FOUR SCENARIOS FOR A NUCLEAR NORTH KOREA

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Since the breakdown of the 1994 US-North Korea Agreed Framework in 2002, North Korea has become, for all intents and purposes, a nuclear weapons state. Over the past five years, Pyongyang has gradually built up its stockpile of plutonium, demonstrated that it has the technical capabilities to produce plutonium metal critical for building the bomb, and conducted its first, albeit not entirely successful, nuclear test. Opinions vary on the level of North Korea's nuclear sophistication. Some experts claim that it can mount a nuclear warhead on top of medium range missiles, while others see its nuclear technology as far more rudimentary, perhaps comparable to early American bombs that weighed thousands of pounds. But few dispute that the North now has nuclear weapons. And, if it is not already capable of placing bombs on missiles, it may perfect that skill over time.

Questions remain about whether North Korea is willing to give up its nuclear arsenal. One school of thought argues that Pyongyang intends to keep its weapons, citing reasons ranging from the fact that no country has relinquished its arsenal after openly conducting a nuclear test to the possession of such weapons guarantees the continued survival of the Kim Jong II regime. Another school of thought argues that no one knows whether North Korea would be willing to give up its nuclear arsenal since, at least in recent years, no serious effort to find this out through a coherent policy of providing incentives and disincentives to Pyongyang has been made. A third school would argue that Kim Jong II has not yet made up his mind whether he will give up his nuclear arsenal. Contrary to the popular impression that North Koreans are reckless risk-takers, they are in fact extremely cautious. A decision of that magnitude will not be quickly or easily arrived at and will probably be delayed as long as possible.

This uncertainty has been highlighted by the events of the past year. Progress in Six Party Talks at the end of the Bush administration highlighted the possibility that Pyongyang might be willing to denuclearize for the right price. The North shut down its key plutonium production facilities and completed most of the steps agreed to in the Six Party Talks to temporarily disable them. In return, Pyongyang received 1,000,000 tons of heavy fuel oil (or their equivalent in other materials) and the promise of improved political and economic relations with the United States. It can be argued that the disablement steps were limited, that the facilities are rundown in any case and that Pyongyang had more leeway to take such steps in the wake of its first nuclear test. Nevertheless, the progress made, even if limited, was noteworthy.

On the other hand, Pyongyang's actions also highlighted the possibility that it might be unwilling to denuclearize or that denuclearization might just be too difficult to achieve. The North strongly resisted making a full declaration of its nuclear programs, omitting any activities related to the production of highly enriched uranium and others related to the export of technology to countries such as Syria. Pyongyang also refused to reach agreement on key verification provisions necessary to make sure that its nuclear declaration is accurate. Moreover, statements by the North only highlighted its view that final denuclearization—when Pyongyang completely surrenders its nuclear weapons program—would be a long way off and would occur only after the US ended hostile relations towards North Korea. If that relationship is not to the North's satisfaction, then its final disarmament might be keyed to disarmament by other nuclear powers, a condition that is unlikely to be met.

Those doubts about the North's ultimate intentions have only been strongly reinforced by its actions during



the first year of the Obama administration. Pyongyang's initial refusal to return to multilateral negotiations followed by a long-range rocket test in April and its second nuclear test in May only reinforced the view that the North has no intention of eliminating its program. As a result, its recent shift back to offering to resume dialogue with the United States, South Korea, Japan and others has been viewed with some skepticisms although an argument can still be made that the resumption of talks could eventually lead to denuclearization. However, even the most optimistic observer would agree that such a process will take time and effort and that the chances of a "grand bargain" succeeding in the short-run are bleak.

Leaving aside Pyongyang's statements and actions for the moment, if the North and other countries were to move down the road towards denuclearization, a number of significant negotiating hurdles would remain before a final agreement could be achieved, much less the actual implementation of such an agreement. Achieving denuclearization will require Pyongyang to ship its stockpile of nuclear material (presumably all its plutonium) and spent fuel out of the country, dismantle and destroy its nuclear weapons, dismantle or convert its nuclear facilities, accept extensive verification measures including on-site inspections, and to rejoin the IAEA and the NPT. All of these steps will take time to negotiate and even longer to implement.

Moreover, North Korea is not likely to take all of these steps free of charge. Its price will be steep. For example, Pyongyang will probably resurrect its demand for a multi-billion dollar light water reactor (LWR) project. Such a project could take as much as a decade to complete and cost billions of dollars. Aside from technical and financial hurdles, it may be a difficult issue for a new Obama Administration to handle since the LWR project was the centerpiece of the failed 1994 arrangement reached by the last democratic president. In addition, there will also almost certainly be North Korean demands for other steps such as concrete international economic assistance.

Beyond these measures, the success of any negotiating process will depend on further steps to improve political relations, particularly between North Korea and the United States. Until 2002, North Korea's national security policy was designed to build a strategic relationship with the United States in order to protect Pyongyang against the potential dangers posed by its much larger neighbors, China and Russia. To achieve that objective, the North seemed willing to address Washington's concerns about its nuclear weapons program through arrangements such as the 1994 U.S.-North Korea Agreed Framework. However, with the collapse of that agreement under the Bush administration, Pyongyang has steadily shifted its policy towards reliance on nuclear weapons to guarantee its security. That strong underlying factor explains why the North has cautiously but steadily moved forward with the development of a small arsenal, at the same time using international negotiations to consolidate gains and to regulate outside pressures which inevitably buildup after its weapons related activities.

Any realistic assessment of North Korea's nuclear future must also take into account the possibility of an impeding political transition in Pyongyang that may succeed or fail. That reality goes beyond speculating about Kim Jong II's intentions or pondering how negotiations for denuclearization will proceed and touches on a more fundamental issue: whether the North Korean regime can survive. Since the collapse of the Soviet Union and its allied regimes in East Europe, there has been periodic speculation that the North Korean system of government would be next. These concerns still prevail as Pyongyang struggles to implement economic reforms with the ever present danger that the humanitarian crisis experienced during the mid-1990's which was thought to have brought the regime close to collapse might be repeated. Finally, while there are many possible scenarios leading to the collapse of North Korea, the most obvious one today, courtesy of Kim's illness during the summer of 2008, is the danger of a looming succession crisis. While there may be plans in place for a leadership transition, there is no guarantee that the succession will succeed. In short, any



assessment of North Korea's nuclear future must take into account the possibility of a nuclear-armed state that sinks into political chaos.¹

In view of all these uncertainties, the purpose of this paper is to assess North Korea's nuclear future. While a number of scenarios are possible, there seem to be four main candidates:

- Case 1: North Korea agrees to denuclearize but negotiations and implementation stretch out for up to a decade leaving Pyongyang in possession of a nuclear arsenal for most of that time.
- Case 2: Negotiations drag on without directly addressing the key issue of denuclearization. The North continues to hold on to its nuclear arsenal.
- Case 3: Negotiations collapse. Washington seeks to increase pressure on the North while Pyongyang launches a new escalation of its efforts to develop a small nuclear deterrent.
- Case 4: The North Korean government disintegrates, raising concerns about the security of its nuclear weapons, technology and workforce.

This paper will seek to illuminate the consequences of each scenario for the United States, its allies in the region, other countries surrounding North Korea and the international community as a whole. While this paper will not make specific policy recommendations, it will hopefully make clear to policymakers the consequences down the road of their choices today and therefore help steer them in the right direction. To achieve that objective, each scenario will be analyzed according to a number of factors including the implications for: 1) US political, security and other interests in the region; 2) the same interests for Japan and the Republic of Korea; 2) North Korea, particularly its security relations with the international community and domestic situation; 3) other key surrounding countries, particularly China; 4) peace and stability in Northeast Asia; and 4) the international non-proliferation regime.

CASE 1: Denuclearization Agreement Reached

Under this scenario, the United States and North Korea, along with the other participants, reach a series of agreements that result in steady progress towards denuclearization and in the eventual elimination of Pyongyang's nuclear arsenal. In order to achieve its objective, Washington seeks to; 1) convince the North that it is unwilling to accept Pyongyang's nuclear status; 2) secure progressively tighter negotiated limits on its program and 3) show Pyongyang that its objective of becoming a "strong and prosperous nation" by 2012 can best be achieved not through a continued nuclear buildup but rather by rebuilding better relations with the United States. In the initial phases of this process Pyongyang's commitment to denuclearization will be conditional, a reflection of its clinging to nuclear weapons as the core of its security policy and distrust of the United States and others to deliver on their promises. Therefore, an important objective of this approach is to both build positive momentum in order to bring the North to a "tipping point" where Pyongyang will have to decide about its future as a nuclear-armed state.

