the IAEA on June 26 and destroyed the nuclear reactor’s cooling tower on June 27. In response, the United States removed North Korea from its list of sponsors of terrorism on October 11. Nevertheless, the two sides continued to clash from August through December, particularly over the method of inspection. The United States also raised the issue of the North Korea–Syria nuclear connection, as well as Pyongyang’s uranium-enrichment program. In the end, the dispute between the two sides paralyzed the entire Six-Party Talks at the end of the year. North Korea’s use of the provocative term “nuclear war deterrence” was an ominous sign of the disruption of the multilateral nuclear negotiations.

Shortly before President Obama’s inauguration, North Korea employed coercive diplomacy by expressing its views on the relationship between US-DPRK normalization and its nuclear weapon program. On January 13, 2009, a foreign ministry spokesperson made it clear that the key point would not be “normalization through denuclearization, but denuclearization through normalization.” On the other hand, Obama’s secretary of state, Hillary Clinton, reflected the US position when she said that if North Korea was ready to close its nuclear program, the United States was willing to normalize its relations with its longtime adversary, to sign a peace treaty, and to provide economic assistance.⁴⁴ There was obviously a sharp difference between the two states on the question of the sequence of events: Which one should come first, denuclearization or normalization? This was how things stood when North Korea fired a long-range missile on April 2, calling it a launch for delivering the Gwangmyeongseong satellite, and conducted its second nuclear test on May 25.

It is important to note that although the Obama administration’s security strategy and nuclear policy were basically the same as those of the Bush administration, there were some subtle differences between them. First, Bush emphasized the war on terrorism and the spread of democracy, whereas Obama focused on relations with major powers such as China and Russia, like his Cold War–era predecessors.⁴⁵ Second, Obama prioritized the Asia-Pacific on the diplomatic, economic, and military fronts. China was the main variable. The Obama administration’s emphasis on China was made clear in April 2009 when Washington and Beijing held their first

two-plus-two strategic economic talks, in which the US secretaries of state and the treasury met with their Chinese counterparts. The talks covered a number of international issues including the economy, energy, and WMDs.⁴⁶ The Obama administration's emphasis on the Asia-Pacific and China meant that North Korea was put on the back burner. As Obama's expectations that China would become a responsible world power increased, the more reliant his administration became on China with regard to the issue of North Korea. The United States gave up direct engagement with Pyongyang, as Secretary Clinton implied that the United States was stopping talks with the North and Assistant Secretary of State Kurt Campbell emphasized the importance of US-China cooperation in order to solve the North Korean nuclear issue.⁴⁷

The United States' expectation that China would play an active role with regard to the North Korean nuclear issue has not yielded any tangible outcome. China treads a narrow line between commitment to nonproliferation and propping up the North Korean regime. As Fei-Ling Wang notes in his chapter, China's halfhearted commitment to the denuclearization of North Korea is attributable to its "three-Rs" strategy for coping with the United States, which consists of resisting, reducing, and replacing US influence. North Korea's development of nuclear weapons and its related provocations have challenged China's international role but have not seriously damaged Beijing's core interests. Moreover, the toughening of international sanctions has boosted China's trade with North Korea over the past decade, as it has taken the place of South Korea and Japan. North Korea has apparently exploited the Chinese position and thus, as Scott Snyder notes, made "China a hostage to and enabler of North Korean provocations."⁴⁸ Narang describes this as a "catalytic nuclear strategy" whereby Pyongyang uses the threat of nuclear advancement to catalyze Chinese diplomatic and economic support.⁴⁹

The Obama administration was open to the possibility of using nuclear weapons to protect US national security and particularly stressed the necessity of its extended deterrence against North Korea. Details of Washington's nuclear policy were contained in the NPR that was published on April 6, 2010, which emphasized regional deterrence and extended deterrence based on alliances. Notably, it stated that "the United States will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the NPT and in compliance with their nuclear nonproliferation obligations."⁵⁰ According to this "negative security assurance," North Korea became an exception on the grounds that it had withdrawn from the NPT and declared itself a nuclear weapon state.

