



WISCONSIN PROJECT
ON NUCLEAR ARMS CONTROL



The Next North Korea?

Lessons for Addressing Iran's Nuclear Program



IRAN WATCH ROUNDTABLE

January 2024

Introduction

Iran is a threshold nuclear state that has the capability to build nuclear weapons should its leadership so decide. It has also become a major developer and proliferator of missile technologies, some of which could be capable of delivering weapons of mass destruction. This has raised concerns that Iran may, in some ways, be the "next North Korea"—concerns supported by some noteworthy historical parallels. As the United States formulates its next steps in addressing the Iranian nuclear program, it could learn from what did and did not work in its policy towards North Korea and consider whether and how those lessons might now apply to Iran.

On October 21, 1994, the United States and North Korea concluded the Agreed Framework, under which North Korea agreed to freeze its production of plutonium in exchange for the supply of nuclear power reactors and heavy fuel oil.¹ The two countries also agreed to work toward normalization of their diplomatic and trade relations. The agreement unraveled in 2002, however, after the revelation of a secret North Korean uranium enrichment program.

Although multilateral diplomatic efforts continued in the years that followed and North Korea expressed a conditional willingness to abandon its nuclear programs as late as September 2005,² by October 2006 the country had successfully conducted its first nuclear test. Today, North Korea is estimated to have dozens of nuclear weapons and the means of delivering them to intercontinental ranges. This arsenal has made Pyongyang a more potent threat to its neighbors and adversaries and also has heightened the risk of onward proliferation from North Korea to other states and non-state groups.

Diplomatic efforts over Iran's nuclear program in recent years have had some noteworthy parallels. In 2015, the United States, Iran, China, France, Germany, Russia, the United Kingdom, and the European Union concluded the Joint Comprehensive Plan of Action

Cover image: The Khorramshahr and Hwasong-15 missiles depicted on the cover are adapted from 3-dimensional models created by the James Martin Center for Non-Proliferation Studies, available at <https://sketchfab.com/jamesmartincns/models>.

¹ "Agreed Framework Between the United States and America and the Democratic People's Republic of Korea," October 21, 1994, available at <https://peacemaker.un.org/node/1129>.

² "Joint Statement of the Fourth Round of the Six-Party Talks, Beijing, September 19, 2005," U.S. Department of State, September 19, 2005, available at <https://2001-2009.state.gov/r/pa/prs/ps/2005/53490.htm>.

(JCPOA). Under the agreement, which was notably broader in scope than the Agreed Framework, Iran exported its stockpile of enriched uranium and accepted temporary restrictions on its enrichment and reprocessing activities as well as enhanced transparency measures.³ The JCPOA similarly supported the development of civil nuclear energy in Iran, but also removed some of the most crippling sanctions on it. This agreement, too, unraveled, beginning with the U.S. withdrawal in 2018.

As of 2024, the JCPOA appears unrecoverable. Iran's development and deployment of advanced centrifuges have made it nearly impossible to restore the JCPOA's one-year breakout timeline, and the accord's temporary limits have already begun reaching their expiration dates. Iran now has enough fissile material (if enriched further to weapons grade) to fuel at least five nuclear weapons.

Will Iran follow a trajectory similar to that of North Korea and soon develop nuclear weapons? Or are there reasons why the outcome may be different? What lessons, if any, can the United States and like-minded countries learn from the North Korean case to bolster their non-proliferation efforts with respect to Iran?

In October 2023, the Wisconsin Project convened an expert panel for a private roundtable discussion to answer these questions. The objective of the discussion is to explore what lessons the North Korean case holds that may assist the United States in its use of diplomacy, sanctions, and other tools to prevent Iran from building nuclear weapons or to contain it if it does.