Since the prospects for eliminating North Korea's nuclear arsenal in the near-term are bleak, Washington could initiate a policy of stopping any further buildup, then rolling back and finally securing denuclearization. Aside from recognizing political realities, such an approach would take advantage of what may be an

¹ Stares, Paul B. and Joel S. Wit. "Preparing for Sudden Change in North Korea." Council Special Report No. 42, Council on Foreign Relations Press, New York, 2009.



important window of opportunity in Pyongyang's effort to expand its arsenal, namely the current pause in its force development activities. Washington's objectives could best be achieved by seeking negotiated measures to: 1) prevent the North from further advancing its warhead design through constraining nuclear testing, perhaps starting with a moratorium followed by a negotiated ban; 2) halt additional production of fissile material, once again through initial informal limits but then as part of a negotiated agreement, and 3) secure the dismantlement of the nuclear program beginning with plutonium production facilities, and; 4) take steps to bring Pyongyang back towards the non-proliferation mainstream. One immediate challenge will be to capture the North's uranium enrichment program in a production ban. While Pyongyang's recent pronouncements acknowledging such a program exists seem to indicate it is fair game for the bargaining process, negotiating limits could prove difficult since enrichment facilities are easy to conceal.

Steps to bring North Korea back towards the non-proliferation mainstream could be fully integrated into a nuclear roadmap from the very beginning. The Bush administration's approach in dealing with this important issue was seriously flawed, merely insisting that the North come clean on its suspected covert nuclear assistance to Syria. A more realistic approach would take into account similar past experiences. For example, in the early 1980s the United States initiated a dialogue with China designed to convince Beijing to end illicit exports, triggered by the discovery that it had provided Pakistan with a nuclear bomb design. That dialogue, which included seeking a Chinese pledge to halt such exports and offering Beijing positive inducements such as peaceful nuclear cooperation, was difficult and time consuming. In the end, Beijing never admitted its past transgressions but eventually realized the benefits of adhering to international norms.

On the non-proliferation front, American negotiators could launch four initiatives. They are: 1) secure Pyongyang's pledge to support efforts to prevent the spread of weapons of mass destruction and not to export weapons, technology or know-how that would assist non-nuclear states in building nuclear weapons; 2) secure the North's agreement to join the International Convention for the Suppression of Acts of Nuclear Terrorism which criminalizes such assistance to non-state actors; 3) open the door to legitimate, peaceful exports by beginning discussions with the North on its adherence, even if informal at first, to existing international norms that permit certain exports if appropriate non-proliferation assurances are applied and other parties are notified of pending sales; and 4) initiate confidence building measures including visits to the North by representatives of the Nuclear Supplier Group and the Director-General of the International Atomic Energy Agency to start a process of eventual North Korean adherence to the NPT and technology control regimes.

Since non-proliferation measures in this early phase are likely to remain limited, it is essential to continue steps to further constrain the threat of illicit sales. Those steps are securing more cooperation from China and Russia as well as countries along key sea routes who remain outside the Proliferation Security Initiative (PSI). Reducing demand will require strengthening international support for robust export controls on nuclear commerce and launching targeted diplomatic initiatives, for example seeking an end to North Korea's suspected WMD relationship with Damascus as part of the recent thaw in U.S.-Syrian relations.

While the focus of these negotiations will be Pyongyang's nuclear arsenal, they also will provide a valuable opportunity to help achieve other objectives. Washington's agenda should also include seeking to build beachheads of cooperation with North Korea in anticipation of a future political transition and a new leader who is likely to be unable to make sharp departures from previous policies. Another important objective will be to nudge forward transformative economic and social changes already underway in the North that could result in positive changes. The political, economic, energy and other incentives likely to be demanded by the



North as part of any elimination roadmap, if carefully conceived, could encourage the continued peaceful economic and social evolution of the country towards becoming a more normal state.

Securing these objectives will require providing positive incentives.

Conversion of Yongbyon into a peaceful research center: An idea first suggested by North Korean scientists in 2008, this proposal would convert the site to non-nuclear activities with the exception of the North's small Russian research reactor, which would be refurbished to produce medical isotopes for export. The initiative would secure the dismantlement of plutonium production facilities, help bring the North back towards the non-proliferation mainstream by discouraging illicit nuclear commerce, and advance Washington's non-nuclear agenda by building ties between the North's scientists and the outside world. All of this would be achieved in the context of a more durable long-lasting solution that would contribute to the North's economic modernization.

Recognize North Korea's right to use nuclear energy for peaceful purposes. Fundamental to Pyongyang's negotiating position since the 1980s, recognition would help secure the North's agreement to cap its program and dismantle Yongbyon's plutonium production facilities. Since Pyongyang's respect for non-proliferation norms would be an explicit condition for acknowledging this right, such a proposal could also help move the North back into the nuclear mainstream. Whether Washington should also promise to assist the North in securing new light-water reactors at this stage of talks is unclear but such a pledge would require close coordination with other countries, particularly South Korea, likely to provide the bulk of technology and financing.

Take steps towards normalization: Beginning the process of establishing diplomatic relations by seeking to set up a liaison office in Pyongyang, once agreement is reached on rolling back the North's nuclear program, would send a unambiguous, positive signal to Pyongyang. It would also help set the stage for accelerated negotiations between the two countries since it would allow almost daily contact. Another important step would be to conclude a peace declaration (between the U.S., South Korea, North Korea and China) at the conclusion of a rollback agreement that would also signal positive momentum towards normalization and trigger the beginning of process eventually leading to a peace treaty.

Integrate an extensive menu of people to people, humanitarian, economic and energy incentives. American negotiators will be able to deploy an extensive menu of measures designed to rebuild ties with Washington and the international community, encourage transformative trends in the North, and lay the groundwork for a future expansion of projects in these areas. An early initiative would be to help arrange a visit by the DPRK State Orchestra to New York City that was slated for 2008. Other steps could be assistance in refurbishing major energy facilities and local power grids, pilot food security projects and U.S. support for expanded English language programs as well as scientific cooperation exchanges.

As for the elimination of Pyongyang's nuclear arsenal, achieving that longer-term objective will depend on solving thornier problems including Washington's ability to redirect the North away from its reliance on nuclear weapons toward a new bilateral relationship and addressing Pyongyang's concerns about the American nuclear threat. Finding a solution will depend in part on how Pyongyang defines that demand. If the North seeks an end to American alliances with South Korea or Japan, that will be unacceptable. If the North seeks a gradual shift in mission for U.S. forces towards maintaining peace and stability on the



peninsula just as it posited in discussions with the United States during the 1990s, then its demand may be acceptable under certain conditions. Those conditions would the normalization of relations between North Korea and the United States (as well as with Washington's allies), an end to the danger of war on the peninsula, and the elimination of the North's nuclear program.

One possible step to build momentum early in the second phase would be to conclude a joint "vision statement" designed to demonstrate each sides commitment to a significant thawing of relations and to articulate a positive framework for future negotiations. Such a statement might combine general principles governing relations between the United States and North Korea with specific pledges that lay out guideposts for subsequent talks. Those guideposts could include commitments to reduce and eliminate North Korea's nuclear weapons program by a date certain, to bring Pyongyang into compliance with international non-proliferation norms, to end the American "nuclear threat," to establish normal political and economic relations and to reach a lasting peace on the peninsula.

The two sides would then move to put "meat on the bones" of these commitments. Important priorities will be to nail down a timetable for the reduction and elimination of the North's nuclear program and for Pyongyang to take further steps to comply with international non-proliferation norms. Key will be a commitment to rejoin the Nuclear Non Proliferation Treaty and the International Atomic Energy Agency (IAEA) as a prelude to the elimination of its weapons stockpile. Washington could show its willingness to end the "nuclear threat" by agreeing a North Korean demand to conduct trial inspections to demonstrate that South Korea is free of nuclear weapons. Other steps signifying a sea change in the political atmosphere might be a joint pledge to establish diplomatic relations and to reach a Korean peace treaty keyed to the denuclearization process. Major economic, energy and other assistance packages could prove necessary to help seal the deal. These measures would continue to build cooperative ties, encourage transformation and reintegrate the North into the international system.

