No Good Choices:
The Implications of a Nuclear North Korea

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THE LONGSTANDING AND CONTINUING NUCLEAR crisis in North Korea increasingly threatens American security. The United States is not prepared to deal with the full implications of that threat. The failure of American efforts—stemming from both Democratic and Republican administrations—has allowed North Korea to consolidate its nuclear capabilities and has increased the risk that nuclear weapons could be used against the United States, its allies, and its interests worldwide. The danger could increase if more countries in East Asia and elsewhere come to view nuclear weapons as the accepted currency of power.

FORCE AND DIPLOMACY

The American public has been peppered with dozens of official statements on North Korea's weapons capabilities, including assessments—offered as fact—that the country has several nuclear weapons, sophisticated biological weapons, and a large chemical weapons inventory. However, as one expert described the conclusions of the presidential commission on the failed Iraq intelligence estimates, "The classified text essentially says that when it comes to the critical details, North Korea is a black hole."[1]

Very little is known for certain about Pyongyang's nuclear capabilities. While it is prudent to plan for worst-case scenarios, it is irresponsible to assume that the worst case is the most likely case. The dangers of overestimating the threat can be just as profound as those of underestimating it. The United States cannot be certain that North Korea has nuclear weapons or even that it can produce nuclear weapons. U.S.

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policies should be based on facts, not assumptions.

Understanding the limits of U.S. threat assessment capabilities has crucial implications for policy. Assuming that North Korea already has advanced nuclear weapons capabilities leads to the assumption that the leadership would be highly unlikely to give up those capabilities in negotiations, no matter how sweet the carrots. This could lead to premature consideration, or execution, of military or other coercive measures.

The intelligence black hole extends to the diplomatic possibilities. That is, the United States has no way of knowing if North Korea would be willing to eliminate its nuclear capabilities as part of a diplomatic settlement. U.S. policy should fully test the possibility that North Korea may be willing to verifiably trade all of its nuclear capabilities for some yet-undetermined set of incentives and disincentives. This has never been done. Thus, the United States has pieces of information and partial evidence that can help predict behavior and outcomes, but no conclusive answers.

Diplomatic efforts may well fail. Years of delay, hesitation, and policy paralysis may have caused potentially irreparable damage. Under current circumstances and policies, there is reason for deep pessimism that a deal can be brokered. But the sincere and public attempt by the United States to pursue diplomacy is an absolute prerequisite if Washington is to gain support from states in the region, particularly China and South Korea. The United States also needs global support to deal with the consequences of a "no" from North Korea. For most of the past year, it appeared that the Bush administration was trying to move too quickly towards stronger steps against North Korea without laying the adequate groundwork by truly exhausting diplomatic avenues. Only in May 2005 did we see steps towards a dialogue as U.S. officials met with North Korean representatives at the United Nations in New York. A true diplomatic attempt is the first step to taking measures to protect America and its allies, to reinforce deterrence on the peninsula, to prevent North Korea's capabilities from spreading, and to prevent North Korea's proliferation from becoming a "how-to guide" for other countries such as Iran.

NORTH KOREAN NUCLEAR CAPABILITIES

North Korea may, as they themselves now claim, possess enough nuclear material to produce nuclear weapons. Given the capabilities of North Korea's facilities and the amount of time they have spent on nuclear pursuits, it is reasonable to assume that they may have enough technical skill and material to produce at least a basic nuclear device. Yet despite its efforts, the United States knows very little with certainty about North Korea's nuclear capabilities. Secretary of Defense Donald Rumsfeld got it right when he said on 10 February 2005, "I don't want to confirm that [North Korea has

nuclear weapons] because I just can't do that."

However, the United States cannot totally dismiss the possibility that North Korea is undertaking the greatest nuclear bluff in history. U.S. intelligence cannot confirm that North Korea possesses enough nuclear explosive material for even one nuclear bomb. It would be surprising if it did *not* have such material, but a bluff cannot be ruled out. Moreover, as North Korea has a major incentive to exaggerate its capabilities, their statements ought to be taken with a grain of salt.

Plutonium Production and Stocks

At the nuclear center at Yongbyon, North Korea has located a small but effective five-megawatt research reactor which is capable of producing plutonium for use in nuclear weapons. Moreover, North Korea possesses a functioning plutonium reprocessing facility that can extract plutonium from spent fuel irradiated in the five-megawatt research reactor. Beyond that, the United States knows little about North Korea's past and current activities.

