

DISARMING NORTH KOREA: A COMPARATIVE STUDY OF UNITED STATES'
STRATEGIC WAYS, ENDS, AND RISKS IN DEALING WITH THE
NORTH KOREAN NUCLEAR PROBLEM

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Strategic Studies

by

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ABSTRACT

DISARMING NORTH KOREA: A COMPARATIVE STUDY OF UNITED STATES STRATEGIC WAYS, ENDS, AND RISKS IN DEALING WITH THE NORTH KOREAN NUCLEAR PROBLEM, by Joshua Gompert, 108 pages.

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ACRONYMS

DPRK	Democratic People's Republic of Korea
FFVD	Final Fully Verifiable Denuclearization
IAEA	International Atomic Energy Agency
ICBM	Intercontinental Ballistic Missile
JCPOA	Joint Comprehensive Plan of Action
LWR	Light Water Reactor
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NSS	National Security Strategy
U.S.	United States
UN	United Nations
UNSCR	United Nations Security Council Resolution

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CHAPTER 1

INTRODUCTION

Almost since the United States (U.S.) learned of the North Korean nuclear program, the issue has remained significant to the military profession, security professionals, and other scholars. Even before Kim Il Sung initially threatened to leave the United Nations (UN) Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the denuclearization of North Korea has been a strategic objective espoused by U.S. national-level leadership. The strategy and definitions associated with North Korean denuclearization have varied over time and administrations. These strategic approaches have ranged from robust engagement, isolation and containment through strategic patience, hawk engagement, to maximum pressure. Once again, the North Korean nuclear issue came to a head under the Trump administration. In 2017, under the leadership of Kim Jong Un, North Korea conducted its sixth nuclear test. It also demonstrated that it possessed an intercontinental ballistic missile (ICBM) capability that could potentially range anywhere in the continental U.S., drastically upping the ante to future negotiations.¹ Since then, tensions have significantly dissipated after Kim Jong Un changed his strategic approach by courting regional and world powers in a charm

¹ Arms Control Association, “Chronology of U.S.-North Korean Nuclear and Missile Diplomacy,” accessed 29 September 2019, <https://www.armscontrol.org/factsheets/dprkchron>.

offensive. This change started with a shift in rhetoric in his 2018 New Year's address² and subsequent participation of North Korea in the PyeongChang Winter Olympics Peace Games.³ Diplomatic overtures were made on all sides, the climax of which was spectacular presidential summitry in Singapore and an agreement in principle for the denuclearization of the Korean Peninsula.⁴ Kim Jong Un agreed to a moratorium on further nuclear and ICBM tests as well as a commitment toward peace and future denuclearization.

Despite the initial goodwill engendered by this made for television moment and subsequent 'destruction' of the Pyunggi-ri nuclear test site,⁵ there has been little actual progress towards Kim Jong Un abandoning his nuclear weapons program and capabilities. Negotiations have stalled, and Kim Jong Un intentions and commitment on the nuclear issue have been called into question. If history can be a guide to answering the problem, it looks more probable that the North Korean grand strategy has been to

² Kim Jong Un, "Kim Jong Un's New Year's Address for 2018," Pyongyang, January 1, 2018, full English-language text as published by KCNA, <https://www.ncnk.org/node/1427>.

³ Sean Ingle, "Winter Olympics begin with powerful message of peace," *The Guardian*, February 9, 2018, <https://www.theguardian.com/sport/2018/feb/09/winter-olympics-begin-with-powerful-message-of-peace>.

⁴ Donald J. Trump and Kim Jong Un, "Joint Statement of President Donald J. Trump of the United States of America and Chairman Kim Jong Un of the Democratic People's Republic of Korea at the Singapore Summit," Singapore, June 12, 2018, <https://www.whitehouse.gov/briefings-statements/joint-statement-president-donald-j-trump-united-states-america-chairman-kim-jong-un-democratic-peoples-republic-korea-singapore-summit/>.

⁵ Benjamin Haas and Julian Borger, "North Korea 'destroys' nuclear test site as world's media watches," *The Guardian*, May 24, 2018, <https://www.theguardian.com/world/2018/may/24/north-korea-destroys-nuclear-test-site-as-worlds-media-watches>.

trade negotiations for time and space to continue to advance their nuclear weapons programs. The main difference this time is that the Kim regime has finally achieved a credible capability to hold the U.S. mainland hostage using a nuclear-armed ICBM.

U.S. strategy regarding the North Korea nuclear program has spanned five different presidential administrations. It has culminated in high-level peace talks, sparked multinational denuclearization agreements, initiated International Atomic Energy Agency (IAEA) inspections, included the Six-Party Talks, invoked basketball diplomacy, and taken the world to the brink of war and back. All the while, the end results have been the same. North Korea has continued to progress its nuclear program. It is unlikely that the current strategic approach and ongoing negotiations will lead to Kim Jong Un willingly disarming North Korea by handing over his nuclear arsenal. There is a slim chance North Korea will comply with either the objective of Complete Verifiable Irreversible Denuclearization or Final Fully Verified Denuclearization (FFVD). The question this author seeks to answer is, what if any strategy would achieve these results?

This author of this paper will attempt to supplement and round out the breadth of writing on the subject by adding perspective to the scholarly literature on the U.S.’ strategic approach to the North Korean nuclear problem. In this paper, the author will accomplish this by reviewing the literature and bringing it up to date with a qualitative analysis of the current strategic approach of the Trump Administration. The study will utilize the ends, ways, means, and risk constructs. The output of which will be a recommend ways and ends approach to a national strategy that is most likely to achieve the long-standing U.S. national security objective of eliminating the threat posed by a nuclear-armed North Korea.

The author's unique qualifications to explore this topic are that they served three and a half years in the Special Operations Intelligence Directorate for Special Operations Command Korea from November 2015 through July 2019. While there, the author was involved with the operational aspects of implementing U.S. national strategy on North Korea and witnessed firsthand the unfolding of a potential conflict over disarmament and the resulting peace regime emanating from the 2018 Singapore Summit between President Trump and Kim Jong Un.

The research question that this paper will answer is: what U.S. strategic ends and ways, as constrained by acceptable risks, are most likely to achieve the U.S. national security objective of eliminating the threat posed by the North Korean nuclear weapons programs?

The subsidiary questions are:

1. Under what (if any) conditions would Kim Jong Un dismantle his nuclear weapons program?
2. Does the U.S. have to completely disarm and dismantle the North Korean nuclear program? What alternate end states would be acceptable to the U.S.?
3. What strategies have been applied by the U.S. to the North Korean nuclear problem, what did they achieve, and why did they fail to achieve the objective of denuclearization?
4. What strategies have worked or failed in other nuclear disarmament scenarios? What implications can be applied to North Korea?

CHAPTER 2

LITERATURE REVIEW

The sources that are relevant to this thesis are in four different categories. The literature review will cover the first three categories. These categories of sources are (1) secondary sources by North Korean experts and commenters, (2) primary sources related to the history of the U.S.-Democratic People's Republic of Korea (DPRK) nuclear issue, and (3) a combination of primary and secondary sources relating to specific instances of denuclearization efforts. The fourth category of sources deals with the theoretical underpinning of why states pursue nuclear weapons and denuclearization in general. This fourth category will be explored in more detail in Chapter 3 in the methodology.

Secondary Sources by North Korean Experts

The first of these categories is the secondary sources by the North Korean experts and commenters such as Don Oberdorfer's *The Two Koreas: A Contemporary History*.⁶ and Victor Cha and David Kang's combined work *Nuclear North Korea: A Debate on Engagement Strategies*.⁷ These works are some of the most authoritative that exist on the contemporary history of the North Korean nuclear problem and provide great historical context and foundational analysis on the issue. Additionally included in this category are publications by organizations, think tanks, and journalists that have been following the

⁶ Don Oberdorfer, *The Two Koreas: A Contemporary History*, rev. ed. (New York: Basic Books, 2001).

⁷ Victor D. Cha and David C. Kang, *Nuclear North Korea: a Debate on Engagement Strategies*, rev. ed. (New York: Columbia University Press, 2018).

North Korean problem for some time, such as the IAEA,⁸ the Arms Control Association (ACA),⁹ and Council on Foreign Relations (CFR).¹⁰

In terms of literature that has informed and shaped political and military leadership and strategic policy on North Korea, *The Two Koreas: A Contemporary History*, is probably the most well-known.¹¹ This work, published in 1997 and 2001, has been called “the standard against which other books on modern Korea will be judged.”¹² It is the one book on Korea that is read by many of the decision-makers who have crafted U.S. national strategy on North Korea and by the military commanders that have implemented that strategy on the Korean Peninsula. Because of this, and its role in providing historical context on the North Korean nuclear problem, it is critical to include its perspectives and historical lessons into this research.

In *Nuclear North Korea: A Debate on Engagement Strategies*, the pair of authors offer two different viewpoints and recommend competing strategic approaches. Both parties advocate for engagement but differ in the context and pretext for the engagements. Kang argues that the North Korean threat is exaggerated, that deterrence works, and that the best strategy is for robust and almost unconditional engagement. Cha counters this

⁸ International Atomic Energy Agency, <https://www.iaea.org/>.

⁹ Arms Control Association, <https://www.armscontrol.org/>.

¹⁰ Council on Foreign Relations, <https://www.cfr.org/>.

¹¹ Oberdorfer, *The Two Koreas: A Contemporary History*.