The panel discussion was moderated by **Valerie Lincy**, executive director of the Wisconsin Project, and **John Lauder**, former director of the U.S. intelligence community's Nonproliferation Center and now a senior fellow at the Wisconsin Project. The panelists were **Eric Brewer**, deputy vice president for the Nuclear Materials Security Program at the Nuclear Threat Initiative; **Amb. Joseph DeTrani**, who served as a special envoy for the Six Party Talks with North Korea in the U.S. State Department; **Robert Einhorn**, a senior fellow at the Brookings Institution who served as assistant secretary of state for nonproliferation in the U.S. State Department; **Amb. Robert Gallucci**, who served as a special envoy in the U.S. State Department and chief U.S. negotiator during the North Korean nuclear crisis of 1994; **Dr. Chen Zak Kane**, director of the Middle East Nonproliferation Program at the James Martin

³ "Joint Comprehensive Plan of Action," July 14, 2015, available at <https://www.europarl.europa.eu/cmsdata/122460/full-text-of-the-iran-nuclear-deal.pdf>.

Center for Nonproliferation Studies; **Michael Singh**, managing director and Lane-Swig Senior Fellow at the Washington Institute for Near East Policy; and **Vann Van Diepen**, who served as principal deputy assistant secretary of state for international security and nonproliferation in the U.S. State Department. John Caves and John Krzyzaniak, senior research associate and research associate at the Wisconsin Project, also participated in the discussion. Mr. Krzyzaniak prepared this report.

Finding Highlights

The panel found that, though there are significant differences between the two cases, North Korea offers important lessons for Western efforts to prevent Iran from building nuclear weapons.

On the diplomatic front, Iran may be generally more amenable than North Korea was to an agreement that leaves it without nuclear weapons, given Tehran's longstanding hedging strategy. If nuclear diplomacy with Iran is revived, however, Western policymakers would be well advised to determine at the outset whether the agreement they seek with Iran is to be broadly transformational of the bilateral relationship or narrowly transactional on the nuclear issue, and to communicate this clearly both to Iran and their own publics. Further, the objectives of negotiations should be aligned with the available leverage. More ambitious agreements will generally require larger incentives, and economic incentives alone may not suffice.

The panel emphasized the importance of a credible military threat to deter a country from crossing the nuclear threshold, the absence of which may have been a key factor in North Korea's acquisition of nuclear weapons. It noted several challenges involved in maintaining such a threat against Iran. According to the panel, though, the North Korea case also demonstrated that even after a country builds nuclear weapons, there may still be value in reaching agreements that place limits on a country's ability to improve the quality or quantity of those weapons.

Apart from diplomacy and military force, the panel concurred that other tools in the nonproliferation toolkit can be useful in slowing a country's nuclear progress, but there is no silver bullet. Sanctions and export controls can create hurdles for the proliferator, but these work best when they are implemented by a broad international coalition and deployed alongside other tools. Acts of sabotage may buy time if they are successfully executed but may have limited utility over the long term, especially against a nuclear program as advanced as Iran's.

The panel also found that, like North Korea, Iran may prove more reluctant to contribute to onward proliferation of nuclear weapons technology than it has been with missiles and drones. Yet some panelists thought there was a risk that Iran would be open to selling its centrifuge technology if there were a ready buyer.

Following are the roundtable's findings in greater detail. They are a composite of the panelists' individual views, and no finding should be attributed to any single panelist or be seen as a statement of the policy of any organization with which a panelist is affiliated.

North Korea is a limited analog for Iran but still offers important lessons.

The two countries occupy very different geostrategic environments bearing on their nuclear decision-making. The threat of invasion has been a major strategic preoccupation for North Korea, and nuclear weapons provided the Kim regime a means by which to offset the country's conventional military inferiority relative to the U.S.-South Korean alliance. Iran, by contrast, has perceived no real threat of invasion since shortly after the fall of Saddam Hussein in Iraq, reducing the need for nuclear weapons as a means to safeguard territorial integrity.

Somewhat paradoxically, however, a "military option" to prevent North Korea's acquisition of nuclear weapons was effectively ruled out early on in the U.S. decision-making process on addressing the North Korean nuclear program, both because of the massive artillery threat posed by Pyongyang against Seoul and because of the Kim regime's early possession of weapons-grade plutonium. In Iran's case, however, both the United States and Israel have stated explicitly that they will not allow Iran to acquire nuclear weapons, implying the use of force to halt a breakout scenario.

North Korea has also been much less susceptible to economic pressures than Iran has been. North Korea has more modest economic needs, attaches lower priority to its people's economic welfare, and has a lifeline to China. Iran, by contrast, has relied heavily on oil export revenues, has perceived its regime's survival as requiring a somewhat greater emphasis on its citizens' economic well-being, and to that end has sought greater integration into Western-led global financial and trading systems. In short, Iran has long insisted on, economically, not becoming another North Korea.

