



Preventing North Korea's Nuclear Breakout

By Robert S. Litwak

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Updated Edition

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Cover: Rockets are carried by military vehicles during a military parade to celebrate the centenary of the birth of North Korea's founder Kim Il-sung in Pyongyang
Source: Reuters

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Preface and Acknowledgments

This edition of *Preventing North Korea's Nuclear Breakout* includes an updated Executive Summary section that incorporates subsequent developments since its initial publication in February 2017 at the advent of the Trump administration. This monograph draws on my previous analysis of North Korea's nuclear challenge in *Outlier States: American Strategies to Change, Contain, or Engage Regimes*, published in 2012, which was the third in a series of books on the normative challenge to international order posed by "rogue states."

North Korea became a nuclear-weapon state in 2006, but now, little more than a decade later, it is on the verge of a strategic breakout. The North's ability to miniaturize nuclear warheads and mount them on intercontinental ballistic missiles is a game changer for the United States. The Trump administration assumed office having made the avowed commitment to block North Korea's crossing of this important threshold—the ability to strike the U.S. homeland with a nuclear weapon. This study assesses the available U.S. policy options, including the use of military power, and makes the case for a pivot to diplomacy through a strategy of "coercive engagement" to achieve a realistic objective. As the Trump administration assumed office after the 2016 election, a new conjunction of factors offered a plausible opportunity to freeze North Korean capabilities at their current level to prevent a breakout. That central argument still holds and should be put to the political test with the inauguration of a new diplomatic track following the June 2018 summit meeting between President Donald Trump and North Korea's "supreme leader" Kim Jong-un.

Left: An underwater test-firing of a strategic submarine ballistic missile is seen in this undated photo released by North Korea's Korean Central News Agency (KCNA) on April 24, 2016
Source: Reuters

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The views expressed here are my own.

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Executive Summary - 2018 Update

The summit meeting between President Donald Trump and North Korean “Supreme Leader” Kim Jong-un in Singapore on June 12, 2018, was long on atmospherics and short on detail. The meeting yielded a joint statement in which North Korea pledged its commitment to “denuclearization” of the Korean peninsula, which tracked previous affirmations made by the Kim family regime dating back to 1992. The major outcome of the meeting was to change the psychology of the nuclear crisis with North Korea as the initiation of a diplomatic track pushed off consideration of a U.S. military option, which had received heightened attention in 2017.

When the Trump administration entered office, North Korea was on the verge of a strategic breakout—*quantitatively* (by ramping up its warhead numbers) and *qualitatively* (through mastery of warhead miniaturization and long-range ballistic missiles)—that directly threatened the U.S. homeland. Unclassified projections of North Korea’s nuclear arsenal by 2020 range from 20 to 100 warheads. North Korea crossed the nuclear weapons threshold in 2006 and posed a direct threat to South Korea and Japan. The new factor, which precipitated the current crisis with North Korea, is American vulnerability to nuclear attack. President Trump tweeted, “It won’t happen”—that the United States would not permit North Korea to acquire this capability.

A Third North Korean Nuclear Crisis

The United States is now embroiled in its *third* nuclear crisis with North Korea in 25 years. The first, in 1994, led to the signing of the bilateral “Agreed Framework,” which froze

plutonium production at North Korea's Yongbyon nuclear facility. The second, in 2002, arose from evidence that North Korea was developing a covert uranium enrichment program as an alternative pathway to a nuclear weapon. That crisis led to U.S. abrogation of the Agreed Framework, whereupon North Korea gained renewed access to its stockpile of plutonium that provided the fissile material for the North's initial six to eight weapons in its nuclear arsenal.

The nuclear issue is embedded in the broader question of North Korea's societal evolution. The dilemma is that the Democratic People's Republic of Korea (DPRK) strategic and social timelines are not in sync: the nuclear challenge is immediate and urgent, while prospects for regime change are indeterminate.

U.S. policy should not be based on the assumption of regime collapse. The George W. Bush administration's strategy was premised on the assessment that the Kim Jong-il regime was "teetering." That assumption underlay the administration's decision to abrogate the 1994 U.S.-DPRK Agreed Framework, which had resolved the first nuclear crisis of the early 1990s by freezing a plutonium program of *known* scope and *known* urgency in order to confront Pyongyang over a covert uranium enrichment program of *unknown* scope and *unknown* urgency. The Bush administration never clarified whether the U.S. objective was regime change or behavior change in this "rogue state."

The Obama administration, dropping the "rogue" rubric and referring to North Korea as an "outlier" state, offered Pyongyang a structured choice: comply with international nonproliferation norms or face diplomatic isolation and punitive measures. Kim Jong-un, who had dynastically succeeded his father, Kim Jong-il in 2011 rejected the administration's outreach and renewed the North's nuclear weapon and ballistic missile tests. In response to North Korean provocations, the Obama administration adopted a stance of "strategic patience." But that policy essentially resulted in acquiescence, as North Korea built up its nuclear arsenal, made substantial progress miniaturizing warheads, and acquired intercontinental ballistic missile

capability. In response, the UN and United States imposed still stricter sanctions on the Kim regime.

Throughout the nuclear crises with the Kim family regime, China, which aspires to be the primary security actor in East Asia, has sought to reconcile its conflicting strategic interests on the Korean peninsula: it favors a stable DPRK, as regime collapse would precipitate a refugee crisis in northern China and create a unified Korea allied with the United States; but it also wants to prevent a North Korean strategic breakout that would have adverse consequences for China, such as U.S. deployment of the Terminal High Altitude Area Defense (THAAD) system to the Republic of Korea.

North Korea regards nuclear weapons both as a deterrent vital to regime survival and as a bargaining chip to extract economic concessions from the United States, South Korea, and Japan. After the NATO intervention in Libya in 2011, North Korea said that Qaddafi had been “tricked into disarmament” in 2003 through U.S. assurance of regime security. In addition to their deterrent value, nuclear weapons are the one asset the Kim family regime can monetize. Unlike oil-rich Iran, which sought resolution of its nuclear dispute to regain access to international energy markets, North Korea has no other marketable commodity. And because the regime fears the risk of political contagion through integration into the global economy, it has pursued an autarkic economic strategy, which has left the country impoverished. With a GDP estimated by the CIA at a paltry \$40 billion (compared to South Korea’s \$1.5 trillion), North Korea is essentially a failed state with nuclear weapons.

2017: Escalating Tensions

In 2017, the crisis with North Korea sharply escalated. The escalation was undergirded by inflammatory rhetoric, as Pyongyang and Washington traded personal epithets. Trump, who had been warned by the CIA not to personalize the crisis with the North Korean dictator ruling a family cult, referred

to Kim Jong-un as a “madman” and “little rocket man,” while North Korean state media called the U.S. President a “dotard.” In tandem with this rhetorical escalation was an accelerated tempo of North Korean testing in 2017—23 ballistic missile launches and a high-yield nuclear detonation, which Pyongyang claimed was a hydrogen bomb. North Korea’s program, which had been determined and incremental over the years, assumed new urgency. Acquiring the ability to target the U.S. homeland with a nuclear weapon became Kim Jong-un’s Manhattan Project. President Trump’s reaction was to engage in saber-rattling, warning that the United States would respond to North Korean provocations with “fire and fury like the world has never seen.”

To prevent a North Korean nuclear breakout, President Trump has the same three options available to his predecessors: deter, bomb, or negotiate. Senior administration officials discounted the option of living with a nuclear North Korea—that is, deterring its nuclear capability through the threat of a devastating U.S. counter-response—because of the character of the North Korean regime. The President revived the term “rogue” state to describe North Korea, which carried the connotation of an irrational, essentially crazy, state that was undeterrable.



United States-North Korea bilateral meeting in Singapore on June 12, 2018
Source: Dan Scavino Jr. [Public domain], via Wikimedia Commons

In response to the North Korean missile and nuclear tests, the Trump administration ramped up economic sanctions through a policy of “maximum pressure.” In the absence of a diplomatic track, and having declared that the administration was unwilling to rely on deterrence, it also reaffirmed that the military option—bombing North Korea’s nuclear infrastructure and missile testing sites—remained on the table. But the military option, considered and rejected by Clinton administration during the first nuclear crisis in 1994, continues to carry the catastrophic risk that even a limited strike to address North Korea’s nuclear threat would likely escalate into a general war on the Korean peninsula.

Prospects after the Singapore Summit

Two narratives, not mutually exclusive, explain North Korea’s pivot to diplomacy, initially with South Korea and then with the United States, in 2018. The first is that the Trump policy of “maximum pressure,” which resulted in a contraction of the North Korean economy, had brought the Kim regime to the negotiating table. A second narrative is that North Korea had completed an ambitious round of nuclear and missile tests in 2017 and, pocketing those gains, was open to dialogue. The summit also offered a propaganda coup, which burnished Kim’s reputation at home, through images broadcast globally of North Korea’s “Supreme Leader” engaged in one-on-one negotiations with the leader of a superpower.

On the American side, the one-day summit generated a mixed message. While President Trump claimed that the June 2018 summit meeting had “largely solved” the North Korean nuclear crisis, U.S. officials conceded that it marked the start of a phased, long-term diplomatic process. Two months after the summit, National Security Advisor John Bolton acknowledged that North Korea has “not taken the steps we feel are necessary to denuclearize” and stated that U.S. economic sanctions would remain in place until Pyongyang started that process.

But North Korea and the United States have contending definitions of denuclearization—and the developments in the northeast Asian region that would be necessary to achieve that state. For North Korea, denuclearization would essentially entail the end of the U.S. nuclear umbrella for South Korea and Japan, as well as the end of the bilateral security agreement between Washington and Seoul. Given those maximalist conditions, the realistic near-term objective for nuclear diplomacy is to constrain, not eliminate, North Korea’s capabilities. In short, the objective is *arms control*, not *disarmament*. Indeed, given the U.S.-led takedowns of the Saddam Hussein and Qaddafi regimes, zero nuclear warheads will not be on the table as long as the Kim family rules in Pyongyang. Kim Jong-un continues to value its nuclear deterrent as essential for regime survival—and an asset to monetize through negotiations with the United States and South Korea.

When zero is not on the table, 20 warheads are better than 100. The near-term diplomatic objective should be to prevent North Korea’s quantitative and qualitative breakout by negotiating a freeze on North Korea’s nuclear and missile programs. Siegfried Hecker, former Director of the Los Alamos National Laboratory, calls these goals the “Three No’s”: (1) no new weapons (freezing North Korean production of plutonium and enriched uranium); (2) no testing of weapons or ballistic missiles; and (3) no exports of nuclear technology or weapons. A freeze would preclude the additional testing that North Korea still needs to master warhead miniaturization, reliable long-range missiles, and warhead reentry and guidance (a capability North Korea has yet to demonstrate).

The initiation of a diplomatic track after the Singapore summit creates an opportunity to achieve a freeze agreement—one that, in the near term, *optimizes* the interests among all the major parties. Such an interim agreement would forestall a North Korean nuclear breakout and reaffirm the goal of long-term denuclearization (the urgent U.S. interest) while preventing

the collapse of the North Korean regime and the loss of a buffer state (the Chinese interest) and leaving the Kim family regime in power with a minimum nuclear deterrent (the paramount North Korean interest). An interim agreement that constrained North Korea's capabilities would make the best of a bad situation. The American narrative would be that a freeze agreement is an incremental step toward the long-term goal of denuclearization.

The U.S. and China have a mutual interest in preventing a North Korean strategic breakout. This conjunction of interest creates the political space for coordinated diplomacy to freeze North Korean capabilities. But that prospect is complicated by Sino-American tensions over trade and China's assertive sovereignty claims in the South China Sea. The best argument is an appeal to China's self-interest—that a North Korean nuclear breakout would have adverse consequences for Chinese strategic interests in northeast Asia as Japan, South Korea, and the United States respond.

With the Singapore summit, the sense of imminent crisis has abated and both China and South Korea have made clear that the period of "maximum pressure" is over. This study argues for "coercive engagement" to induce or compel North Korean acceptance of constraints on its nuclear program. The decline of multilateral support for economic sanctions in the wake of Singapore undercuts that strategy.

The sanguine rhetoric of Singapore has given way to the hard reality of negotiating constraints on North Korea's ballistic missile and nuclear programs. The Kim regime reportedly rejected a U.S. proposal for North Korea to immediately reduce its nuclear stockpile by 60-70 percent. North Korea's history gives new meaning to the traditional arms control challenge of "trust but verify." The Kim family regime excels at dilatory tactics and will exploit any ambiguity in an agreement. A telling indicator of the current challenge is that after North Korea signed onto the Nuclear Non-Proliferation Treaty, in 1985, the Pyongyang regime didn't declare its nuclear materials to be put

under International Atomic Energy Agency safeguards for more than six years. North Korea is currently balking at an essential prerequisite for negotiations—a declaration of its nuclear and missile facilities (including a suspected covert uranium-enrichment site). The North Koreans evidently believe that providing such a declaration would essentially be providing the United States with a target list should negotiations fail.

Nevertheless, the impact of Singapore is palpable in both strategic and psychological dimensions. One manifestation of how the summit meeting changed the psychology of the nuclear crisis was Trump’s characterization of Kim. Before the summit, the imputation of irrationality was a driver of consideration of the military option. After the Singapore summit, Trump declared that he and Kim “have developed a very special bond” and that he can “trust” the North Korean dictator. The message was essentially that he now regarded North Korea as a conventional adversary rather than a “rogue” state ruled by a “madman.” Should nuclear diplomacy stall or fail, this change in perception makes it more acceptable to consider the strategic option that the Trump administration has hitherto rejected—deterrence.

The third nuclear crisis with North Korea is shaped by the outcome of the previous two crises. Incredibly, North Korea has a nuclear arsenal which could expand to almost half the size of the United Kingdom’s by 2020. A near-term full rollback of the North’s nuclear and missile capabilities is not a realistic possibility. A freeze agreement constraining those capabilities—that is, bending the curve—is what the newly initiated round of diplomacy might aim to achieve. Such an agreement would buy time—one of the major goals of nonproliferation policy—and allow the indeterminate timeline for a change or evolution of the regime in Pyongyang to play out.



CHINA

A satellite night-time photograph of East Asia. The image shows the Korean Peninsula and parts of northern China. The Korean Peninsula is brightly lit with yellow and white lights, indicating a high density of urban areas. The surrounding landmasses are mostly dark, with some scattered lights. The sea is a deep blue. Labels in white capital letters identify 'CHINA' in the upper left, 'NORTH KOREA' in the upper center, 'PYONGYANG' on the western coast of North Korea, 'SEOUL' in the southern part of the peninsula, and 'SOUTH KOREA' in the lower right.

NORTH
KOREA

PYONGYANG

SEOUL

SOUTH
KOREA

Introduction

In March 2016, Pyongyang’s version of YouTube featured a computer-animated video complete with an ominous soundtrack depicting a nuclear strike on Washington delivered via a North Korean intercontinental ballistic missile (ICBM). Over that calendar year, North Korea conducted two nuclear-weapon tests and some two dozen missile launches—an unprecedented tempo of activity that tangibly signaled Pyongyang’s intention to turn its saber-rattling propaganda into a credible threat. In a defiant New Year’s speech ushering in 2017, North Korean dictator Kim Jong-un boasted about the country’s nuclear advances and alerted the world that a new ICBM was being readied for a test. Then President-elect Donald Trump responded two days later with a dismissive tweet—“It won’t happen!”—while not specifying how the incoming administration would deny North Korea these threatening capabilities.

The Democratic People’s Republic of Korea (DPRK) is a failed state with nuclear weapons. Because of chronic energy shortages, North Korea’s lights are literally out, with nighttime satellite imagery of the Korean peninsula revealing only a flicker of illumination emanating from Pyongyang. Its estimated GDP of \$40 billion is equivalent to that of a single small U.S. city (Dayton, Ohio) and is dwarfed by South Korea’s \$1.4 trillion. North Korea’s impoverishment stands in shocking juxtaposition to its nuclear arsenal that, according to a high-end projection, could grow to half the size of Great Britain’s by 2020. Indeed, the DPRK is on the verge of a strategic breakout—*quantitatively* (by ramping up its warhead numbers) and *qualitatively* (through

Left: Satellite view of Korean peninsula at night. The only dot of light in North Korea is the capital, Pyongyang. Source: NASA

mastery of warhead miniaturization and long-range ballistic missiles). North Korea's ability to directly strike the U.S. homeland with a nuclear-tipped ballistic missile would be a strategic game changer for the United States.

North Korea became the ninth member of the nuclear club when the Kim family regime tested a weapon in 2006. The United States professes a *general* interest in promoting nuclear nonproliferation, but in practice, Washington's focus is *specific*—on adversarial proliferators that combine capabilities with hostile intent. With reason, North Korea's nuclear program gets more attention than Israel's. Moreover, unlike Israel, Pakistan, and India—nuclear-weapon states that exercised their sovereign right not to join the Nuclear Non-Proliferation Treaty (NPT)—North Korea (and Iran) signed that bedrock treaty and systematically cheated from within it.

The United States now faces its *third* nuclear crisis with North Korea in 25 years. The *first* occurred in 1994 when North Korea was poised to separate plutonium, enough for several weapons, from spent fuel rods at its small nuclear reactor provided by the Soviet Union. A break in the crisis, which unexpectedly resulted from a meeting in Pyongyang between former President Jimmy Carter and North Korean leader Kim Il-sung, led to the signing of the Agreed Framework in October 1994. That accord froze activity at North Korea's nuclear facility at Yongbyon in return for the commitment from the United States, South Korea, and Japan to construct alternate light-water nuclear reactors and heavy fuel oil.

The *second* nuclear crisis with North Korea unfolded in October 2002 when the George W. Bush administration confronted the Pyongyang regime over a clandestine uranium enrichment program, which offered North Korea an alternative source of weapons-usable material. The resulting collapse of the Agreed Framework was followed by North Korea's removal of the fuel rods from the cooling ponds where they had been stored pursuant to the agreement, the separation of that spent fuel's plutonium, and, eventually, the testing of a nuclear device in October 2006. During the second George W. Bush

administration, successive rounds of multilateral Six Party Talks (involving North Korea, the United States, South Korea, China, Japan, and Russia) failed to restore the plutonium freeze.

The Obama administration assumed office committed to a controversial strategy of engaging adversarial states, including North Korea. By dropping the unilateral American “rogue state” rubric and instead calling the DPRK an “outlier” state, the administration reframed the North’s nuclear challenge in terms of the Kim family regime’s defiance of international norms. The Obama administration offered Pyongyang a structured choice: comply with international nonproliferation norms or face diplomatic isolation and punitive measures. North Korea responded with renewed provocations—nuclear weapon and ballistic missile tests—which prompted the Obama administration to pivot to a policy of “strategic patience.” A diplomatic impasse has since persisted over Pyongyang’s insistence, rejected by the international community, that the DPRK be recognized as a nuclear power. Over time, strategic patience translated into acquiescence to a continued North Korean nuclear build-up.