In addressing the final shape of denuclearization arrangements, two options are:

- Combine a negative security assurance by the United States to North Korea with an agreement denuclearizing the peninsula and verification measures. China and Russia might also provide negative security guarantees to both Koreas. Added to that guarantee might be a renewed commitment by South Korea and Japan aimed at the North pledging not to acquire nuclear weapons.
- Establish a more formal Korean nuclear-free zone based on the North-South Denuclearization Declaration reached in the early 1990s with protocols signed by the nuclear weapons sates that would include negative security assurances and verification provisions. Such an agreement may, however, encourage Pyongyang to seek provisions based on other global precedents that would be unacceptable to the U.S. Those provisions could restriction ship movements, or extend the zone to neighboring countries such as Japan

Verification will pose a difficult challenge as denuclearization moves forward since on-site measures will have to be part of the process. Such arrangements will only succeed if political relations are moving in a positive direction and Pyongyang has a stake in progress. Therefore, verification measures should be carefully folded into the process in a way that meets immediate security needs without creating unnecessary negotiating



roadblocks. Washington should also draw on the experience of past U.S.-Soviet talks when innovative cooperative programs were devised to ease the Russians into accepting what otherwise would have been unacceptable intrusive measures. Finally, the United States should adopt a reasonable standard of effectiveness for verification measures, namely, an ability to detect violations that might pose a security threat, not immediately, but rather in time to allow appropriate countermeasures to be taken. That standard was used in agreements with the Soviet Union, which posed a far more serious danger to the United States and its allies than North Korea.

There will probably be some period of time during which the North will be a de facto nuclear weapons state. And there may also be a period of time during which it keeps possession of the plutonium, albeit under safeguards. That reality, which will be seen as a sign that Pyongyang's decision to give up its arsenal is by no means final, will only serve to reinforce a pervasive skepticism about North Korea's intentions. Doubts may diminish with each step down the path of implementation but some will also recall that the 1994 agreement failed just as it was about to enter the final phase of denuclearization.

Nevertheless, North Korea, the other five parties and the international community could take a number of other steps in connection with the new agreement that would help foster a positive political and security environment. The phased lifting of international sanctions imposed on the North after its missile tests and nuclear tests—will almost certainly be part of a process of denuclearization. There might be a steady improvement in North-South relations as multilateral talks to establish permanent peace arrangements between the United States, China and the two Koreas gain momentum. In the context of a forward-moving process of denuclearization and the beginning of peace talks, South Korea might show a new willingness to carry out large-scale investment projects in the North in line with President Lee Myung-bak's "Vision 3,000" policy as well as other positive initiatives. On Pyongyang's side, it might be open to greater cooperation with Seoul, but whether it would be willing to openly embrace the South is uncertain. However, a more likely scenario would be the selective acceptance of new initiatives by Seoul while the North remains wary of the impact of greatly expanded ties with the outside world on its internal political control.

Presumably, the process of normalization will also include Japan since it will be difficult to complete any denuclearization agreement without making progress on or perhaps resolving the issue of Japanese citizens abducted by North Korea. Tokyo has played a leading role in seeking international sanctions against Pyongyang and has imposed its own bilateral economic sanctions banning imports, including money-making items such as clams, crabs and high-end *matsutake* mushrooms, and prohibiting ships from calling at Japanese ports. As progress is made in addressing the abductee issue, Tokyo might gradually lift those sanctions. As such, negotiations on normalization could culminate in the provision of financial assistance by Tokyo to the North just as it did to South Korea when those countries established ties in the past. The amount of assistance could reach billions of dollars.

A denuclearization agreement could have other benefits as well. For instance, it could jumpstart additional talks on security issues dividing the United States and North Korea. The next priority after ending the North's nuclear program would be to negotiate significant curbs on its development, deployment and export of ballistic missiles. That concern is especially shared by Japan, which views itself as the most likely target of North Korean missiles should hostilities arise. Talks on that issue, which have not been held since 2000, are likely to resume if a denuclearization agreement is reached. Washington could also seek to end the threat from North Korea's other weapons of mass destruction, as Pyongyang is thought to have a large stockpile of chemical weapons and to have at least experimented with biological weapons. The objective would be to secure its accession to the global ban on chemical weapons and the Biological Weapons Convention.



Efforts to establish a multilateral security forum in Northeast Asia may accelerate should the North Korean nuclear issue find resolution. As the end game is reached in negotiating the denuclearization arrangements, the Six Parties might put greater effort into the Northeast Asia security cooperation working group to reach a statement of principles governing future cooperation, followed by regular meetings designed to put cooperative mechanisms in place that address a wide range of regional security concerns. One major common objective will be the successful implementation of that denuclearization agreement. But cooperation may broaden out, starting with soft security issues, such as enhanced cooperation in disaster relief. Whether such cooperation would lead to the establishment of more formal mechanisms, such as a multilateral security forum, remains unclear. But if multilateral security cooperation begins to take concrete shape, Washington will also have to consider if and how such a development effects its bilateral security arrangements with South Korea and Japan.

If the security environment improves, North Korea may also feel empowered to press ahead more vigorously with its own economic modernization efforts, reinforcing an emerging picture of a region on the mend. A visibly improving external security environment and increasing access to foreign economic assistance as bilateral and multilateral sanctions are lifted, could lead to very significant improvements in the North Korean economy as well as its integration into the regional and international financial systems. Once again, whether this happens will depend on Pyongyang's willingness to accept large-scale assistance from the international community. It will also depend on if sound economic thinking is integrated into any new denuclearization agreement as well as "improving the quality of economic thinking" inside North Korea through training and dialogue with experts. But the end result, if these conditions are met, could be the creation of an export-oriented economic development strategy able to sustain high growth rates.

As part of this transformation, Pyongyang may consider reducing the current economic burden caused by the disproportionate allocation of resources to the maintenance of a large military industrial complex. This would help spur reductions in conventional forces and the restructuring of the North Korean defense establishment. Signs of an internal debate on this issue have already appeared through suggestions in the North Korean media that its defense expenditures do not contribute to the building of a strong economy. The position of these advocates may be strengthened as the external security threat diminishes and if modernization efforts accelerate.²

Beyond Northeast Asia, the denuclearization of North Korea would be viewed by other countries as a significant victory in fighting the spread of nuclear weapons. The new agreement would have a calming effect on the dangers of regional proliferation, as talk about the possible acquisition of nuclear weapons by Japan, South Korea and Taiwan would subside. Having withdrawn from the NPT and the IAEA and built a small nuclear arsenal, Pyongyang would rejoin both and give up its weapons, bolstering the credibility of the global regime. A new denuclearization arrangement would also help plug one more potential hole in the regime by removing from the illicit nuclear market a potential supplier of technology and know-how. Whether the new agreement would give momentum to efforts to resolve the Iranian nuclear crisis remains uncertain. While Iran seems determined to build nuclear weapons, one lesson that might be drawn from the Korea experience could be that greater flexibility on the part of Washington and its partners in engaging Tehran and the deployment of "incentives" could payoff.

Overall, a denuclearization agreement on the peninsula could prove to be the catalyst for a visible, active effort by all parties to put in place a new political, security and economic environment significantly better

² Robert L. Carlin and Joel S. Wit, *North Korean Reform: Politics, Economics and Security*, IISS Adelphi Paper #382, (Routledge, England, 2006).



than the continued Cold War confrontation that has existed in Northeast Asia since the Korean War. However, that effort could stretch out for a decade or more, is likely to encounter a number of roadblocks along the way and is by no means guaranteed to succeed. On the international front, the denuclearization of North Korea would be a significant victory for the non-proliferation regime, strengthening the global regime and its institutions.