After carefully analyzing the US security strategy, particularly the 2010 NPR, North Korea formulated an embryonic form of nuclear doctrine, which was later developed into the 2013 Nuclear Weapons State Law. This

doctrine was laid out in a foreign ministry memorandum of April 21, 2010, titled “The Korean Peninsula and Nuclear Weapons.”⁵¹ Its four main points were that (a) the drawing up of a peace treaty is a confidence-building precondition for denuclearization, (b) North Korea would keep its nuclear deterrent until the denuclearization of the Korean Peninsula and the entire world, (c) North Korea would not use nuclear weapons against a non-nuclear-weapon state unless that state allied with a nuclear weapon state to attack North Korea, and (d) North Korea would participate on an equal basis in the international nonproliferation and denuclearization efforts. The memorandum apparently tried to make North Korea’s status as a nuclear weapon state a *fait accompli*. It was the first time that North Korea had publicly mentioned its conditional policy of no-first-use on nonnuclear states, which was intended to drive a wedge between the United States and South Korea.

The development of North Korea’s nuclear program prompted the United States and South Korea to enhance their military collaboration. At the US-ROK summit held in June 2009, President Obama stressed the need to strengthen the extended deterrence.⁵² From a South Korean perspective, the sinking of the *Cheonan* in March 2010 was an important reason for increasing military cooperation between the two allies. At the Forty-Second Security Consultative Meeting (SCM) held in October 2010, Washington and Seoul agreed to establish the Extended Deterrence Policy Committee, which since March 2011 has been analyzing the threat posed by North Korean WMDs and acting as a channel for sharing information about them.

North Korea’s third nuclear test on February 12, 2013, once again shocked the international community and seriously damaged the prospect of resolving the nuclear issue by diplomatic means.⁵³ In April, North Korea laid out its nuclear doctrine in the Nuclear Weapons State Law. One notable point is that North Korea started insisting on nuclear arms control. The new law stated that North Korea “supports international arms control.” Also, in his keynote speech to the UN General Assembly on October 1, North Korea’s vice foreign minister, Park Gil-yon, proposed “the drafting of a document banning the use of nuclear weapons after nuclear arms control negotiations” with the United States.⁵⁴ It is clear, therefore, that also in terms of arms control, North Korea is trying to break the status quo on the Korean Peninsula and in the Asia-Pacific. As noted earlier, the nuclear arms control negotiations with North Korea would mean recognition of it as a nuclear weapon state, so it is hardly likely that South Korea and Japan would accept the situation.

South Korea and the United States also geared up their military cooperation. They carried out exercises to prepare decision-making procedures for an actual nuclear crisis, and at the Forty-Fifth SCM held in October 2013, the US secretary for defense and the defense minister of the Park

Geun-hye administration (which had come to power in February that year) signed on to the Tailored Deterrence Strategy and accelerated the establishment of a defense system designed to cope with North Korean WMDs: the Kill Chain and the Korean Air and Missile Defense System.⁵⁵ In April 2015, the United States and South Korea established the Deterrence Strategic Committee to counter both North Korean nuclear weapons and ballistic missiles. In response to North Korea's fourth nuclear test in January 2016, the allies have enhanced the level of military cooperation, particularly in their joint exercises. The US-ROK joint military exercise in March, the largest in alliance history, tested Operations Plan 5015, a new strategy that adopted a preemptive strike targeting the top decision maker in Pyongyang. But North Korea conducted its fifth nuclear test in September that year, which produced the yield similar to that of the bombing on Hiroshima. More important, in a much-trumpeted mood, North Korea reiterated its determination to continue the nuclear advancement. All of this is evidence of a vicious circle of military confrontation and the security dilemma on the Korean Peninsula: North Korea's continued fear of insecurity, its strengthening of nuclear deterrence, and its increased low-intensity provocations have in turn led the United States and the ROK to enhance their military cooperation as part of US extended deterrence.

In sum, the origin of North Korea's nuclear doctrine may be found in the Bush administration's war on terrorism and preemptive attack policy. Whereas the end of the Cold War and North Korea's international isolation were behind Pyongyang's clandestine nuclear program, Bush's new security policy made North Korea a "fearful warrior," determined to confront Washington's new security strategy, including preemptive strike, with nuclear deterrence. That is, Washington's new security strategy has produced unintended consequences.⁵⁶ Pyongyang's reading of Washington's security strategy has led it not only to continue to reinforce its nuclear advancement but also to gradually materialize its nuclear doctrine and its revisionist strategy. As much as the North's nuclear capability has increased, its deterrence strategy has become bolder in mode and broader in scope, both on military and diplomatic fronts. North Korea's strategy is certainly evolving and status-quo-breaking but not stabilizing.