The *third* nuclear crisis was precipitated by North Korea’s looming nuclear breakout, which is the focus of this study. Pyongyang’s nuclear challenge is embedded in the broader question of that country’s societal evolution—specifically the future of the Kim family regime. For U.S. policymakers, the dilemma is that the two timelines are not in sync: the nuclear threat is urgent and immediate, while the prospects for regime change in Pyongyang are uncertain. In this third crisis, as in the earlier ones, the nuclear issue is a proxy for a more fundamental debate about U.S. policy toward North Korea: should the U.S. objective be to change the behavior of the Pyongyang regime or to change the regime itself? U.S. hardliners, who would eschew diplomatic engagement toward “rogue states,” hold that North Korea’s dangerous behavior is inextricably linked to the character of the Pyongyang regime. Hence, merely aiming to change Pyongyang’s behavior is inadequate if the ruling Kim family regime, which is the root of the threat, remains in power.

This policy cleavage accounts for the contentious U.S. debate over the 2015 Iran nuclear deal, which offers a relevant precedent for

the North Korean case. The Iran nuclear agreement was a deal, not a grand bargain. The accord addressed the discrete Iranian nuclear threat, but did not encompass the broader range of concerns about Iran's foreign policy (such as Tehran's support for Hezbollah). To draw on the traditional dichotomy in policy analysis, the Iran nuclear deal was *transactional*, not *transformational*. For U.S. hardliners calling for a "better deal," the basis of their opposition to the agreement was not its specific terms (such as the number of centrifuges Iran would be permitted at its sole operating uranium enrichment site at Natanz). Rather, they rejected the possibility of transactional diplomacy with the current Iranian regime because it was not transformational—that is, it left the current Iranian regime in power to continue its destabilizing role in the Middle East, state sponsorship of terrorism, and human rights abuses.

The open question is whether the transactional approach that yielded a deal with Iran can be applied to North Korea to prevent a nuclear breakout. This study argues that an opportunity exists to pursue a strategy of *coercive engagement* to constrain the North's capabilities through transactional diplomacy that decouples the nuclear issue from that of regime change. With North Korea, as in the Iranian case, the focus should similarly be confined to the urgent threats—preventing a nuclear breakout that could directly threaten the U.S. homeland and deterring North Korean-abetted nuclear terrorism—in order to improve the (already daunting) prospects of success.

A senior U.S. official who worked on Pyongyang's nuclear challenge once observed: North Korea does not respond to pressure; but without pressure North Korea does not respond. North Korea is probably the most sanctioned country in the world, but lackadaisical Chinese enforcement has allowed the Kim Jong-un regime to insulate itself from their full consequences. New circumstances may change the Chinese calculus of decision-making. Beijing faces a stark choice of either remaining Pyongyang's "enabler" (as a *New*

York Times editorial put it) or living with the adverse strategic consequences of a North Korean nuclear breakout (such as elevating preemptive military action as a U.S. option and prompting South Korea and Japan to reassess their own nuclear intentions).¹

Transactional diplomacy, with its decoupling of the nuclear issue from that of regime change, would create the conditions for a successful negotiating outcome by identifying a point of near-term optimization among the parties: for North Korea, a freeze would permit Pyongyang to retain a minimum deterrent and the Kim family regime; for China, it would preserve a strategic buffer state and avert the adverse strategic consequences of a North Korean nuclear breakout (e.g., a Japanese and South Korean reassessment of their non-nuclear status); and, for the United States, a near-term interim agreement freezing North Korean capabilities would prevent a breakout and be characterized by Washington as the first step toward long-term denuclearization of the Korean peninsula. Moreover, a freeze would preclude the additional testing that North Korea still needs to master miniaturization and reliable long-range missiles. This analytical option should be put to the political test through revitalized diplomacy.

This monograph is structured in four sections: the first provides an overview of U.S. policy toward North Korea with particular emphasis on U.S. efforts to constrain the DPRK's nuclear capabilities; the second section examines the North Korean domestic context in which the Kim family regime retains its totalitarian grip over this failed state; section three analyzes the evolution of North Korea's nuclear capabilities and intentions; and the fourth, and final, section makes the case for *coercive engagement* in lieu of its alternatives—the military option or containing North Korea after a nuclear breakout.



U.S. Policy Evolution

The Cold War Era

In the wake of World War II, the 38th parallel separating Soviet and U.S. occupation forces became the official political demarcation between North and South Korea. With the rival North/South governments claiming sovereignty over the entire Korean peninsula, the structure of this Cold War conflict was set.² North Korea's so-called "Great Leader," Kim Il-sung, emboldened by a favorable balance of power after the 1949 withdrawal of U.S. forces, launched a surprise offensive in June 1950, after receiving approval from Stalin to "liberate" the south.³ The Korean War was waged under the shadow of U.S. nuclear weapons: Truman gave "active consideration" to their use, and Eisenhower's subsequent threatening ambiguity is credited by diplomatic historians as a major factor (along with the death of Stalin) influencing North Korea's acceptance of a ceasefire along the 38th parallel in mid-1953.⁴ After the armistice, which remains in place today in the absence of a formal peace treaty, the United States retained troops in South Korea and deployed tactical nuclear weapons to deter the resumption of hostilities.

Despite the deterrent presence of U.S. nuclear and conventional capabilities on the Korean peninsula, the Kim Il-sung regime engaged in covert operations and subversion against the Republic of Korea (ROK), including an audacious plot to assassinate the South Korean president in 1968. Kim

Left: The Kim dynasty: Kim Il-sung (top left), Kim Jong-il (top right), Kim Jong-un (bottom left), propaganda poster (bottom right)

also conducted risky brinkmanship with the United States directly: In January 1968, North Korean patrol boats attacked and seized the USS *Pueblo*, an intelligence-gathering ship, in international waters; and in April 1969, a North Korean MiG fighter shot down an unarmed U.S. reconnaissance aircraft flying in international airspace along the North Korean coast. The Johnson and Nixon administrations, already mired in Vietnam, refrained from strong military responses out of concern that retaliation commensurate with the provocations could inadvertently escalate to general war on the Korean peninsula.⁵

North Korea's nuclear program was launched in 1964, when the Kim Il-sung regime established a nuclear facility at Yongbyon (60 miles from Pyongyang, the capital) with a small research reactor provided by the Soviet Union.⁶ In 1986, North Korea completed an indigenously engineered 5-megawatt nuclear reactor at Yongbyon that was well suited to the Democratic People's Republic of Korea (DPRK): it depended only on locally obtainable natural uranium, rather than imported heavy water and enriched uranium. U.S. concern about North Korea's nuclear intentions was triggered two years later with the construction of a new Yongbyon facility to chemically extract weapons-grade plutonium from the spent nuclear reactor fuel. Such a reprocessing facility served no purpose other than to support a nuclear weapons program. North Korea soon thereafter began construction of two larger graphite-moderated reactors (estimated at 50 and 200 megawatts) which, when operational, would have created a "nuclear factory" yielding plutonium sufficient for the fabrication of about 30 Nagasaki-sized nuclear weapons annually.⁷

The end of the Cold War created a diplomatic opening for negotiations between the United States and the DPRK, as well as between the two Koreas. In 1991, the George H.W. Bush administration announced the withdrawal of tactical nuclear weapons from South Korea, as part of a global U.S.-Soviet agreement to eliminate most nonstrategic nuclear

weapons. The Kim Il-sung regime reciprocated by accepting an International Atomic Energy Agency (IAEA) safeguards agreement to ensure that North Korea was abiding by its Nuclear Non-Proliferation Treaty (NPT) obligations, and by concluding a ROK-DPRK “Joint Declaration on the Denuclearization of the Korean Peninsula” that committed the two sides to forgo the production of nuclear weapons and the possession of nuclear reprocessing and uranium enrichment facilities.

The end of the Cold War coincided with a hot war in the Persian Gulf against Iraq—the archetype “rogue state” of the new era. The Clinton administration declared that “rogue states” constituted a distinct category of states in the international system. North Korea was included in the core group whose other members, along with Iraq, were Iran and Libya. The defining criteria for “rogue” status were the pursuit of weapons of mass destruction (WMD) capabilities, the use of terrorism as an instrument of state policy, and hostility toward the United States. This unilateral American political concept, which had no standing in international law, was applied selectively—for example, Syria, which met the criteria, was excluded from the rogues’ gallery because of its importance to the Middle East peace process. As the Clinton administration would later experience in nuclear negotiations with North Korea, “rogue” status complicated the ability of the U.S. administration to conduct normal diplomacy toward that state as it connoted a regime that was by definition beyond the pale. Diplomatic engagement was castigated by congressional critics as tantamount to appeasement.

The First Nuclear Crisis

In the early 1990s, North Korea balked at IAEA inspections of its nuclear sites and sought to link international access to the cancelation of joint U.S.-ROK military exercises. The Clinton administration conducted direct negotiations with the North Koreans even as the Kim Il-sung regime made an escalatory threat to withdraw from the NPT. Of particular concern to U.S. officials was a CIA National Intelligence Estimate (NIE) that the North Koreans, during a 1989 shutdown of the Yongbyon reactor, could have separated enough plutonium from spent fuel rods for two nuclear bombs.⁸

The first nuclear crisis with North Korea was precipitated by Pyongyang's announcement in April 1994 that the Yongbyon reactor would be shut down so that spent fuel from its core could be removed. The alarming estimate was that these 8,000 fuel rods contained sufficient plutonium to produce four or five nuclear bombs. The Kim Il-sung regime refused to allow IAEA inspectors to conduct tests to clarify whether the spent nuclear fuel was part of the original load when the 5-megawatt reactor became operational (as claimed by Pyongyang), or whether it had been replaced after the 1989 shutdown (as suspected by the Clinton administration), with the plutonium extracted and diverted into a weapons program.⁹



*President Kim Il-sung receives former U.S. President Jimmy Carter in June 1994.
Source: KANCC.org*

In June 1994, the crisis further escalated when the Clinton administration announced that the United States would seek the imposition of multilateral economic sanctions on North Korea through the UN Security Council. As the administration reinforced the U.S. military presence in South Korea as a deterrent, the Kim Il-sung regime remained defiant, proclaiming that economic sanctions would be an act of war. To meet the North Korean nuclear challenge, the Clinton administration adopted a strategy of coercive diplomacy based on economic sanctions after considering, and rejecting, the alternative of a preventive military strike on the Yongbyon nuclear installation. The overriding concern for U.S. officials, in effectively removing the military option from consideration, was that air strikes could have a “catalytic” effect triggering a general war on the Korean peninsula. General Gary Luck, then commander of U.S. forces in South Korea, warned that such a conflict would result in one million casualties and entail economic costs of \$1 trillion.¹⁰

In mid-June 1994, as the Clinton administration was mounting a diplomatic campaign for economic sanctions, the escalating crisis was unexpectedly defused by former President Jimmy Carter’s controversial mission to Pyongyang. After his meetings with Kim Il-sung, Carter announced on CNN that the North Korean leader had agreed to “freeze” the DPRK’s nuclear program. He stunned the Clinton administration by declaring unilaterally that the United States was dropping its push for UN sanctions. The Clinton administration capitalized on the Carter mission by interpreting “freeze” to mean that North Korea would not refuel the Yongbyon reactor.¹¹ The administration’s handling of the nuclear standoff was castigated by congressional hardliners, who rejected the administration’s acceptance of a freeze that did not roll back the North Korean program.

The Carter-Kim summit led to intensive negotiations over several months that culminated in the U.S.-DPRK Agreed Framework of October 1994. The accord embodied a series of carefully calibrated, reciprocal steps that would be implemented

over a decade-long period and that could be halted or broken off in the event of Pyongyang's non-compliance. North Korea pledged to remain an NPT party and to cease reprocessing, and traded off its three graphite-moderated reactors and reprocessing facility for two 1,000-megawatt proliferation-resistant light-water reactors (which were to be constructed by an international consortium comprising the United States, Japan, and South Korea). In addition, the Agreed Framework obligated the Kim Jong-il regime to implement the 1991 ROK-DPRK denuclearization agreement, while the United States offered the DPRK a "negative security assurance," pledging that it would not use nuclear weapons against North Korea while it remained an NPT party. Washington and Pyongyang also committed to open diplomatic liaison offices as a first step toward "full normalization" of political and economic relations, though the Clinton administration linked that broader goal to further progress in North-South Korean relations.

Clinton administration officials defended the 1994 accord as the best of a bad set of options inherited from the George H.W. Bush administration. As U.S. chief negotiator Robert Gallucci acknowledged, "[E]veryone was reluctant about the Agreed Framework."¹² The agreement was structured as a series of reciprocal steps in which the North would discontinue activities of greatest concern to the United States before the transfer of sensitive light-water reactor components. Left deferred, however, was an accounting of the DPRK's nuclear history. That residual uncertainty about North Korea's capabilities left open the question of its nuclear *intentions*. In 1998, U.S. suspicions were fueled by the intelligence community's discovery of a large underground site (which raised the possibility of a covert program), as well as by the North's provocative test of a long-range Taepodong-1 missile over Japanese territory. Those developments threatened to undermine U.S. political support for the Agreed Framework, especially among congressional skeptics already hostile to engaging a "rogue state."

As a renewed crisis threatened, President Clinton tapped former Secretary of Defense William Perry for a diplomatic mission to Pyongyang in July 1999 to address issues of concern with North Korean officials and to conduct a comprehensive review of U.S. policy. The resulting Perry report recommended a “comprehensive and integrated approach,” linking the normalization of U.S.-DPRK relations (whose tangible benefits would include the lifting of the U.S. trade embargo and economic sanctions) to Pyongyang’s full compliance with the Agreed Framework and limits on the North’s long-range ballistic missile production and exports. In the wake of the Perry mission, positive developments—notably, Pyongyang’s announcement of a missile-test moratorium in September 1999, and South Korean president Kim Dae Jung’s precedent-setting summit meeting with Kim Jong-il in Pyongyang in June 2000—created a perceived diplomatic opening. The North Koreans floated a plan linking restraints on the DPRK’s long-range ballistic missile program to the establishment of diplomatic relations between the United States and North Korea. In October 2000, Secretary of State Madeleine Albright met with Kim Jong-il in Pyongyang to explore the North Korean proposal, and the possibility of a presidential visit.¹³ Kim reportedly offered a moratorium on the production and deployment of long-range ballistic missiles in return for U.S. economic compensation. While follow-on negotiations grappled with the technical issue of verification, the incoming George W. Bush administration signaled opposition to a binding, eleventh-hour agreement concluded by its predecessor. President Clinton and other administration officials believed that a negotiated buy-out of North Korea’s long-range ballistic missile program was within reach and that they were handing off an early foreign policy win to their successors.¹⁴

The Second Nuclear Crisis

An early signal of the hardening of U.S. policy was the new administration’s pointed revival of the “rogue state” category

that Secretary Albright had jettisoned in June 2000 because it had become a political straitjacket frustrating the Clinton administration's ability to pragmatically engage North Korea (as well as Iran). The George W. Bush administration reluctantly reaffirmed the U.S. commitment to the Agreed Framework, but opposed the broader effort through South Korean president Kim Dae-jung's "Sunshine Policy" to normalize relations with the DPRK. The administration was divided between pragmatists (such as Secretary of State Colin Powell), who sought to build on the Clinton record, and hardliners (notably, Vice President Dick Cheney and Department of Defense officials), who, in an early National Security Council memorandum, argued that a no-negotiations stance would maintain "moral clarity."¹⁵

The 9/11 terrorist attacks led to a major shift in the definition of threat and U.S. strategy. The Bush administration argued that the United States was threatened by unpredictable "rogue" states and undeterrable terrorist groups, like Al Qaeda. The containment strategy pursued by the Clinton administration, which focused on changing the "rogues'" behavior, was deemed no longer adequate because the threat derived from the *character* of the regime. President Bush's declaration that the threat posed by the states in the "axis of evil"—North Korea, Iraq, and Iran—derived from "their [ruling regime's] true nature" and led to his administration's shift from a strategy of containment to one of regime change after 9/11.¹⁶ This argumentation was central to the Bush administration's case for a preventive war against Iraq in 2003.

Underlying the Bush administration's internal debate about policy options toward North Korea were contending assessments of the Pyongyang regime's durability and vulnerability. Strategies are predicated on concepts of societal change in the target state. These critical threshold assumptions for strategy formulation are frequently implicit and not subjected to rigorous analysis. In the case of North Korea, a hard-line

strategy was undergirded by an intelligence assessment that the DPRK system was under extraordinary stress.¹⁷ North Korea “is teetering on the edge of economic collapse,” Deputy Secretary of Defense Paul Wolfowitz argued, and that “is a major source of leverage.”¹⁸ The premise that North Korea was on the verge of collapse was marshaled in support of a strategy of hard containment to squeeze the Pyongyang regime and thereby hasten that collapse. Conversely, this assessment of regime vulnerability suggested that the alternative engagement strategy, which would incorporate economic carrots to induce a change in North Korean behavior, could have the perverse effect of propping up the “teetering” regime. The Bush administration never reconciled the policy tension between these opposing approaches, with one official acknowledging, “The problem is [that] people are operating from different assumptions.”¹⁹

In October 2002, the United States, drawing on new intelligence from Pakistan about the nuclear black market activities of A.Q. Khan, confronted North Korea about a covert uranium-enrichment program, that would offer the North an alternative route to nuclear weapons acquisition, and which would be in violation of the Agreed Framework. In 2003, the diplomatic confrontation over North Korea’s uranium-enrichment activities turned into a much more urgent situation involving its renewed acquisition of plutonium. The revelation of the DPRK’s covert uranium-enrichment program led the Bush administration to declare the Agreed Framework “dead.” As one former U.S. official put it, to confront the North Koreans



President Bill Clinton meeting with Special Envoy Vice Marshal Cho Myong-nok, First Vice Chairman of the National Defense Commission of North Korea, in the Oval Office, October 10, 2000. Source: <https://en.m.wikipedia.org/wiki/>

about a uranium enrichment program of *unknown* scope, the Bush administration terminated the nuclear agreement that had frozen a plutonium program of *known* scope. An alternative would have been to address North Korean non-compliance within the Agreed Framework process, thereby maintaining the plutonium freeze and preventing North Korea from gaining access to fissile material sufficient for approximately six nuclear weapons.

In 2003, North Korea withdrew from the NPT and prepared to reprocess 8,000 fuel rods that had been stored in cooling ponds pursuant to the Agreed Framework and to extract

“The Bush administration sent a mixed message whether the U.S. objective was behavior change or regime change.”

plutonium for approximately six nuclear weapons. While IAEA Director General Mohammed ElBaradei recommended the North Korean case for referral to the United Nations in 2002-2003, the Bush administration, then wanting to maintain the Security Council’s focus solely on Iraq, conveyed no sense of urgency as Pyongyang threatened to cross the “red line” of plutonium reprocessing. The administration rebuffed suggestions from former national security advisor Brent Scowcroft and defense secretary

William Perry to intensively pursue bilateral negotiations with Pyongyang to reinstate the plutonium freeze.