CASE 2: Negotiations Drag On Without Final Agreement

In this scenario, negotiations drag on, taking some steps forward and also suffering periodic setbacks, but without achieving a breakthrough that opens a path to denuclearization. A host of potential political, security, technical and other roadblocks could prevent the charting of a clear path towards that objective. Because of the difficulties in resolving issues central to denuclearization, the United States and North Korea might try to keep some forward momentum by finding more limited agreements. For example, Washington could secure North Korea's agreement not to conduct additional nuclear tests, to produce more fissionable material or additional steps to disable its main nuclear facilities in return for more energy assistance and further limited moves toward the normalization of political and economic relations. The issue of denuclearization will continue to loom large, however, and such an effort could eventually reach a dead end.

In that context, Washington will have to deal with conflicting currents. On the one hand, domestic political pressures will almost certainly mount in the United States to set deadlines for progress or to break off negotiations. As a result of Pyongyang's perceived behavior over the course of the past year, taking advantage of a transition in U.S. administrations to conduct a new round of nuclear force building, the reservoir of patience for dealing with the North is running low. If the North is seen as making unreasonable demands in any new set of talks, those pressures will increase, making it difficult for the administration to continue dialogue. On the other hand, Washington might decide to resist that temptation, recognizing that such a course of action could cause the breakdown of the talks in general and trigger renewed tensions in the region. The pressures to "manage" this problem may also be strong if Washington is dealing simultaneously with potentially dangerous foreign policy challenges in the Middle East and South Asia.

One important factor in Washington's calculation will be whether the other participants in negotiations and the international community would support putting increased pressure on Pyongyang if the talks fail. Securing that support could prove difficult given the alternative of regional tension and possible military confrontation. That is certainly true for China, which often counsels patience in the face of North Korean intransigence. While Beijing recently supported U.N sanctions in the wake of North Korea's missile and nuclear tests, its actions have fallen far short of the tough measures many hoped it would adopt. Indeed, after only a few short months, China has reached a number of assistance agreements with the North on the occasion of Premier Wen's visit to Pyongyang that would seem to run counter to the multilateral sanctions effort. Analysts have been speculating for some time that Beijing might eventually run out of patience with the North if Pyongyang continues to move forward with developing a nuclear arsenal. But recent events demonstrate that may not be the case. China is more likely to continue to play a cautious game no matter what happens for fear of provoking instability on its borders. Therefore, while Washington could find itself in an uncomfortable bind, the United States might be unwilling to walk away from talks if there is little likelihood that it will have the support of other countries for measures to increase pressure on the North.

The exact posture of South Korea and Japan, two other key players, under these circumstances would be unclear. Seoul and Tokyo might be expected to strongly support Washington in case negotiations stalled and especially if Pyongyang takes further steps to increase its nuclear capabilities. That may mean another round



of sanctions, either multilateral or bilateral. But at the same time, both are likely to become increasingly concerned about the possible consequences of an unconstrained North as well as of not resuming dialogue with Pyongyang. This may be particularly the case with a Japanese government led by the Democratic Party of Japan, which is seeking to improve bilateral relations with China. An increasingly clear divide on the North Korean issue between the United States, South Korea and Japan on the one hand and Beijing on the other, would undermine achieving this objective. Moreover, the prospective absence of negotiations with the North could gradually erode confidence in both countries in Washington's ability to handle this, and maybe other important security issues.

Pyongyang may see this scenario as an opportunity to nudge other countries towards implicitly accepting it as a nuclear weapons state and, with that objective in mind, could prove to be adept at managing the developing stalemate. One important lesson the North has learned from test runs conducted in 2006, when it conducted a long-range missile and nuclear test, and 2009, when it did the same, is how to modulate international reaction to its force building efforts. Based on that lesson, Pyongyang might feel that it could take additional steps to gradually strengthen its nuclear arsenal—such as renewed production of plutonium as well as missile and nuclear tests—as long as they are followed by offers for renewed dialogue and negotiation that hold out the prospect of diplomatic agreements. Such an approach would allow the North to play on China's fears about instability and regional conflict, undermine any efforts by Washington to build a coalition in support of increasing pressure. It would also allow Pyongyang to continue to gradually buildup its small nuclear arsenal while avoiding any disruption of key economic ties, particularly with China. Finally, Pyongyang may calculate that such an approach would place Washington in an untenable position since it would be unlikely to muster the international support necessary to increase pressure on Pyongyang. As a result, the US might be forced to make negotiating concessions rather than accept a continuing stalemate.

While uncertainty about the future will be the dominant characteristic of this scenario, doubts about whether North Korea will ever denuclearize are like to mount as time goes by. That will certainly be the case in Seoul where the conservative government is more skeptical about Pyongyang's intentions than previous regimes. A high level of skepticism is also likely to remain in Tokyo, in large part engendered by the perception that Pyongyang has been unresponsive on the issue of abductees. Many Japanese decision-makers will continue to see the North as unpredictable and unstable, extreme in its sense of fear and uncertainty, and willing to use nuclear weapons against Tokyo if there is an armed conflict.

Increasing doubts about North Korea's intentions would be fed by other political developments as well. For example, uncertainties about the future of nuclear negotiations could be reinforced by difficulties encountered in Pyongyang's relations with other countries. Pyongyang's public attitudes towards inter-Korean political and economic relations could become negative. The North's relations with Japan could also deteriorate further as it appears to be even more unwilling to address the abductee or other issues of concern to Tokyo.

Pyongyang's actions at home might feed into perceptions of uncertainty about its intentions. It is generally understood that in order to solve its domestic economic problems and food shortages, Pyongyang will need to embark on systematic reform and efforts to improve economic relations with the outside world. But that will be difficult without resolution of the nuclear crisis first. In this scenario, Pyongyang would not opt for this course, but would rather seek to continue muddling through, launching occasional crackdowns on the symbols of economic reform, such as its markets. There would also be no reduction in the amount of resources devoted to its national defense. The North's economy would remain in a fragile low- to no-growth state with its stability largely dependent on maintaining trade and aid deficits with China. The overall impression would be of a North Korea attempting to improve its economic situation within the confines of a policy designed to maintain its nuclear option.



The North could also seek to buttress its economic and political positions through stepped-up exports of dangerous weapons related technologies. That might entail greater cooperation with countries such as Iran and Syria on new generations of longer-range, more capable ballistic missiles. It might also include exports of nuclear-related technologies ranging from whole facilities to the sharing of know-how, such as bomb design information, and nuclear test data. Demand for these exports will depend on external factors, such as the success or failure of American efforts to tighten the international non-proliferation regime, as well as whether Washington can head off Iran's nuclear weapons program. In a situation where there is no clear outcome, a number of countries may decide to pursue covert, almost impossible to detect nuclear programs largely based on gathering information on building the bomb. North Korea could be one of the few "nuclear powers" willing to sell such information to the highest bidder.

Given all of these uncertainties, governments are likely to pursue "hedging strategies" on all fronts designed to continue exploring negotiated solutions to the nuclear crisis while seeking to cope with the possibility that negotiations could still fail. For the United States, such a strategy would include a number of steps. First, in view of its willingness to accept small steps forward while continuing talks, Washington would need to close ranks with South Korea and Japan to offset any concerns of being willing to tolerate a nuclear North Korea. Closing ranks would also mean a renewed effort to devise a common strategy for dealing with Pyongyang. Part of that effort would entail stepping up the frequency and substance of trilateral meetings at all levels. Second, Washington would have to work closely with Beijing to find common ground on possible diplomatic solutions. Third, the United States might try to further involve the UN Security Council on the nuclear issue through member briefings and procurement of presidential statements or resolutions supporting a diplomatic solution. Such a move could prove useful if the talks were to collapse in the future and the United States would decide to step up pressure on Pyongyang.

Under such circumstances, South Korea would probably be circumspect in its dealings with the North. The current conservative government, while mindful of the dangers of a situation that spirals out of control, would continue attempts to use economic leverage over North Korea to be reasonable in nuclear negotiations, that is, linking progress in North-South relations to progress on the nuclear front. This might be reflected in proposals for "grand bargains" perhaps also designed more for domestic political audiences than for the North Koreans. The strength of Seoul's predilection towards linkage would depend on US-North Korean relations. In an environment where there is forward movement in denuclearization negotiations, that tendency could diminish. But in an environment where there is little forward progress, Seoul's tendency towards linkage will probably grow.