¹² Donald P. Gregg, cover endorsement of *The Two Koreas: A Contemporary History*, by Don Oberdorfer (New York: Basic Books, 2001).

perspective and advances the position of “hawk engagement” with varying degrees of added containment and isolationist elements mixed in.¹³ The original work was published in 2003, during what has been called the fifth nuclear crisis.¹⁴ This was before the start of the Six-Party Talks after the breakdown of the Agreed Framework. In April 2018, the work was republished with an added chapter designed to bring the debate up to context with the current strategic environment, just before the June 2018 Singapore Summit.¹⁵

North Korea’s Hidden Revolution: How the Information Underground Is Transforming a Closed Society is another recent addition to the plethora of recent publications that try to penetrate the closed nature of North Korea. The book illuminates the shifting nature of North Korea with its transformation from a moribund planned authoritarian economic system to a semi-tolerated grey market capitalist society, and with it, the changes that have precipitated into society, particularly in the information domain. Once thought to be an impenetrable state, the author argues that the information revolution has produced “cracks in the system.”¹⁶ The implications of which are vital to examining the full range of the elements of national power that should be considered

¹³ Cha and Kang, *Nuclear North Korea*.

¹⁴ William J. Perry, “Proliferation on the Peninsula: Five North Korean Nuclear Crises,” *The ANNALS of the American Academy of Political and Social Science* 607, no. 1 (September 2006): 78–86. doi:10.1177/0002716206290850.

¹⁵ Cha and Kang, *Nuclear North Korea*.

¹⁶ Jieun Baek, *North Korea’s Hidden Revolution: How the Information Underground is Transforming a Closed Society* (New Haven, CT: Yale University Press, 2016) 45-85.

when analyzing the strategic ways and ends that the U.S. could apply to the North Korean nuclear problem.

Another recent work that helps to bring the record on North Korean leadership up to date is *The Great Successor: The Divinely Perfect Destiny of Brilliant Comrade Kim Jong Un*.¹⁷ In this work, the author provides the most holistic piece of literature to date to paint a narrative of Kim Jong Un. It follows ‘the great successor’ throughout his life and draws from sources, such as his relatives, that have intimate knowledge of his upbringing, personality, and leadership style. Original predictions believed that this third generation of Kim rule would quickly fail and bring down North Korea with it. However, today it appears that Kim Jong Un is firmly in command of a stable North Korea, a feat made possible by carefully dealing with internal security challenges that exposed themselves. If the U.S. is going to engage diplomatically with North Korea, the strategy must consider its leadership and this work.

The works, publications, analysis, fact sheets, and websites of the IAEA,¹⁸ ACA,¹⁹ CFR,²⁰ the Carnegie Endowment for International Peace²¹, and numerous news publications are useful references. They provide excellent factual data points, analysis on historical events, and easy to use websites that span the entirety of the timeline of the

¹⁷ Anna Fifield, *The Great Successor: The Divinely Perfect Destiny of Brilliant Comrade Kim Jong Un* (New York: Hachette Book Group, 2019).

¹⁸ International Atomic Energy Agency, <https://www.iaea.org/>.

¹⁹ Arms Control Association, <https://www.armscontrol.org/>.

²⁰ Council on Foreign Relations, <https://www.cfr.org/>.

²¹ Carnegie Endowment for International Peace, <https://carnegieendowment.org/>.

North Korean nuclear problem. They cover the chronology of the nuclear program and provide a more in-depth analysis of specific periods, such as the Agreed Framework, the Six-Party Talks, and the various UN Security Council Resolutions (UNSCR) sanctions levied against North Korea. They also provide an analysis of the ongoing negotiations between the U.S. and the DPRK, which is the official name for North Korea. These resources are critical for anyone trying to digest the historical context of the DPRK nuclear problem.

Another source in this category is those works, lectures, and speeches by commentators on North Korea who have both helped shape policy as well as written on it. An example of this is the keynote address by John Bolton at the JoongAng Ilbo-Center for Strategic and International Studies Forum 2019. During which he discussed his viewpoint on the North Korean nuclear issue and explained his advocacy for using the Libya model for North Korean disarmament. It is because of this policy stance that he pursued as National Security Advisor, which makes him believe that North Korea was probably glad to see that he was no longer in a position where he could pursue that policy.²² Understanding the views and actions of individuals, like John Bolton, are critical to understanding U.S. strategy on North Korea because they have had a direct impact on how those policies have played out in the past.

²² John R. Bolton, “Navigating Geostrategic Flux in Asia: The United States and Korea,” JoongAng Ilbo-Center for Strategic and International Studies Forum 2019: Keynote Address, September 30, 2019, https://csis-prod.s3.amazonaws.com/s3fs-public/publication/190930_JoongAng_Ilbo_Keynote_john_bolton.pdf. Transcript by [superiortranscriptions.com](https://www.superiortranscriptions.com).

Primary Historical Sources on U.S.-DPRK Nuclear Relations

The second type of sources in this study are the primary historical sources that delineate the U.S., DPRK, and third-country stakeholder's strategic policies on the issue. Examples of these sources are the periodic productions of the U.S. National Security Strategy (NSS) as well as the North Korean "New Year's Address" that has been given annually by the ruling Kim. Other important primary sources are the various agreements and resolutions that have taken center stage to the issue. These documents show the trends and perceptions of both countries on the topic and how the North Korean nuclear problem and U.S. national strategy has evolved.

Looking at these documents chronologically, one of the first milestones is the "For a Free and Peaceful New World" speech Kim Il Sung delivered in 1991:

The Korean people, who are constantly under the threat of nuclear weapons, have proposed the abolition of nuclear weapons as a vital matter relating to the destiny of the nation. We strongly assert that the Korean peninsula should be made a nuclear-free, peace zone. We strongly support the peace movement of the peoples of many countries for disarmament and for the creation of nuclear-free, peace zones.²³

The speech was a statement of changing reality of the security situation that North Korea was facing at the time, as the Soviet Union was pending imminent collapse. It also highlights that North Korea has always viewed the nuclear question as a security issue from its inception.

²³ Kim Il Sung, "For a Free and Peaceful New World," Speech at the opening ceremony of the 85th Inter-parliamentary Conference, April 29, 1991, in *Kim Il Sung: For a free and peaceful new world*, trans. H. Antonn, (Pyongyang, Korea: Foreign Languages Publishing House, 1991), accessed May 10, 2020, <https://www.marxists.org/archive/kim-il-sung/1991/04/29.htm>.

After a small nuclear crisis based on threats by Kim Il Sung to withdraw from the NPT, a significant milestone in U.S.-DPRK relations was the signing of the 1994 Agreed Framework. In the Agreed Framework, both parties agreed (1) to replace the DPRK's graphite-moderated reactors with light-water reactors (LWR), that could not be weaponized, (2) take steps towards the full normalization of political and economic relationships, (3) work towards peace and security on a nuclear-free Korean Peninsula, and (4) strengthen the international nuclear non-proliferation regime.²⁴ However, despite the initial outlook of the agreement, neither side lived up to their obligations under the Agreed Framework.

The agreement crumbled in 2002 when President George W. Bush gave his State of the Union speech in which he coined the term "Axis of Evil."²⁵ In this, he proclaimed that "North Korea is a regime arming with missiles and weapons of mass destruction, while starving its citizens."²⁶ President George W. Bush held a worldview where:

States like these, and their terrorist allies, constitute an axis of evil, arming to threaten the peace of the world. By seeking weapons of mass destruction, these regimes pose a grave and growing danger. They could provide these arms to terrorists, giving them the means to match their hatred. They could attack our allies or attempt to blackmail the U.S. . . . In any of these cases, the price of indifference would be catastrophic. And all nations should know: America will do what is necessary to ensure our nation's security.²⁷

²⁴ United States of America and the Democratic People's Republic of Korea, "Agreed Framework," October 21, 1994.

²⁵ George W. Bush, "The President's State of the Union Address," The White House, January 29, 2002, <https://georgewbush-whitehouse.archives.gov/news/releases/2002/01/20020129-11.html>.

²⁶ Ibid.

²⁷ Ibid.

In 2003, the DPRK formally withdrew itself from the NPT. Their justification for the withdrawal was self-defense. During which, they reiterated a false claim that their nuclear program was for peaceful purposes only:

The withdrawal from the treaty is a legitimate self-defensive measure taken against the U.S. moves to stifle the D.P.R.K. and the unreasonable behavior of the I.A.E.A. following the U.S. Though we pull out of the treaty, we have no intention to produce nuclear weapons and our nuclear activities at this stage will be confined only to peaceful purposes such as the production of electricity. If the U.S. drops its hostile policy to stifle the D.P.R.K. and stops its nuclear threat to the D.P.R.K., the D.P.R.K. may prove through a separate verification between the D.P.R.K. and the U.S. that it does not make any nuclear weapon.²⁸

The next phase of diplomacy with the DPRK was the Six-Party Talks that lasted from 2003 through 2009. Following the first round of the talks, there was a Six-Point Consensus reached between all parties. This consensus sought to resolve the Korean nuclear issue peacefully while simultaneously addressing North Korea's legitimate security concerns.²⁹

The 2006 U.S. NSS proclaimed that regional cooperation among the Six-Party Talks nations was the best hope for peaceful resolution of the North Korean nuclear issue.³⁰ In the September 2005 Joint Statement, North Korea pledged to give up its

²⁸ Korean Central News Agency, "Full Text: North Korea's Statement of Withdrawal," *New York Times*, January 10, 2003, <https://www.nytimes.com/2003/01/10/international/asia/full-text-north-koreas-statement-of-withdrawal.html>.

²⁹ Wang Yi, "Six Point Consensus," <http://www.china-un.org/eng/hyyfy/t29001.htm>.

³⁰ U.S. President, *The National Security Strategy of the United States of America* (Washington, DC: The White House, March 2006), <https://history.defense.gov/Portals/70/Documents/nss/nss2006.pdf?ver=2014-06-25-121325-543>.

nuclear program.³¹ Despite regional cooperation efforts on engagement, during an intermission in the Six-Party Talks, North Korea conducted multiple ballistic missile tests as well as its first nuclear test. The result of which were UN Security Council Resolutions (UNSCR) 1695 and 1718, both of which U.S. diplomat John Bolton helped to draft. In UNSCR 1695, sanctioned North Korea for testing ballistic missile technology.³² UNSCR 1718 sanctioned North Korea for conducting its first nuclear test.³³ Since then, the UN Security Council passed an additional eight UNSCRs against North Korea. The latest went into effect in December 2017.