In August 2003, with North Korea poised to acquire additional weapons-grade fissile material, the first of an eventual six rounds of Six Party Talks (involving the United States, North and South Korea, China, Japan, and Russia) was convened to pursue a diplomatic solution to the nuclear impasse. U.S. diplomatic engagement through this multilateral process was complemented by augmented economic pressure. In September 2005, the U.S. Treasury Department sanctioned a Chinese bank, Banco Delta, located in Macau, for distributing

North Korean counterfeit currency and laundering the Pyongyang regime's revenues from criminal enterprises. Many other Chinese banks were influenced by the Banco Delta episode, subsequently freezing suspect North Korean accounts, out of fear they would be barred from conducting commerce in the United States. The Banco Delta sanctions, in turn, prompted the Kim Jong-il regime to suspend its participation in the Six Party Talks.

In October 2006, North Korea conducted a nuclear test and became the world's ninth nuclear-weapon state. This bold move overturned the U.S. assumption that a Chinese red line would deter Pyongyang from openly crossing the nuclear threshold. In response, the UN Security Council, with Chinese and Russian support, imposed sanctions to block the Kim Jong-il regime's importation of luxury goods and authorized the United States and other states to interdict North Korean shipping to prevent "illicit trafficking in nuclear, chemical or biological weapons, as well as their means of delivery and related materials."²⁰

To bring the Kim regime back to the negotiating table, the Bush administration lifted the sanctions on Banco Delta. In the resumed Six Party Talks, in February 2007, North Korea agreed to dismantle the Yongbyon facility and to make a full disclosure of its past and present nuclear programs. In October 2008, after North Korea had halted activities at Yongbyon and released a document about its nuclear history (though omitting disclosure of its uranium enrichment program and its nuclear exports to other countries), the Bush administration removed the DPRK from the U.S. list of state sponsors of terrorism.²¹

U.S. ambivalence about the Six Party process was evident throughout, with administration hardliners concerned about "rewarding bad behavior," while pro-engagement pragmatists viewed the talks as a possible mechanism to constrain the North's nuclear capabilities. The Bush administration sent a mixed message whether the U.S. objective was behavior change or regime change—and achieved neither. As discussed

in the policy options section below, a key condition for the successful implementation of coercive diplomacy is the limitation of objective; the target state has no incentive to change behavior, such as abiding by nonproliferation norms, if it believes the coercer is pursuing the maximalist objective of regime change.

From Engagement to “Strategic Patience”

President Obama, who campaigned on a platform of diplomatically engaging adversary states, inherited twin nuclear challenges with North Korea and Iran. His inaugural address metaphor of extending a hand to unclenched fists was a stark contrast to the Bush administration’s regime-change rhetoric. President Obama subsequently described the two countries as “outliers”—states that flout international norms by defying their obligations under the NPT. Senior White House aides confirmed that use of the term, which Obama used in an April 2010 interview with the *New York Times* about the administration’s *Nuclear Posture Review*, was a calculated departure from the Bush-era moniker of “rogue state.”²² The shift in nomenclature from “rogue” to “outlier” was intended to convey that a pathway was open for these states to rejoin the “community of nations” if they came into compliance with international norms.

In pivoting from a regime-change strategy to engagement, the Obama administration was rejecting the assessment of the “collapsists” (to use economist Marcus Noland’s term), who posited that the Kim regime was “teetering.”²³ Though the approach was broadly similar to that in the 1999 Perry report, the circumstances were sharply different: North Korea had become an overt nuclear-weapon state by this time. Underlying the Obama administration’s offer to Pyongyang of normalization of relations for denuclearization was an assessment that the nuclear and societal change timelines were not in sync and that the two issues therefore needed to be decoupled. The Obama administration sought a near-term nuclear agreement curtailing

the DPRK's capabilities, while relegating the internal process of societal change to play out on an indeterminate timetable.

In his December 2009 Nobel Peace Prize acceptance speech, Obama defended his engagement strategy, citing the historical precedent of an earlier president and a state which, at the time, was viewed as the functional equivalent of a contemporary rogue state: "In light of the Cultural Revolution's horrors, Nixon's meeting with Mao appeared inexcusable—and yet it surely helped set China on a path where millions of its citizens have been lifted from poverty and connected to open societies." Declaring that it is "incumbent upon all of us to insist that nations like Iran and North Korea do not game the system," Obama concluded, "engagement with repressive regimes lacks the satisfying purity of indignation.... [But] no repressive regime can move down a new path unless it has the choice of an open door."²⁴

The Obama administration offered North Korea a structured choice: abide by international norms and thereby gain the economic benefits of "greater integration with the international community" or remain in noncompliance and thereby face international isolation and punitive consequences. The Obama administration unpacked the Bush administration's mixed message and made clear that the U.S. objective was to change the conduct of this "outlier" state, not to externally engineer a change of the Kim family regime. The emphasis on behavior change signaled a willingness to offer North Korea the type of assurance of regime security that had sealed the December 2003 deal with Libyan dictator Muammar Qaddafi to give up that country's WMD capabilities.

“The Obama administration offered North Korea a structured choice: abide by international norms... face international isolation and punitive consequences.”

But the Kim regime rebuffed the extended hand and refused to walk through the open door. The Obama administration's gesture of conciliation was instead met by renewed North Korean provocations to force concessions, including international recognition of the DPRK's status as a de facto nuclear-weapon state. In 2009 and 2010, the fist remained clenched. North Korea carried out long-range ballistic missile launches, a second nuclear-weapon test, an attack on a South Korean naval vessel (killing 46 sailors), and the shelling of a South Korean border island. These provocative moves indicated an emphasis less on using its nuclear program as a bargaining

“U.S. intelligence analysts speculated that the spike in North Korean belligerence was linked to domestic politics.”

chip to extract concessions than on obtaining international recognition as a de facto nuclear-weapon state. As Asian security expert Jonathan Pollack concluded, “The DPRK was unprepared to conceptualize a strategic future without continued possession of nuclear weapons.”²⁵ Secretary of State Hillary Clinton reiterated the U.S. objective of denuclearization and bluntly rejected Pyongyang's nuclear assertiveness: “Its leaders should be under no illusion that the United States

will ever have normal, sanctions-free relations with a nuclear armed North Korea.”²⁶

After the May 2009 nuclear test, President Obama, framing the issue in terms of the Kim Jong-il regime's violation of international norms, declared: “By acting in blatant defiance of the United Nations Security Council, North Korea is directly and recklessly challenging the international community.... Such provocations will only serve to deepen North Korea's isolation.”²⁷ The administration, adopting a stance that officials characterized as “strategic patience,” maintained the emphasis on changing Pyongyang's behavior and ruled out any concessions merely to bring North Korea back to the negotiating table. U.S. intelligence analysts speculated that

the spike in North Korean belligerence was linked to domestic politics; the ailing Kim Jong-il, who was reported to have suffered a stroke in August 2008, sought to bolster the position of his heir apparent, third son Kim Jong-un.²⁸

A further complication arose from NATO's intervention in Libya in 2011. North Korea (as well as Iran) seized on this regime takedown as proof that Qaddafi had been duped by the West when he dismantled his nuclear program. A North Korean official stated that the 2003 agreement had been "an invasion tactic to disarm the country,"²⁹ The Obama administration had been prepared to offer the Kim regime a Libya-type security assurance as part of its negotiating strategy.

When Kim Jong-un succeeded Kim Jong-il after the latter's death in December 2011, the window for diplomatic engagement appeared to open. A "Leap Day" agreement was reached between U.S. and North Korean diplomats on February 29, 2012, under which the North would suspend ballistic missile tests and open itself to international inspections in return for the resumption of U.S. food aid. But within two weeks, the "Leap Day" agreement fell apart when Pyongyang announced plans to launch a satellite using a ballistic missile covered under the moratorium. During a visit to South Korea, President Obama said the days of "rewards for provocations" were over.³⁰ In February 2013, North Korea conducted its third nuclear-weapon test amidst evidence from commercial satellite imagery that its 5-megawatt plutonium-producing reactor at Yongbyon had been restarted. The Kim Jong-un regime also reportedly expanded the country's uranium enrichment capacity with the installation of additional cascades of centrifuges at its Yongbyon facility.³¹ These developments raised the specter of North Korea's considerably expanding the size of its nuclear arsenal.

The Third Nuclear Crisis

Under the rubric of "strategic patience," the Obama administration imposed escalating sanctions on North Korea to

bring the Kim Jong-un regime back to the negotiating table. But the resumption of the Six Party Talks stalled over Pyongyang's insistence that the North be recognized as a nuclear-weapon state. The Obama administration, rejecting this precondition, held to its own insistence that the goal of diplomacy should be "CVID"—the complete, verifiable, and irreversible denuclearization of the Korean peninsula.

As the diplomatic impasse persisted, North Korea continued to augment its nuclear and ballistic-missile capabilities. In March 2014, the DPRK fired two medium-range *Nodong* missiles into the Sea of Japan in violation of UN sanctions. That October, General Curtis Scaparrotti, commander of U.S. forces in South Korea, expressed his belief that North Korea had mastered weapon miniaturization and was able to wed a nuclear warhead to a ballistic missile.³² However, this estimate was questioned by some Western experts who judge the DPRK as still being several years away from attaining that capability. In January 2016, North Korea conducted its fourth nuclear test, which Pyongyang declared was a hydrogen bomb (though U.S. officials doubted that the North had crossed that technological threshold based on the seismic evidence). Eight months later, in September, after the North's fifth and most powerful blast, President Obama starkly noted that the increased tempo of nuclear testing "follows an unprecedented campaign of ballistic missile launches, which North Korea claims are intended to serve as delivery vehicles intended to target the United States and our allies" and reiterated: "To be clear, the United States does not, and never will, accept North Korea as a nuclear state."³³

Although estimates vary, some experts outside government believe that the DPRK's arsenal could have as many as 20 nuclear weapons, employing both plutonium and highly enriched uranium, by early 2017. The high range of the Johns Hopkins SAIS study, cited previously, approximates that the DPRK could have an arsenal of as many as 100 weapons by

2020. Though the North’s program has experienced setbacks—of eight tests of its intermediate-range Musudan ballistic missile in 2016 only one was a success—the trend line is ominously clear. North Korea is on the verge of a strategic breakout that is both quantitative (given the projected increase in its arsenal size) and qualitative (in view of its impending mastery of warhead miniaturization and long-range ballistic missiles that can directly threaten the U.S. homeland).

As North Korean nuclear and missile capabilities surged, the Obama administration’s stance of “strategic patience” increasingly looked like acquiescence. The administration signaled its desire to revive multilateral diplomacy, but the impasse—the North’s insistence that it be recognized as a



*Left: North Korean leader Kim Jong-un at the launch of a new ballistic missile in this undated photo released by North Korea’s Korean Central News Agency (KCNA) on March 4, 2016.
Source: Reuters/KCNA*

nuclear-weapon state—that had derailed the Six Party Talks remained. In the wake of North Korea’s fourth nuclear test in January 2016, Secretary of State John Kerry declared, “We have made overture after overture to the dictator of North Korea,” which included an offer to normalize the DPRK’s relationship with the West and to replace the 1953 armistice that halted the Korean War with a peace treaty. “All Kim Jong-un needs to do is say, ‘I’m prepared to talk about denuclearization,’” Kerry stated.³⁴

The *New York Times*’ David Sanger has reported that early in his first administration, President Obama did a net assessment of nuclear challenges and made a pragmatic judgment to give priority to constraining Iran’s nascent nuclear capability rather than endeavoring to roll back North Korea’s small arsenal, which Pyongyang had no incentive to relinquish.³⁵ With Iran, the Obama administration’s strategy of pressure and engagement

yielded a nuclear accord (the Joint Comprehensive Plan of Action) in July 2015 that, if successfully implemented, blocks Iran’s access to nuclear weapons and weapons-usable material for at least 15 years. The agreement between the P5+1 (the United States, Britain, France Russia, China, and Germany) and Iran was a deal, not a grand bargain. As a “deal,” the JCPOA is *transactional*, not *transformational*. It addressed a discrete urgent national security threat, but did not encompass

“President Obama did a net assessment of nuclear challenges and made a pragmatic judgment to give priority to constraining Iran’s nascent nuclear capability.”

other threatening aspects of Iranian behavior, such as the Tehran regime’s support for Hezbollah or its human rights abuses. U.S. hardliners were and remain critical of the agreement because it does not change the character of the Tehran regime, which they view as the source of the Iranian threat. But a maximalist transformational approach would have been rejected in Iran as a threat to regime survival and would likely have led to defections

from the P5+1 coalition that mounted meaningful pressure on the Tehran regime to constrain its nuclear program.

In October 2016, the director of national intelligence, James Clapper, cast doubt on whether a full rollback of the DPRK's nuclear program—what the State Department calls “a verifiable denuclearization of the Korean Peninsula”—remained a feasible U.S. policy objective. “The notion of getting the North Koreans to denuclearize is probably a lost cause,” he stated. “They are not going to do that. That is their ticket to survival.”³⁶ Though a full rollback is not a realistic goal, transactional diplomacy to freeze North Korean nuclear capabilities at their current level to prevent a nuclear breakout may be attainable. Revived diplomacy aiming on an interim agreement to freeze capabilities would require the parties to drop negotiating preconditions. This approach, as discussed more fully in the final section, would make the best of a bad situation: when zero warheads is not on the table, a negotiated outcome that caps North Korean capabilities at 20 nuclear weapons is better than an unconstrained program that allows the DPRK to build up an arsenal of 100 warheads by 2020. Such a nuclear breakout would be a game changer for the United States, but its prospect also alters China's strategic calculus and creates a hard choice. Beijing can either cooperate with the United States to cap the DPRK's capabilities or live with the adverse regional consequences as the United States, South Korea, and Japan respond to that new reality. This creates political space for coordinated diplomacy, as was done to curb Iran's nuclear ambitions. But to get Beijing to apply meaningful pressure on Pyongyang would require Washington to decouple the nuclear challenge from the question of regime change. The Donald J. Trump administration faces its own hard choice of pursuing transactional diplomacy to prevent North Korea's nuclear breakout—or rejecting it for not being transformational. If the new administration eschews transactional diplomacy toward the Kim Jong-un regime, it would then be left with unattractive options—a military strike to prevent the North's strategic breakout or a deterrent strategy in the face of an unconstrained nuclear program.



위대한 김일성동지와 김정일동지는 영원히 우리와 함께 계

The North Korean Domestic Context

North Korea—the so-called “Hermit Kingdom”—is the most closed-off society in the world. The Kim family regime’s unique strategy of national self-reliance (*juche*) has reinforced this isolation and facilitated its tight political control over the population. The American inability to penetrate that opaque society led former CIA official and ambassador to South Korea Donald P. Gregg to call North Korea “the longest-running intelligence failure in the history of US espionage.”³⁷

Despite the dearth of hard information on North Korea, U.S. policies have not been formulated in complete darkness. Indicators of the country’s economic and demographic stress are, of course, more readily observable than its current political condition. During the famine of the mid-1990s, economists estimated that the economy contracted by 50 percent and deaths from starvation numbered approximately one million. A North Korean deputy foreign minister made the startling admission at a UN conference in 2001 that the life expectancy in the country had dropped by more than six years during the 1990s.³⁸ In 2015, North Korea reportedly harvested enough food to feed its people for the first time in decades. Nonetheless, the estimated caloric intake per capita of 2,100 calories per day is below the amount recommended by health authorities, with startling consequences: the average five-year-old boy in North Korea is now nine centimeters shorter than his counterpart in the South. The DPRK’s estimated GDP of \$31 billion is dwarfed by South Korea’s \$1.3 trillion.³⁹ The DPRK’s long-running

Left: Statue of Kim Il-sung, Pyongyang
Source: Shutterstock.com

economic crisis has played out against the backdrop of two changes of leadership—from Kim Il-sung, the founder of the North Korea state, to his son, Kim Jong-il, in 1994, and then to his grandson, Kim Jong-un, in 2011. Former Soviet President Mikhail Gorbachev once described North Korea’s dynastic rule as “a primitive phenomenon.”⁴⁰ And yet North Korea—essentially a failed state—conducted 2 nuclear-weapon tests and 20 ballistic missile tests in 2016 alone, and is on a possible trajectory to acquire a nuclear stockpile one-half the size of Britain’s or France’s arsenal.



*North Korean soldiers, officials and people participate in the Pyongyang People’s Rally to celebrate North Korea’s second nuclear test at the Pyongyang Gym May 26, 2009 in this picture released by North Korea’s official news agency KCNA early May 27, 2009
Source: Reuters*

From Kim Il-sung to Kim Jong-il

Kim Il-sung, the “Great Leader,” had ruled the country with an iron fist for nearly 50 years when he died unexpectedly in 1994. He established the institutions of a totalitarian state, as well as a pervasive cult of personality (rivaling that of Saddam Hussein’s in Iraq). He served both as president of the DPRK and secretary general of the Korean Workers’ Party (KWP). As in the Soviet Union and other communist states, the party thoroughly dominated the formal governmental institutions during the early decades of the regime. The Supreme People’s Assembly (SPA), a legislative organ that was ostensibly the state’s highest authority, has functioned, in practice, merely as a rubberstamp for the ruling KWP. The other key institutional actor has been the Korean People’s Army (KPA), which has emerged over time as a key interest group affecting the ruling regime’s foreign policy decision-making. In 1955, Kim Il-sung proclaimed his policy of self-reliance to assert his country’s autonomy within the socialist camp at a time when the Kremlin was eschewing hard-line Stalinism. This ideological line tapped into the powerful traditional force of Korean nationalism.

The division of the Korean peninsula after World War II resulted in an imbalance of resources: The North inherited the bulk of the country’s industrial base and natural resources, while the South had some two-thirds of the population. During the 1950s and 1960s, North Korea’s economic output exceeded the South’s because of that disparity. By the 1970s, however, the South Korean economy surged ahead as the North’s began to stagnate and eventually collapse. The DPRK economy suffered from the combined impact of economic mismanagement, drought, and the decline of its modest export market during the global recession in the mid-1970s. A key indicator of this emerging economic crisis was evidenced when North Korea became the first communist country to default on loans from free market countries.⁴¹ In the 1980s, the North Korean economy stagnated even as the regime continued to devote an estimated one-quarter of the nation’s GDP to the military.

And as its economic plight deepened, the DPRK also faced a profound geostrategic challenge because of the end of the Cold War and the breakup of the Soviet Union. This epochal development, along with China's moves toward a market economy and South Korea's emerging international prominence (symbolized by its hosting of the 1988 Olympics), reinforced the Pyongyang regime's political isolation.