Tokyo may also be inclined to be more circumspect in its dealings with the North in order to prevent a sharp divide between the three allies and China that could undermine its objective of achieving better relations with Beijing. Another danger for the new government would be that limited or no progress in nuclear negotiations would translate into an even greater inward focus on domestic politics and a fixation on Japanese citizens abducted by North Korea. Should forward progress in the nuclear talks come about, Tokyo might be willing to step back from this fixation on abduction given the danger that Japan might become diplomatically isolated and the chance that Washington could nudge the North to compromise on the abduction issue with greater Tokyo cooperation.

For Beijing, a "hedging strategy" would mean keeping all diplomatic options open in the pursuit of stability. Above all else, China's priority would be to prevent a stalemate from leading to the collapse of the talks, a situation that could bring about military conflict on its border, instability on the Korea peninsula or other scenarios that could put Beijing's economic development and political stability in jeopardy. In the case of a stalemate, China's response is likely to step up efforts to prod both the United States and North Korea to move forward in achieving a diplomatic solution, perhaps even advancing its own suggestions for how to



break the stalemate. Beijing would also seek the support of other key countries for diplomacy, particularly South Korea, perhaps playing on fears of the consequences of collapse.

Countries in the region are also likely to pursue "hedging strategies" outside the diplomatic arena. The American nuclear umbrella would still be seen as a sufficient deterrent to a North Korea that may or may not keep its arsenal. Nevertheless, the process of publicly reaffirming the importance of "extended deterrence" that has been underway since the first North Korean nuclear test in 2006 (and most recently reflected in the June 2009 U.S.-South Korean Summit statement) will continue in a variety of venues. Detailed planning—which is also underway and due to be completed by 2012—will move forward and consider fleshing out that commitment beyond the overall protection of South Korea by America's nuclear-armed long-range bombers and missiles. Exactly what those plans will include is unclear. Washington's public statements are also likely to be reassuring to Japan given its security objective of ensuring that America's defense commitments in the region remain strong.

One course of action for South Korea and Japan could be to continue to build limited military capabilities designed to cope with the possibility that negotiations would collapse, leaving Pyongyang free to pursue its nuclear ambitions. For South Korea, this would mean continuing to deploy and develop increasingly capable, long-range cruise missiles program able to attack targets in North Korea on ships as well as focusing its limited missile defense effort on protecting key targets. If recent press reports are correct, it will also mean considering developing long-range ballistic missiles able to attack all of North Korea that could exceed the range limit of 300 kilometers imposed on its program by the multilateral Missile Technology Control Regime (MTCR). For Japan, the main focus of its "hedging" defense strategy would be an extensive, expensive effort to build a ballistic missile defense for the country.

A key issue under this scenario is its instability, specifically, how long can the participants maintain a careful balancing act which avoids a collapse of the negotiations. Participants in the talks, particularly the United States or North Korea, could decide at some point that the balancing act no longer serves their interests. Likewise, events external to the talks could trigger tensions to escalate and negotiations to fall apart. Nuclear negotiations often provide an additional and important anchor of stability for the region as well as an added incentive for countries to more carefully manage potential political flash points. If the talks appear to be heading towards stalemate or a dead-end, that incentive will diminish.

CASE 3: Negotiations Collapse

Nuclear negotiations reach an impasse and collapse. The United States would be unwilling to engage in talks indefinitely without concrete progress towards denuclearization. Pyongyang might also judge that continuing negotiations would not be in its best interests. Implicit in this scenario is that both sides are ready to accept the consequences of collapse, at least in the near-term. Washington would be willing to live with a small North Korean nuclear arsenal—calculating that Pyongyang would have trouble significantly expanding its stockpile given the poor condition of its plutonium production facilities at Yongbyon and that it would have problems mastering the intricacies of building centrifuge cascades—rather than continue unproductive negotiations. For Pyongyang, a breakdown in the talks might provide the opportunity to further strengthen its nuclear posture. While bolstering its nuclear defenses and sending a signal of defiance to the international community, the North could also place itself in a stronger position for future talks if they resume. Or if negotiations do not resume, the North would then be better able to fend off possible security threats.

Pyongyang would move forward with restarting its nuclear program at Yongbyon. In addition to reactivating its reprocessing plant (which is already taking place), the North would reactivate its 5 MW reactor with the objective of producing more plutonium. North Korea's nuclear stockpile is



believed to consist of sufficient plutonium to build 4-8 nuclear weapons. Using existing stocks of fresh fuel, North Korea could produce a bomb's worth of plutonium each year from 2011-2013. If the North is able to refurbish its fuel fabrication plant, that production rate could continue indefinitely with its arsenal reaching 14-18 weapons by 2019. Production could dramatically increase if the North moves to complete construction of the 50 MW reactor which has been stymied by "industrial bottlenecks." If the North is able to over come those bottlenecks, the reactor could produce 55 kilograms of plutonium annually, enough material for about 11 bombs per year. Finally, the North might be able to further augment its fissile material stockpile through successfully producing highly enriched uranium (HEU). The detonation of additional nuclear tests would also be likely, designed to produce warheads that could be mounted on increasingly capable missile delivery systems.

In addition to restarting its nuclear program, Pyongyang might take other provocative steps. Following up on last spring's Unha-2 missile test, additional launches of increasingly longer-range missiles are likely in order to perfect them as delivery systems for nuclear warheads. Since the challenges of building long-range missiles will be difficult and time-consuming to overcome, in the near-term the North might focus on testing new medium- and short-range solid fueled missiles based on Russian technology that would allow Pyongyang to strike growing numbers of regional targets. These tests, combined with additional nuclear detonations, could result in the first deployments of nuclear-armed missile delivery systems. Pyongyang might also conduct periodically provocative actions in the region, such as new naval actions in the West Sea.

Washington would almost certainly seek to enact new measures to increase pressure on the North. Whether it succeeds or not on the diplomatic front would depend in part on the circumstances under which negotiations collapsed. While it was difficult to secure Chinese and Russian support for the use of "sticks" in the past, in the aftermath of the North Korean missile and nuclear tests of 2006, Beijing became a more active supporter of pressure. That support appeared to continue after the North's missile and nuclear tests of 2009 and the passage of new U.N sanctions by the Security Council. Indeed, the new sanctions go beyond the previous measures—including the authorization to intercept North Korean ships—and seem to have been selectively implemented by Beijing. But both China and Russia are likely to remain extremely careful in calibrating such measures, unwilling to authorize any steps that could lead to armed conflict or North Korea's collapse, and anxious to leave the road open to a negotiated solution. That reality has become dramatically clear with Beijing's recent offer of important assistance packages to the North as part of the Chinese Premier's visit to Pyongyang.

That same pattern may repeat itself again in the future as China, as well as Russia, support a new round of U.N measures, perhaps slightly more restrictive than the previous ones. In addition to stepped up implementation of previous U.N. Resolutions, new sanctions could further restrict Pyongyang's access to legitimate commercial activities, imports of consumer goods and freedom of movement in international waters. There might even be a hardening of humanitarian and food aid policies that could include specific conditions for provision under Security Council supervision. Once again, the pace and scope of all these additional steps would depend on the support of China and Russia. And if the past is any guide to the future, enforcement of tight restrictions, either because of China's ambivalent policies or North Korea's efforts to circumvent them, could prove difficult

Beyond seeking international approval for UN action aimed at Pyongyang, Washington could attempt to build an ad hoc coalition in support of increasing pressure on the North. Seoul's assistance would be essential. Having entered office with a more conservative, but still pragmatic view of North-South relations and of the need to maintain close relations with Washington, the Lee Myung-bak administration, faced with the collapse of negotiations and Pyongyang's provocative behavior, would likely agree to work in close cooperation with



Washington. Nevertheless, in a situation that might be periodically tense and clearly deteriorating the South's first priority would still be to avoid a showdown with Pyongyang. Moreover, South Koreans of all political persuasions are likely to have concerns about a repeat of what they felt were unilateral actions under the Bush Administration regarding the North. Devising a new strategy will be possible but will require close consultation. And it might also be done in reinvigorated trilateral consultations including Japan, given the new willingness in Seoul and Tokyo to build better relations.