Finally, North Korea pursued a fairly direct path to nuclear weapons and may have always viewed their attainment as a concrete objective, whereas Iran has pursued more of an

indirect, hedging path. Although Iran's government is authoritarian, it is a system of ruling elites that largely functions by consensus, and differing opinions among those elites may partially explain Iran's nuclear path over time.

These differences generally tilt in favor of an Iran that may be more amenable than North Korea was to deal-making and off-ramps that leave it without nuclear weapons, at least for certain periods of time. However, there are early signs that some of these differences may be diminishing. For example, Iran seems to have recently become less interested in integration with the Western-led economic order and more comfortable as a member of an "Axis of the Sanctioned" with Russia and North Korea, in which it would hold, like those countries, an economic lifeline to China. Further, the moderates in Iran more likely to shy away from the risks associated with obtaining a nuclear weapon capability have been increasingly sidelined since the collapse of the JCPOA, whereas hardliners, including elements of the Islamic Revolutionary Guard Corps (IRGC) have gained prominence as a center of political power. Finally, Iran may be more confident that it can withstand U.S. or Israeli military strikes in the event that it did decide to attempt a nuclear breakout compared to a decade ago.

In sum, although caution is warranted, the panel concluded that there is enough similarity that the nonproliferation experience with North Korea holds instructive lessons for policy toward Iran.

Iran still may have reasons to remain "hyper-latent" without crossing the nuclear threshold.

A decision to build nuclear weapons by Iran would entail great risks. At worst, it could lead to military strikes that threaten the survival of the regime. Even a less extreme outcome could involve severe, long-term diplomatic and economic isolation, including by countries that have offered Iran a lifeline in the past. Further, an Iranian bomb could prompt other countries in the Middle East to follow suit. Saudi Arabia's Crown Prince Mohammed bin Salman, for instance, has openly stated that if Iran gets nuclear weapons, "we have to get one."⁴

⁴ Matt Spetalnick and Eric Beech, "Mohammed bin Salman Says Saudi Arabia is Getting 'Closer' to Israel Normalization," Reuters, September 20, 2023, available at <https://www.reuters.com/world/middle-east/saudi-crown-prince-says-getting-closer-israel-normalization-fox-interview-2023-09-20>.

Nuclear weapons may also bring few practical benefits to Iran. On balance, its diplomatic and military position has improved over the last two decades. On the international stage, Iran has become more aligned with Russia and China, diluting the multilateral consensus against Tehran. It also boasts stronger influence across the region, particularly in Iraq, Lebanon, Syria, and Yemen. Both the country's own armed forces and the non-state groups that it supports possess potent conventional weapon capabilities, which they have repeatedly used. In short, Iran has made strides towards achieving its security and foreign policy goals without nuclear weapons.

In other words, according to the panel, Iran's leaders could perceive that there is relatively scant upside to openly building nuclear weapons, whereas there may be substantial downsides to doing so. In such a case, the leadership may be inclined to maintain the country's current "hyper-latent" status, sustaining the industrial and technological capacity to rapidly forge a nuclear arsenal without actually doing so. Such a status has little global precedent, although Japan and Brazil broadly present somewhat similar cases.

In diplomatic efforts, policymakers should decide and make clear whether the non-proliferation agreement they seek is to be transformational or merely transactional.

In both the Agreed Framework with North Korea and the Joint Comprehensive Plan of Action (JCPOA) with Iran, there were unresolved differences—both between and within governments—over whether the agreements were intended to be transformational to the bilateral relationship or merely transactional on the nuclear issue. For example, in the case of the Agreed Framework, the North Koreans likely understood preambulatory language committing both sides to "full normalization of political and economic relations" as a key part of the agreement, whereas the Americans may not have viewed the language as operative, recognizing that such a transformation in the relationship was unlikely.