In response to the DPRK's economic crisis and geostrategic isolation in the 1980s, the "Great Leader" initiated a major policy shift. By 1990, North Korean officials were telling American visitors that Kim Il-sung had approved a limited opening to the West for trade and investment, desired to improve relations with the United States, and was prepared to coexist with the South.⁴² Kim reportedly sided with "pragmatists" at the December 1991 party plenum to compromise on nuclear issues in return for economic engagement and diplomatic normalization with the United States and Japan. The military and other hardliners agreed to suspend, but not terminate, the country's nuclear weapons program at that time.⁴³

The country's deteriorating economic situation was a key determinant of Kim Il-sung's decision to put the DPRK's nuclear weapons program on the negotiating table and initiate a limited opening to the West. In December 1993, the Pyongyang regime made the stunning public admission that the DPRK economy was in a "grave situation," with a GDP only a fraction of that of the ROK.⁴⁴ Relations with the outside world, particularly the United States, offered the possibility of alleviating that crisis, but at a potentially steep political price to the extent that such an opening eroded the regime's totalitarian hold over North Korean society. In practice, the fear of political contagion has overridden economic necessity. After succeeding his father, Kim Jong-il resisted reforms based on the Chinese model for fear of their political impact. He maintained the North Korean economy's "military first" orientation. A high-ranking defector,

Hwang Jang Yop, who had been the leading theoretician of North Korea's ideology of self-reliance, affirmed that for the Pyongyang regime "politics dominates economics." Nonetheless, the economic crisis and famine [in the 1990s] had narrowed the regime's options since it "[could] not live without international aid [as] in the past..."⁴⁵

Pressure came from China, which faced an influx of North Korean refugees and demands for increased food and energy assistance. During Kim Jong-il's October 2001 visit to China (which included a tour of a General Motors plant in Shanghai), Chinese officials lobbied the North Korean leader to make significant changes to alleviate the economic crisis. In July 2002, Pyongyang announced the reform of the country's wage and price control systems and the inauguration of two foreign investment zones for joint economic ventures. A year later, the regime took the additional step of legalizing the small farmers markets that flourished unofficially. This introduction of a limited market mechanism represented a potentially important shift from the rigid, Stalinist command system that had long straightjacketed the economy. The reforms rested on the assumption that the unleashing of underutilized resources and



Kim Jong-il (R), top leader of North Korea meets with then Chinese Vice President Xi Jinping in Pyongyang, June 18, 2008
Source: china.org

production capacity would jumpstart economic activity. Yet five decades of mismanagement and decline had left few resources and little unused capacity to exploit. As a consequence, North Korean economic growth was an anemic 1.2 percent in 2002, and the country's GDP remained below the 1990 level.

“The country’s deepening economic crisis has necessitated reform to preserve the regime.”

Meanwhile, the reforms triggered runaway inflation of consumer prices (including food supplies) that outpaced wage increases for ordinary citizens. Those whose wages kept pace with inflation or with access to foreign currency were the primary beneficiaries of the increased availability of goods. For North Korea’s vast

underclass, however, the grim realities of life persisted. In 2003, for example, the United Nations estimated that 6.5 million of North Korea’s total population of 23 million—nearly one in three people—were dependent on international food aid for subsistence.⁴⁶ Per capita GDP was stuck at an abysmally low level.

The Kim family has been trapped in a dilemma, which persists to this day. The country’s deepening economic crisis has necessitated reform to preserve the regime, but the fear that significant change in the economic sphere could undermine its political control (and ultimate survival) has ensured that the scope of reform stays limited. The Kim regime’s top priority has been to preserve the power base upon which its paramount political status rests. That core group—the ruling elite—is estimated at one million people. This privileged class benefits from what North Korea experts Kongdan Oh and Ralph Hassig have described as a “court economy,” a special network for the distribution of food and consumer goods (imported from abroad) that tangibly rewards the regime’s most loyal cadres.⁴⁷

The Court Economy

To sustain the court economy upon which regime survival depends, the Kim family needs to maintain a steady flow of foreign currency. For decades North Korea has had a structural deficit between its imports and legal exports. Notwithstanding Pyongyang's relatively large debt and lack of access to international financial markets, foreign consumer goods are in plentiful supply for the elite stratum of North Korean party, governmental, and military officials who make up the Kim family's power base. To fill that approximately \$1 billion gap in foreign currency, which is essential for maintaining the privileged lifestyle of these key constituencies, the regime has engaged in illicit behavior ranging from drug smuggling and currency counterfeiting to trafficking in endangered species. Because of the Pyongyang regime's links to transnational criminal activities, North Korea—categorized as both a “rogue” and a “failed” state—has also been characterized as a “criminal state.”⁴⁸

Kim Jong-il created a special office—“Bureau 39”—to direct all criminal operations generating foreign currency. In contravention of the Vienna Conventions governing diplomatic relations between states, the North Koreans have used their foreign embassies as fronts for criminal activities, including the smuggling of drugs to Asia and Europe via diplomatic pouch. Poppy cultivation in certain parts of North Korea (on an acreage scale comparable to that of coca in Colombia in the mid-1980s) supported the production of opium and heroin. In the mid-1990s, North Korea diversified its drug trafficking into the large-scale export of methamphetamine. Its counterfeiting operations include not only currency (e.g., the U.S. \$100 “supernote”), but also U.S. brand cigarettes and pharmaceuticals (e.g., Viagra).⁴⁹

The scope of North Korea's illicit activities substantially increased in the mid-1990s in response to the domestic economic crisis. Through its activities, Bureau 39 accumulated

a hard currency reserve, estimated at \$5 billion by South Korean intelligence in 2005.⁵⁰ The bureau oversees the expenditure of those funds abroad to procure luxury items (e.g., Mercedes Benz automobiles, televisions, and wines) for the party and military elite. In addition, this office reportedly uses its hard-currency stash to obtain key hi-tech components from foreign sources for North Korea's nuclear and missile programs.⁵¹ Bureau 39 thus plays a critical role both in maintaining the Kim family's power base and in acquiring the WMD capabilities that are a source of leverage in the regime's dealings with the outside world. Despite Pyongyang's denials of involvement in criminal activity, the fact that state assets (such as pharmaceutical plants) are used in the production and distribution of contraband raised the possibility of the regime's direct involvement. The State Department, which has not officially designated North Korea a state sponsor of narcotics trafficking, reported in its 2010 annual report: "There is insufficient evidence to say with certainty that state-sponsored trafficking by the Democratic People's Republic of Korea ... has stopped entirely in 2009. Nonetheless, the paucity of public reports of drug trafficking with a direct DPRK connection suggests strongly that such high-profile drug trafficking has either ceased, or has been reduced very sharply.... Other criminality involving DPRK territory, such as counterfeit cigarette smuggling and counterfeiting/passing of U.S. currency (supernotes), continues."⁵² U.S. charges of money laundering pressured a Chinese bank in Macau to freeze the Pyongyang regime's accounts and triggered a retaliatory North Korean boycott of the Six Party negotiations in November 2005.⁵³

The relationship between the Kim family and the elite is symbiotic: While the Kim regime relies upon the members of these constituent groups to maintain its supreme position, their standing, in turn, derives solely from their relationship to the "Dear Leader" (Kim Jong-il's honorific title that his son, Kim Jong-un, assumed after his death). But the status and tangible rewards that flow to these elite to buy loyalty also carry the

risk that their proximity to power and their economic resources create the danger of a palace coup against the Kim family. To prevent the possibility of such an internal challenge, the Kim family has kept its top cadres under close surveillance through multiple, overlapping domestic intelligence organizations. The two major internal security agencies are the quasi-military Ministry of Public Security (MPS) and the State Security Department (SSD).⁵⁴ The ubiquitous MPS performs functions ranging from routine police work to the protection of high-ranking officials (with the exception of the ruling Kim, who has his own personal security unit). With its pervasive presence and network of informers throughout North Korean society, the MPS also monitors the general populace for any activities that could be construed as dissent. Such cases are referred to the SSD for further investigation and action.⁵⁵ Disloyalty to the “Dear Leader”—expansively defined (to include, for example, the improper disposal of newspapers with his photo) and brutally punished—is “the most serious crime a North Korean can commit.”⁵⁶ The Kim regime has created a powerful deterrent to dissent through its policy of meting out punishment not only to the individual who has committed the so-called transgression but to that person’s network of family and friends.

North Korea is the most systematic violator of human rights in the world. According to the State Department’s 2016 report on North Korea’s human rights abuses, the Kim Jong-un regime routinely engages in extrajudicial killings, enforced disappearances, arbitrary arrests and detention, forced labor, and torture. These abuses are committed in the country’s network of political prison camps (*kwanliso*), which holds an estimated 80,000-120,000 prisoners, including children and family members of the accused.⁵⁷

The Kim Family Cult

Kim Il-sung's cult of personality (once criticized as "idolatry" by a Soviet party official, according to a declassified document) was perpetuated through inheritance to Kim Jong-il and Kim Jong-un, thereby making North Korea the only hereditary monarchy in the history of communist states. The plan for a dynastic succession from Kim I to Kim II (as one observer called them) had been announced at the Korean Workers' Party congress in October 1980. In 1992, Kim Jong-il was given the rank of Marshal and named "Supreme Commander" of the Korean People's Army—a problematic move both because Kim Jong-il (hardly a martial figure at 5'2"; 176 lbs.) had never served in the military and because his father, the Great Leader, was still alive. As part of the personality cult's fabricated history, Kim Jong-il was credited with the seizure of the U.S. intelligence ship *Pueblo* off the coast of North Korea in January 1968.⁵⁸ Upon the death of the elder Kim in 1994, the Pyongyang regime publicly declared a new political motto with quasi-religious overtones: "Kim Il-sung is Kim Jong-il." Yet an extended hiatus before a formal transfer of power prompted a debate among external analysts over whether Kim Jong-il would be obliged to share power within a ruling oligarchy of party and military officials or would rule absolutely. A key indicator of Kim II's finalized succession came in September 1998 when he assumed his father's former title of "Great Leader" (a promotion from "Dear Leader") and was named chairman of the National Defense Commission, described as "the highest post of the state."⁵⁹ Kim Il-sung was declared North Korea's "eternal president" and lies (embalmed like Lenin and Mao) in perpetual state in his shrine-like mausoleum.⁶⁰

The Korean Workers' Party, the organization one would expect to be the leading institution in a communist country, has been steadily atrophying. Indeed, the KWP barely functions any longer as a political party, holding irregular once-a-generation party congresses. Its ideology has been stripped of Marxism,

and what remains—the *juche* doctrine of self-reliance—has become little more than a political rationale to legitimize the Kim family’s absolute power and dynastic rule.⁶¹ As the KWP has declined, external experts have noted the concomitant rise of the military. With some 1.2 million men in active service, the Korean People’s Army is the world’s fourth largest armed force.⁶² Overall, the military, which also encompasses a network of factories (the one functioning sector of the economy), accounts for approximately one-quarter of the country’s GDP. The Kim family has sought to ensure that the military remains unwaveringly dedicated to regime security through the personal vetting of promotions of high-ranking officers, lavish rewards to the military elite from the court economy, and occasional purges to preempt the possibility of a coup (there have been unconfirmed reports of at least one coup attempt, in 1992).

Since the onset of nuclear diplomacy with North Korea in the early 1990s, U.S. diplomats have occasionally reported splits between the military and the foreign ministry’s diplomats, but whether these perceived differences signify a true fissure within the regime or are a negotiating tactic remains unclear. That uncertainty, as well as the experts’ debate over the existence or not of competing hardliner and reformist camps within the Pyongyang regime, is a reflection of North Korea’s opaque decision-making system. Hard evidence of that process exists in only two instances, when decisions were taken in front of President Jimmy Carter and Secretary of State Madeleine Albright during their respective missions to Pyongyang. The first instance occurred in Carter’s presence in June 1994, when, at the former U.S. president’s request to help defuse the first nuclear crisis, Kim Il-sung, after conferring with his top aides on the spot, reversed a North Korean decision

“With some 1.2 million men in active service, the Korean People’s Army is the world’s fourth largest armed force.”

to expel IAEA inspectors.⁶³ The second instance came during the negotiations between Kim Jong-il and Secretary Albright in October 2000, when the North Korean leader agreed to ban the production and deployment of missiles with a range exceeding 500 kilometers. Albright later called Kim's immediate responses to U.S. technical questions without the assistance of aides or notes a "quite stunning" feat, which she viewed as evidence of his absolute authority.⁶⁴

The Kim Jong-un Era

When Kim Jong-il died in December 2011, he was succeeded by Kim Jong-un, the youngest of his three sons. Kim III's designation as heir apparent had been signaled in 2010 by his promotion to four-star general and his appointment as vice chairman of the Central Military Commission at age 27. The "Dear Respected Comrade," one of his many official titles, aggressively moved to consolidate his paramount position. An uncle by marriage, Jang Song-taek (whom some North Korea watchers believed would serve as a close adviser, if not regent, to the young leader) was executed in a purge—one in a rolling series that, according to South Korean intelligence, replaced about half of the DPRK's top 200 military and bureaucratic officials, including Defense Minister Hyon Yong-chol.⁶⁵ North Korea expert Andrei Lankov observed, "Kim Jong Un has been significantly more brutal than his father. And he's been particularly hard on the military."⁶⁶

The generational continuity of the Kim family cult remains the political cornerstone of the North Korean system, but Kim Jong-un has introduced changes, both stylistic and substantive, to signal a new era. The "Dear Respected Leader" has sought to project himself as a youthful modern leader, permitting the public display of foreign influences (such as Western clothing, Disney characters, and even rock concerts) and having a wife who is a visible public figure.⁶⁷ The Kim regime's rhetoric about improving the standard of living has led to renewed

experimentation with capitalist-oriented market reforms in agriculture and industry. The establishment of a dozen “Special Economic Zones” along the Chinese and Russian borders has permitted the controlled introduction of foreign capital and technology. Though characterized by Western economists as small in scale and reversible, these initiatives have gained some traction.⁶⁸ In 2014, the North Korean economy grew at an estimated 7.5 percent rate according to the Hyundai Research Institute, a South Korean think tank.⁶⁹ But the benefits of this economic growth appear confined to Pyongyang, which is enjoying a construction and consumption boom benefiting the regime’s elite. A sharp drop-off in standard of living is evident in rural areas the further one travels from the capital. Putting these economic developments in comparative perspective, North Korea’s economy remains a mere 1/50th the size of the South’s (having been at a parity level in the mid-1970s).

The Kim Jong-un regime’s conflicted interests over the expansion of the non-state economy underscore the persisting dilemma. On the one hand, economic reform on the Chinese model that unleashes the entrepreneurial power of the citizenry could pose an insidious political threat to the Kim family regime. On the other hand, even with the halting implementation of market reforms since the Kim Jong-il era, three-quarters of what people earn are estimated to come from the unregulated private economy. Nearly all North Koreans lead “a double economic life.”⁷⁰ The modest reforms in agriculture dating back to the late 1990s have meant the difference between subsistence and starvation for the general public. Moreover, while potentially threatened by the growth of the non-state economy, the Kim regime tangibly benefits from its cut of the proceeds. These revenues, in tandem

“ Putting these economic developments in comparative perspective, North Korea’s economy remains a mere 1/50th the size of the South’s. ”

with funds from its continued illicit activities (with large-scale drug trafficking reportedly scaled back in response to pressure from China), maintain the court economy for the elite. A United Nations Human Rights Commission of Inquiry's report calculated that Kim Jong-un annually squandered a staggering \$645 million on "luxury goods."⁷¹

Kim Jong-un must weigh competing risks: Rolling back the modest Chinese-type reforms would undermine the economy, but expanding them to empower new interest groups could threaten the Kim regime's political control. In Andrei Lankov's metaphoric formulation, "They are riding the tiger. Of course they are afraid of being eaten by it. But at least they are trying."⁷² Kim Jong-un's paramount one-man rule was reaffirmed in May 2016 at a rarely convened Korean Workers' Party congress which gave no hint of a move toward collective leadership or additional reform. To provide internal political guidance and to lay down a marker for foreign powers, Kim Jong-un has enunciated a guns-and-butter policy—"parallel [economic and military] development" (*byungjin*). This line harkens back to a slogan enunciated by Kim Il-sung in the 1950s, but which, in its current manifestation, supplants a general stress on military capabilities with specific emphasis on nuclear-weapons development. A senior U.S. diplomat, rejecting the Kim Jong-un regime's *byungjin* line, said that it wants to "have its cake and eat it too."⁷³ Washington's

position, endorsed by Beijing at the U.S.-China Strategic and Economic Dialogue meeting in 2015, is that Pyongyang's parallel goals of economic development and a robust nuclear-weapons program are incompatible—and indeed, that the former is undermined by North Korea's pursuit of the latter.

“Rolling back the modest Chinese-type reforms would undermine the economy.”

Alternative Futures

The North Korean nuclear crisis is set within the broader context of the country's societal evolution. Contending assessments of the Kim family regime's viability are critical threshold assumptions that undergird alternative U.S. strategies to address North Korea's proliferation challenge. North Korea's alternative futures are often assessed through reference to an airplane metaphor—a "hard landing" versus a "soft landing." But what if neither is an imminent prospect—in short, what if the plane is not crashing?

Sociologist Max Weber argued that charismatic leadership is an inherently unstable form of governance in the long run and therefore needs to be "routinized" into a more durable institutional structure. The DPRK has gone through two dynastic successions after the death of the North Korean state's charismatic founder, Kim Il-sung. With each successive generation, though, the charismatic inheritance is dissipated. As was said of Libya after Qaddafi's demise, North Korea is essentially a hollowed out state with institutions that have experienced waves of purges and now exist essentially to perpetuate and legitimize one-family rule. No routinization of power or of power transfer has occurred.

Senior George W. Bush administration officials, who judged North Korea to be "teetering on the edge of economic collapse" (in Deputy Secretary of Defense Paul Wolfowitz's words), believed that a squeeze strategy, enlisting China and South Korea, could tip it over. By contrast, the Clinton and Obama administrations eschewed this approach on the basis of its assessment that the sudden collapse of North Korea—a so-called "hard landing"—was both unlikely and carried the significant possibility of war on the Korean peninsula by triggering a final desperate act on the part of the Kim family regime. Since the 1990s, successive South Korean governments have consistently shared this assessment and

have been additionally concerned, in light of the German experience after the Cold War, about the staggering economic costs of rapid reunification, as well as the uncontrolled movement of refugees to the South. In May 2003, a few weeks after the toppling of the Saddam Hussein regime, when some Bush administration officials made provocative statements about replicating the Iraq precedent in other “rogue states,” South Korean president Roh Moo Hyun told White House officials during a Washington visit that Seoul would not support military action of any kind against Pyongyang.⁷⁴

Proponents of a soft-landing strategy for North Korea cite the absence of a viable military option to topple the regime and the unlikely prospect for regime change in a timeline relevant to the ongoing nuclear crisis. As former secretary of defense William Perry concluded in a 1999 report commissioned by the Clinton administration, the United States “must deal with the North Korean government as it is, not as we might wish it to be.”⁷⁵ A soft landing for North Korea would entail a process of gradual societal evolution driven by economic reforms, such as those enacted in China and Vietnam. In this scenario, the objective of the outside world’s economic engagement with North Korea should be to evolutionary change through the emergence of economic interest groups whose status is not derived from the regime and who are not part of the Kim family’s power base. Such economic actors—businesses and individuals whose future was not inextricably linked to the regime—have played significant roles as agents of change in other communist countries. In the soft-landing scenario, outside engagement through trade and joint ventures, which the North Koreans have reluctantly accepted in the face of economic crisis, are “poison carrots” that can facilitate societal change. An especially important element of this strategy should be to break the Kim regime’s monopoly on information, as has been happening with the rapid proliferation of cellular phones from China.

China plainly views an uneasy status quo as preferable to

either. A hard landing—regime collapse—would, at minimum, create a refugee crisis and risk triggering a conflict on the Korean peninsula. Alternatively, a soft landing—peaceful reunification between

“...is a soft landing
for North Korea
indeed possible?”