Under these circumstances, South Korea and Japan could present a united front with the United States. Seoul could take steps to increase economic pressure on the North, cutting back contacts with Pyongyang and perhaps even imposing strict restrictions on the provision of humanitarian assistance and even moving to end cooperation in the Kaesong Industrial Zone. While Japan would certainly continue the tough economic sanctions already in place, it might also enact additional restrictions. These could include bans on: financial transactions with North Korea; all exports; and the entry of North Korean citizens into Japan, including the reentry of ordinary North Korean residents who reside in Japan.³

It is possible that the combination of all these measures would inflict considerable economic pain on the North, resulting in it changing course. In a worst-case scenario for Pyongyang (new sanctions supported by China and the rest of the international community), the impact of all these measures could be significant, placing additional strain on Pyongyang's economy. The outcome could be a downturn in agricultural and industrial production, triggering another economic crisis that would be more severe than the one faced by the North during the 1990s. But in the new situation, there might be only a limited humanitarian response from the international community. Moreover, the possibility of social and political instability could be greater today than during the 1990s given the changes in the relationship between state and society over the last decade. The overall result would be a worsening of poverty, starvation among vulnerable groups, increased refugee flows and possible social unrest.

More likely however is that the North would once again shift course after a new round of building up its nuclear arsenal to consolidate gains, to diffuse political pressures and to play on Chinese concerns about instability on its borders. There are therefore two possible outcomes after negotiations collapse. The first is that the break will be temporary. North Korea and the United States would use that time to strengthen their bargaining positions in preparation for eventually returning to the negotiating table. That is what essentially happened after the September 2005 Beijing round. Talks resumed in late 2006 after Pyongyang had conducted a large number of missile tests and its first nuclear detonation and the U.N imposed sanctions. The same scenario is likely to play out in the wake of the North's 2009 missile and nuclear tests.

But it is also quite possible that negotiations would not resume. The countries involved—especially the United States—might feel there is little reason to restart talks if differences remain great. A breakdown in the negotiations could provoke political backlash domestically in the United States against making any further "concessions" to North Korea. While the North may go through the motions of seeking a return to dialogue, Pyongyang might also have little desire to engage in serious discussions should some elites successfully argue that a small nuclear arsenal is essential to achieving the goal of building a strong state and that the North's economy could weather the international storm. That argument may prove even more persuasive if the North's force building programs make technical progress and it appears that the international response is ineffectual. In short, Pyongyang would become a small nuclear power while Washington, its allies, the region and the international community would be left to contemplate how to deal with a nuclear North Korea for the foreseeable future.



³ Interview with Japanese Ministry of Foreign Affairs official, January 2008.

Tacit acceptance would seem to be out of the question. Some experts would argue that Washington seems to be on the verge of accepting a nuclear India and has already tacitly accepted Israel and Pakistan as weapons states. Some well-respected South Korean experts have even observed that a North Korea armed with nuclear weapons serves Washington's interests by keeping Seoul and Tokyo dependent on the United States for protection. Nuclear "rules of the road" might be developed with Pyongyang which could help increase Washington's comfort level, such as a ban on nuclear transfers to other countries and sub-national groups. Those rules might be supplemented by assistance for keeping its arsenal secure.

However, it is hard to imagine that the United States would either openly or tacitly accept a nuclear North Korea. Unlike India, Pakistan and Israel, the United States has a long history of hostile relations with the North dating back to the Korean War. Second, acceptance of a nuclear North Korea would have a serious adverse effect on Northeast Asia as a whole. America's closest allies in the region would view a nuclear North as a clear and present threat. Washington's acceptance of a nuclear North would severely undermine the bilateral security alliance with Japan. South Koreans would also view such a development as a security threat and in particular, a threat to any prospects for eventual unification since the international community would frown on a nuclear Korea. Although Pyongyang might not pose a direct danger to China, Beijing would be concerned about the possibility for a "nuclear domino effect" on Japan, South Korea and Taiwan as well as the danger of confrontation between Washington and Pyongyang. Finally, even tacit acceptance of a nuclear North would seriously undermine the international nonproliferation regime. Indeed, one Chinese concern would be that it might lead to the unraveling of the Nuclear Non-Proliferation Treaty.

Much more likely is that Washington would build a new containment strategy designed to achieve a number of objectives. First, Washington would seek to limit the negative political and security impact of a nuclear North Korea by bolstering security ties with close allies, trying to work closely with China and minimizing the possibility of nuclear leakage from a North Korea that might be in greater need of hard currency as a result of isolation. Second, it would leave the door open to negotiations intended to end the new confrontation in hopes of restarting talks but also in an effort to demonstrate to Beijing that the U.S. would still be interested in a peaceful settlement. Washington might extend a standing offer to the North to return to talks if it demonstrates a serious interest in denuclearizing. Third, in lieu of any change in North Korea's potentially dangerous behavior, containment might also be seen as a tool for instigating regime change in Pyongyang.

One not so hidden objective of the new strategy would be to minimize the danger that "nuclear dominos" would fall as a result of Pyongyang holding on to its arsenal. Because of a continuing strong American commitment to the security of its allies as well as the likelihood that Seoul and Tokyo might be subjected to serious political and economic penalties if either decided to "go nuclear," neither is likely to adopt that course of action. At the same time, while most South Koreans would not support the acquisition of nuclear weapons, a nuclear North Korea is likely to fuel support among South Koreans who do, particularly if Seoul experiences difficulties with the United States, if China becomes more aggressive or if there are problems with Japan. Indeed, Tokyo's reaction to a nuclear North regarding whether it would seriously consider a nuclear option, could have greater significance for Seoul than Pyongyang's acquisition of the bomb.

Tokyo would view North Korea's nuclear status with great concern, particularly if Pyongyang demonstrates a viable option for delivering weapons with its new missiles. Still, given the likelihood that the public would strongly oppose building nuclear weapons, that the economic consequences would be catastrophic since Japan would be cut off from its access to nuclear energy and that Tokyo would continue to depend on Washington for its security, a Japanese bomb program would be unlikely. Nevertheless, the barriers against building the bomb might become more fragile in light of a continuing North Korean nuclear threat. Moreover, any signs that Washington was moving to develop closer relations with China at the perceived cost of its alliance with Tokyo would aggravate the danger as might the taking of power in Japan by a younger



generation less contaminated by the "nuclear allergy."

If demonstrating a strengthened nuclear umbrella is required to offset North Korea's nuclear capability, a consensus could grow in South Korea and Japan in support steps in that direction. For example, the redeployment of tactical nuclear weapons on American surface ships or submarines in the Pacific could become an increasingly attractive option. Redeployment at sea would show resolve to counter a nuclear North Korea while attempting to minimize the adverse political consequences of such a move. For South Korea, redeployment at sea would obviously be preferable over redeploying land-based tactical nuclear weapons on the peninsula but even those deployments might aggravate the domestic political split between conservatives who would support them and moderates who might be concerned about further aggravating North-South tensions.

Tokyo could press for a number of steps. Japan might welcome the redeployment of tactical nuclear weapons at sea although it could also pose complicated domestic political questions given the regular basing of American naval vessels in Japan and the "third no" of its nuclear policy, namely the prohibition on the introduction of nuclear weapons on Japanese soil. Some Japanese would advocate openly revising that policy while others might argue for a return to a "don't ask, don't tell" approach. Beyond redeployment, another measure to strengthen the nuclear umbrella which seems to have strong support among Japanese elites is to hold regular, joint planning talks with Washington to discuss the possible uses of nuclear weapons.

Non-nuclear measures might also be taken to bolster deterrence. Such measures would focus on building up long-range strike capabilities against the North, some designed to attack Pyongyang's ballistic missiles before they could be fired, coupled with greater commitments to theater missile defense. For South Korea, that could mean rapidly moving forward with the deployment of a highly accurate land-attack cruise missile with a range of 1,000 kilometers, which it plans to deploy at sea.⁴ It would also mean working closely with Washington to bolster its ballistic missile defense program, which is currently limited to a small force of Patriot missiles designed to defend key military facilities as well as long-range sea-to-air missiles to be deployed on its new AEGIS class destroyers. Seoul could also acquire the Theater High Altitude Area Defense system (THAAD) to provide wider protection of its territory and airborne lasers to defend against short-range missiles, as well as integrate its newly developing system with American defense capabilities.⁵

Japan's already extensive effort to develop defenses against ballistic missile attacks, conducted in close cooperation with the United States, could accelerate, particularly if Pyongyang demonstrates an ability to deliver nuclear weapons with missiles. Opposition in Japan has tended to focus on the huge cost of missile defense and the need to revise or reinterpret Article 9 of the constitution to allow for the deployment of a more extensive system (the new SM-3 interceptor which will be available by 2014 could allow Japan to intercept long-range North Korean missiles heading for the United States), as well as to cooperate more fully with Washington in collective self-defense. At the very least, Pyongyang's acceptance as a nuclear state, however tacit, would cause this opposition to diminish. It might also mean an expansion of Japan's current plans for missile defense if the threat perceptions grow, although given the great expense, this would be highly dependent on the overall condition of the Japanese economy.