Future Challenges

The challenge presented by North Korea's emergence as a nuclear state is not limited to its technological advancement but extends also to its evolving nuclear doctrine and nuclear deterrence strategy—that is, the use of nuclear threat both militarily and diplomatically. First of all, one intended consequence of North Korea's nuclear doctrine is the tension among the three

elements: assured retaliation, conditional no-first-use, and the most recently presented preemptive nuclear attack. Pyongyang insists that the primary source of its insecurity is the US policy of hostility toward North Korea, whereas it tries to drive a wedge between the United States and South Korea and attempts to use the nuclear threat and extort gains from South Korea. This form of deterrence, which I call hostage deterrence, will be continued with low-intensity provocations (both conventional attacks and non-conventional offenses such as cyber operations) against South Korea and coercion in nonmilitary inter-Korean negotiations. As long as nuclear weapons are the core element of North Korea's security strategy, its policy toward South Korea will continue to be a combination of deterrence and coercion.

Second, North Korea's nuclear weapons create a dilemma for the US-ROK alliance. Whereas an alliance relationship presents the protégé, in particular, with a dilemma between entrapment and abandonment, extended deterrence presents the defender with a dilemma concerning its degree of commitment. Overcommitment on the part of the defender may give the protégé a free ride or may conversely provide a risk-taking situation, but weak commitment to the defense of the protégé creates assurance problems. There has been and will continue to be in the future a certain degree of tension, or a dilemma, between the allies concerning how each of them should deal with North Korea's provocations. Continued US resolve and joint US-ROK military exercises are all forms of assurance for South Korea, but they do not imply the enhancement of South Korea's deterrence capability. In order to turn assurance into successful deterrence, the United States is likely to increasingly press South Korea to enhance its own capability within a US-framed missile defense system.

Third, North Korea—perceiving enhanced US-ROK military cooperation (e.g., extended deterrence with nuclear umbrella, joint military exercises, and missile defense cooperation) as an intolerable threat—is likely to deploy its nuclear weapons as warfighting instruments at the field level. This would be an asymmetrical escalation strategy, as Narang has observed in Pakistan today.⁵⁷ Should North Korea adopt this asymmetrical escalation strategy, the resulting decentralization of command and control would put both safety of the weapons and security of the Korean Peninsula at risk. On the other hand, decentralization of command and control would undermine Kim Jong-un's power while at the same time increasing the power of the military.

Fourth, US extended deterrence, if it is limited to the military dimension only, is unable to stop the continued expansion of North Korea's nuclear arsenal and enhancement of its technological progress. Enhanced US-ROK military cooperation alone will hardly be able to counter North Korea's hostage deterrence against South Korea. In these circumstances, US extended deterrence and South Korea's capability to counter North Korea

must regularly reevaluate all things about Pyongyang's nuclear-related moves, such as technological advancement, words and deeds, doctrine and posture, control and command, and diplomatic use.

Conclusion

North Korea's nuclear capability, despite continued advancement, can hardly be compared to that of a nuclear superpower such as the United States. Pyongyang is well aware of this and thus tries to use its nuclear asset to penetrate into the vulnerability of the US extended deterrence. North Korea believes that its nuclear deterrence serves as an equalizer on the grounds that it has apparently reduced the likelihood of a preemptive attack by the United States. But there are dangerous elements in its nuclear deterrence strategy. North Korea is trying to compel its neighbors to recognize it as a nuclear weapon state and thus change the status quo on the Korean Peninsula and in the Asia-Pacific more broadly. At the same time, North Korea is demanding nuclear arms control negotiations. In this regard, North Korea is exercising a "tyranny of the weak," to use Charles Armstrong's term, in which a small power maneuvers to shape the structure of its relations with its neighbors.⁵⁸ It is noteworthy that the recognition of North Korea's status and the nuclear arms control negotiations are closely linked to each other; South Korea and Japan would hardly accept the situation. North Korea's above-mentioned demands are related to such pressing questions as what needs to be contained and what can be tolerated with regard to North Korea's nuclear weapons and how to build an international consensus (specifically, cooperation between the United States and China), what would be an alternative to US extended deterrence over South Korea and Japan, and whether the United States is ready to relinquish its strategic advantage in the region.