North and South Korea—would end North Korea’s status as a buffer state and leave China with a formidable pro-Western regional power on its border. Facing unacceptable alternatives, Beijing has clearly made a strategic decision to prop up the vulnerable Kim family regime through economic assistance (food and fuel) and investments in politically connected North Korean trading companies. China has turned a blind eye to UN sanctions adopted after successive nuclear tests since 2006 by allowing the transshipment of North Korean military goods and technology to Iran, and by serving as the primary conduit for luxury goods to maintain the lavish lifestyle of the regime’s elite. An International Institute for Strategic Studies (IISS) study suggested that North Korea has increasingly become “a de facto satellite of China.”⁷⁶ That may be the case economically, but politically the Kim family regime has been anything but subservient to China.

The Kim family regime’s survival strategy is to obtain the tangible benefits of outside economic engagement (e.g., siphoning off food aid for the military) while maintaining rigid control over the process and minimizing its impact on North Korean society. It appears that the Kim family recognizes that a soft landing for North Korean society means a hard landing for it. In veteran North Korea watcher Andrei Lankov’s view, a soft landing is likely to turn hard very quickly.⁷⁷ Though a fundamental question remains: is a soft landing for North Korea indeed possible? Proponents view that unknown prospect as preferable to the known dangers of an uncontrolled collapse. U.S. hardliners regard the soft-landing approach as synonymous to appeasement and believe that such engagement, far from being an instrument of social change, runs the moral hazard of propping up an odious regime that would otherwise collapse.

“Trends that can’t continue, won’t,” economist Herbert Stein famously observed. The North Korean people have suffered a depth of privation that would have triggered revolutions in other countries. Yet the demise of the Kim family regime, oft-predicted since the 1990s, has not occurred. Contrary to the prediction of the “collapsists” (to use economist Marcus Noland’s term), the Kim family has proved adept at insulating itself and its power base from the political consequences of the country’s grave economic crisis.⁷⁸ The Kim family’s remarkable durability under extreme adversity has meant that the timelines for a change of regime in Pyongyang and North Korea’s nuclear program remain out of sync.

U.S. policy should not be premised on the assumption of regime collapse. But neither should the possibility of sudden regime change or collapse precipitated from within be dismissed. Such unforeseen discontinuities have occurred elsewhere. Consider the relevant precedent of communist Romania, whose autocratic leader, Nicolae Ceaușescu, visited North Korea in 1971 and marveled at the total societal control exerted by his “beloved friend” Kim Il-sung. Upon returning to Bucharest, Ceaușescu pivoted to his own brand of economic autarky, heavy industrialization, mass mobilization, and a cult of personality rivaling that of Kim’s. In 1989, the Romanian army’s unexpected decision to oust and execute Ceaușescu reflected the shifting calculus of interests of Ceausescu’s own inner circle, who by then viewed the “Leader” as an anachronistic liability. A Ceaușescu-type coup by the Korean People’s Army to oust the Kim family is the most plausible of the sudden-change contingencies. A variation would be a civil war between rival factions that potentially spills across the border into China or South Korea. Such scenarios of extended internal factional conflict could draw in outside powers with unpredictable escalatory consequences. A high priority, which would require U.S. coordination (and ideally advance contingency planning) with China and South Korea, would be to secure the North Korean nuclear arsenal to prevent use or theft.⁷⁹

Domestic politics are a key determinant of the prospects for coercive diplomacy to constrain North Korea's nuclear program. For Pyongyang, the nuclear crisis is inextricably linked to the survival of the Kim regime. In the succinct formulation of a foreign diplomat based in Seoul 15 years ago, "Everything North Korea does, whether making peace or making threats, has a single goal: to sustain the regime."⁸⁰ That is equally true today—and encapsulates the challenge of constraining North Korea's nuclear capabilities.

“ A high priority, which would require U.S. coordination (and ideally advance contingency planning) with China and South Korea, would be to secure the North Korean nuclear arsenal to prevent use or theft.”



Nuclear Capabilities and Intentions

On October 8, 2006, the Kim Jong-il regime proclaimed that North Korea had conducted a nuclear-weapon test.⁸¹ The DPRK thereby became the ninth member of the nuclear club—joining the five permanent members of the Security Council grandfathered with nuclear status into the Nuclear Non-Proliferation Treaty (NPT)—the United States, Russia, China, Britain, and France; and three states that exercised their sovereign right not to accede to the NPT—India, Pakistan, and Israel (an undeclared but acknowledged nuclear-weapon state). In this unexpected move, the Kim regime defied its key patron, China, by crossing the nuclear threshold in the face of Beijing’s explicit admonitions.

The 2006 test overturned prevailing conventional wisdom about North Korea’s nuclear intentions. For nearly two decades beforehand, North Korea had pursued a policy of nuclear ambiguity—retaining the hedge inherent in its ability to produce weapons-usable fissile material, but not risking the punitive international consequences of becoming an overt nuclear-weapon state. The Kim family regime regarded nuclear weapons as both a deterrent capability vital to regime survival and a bargaining chip to extract economic inducements from the United States, South Korea, and Japan. The relative emphasis placed on one or the other was contingent on domestic conditions and external circumstances.⁸² That

*Left: A video grab from KCNA shows a Unha-3 rocket (a variant of the Taepodong-2) launching at North Korea’s West Sea Satellite Launch Site in Cholsan county, North Pyongan province on December 13, 2012.
Source: Reuters*

ambiguity has been shed as North Korea seeks recognition as a nuclear-weapon state—a status that the United States has repeatedly declared that Washington will never accept. A full rollback of the North Korean nuclear program in the near-term is not a feasible diplomatic objective. But with North Korea poised to significantly expand its arsenal and deploy miniaturized warheads on long-range ballistic missiles capable of striking the United States, the urgent question is whether the North's nuclear intentions can be checked to prevent this breakout of its capabilities.

The Plutonium Pathway

North Korean interest in a nuclear program dates to 1952, at the height of the Korean War, when Kim Il-sung established an Atomic Energy Research Institute to train a cadre of nuclear scientists. In 1956, according to a declassified Soviet diplomatic cable, the North Korean leader pressed the Soviet ambassador on nuclear cooperation, which began in 1959 with the signing of a bilateral agreement.⁸³ That accord included provisions for technical training and the establishment of a nuclear research center at Yongbyon, located 90 kilometers north of Pyongyang. Soviet geological teams undertook surveys of the DPRK that discovered ample deposits of uranium to support a nuclear program. Moscow's nuclear assistance was not intended to facilitate Pyongyang's acquisition of a weapon, but through this bilateral program North Korea gained expertise in the production of weapon-usable material—plutonium.⁸⁴ In 1963, at the Yongbyon nuclear complex, the Soviet Union installed a small research reactor, the IRT-2000, which produced radioisotopes. Yet as Pyongyang admitted to the International Atomic Energy in 1993, the IRT-2000 reactor, in tandem with reprocessing equipment transferred from the USSR, also allowed North Korea to chemically extract a small quantity of plutonium from spent nuclear-reactor fuel. Through this early cooperative relationship with the Soviet Union, North Korea

cleared an important technological hurdle on the pathway to weaponization.⁸⁵

Soviet, and to a lesser extent Chinese, assistance played an essential role in launching the North Korean nuclear program. From the 1970s onward, however, the Kim Il-sung regime's emphasis on self-reliance (*juche*) gave impetus to the development of indigenous capabilities. Having demonstrated the ability to produce and separate plutonium, North Korea moved to scale up—that is, to produce a sufficient supply of plutonium for a weapons program—through the construction of industrial-scale facilities.

In 1980, a U.S. spy satellite photographed a large construction site at Yongbyon adjacent to the research reactor provided by the Soviet Union. That site developed into a 5-megawatt reactor whose purported civil nuclear-energy rationale belied the intent

to produce plutonium. The design employed by the North Koreans was indicative of its purpose: the reactor was based on declassified British blueprints for a dedicated plutonium production facility for the United Kingdom's nuclear-weapon program. This five-megawatt reactor was well suited to North Korea because its raw materials—natural uranium fuel and graphite to moderate the chain reaction—could be indigenously sourced.

During the 1980s, North Korea developed a full plutonium fuel cycle. On the “front end” were uranium mines, uranium-milling facilities for the production of refined uranium “yellow cake,” and a Yongbyon facility where the “yellow cake” was further processed and fabricated into fuel rods for the reactor. On the “back end,” North Korea constructed a football field size reprocessing facility to separate plutonium from the irradiated

“ The Kim Il-sung regime's emphasis on self-reliance (*juche*) gave impetus to the development of indigenous capabilities.”

fuel rods created during the operation of the reactor. Such a reprocessing facility made no sense outside the context of a nuclear-weapon program. Complementing its mastery of the plutonium fuel cycle, North Korea conducted experiments with conventional explosives essential for the development of a workable nuclear warhead. Between 1986, when the five-megawatt facility became operational, and 1994, when the Agreed Framework froze activity at the Yongbyon site, a CIA National Intelligence Estimate concluded that North Korea had separated sufficient plutonium from the spent fuel rods to build one or two bombs.⁸⁶

“The visit confirmed the U.S. intelligence assessment that the suspect Yongbyon installation was indeed a reprocessing facility.”

North Korea signed the Nuclear Non-Proliferation Treaty (NPT) in December 1985, reportedly in response to pressure from the Soviet Union and Moscow’s promise of four light-water nuclear power reactors.⁸⁷ Afterwards, however, the Kim Il-sung regime pursued dilatory tactics to block implementation of the NPT, taking nearly seven years to complete

its safeguards agreement and provide a required inventory of its nuclear materials and facilities. While the negotiations over the DPRK’s implementation of the NPT unfolded, North Korea began construction of two larger graphite reactors (estimated at 50 and 200 megawatts) and U.S. intelligence detected the aforementioned reprocessing facility.

In May 1992, IAEA director-general Hans Blix visited North Korea after the Kim Il-sung regime finally signed and ratified the IAEA safeguards agreement. The visit confirmed the U.S. intelligence assessment that the suspect Yongbyon installation was indeed a reprocessing facility. There was also broad agreement that the North Koreans had reprocessed more plutonium than they had acknowledged in their official

declaration to the IAEA (though estimates of the precise amount varied). During the Blix visit, the North Koreans had broached the possibility of replacing their outmoded graphite-moderated reactors with more advanced light-water reactors (LWRs). This LWR transfer proposal would be revived in July 1993 and became the central element of the Agreed Framework in October 1994.⁸⁸

A Plutonium Freeze and Covert Uranium Enrichment

The precipitant of the first North Korean nuclear crisis, in spring 1994, was Pyongyang's announcement that the five-megawatt reactor at Yongbyon would be shut down so that spent fuel from its core could be removed. This created an immediate crisis in Washington and Seoul because of estimates that these fuel rods contained sufficient plutonium to produce four or five nuclear bombs. The crisis broke in June 1994 with the visit to Pyongyang of former President Jimmy Carter, whose meeting with Kim Il-sung yielded a North Korean pledge to "freeze" its plutonium program if the United States dropped its diplomatic campaign to impose UN sanctions on the DPRK.

Several rounds of intensive negotiations following the Carter-Kim summit culminated in the October 1994 Agreed Framework, under which North Korea agreed not to restart its five-megawatt graphite-moderated research reactor, to seal its reprocessing facility, and to freeze construction on and subsequently dismantle the 50- and 200-megawatt reactors. Spent fuel rods removed in May 1994 from the five-megawatt reactor would remain in the cooling pond and eventually be shipped out of the country. All these provisions would be monitored by the IAEA. A confidential addendum to the Agreed Framework banned construction of identical installations—graphite-moderated reactors and reprocessing facilities—at any other site in North Korea.⁸⁹ In return for the freezing and dismantling of the DPRK's nuclear facilities at or near Yongbyon,

the United States agreed to create an international consortium, whose other key members were Japan and South Korea, to construct two 1,000-megawatt light-water reactors in North Korea over the next decade.⁹⁰

Both sides abided by the Agreed Framework's main terms— North Korea maintained the plutonium freeze, while the United States, working with its partners, South Korea and Japan, provided a half million tons of heavy oil (to compensate Pyongyang for the energy that the DPRK was ostensibly forgoing by suspending the operation of its Yongbyon reactor) and began preparations for the transfer of the two light-water reactors. However, sensitive reactor components were withheld in the absence of North Korea's accounting to the IAEA of its nuclear history.

With the freezing of activity at Yongbyon, North Korea had a potential arsenal of one or two nuclear weapons based on the CIA estimate of plutonium separated from spent fuel rods prior to the Agreed Framework. Pyongyang was faced with a dilemma of competing interests— abiding by the Agreed Framework, while preserving a nuclear hedge vital to regime survival. Reconciling the two led the Kim Jong-il regime to pursue the second pathway to the bomb employing highly enriched uranium (HEU).⁹¹ To achieve that alternate route to nuclear acquisition without detection, the Kim Jong-il regime turned to Pakistan, which conducted its first nuclear test in May 1998. In 2002, U.S. intelligence confirmed what had been suspected since around 1997—that Pakistan, via A.Q. Khan's notorious black market network, had bartered centrifuges for uranium enrichment to North Korea in exchange for *Nodong* ballistic missile technology.⁹² The precise technology transferred from the Khan network to North Korea to create an industrial-scale facility for uranium enrichment is not known, but presumably included: P-1 and P-2 gas-centrifuges, the training of North Korean technicians on duplicating the technology for indigenous production, and the same warhead design later discovered to have been provided to Libya and Iran.⁹³

In October 2002, Assistant Secretary of State for Asian Affairs James Kelly journeyed to Pyongyang for bilateral U.S.-DPRK talks and charged the North Koreans with pursuing a covert uranium enrichment program. The subsequent American and North Korean accounts of the October 2002 showdown differed: Kelly maintained that First Vice Foreign Minister Kang Sok-ju had acknowledged the existence of the DPRK's HEU program, while the Pyongyang regime denied the U.S. claim, stating that Kelly had "misunderstood" Kang. In the wake of the stormy bilateral meeting in Pyongyang, a senior U.S. official declared the Agreed Framework "dead" and leveled blame at the North Koreans, who had told Kelly they viewed the 1994 accord as "nullified" (even as they simultaneously hinted that the Pyongyang regime might be induced back into compliance).⁹⁴

The confrontation over the covert uranium enrichment program precipitated a collapse of political support for the Agreed Framework in both the United States and North Korea.⁹⁵ In December 2002, Pyongyang announced that it was restarting the five-megawatt reactor and reopening the other facilities at Yongbyon frozen under the Agreed Framework. The Kim Jong-il regime ordered IAEA inspectors to leave the country and announced, in January 2003, that North Korea was withdrawing from the NPT. By winter 2002-2003, the diplomatic confrontation over the exposure of North Korea's uranium enrichment activities

“Pyongyang announced that it was restarting the five-megawatt reactor and reopening the other facilities at Yongbyon frozen under the Agreed Framework.”

had turned into a much more urgent situation involving its renewed acquisition of plutonium. Having ejected the IAEA and reopened the Yongbyon facility, North Korea reprocessed 8,000 fuel rods from the five-megawatt reactor, which had been stored in adjacent cooling ponds under the Agreed

Framework, and extracted plutonium for four to six nuclear weapons. In June 2005, North Korea shut down the Yongbyon reactor, whose operation had resumed after the collapse of the Agreed Framework, to remove spent fuel rods for subsequent reprocessing to extract plutonium sufficient for an additional one to three bombs. The Six Party Talks, whose six rounds of talks were hosted by Beijing after 2003, aimed to restore the plutonium freeze, but North Korea had already seized on the collapse of the Agreed framework to extract weapons-usable material from the Yongbyon reactor's spent fuel rods. In 2005, the Six Party Talks produced an apparent breakthrough: in a Joint Statement, North Korea agreed to abandon its nuclear programs and return to the NPT in return for Western economic aid, a U.S. security assurance of non-aggression, and the resumption of talks to normalize relations with the United States.⁹⁶

Crossing the Threshold

When the Kim Il-sung regime tested a weapon in October 2006, North Korea likely possessed a small arsenal of 6 to 13 nuclear weapons, estimated as follows: 1-2 bombs using plutonium from the Yongbyon reactor during shutdowns in 1989-1991 prior to the Agreed Framework; an additional 4-6 from plutonium extracted from the 8,000 fuel rods stored in cooling ponds after the Agreed Framework; and 1-3 weapons with plutonium produced at the restarted Yongbyon reactor after the nuclear accord's collapse. The estimates of North Korea's nuclear stockpile size vary depending on two factors: first, the amount of plutonium extracted from the Yongbyon reactor's spent fuel rods; and second, the approximated amount of plutonium used per weapon.⁹⁷

In February 2007, the Six Party Talks, convened under the shadow of North Korea's landmark test, reached agreement on the implementation of the 2005 Joint Statement, beginning




with a renewed freeze of the Yongbyon facility. Once a verbal agreement was reached over a protocol to achieve “complete, verifiable, irreversible” disarmament, the United States resolved a thorny vestigial issue by removing North Korea from the State Department’s list of state sponsors of terrorism. But the Kim Il-sung regime quickly balked at terms of the implementation agreement—for example, claiming that it had not accepted a provision allowing the IAEA to collect soil samples at test sites to facilitate an accounting of North Korea’s past plutonium production. North Korean cooperation ended in May 2009, just weeks after its expulsion of IAEA monitors, when the DPRK conducted its second nuclear test with an estimated yield of four kilotons. The Six Party Talks went into abeyance as the Obama administration pivoted to a policy of “strategic patience,” whose objective was to compel North Korea to recommit to the negotiating goal of denuclearization.