North Korea has produced and separated an unknown amount of plutonium. In the early 1990s, North Korea allowed International Atomic Energy Agency (IAEA) inspectors to take samples of their declared plutonium inventory of 62 grams. The IAEA believes that North Korea produced more than that amount prior to 1992. North Korea now claims it possesses at least 25-30 kilograms of plutonium—enough for several weapons—extracted from 8,000 spent fuel rods removed from its five-megawatt reactor in 1994 and previously frozen under IAEA inspection until 2003. North Korea's state controlled media claimed on 11 May that the country had completed removal of another load of 8,000 fuel rods from the reactor. After two to three months of cooling, these fuel elements would be ready for reprocessing. Experts estimate that the fuel could yield anywhere up to 19 kilograms of additional plutonium, enough for two or three more nuclear weapons.

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However, it is not publicly known with any certainty whether North Korea possesses a nuclear weapon or if it has even produced enough plutonium to build a weapon. Not enough conclusive evidence has been collected to discount the possibility that North Korea's nuclear program is anything but a Potemkin village. If North Korea does possess nuclear weapons or large stocks of plutonium, the location of these assets is

unknown.

We do know that U.S. intelligence reported repeatedly throughout the 1990s that North Korea had enough plutonium to produce one or two nuclear weapons. Since 2002, North Korea may have been able to extract plutonium from the 8,000 spent fuel rods removed from the 5MW reactor in 1994 and could now have enough plutonium to produce perhaps five to six nuclear weapons, depending on how much plutonium was in the fuel and how much material North Korea requires for each device. Reprocessing the 8,000 fuel rods released from the reactor in mid 2005 could yield an additional two or three additional bombs. This, however, is a worst-case scenario based on what is known about the technical capabilities of North Korea's nuclear facilities, and cannot be publicly confirmed. It assumes that North Korea could build a nuclear weapon with just 5 kilograms of plutonium per device. Any official responsible for the security of the United States must plan for the possibility that North Korea does possess a nuclear device, and perhaps several such devices.

National security officials must assume that North Korea has a basic nuclear weapon arsenal, but should be open to the possibility that it has none at all. North Korea has effectively hidden information about its nuclear activities from both the United States and the IAEA, keeping alive the possibility that its capabilities are less advanced than it claims.

HIGHLY ENRICHED URANIUM PRODUCTION CAPABILITIES

In the summer of 2002, U.S. intelligence concluded that North Korea was actively pursuing the production of uranium for use in nuclear weapons. Unclassified materials sent to Congress stated that the intelligence community had "recently learned that the North is constructing a plant that could produce enough weapons-grade uranium for two or more nuclear weapons per year when fully operational—which could be as soon as mid-decade." Almost three years later, no such facilities have been publicly identified.

We know that North Korea carried out business transactions with the nuclear black market operation run by A.Q. Khan out of Pakistan and sought to import large amounts of specialized uranium enrichment equipment known as centrifuges. During bilateral meetings with U.S. officials in Pyongyang in October 2002, North Korean officials reportedly acknowledged pursuing a uranium program, but have publicly denied it ever since. North Korea has large deposits of uranium ore, but would need to perfect a number of highly sophisticated and demanding operations to produce weapon-usable uranium.

We do not know if, or where, North Korea is building uranium enrichment

capabilities. It is possible that North Korea received specialized equipment for uranium as part of the A.Q. Khan network, but then shipped the equipment to another recipient such as Iran or Libya. We also have no public confirmation about whether North Korea continues to receive outside technical assistance in its pursuit of a uranium enrichment capability.

It is reasonable to believe that North Korea has a uranium enrichment program. North Korea has sold missiles to Pakistan, and A.Q. Khan allegedly took almost a dozen trips to North Korea in the 1990s. However, there is great skepticism in the technical community about whether North Korea can perfect the uranium enrichment process, which is highly demanding for an industrious but technically backward state. North Korea may still be many years away from being able to produce weapons-grade uranium, if such an effort is actually underway.

Weapons Production

Little is known about weapons production in North Korea. The country has highly developed conventional weapons and high explosives production capability and is a leading exporter of basic military equipment such as rifles, mortars, and landmines. This experience with explosives and manufacturing would be helpful in producing a first generation nuclear weapon.

It is unknown whether North Korea has produced actual nuclear weapons and, if so, how many. It is also unknown whether North Korea can produce nuclear devices small enough and reliable enough for delivery by missile.