In the case of the JCPOA, policymakers in the United States disagreed over the extent to which the accord would attempt to change the broader U.S.-Iran relationship. Some saw it as narrowly focused on the issue of non-proliferation. For them, while there was a possibility it would eventually change the political relationship, this was not the core rationale for the accord. Others, however, saw the JCPOA as a means by which to bring about a broader change in U.S.-Iran relations. These diverging perceptions complicated the task of building and sustaining domestic political support for the accord. A lesson from both the North Korean case and the JCPOA, therefore, is to clearly communicate the desired scope of the agreement

to both Iran and Western publics and to align the agreement's language with the intended scope.

A related issue is the alignment of negotiating objectives with the available leverage. The more limited the leverage the United States and its partners have and the fewer incentives they have (or are willing) to offer, the more modest the goals must be. Situations of limited bargaining chips are probably better suited to aims that are more transactional as opposed to transformational. In the case of Iran, President Trump withdrew from the JCPOA in 2018 in the hopes of negotiating a better deal that also extended well beyond the nuclear issue. Although his administration sought to use sanctions to increase its leverage for eventual diplomatic bargaining, the objectives it sought were probably too ambitious for the concessions it was prepared to offer.

What can be defined as realistic is also constantly in flux. Policy goals that are viable today may not be so tomorrow. For example, the restrictions contained in the JCPOA were designed to ensure that Iran's breakout time would be at least one year. Today, achieving a one-year breakout time in any new agreement with Iran would be much more difficult given Iran's development and deployment of advanced centrifuges.

The panelists also noted that getting an ambitious deal requires a strong international coalition, including at least tacit support or non-interference from Russia and China. They acknowledged, however, that the current international political climate will make it difficult for the United States and its partners to elicit constructive engagement from Russia or China on the Iranian nuclear issue in the near term. Nonetheless, the high geostrategic and economic importance of the Persian Gulf region and the risk of war in an Iranian breakout scenario may make it possible that China, and perhaps also Russia, would choose not to obstruct Western diplomatic efforts under the right circumstances.

Even after a proliferator declares possessing or successfully tests a nuclear device, an agreement that places limits on its ability to amass an arsenal can still provide valuable security benefits.

The possibility of reaching smaller, more modest deals with North Korea that could be of security benefit to the United States has likely been undercut by the fact that the United States has not—at least publicly—been prepared to accept agreements falling short of "complete, verifiable, irreversible denuclearization" of the Korean peninsula. For example, at the Hanoi summit in 2018, North Korean leader Kim Jong Un had offered to shut down the

facilities at the Yongbyon Nuclear Research Center in exchange for the lifting of U.N. sanctions against North Korea adopted since 2016.⁵ That proposal heavily favored North Korea, but the panelists argued that, rather than walk away, it would have been better for the United States to come back with a counterproposal to Kim's offer with incentives more appropriate to the limited benefit of the shutdown.

More generally, when disagreements with a would-be proliferator arise during diplomatic exchanges, it is usually better for the United States and its partners to stay engaged than it is to walk away. This does not mean that any diplomatic agreement is better than no agreement, nor did the panelists endorse talks for the sake of talks. Rather, the panel found that serious and sustained diplomatic engagement and a willingness to consider compromise, while not acquiescing in any bad deals, will still often yield better results than a "my way or the highway" approach.

The panelists also judged that greater attention should be placed on devising strategies for deterring both Iran and North Korea in their further development or potential use of nuclear weapons. Deterrence policy also needs to be complemented by strategic assurances to U.S. allies and regional partners, some of which have the potential to develop nuclear weapons in the future themselves.

Credible threats of military force can be a powerful tool to deter a dash for the bomb, but using military force comes with risks and limitations.

One of the most effective policy tools for deterring Iranian leaders from building nuclear weapons is the threat of severe consequences, including military action, should they attempt to do so. In the case of North Korea, a lack of a feasible military option made it harder to deter a dash for the bomb.

However, the panelists acknowledged several potential pitfalls. First, any military operation would require timely and actionable intelligence of an ongoing nuclear breakout or sneak-out. Second, because Iran's nuclear infrastructure is both well distributed and hardened against attack, a single surgical strike might disrupt the Iranian effort, but likely would not suffice in permanently halting a march toward the bomb. Iran would probably rebuild its

⁵ "The February 2019 Trump-Kim Hanoi Summit," Congressional Research Service, March 6, 2019, p. 2, available at <https://sgp.fas.org/crs/row/IN11067.pdf>.

facilities and resume progress towards a nuclear weapon within a few years or less. To forestall that possibility, a military option might instead involve a broader series of strikes over some period of time. But such an operation would be more politically difficult and militarily complex and would still risk falling short of its objectives.