North Korea’s initial nuclear stockpile, including the weapons tested in 2006 and 2009, was based on the plutonium extracted from the five-megawatt research reactor at Yongbyon. After the collapse of the Agreed Framework in 2003, U.S. diplomacy was focused primarily on reinstating the plutonium freeze. Yet the precipitant of the second North Korean nuclear crisis in 2002-2003 was the covert uranium enrichment program, whose scope and urgency were unknown. After the UN Security Council tightened sanctions in response to the DPRK’s second test, the North Korean foreign ministry confirmed what it had long denied—the existence of its uranium enrichment program. In November 2010, the North Koreans showed a delegation of experts from Stanford University, including Siegfried Hecker, the former director of the Los Alamos National Laboratory, a functioning uranium enrichment plant at the Yongbyon nuclear complex.⁹⁸ The purported purpose of the uranium enrichment facility was to provide fuel for a 100-megawatt light-water reactor under construction at Yongbyon. A “stunned” Hecker estimated that the North Koreans had installed 2,000 P-2 centrifuges (i.e., the type transferred to North Korea from

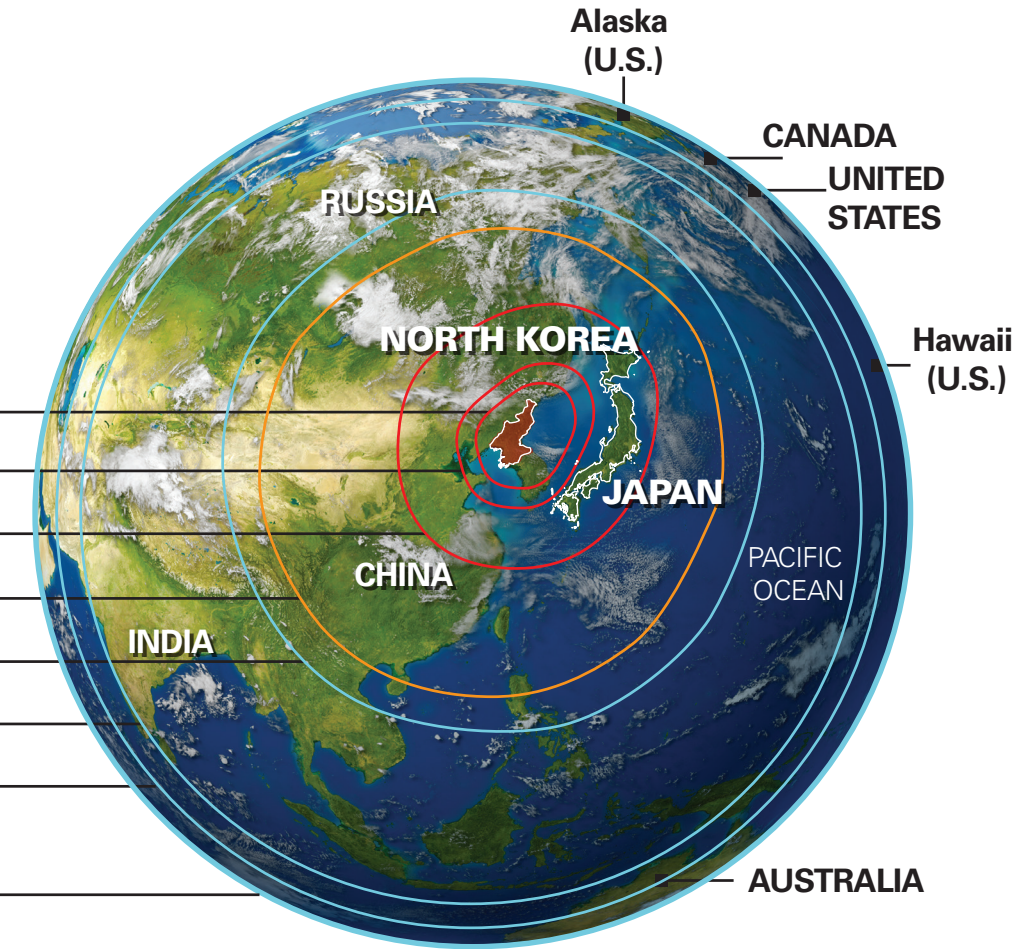
North Korean Missile Range

A comparison of North Korea's ballistic missiles' range and capabilities

Status:

-  Operational
-  Flight tested
-  In development/untested/
test unsuccessful

		Warhead (kg)	Range (km)	
	Hwasong-5	1,000	300	
	Hwasong-6	700	500	
	Nodong	700	1,300	
	Taepodong-1	500	2,500	
	Musudan	650	3,000+	
	Taepodong-2	700-1,000	6,700	
	KN-08 (Rodong C)	750-1,000	6,000	
	Taepodong-3	100	12,000	



Sources: Federation of American Scientist:
Global Security Center for Arms Control and
Non-Proliferation; South Korean defense ministry

Pakistan through the A.Q. Khan network in the late 1990s). A program of this magnitude was capable of producing sufficient low-enriched uranium for the operation of the light-water reactor, but could also be reconfigured to yield 40 kg of highly enriched uranium per year, nearly enough for two bombs.⁹⁹ In 2013, satellite imagery indicated that the building housing the uranium enrichment facility had been doubled in size, but it was not known how many additional centrifuges were brought online.¹⁰⁰

Concrete evidence of North Korea's uranium enrichment program confirmed that the Kim family regime had acquired a second potential route to the bomb—one employing the technically less challenging gun-type warhead design. The United States informed the IAEA in December 2010 that the U.S. intelligence community believed North Korea had one or more clandestine uranium enrichment facilities beyond the known Yongbyon site. As a uranium enrichment installation is more difficult to detect than a plutonium production complex, the U.S. intelligence assessment about additional covert uranium enrichment facilities raised the

“Concrete evidence of North Korea’s uranium enrichment program confirmed that the Kim family regime had acquired a second potential route to the bomb.”

specter of North Korea being able to significantly augment its small plutonium-based nuclear arsenal. A White House official offered that the North Korean uranium enrichment project “appear[ed] to be much more advanced and efficient than the Iranian program.”¹⁰¹

North Korea has developed facilities to support each phase of the uranium enrichment process. Yet Pyongyang's covert procurement activities and lack of transparency (with no sites under IAEA monitoring) frustrate efforts to assess the program's scope and capacity to produce weapons-usable material.

A major unknown in estimating the enrichment program's trajectory is the extent to which the DPRK remains reliant on imported components (such as specialized steel, machine tools, and high-speed motors) or can indigenously manufacture centrifuges. Technical experts differ on whether North Korea has crossed this major threshold of self-sufficiency.¹⁰² In sum, North Korea's mastery of uranium enrichment is the Kim Jong-un regime's "new nuclear wild card," according to a May 2016 study from Stanford University's Center for International Security and Cooperation. Authored by a team of eminent nuclear physicists who had visited North Korean nuclear sites, the report concluded: "A capability to enrich uranium introduces dramatic uncertainty into any estimate of the North's nuclear future, and the truth is that we know very little about the extent of that capability. It is also difficult to predict how their enrichment capacity may grow, and how it will be used in the future."¹⁰³

Accelerating toward a Breakout

North Korea is on the verge of a nuclear breakout that is both *quantitative* (by sharply increasing its arsenal size) and *qualitative* (through its mastery of warhead miniaturization and long-range ballistic missiles capable of striking the U.S. homeland). With two nuclear tests and a flurry of ballistic-missile tests of various ranges in 2016, the tempo of North Korean activity is accelerating. As detailed below, Pyongyang's determined effort to achieve a breakout is reflected across four key categories of capabilities: (1) the production of *weapons-usable material* (plutonium and highly enriched uranium); (2) *warhead design* improvements; (3) *nuclear tests* to verify the design and increase weapon-yields; and (4) *missile tests* to develop a reliable warhead-delivery system.

WEAPONS-USABLE MATERIAL

Estimating the growth of the North Korean nuclear arsenal entails a probabilistic calculation that must take multiple

variables into account, notably: the existence or not of a clandestine uranium enrichment facility; whether the capacity of a covert enrichment site would be the same as that of the Yongbyon facility; whether or not North Korean warhead designs utilize the IAEA standard of 8 kg of plutonium and 25 kg of highly enriched uranium per weapon; whether or not economic sanctions will limit North Korea's access to essential materials (such as specialty steel); the amount of weapons-usable material used in the five nuclear tests to date; among others. A 2015 study by David Albright of the Institute for Science and International Security Studies analyzed the possible trajectories for North Korea's nuclear-weapon programs. The DPRK's projected acquisition of weapons-usable material was the key determinant driving three alternative futures for the year 2020: a low-end projection of 20 weapons; a medium projection of 50 weapons; and a high-end projection of 100 weapons. In the worst plausible growth scenario, North Korea, a failed state, could have a nuclear arsenal just under half the size of Britain's within three years! The focus of U.S.-led coercive engagement should be to freeze the program to hold it at the low end of projections.

WARHEAD DESIGN

In March 2013, the Pyongyang regime released a saber-rattling propaganda video depicting a nuclear strike on Washington. The following month, seven years after the DPRK's first nuclear test, the Defense Intelligence Agency concluded with "moderate confidence" that North Korea had mastered the ability to produce a nuclear warhead that could be launched on a ballistic missile. The DIA's assessment cautioned, however, that the weapon's "reliability [would] be low," a reference to the significant technical hurdles that North Korea needs to overcome to attain a dependable capability. Such a nuclear warhead would need to be miniaturized for mounting on a missile, durable enough to

survive the rigors of ballistic flight and the heat of reentry, and with sufficient accuracy to strike the intended target. North Korea is likely to have obtained a proven bomb design, which China had provided Pakistan, through its nuclear black market relationship with A.Q. Khan, who transferred those Chinese-origin blueprints to another client, Qaddafi's Libya, and plausibly did the same with North Korea.

In April 2013, Director of National Intelligence (DNI) James Clapper pulled back from the DIA assessment in congressional testimony, stating, "North Korea has not yet demonstrated the full range of capabilities necessary for a nuclear armed missile." In a March 2016 meeting with nuclear scientists, Kim Jong-un claimed that North Korean "nuclear warheads have been standardized to be fit for ballistic missiles by miniaturizing them." Whether or not North Korea has yet crossed that technological threshold or not remains a matter of

debate. While some experts cast doubt on the Kim Jong-un regime's claims of progress, others believe that the North Korea may have constructed a warhead small enough to be launched on its medium-range Nodong missile. What is known is the United States and other nuclear-weapon states required multiple tests conducted over years to develop a warhead that met

the requirements of size, durability, and precision to become operational. That historical record, within the context of the Pyongyang regime's accelerating pace of testing, argues for the urgent negotiation of a freeze to prevent North Korea from developing a reliable warhead capability.

“ In a March 2016 meeting with nuclear scientists, Kim Jong-un claimed that North Korean ‘nuclear warheads have been standardized to be fit for ballistic missiles by miniaturizing them.’ ”

NUCLEAR TESTS

North Korea has conducted six underground explosions at its nuclear test site at Punggye-ri, a small town in the country's northeast. The tempo of North Korean activity increased in 2016, with Pyongyang conducting two tests after a nearly three-year hiatus. The sub-kiloton yield of North Korea's first nuclear test in October 2006 pointed to a "partial failure," according to DNI Clapper. But it also raised the not implausible possibility that the low-yield had been intentional, either as part of warhead development for the Nodong missile or to limit the amount of plutonium used. The four tests from May 2009 to

September 2016 were of successively increasing yields—rising from 2 kilotons to an estimated 20-30 kilotons. North Korea declared after its fourth test in January 2016 it had successfully detonated a hydrogen bomb—a claim that the White House disputed as "not consistent" with the seismic evidence. Nuclear testing is essential for warhead development. North Korea stated that its third nuclear test in February 2013 was intended to develop a "smaller and light" device that could be mounted on a ballistic missile. The conventional wisdom is that North Korea has employed plutonium as the starting

material for its tests, but that is an open question. Though the evidence was inconclusive, the February 2013 test prompted speculation that North Korea had detonated a weapon using highly enriched uranium.

MISSILE TESTS

North Korea's imminent nuclear breakout arises from the conjunction of capabilities—miniaturized warheads and reliable ballistic-missile delivery systems. North Korea's missile

“Though the evidence was inconclusive, the February 2013 test prompted speculation that North Korea had detonated a weapon using highly enriched uranium.”

inventory is estimated at over 1,000 missiles of varying ranges. The origin of the DPRK's missile program dates to 1976 when Egypt transferred Russian Scud missiles to North Korea. The North Koreans manufactured their own version of the Scud, the Hwasong, which was followed in the 1990s by the larger Nodong missile, whose medium range of 1,300 kilometers covered potential regional targets as far as Tokyo. In 1998, North Korea tested its first multi-stage missile, the Taepodong-1, which used the Nodong as its first stage and the Hwasong as its second, with an estimated range of 2,200 kilometers. North Korea has struggled with the technical challenges of multi-stage missiles. The three-stage Taepodong-2 failed to perform in flight tests in 2006, 2009, and 2012. Pyongyang conducted these tests in the face of a UN Security Council resolution, passed after the North's October 2006 test, proscribing missile-related activities.

In December 2012, North Korea successfully launched a small satellite into orbit from the Sohae facility on North Korea's west coast. The launcher was a Taepodong-3 missile, also known by its space-launch designation, Unha-3, which can boost a 100 kg payload into orbit and has an estimated intercontinental range of 12,000 kilometers, which would bring California within reach. Under Kim Jong-un, North Korea's missile launch facilities have been expanded and the pace of missile test launches has accelerated. North Korea has also tested new capabilities in April 2016—a submarine-launched ballistic missile and a new solid-fueled rocket engine (which offers an alternative to less cumbersome and vulnerable liquid-fueled engine). But the long-range missile program remains bedeviled by technical problems. In spring 2016, the North Koreans had four consecutive failures of its intermediate-range Musudan missile. One line of speculation about North Korea's missile program is that the criterion of success for the Pyongyang regime may not be a reliable missile for wartime, but rather, a single successful mission that would be a political signal to the United States,

South Korea, and Japan, who, in a crisis, could not dismiss the possibility that the missile might actually work.

A Deterrent, Bargaining Chip, or Both?

Declassified documents from the Cold War-era archives of North Korea's former allies in the Soviet Union and Eastern Europe reveal the powerful motivation underlying the Kim family regime's longstanding nuclear quest. These diplomatic cables reveal the North Korean leadership's thinking on nuclear weapons. The participants, including Kim Il-sung and his "best friend," East German leader Erich Honecker, believed the transcripts of their secret oral conversations would forever remain so. As early as August 1962, the Soviet ambassador to Pyongyang reported that the North Korean foreign minister had baldly asked of the DPRK's superpower patron, "The Americans have a large stockpile, and we are forbidden even to think about the manufacture of nuclear weapons?" Kim Il-sung reportedly made two requests to Beijing for assistance in building nuclear weapons—the first after the initial Chinese nuclear test in 1964; and the second in the early 1970s when South Korea was flirting with its own nuclear option. In 1976, a senior North Korean official angrily emphasized his country's "front-line situation" after the Kremlin had rejected as "inopportune" yet another request by Pyongyang for nuclear technology. The documents reveal the mindset of a vulnerable regime that perceives the Korean War to have never ended. North Korea's nuclear intentions were fueled by perceptions both of vulnerability to superior U.S. and South Korean forces and, after the fall of communist rule in Eastern Europe and the Soviet Union, of collapse.

A telling indicator of Pyongyang's determined pursuit of nuclear weapons is that its acquisition of uranium enrichment technology from Pakistani black marketer A.Q. Khan (which offered an alternative source of weapons-grade fissile material

to the plutonium program at Yongbyon) occurred in the late 1990s, when the Clinton administration was engaging North Korea through the Agreed Framework and negotiations on ballistic missiles. The October 2002 crisis over the covert uranium enrichment program played out against the backdrop of U.S. preparations for a war of regime-change in Iraq and President Bush's inclusion of North Korea in the "axis of evil." The chief North Korean nuclear negotiator told his U.S. counterpart, "If we disarm ourselves because of U.S. pressure, then we will become like Yugoslavia or Afghanistan's Taliban, to be beaten to death." In June 2003, two months after U.S. tanks rolled into Baghdad to topple the Saddam Hussein regime, a North Korean Foreign Ministry official declared that the DPRK would

respond to any encroachment on its sovereignty "with an immediate, physical retaliatory measure. Neither sanctions nor pressure will work on us

As far as the issue of nuclear deterrent force is concerned, the DPRK has the same status as the United States and other states possessing nuclear deterrent forces." As

Pyongyang claimed equivalence with the United States three years before conducting its first nuclear test, another senior DPRK official told visiting U.S. congressional staff members that Washington should "stop trying so hard to convince us to abandon our nuclear program and start thinking about how you are going to live with a nuclear North Korea."

Kim Jong-il's signal accomplishment, in the face of concerted U.S. and international efforts to the contrary over more than two decades, was to bequeath to his son Kim Jong-un a small nuclear arsenal. Under Kim Jong-un, North Korea's declaratory policy has further hardened. Pyongyang's demand

“If we disarm ourselves because of U.S. pressure, then we will become like Yugoslavia or Afghanistan’s Taliban, to be beaten to death.”

that the DPRK be accepted as a “nuclear-armed nation” was codified through a constitutional amendment in April 2012. Kim announced “a new strategic line”— a guns-and-butter policy of “parallel [economic and military] development” (byungjin)—at a Korean Workers’ Party central committee meeting in March 2013. The “Dear Leader” asserted that the country’s nuclear weapons “are neither a political bargaining chip nor a thing for economic dealings.” He declared that the nuclear arsenal is a “treasure” that will not be traded for “billions of dollars,” and must indeed be expanded both “in quality and quantity, as long as the United States’ nuclear threat continues.”

In June 2013, three months after Kim’s defiant enunciation of the byungjin line, the DPRK’s National Defense Council issued a statement calling for high-level bilateral talks with the United States and affirming that North Korea’s “legitimate status as a nuclear weapons state will be maintained without the least wavering, regardless of whether others recognize it or not,

until the denuclearization of the entire Korean peninsula is realized and nuclear threats from outside are put to an end completely.” Expert views differed over whether the statement was a signal reflecting genuine interest in renewed negotiations or was intended to create a political fissure among the United States, China, and South Korea, whose stances on denuclearization were converging.

North Korean declaratory policy under Kim Jong-il and Kim Jong-un has emphasized the deterrent value of the DPRK’s nuclear program. To the extent that the nuclear program remains a negotiating bargaining

“He declared that the nuclear arsenal is a ‘treasure’ that will not be traded for ‘billions of dollars,’ and must indeed be expanded both ‘in quality and quantity, as long as the United States’ nuclear threat continues.’”

chip, denuclearization—“complete, verifiable and irreversible dismantlement” (CVID)—is not a feasible near-term diplomatic objective. With full denuclearization off the table and North Korea at the threshold of a nuclear breakout, the urgent question is whether political space exists to negotiate an interim agreement that freezes the DPRK’s nuclear capabilities to prevent a breakout. Or failing a negotiated freeze to constrain North Korean capabilities at their current level in numbers and sophistication, what are the alternative U.S. policy options?



The Case for Coercive Engagement

Kim Jong-un ushered in 2017 with a fiery New Year's speech touting North Korea's nuclear arsenal and proclaiming the imminent test of a new intercontinental ballistic missile (ICBM). Then President-elect Trump quickly responded on Twitter, baldly rejecting the "Dear Leader's" intention to acquire the capability to strike the United States with a dismissive, "It won't happen."¹²⁴ The new administration has assumed office with the avowed commitment to prevent the nuclear breakout—the integration of miniaturized nuclear warheads on long-range ballistic missiles—that the Pyongyang regime is on the verge of achieving. If unchecked, North Korea, according to the high-end projections of recent RAND and Johns Hopkins SAIS studies, is on pace by 2020 to have a nuclear arsenal of 100 weapons—nearly half the size of Britain's—and a proven ICBM delivery system.

Basically, to prevent a North Korean nuclear breakout, the Trump administration has two options: a preventive military strike on North Korea's nuclear and missile infrastructure to destroy its capability to threaten the United States; or a revitalized diplomatic track to deny North Korea a breakout capability by negotiating a freeze of its nuclear and missile programs. This

*Left: Satellite image taken on September 11, 2005 of the Yongbyon nuclear complex, North Korea.
Source: Reuters*

section critically analyzes these two options—identifying and assessing the key assumptions underlying each and placing them in historical context. The analysis sustains the conclusion that the military option, considered and rejected by the Clinton administration during the first nuclear crisis in 1994, continues to carry the catastrophic risk that even a limited strike on the North’s nuclear infrastructure would likely escalate into a general war on the Korean peninsula.