By the time that President Obama came into office, the Six-Party Talks had ceased to exist. In his first NSS, President Obama laid out a choice for both Iran and North Korea.³⁴ These nations could denuclearize and meet their requirements under the NPT, or face additional measures to isolate and contain them. However, the 2010 NSS did not do anything to appease North Korean security concerns. While it stated that the U.S. goal was to “pursue a world without nuclear weapons,” it did not eliminate the

³¹ Six-Party Talks, “Joint Statement of the Fourth Round of the Six-Party Talks,” Beijing, September 19, 2005, <https://2001-2009.state.gov/r/pa/prs/ps/2005/53490.htm>.

³² United Nations Security Council, “Resolution 1695: Letter dated 4 July 2006 from the Permanent Representative of Japan to the United Nations addressed to the President of the Security Council (S/2006/481),” United Nations, July 15, 2006, <http://unscr.com/en/resolutions/1695>.

³³ United Nations Security Council, “Resolution 1718: Non-proliferation/Democratic People’s Republic of Korea,” United Nations, October 14, 2006, <http://unscr.com/en/resolutions/1718>.

³⁴ U.S. President, *The National Security Strategy* (Washington, DC: The White House, May 2010), <http://nssarchive.us/NSSR/2010.pdf>.

possibility of the use of nuclear weapons against non-nuclear states that were out of compliance with the NPT.³⁵ With the 2015 NSS, President Obama coined the term ‘strategic patience’ and started the U.S. ‘pivot to Asia’ strategy. While this was not fundamentally different from his previous strategy to isolate and contain North Korea, this time, the NSS emphasized the need for strong regional alliances and Chinese cooperation.³⁶

Despite the best intentions of President Obama’s strategy on North Korea, it did not stop Kim Jong Un from changing the constitution of the DPRK in 2014. The change stated that Kim Il Sung had “developed the DPRK into an invincible politico-ideological power, a nuclear state and an unchallengeable military power.”³⁷ By that time, Kim Jong Un was moving the country further down the nuclear path. After detonating a nuclear device in February 2013, in his 2014 New Year’s Address, Kim exalted the scientist that made it possible and admonished the U.S. and South Korea for their hostile policies and war games.³⁸ During the same speech, he also threatened the U.S. homeland with the

³⁵ Ibid.

³⁶ U.S. President, *The National Security Strategy* (Washington, DC: The White House, February 2015), <http://nssarchive.us/wp-content/uploads/2015/02/2015.pdf>.

³⁷ Democratic People’s Republic of Korea, *Socialist Constitution of the Democratic People’s Republic of Korea*, 2016 revision, https://www.constituteproject.org/constitution/Peoples_Republic_of_Korea_2016?lang=en.

³⁸ Kim Jong Un, “Supreme Leader Kim Jong Un’s New Year Address,” trans. National Committee on North Korea, Pyongyang, January 1, 2014, <https://www.ncnk.org/sites/default/files/KJU-NY2014.pdf>.

possibility of nuclear retaliation, stating that “should another war break out on this land, it will result in a deadly nuclear catastrophe and the U.S. will never be safe.”³⁹

In the 2017 NSS, President Trump saw North Korea as a threat. The document calls the country a rogue state that is accelerating its weapons of mass destruction program.⁴⁰ The North Korean nuclear problem had been elevated to “a global threat that requires a global response.”⁴¹ This meant ramping up a sanctions regime and isolating North Korea to the furthest extent possible. In remarks about the 2017 NSS, President Trump stated:

Our campaign of maximum pressure on the North Korean regime has resulted in the toughest-ever sanctions. We have united our allies in an unprecedented effort to isolate North Korea. However, there is much more work to do. America and its allies will take all necessary steps to achieve a denuclearization and ensure that this regime cannot threaten the world.⁴²

By the time that Kim Jong Un gave his 2018 New Year’s Address, the situation had changed drastically. North Korea had successfully conducted two ICBM tests and demonstrated that they had the “hydrogen bomb.” These achievements allowed for the North Korean dictator to change his strategic approach, ushering in what has been termed

³⁹ Ibid.

⁴⁰ U.S. President, *The National Security Strategy of the United States* (Washington, DC: The White House, December 2017), <http://nssarchive.us/wp-content/uploads/2017/12/2017.pdf>.

⁴¹ Ibid.

⁴² Donald J. Trump, “Remarks by President Trump on the Administration’s National Security Strategy,” The White House, December 18, 2017, <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-administrations-national-security-strategy/>.

a “charm offensive” started by reaching out to the newly elected Moon Jae In administration and proposing to participate in the 2018 PyeongChang Winter Olympics.⁴³

The charm offensive paved the way to the Singapore Summit and the “Joint Statement.” President Trump and Kim Jong Un agreed that the U.S. and North Korea should strive towards establishing peaceful relationships and work towards the “complete denuclearization of the Korean Peninsula.”⁴⁴ However, the goodwill garnered by the agreement never fully materialized into the results promised by the two world leaders. In the end, talks fell apart in Hanoi over implementation and the demand for Libyan style denuclearization advocated by then National Security Advisor John Bolton.

Analysis of Other Examples of Denuclearization Efforts

The third category of sources draws from a combination of primary and secondary sources revolving around specific instances of denuclearization. The analysis of these demonstrate nuances of the strategic approaches used to address the denuclearization issue. The study uses them to draw inspiration for the development of future strategies from other cases of denuclearization to see how their lessons apply to the unique situation presented on the Korean peninsula. In this context, the author examined articles covering denuclearization in Iraq, Ukraine, Libya, and Iran.

⁴³ Kim Jong Un, “Kim Jong Un’s New Year’s Address for 2018,” *KCNA*, Pyongyang, January 1, 2018, <https://www.ncnk.org/node/1427>.

⁴⁴ Trump and Kim Jung Un, “Joint Statement.”

Maria Ryan's "Willful Blindness or Blissful Ignorance? The U.S. and the Successful Denuclearization of Iraq," examines the success story of the IAEA in the denuclearization of Iraq in 1991 following the conclusion of the First Gulf War. The article claims that Saddam Hussain ordered disarmament because of two primary motives, the need for security and to have the UN sanctions against Iraq lifted. Iraqi Denuclearization had already been achieved minus the technical know-how to start a program back up if desired. Yet, Saddam maintained a level of uncertainty in his program that the U.S. intelligence community misread, leading to policy miscalculations. By the time the U.S. invaded Iraq in 2003 there was no viable nuclear program remaining⁴⁵.

An article that describes a real denuclearization success story is Nadia Schadlow's "The Denuclearization of Ukraine: Consolidating Ukrainian Security." In this work the author elaborates on the denuclearization negotiations between the U.S. and Ukraine from 1991-1994. At the time of Ukrainian independence, the presence of the former Soviet Union's strategic nuclear missiles located on Ukrainian territory made it the third-largest nuclear power in the world. Critical aspects of the negotiations focus on security, economics (including direct compensation), issues of sovereignty, stability in its relationship with Moscow, and the development of defense ties with the West. Even though it was clear from the start that Ukraine did not want to remain a nuclear power, it did not prevent them from leveraging the weapons to gain leverage during negotiations.

⁴⁵ Maria Ryan, "Willful Blindness or Blissful Ignorance? The United States and the Successful Denuclearization of Iraq," *Intelligence and National Security* 29, no. 3 (2014): 458-486.

Another example of an article dealing with successful denuclearization is former Ambassador Robert G. Joseph's "Countering WMD: The Libyan Experience."⁴⁶ In this, Ambassador Joseph describes his experience in how the U.S. was able to successfully negotiate with Libya to abandon its entire nuclear program in return for improved relations with the west and the removal of sanctions. However, in assessing motive, the author gives five distinct reasons for why the Libyan's were so willing to abandon their program altogether. The most compelling of which was not to be the next country on the U.S. target list. Ghaddafi did not want to end up like Saddam.

Literature Review Themes

The three types of sources described above serve as the foundational knowledge with which the author pulled from to gain a baseline to perform further analysis. When taken together with the theoretical sources that will be discussed in further detail in Chapter 3, there are some broad themes and conclusions that were used going forward. There are competing theories on why states pursue nuclear weapons, but none are without exceptions. Regime type, political-economic outlook, and the state of the nuclear program are critical variables in how effective a nation is at resisting denuclearization efforts. A crisis is a constant driving factor in successful denuclearization efforts. To achieve success, the regime targeted for denuclearization needs to accept the model of denuclearization. The denuclearization process matters and can determine success or failure. During times of more robust engagement, as opposed to hawkish approaches,

⁴⁶ Robert G. Joseph, "Countering WMD: The Libyan Experience," Daniel Morgan Graduate School of National Security, accessed 29 October 2019, https://dmgs.org/wp-content/uploads/JOSEPH_publish.pdf.

North Korea has conducted fewer provocations. And North Korea is increasingly seen as an unsolvable problem.

CHAPTER 3

RESEARCH METHODOLOGY

Qualitative Comparative Analysis Methodology

The primary research question of this study is: what U.S. strategic ends and ways, as constrained by acceptable risks, are most likely to achieve the U.S. national security objective of eliminating the threat posed by the North Korean nuclear weapons programs. The primary methodology used will be Qualitative Comparative Analysis (QCA) utilizing the ends, ways, means, and risks framework. QCA methodology was selected because it uniquely enables analysis of a multitude of complex events.⁴⁷ QCA is a case-based approach that uses a systematic process to explain and identify the mechanism of causation. This comparative approach blends both qualitative and quantitative methodologies by taking knowledge and insights gained from examining specific cases, identifies relevant factors, assigns quantifiable values to them, and testing hypotheses.