What is most important for the international community is preventive diplomacy and engagement, as well as deterrence, to create an environment in which North Korea will feel able to talk with its neighbors about reducing threats and tension. Deterrence is essential in the nearer term, but deterrence per se is not going to stop North Korea's nuclear advancement and nuclear threat. The international community should explore an innovative sequential peace process, including an eventual peace treaty that North Korea has long demanded. For North Korea also, nuclear deterrence provides no guarantee of security but simply exacerbates the existing security dilemma. North Korea's nuclear advancement and nuclear threat would not contribute to the survival of the Kim Jong-un regime. Given the increasing pressure under the international sanctions regime, the draining of scare resources not only delays its nuclear ambition but also is likely to arouse public discontent on the existing regime centered on Kim.

Notes

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1. "North Korea Able to Miniaturize Nukes: DOD Intel Arm," *NTI*, April 12, 2013; Ministry of National Defense, ROK, *2014 Defense White Paper* (Seoul: Ministry of National Defense, 2014), 12; Anna Fifield, "North Korea Says It Has Technology to Make Mini-nuclear Weapons," *Washington Post*, May 20, 2015, https://www.washingtonpost.com/world/pyongyang-says-it-has-technology-to-make-small-submarined-mounted-nuclear-warheads/2015/05/20/0e96d0bc-fec0-11e4-833c-a2de05b6b2a4_story.html; "N. Korea Conducts 5th Nuclear Test," *Yonhap News*, September, 2016, <http://english.yonhapnews.co.kr/northkorea/2016/09/09/0401000000AEN20160909002556315.html>.

2. See Timothy W. Crawford, "The Endurance of Extended Deterrence: Continuity, Change, and Complexity in Theory and Policy," in *Complex Deterrence: Strategy in the Global Age*, ed. T. V. Paul, Patrick M. Morgan, and James J. Wirtz (Chicago: University of Chicago Press, 2009), 279.

3. For the notion of great equalizer, see T. V. Paul, "Great Equalizers or Agents of Chaos? Weapons of Mass Destruction and the Emerging International Order," in *International Order and the Future of World Politics*, ed. T. V. Paul and John A. Hall (Cambridge: Cambridge University Press, 1999): 373-92.

4. Korean Central News Agency (KCNA), "Choseon oemuseong 8gaeguk sunoeja-howewi seoneone choseonmunjega pohamdeonde dehayeo" [Spokesperson for DPRK Foreign Ministry on Declaration Adopted at G8 Summit], June 6, 2003.

5. KCNA, "Urieui haek eokjeryeokeun gyeolko wihyeopsudani anida" [Our nuclear deterrent is not a means of threat], June 9, 2003.

6. KCNA, "Choseon jeongbu seongmyeong: Haekmugi jeonpa bangji joyakeso taltoe" [The DPRK Government Statement: Withdrawal from the Nuclear Nonproliferation Treaty], January 10, 2003.

7. This assertion was ostensibly intended to avoid international condemnations. For instance, after the United Nations Security Council's presidential statement of strong denouncement of North Korea's rocket launch on April 13, 2012, North Korea's foreign ministry spokesperson countered it by saying on May 6 at the KCNA that the statement infringed "the DPRK's sovereignty and its rights of peaceful use of space and nuclear."

8. KCNA, "Jawijeok haek boyugukeui jiwireul deouk gonggohi halte daehan beop chaetaek" [The adoption of the law on consolidating the status of a self-defensive nuclear weapons], April 1, 2013.

9. For example, at the KWP delegates' meeting in September 2010, all posts in important organizations such as the Politburo, the Central Military Commission, and the Central Committee were filled. This meeting was the largest meeting after the Sixth KWP Congress in 1980; the restructuring of the KWP was intended to position Kim Jong-un as the power successor of Kim Jong-il, whose health was failing. See Ruediger Frank, "Power Restructuring in North Korea: Anointing Kim Jong Il's Successor," *Asia-Pacific Journal*, 42-2-10, October 18, 2010.

10. Scott D. Sagan, *The Limits of Safety: Organizations, Accidents, and Nuclear Weapons* (Princeton, NJ: Princeton University Press, 1993); Vipin Narang, "Posturing for

Peace? Pakistan's Nuclear Postures and South Asian Stability," *International Security* 34, no. 3 (Winter 2009–10): 38–78; Michael Krepon and Julia Thompson, "Introduction," in *Deterrence Stability and Escalation Control in South Asia*, ed. Michael Krepon and Julia Thompson (Washington, DC: Stimson Center, 2013), 9–19.