Iran has gone to great lengths in the past to rebuild facilities after they have been the target of sabotage operations, often hardening them against future attacks. For example, after a centrifuge assembly hall at Natanz was destroyed in an explosion in July 2020, the Atomic Energy Organization of Iran decided to rebuild the facility underground. Some panelists observed that short-term setbacks to a nuclear program gained through limited strikes or sabotage, though sometimes justified or necessary in the near term, can paradoxically be counterproductive over the longer term.

An American leader's willingness to commit the United States to military action also depends heavily on the context of the moment. In 2007, the Bush administration was reluctant to conduct an airstrike to destroy a suspected nuclear reactor under construction in Syria even though the operation would have been relatively straightforward and had a high likelihood of success. Having already become tied down in two wars, including one that was at least partially motivated by concerns over a clandestine nuclear program, there was little appetite within the Bush administration to risk a third. Ultimately, Israel decided to destroy the facility unilaterally. But Israel may not be willing or able to successfully execute a similar operation on its own against Iran's much larger, harder, and more dispersed nuclear program.

Economic incentives alone may not be sufficient to change a country's calculus if it seeks nuclear weapons for security or other reasons. It may be possible, however, to reduce the country's demand for nuclear weapons by providing the security guarantees or political outcomes it wanted nuclear weapons to achieve, but this is easier said than done.

States may seek and build nuclear weapons for reasons of national security, prestige, domestic politics, or a combination of factors. In theory, to the extent that the United States and its partners can offer incentives that displace or compensate for these motivating factors, they may be able to convince a proliferator not to cross the nuclear threshold.

A challenge arises, however, when the would-be proliferator doubts the United States and its partners can truly deliver on such incentives and sustain them over time. For example, if the

United States itself comprises a large part of the threat that the country perceives against its own security, an offer on paper of U.S. guarantees without a substantial change in the United States' own national security posture may hold little value in the eyes of the proliferator.

The available menu of concrete incentives that can be offered is often limited for a variety of reasons, including domestic politics or pre-existing commitments to allies and partners who are themselves threatened by the proliferator, such as South Korea or Israel. Delivering on relatively limited measures such as the construction of nuclear power reactors in the case of the Agreed Framework or sanctions relief under the JCPOA proved difficult, including because of concerns and objections by members of the U.S. Congress.

In sum, to be able to reach a deal in the future, Tehran must be enticed by the trade-offs and be confident that the United States and other parties would follow through on their commitments.

Iran has proliferated missile and drone technologies extensively, including to non-state groups, but would likely be more hesitant to spread its nuclear weapon technologies.

The panel assessed that if Iran were to build nuclear weapons, there are reasons to believe it would hesitate to contribute to onward nuclear proliferation. This stands in contrast to Iran's proliferation of missile and drone technologies. Scholars have pointed out several reasons why countries may be reluctant to transfer complete nuclear weapons or fissile material to other countries or to non-state actors, including that a forensic analysis could allow investigators to eventually identify the source of the material, and this could prompt international condemnation and severe consequences upon the proliferator.

The North Korea case provides reason for cautious optimism. While it has been a source of extensive onward missile proliferation, it has been more limited in its transfer of nuclear weapons technology abroad. A notable exception was North Korea's role in the construction of a nuclear reactor in Syria presumed to be capable of producing enough plutonium for one or two weapons per year, had it become operational. Notably, there is no evidence that Iran was involved in the Syrian nuclear program.

This does not rule out the possibility of an Iranian A. Q. Khan. There is a risk that a well-connected individual motivated by profit could sell Iranian nuclear technologies. But the risks

of a freelancing nuclear scientist have always been present, and Iran's decision to build a bomb may not significantly alter them.