There are six steps in QCA. Step one is to develop a theory of change or to find an existing theory that can be applied to the situation.⁴⁸ For this study, the approach that will be used will be a modification of Beer's Change Theory.⁴⁹ The second step is to

⁴⁷ Nigel Simister and Vera Scholz, "Qualitative Comparative Analysis," INTRAC, 2017, <https://www.intrac.org/wpcms/wp-content/uploads/2017/01/Qualitative-comparative-analysis.pdf>.

⁴⁸ Ibid.

⁴⁹ Michael Beer, *Leading Change* (Boston, MA: Harvard Business School Publishing, January 12, 2017).

identify cases of interest where the desired outcome was and was not achieved.⁵⁰ In this study, the cases of interest are past denuclearization efforts. These instances include both North Korean and non-North Korean examples. Step three is to identify and develop a set of factors or variables that contribute to a specific outcome.⁵¹ In this study, these are the variables that contribute to denuclearization and will be identified later in this chapter. Step four is scoring the factors. In this case, the factors will be assigned ‘fuzzy-set’ values ranging from 0 to 1, which correlate to a percentage of how much of a cause factor a specific variable is.⁵²

This approach will examine previous U.S. strategic ends and ways targeting the North Korean nuclear problem to determine what impact they had on the program and why they failed to achieve the desired end state. Additionally, the comparative analysis will incorporate other examples of denuclearization efforts, both successful and unsuccessful, with the same framework to provide possible theoretical strategic approaches that could be applied to the North Korean nuclear issue. The variables discovered in the analysis of these instances, combined with the results from them, will then be taken as weighting criteria for the probability that specific theoretical ends and ways achieve the U.S. national objective of eliminating the threat posed by North Korea’s nuclear weapons program.

⁵⁰ Simister and Scholz, “Qualitative Comparative Analysis.”

⁵¹ Ibid.

⁵² Ibid.

To accomplish this task, the analysis will answer the question by focusing on exploring the subordinate research questions as presented in the introduction of this paper to determine the best way forward. By examining previous denuclearization successes and failures, the study will identify the variables that present themselves in each of the scenarios and develop mechanisms that can be acted upon. To establish this framework, it is essential first to determine why states, such as North Korea, pursue nuclear weapons to begin with and then identify what factors lead to a denuclearization efforts success or failure. With those factors identified, the intent is to develop an equation to use to analyze and test denuclearization scenarios. The fifth step in the QCA process is analyzing the data set.⁵³ Chapter 4 of this study is devoted to this step, with the desired outcome of identifying which factors are the primary drivers of achieving denuclearization. Step six is interpreting the findings and reviewing if the original hypothesis is still valid or not.⁵⁴ This step will be covered in Chapter 5 of this study as the conclusion, along with any recommended ends and ways that will produce the desired outcome.

Why States Pursue Nuclear Weapons

To determine what strategic ends and ways would be most likely to resolve the dilemma caused by the North Korean nuclear threat, it must first be determined what causes a state to develop, test, and maintain nuclear weapons. There are numerous different schools of thought regarding this issue. These include neorealism, neoliberal

⁵³ Simister and Scholz, “Qualitative Comparative Analysis.”

⁵⁴ Ibid.

institutionalism, constructivism, regime type, and domestic political survival.⁵⁵ While there is literature and advocates for all the above schools of thought, the two models that work best to develop a strategic ways and ends for denuclearization are the combination of the neorealism and domestic-political survival schools of thought into a regime survival model.

The most common approach towards the question of why states pursue nuclear weapons is a structural power equation or the neorealist approach. Neorealism assumes that a state's desire for nuclear weapons stems from their need to survive in an anarchic world order and that nuclear weapons increase power and security for the entity that possesses them relative to those who do not. Under neorealism, hegemonic protection and nuclear guarantees play into the calculus of whether or not a state develops nuclear weapons.⁵⁶ If the primary factor driving nuclear weapons development is neorealism, there should be a direct correlation to the balance of power, external security threats, and a state's decision to develop a nuclear weapons program. In this school of thought, the answer to whether a state pursues nuclear weapons should be based almost solely on its security situation, including its strategic alliances and external threats. The security gained from nuclear weapons should, in theory, enhance the safety of the state. However, despite the rhetoric and espoused justifications from governments across the political spectrum, nuclear weapons seem to do little to strengthen state security. On the contrary,

⁵⁵ Etel Solingen, *Nuclear Logics: Contrasting Paths in East Asia and the Middle East* (Princeton, NJ: Princeton University Press, 2007), 23-54.

⁵⁶ Ibid., 24.

nuclear weapons do seem to enhance regime security, which opens the prospect of both external security threats and internal security threats or domestic political survival.⁵⁷

The domestic political survival model of denuclearization accounts for the linkage between the political-economy and regime security.⁵⁸ These two variables are critical to determining whether a state pursues nuclear weapons or if they decide to denuclearize. External state security is covered in the neorealist approach, but the domestic political survival accounts for internal threats to regime security. In this model, all the actions that a regime takes are primarily designed to maintain itself. The domestic political survival model suggests that even once a state has decided to pursue nuclear weapons, it must create an internal coalition to support the cost of developing a nuclear weapons program.⁵⁹ This coalition must be sufficiently powerful to prop up and protect the regime. This winning coalition is the members of the selectorate that have some real say in their government. In return for their continued support, members of the winning coalition receive an increasingly large share of the resources and favors that the regime doles out as well as retains a level of power over other members of the state to include the remainder of the nominal selectorate and the disenfranchised.⁶⁰ This winning coalition of the selectorate, or real selectorate, is essential because despite what type of regime is in power, the regime needs their continued support and buy in to maintain itself. In a state

⁵⁷ Solingen, *Nuclear Logics*, 26.

⁵⁸ *Ibid.*, 39.

⁵⁹ *Ibid.*, 40.

⁶⁰ *Ibid.*, 43.

such a North Korea, this winning coalition is the power elites such as the high-ranking members of the party, military, internal security apparatus, technocrats, and possibly some scientists.⁶¹ For outward-looking regimes seeking increasing integration with the global economy, this model of domestic political survival has favored non-nuclear paths, due to the political-economic cost imposed by sanctions. While, for inward-looking regimes, focusing on ideologies of self-sufficiency, such as the North Korean ideology of *Juche*, the political capital gained from a nuclear weapons program have far outweighed the political and economic cost of the imposed sanctions.⁶²

This combined theory of regime survival is a combination of the neorealist and domestic political survival schools of thought. Regimes will make decisions on nuclearization and denuclearization based on their insecurities as well as the level of deterrence their nuclear program provides against external regime change and the domestic political cost to the winning coalition of the selectorate. The regime's primary motive for all its decisions is regime survival, and nuclear program decisions play a vital role in that calculus.

Denuclearization Factors

The primary means that the international community has available to compel another state to change its behavior is through positive and negative inducements. These inducement mechanisms are prevalent in denuclearization attempts and include negative inducements. Negative inducements are actions such as diplomatic protest, sanctions, and

⁶¹ Solingen, *Nuclear Logics*, 44.

⁶² Ibid., 39-43.

military threats. Positive inducements include the removal of sanctions, providing aid, economic assistance, granting access to the global market, bestowing favorable trade actions, or other favorable diplomatic agreements. Either way, both positive and negative inducements are simply ways for one entity to attempt to influence another targeted entity to do something. These inducements are the primary ways that the U.S. has to influence the behavior of the North Korean regime to denuclearize. However, when designing a way to meet a strategic end, it is important to understand how effective these actions are when targeted against specific types of states and what factors influence a state to be receptive to particular types of positive and negative inducements.

A regime's model of political survival, regime-type, and timing have the largest impact on how a particular it will respond to either positive or negative inducements.⁶³ The main differentiating factor for the model of political survival is the state's relationship to the global economy. As mentioned above, regimes that seek integration with the global economy are less likely to pursue nuclear weapons as a means of political survival, as they need access to all the benefits granted by economic integration to maintain power. However, regimes that favor a nationalist inward-looking style of economic development view nuclear weapons as a tool to achieve modernization and even a catalyst into great power status.⁶⁴ Additionally, not only does a nuclear weapons program give internal legitimacy and prestige to the regime, it also allows for the regime to bestow favors on the winning coalition of the selectorate by protecting key industries

⁶³ Etel Solingen, ed., *Sanctions, Statecraft, and Nuclear Proliferation* (New York: Cambridge University Press, 2012), 3-28, Kindle.

⁶⁴ *Ibid.*, 11.

that would not otherwise be competitive in a global economic system. This effect can be further enhanced by the very sanctions put in place to discourage the regime from nuclearization in the first place, thus creating a dependent constituency wholly reliant up the nuclear weapons program and the regimes' inward-looking economic approach.⁶⁵ It must be noted that both inward-looking and internationalizing models of political survival are two different and opposing ideal type models. In reality there are many different variations and hybridizations of these models that exist.⁶⁶ In order to induce denuclearization, ideally, it is best to be dealing with a regime that is internationalizing in its model of political survival.

The second factor in a regime's resistance to denuclearization pressure is regime type. This thought process stems from the broader selectorate theory of political survival as addressed above. There is ample literature and theorist that propose the theory that democracies are more vulnerable to sanctions than more autocratic regime types. This vulnerability stems from the view that the more democratic a state is, the broader level of support is required to maintain power. In a democratic government, this would be the majority of the selectorate that is not disenfranchised, such as in America, this would be adults age 18 and over, but could be construed to mean just the majority of those adults that actually vote. Autocratic regime types, on the other hand, require a much smaller winning coalition to maintain power, and because of this, can weather sanctions to a much higher degree through mechanisms of redistribution of private benefits and public

⁶⁵ Solingen, *Sanctions, Statecraft, and Nuclear Proliferation*, 11.