It is reasonable to assume that North Korea has the ability to produce a basic nuclear device along the lines of those produced by the United States in the 1940s. It is also possible that North Korea gained access to more advanced nuclear designs through the A.Q. Khan network, which provided weapon designs to Libya and possibly Iran. U.S. intelligence believes that North Korea is capable of producing a nuclear device small enough to be put on a short- or possibly medium-range ballistic missile capable of striking Japan. However, the extent of North Korea's ability to miniaturize a nuclear device for a long-range missile is in doubt. A recent South Korean intelligence assessment stated that delivery by aircraft was both more likely and more technically feasible than delivery by missile. The United States has not yet publicly authenticated its most recent assessment that North Korea might be able to deliver a nuclear payload by ballistic missile to the United States via the Taepo-Dong 2 missile.

The bottom line is that North Korea's nuclear capabilities remain in question and public statements by U.S. officials and North Korean officials should be taken with a healthy dose of skepticism. The leaks by U.S. officials to the media in January 2005

that North Korea may have shipped uranium hexafluoride (UF6) to Libya serve as a prime example.[2] Such a transaction may have taken place, but there is not enough publicly available information to conclude that such a transfer took place or that North Korea is even able to produce UF6. The reports that this determination was made based on technical work done at U.S. laboratories and was not the result of a full intelligence community assessment raises red flags in the minds of many who are still concerned about the lessons learned from the run up to the war with Iraq. To be sure, North Korea may have the ability to produce UF6 and might have exported this material to Libya. This would point to their willingness to engage in other, more dangerous transfers. But the certainty expressed by some officials, journalists, and experts does not appear to be supported by publicly available information.

IS THERE A PATH FORWARD?

Regardless of North Korea's current or projected nuclear capabilities, policymakers need a concrete set of recommendations for how the United States and its partners in the region can best bring about an end to North Korea's nuclear capabilities and achieve the shared goal of a Korean peninsula free of nuclear weapons. There are no easy answers. There is no silver bullet.

Lessons from the past can inform policy recommendations. For all of the criticism levied at the Clinton administration and the 1994 Agreed Framework, one thing is clear. Despite the unpopularity of some moves among members of Congress and even within the security community, President Clinton was willing to make tough decisions and do what was necessary to freeze North Korea's nuclear program and protect the United States from the threat North Korea's acquisition of nuclear weapons would pose. Clinton put the national interest above his political interests and personal ideology. His approach was successful. Whatever plutonium North Korea has today, they acquired either before Clinton was elected or after he left office.

Moreover, the past four years are littered with missed opportunities for the current administration to take the same leadership and make the hard decisions—for either real engagement or coercion—to reverse North Korea's nuclear program. For the first few years, internal disputes and ideological positions prevented the United States from adopting any consistent policy. Officials deliberately downplayed developments in North Korea, and Americans are now living with the consequences. The United States cannot make up for this lost time, but neither can it ignore the implications of past and current policies for how future efforts in the region will be judged.

The Bush administration is now apparently prepared to test North Korea's willingness to negotiate away its nuclear program, even though it expects North Korea to

balk at the opportunity. The administration may now be prepared to offer Pyongyang a concrete set of long-term incentives in exchange for the total, monitored elimination of its nuclear capabilities. The question is whether this effort comes too late.

We do not believe it does. The United States still has an opportunity to succeed, but it will require the U.S. government and its partners to work more closely together and to be more flexible in their positions. North Korea's 10 February 2005 declaration that it has nuclear weapons also contained a clear statement that it was prepared to engage in negotiations with the United States to achieve a non-nuclear Korean peninsula. The Foreign Ministry stated that, "[T]he DPRK's principled stand to solve the issue through dialogue and negotiations and its ultimate goal to denuclearize the Korean Peninsula remain unchanged."[3] North Korea also resumed bilateral talks with South Korea in May. It is possible that the statements and diplomacy are designed simply to raise the price North Korea can charge China for Pyongyang's attendance at the nuclear talks. Now is the time to find out.

For any U.S. policy to work, the United States must demonstrate in the clearest possible way that it is serious about pursuing a diplomatic solution. If North Korea refuses to accept the six party format, the United States should be prepared to announce that it would meet anytime and anywhere with North Korean officials empowered to make real progress on the nuclear issue. The Bush administration is right to keep other key players involved, but is wrong to reject any deviation from the six party formula. China, South Korea, and Japan would all support such a deviation as long as the United States maintained open channels to all three countries.