11. Christopher Clary and Vipin Narang, "Doctrine, Capabilities, and (In)Stability in South Asia," in Krepon and Thompson, *Deterrence Stability and Escalation Control*, 93–106.

12. Ha-young Choi and John Grisafi, "North Korea's Nuclear Force Reshuffles Its Politics, Economy," NK News, February 11, 2016, <https://www.nknews.org/2016/02/north-koreas-nuclear-force-reshuffles-its-politics-economy/>.

13. In addition, a nuclear weapon state cannot guarantee no-first-use, in reality. For example, the Indian posture of assured retaliation and no-first-use is a myth; any conflict of conventional weapons may escalate to a use-it-or-lose-it situation that might dictate first use. Vipin Narang, "Five Myths about India's Nuclear Doctrine," *Washington Quarterly* 36 (Summer 2013): 143–57.

14. *Nodong Sinmun*, "Urineun geu eoteon yangbona tahyeopto morunda" [We do not know any concession or compromise], June 16, 2014; KCNA, "Choseon minjujueui imin gonghwaguk gukbangwiwonhoe daebyeonin seongmyeong" [The statement issued by the spokesperson of the National Defense Commission of the DPRK], April 28, 2014.

15. *Nodong Sinmun*, "Kim Jong-un dongjikeso choseonnodongdang chunagang-wiwonhoe 2013nyon 3wol jonwonhoeuiso hasin bogo," [Comrade Kim Jong-un's report delivered at the Korean Workers' Party Central Committee held in March 2013], April 2, 2013.

16. KCNA, "Choseon minjujueui imin gonghwaguk gukbangwiwonhoe seongmyeong" [The statement of the National Defense Commission of the DPRK], March 7, 2016.

17. There are various types of missiles: Scud-C (range of five hundred kilometers, covering most of the Korean Peninsula), Nodong (range of thirteen hundred kilometers, reaching Japanese territory except for Hokkaido), Musudan (range of over three thousand kilometers, reaching most parts of China, the Russian Far East, and Guam), and intercontinental ballistic missiles such as Taepodong-2 (up to ten thousand kilometers, reaching Alaska and Los Angeles). Ministry of National Defense, ROK, *2014 Defense White Paper* (Seoul: Ministry of National Defense, 2014), 28–29.

18. KCNA, "Uriuei jeongjeongdangdanghan jawiryek ganghwa jochie hamburo dojeonhaji malayahanda" [Do not challenge our legitimate measure of strengthening the self-defense], National Defense Commission Spokesperson's Statement, May 20, 2015; Lee Choongeun, "Bukhaneui haektandu sohyeonghwa, hyeondaehwa gisulgaebal geongrowa sujun" [North Korean path and level of technological progress on miniaturizing and modernizing nuclear warheads], paper presented at North Korean Studies Association meeting in spring 2015.

19. "N. Korea May Deploy SLBM within a Year," *Korea Times*, August 25, 2016, http://koreatimes.co.kr/www/news/nation/2016/08/113_212733.html.

20. "North Korea Carries Out Two Banned Mid-range 'Musudan Ballistic' Missile Tests," *Telegraph*, June 22, 2016, <http://www.telegraph.co.uk/news/2016/06/21/north-korea-test-fires-musudan-ballistic-missile/>.

21. For the diplomatic aspect of the nuclear weapons, particularly their impact on bargaining, see Erik Gartzke and Dong-Joon Jo, "Bargaining, Nuclear Proliferation, and Interstate Disputes," *Journal of Conflict Resolution* 53 (April 2009): 209–33.

22. For the definition of deterrence in general, see Alexander L. George and Richard Smoke, *Deterrence in American Foreign Policy: Theory and Practice* (New York: Columbia University Press, 1974), 11; Patrick M. Morgan, *Deterrence Now* (Cambridge: Cambridge University Press, 2003), 1–3; Lawrence Freedman, *Deterrence* (Cambridge: Polity, 2004), 110; and Derek D. Smith, *Deterring America: Rogue States and the Proliferation of Weapons of Mass Destruction* (Cambridge: Cambridge University Press, 2006), 17.

23. Patrick M. Morgan, “Deterrence and System Management: The Case of North Korea,” *Conflict Management and Peace Science* 23 (2006): 121–38; Carmel Davis, “An Introduction to Nuclear Strategy and Small Nuclear Powers: Using North Korea as a Case,” *Defence Studies* 9 (March 2009): 104.