⁶⁶ *Ibid.*, 12.

goods.⁶⁷ Democratic regimes that are sanctioned will have a difficult time in maintaining the satisfaction of the winning coalition of the selectorate because they will require much more resources and favors to distribute. It is one thing for a heavily sanctioned autocratic leader to reward elements of a small winning coalition; it is entirely another thing to be able to provide rewards and benefits to half of a state's population.

Additionally, in states where there are a large number of disenfranchised individuals, the regime leadership can simply redirect resources from that group to the members of the group that they need to maintain state power.⁶⁸ It does not matter whether or not these are positive or negative inducements; the smaller the proportion of the winning coalition to the overall size of the nominal selectorate, the greater the ability of the regime to maintain power through rewarding those that help it to sustain itself. This feat can be accomplished by means such as redistributing food aid intended to ease the suffering of the nation towards members of the military.⁶⁹ Governments seeking to induce denuclearization of a target state ideally would prefer to deal with a target state that requires a larger proportion of the population to maintain a winning coalition in the selectorate.

The third factor of denuclearization is temporal and regards the development state of the nuclear weapons program itself. The school of thought behind this is prospect

⁶⁷ Solingen, ed., *Sanctions, Statecraft, and Nuclear Proliferation*, 14.

⁶⁸ Bruce Bueno de Mesquita, Alastair Smith, Randolph M. Siverson, and James D. Morrow, *The Logic of Political Survival* (Cambridge, MA: MIT Press, 2003), 2-36, Kindle.

⁶⁹ Solingen, *Sanctions, Statecraft, and Nuclear Proliferation*.

theory and loss aversion, under which people or regimes place more value on entities that they already possess versus the potential gain of something they do not have.⁷⁰

Governments are likely to place a higher value on a fully developed nuclear weapons program that has been tested and possesses a viable delivery mechanism than a nascent nuclear weapons program that may or may not bear the fruits of its labor. Therefore, the further along the developmental process of a program, the less receptive a regime will be towards denuclearization efforts.⁷¹ Also going further than the standard comparison of economic loss and risk associated with prospect theory, there are additional mechanisms in play regarding time and denuclearization efforts. Most notably is the deterrence to externally induced regime change effect. A nuclear weapons program that is only under development and has not produced a viable nuclear weapon that is deliverable against an external regime change threat is of little deterrence effect. On the contrary, a nuclear weapons program that has been developed, tested, and demonstrated to be viable, such as the North Korean nuclear program, provides a high level of deterrence effect against externally induced regime change. Not only would a regime be required to be overcompensated for the loss of something that it possesses, but this loss must also be multiplied by the loss of the deterrence effect provided by those nuclear weapons. The last temporal factor deals with the history of previous denuclearization efforts. Regimes tend to learn from the examples of others, and nuclear issues are no exception to this rule.

⁷⁰ Daniel Kahneman and Amos Tversky, "Prospect Theory: An Analysis of Decision under Risk," *Econometrica* 47, no. 2 (1979): 263-291, accessed May 17, 2020, doi:10.2307/1914185.

⁷¹ Solingen, *Sanctions, Statecraft, and Nuclear Proliferation*, 18.

Sometimes this temporal sequence has played in favor of the denuclearization efforts, such as the timing of Libya's denuclearization, whereas other times, and particularly with North Korea, it is likely to run counter to U.S. denuclearization efforts. History has demonstrated that security guarantees from states seeking to denuclearize others do not guarantee regime security over the long run, such as the lessons of Ukraine, Iraq, Libya, and Iran have taught.

Building a Denuclearization Equation

Various existing models and schools of thought on denuclearization have given rise to several different theoretical mechanisms to achieve results. Still, they have failed to produce a school of thought that does not have significant outliers and exceptions to the rule. The goal is to build a formula that can be applied across the spectrum of denuclearization efforts to identify the correct mixture of strategic ends and ways to achieve results.

At the basic level, denuclearization is the removal of nuclear weapons from a place or country.⁷² Denuclearization can be achieved in three ways, willingly by the nuclear weapon power, under the inducement of another state or non-state actor, or through force. For this equation, we will not consider the removal of nuclear weapons through military force; instead, the factors that will be taken into account are the variables that can cause a regime to abandon its nuclear weapons program. By eliminating the option of using force to achieve denuclearization, denuclearization then

⁷² Dictionary.com, "Denuclearize," accessed May 17, 2020, <https://www.dictionary.com/browse/denuclearize>.

becomes an equation of leading organizational change on an international level. Whether or not denuclearization efforts are initiated internally or externally, their actions must overcome the resistance of entrenched interest and bureaucracies. This article will borrow from existing an existing change model developed for the business world by Prof.

Michael Beers. In *Leading Change*, Beers presents a conceptual formula that covers the critical factors that must be accounted for when leaders try to change an organization.

The formula follows:

$$\text{“Amount of Change} = (\text{Dissatisfaction} \times \text{Model} \times \text{Process}) > \text{Cost of Change”}^{73}$$

This author proposes that the same formula holds true at the foundational level regarding achieving denuclearization, with some slight modifications. In the original model, beers argues that for change to take place key members of the organization need to be significantly dissatisfied by the status quo in order to adopt new attitudes and beliefs. The more profound the dissatisfaction felt by the leadership, the greater the desire for change, with the best catalyst for change being a crisis. In business, these leaders are the executives, managers, other key individuals, or possibly even shareholders. However, regarding the denuclearization equation, these individuals are comprised of the winning coalition of the regime selectorate. In a democracy, this is the people who vote, in a dictatorship, this is the ruling coalition and whoever keeps them in power. This wining coalition could be a party, the military, technocrats, or any other group that wields sufficient power. For denuclearization, however, this language does not indeed encompass precisely who makes the decision and what is at stake. Therefore, for the

⁷³ Beer, *Leading Change*.

denuclearization equation, the variable of Dissatisfaction will be changed to Regime Vulnerability, which includes both internal and external threats. Internal Regime Vulnerability equates directly to the real selectorate dissatisfaction. External Regime Vulnerability equates to the regime's perception of its vulnerability to externally induced regime change. Therefore, Dissatisfaction is exchanged for Regime Vulnerability where:

$$\text{Regime Vulnerability} = \text{External Threat Perception} \times \text{Real Selectorate Dissatisfaction}$$

In the Beer's original equation for change, the model variable is the "vision of the future state of the organization."⁷⁴ This model or vision for in business is what will be substituted in the denuclearization equation as a strategic end state or the ends of the Ends, Ways, and Means Framework. In business, a vision typically comes from the top down in which leadership defines what the idea for the future is. In the realm of international nuclear diplomacy, the ends or vision for the future are not always equally adopted by the two opposing parties. Discongruities in the Ends can occur when there is disagreement as to what the end state should be, despite official declarations. Moving forward with the denuclearization equation, the original variable of Model will be substituted for Ends. The more acceptable that the Ends are to the denuclearization target, the more significant the change in denuclearization will be. Additionally, the Ends variable is likely to have an inverse correlation to the cost side of the equation, as achieving an Ends more in line with the regime's desired end state will be viewed as less costly to the regime.

⁷⁴ Beer, *Leading Change*, 2.

In Beer's formula the Process is defined as the "sequence of events, speeches, meetings, educational programs, personnel decisions and other events aimed at helping employees, including top management, learn new perspectives, skills, attitudes, and behaviors."⁷⁵ The goal is to move from an initial level of compliance with the change towards a commitment and internalization of the change. In the denuclearization equation, this variable remains the Process. It should be viewed as the diplomatic process and is an element of the means to achieve denuclearization. This variable is influenced by the ways selected to achieve denuclearization but should not be misconstrued as the overall ways. For instance, the ways could be sanctions or inducements, but the Process would be the diplomatic meetings, engagements, and the sequencing of the events between interested parties. While the means will not be examined in detail in this study, the Process remains a critical variable to achieve change and, in this instance, to achieve real denuclearization.

The Cost of change in the original formula is identified as the losses to employees and other stakeholders if the anticipated changes occur. This can be a loss of power, relationships, rewards, or identity. The Cost associated with denuclearization is similar. The factors of Cost that the denuclearization formula will account for are loss of external threat deterrence, domestic political cost, and relative stage of the nuclear weapons program. Nuclear weapons may not help secure a nation-state, but they are an excellent assurance to authoritarian regimes that external factors, such as the U.S., will not attempt regime change or other military intervention. This nuclear regime security blanket

⁷⁵ Beer, *Leading Change*, 3.

becomes dearer to the regime once the program has progressed to the point of being an actual deterrence. The domestic political cost comes from the regime trying to manage the satisfaction of its real selectorate.

Therefore, the proposed Denuclearization Equation is:

$$\text{Denuclearization Change } (\Delta dN) = \text{Regime Vulnerability } (RV) \times \text{Ends } (E) \times \text{Process } (P) > \text{Loss of External Deterrence } (LD) \times \text{Domestic Political Cost } (PC) \times \text{Nuclear Program State } (PS)$$

or:

$$\Delta dN = (RV \times E \times P) > (LD \times PC \times PS)$$

Using the Equation to Analyze Strategic Ends, Ways, and Risks

While using the denuclearization equation for this study, each of the variables will be assigned a value between 0 and 1. For the change factors, a 1 is the most likely to lead to more remarkable change, while the opposite is true for resistance factors. The amount by which the change factors are greater than the resistance factors equates to the amount of denuclearization change achieved relative to the current program state and the desired end state. For instance, if the program state was .7, the desired end state was complete denuclearization, and the denuclearization change was .8, then the result would be -.1 or complete denuclearization. However, if the desired end state was not complete denuclearization, the change would stop when the desired end state was achieved, for instance, if the desire was only to constrain the program, it would not matter if the ΔdN was .8 or .5, both results would achieve the desired end state of constraining the nuclear program. Also, if instead, the denuclearization change was only .35 instead, then the change in nuclearization would only be able to lead to a restraint on the program leading

to a new program state of .35, even if the desired end state was complete denuclearization. If the denuclearization change is 0 or less than 0, then no shift towards that desired end state would occur. For a complete listing of how to estimate the different variables for each instance, see table 1 for the change factors and table 2 for the resistance factors.