Some panelists thought there was some risk that Iran would be willing to sell its centrifuge technologies to other countries. However, it is not immediately clear which country or countries would be interested in purchasing them. An additional reason not to share nuclear weapon technologies for at least several years following the first test of a nuclear device is that the prevailing imperative would be to build up its own nuclear arsenal. Given limited resources, Iran may decide it has little to no weapons-related materials and technologies to spare, at least at first.

Some on the panel also warned of a possible—though not likely—case of onward nuclear proliferation might involve a quasi—"forward deployment" of nuclear weapons with IRGC Qods Force units on the territory of Iran's proxies. Such a scenario would be consistent with how Iran has shared other military technologies with non-state groups throughout the region and might confer some "extended deterrence" benefits while allowing Iran to maintain some control over the weapons and their employment. Other panelists, however, thought this was a remote possibility at best. There was also concern among some panelists about the possibility that Iran may be willing to proliferate radiological sources to aligned non-state groups.

Sanctions and export controls can create hurdles for the proliferator, but they work in different ways.

Comprehensive economic sanctions are essentially a tool of coercion, particularly when they are imposed on broad sectors of a country's economy. Existing scholarship on the effectiveness of sanctions generally finds that they work best when they are swift, substantial, and attached to a clear objective. Their imposition should ideally be coupled with a clear statement about what changes in behavior by the target would lead to their lifting. In the best of cases, sanctions can create pressure and induce an adversary to change its policies.

Export controls and targeted sanctions aimed at specific entities in a weapon program, by contrast, are tools of prevention, and their impact unfolds over decades. They can slow a proliferator's acquisition of critical enabling technologies and raise program costs. Export controls can also be supported by targeted sanctions on entities involved in developing, manufacturing, procuring, or supplying goods or technologies for a nuclear program.

The panelists agreed that both tools work best when they are implemented by a united international coalition. When sanctions or export controls are only imposed unilaterally or by only a limited set of countries, the target country will have an easier time evading the measures—though unilateral U.S. financial sanctions, with their wide-reaching application, remain a potent tool. Ultimately, though they can hinder a nuclear program, neither sanctions nor export controls may be sufficient on their own to stop a determined proliferator.

The Panel Included:

- **Eric Brewer**, deputy vice president for the Nuclear Materials Security Program at the Nuclear Threat Initiative
- **Amb. Joseph DeTrani**, who served as a special envoy for the Six Party Talks with North Korea in the U.S. State Department
- **Robert Einhorn**, a senior fellow at the Brookings Institution who served as assistant secretary of state for nonproliferation in the U.S. State Department
- **Amb. Robert Gallucci**, who served as a special envoy in the U.S. State Department and chief U.S. negotiator during the North Korean nuclear crisis of 1994
- **Dr. Chen Zak Kane**, director of the Middle East Nonproliferation Program at the James Martin Center for Nonproliferation Studies
- **John Lauder**, former director of the U.S. intelligence community's Nonproliferation Center and senior fellow at the Wisconsin Project
- **Valerie Lincy**, executive director of the Wisconsin Project on Nuclear Arms Control
- **Michael Singh**, managing director and Lane-Swig Senior Fellow at the Washington Institute for Near East Policy
- **Vann Van Diepen**, who served as principal deputy assistant secretary of state for international security and nonproliferation

About the Wisconsin Project

The Wisconsin Project on Nuclear Arms Control is a non-profit, non-partisan organization based in Washington D.C. that conducts research, advocacy, and public education designed to inhibit the spread of nuclear, chemical, and biological weapons and the missiles to deliver them. The organization was founded in 1986 by Gary Milhollin, in cooperation with the University of Wisconsin.

The Wisconsin Project's mission is to reduce the risk that exports will accelerate the proliferation of weapons of mass destruction. The Project helps governments comply with the export restrictions in international agreements and helps them ensure that their national controls on strategic goods are enforced. The Project also publicizes clandestine transactions in these goods and draws attention to weaknesses in trade agreements and national laws. Through its research, testimony, and publications, the Project has influenced the export policies of major supplier countries.

About Iran Watch

Iran Watch is a website published by the Wisconsin Project that monitors Iran's capability for building nuclear weapons and long-range missiles. The purpose of the website is to increase public awareness of the strategic situation in Iran and to make detailed knowledge of Iran's weapon potential available to policymakers, the media, private scholars, and the general public.