Any final agreement, on the chance that one can be reached, could be completed in a multilateral format and endorsed by the six parties or even the UN Security Council. North Korea could accept a serious proposal with Chinese and South Korean encouragement and, if so, the United States would have the opportunity to lay out a detailed, reasonable plan to the North. North Korea could refuse, however, thus resolving the question of their willingness to negotiate. The United States should prepare for either response. Today, the U.S. government is prepared for neither.

If North Korea agrees to negotiations and the outlines of an agreement, the United States should work to make fast progress. The goal should be precisely what the administration has declared: the complete, verifiable, irreversible dismantlement of the North Korean nuclear program. To achieve this goal, Washington should be prepared to engage in continuous negotiations at a high level and to include both short- and long-term economic and security incentives to the North directly and through allies. These should include, as the president has said, security guarantees to North Korea.

Much work must be done to negotiate a verifiable agreement. Once the basic parameters are set, the United States should be prepared to endorse certain temporary

incentives for North Korea to adopt a full freeze on their nuclear program and, as North Korea has offered, to place all of the plutonium recovered from spent fuel in the past few years back under inspection. These measures would freeze the clock and prevent losing ground while negotiations proceed. North Korea must be made to understand that any final agreement must include a complete accounting for, and elimination of, any uranium enrichment equipment and materials they may possess. But that this goal can be accomplished in a way that does not require a public admission of guilt by North Korea. Such a process is similar to most U.S. out-of-court settlements with polluters and corporate criminals who receive punishment without publicly accepting blame. This model is a way to escape the standoff over uranium enrichment in which the United States and North Korea currently find themselves.

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Despite several years of effort, the United States is still unsure how to implement a comprehensive agreement with North Korea. While much work has been done on verification, little preparation has been made to secure and dismantle North Korea's capabilities. Exactly how North Korea's facilities would be dismantled, by whom, and under what kind of monitoring remains to be worked out. It is also not clear what role China, South Korea, and Japan might play in Cooperative Threat Reduction-style efforts in North Korea such as reactor dismantlement, spent fuel and nuclear waste removal and disposal, etc. Much more work needs be done on these critical issues; lessons should be taken from Russia, Iraq, and Libya.[4]

Despite U.S. efforts, North Korea may also refuse a serious U.S. offer. The United States is not prepared for this answer, either. How will the United States engage in coercive measures if it is not supported by one of its closest allies in the region, South Korea? Today, most South Koreans blame the United States for the crisis and most would resist any U.S. attempt to increase troop levels in the South or to deploy additional anti-missile weapons, anti-artillery radar, and other equipment used to reinforce possible combat operations. How can the United States prevent North Korea from trying to export some of its nuclear capabilities? How would the United States react if North Korea resumed testing ballistic missiles or conducted a nuclear weapons test? The Proliferation Security Initiative, while an important tool, is not a panacea. Only the UN Security Council, a forum in which the United States has never brought up North Korea's withdrawal from the NPT, can establish a broad, legal basis for action.

Yet none of these steps will be possible unless the United States demonstrates that other options have been exhausted.

Conclusions

It may be too late to keep North Korea from acquiring nuclear weapons, and the United States may be unable to roll back whatever nuclear capabilities North Korea has acquired. History may well look back at the failed efforts with North Korea as the turning point when the nuclear dam burst and nuclear weapons became widespread in the arsenals of scores of countries. If such a future were to come to pass despite our best efforts, it would be horrific. But knowing that the United States has not done its best and has not pursued all available avenues makes such a future even harder to face.

This is true not just because of the implications for North Korea, but because it would undermine the Bush Administration's claim that preventing the spread and use of these weapons is a top priority. All recent presidents have used the words to demonstrate that they understand the unique threat posed by these weapons. If nations come to believe that President Bush is not sincere, the credibility of the United States will suffer at the very time that emerging nuclear arsenals increasingly challenge its conventional superiority.

Most immediately, the United States must be concerned that Iran is taking its cues from the North Korean playbook. Iran may have learned that its efforts to acquire nuclear weapons can be successful if pursued not in a quantum leap, but step by step. The United States cannot afford another year of delay in resolving the North Korean nuclear crisis.

Notes

1. David E. Sanger and David Johnston, "Bush Views New Report on Spy Lapses with Favor," *The New York Times*, 30 March 2005, A7.
2. See David Sanger and William Broad.
3. Korean Central News Agency (KCNA), www.kcna.jp.co, 11 February 2005.
4. Some useful work is being carried out as part of a joint project between the Carnegie Endowment and the Center for Strategic and International Studies.