Table 1. Denuclearization Equation Change Factors Grading Scale

Denuclearization Equation Grading Scale					
Grade	0	0.25	0.5	0.75	1
Change Factors					
(RV) Regime Vulnerability	No fear of externally induced regime change and has no instability domestic political instability	Minor fear of future externally induced regime change or slight dissatisfaction of some the winning coalition	Moderate fear of future externally induced regime change and moderate dissatisfaction of some the winning coalition	Potential for externally induced regime change and growing dissatisfaction of the winning coalition	Externally induced regime change deemed imminent & ongoing severe domestic political crisis
(E) End state Acceptability	End state completely unacceptable	End state generally unacceptable to the regime	Compromise position, end state achieves some but not all desired outcomes	Generally favorable to regime, but would prefer a few modifications	End state desired by regime
(P) Process	No process developed	Agreements in principle without any formal process	A process is in place, but contains loopholes or does not ensure all parties follow through	Structured and formal process that has a mechanism to encourage follow through by all parties	Once the process is started there is no way to derail it from reaching the end state

Source: Created by author.

Table 2. Denuclearization Equation Resistance Factors Grading Scale

Denuclearization Equation Grading Scale					
Grade	0	0.25	0.5	0.75	1
(LD) Loss of External Deterrence	No loss of external deterrence; possible security benefits	Nuclear deterrence not viable or demonstrated or only minor external security threats	Nuclear deterrence not critical to regime security; tenuous possibility of future externally induced regime change	Regime fears that loss may lead to future externally induced or supported regime change	Regime believes loss will result in externally induced regime change
(PC) Domestic Political Cost	No domestic political cost	minor domestic political cost or minor loss of future political power	Will cause dissatisfaction of some members of the winning coalition of the selectorate or loss of future political power	will cause severe dissatisfaction with members of the winning coalition;	Domestic political cost perceived to lead to internal regime change
(PS) Nuclear Program State	No nuclear program	Nascent nuclear program, very little resources invested or program constrained by denuclearization agreements	Nuclear program development underway, close to being able to produce a nuclear weapon	Nuclear weapons developed and tested but lacking a viable delivery system	Fully developed and tested nuclear program with a viable and tested delivery system capable against external threat nation

Source: Created by author.

Chapter 4 of this study will use the above Denuclearization Equation to first analyze previous examples denuclearization efforts, both successful and unsuccessful, to test the model's effectiveness and usefulness as a tool to show causation and as a tool to predict how likely specific strategic ways are to achieve a desired strategic ends. The non-Korean denuclearization examples that will be analyzed are: (1) Ukraine, (2) Libya, and (3) Iran. All previous attempts to denuclearize North Korea have failed. The North Korean denuclearization efforts will be organized into three distinct periods of sustained denuclearization efforts by the U.S.: (1) The 1994 Agreed Framework, (2) The Six Party Talks, and (3) The Maximum Pressure Campaign.

Following this analysis, the intent is to then utilize the formula in Chapter 5 to identify the different factors that can be influenced by adjusting the strategic ends and

ways, while accounting for inherent risks, to best achieve the strategic objective of eliminating the threat posed by a nuclear North Korea. While it would be unreasonable to assume that the U.S. can implement a cookie-cutter denuclearization strategy to resolve the North Korean nuclear problem, the underlying identification of factors of why nations, or regimes, denuclearize will help to illuminate what is in the realm of the possible. The author acknowledges that it is unlikely that there will be a clear and risk-free path forward towards eliminating the threat posed by the North Korean nuclear issue. Instead what this study will attempt to accomplish is not to fully solve the North Korean nuclear problem, but to look critically at how U.S. strategic ends and ways can best be manipulated in order reduce overall strategic risks in dealing with the North Korean nuclear dilemma that has resisted being solved since at least 1991.

CHAPTER 4

ANALYSIS

The analysis in this chapter focuses on testing and using the denuclearization equation that developed in Chapter 3. The first part of the research focuses on testing the equation using non-Korean denuclearization efforts. The second portion of the study is on the nature of North Korea and its nuclear program. This is incorporated to determine how resistant it is to denuclearization efforts. The third portion is the actual analysis of previous U.S. efforts to denuclearize North Korea. The results from this chapter are used in Chapter 5 as the basis for recommending strategic ends and ways.

Proofing the Denuclearization Equation

Ukrainian Denuclearization

The Ukrainian nuclear issue is unique. It inherited its considerable nuclear weapons program from the Soviet Union when it declared its independence. The newly formed state had 130 SS-19 ICBMs, 46 SS-24 ICBMs, 40 nuclear bombers, and over 1800 nuclear warheads.⁷⁶ The state of the Ukrainian nuclear weapons program was a fully developed legacy program, not something that was developed indigenously. However, despite this large inheritance of nuclear weapons, Ukraine did not see their endowment in a positive light. Almost from the start and possibly because of their history

⁷⁶ Nadia Schadow, "The Denuclearization of Ukraine: Consolidating Ukrainian Security," in *Ukrainian Studies*, vol. 20, *Ukraine in the World: Studies in the International Relations and Security Structure of a Newly Independent State* (Cambridge, MA: Harvard Ukrainian Research Institute, 1996), 271, <https://www.jstor.org/stable/41036694>.

with Chernobyl, Ukraine made it clear to the world that they did not want to keep their nuclear weapons.⁷⁷ Despite the desire to rid themselves of the program, it took years of negotiations between the U.S., Russia, and Ukraine to achieve denuclearization and the removal of their strategic arsenal.

Other than a desire to rid themselves of a bad history with nuclear power, there were three primary ends that Ukraine sought in negotiating away its nuclear program. Ukraine wanted to develop bilateral ties with the U.S. and Europe, enhance its economy, and stabilize its relationship with Moscow.⁷⁸ Their existing nuclear weapons would do little to help achieve these end states or to contribute to the overall security situation in Ukraine. Their nuclear weapons delivery capabilities were designed to target the U.S., with whom they wanted to achieve a better relationship. Ukraine instead would end up its nuclear weapons program as leverage to help it achieve both its domestic and external security objectives. The negotiating process was the major hindrance to quickly achieving results even though all parties involved wanted to see a denuclearized Ukraine.

There were many positive change factors to induce and encourage Ukraine to denuclearize. In terms of regime vulnerability, the state and the regime were extremely vulnerable to external threats from Russia, and internal domestic political dissatisfaction was acute in its situation. Domestically, Ukraine needed to bolster its legitimacy and international standing via recognition and develop economic and political integration from Europe. The model end state was very palpable to Ukraine. They wanted to receive

⁷⁷ Schadlow, "The Denuclearization of Ukraine," 272.

⁷⁸ Ibid., 283.

security assurances, international recognition, and political and economic assistance and integration in return for it acceding to remove its nuclear weapons and abide by existing international arms reduction agreements as well as join the NPT. The model variable aligns nearly perfectly with their desired end state; the issue comes down to who does what first in the process. Nuclear weapons were one of Ukraine's only bargaining chips, and they knew that once they gave them up, they would have little left to help extract favorable inducements from both the West and Moscow.⁷⁹ Indeed some in Ukraine wanted to see that "the rate of Ukrainian nuclear disarmament should interdependent [and the last] strategic missile located on Ukrainian territory should be destroyed when Ukraine's fate has been fused with that of Europe."⁸⁰

Moving on, with the positive change factors identified, next, the resistance to change factor variables must be identified and analyzed to determine what challenges had to be overcome to induce denuclearization. The state of the nuclear program was highly developed, but because of its legacy origins, it was missing a delivery system capable of targeting Russia. This dichotomy in the program diminishes the program state variable to a degree lower than if Ukraine had a program that it could use as a nuclear deterrence, which it did not. This inability to use their nuclear arsenal equates to a small loss in external threat deterrence. It could even be argued that by removing their nuclear weapons, they gained external deterrence via closer ties to the West, as demonstrated by

⁷⁹ Schadlow, "The Denuclearization of Ukraine," 283.

⁸⁰ *The Ukrainian Weekly* 51, no. 21 (23 May 1993): 2.

joint military exercises with U.S. and NATO troops as early as 1994.⁸¹ The domestic political cost associated with removal of the nuclear program would be the loss in political capital that could be used as leverage in future negotiations. This prospect could be mitigated via the process variable of providing positive inducements as denuclearization change occurred. The equation for Ukrainian denuclearization could look something like this:

$$\Delta dN = (.8 \times 1 \times .5) > (0.2 \times 0.5 \times 0.7) \text{ or } \Delta dN = .4 > .07$$

This translates to a denuclearization change of around .33 if all the variables stay the same, which is a result that would not be enough to initially fully denuclearize Ukraine, which in this case has a program state of 0.7. However, with the Ukraine example, the process, domestic political cost, and state of the nuclear program all fluctuated at times. So as the process improved, both the domestic political cost and the state of the nuclear program diminished. When all of these fluctuations are taken into account, two implications become apparent: (1) that the variables are not immutable, and (2) that when the initial change is not enough to achieve full denuclearization the process to continue driving down the program, and other cost factors are critical to achieving complete denuclearization.

In the end, Ukrainian denuclearization was successful in that it removed all nuclear weapons from Ukraine. This was achieved through a strategic end state that Ukraine already committed to pursuing and the use of positive diplomatic, economic, and military inducements that Ukraine desperately needed. For Ukraine, it was just a matter

⁸¹ Schadlow, "The Denuclearization of Ukraine," 282.

of ensuring the process was in place to help it alleviate its external and internal security concerns before it handed over its greatest asset that could help it achieve its own objectives.