⁴ Jung, Sung-ki. "S. Korea Develops 1,000-KM Cruise Missile." *The Korea Times*, 23 October 2007. http://www.koreatimes.co.kr/www/news/nation/2007/10/205_12400.html.

⁵ "The US Plan for Incorporating South Korea in the US Theater Missile Defense System." *Solidarity for Peace and Reunification of Korea.* 12 April 2008. http://www/tlaxcala.es/pp.asp?reference=5136&1g=en.

^{6 &}quot;Missile Defense Needs Japan-U.S. Teamwork." The Daily Yomiuri. 21 December 2007, p. 4.

Beyond a greater commitment to missile defense, another option for Japan would be to place more emphasis on conventional strike capabilities designed to destroy North Korean missiles able to carry nuclear weapons before launch. Some Japanese would argue that such a capability is also necessary given the imperfections of missile defense and the heightened dangers posed by missiles carrying weapons of mass destruction. Nevertheless, the debate over whether or not to acquire that capability has been inconclusive to date, in large part because it appears to be an offensive operation that directly contradicts Japan's limitation on only defending its national territory against attack. To this point, Tokyo has relied on the United States to hold targets inside North Korea at risk. However, the new security environment could foster greater support for Japan acquiring its own strike capability. That would mean taking steps such as configuring aircraft for offensive missions and enhancing surveillance systems designed to track mobile missile targets.

Finally, a critical part of any new containment strategy would be working as cooperatively as possible with China. Certainly, securing Beijing's support for all of the steps taken by Washington and its allies would be important. In reality, given its desire to increase pressure on Pyongyang while avoiding conflict or its collapse, China would probably support some steps, such as limited new sanctions against the North, while demurring on others, such as joining any new attempts to bolster the PSI. China would probably also strongly criticize other steps, such as stepping up ballistic missile defense cooperation with South Korea and Japan. And on still other measures, such the redeployment of tactical nuclear weapons at sea, China will face a dilemma. While recognizing that they may be necessary to avoid Beijing's worst nightmare, a "nuclear dominos" scenario, China will also have to grapple with the reality that they would also represent a potential threat to its own security.

Overall, while this scenario would represent a serious setback to efforts to establish peace and stability in Northeast Asia, predictions that a nuclear North Korea would trigger a downward spiral in the regional security environment appear far from certain. A strong US alliance commitment to South Korea and Japan would reduce the risk that the worst case "nuclear dominos" scenario would emerge, although there would probably be an erosion of political and other barriers preventing those dominos from falling. Nevertheless, the combination of political, economic and security measures taken by Washington and its allies in response to a nuclear North could trigger new tensions and instability. A critical factor in controlling the level of tension will be efforts taken to by the US and its allies to carefully manage political relationships in the region among the key players, particularly efforts to work in close cooperation with China.

CASE 4: Nuclear North Korea Collapses

While all of the above scenarios assume a politically and economically stable North Korea in possession of nuclear weapons, in reality, Pyongyang's tight internal control could be masking significant political and economic brittleness. Periodic concerns about the North's stability date back to the collapse of the Soviet Union and have reoccurred since then, particularly during the mid-1990s when North Korea suffered from severe food shortages soon after the death of Kim Il Sung. In this scenario, the demise of the North's central government, triggered by internal political or economic developments, results in domestic chaos, an unsecured nuclear arsenal (and other weapons of mass destruction) and a potential clash of interests between the regional powers.

In view of Kim Jong Il's stroke in the summer of 2008 and the ongoing leadership transition to his youngest son, it appears the most likely scenario appears to be the disintegration of the central government as a result of a failed succession. That failure could lead to the breakdown of the central government into factions, signaling the beginning of instability and eventual disintegration.

But other scenarios are also possible. North Korea's demise might occur because of infection (contagion)



from the outside or triggered by economic or other forces from the inside. There are already under way a number of transformative economic and social trends such as the growth of markets and generational change that may prove difficult for the North to manage. Like the Soviet Union, the stage may be set by a rapid economic decline and the unraveling of political authority due to sharp divisions inside the leadership. The contagion theory was the subject of speculation after the demise of the Soviet Union and its East European allies. North Korea at that time though, was able to turn its back on the wave of global reform based on the effectiveness of its tight controls over society and limited economic reforms in the early 1990s, such as the establishment of farmers' markets.

Instability and disintegration could also result from another massive humanitarian crisis like the food shortages of the 1990s. At that time, the distribution systems failed, internal controls on population movements were no longer enforced and even transporting the party newspaper to the provinces was impossible since the trains stopped running. Whether collapse was imminent remains unclear but the system was certainly unraveling. In the 1990s, the secondary economy, encouraged by the government, allowed the elite, military and general population to survive with the help of outside assistance. But today, the North continues to suffer from food shortages which may be aggravated by soaring international grain prices. In short, while Pyongyang survived the food crisis of the 1990s, it may not be able to survive a similar crisis in the future.

Exactly how the disintegration of central authority will affect the security of North Korea's nuclear stockpile, technology and work force remains unclear. Little is known about the location of the North's stockpile, its facilities beyond the Yongbyon nuclear complex that may be involved in building weapons or its key nuclear scientists, engineers and technicians. The same is true concerning the security currently surrounding the North's nuclear infrastructure, except that it seems to be extremely tight. As a result, there appears to be no possibility of any unintentional nuclear leakage to potential proliferators—countries or terrorist groups—outside the country.

If an internal power struggle erupts or if the central political authority disintegrates, however, the possibility for leakage of know-how, nuclear technology, fissionable materials or even weapons could dramatically increase. This could be particularly true if there is any factional fighting inside the military, which is presumably responsible for the security of the North's nuclear establishment. The danger would not only be posed by the North's nuclear infrastructure but also its extensive holdings of chemical weapons and suspected small caches of biological weapons. Moreover, the possibility that different North Korean factions might attempt to use these weapons against each other could escalate dramatically. They might even be used to punish other countries or outside intervening powers in a last-resort attack.

Making the situation even more complicated, disintegration of North Korea's central authority, aside from triggering factional conflicts among state institutions, could also result in large humanitarian dislocations. One concern has been that there would be a massive exodus of refugees into China as well as across the Sea of Japan. Worst case fears about such flows in Iraq and Afghanistan proved unfounded largely because of the continued availability of food at people's homes. But in lieu of that availability, it is easy to imagine that massive movements of refugees would add to an already chaotic situation.

Pyongyang's demise and the fate of its WMD stockpile would quickly engage the interests of its neighbors. For South Korea and the United States, the disintegration of North Korea's central government would represent both an enormous opportunity and challenge. Seoul is likely to move quickly to maximize its political, legal and administrative influence in the North, beginning the process of consolidating a newly unified Korean state. But in the near-term, reestablishing order in the North will be extremely difficult, particularly if there is any resistance from the North Korean army or special operations units. Similarly, Seoul



will have to deal with the immediate possibility of massive humanitarian dislocations that could spill over into its own territory as well as that of neighboring countries. Washington would have a strong interest in fostering Korean reunification in line with the South's objectives, in hopes of bringing greater stability to the region and its traditional adherence to the concept of self-determination. In that context, its two main objectives would be to eliminate the Korean People's Army as an effective military force and to secure Pyongyang's WMD stockpile.