24. KCNA, “Urieui joneongwa cheje, byeongjinroseone gamhi dojonhaneun jadreul jeoldaero yongnapchi aneul geosida” [We do not tolerate those who dare to challenge our esteemed leadership, regime, and parallel development policy], April 27, 2014.

25. One empirical study shows that when it provokes, North Korea does not escalate the threat of a nuclear war. This is so because under the asymmetry of the nuclear capability, North Korea seems to believe that continued nuclear threat even after the provocation might invite strong resistance from adversaries both diplomatically or militarily. Timothy S. Rich, “Deciphering North Korea’s Nuclear Rhetoric: An Automated Content Analysis of KCNA News,” *Asian Affairs: An American Review* 39 (2012): 73–89.

26. Davis, “Nuclear Strategy and Small Nuclear Powers,” 112–13.

27. KCNA, “Choseon minjujuui inmin gonghwaguk gukbangwiwonhoe daebyeonin seongmyong” [DPRK National Defense Commission spokesperson’s statement], April 28, 2014.

28. Hong-Cheol Kim, “How to Deter North Korea’s Military Provocations,” *Korean Journal of International Studies* 10 (June 2012): 63–93.

29. Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: An Enduring Debate*, 3rd ed. (New York: Norton, 2013), 200–201; Kenneth N. Waltz, “Why Iran Should Get the Bomb: Nuclear Balancing Would Mean Stability,” *Foreign Affairs* 91 (2012): 2–5.

30. Glenn Snyder, *Deterrence and Defense: Toward a Theory of National Security* (Princeton, NJ: Princeton University Press, 1961); Glenn Snyder, “The Balance of Power and the Balance of Terror,” in *The Balance of Power*, ed. Paul Seabury (San Francisco: Chandler, 1965); Robert Rauchhaus, “Evaluating the Nuclear Peace Hypothesis: A Quantitative Approach,” *Journal of Conflict Resolution* 53 (2009): 258–77; Davis, “Nuclear Strategy and Small Nuclear Powers,” 115.

31. Indeed, the inter-Korean relationship has become asymmetrical; the South is not fully prepared for the threats posed by nuclear weapons, biochemical weapons, and ballistic missiles. Park Hwee-Rhak, “Bukhanui bidaechingwihyope daehan hangukui gunsajok daeungjollyak” [South Korea’s military strategy to cope with North Korea’s asymmetrical strategy] *Jollyak Yongu* 57 (2013): 273–307; Ham Young-pil, “Bukhaneui haekgaebalgwa hanbando jeonjaengyangsangeui byonhwa” [North Korea’s nuclear weapons development and changes in the mode of war on the Korean Peninsula], *Haebyeongdae Sosik* (June 2013): 100–19.

32. Brandon Valeriano and Ryan C. Maness, *Cyber War versus Cyber Realities: Cyber Conflict in the International System* (Oxford: Oxford University Press, 2015), 73.

33. “Stronger Sanctions Necessary against N. Korea: Foreign Minister,” Yonhap News, September 10, 2016, <http://english.yonhapnews.co.kr/news/2016/09/10/0200000000AEN20160910001755315.html>.