Libyan Denuclearization

Libyan denuclearization has repeatedly held up as a prime example of how to achieve denuclearization. Its model has been advanced by some, including former National Security Advisor John Bolton, as the model that North Korean denuclearization should follow. Despite the comparisons and similarities that can be drawn from the Libya model, there are those in North Korea, including Kim Jong Un that see it as a much more cautionary tale of how not to proceed with denuclearization if they do not want to meet a similar fate that Col Muammar el-Qaddafi met, nearly a decade after he decided to denuclearize.⁸²

The first step is to determine what the variables are in this scenario. The change in denuclearization is known. Libya completely denuclearized from a decades-old nuclear weapons program that was still under development, until right before it ceased to exist. Not only did they denuclearize, but Libya gave up their entire nuclear program, including equipment and weapons designs. They even added on their long-range ballistic missiles on top of their nuclear program as an extra concession.⁸³

⁸² Peter Baker, “Libya as a Model for Disarmament? North Korea May See it Very Differently,” *New York Times*, April 29, 2018, <https://www.nytimes.com/2018/04/29/us/politics/bolton-libya-north-korea-trump.html>.

⁸³ Joseph, “Countering WMD: The Libya Experience.”

The process for denuclearization started for Libya in March 2003, just after the U.S. invaded Iraq because of its nuclear weapons program. Libya began reaching out to the West and putting out feelers.⁸⁴ Then in August 2003, the U.S. blocked the removal of UN sanctions that had been put in place because of its ties to terrorism until the regime would resolve outstanding questions about its nuclear program. This issue was pushed to the forefront of international politics when a ship carrying centrifuges from Dubai to Libya from the A.Q. Khan network was intercepted. This smoking gun forced Libya to reveal its program, and by December of the same year, Libya agreed to dismantle its program, undergo inspections, and rejoin the international community.⁸⁵ However, it would not be until the images of Saddam Hussein dragged out of his hole emerged that Qaddafi unconditionally agreed to declare an end to the Libyan nuclear experiment.⁸⁶

Col Qaddafi motives for denuclearization were: (1) to have sanctions removed so that Libya could resume exporting oil, its one real export commodity; (2) that Libya's model of international and domestic political survival, pan-Arabism, had failed; (3) that the Libyan regime wanted to cooperate with the U.S. to counter internal Islamic extremism; (4) the interception of the BBC *China* unmasked the Libyan nuclear program and made further nuclear development increasing difficult; and (5) to not be the next

⁸⁴ Joseph, "Countering WMD: The Libya Experience."

⁸⁵ Nuclear Threat Initiative, "Libya Nuclear Weapons Program | Libya Nuclear Disarmament," last updated January 2015, <https://www.nti.org/learn/countries/libya/nuclear/>.

⁸⁶ Joseph "Countering WMD: The Libya Experience."

target on the U.S. hit list after Afghanistan and Iraq.⁸⁷ Due to the timing of events that transpired internationally, the last reason, the reason of regime survival was likely the most pressing concern for Qaddafi at the time.

The next step in the process is to test out if this model fits into the denuclearization equation. The change in the level of denuclearization was complete. The Libyan program went from a partially developmental program, with a lack of indigenous technical expertise and a recently compromised procurement network, to one that was packed up on ships and destined to be dismantled. At the time, the regime felt incredibly vulnerable. This vulnerability came from outside threats, such as the U.S., as well as internal regime threats from an increasing political and economic dissatisfaction. Therefore, the regime vulnerability variable would be extremely high. The model of denuclearization, including sanctions relief and rejoining the international community, was favorable to the Libyan regime. But he also wanted to ensure another model did not fit. Qadhafi did not “want Libya to be Iraq, [he did not] want to be Saddam Hussein. [he wanted] to avoid that fate.”⁸⁸ The process variable, in this instance, is remarkably high. Qadhafi had to agree to declare the existence of the program publicly and agree to hand over the entire program before receiving any sanctions relief or positive inducements. Therefore, there was no off-ramp for the process because, without it, Qadhafi was afraid that he would be the next person being dragged out of a hole in the ground. As such, the

⁸⁷ Joseph “Countering WMD: The Libya Experience,” 4-5.

⁸⁸ Ibid., 5.

change factors of the denuclearization equation for Libya are almost maxed out for all the variables.

The resistance side of the equation, on the other hand, was uniquely low. Libya did not have a target for nuclear weapons, nor did it possess a working nuclear weapon even if it did want to use one. Handing over the nuclear program would result in almost zero loss of external threat deterrence. Qadhafi realized that “Today it becomes a problem to have a nuclear bomb. At the time, it was maybe the fashion to have a nuclear bomb. Today, you have no enemy. Who’s the enemy?”⁸⁹ Internally, there was not much of a cost of handing over the program either. The Libyan model of political survival was failing, and denuclearization would have virtually zero political cost, especially because the program had already been exposed after the seizure of the BBC *China*. So, to put variables into the equation, the change factors greatly outweighed the resistance factors, which lead to complete denuclearization. For Libyan denuclearization, the equation would look something like this:

$$\blacktriangle dN = (.9 \times .9 \times .9) > (.1 \times .2 \times .5) \text{ or } \blacktriangle dN = .729 > .01$$

Therefore, where the Libyan nuclear program was only half-developed at the time (.5) a denuclearization change of .719 resulted in the total and complete denuclearization of Libya in a short period of time. It was an accomplishment that was achieved by increasing the regime vulnerability variable via President George W. Bush’s doctrine of preemptive war while at the same time offering a strategic end state and process that was compatible with the situation of the time.

⁸⁹ World Tribune, “IAEA report on Libyan nukes stuns the West,” 4 March 2004, https://www.worldtribune.com/worldtribune/WTARC/2004/me_libya_03_03.html.

Iranian Denuclearization

The case of Iran is unique when compared to the previous examples of Ukrainian and Libyan denuclearization. Iran is not exactly a denuclearization success story, and as of the time of this writing, it is looking less and less so. What this study will examine is the instance when the U.S. almost achieved the results of ending or at least halting the weaponization of the Iranian nuclear program, when the Obama administration reached the Iranian Nuclear Deal under the context of the Joint Comprehensive Plan of Action (JCPOA) in 2015. Before the Iranian Nuclear Deal, it is estimated that the breakout time for Iran to have enriched enough uranium to develop a nuclear weapon would have been approximately two to three months. Iran had a stockpile of enriched uranium and nearly 20,000 centrifuges. These quantities would have allowed Iran to produce around 8 to 10 nuclear bombs.⁹⁰ At the same time, Iran also built a robust array of short and medium-range ballistic missiles, some of which could potentially carry a nuclear payload.⁹¹ Therefore, Iran was close to having a developed nuclear program, but because of competing internal interests, it had not chosen to complete nuclear development and test a

⁹⁰ Barack Obama, “The Historic Deal that Will Prevent Iran from Acquiring a Nuclear Weapon,” The White House, <https://obamawhitehouse.archives.gov/issues/foreign-policy/iran-deal>.

⁹¹ Michael Elleman, “Iran’s Ballistic Missile Program,” United States Institute of Peace, https://iranprimer.usip.org/sites/default/files/Nuclear_Elleman_Ballistic%20Missiles.pdf.

nuclear weapon. There is, however, some debate on whether Iran had mastered all the required technologies to build a nuclear weapon.⁹²

The end state proposed by the JCPOA would ensure that Iran reduced its number of centrifuges, reduced its stockpile of enriched uranium, removed the calandria from its heavy water reactor, and give inspectors access to critical nuclear facilities to ensure compliance from Iran. This would allow Iran to keep a lot of its technological expertise and its peaceful nuclear program while increasing the breakout time to over a year if Iran decided to resume weaponizing its nuclear program.⁹³ In return for these nuclear program concessions, the nuclear-related sanctions imposed by the U.S., the European Union, and the UN would be suspended or terminated, allowing for Iran to improve its economy and integrate with the world. This end state was in line with what the Iranian winning coalition of the selectorate wanted at the time. The President of Iran at the time was Hassan Rowhani. He was a former nuclear negotiator and had campaigned against a conservative incumbent on a platform of reform, promoting a “government of prudence and hope and [that his] message is about saving the economy, reviving ethics and interaction with the world.”⁹⁴ He criticized the previous administration’s record on the

⁹² Congressional Research Service, *Iran’s Nuclear Program: Status* (Washington, DC: Library of Congress, updated December 20, 2019, <https://fas.org/sgp/crs/nuke/RL34544.pdf>).

⁹³ Obama, “The Historic Deal that Will Prevent Iran from Acquiring a Nuclear Weapon.”

⁹⁴ Marcus George, “Former Nuclear Negotiator Joins Iran’s Presidential Race,” *Reuters*, April 11, 2013, <https://www.reuters.com/article/us-iran-election/former-nuclear-negotiator-joins-irans-presidential-race-idUSBRE93A0CM20130411>.

economy citing “Inflation is above 30 percent, the reduction of the national currency, unemployment and zero economic growth are among the country’s problems.”⁹⁵ For Rowhani, the ends offered in the JCPOA were ideal. Iran would be able to reintegrate into the world economy and be able to maintain its nuclear technological know-how. The process outlined in the JCPOA was well developed to achieve those ends. It laid out a procedure from finalization to adoption, implementation, transition, and termination that would give Iran essential requirements and mandates that it had to achieve to receive sanctions relief. Once those were completed, there was a process developed to ensure that Iran continued to fulfill its commitments in order to keep receiving the benefits of the relief. Ten years after adoption day, Termination day would terminate UNSCR 2231. This would put an end to the Iranian nuclear issue if Iran did not violate its nuclear-related sanctions inside previous resolutions targeting the Iranian nuclear program.⁹⁶ Violations of which would allow for the other parties to the agreement, such as the U.S., to decertify Iran from being in compliance and reimpose sanctions.