In rejecting the use of military power, this study argues for a pivot to serious diplomacy through a strategy of *coercive engagement*. At first glance, the record of nuclear diplomacy with North Korea does not encourage optimism. Abortive efforts most recently include the 2012 “Leap Day” agreement, originally thought to be a breakthrough. Why should a renewed diplomatic push to bound North Korea’s nuclear ambitions fare any better? A new conjunction of factors creates an opportunity to achieve a freeze agreement—one that, in the near term, *optimizes* the interests among all the major parties. Such an interim agreement would forestall a North Korean nuclear breakout and reaffirm the goal of long-term denuclearization (the urgent U.S. interest), while preventing the collapse of the North Korean regime and the loss of a buffer state (the Chinese interest) and leaving the Kim family regime in power with a minimum nuclear deterrent (the paramount North Korean interest). This analytical option should be put to the political test through revitalized diplomacy.

Proliferation Precedents, 1981-2011

The third North Korean nuclear crisis is playing out against the historical backdrop of proliferation precedents set in Iraq, Libya, and Iran—three other countries designated by the United States as “rogue states” in the 1990s—and Syria. These historical cases are frequently cited in the current U.S. policy debate on North Korea in support of one option or another. A comparative

analysis sheds light on the conditions governing the utility of, and constraints on, the principal counterproliferation instruments—military force, economic sanctions, and security assurances. An understanding of the important proliferation precedents, involving the use of these various policy instruments, should inform the assessment of U.S. options to constrain North Korea’s nuclear capabilities.

IRAQ (1981, 1998, 2003)

Iraq provides three contrasting precedents that highlight the conditions of success for, and the constraints on, the use of force to achieve a nonproliferation goal.

In June 1981, Israel conducted a surprise airstrike on Iraq’s Osiraq nuclear reactor before it was loaded with nuclear fuel and became operational. Proponents of preemption often cite the Israeli raid as a model. But the Osiraq case, far from being a paradigm, was a rare instance in which the major conditions for success were present—specific and highly accurate intelligence, and negligible risk of retaliation or collateral damage to the environment and civilian population.

But even with Iraq, military force was not always feasible. Constraints on the use of force to achieve proliferation objectives were evident in December 1998 during Operation Desert Fox, when the United States and Britain launched a four-day bombing campaign to enforce the UN Security Council disarmament resolutions imposed on Iraq after the 1991 Gulf War. But U.S. and British planners acknowledged that they had not targeted chemical and biological weapons facilities out of fear that such attacks might release deadly toxins into the atmosphere and produce unacceptable civilian casualties.

In 2003, after the U.S. military offensive to oust Saddam Hussein, a senior Bush administration official described Iraq as a “type”—a model of coercive nonproliferation through regime change.¹²⁵ In Iraq, President Bush claimed, America

had “redefine[d] war” by demonstrating the U.S. ability to decapitate a regime without inflicting unacceptable collateral damage on the civilian population.¹²⁶ But with the onset of the deadly insurgency against U.S. occupation forces and the failure to find Iraqi weapons of mass destruction, the administration dropped its bravado about replicating the Iraq model in the other two members of the “axis of evil”—Iran and North Korea.

LIBYA (2003, 2011)

If Iraq had set an important precedent—nonproliferation through a change *of* regime—Libya offered the alternative: nonproliferation through a change *in* a regime. The surprise December 2003 announcement of Libya’s accession to verified WMD disarmament completed the strategic turnabout that Qaddafi initiated in the late 1990s to end the country’s international pariah status. Though Bush administration officials proclaimed Libya’s turnabout as a dividend of the Iraq War (Qaddafi had been “scared straight”), the crux of the Libyan deal was the administration’s tacit but clear assurances of security for the regime: if Qaddafi changed his behavior, Washington would not press for a change of regime in Tripoli. With Iran, Obama attempted a variation of the Libya deal. The President clarified the Bush administration’s mixed message with respect to the objective of U.S. policy (regime change versus behavior change) by making clear that Washington was prepared to offer the Tehran regime the same security

“If Qaddafi changed his behavior, Washington would not press for a change of regime in Tripoli.”

assurance that had been central to the success with Libya in 2003. But, in 2011, North Korea seized on the NATO intervention in Libya to topple the Libyan dictator as proof that he had been duped by the West when he dismantled his nuclear program. The Libyan intervention has stiffened

resistance in Pyongyang and complicated the already long odds of successful nuclear diplomacy. For North Korea, the rationale that the Libyan military operation was undertaken as a “humanitarian intervention” rather than to achieve nonproliferation ends is an analytical distinction without political difference.

SYRIA (2007)

In spring 2007, the United States was informed by a “foreign intelligence partner,” presumably Israel, that Syria was constructing a nuclear reactor, evidently modeled on the North Korean facility at Yongbyon, capable of producing weapons-grade plutonium. To Bush, the report indicated that “we had just caught Syria red-handed trying to develop a nuclear weapons capability with North Korean help.” In response, the Bush administration considered either bombing the facility or reporting Syria’s action to the IAEA. When Bush asked the U.S. intelligence community for its assessment, CIA Director Michael Hayden reported that the agency had “high confidence” the facility was a nuclear reactor, but only “low confidence” of a weapons program because of the absence of a facility to separate plutonium from the reactor fuel rods. Bush rejected an Israeli request to bomb the facility, telling Prime Minister Ehud Olmert that he could not authorize a strike without proof that the suspect site was a “weapons program.” The United States, he told Olmert, would therefore opt for “the diplomatic option backed by the threat of force.”¹²⁷ Bush’s hesitancy on Syria came in the wake of the WMD intelligence fiasco in Iraq. Another factor reportedly underlying the decision was concern that a U.S. attack on Syria could trigger an escalation in Syrian meddling in Iraq, which the United States was desperately attempting to stabilize in the face of a determined Sunni insurgency. Undeterred by American caution, Israel bombed the Syrian nuclear facility on September 6, 2007. That it was bombed during the construction phase, before the nuclear core was loaded, reduced the risk of collateral damage

to the environment. In addition, that Syria did not retaliate for the Israeli strike has led some analysts to predict, optimistically, that Iran might exercise similar restraint in the event of a U.S. attack on Iran's nuclear infrastructure.

The Iran Nuclear Precedent

The Iran nuclear agreement of 2015 set another major precedent—one applicable to North Korea—by constraining the Islamic Republic's nuclear capabilities through arms control. The accord—the “Joint Comprehensive Plan of Action” (JCPOA)—concluded on July 14, 2015, between the world's major powers (the P5+1) and Iran was *a deal, not a grand bargain*. As a “deal,” the nuclear accord was *transactional* (addressing a discrete urgent national security challenge), not *transformational* (affecting the character of the Iranian regime). The JCPOA permits Iran to retain a constrained nuclear program in return for assurances that this limited infrastructure is not masquerading for a weapons program.

During the 2013 election, President Hassan Rouhani, a pragmatic centrist, campaigned on a platform of resolving the nuclear issue to end the country's isolation and the punishing international sanctions that had weakened the economy. While acquiescing to Rouhani's revitalized nuclear diplomacy in the wake of his June 2013 electoral mandate, the Supreme Leader, Ayatollah Khamenei, remained the final arbiter of any prospective agreement. His decision, based on a strategic calculus that has regime stability as its paramount objective, hinged on his management of the unresolved tension in Iran's competing identities—revolutionary state/ordinary country. In short, Khamenei's dilemma was whether the *political* costs of an agreement—alienating hardline interest groups, especially the Revolutionary Guards, upon which the regime's survival depends—outweighed its *economic* benefits.

The dilemma of the Iranian nuclear challenge was that Iran had mastered uranium enrichment: centrifuges that spin to produce low-enriched uranium (LEU) for nuclear power reactors could keep spinning to yield highly enriched uranium (HEU) for bombs. Since the nuclear agreement bounds, but does not eliminate, Iran's uranium enrichment program, the regime retains the option—a hedge—for a nuclear weapon. A U.S. prerequisite for any comprehensive nuclear agreement was that this “breakout” period for converting a latent capability into a weapon had to be long enough (12 months) for the United States to have sufficient strategic warning to mobilize an international response.

Iran's nuclear program has been determined and incremental, but has not been a crash program to acquire a weapon in the face of an existential threat. From a national security perspective, a nuclear hedge was Iran's strategic sweet spot—maintaining the potential for a nuclear option, while avoiding the regional and international costs of actual weaponization. A hedge strategy that kept the nuclear option open proved compatible with a nuclear agreement that would bring the tangible benefits of sanctions relief.

President Obama argued that “the pressure of crippling sanctions...grinding the Iranian economy to a halt” presented the Tehran regime with the opportunity to make a “strategic calculation” to defer a decision to weaponize.¹²⁸ Sanctions brought Iran to the negotiating table and crucially affected the Supreme Leader's decision to accept a comprehensive agreement that blocked Iran's pathways to a nuclear weapon.

“Iran's nuclear program has been determined and incremental, but has not been a crash program to acquire a weapon in the face of an existential threat.”

To address Iran’s nuclear challenge, the United States pursued a strategy of coercive engagement, or what then Secretary of State Hillary Clinton described as “a two-track approach of pressure and engagement.”¹²⁹ President Obama declared that the U.S. objective was “to prevent Iran from obtaining a nuclear

weapon.”¹³⁰ By setting this goal—preventing weaponization—Obama signaled that the United States would not undertake preventive military action to deny Iran any nuclear hedge option. That this stance on weaponization pushed off a decision on the use of force is a reflection of how unattractive the option would be. That openly debated option “on the table” ran up against major liabilities: it would delay, not end, the program; could have easily escalated into a U.S.-Iranian war; carried a significant risk of collateral damage to the environment and civilian population;

and could well have generated a nationalist backlash within Iran with the perverse consequence of bolstering the clerical regime.

With Iran, the U.S. administration decoupled the nuclear issue from the question of regime change and pursued a strategy of coercive engagement to achieve the urgent, albeit limited, goal of constraining that country’s nuclear capabilities and preventing weaponization. In the U.S. policy debate, the transactional, rather than transformational, character of the Iran nuclear agreement became the basis of opposition. A recurring theme of this study is that the nuclear issue is a proxy for a more fundamental American debate—whether the U.S. objective toward “rogue” states should be behavior change or regime change. This persisting tension has roiled the U.S. policy debate

“Proponents of regime change argue that mere behavior change is inadequate because the dangerous behavior derives from the *character* of the rogue regime.”

since 9/11. Proponents of regime change argue that mere behavior change is inadequate because the dangerous behavior derives from the *character* of the rogue regime. Hence, ending that behavior requires a change of regime. In the case of Iran, this meant that for those advocating a “better deal,” it was not a matter of getting an agreement that set a lower number of permissible centrifuges at Iran’s sole operating uranium enrichment site at Natanz; it was doing *any* deal with the current Iranian regime because of its destabilizing role in the Middle East, state sponsorship of terrorism, and human rights abuses.

The open question is whether the transactional approach that yielded a deal with Iran can be pursued toward North Korea. This study argues that an opportunity exists to pursue a strategy of coercive engagement to constrain the North’s capabilities through transactional diplomacy. But the U.S. policy tension—behavior change versus regime change—persists: if a freeze to prevent a nuclear breakout can be negotiated with North Korea, it will inevitably engender strong domestic U.S. political opposition because it is not transformational—it leaves an odious regime in power in Pyongyang.

In assessing the applicability of the Iran precedent to North Korea, one is initially struck by their profound differences—in the nature of their political cultures, the degree to which each is integrated into the global economy, and the technological level of their nuclear programs (the former retaining a hedge for a weapon, the latter already possessing a small nuclear arsenal). But a strategy of coercive engagement that prompted the Iranian regime to make a “strategic calculation,” as Obama put it, to defer weaponization could also plausibly lead the North Korean regime to accede to constraints on its nuclear program. As discussed below, this study argues for seizing that opportunity cognizant of the impediments to success.

The Military Option

After Donald Trump tweeted “It won’t happen” in response to Kim Jong-un’s New Year’s boast about North Korea’s emerging capability to target the United States with a nuclear weapon, former Deputy secretary of State Strobe Talbott tweeted the question, “Has our next commander-in-chief issued, 18 days before his inauguration, a pledge that the US will wage pre-emptive war against the DPRK?”¹³¹

The use of military force to prevent a North Korean nuclear breakout is an option receiving renewed attention. That would entail a counterproliferation strike on North Korea’s nuclear infrastructure and missile launch facilities. It would not be the first time that the United States contemplated such action. During the first North Korean nuclear crisis in 1994, the Clinton administration considered an air strike on the Yongbyon nuclear facility, though whether it would actually have taken that extreme action was rendered moot by the diplomatic breakthrough precipitated by former President Carter’s fortuitous visit to Pyongyang for a meeting with Kim Il-sung. But the liabilities and dangers of a counterproliferation option vis-à-vis North Korea were clearly delineated in the deliberations during the 1994 crisis, and they again came to the fore in the transformed security environment after 9/11 when the George W. Bush administration elevated the role of military preemption in U.S. strategy toward the “rogue states,” the adversarial proliferators that comprised the “axis of evil”—Iraq, Iran, and North Korea. Now as U.S. policymakers confront a third nuclear crisis with the Pyongyang regime, this same set of constraining factors would affect a decision to implement a military option to prevent a North Korean nuclear breakout.

PREVENTION OR PREEMPTION?

A U.S. strike on North Korea’s *known* nuclear infrastructure and missile launch sites would be preventive rather than

preemptive. The debate over preemption in the post-9/11 era has misleadingly conflated these terms. *Prevention* refers to a repertoire of strategies to forestall nuclear acquisition. These instruments range from the non-military (e.g., export controls) to, in extreme circumstances, the use of military force. *Preemption* pertains to military action when actual WMD use by an adversary is imminent. The right of self-defense under Chapter VII, Article 51 of the UN Charter has been narrowly interpreted by the international community to reject the assertion of anticipatory self-defense except in the face of an imminent threat—meaning that the threat of an armed attack must be “instant, overwhelming and leaving no choice of means, and no moment of deliberation.”¹³² (Strikingly, this definition, crafted by U.S. Secretary of State Daniel Webster in the landmark *Caroline* case of 1837, was motivated by a U.S. desire to militarily constrain a more powerful Great Britain.) International law sets a high bar for the use of force, allowing for preemptive military action only in the face of a truly imminent threat.¹³³

The 2003 Iraq War was preventive rather than preemptive in that the Saddam Hussein regime did not constitute an imminent threat to the United States. In making the case for a war of regime change, the Bush administration argued that the threat that Iraq might acquire nuclear and other unconventional threats required military action as a matter of urgency because of the character of the Saddam Hussein regime. North Korea is poised for a breakout—acquiring the capability to threaten the U.S. homeland with a nuclear strike—but the crossing of that threshold per se would not meet the accepted criteria for imminent threat. Nonetheless, the North’s acquisition of that capability could

“North Korea is poised for a breakout—acquiring the capability to threaten the U.S. homeland with a nuclear strike.”

generate calls for preventive military action from hardline critics of engaging adversarial proliferators because their perception of threat derives from the character of the Pyongyang regime, thereby making the North's mere acquisition of capabilities unacceptable.

TARGETING

The military option is constrained by uncertainties about the location of the North Korean targets. Unlike the Israeli strike on a single known target in 1981—the Osiraq reactor—a U.S. counterproliferation operation in North Korea would need to encompass a larger set of targets whose location is uncertain. During the first nuclear crisis in 1994, when the Clinton administration considered the military option, the target was known—the Yongbyon nuclear facility. The Agreed Framework resolving the crisis resulted in the storage in cooling ponds of spent reactor-fuel rods. When the nuclear agreement collapsed in 2002-2003, the North Korean regime subsequently removed the fuel rods from the cooling ponds and separated the plutonium at its Yongbyon reprocessing facility. At that stage, the United States lost the certainty about the location of the plutonium that it had when this weapons-usable material was still in spent fuel rods in a cooling pond. The plutonium extracted from the fuel rods was then fabricated (at an unknown site, at least in the public domain) into weapons that constituted the DPRK's initial small nuclear arsenal. Compounding the targeting uncertainty is the likely existence of a clandestine uranium enrichment program, which provides another pathway to nuclear-weapons acquisition.

An additional factor clouding our knowledge of the location of targets, and therefore complicating a potential counterproliferation operation, is the North's utilization of

underground facilities. The United States possesses deep-penetrating ordnance that can be employed on underground targets. But the utility of these weapons is only as good as the accuracy of the targeting intelligence, and they do not eliminate the problem of collateral damage (see below) that has been a constraint on the use of force.

COLLATERAL DAMAGE

Historical precedents (such as the Operation Desert Fox air campaign against Saddam Hussein's suspect WMD sites in 1998) reveal that a major constraint on the use of force as a counterproliferation instrument is the danger of unacceptable collateral damage—either to the environment or in civilian casualties. Israel's use of force (Iraq 1981, Syria 2007) was against sites that were not operational with fissile material loaded into the reactor cores. All of the prospective nuclear targets in North Korea—the Yongbyon nuclear facility (the five-megawatt reactor), the fuel nuclear fabrication facility, the reprocessing facility for the separation of plutonium, and nuclear-weapon storage installations (if known to U.S. intelligence)—are active sites with radioactive materials. Yongbyon is only 65 miles from Pyongyang. Even with advanced precision ordnance to mitigate consequences, U.S. policymakers, in considering a counterproliferation strike, could not discount the potential risk of collateral damage.

INADVERTENT ESCALATION

After the first North Korean nuclear crisis in 1994, a senior U.S. official who participated in the negotiation of the U.S.-DPRK Agreed Framework stated that the Pyongyang regime did not distinguish between a narrow U.S. counterproliferation option on the North's nuclear facilities and general war. On the American side, the fear of inadvertent escalation and catalytic war—the possibility that a counterproliferation strike on the DPRK's nuclear infrastructure would have a “catalytic” effect

triggering all-out war on the Korean peninsula—was a key policy determinant of the Clinton administration’s decision-making. This overriding concern, manifested in the South Korean government’s staunch opposition to military action, prompted the Clinton administration to pursue alternative non-military approaches—initially, economic sanctions in the UN; later, bilateral negotiations leading to the Agreed Framework.

At the time of the first nuclear crisis, the commander of U.S. forces in South Korea warned that a large-scale conflict would result in one million casualties and entail economic costs of \$1 trillion. Now more than two decades later, the human and economic costs, and the escalatory risks of the military option, to which South Korea would likely remain opposed, would be even greater. First, the scale of the counterproliferation strikes, which would invariably include command-and-control facilities, would likely be perceived by the Kim Jong-un regime as the starting gun of a broader war of regime change. The regime would perceive the strikes within the context of U.S. and South Korean references to decapitating strikes on the North Korean leadership should war break out. Second, even if counterproliferation strikes successfully nullified the North Korean nuclear capacity (a huge if), the Pyongyang regime would retain the capability of retaliating against South Korea with its stocks of chemical and biological weapons, as well as its forward-deployed artillery that pose a catastrophic threat to Seoul. Third, U.S. military strikes, which would be undertaken presumably without advance consultation with Beijing, would have uncertain escalatory potential with China, particularly if it viewed the U.S. action as precipitating regime collapse and potential Korean unification on American terms. In sum, no U.S. president could consider military action against North Korea without taking into account the profound escalatory potential.