China would be motivated by strong political, security and economic interests which could clash with Seoul and Washington. Beijing's interest in maintaining some strategic depth in North Korea means that it would oppose any efforts by the United States to establish bases on North Korean territory or to station troops in the proximity of its borders. It might even mean that Beijing would seize territory on the North Korean side of the frontier in the event of instability or a political vacuum in Pyongyang. In the broadest political sense, China would seek to maintain or expand its regional influence, asserting itself as a leading diplomatic player in the unfolding events. Beijing would probably try to channel any efforts to cope with North Korean disintegration into the UN Security Council, where it plays a key role, rather than allow South Korea to make any precipitate moves aimed at unification. Like South Korea, China would also want to avoid a refugee crisis that could severely disrupt its economy, result in heavy financial costs and radically increase the number of ethnically Korean people on its territory who may demand autonomy from China's central government. Finally, China would have an interest in significantly expanding its economic relations with a new North Korea in cross-border trade and investment, particularly in major infrastructure projects.

As for North Korea's WMDs, China would view the loss of central control as an important security threat. Chinese officials have privately voiced fears about the possibility that North Korean technology and weapons might fall into the hands of terrorists operating inside their own borders, such as radical Islamist militant groups drawn from the Uighurs living in Xinjiang province. China has been waging its own "war on terror" against separatists from that region with sporadic violence dating back to 1991. Those terrorists might seek to use nuclear or other WMD technology to advance their own interests and to undermine the political control of central authorities in Beijing. Because of that threat, the Chinese military most likely has contingency plans for finding and seizing Pyongyang's WMD stockpiles if the situation in the North were to spiral out of control.

The interests of other regional players, both in stemming the developing chaos and in the fate of the North's WMD stockpile, would also be directly engaged. Tokyo would welcome an end to the North Korean military threat. It would support South Korean and American efforts to restore stability in order to avoid large-scale refugee flows across the Sea of Japan, as well as their efforts to secure Pyongyang's WMD arsenal and open the way for long-term expansion of trade and investment. Russia would seek to counter the expansion of either American or Chinese influence in the North. It would probably support Seoul's administration over North Korean territory in an attempt to carve itself a role in the economic development of the territory, especially since it adjoins the Russian Far East. As for WMDs, one specific Russian concern might be that smugglers could attempt to move weapons, materials, technology or people across its border with the North and then on to other destinations.

The dangers posed by the demise of North Korea's central government and the loss of control over its nuclear and WMD arsenals will be closely interrelated. While finding, seizing and securing WMD assets will be a top priority from the start, reestablishing security and stability in the North will be absolutely essential in conducting a successful effort. The core of that effort will be establishing a firm political basis for dealing with the crisis by bringing together the key players, particularly the United States, China and South Korea. Such a foundation will only be possible with an accommodation that melds together South Korea's legitimate desire to maximize its political, legal and economic control in the North with Beijing's political, security and



other interests.

Involving the UN Security Council from the very beginning of the crisis for such matters as approving outside intervention, as Beijing is likely to demand, could help build the basis for cooperation as events unfold. Such cooperation could manifest itself in a number of ways. It might include sharing information among the major participants in the crisis on planned troop movements or offering assurances that neither the United States nor China intends to leave forces in the North for an extended period of time. It might also include support for South Korea as the lead player in an UN-blessed operation. That would also provide an element of reassurance to Japan, which could feel threatened by the possibility of China establishing a stronger position on the Korean peninsula or the possibility that a united Korea could "go nuclear."

Quickly reestablishing security in the North will be a critical first-step in securing Pyongyang's WMD assets, yet that task could prove to be extraordinarily difficult. At the same time, the efforts to reestablish stability and security unfold, operations will have to be conducted to locate, safeguard and dispose of WMD-related materials and stockpiles of weapons. One important caveat is whether North Korea reaches a denuclearization agreement with the other five parties before its demise. If it has, much will then depend on how far implementation has progressed. For example, if Pyongyang is only at the very beginning of implementing a denuclearization agreement, the task of finding and securing its nuclear weapons, materials and work force will remain extremely difficult. If, however, Pyongyang has progressed down the road of denuclearization, presumably the other five parties will have learned a great deal about the North's nuclear infrastructure, information that could serve them well in any operations to secure its program. If Pyongyang is well along the path towards denuclearization including implementing steps to ship its nuclear materials out of the country, then the task becomes much simpler.

There will be two primary tasks in stopping the hemorrhaging of North Korea's nuclear program. First, known facilities will have to be secured, especially the Yongbyon nuclear installation which is the center of the North's plutonium production program. Of particular interest will be spent nuclear fuel containing plutonium which may still be stored at the facility. Another target would be North Korea's test site located a few hundred miles to the northeast of Pyongyang, near the Sea of Japan. Aside from suspicions that nuclear-related materials or technology could be stored nearby, seizure would also make sense given its proximity to Musudan-ri, North Korea's main missile test site, and concerns that Pyongyang might lash out in a last gasp against its neighbors.

A second much more difficult task will be to find and secure unidentified nuclear facilities. The Yongbyon nuclear facility focuses on the production of plutonium which appears to then be sent to another location. It is therefore quite likely that other secret facilities exist in the North where nuclear bombs are produced, assembled and stored. While the US and South Korea probably have a large number of intelligence reports on the possible location of such facilities and any forces will be armed with a list of potential WMD installations, much of that information could prove unreliable. Moreover, North Korea has over forty years of experience in hiding defense installations underground, which will make the job of finding secret facilities even more difficult. All these tasks will have to then be repeated for other WMDs, particularly Pyongyang's suspected large stockpile of chemical weapons and any biological weapons or research sites.

The effort to find and secure North Korea's WMDs may have to begin even before the large-scale intervention of outside powers. One lesson from the Iraq experience is that any effort to find and eliminate WMD capabilities will have to span all phases of conflict from prewar engagement through combat operations to postwar reconstruction. In Iraq, once central control broke down, a number of potential WMD sites were stripped by insiders or the local population before they could be reached by intervening forces. While those sites did not harbor weapons or important technologies, there is much more solid evidence that



WMDs exist in the North. Forces assigned to this mission will probably encounter a similar environment in North Korea if the central government has disintegrated. Therefore, an important objective will not only be to conduct a sustained effort to find and secure WMD sites, but to reach them as early as possible in order to avert the danger of leakage.

As in Iraq, special operations units could be inserted early on in an effort to secure WMDs. These units, perhaps also including CIA operatives, South Korean agents with experience operating on the ground in the North and civilian WMD experts, would be equipped with stealthy helicopters and advanced detection technologies. Such a unit—Task Force 20—operated inside Iraq even before the war began, in an attempt to "seize, destroy, capture or recover weapons of mass destruction." Once outside intervention begins, special operations units need to be quickly supplemented with ground forces equipped to locate, identify, secure and disable WMD capabilities. In Iraq, that was the job of the 75th Exploitation Task Force, which was cobbled together from a field artillery brigade since much of its heavy equipment was floating off the coast of Turkey. In North Korea, a similar force might be assembled, though one that corrects the deficiencies of 75th, which included a general lack of reliable communication, capable linguists and security assets to maintain control over key sites, as forces were diverted to other duties.⁸

In Iraq, as the war ended and as security on the ground improved, it became clear that WMDs had not been produced or stored at primary or suspected sites. The focus then shifted to finding and debriefing scientists, engineers, military officers and government officials in an attempt to locate new sites. This effort was conducted by the Iraq Survey Group. In North Korea, given the likely weakness of intelligence on its WMD program, a similar effort would make sense. Indeed, one important lesson from the Iraq experience is that, given uncertainties about pre-intervention intelligence, a greater emphasis should be placed on gathering additional information on the ground as early as possible in order to identify new potential WMD facilities and to secure them.

Conducting a program to quickly ferret out information from North Korea's nuclear work force would help avoid mistakes made in Iraq. Rather than treating scientists as if they were criminals, incentives should be provided for cooperation. Still, unlike in Iraq, where a number of key scientists had ties to the international community, North Korea's nuclear work force has been effectively isolated for decades, with the possible exception of training and other joint programs with Russia. As a result, using personal ties to secure cooperation will be more difficult unless the effort to secure WMD is a multilateral effort that includes Russia.



⁷ Gellman, Barton. "Covert Unit Hunted for Iraqi Arms." *The Washington Post.* 13 June 2003, p. A1.

⁸ Gellman Barton. "Frustrated, US Arms Team to Leave Iraq." The Washington Post. 11 May 2003, p. A1.