34. “N. Korea Expected to Conduct Another Nuke Test ‘Sooner or Later’: Think Tank,” *Korea Herald*, May 26, 2016.
35. “Siron: Byeonwareul geojelhan jeonggwoneui mallo” [Comment on the current event: The final fate of the regime that refused changes], *Choseon Sinbo*, May 12, 2014.
36. Eom Sang-yoon, *Bukhaneui haekmujanggwa hangukeui anbo-jeongchi-gyeong-jejeok wihyeop* [North Korea’s nuclear armament and its threat to South Korea’s security, economy, and politics], (Seoul: Sejong Institute, 2014), 16–18.
37. For details on the notion of controllable crisis, refer to Michael D. Cohen’s chapter.
38. Ham Hyoung-pil, “Bukhaneui haekgaebalgwa hanbando jeonjaengyangsangeui byonhwa” [North Korea’s nuclear weapons development and changes in the mode of war on the Korean Peninsula], 110–14; Ham Hyoung-pil, “Bukhaneui gunsawihyeop byeonhwa: Haekneungnyeok baljeongwa haekunyong jeollyak” [Changes in North Korean military threats: Development of nuclear capability and its operation strategy], in *Hangukeui anbowa gukbang* [Security and defense of Korea], ed. Park Chang-kwoun et al. (Seoul: KIDA, 2014), 194; Park Chang-kwoun, “Bukhaneui haekunyong jeollyakgwa hangukeui daebuk haekeokje jeollyak” [North Korea’s nuclear operation strategy and South Korea’s deterrence strategy], Korean Association of International Studies 2014 Conference Proceedings, 97–98.
39. See Ralph K. White, *Fearful Warriors: A Psychological Profile of U.S.-Soviet Relations* (New York: Free Press, 1984).
40. “Nuclear Posture Review” (excerpts), January 8, 2002, http://www.imi-online.de/download/Nuclear_Posture_Review.pdf.
41. White House, *The National Security Strategy of the United States of America* (Washington, DC: White House, September 2002), 6.
42. For Kim’s hiding, see “Kim Jong-il, F-22 stealth gongpo, 9ilgan bunkere kokkok sumeota” [Kim Jong-il had F-22 stealth phobia], *JoongAng Daily*, January 2, 2011, <http://nk.joins.com/news/view.asp?aid=4539814>.
43. Yonhap News, “North Korea to Bolster War Deterrence,” cited from BBC Morning Asia Pacific, January 4, 2008.
44. Cho Min and Kim Jin-ha, *Bukhaek ilchi: 1955–2009* [Chronology of the North Korean nuclear issue, 1955–2009] (Seoul: KINU, 2009), 78.
45. Daniel W. Drezner, “Does Obama Have a Grand Strategy? Why We Need Doctrines in Uncertain Times,” *Foreign Affairs* 90 (2011): 57–68.
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47. Hillary R. Clinton, “Remarks with Japanese Foreign Minister Seiji Maehara and South Korean Foreign Minister Kim Sung-hwan,” Washington, DC, December 6, 2010; Kurt Campbell, “U.S. Policy toward North Korea, Remarks at Senate Foreign Relations Committee,” Capitol Hill, Washington, DC, March 1, 2011, http://seoul.usembassy.gov/p_rok_1206sk.html; <http://www.state.gov/p/eap/rls/rm/2011/03/157472.htm>.
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49. Vipin Narang, "Nuclear Strategies of Emerging Nuclear Powers: North Korea and Iran," *Washington Quarterly* 38 (Spring 2015): 73–91.
50. US Department of Defense, *Nuclear Posture Review Report*, April 2010, 15, 18.
51. KCNA, April 21, 2010.
52. In a similar vein, Kim Tae-hyo uses the term "proactive deterrence." "Game Changer: North Korea under the Obama-Lee Partnership and Beyond," *Korea Observer* 44 (Summer 2013): 289–314.
53. Particularly for the South Korean attitude, see Myoung-kyu Park, Philo Kim, Young-hoon Song, Yong-seok Chang, and Eun-mee Chung, *2013 Tongil euisikjosa* [2013 public opinion survey on the unification issues] (Seoul: Seoul National University Institute for Peace and Unification, 2013), 67–68.
54. "Buk Park Gil-yon, Miguke haekgunchuk hyeopsang jeeui" [North Korea's Park Gil-yon proposed nuclear arms talks], *JoongAng Daily*, October 3, 2013, http://article.joins.com/news/article/article.asp?total_id=12754306&cloc=olinklarticle default.
55. Ministry of Foreign Affairs, Republic of Korea, "Migukeui daehan bangwigong-yak, hwakjangeokje" [The US extended deterrence for South Korea], http://www.mofa.go.kr/trade/areaissue/noramerica/nuclear/index.jsp?menu=m_30_30_30&tabmenu=t_4.
56. Terence Roehrig, *From Deterrence to Engagement: The U.S. Defense Commitment to South Korea* (Lanham, MD: Lexington, 2006), 26.
57. Narang, "Nuclear Strategies of Emerging Nuclear Powers," 84–85. Narang maintains that North Korea would adopt the asymmetrical escalation strategy in the event of China's abandonment of Pyongyang. However, in view of North Korea's swing diplomacy between China and the Soviet Union during the Cold War, Pyongyang may choose to approach Russia as an alternative patron in the event of China's abandonment.
58. Charles K. Armstrong, *Tyranny of the Weak: North Korea and the World, 1950–1992* (Ithaca, NY: Cornell University Press, 2013).