A Strategy of Coercive Engagement

REVIVING DIPLOMACY

After North Korea met President Obama's overture for engagement in 2009 with its second nuclear test, the administration shifted to a policy of "strategic patience"—a term that suggested the United States could wait until the Kim family regime, responding to the coercive pressure of sanctions, reaffirmed the commitment to denuclearization that Pyongyang had made during the Six Party Talks. But, in practice, strategic patience resulted in U.S. acquiescence to North Korean actions. The North expanded its nuclear arsenal, worked on the design of a miniaturized nuclear warhead that could be fitted onto a ballistic missile, and conducted nuclear and missile tests. Those developments have brought North Korea to the verge of a strategic breakout that would allow the Kim Jong-un regime to threaten a nuclear strike on the U.S. homeland.

Diplomacy, meanwhile, remains at an impasse: Pyongyang demands that North Korea be recognized as a nuclear-weapon state; Washington counters that it will never accept that status (for a state that had been a party to and cheated within the NPT) and insists that the North recommit to the goal of denuclearization as the starting point for resumed negotiations. A creative approach, such as that employed by the Obama administration in the Iran nuclear negotiations to bridge sharply divergent American and Iranian negotiating positions, might be able to resolve what a Congressional Research Service

“Those developments have brought North Korea to the verge of a strategic breakout that would allow the Kim Jong-un regime to threaten a nuclear strike on the U.S. homeland.”

study called “a diplomatic and semantic dilemma.”¹³⁴ According to former State Department official Robert Carlin, a veteran North Korea watcher, a large number of official North Korean statements and newspaper commentaries have linked the denuclearization issue to a peace agreement (which would supplant the armistice that ended the Korean War). Carlin’s analysis of North Korean signaling suggests that a “window of opportunity” exists to revive serious diplomacy.¹³⁵

North Korea appears to have a preference for direct bilateral negotiations with the United States rather than a multilateral forum as with the Six Party Talks. Though the United States needs to maintain a close consultative relationship with South Korea and Japan, its close regional allies most affected by the North’s nuclear and missile threat, the structure and format of resumed negotiations should not become a deal breaker. The Iran negotiations offer a relevant precedent in which multilateral negotiations between Iran and the world’s major powers were facilitated by a complementary bilateral track between Tehran and Washington. A variation of this model, in which Washington could conduct bilateral negotiations with Pyongyang within the framework of resumed Six Party Talks, could be applied to the North Korean case.

TRANSACTIONAL DIPLOMACY

Revived negotiations with North Korea should decouple the nuclear issue from other issues of concern. That pragmatic calculation was a condition of success for the Iran nuclear negotiations. Had their scope been expanded to encompass other issues (such as Tehran’s support for Hezbollah), the talks would almost surely have failed due to the overreach. Because the nuclear issue in Iran remains a proxy for a more fundamental debate over the Islamic Republic’s unresolved identity crisis—whether Iran is a revolutionary state or an ordinary country—most Iran experts believe that limiting the scope of the negotiations to just that discrete issue was a condition of success for the negotiations.

The Iran nuclear agreement was a deal, not a grand bargain. With North Korea, the focus should similarly be confined to the urgent threats—preventing a nuclear breakout that could directly threaten the U.S. homeland and deterring North Korean-abetted nuclear terrorism—in order to improve the (already daunting) prospects of success. To forestall North Korea’s impending quantitative and qualitative breakout, the goal of negotiations should be to freeze North Korea’s nuclear and missile programs. Siegfried Hecker, former director of the Los Alamos National Laboratory, calls these goals the “Three No’s”: first, no new weapons (freezing North Korean production of plutonium and enriched uranium); second, no testing of weapons or ballistic missiles; and third, no exports of nuclear technology or weapons to state or non-state entities. A freeze would preclude the additional testing that North Korea still needs to master miniaturization and reliable long-range missiles.¹³⁶

The envisioned constraints on North Korean missile development and deployments would introduce an element not in the Iran nuclear deal, but that would be essential to incorporate into negotiations with the Pyongyang regime because long-range missiles are central to the North’s ability to threaten the U.S. homeland. Such an accord would be explicitly characterized as an interim agreement on the path to long-term denuclearization of the Korean peninsula. To seal a deal imposing meaningful constraints on North Korea to prevent a nuclear breakout, the United States and its regional allies would need to provide some economic concessions.

A nuclear-freeze agreement with North Korea would be *transactional*, not *transformational*, in that it would address a discrete issue, not the full range of U.S. concerns with the Pyongyang regime’s behavior, such as human rights and its trafficking in contraband. Confining negotiations to the nuclear challenge would be prudent because the North Koreans would likely perceive an effort to incorporate a broader policy agenda

into the nuclear talks as a backdoor effort to promote regime change. This eschewal of linkage is a sign not of indifference, but of prioritization. Those other important issues should be addressed in their own terms. The Iran case is, again, a relevant precedent in that the nuclear accord did not lead to the lifting of U.S. sanctions imposed on the Tehran regime for its human rights abuses and state sponsorship of terrorism.

Transactional diplomacy, with its decoupling of the nuclear issue from that of regime change, would create the conditions for a successful negotiating outcome by identifying a point of near-term optimization among the parties: for North Korea, a freeze would permit Pyongyang to retain a minimum deterrent and the Kim family regime; for China, it would preserve a strategic buffer state and avert the adverse strategic consequences of a North Korean nuclear breakout (e.g., a Japanese and South Korean reassessment of their non-nuclear status); and, for

the United States, a near-term interim agreement freezing North Korean capabilities would prevent a breakout and be characterized by Washington as the first step toward long-term denuclearization of the Korean peninsula.

But that which creates political space for success among the negotiating parties—opting for the transactional over the transformational—will likely

become the crux of vociferous domestic U.S. opposition to a nuclear deal with the Pyongyang regime. Judging by virtually every other agreement concluded between the United States and an adversarial country going back to the Cold War, hardline critics would invariably castigate a nuclear-freeze agreement because it is not transformational—that is, it does not address the source of the threat, which derives from the character of the Kim family regime. Indeed, for the transformationalists,

“When the United States can’t bomb and won’t negotiate, it runs the risk of acquiescing to a continued North Korean buildup.”

providing economic incentives (such as the lifting of some sanctions) to induce compliance would merely serve to prop up an odious regime. If the hardline critics eschew diplomacy because they view it as tantamount to appeasement, if the much-discussed military option “on the table” is rejected because of its catastrophic risks, and if squeezing harder is not possible because the Chinese won’t cooperate with a strategy they view as running the risk of regime collapse, what then is the better alternative? When the United States can’t bomb and won’t negotiate, it runs the risk of acquiescing to a continued North Korean buildup. That unsatisfactory prospect reinforces the case for transactional diplomacy through coercive engagement to test whether a nuclear-freeze agreement can be reached.

CHINA’S STRATEGIC CALCULUS

The range of views on China’s role in addressing the North Korean nuclear challenge runs from those who believe the crisis can be “outsourced” to the Chinese for resolution to the Beijing government’s occasional pronouncements that the nuclear issue is not its problem, but rather, a bilateral matter between the United States and North Korea. The reality lies in between: no satisfactory resolution of the North Korean issue is possible solely relying on China, but neither is one possible without China. Some overlap between U.S. and Chinese interests exists. Presidents Obama and Xi agreed at a summit meeting in 2013 that North Korea has to denuclearize and that neither country will accept North Korea as a nuclear-armed state.¹³⁷ This declaration ran contrary to Pyongyang’s lobbying to have Beijing acknowledge North Korea as a nuclear-weapon state.

Yet while acknowledging an interest in achieving denuclearization, Beijing has resisted bringing meaningful pressure to bear on North Korea to achieve that objective. China’s apparent overriding concern is that such pressure could lead to regime collapse, presenting Beijing with the prospect

of cross-border instability and the loss of a buffer state through unification of the North with South Korea. The George W. Bush and Obama administrations successfully tightened multilateral sanctions on the North, but lackadaisical Chinese enforcement has allowed the Kim Jong-un regime to insulate itself from their full consequences. A *New York Times* editorial baldly called China an “enabler.”¹³⁸ Indeed, a study by MIT experts James Walsh and John Parker found that North Korea had actually improved its capability to procure components for its weapon programs. The North’s state trading companies opened offices in China, hired more capable Chinese middlemen, and paid higher fees to employ more sophisticated brokers to evade sanctions.¹³⁹ Whether the Chinese government has been complicit in this circumvention of sanctions or is turning a blind eye to proscribed commerce on its border with North Korea is an open question.

Beijing’s ability to influence North Korea is also hampered by the Kim family regime’s deep distrust of China’s intentions and resentment of any perceived Chinese encroachment on the North’s sovereignty or effort to cultivate a pro-Beijing faction within the regime. Kim Jong-un’s wave of executions after his dynastic succession in 2011 included a number of prominent regime figures, including an uncle by marriage, who were perceived to be too close to Beijing. The limits of Chinese influence were also evident in October 2006 when North Korea crossed the nuclear threshold despite Beijing’s repeated warnings.

Given Beijing’s mixed historical record, why should a renewed effort to secure Chinese support for a strategy of pressure and engagement fare any better this time? New circumstances could lead to a change in China’s strategic calculus. North Korea has had nuclear weapons since 2006, but its ability to miniaturize warheads and mount them on long-range ballistic missiles capable of hitting the U.S. homeland would be a game changer—for the United States. And that change would

generate a counter-reaction already evident in the THAAD deployment to South Korea in tandem with the threat by then U.S. Secretary of Defense Ashton Carter to shoot down any missile “if it were coming towards our territory or the territory of our friends and allies.”¹⁴⁰

China now faces a stark choice: it can either work with the United States to constrain the Kim Jong-un regime’s nuclear capabilities through a freeze or live with the adverse consequences of a North Korean strategic breakout. The North’s crossing of that threshold would elevate preventive military action as a U.S. policy option, notwithstanding the attendant risks (discussed above). Moreover, North Korea’s emergence as a nuclear-weapon state with an arsenal potentially half the size of Britain’s, could lead South Korea and Japan to reassess their own nuclear intentions. Such sentiments are currently a distinct minority in both countries, but could increase if North Korea’s nuclear arsenal continues to expand in tandem with the continuation of the Pyongyang regime’s saber-rattling rhetoric.

A renewed U.S. initiative on North Korea would satisfy the key criterion of coercive diplomacy by eschewing the maximalist goal of regime change in favor of the limited objective of changing aspects of the North’s behavior. That

decoupling of the nuclear issue from that of regime change provides a basis for a joint approach with Beijing. China would be asked to exert sufficient pressure to compel the North’s acceptance of a freeze, but not of a magnitude sufficient to collapse the regime. The implementation of this process would be complex and subtle. But it could lead to a near-term optimization point from the perspective of the various parties: an interim agreement that prevents a nuclear breakout and

“That decoupling of the nuclear issue from that of regime change provides a basis for a joint approach with Beijing.”

reaffirms the goal of long-term denuclearization (the urgent U.S. interest), while preventing the collapse of the North Korean regime and the loss of a buffer state (the Chinese interest) and leaving the Kim family regime in power with a minimum nuclear deterrent (the paramount North Korean interest).

SECURITY ASSURANCES

President Obama hoped to replicate the 2003 Libya precedent with the twin nuclear challenges that his administration inherited with North Korea and Iran. Specifically, the Obama administration was prepared to offer the kind of security assurance that the Bush administration had given Qaddafi—that the United States would forego the objective of regime change—if the Libyan dictator acceded to verifiable disarmament. NATO’s takedown of the Qaddafi regime in 2011, albeit undertaken as a humanitarian intervention, complicated Washington’s ability to integrate a security assurance into

nuclear diplomacy with Pyongyang and Tehran. A North Korean official stated that the 2003 Libyan agreement had been “an invasion tactic to disarm the country.”¹⁴¹ With Iran though, the Libyan intervention did not prompt the Tehran regime to balk on a nuclear agreement. The regime’s strategic calculus was evidently that the economic benefits of a deal (i.e., sanctions relief) outweighed the political costs and risks.

North Korea has occasionally linked its demand for a peace treaty with

the United States to supplant the armistice ending the Korean War with denuclearization. In February 2016, the Obama administration reportedly dropped its position that peace talks should be preceded by concrete North Korean steps toward denuclearization.¹⁴² Notwithstanding the problematic Libyan

“The Obama administration reportedly dropped its position that peace talks should be preceded by concrete North Korean steps toward denuclearization.”

precedent, negotiations on a nuclear freeze could incorporate parallel progress on a peace treaty. To be clear, a peace treaty would not be a transformational grand bargain. Rather, it would narrowly focus on formally ending the state of hostilities between the United States and North Korea. Coordination by Washington with South Korea on this thorny issue would be essential. In particular, the United States would eschew a linkage between the negotiation of a peace treaty and the presence of U.S. forces in the Republic of Korea (thereby rebuffing the North Korean rhetorical claim that the presence of U.S. troops on the peninsula is by definition an act of aggression). The security assurance embodied in a peace treaty would essentially be one of non-aggression.

But Pyongyang has an interest in another form of security assurance. A nuclear agreement with North Korea could bring the DPRK into greater contact with the outside world, thereby running the risk of political contagion that poses a threat to regime stability. The United States cannot and should not offer Pyongyang a security assurance that insulates the Kim family regime from the adverse consequences of increased integration into the international system.

VERIFYING A FREEZE

Verification of a North Korean nuclear freeze would require comprehensive monitoring and verification. The 159-page Joint Comprehensive Plan of Action (JCPOA) concluded with Iran is indicative of the degree of detail and complexity that will be required to ensure the successful implementation of an agreement with North Korea.¹⁴³ North Korean goodwill cannot be assumed as it has a demonstrated record of cheating when it was within the NPT: in the late 1980s, the Pyongyang regime initially dragged its feet submitting the necessary documentation to join the NPT (which it did under Soviet pressure); the North developed a covert uranium enrichment program in the 1990s in contravention of the Agreed

Framework; and, on two occasions, engaged in brinkmanship by ordering the expulsion of IAEA inspectors.

As in the Iran nuclear deal, the IAEA would be tasked with overseeing a North Korean nuclear freeze. Just getting North Korea to stipulate its current facilities and capabilities to the IAEA will be a challenge. North Korea is believed to have a second, clandestine uranium-enrichment facility beyond the known one at Yongbyon that it would need to declare. The Pyongyang regime would have to either provide access to that site or to permit the IAEA to inspect suspect sites. Monitoring the freeze in production of fissile material would be a critical component in verifying that North Korea had halted the growth of its nuclear arsenal. Verification would be facilitated by the advanced electronic-monitoring systems employed to implement the JCPOA, which reduce the need for on-the-ground personnel. Two major issues that roiled the Iran negotiations would invariably arise with North Korea: first, gaining managed access to sensitive sites to ensure that proscribed activities are not being conducted (the JCPOA allows for 24 days to resolve any dispute over site access before the issue is referred to the UN Security Council); and second, gaining access to a suspect clandestine site should one be identified.

No matter how robust, the verification protocols of a freeze cannot eliminate all uncertainties. As in the JCPOA with Iran, a nuclear-freeze agreement with North Korea should include a joint commission (comprised of the members of the Six Party Talks) to address compliance issues. When allegations of North Korean cheating arise during implementation, as they almost invariably will, the United States should utilize the joint commission to address North Korean compliance issues rather than voiding the agreement, which would end the constraints on Pyongyang's nuclear program.

DETERRING NUCLEAR TRANSFERS

Even if a freeze is successfully negotiated, the North Korean program at its current magnitude (with a stockpile of weapons and the capacity to produce weapon-usable material) creates an increased risk of nuclear terrorism. North Korea, which has a record of illicit activities to generate funds to maintain the Kim family regime in power, is the one country that might be tempted to sell a nuclear weapon or components to a terrorist group.¹⁴⁴

Since 9/11, North Korea has both offered assurances that it would not transfer nuclear weapons to terrorists and threatened to do so. In 2005, two years after the U.S. invasion of Iraq to topple the Saddam Hussein regime, a North Korean vice foreign minister warned that the regime had no plans to transfer but would not rule it out “if the United States drives [us] into a corner.”¹⁴⁵ Director of National Intelligence James Clapper warned about “the possibility that North Korea might again export nuclear technology.”¹⁴⁶ Though public information about North Korea’s record of nuclear exports is scant, two prominent *state-to-state* transfers are known: first, in 2001, the Pyongyang regime sold uranium hexafluoride (the feedstock for centrifuges) to Libya via Pakistan’s A.Q. Khan; and second, in September 2007, the Israeli Air Force bombed a nuclear reactor in Syria (not yet operational) provided by North Korea.¹⁴⁷ The urgent threat is that the North’s increased production of weapons-grade uranium potentially creates “a new cash crop” for the financially strapped regime.¹⁴⁸

After North Korea’s nuclear test in 2006, the Bush administration declared that the Kim regime would be held “fully accountable” if it transferred nuclear weapons or material to states or non-state entities. But “fully accountable” can mean a host of things. An alternative to calculated ambiguity would be an explicit red line: the deliberate transfer of nuclear capabilities by a state to another state or to a non-state terrorist group would trigger a non-nuclear, regime-changing response

from the United States. Such a stance, which goes beyond current U.S. declaratory policy, could prove an effective form of *deterrence by punishment*. Further advances in nuclear forensics—the ability to attribute fissile material to its country of origin—would bolster the credibility of this threat.

If Diplomacy Fails

For U.S. policymakers, North Korea's nuclear challenge is embedded in the broader question of that outlier state's future evolution. The dilemma is that the two timelines are not in sync: the nuclear issue is urgent, whereas the prospects for regime change are unknown, but almost certainly not imminent.

Transactional diplomacy through a U.S. strategy of coercive engagement, which decouples the nuclear issue from that of regime change, offers a plausible opportunity to negotiate constraints on North Korea's nuclear program and prevent a strategic breakout. But if the diplomatic track either is rejected or otherwise fails, and the other option of military force is vetoed because of its profound escalatory risks, U.S. policymakers face a hard choice. Along the policy continuum, between coercive engagement and military action lays a third option—containing a nuclear North Korea.

If Pyongyang rebuffs a U.S. diplomatic initiative, Washington would be in a stronger position to secure support for comprehensive containment through strengthened multilateral sanctions of the kind successfully applied in the case of Iran. But Iran was much more integrated into the global economy through its oil and gas sales, whereas North Korea is essentially autarkic (albeit with a dependence on China). As with Libya and Iran in the 1990s and 2000s, the U.S. administration could consider the controversial step of imposing secondary sanctions—for example, barring Chinese and other foreign banks that conduct business with North Korean entities from operating in the United States; or denying access to U.S. ports

of ships from states that conduct maritime commerce with North Korea.

An updated and retooled version of the containment strategy pioneered by diplomat George Kennan would aim to deter North Korea and militarily reassure U.S. allies (South Korea and Japan). The goal would be to buy time and prevent a deteriorating situation from getting worse, all while the indeterminate process of societal change in North Korea plays out. But containment is clearly a second best option. Far better would be to employ coercive engagement to freeze those aspects of current North Korean behavior that most threaten the United States.

Endnotes

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