With the change factors identified above, the resistance factors must now be discussed. Since Iran did not currently possess a viable nuclear deterrent, the loss of nuclear deterrence was minimal. This fact, combined with Iran being a mixed regime type accountable to a democratic selectorate, nuclear weapons do little to enhance regime security from an external point of view. This may not have been the case when they were

⁹⁵ George, “Former Nuclear Negotiator Joins Iran’s Presidential Race.”

⁹⁶ Arms Control Association, “The Joint Comprehensive Plan of Action (JCPOA) at a Glance,” last updated May 2018, <https://www.armscontrol.org/factsheets/JCPOA-at-a-glance>.

engulfed in the Iran-Iraq war or during the time of the George W. Bush administration when Iran was included in the ‘axis of evil’ and American forces were stationed in both Iraq and Afghanistan. During the negotiations, there was very little threat of externally induced regime change from the Obama administration. Additionally, there was only a limited domestic political cost for Rowhani to agree to the Iran Nuclear Deal as previously defined. He was elected on a platform of making precisely the type of deal that would allow Iran to rejoin the world of nations and improve the economy. Indeed, it may have been more costly for him not to reach a deal. However, it must be noted in both aspects, the nature of the Iranian regime and the different factions within the winning coalition of the selectorate make nothing cost-free in terms of the Iranian nuclear program.

Because of this fact, many factors pushed Iran towards weaponizing, but during that specific negotiation period, the integrationist forces carried the day. For the purpose of the denuclearization equation, the alternate factions of the Iranian selectorate mitigate both sides of the equation. This is because a strong minority within the selectorate benefits from the nuclear weapons program and sees its removal as costly both externally and internally. The state of the Iranian nuclear program has previously been discussed. It was nearing completion, to include a probable delivery mechanism, but Iran may not have possessed all the required technologies to put it together. Therefore, the equation for the model of Iranian denuclearization achieved under the JCPOA would look something like as follows:

$$\blacktriangle dN = (.6 \times .8 \times .8) > (0.3 \times 0.3 \times 0.6) \text{ or } \blacktriangle dN = .384 > .054$$

This would equate to an overall change in denuclearization of around .33 which would bring the program state down to .27 which equates to a program constrained by denuclearization agreements. It would delay the nuclear program by ten years and greatly diminish the speed at which Iran could achieve a nuclear breakout. However, it did not eliminate the Iranian nuclear program, nor could that have been negotiated with Iran, because of competing domestic audiences that benefit from sanctions and external threats. Additionally, it did not completely achieve the end state desired by the Iranian regime, which would have been achieving actual economic improvement. This is partially because of sanctions from ballistic missile programs and terrorism remaining and because of the newly elected Trump administration wanting a deal that would eliminate the Iranian nuclear program.

Today, all the factors that led to a deal have changed because of the reversal in the policy and the U.S. leaving the JCPOA. Iranian regime vulnerability is probably higher, but the ends and process have been totally misaligned. The cost side of the equation has also been significantly increased, and Iran is working quickly to bring the state of the program back to its original value, raising the price for further nuclear concessions. The lesson here is that the U.S. was able to take advantage of the dissatisfaction of the winning coalition of the selectorate by offering both acceptable ends and process to achieve significant, but not complete results. The U.S. and its European allies did this by providing positive economic inducements via a multinational diplomatic process to achieve results at the right time, an opportune combination of factors that the U.S. may not find again with Iran in the near future.

The Nature of the North Korean Regime and Nuclear Program

North Korea as a political entity, is the Kim Regime. This Kim Regime has always been centered on the ruling Kim. Since 2012, the ruling Kim has been Kim Jong Un. Before him, it was his father, Kim Jong Il, and before him, it was his father, Kim Il Sung. While not technically a hereditary monarchy, the regime as it stands today is built upon the mythology of the *Baekdu* (백두) bloodline. Today, that bloodline officially is comprised of only Kim Jong Un and his sister Kim Yo Jong. A cult of personality surrounds the ruling Kim, and all power inside North Korea originates in and flows from him. Surrounding the ruling Kim are key elites within the party, the military, and the scientific community. The second most powerful entity within North Korea is probably the Organization and Guidance Department. This organization holds the power to promote, demote, and or purge anyone as well as oversee the implementation of the official guidance from the ruling Kim.⁹⁷ If there was an alternate power structure inside North Korea besides the ruling Kim, this would be it, except for the fact that all the senior-most elite positions inside North Korea owe their position to Kim Jong Un, and are fiercely loyal. To cement these loyalties even further, Kim Jong Un routinely has used purges, reeducation, and the reshuffling of those close to him. While some of these bonds are strengthened more so by marital and familial ties, no one has proven to be above exemption from removal with extreme prejudice, as demonstrated by the disgrace and execution of his uncle, Jang Song Taek. This all goes to say that the winning coalition of

⁹⁷ Robert Collins, *North Korea's Organization and Guidance Department: The Control Tower of Human Rights Denial* (Washington, DC: Committee for Human Rights in North Korea, 2019).

the selectorate inside North Korea is whoever the ruling Kim empowers it to be. Exactly who this is has changed over time as the situation has dictated but has been managed carefully and proven to be a much more resilient system than most experts have predicted.

The ramifications of the consolidation of power into a hereditary authoritarian dictatorship with god-like mythology of the cult of Kim have profound impacts upon the nuclear decision and upon North Korea's unique resistance to denuclearization pressures. This can best be summed up by the three epochs or ideologies of the Kims: *Juche* (주체), *Songun* (songun), and *Byungjin* (byungjin). *Juche* is the original ideology created by Kim Il Sung and is roughly translated as self-reliance.⁹⁸ While this concept has morphed from the initial speech given on the topic by Kim Il Sung,⁹⁹ it is still pervasive within North Korean society as a guiding philosophy or at least as guiding propaganda aimed towards the outside onlooker. It is the *Juche* ideal of self-reliance that guides North Korean economic, political, and cultural, or even religious thought. It is the ideology of the cult of Kim and has been a powerful force inside the North Korean narrative. This inward-looking self-reliance is exceptionally resistant to both positive and negative inducements. It allows Kim to maintain a patronage network inside the country that he can divert

⁹⁸ Baek, "North Korea's Hidden Revolution," 4.

⁹⁹ Kim Il Sung, "On eliminating dogmatism and formalism and establishing *Juche* in ideological work," Speech to Party Propagandists and Agitators, December 28, 1955, in *Kim Il Sung: Selected Works*, vol. 1, trans. Victor Barraza (Pyongyang, Korea: Foreign Languages Publishing House, January 1, 1971), 582-606, <https://www.marxists.org/archive/kim-il-sung/1955/12/28.htm>.

resources as he sees fit to maintain his power.¹⁰⁰ *Juche* put the worker and the party first and emphasized the strength of being self-reliant and inward-looking, breaking from the guiding dogma of both the Soviet Union and China for their version of communism.¹⁰¹

This break, however, was more about maintaining internal control and playing its larger neighbors off one another to ensure that it maintained autonomy and was able to extract maximum concessions from both of its would-be patrons. *Juche* as a guiding ideology was pushed to a breaking point after the end of the cold war, the loss of economic aid and subsidies from its northern neighbors, the collapse of the public distribution system, and the death of Kim Il Sung. These circumstances, combined with a particularly bad growing season, led to a horrific famine in North Korea that has become known as the Arduous March. The exact number of North Koreans that died during the Arduous March is debated, but what is known is that there was widespread famine and death, with areas further from Pyeongyang being hit the hardest.

The result of the famine was the implementation of the *Songun* or ‘military-first’ policy in the mid-1990s by Kim Jong Il. With *Songun*, the military replaced the party as the primary entity inside North Korea. At this point, the Korean People’s Army (KPA) was elevated to the point where they received the largest share of economic resources and political power. The KPA was firmly implanted as a critical element of the winning

¹⁰⁰ Beauchamp, “Juche, the state ideology that makes North Koreans revere Kim Jong Un, explained.”

¹⁰¹ Kim Il Sung, “On eliminating dogmatism and formalism and establishing Juche in ideological work.”

coalition of the selectorate and ensured that Kim Jong Il maintained power.¹⁰² It is under these conditions that this paper will examine the first North Korean denuclearization period of which resulted in the 1994 Agreed Framework, a framework that accompanied a domestic political crisis inside the North Korean regime.

The second denuclearization effort of the Six-Party Talks does not accompany such a tumultuous time inside the internal political landscape of North Korea as the mid-1990s and the Arduous March. Instead, this period resulted from a change in U.S. policy, the adoption of President George W. Bush's 'axis of evil' philosophy, and the newfound U.S. doctrine of preemption.¹⁰³

The next real domestic political crisis inside North Korea occurred after the death of Kim Jong Il. Unlike his father, Kim Jong Un did not have a long grooming period for him to consolidate power. The third Kim came to power young, untested, and needing to ensure that he was not held captive to the whim of a winning coalition of the selectorate that chose him, and not the other way around.

Upon assuming power, Kim Jong Un moved to consolidate power and reaffirm the Songun, or military-first, policy by proclaiming that his "first, second, and third" priorities were to strengthen the military.¹⁰⁴ This was a stunt most likely done to shore up

¹⁰² Alexander V. Vorontsov, "North Korea's Military-First Policy: A Curse or a Blessing?" Brookings. May 26, 2006, <https://www.brookings.edu/opinions/north-koreas-military-first-policy-a-curse-or-a-blessing>.

¹⁰³ Bush, "The President's State of the Union Address."

¹⁰⁴ Choe Sang-Hun, "North Korean Leader Stresses Need for Strong Military," *New York Times*, April 15, 2012, <https://www.nytimes.com/2012/04/16/world/asia/kim-jong-un-north-korean-leader-talks-of-military-superiority-in-first-public-speech.html>.

his father's military power base while his legitimacy was still an open-ended question. However, the famine and emergence of involuntary grey market reforms that began to emerge during Kim Jong Il's rule could not be wholly neglected. After the collapse of the public distribution system, a semi-tolerated group of traders and smugglers started to provide for the needs of everyday citizens where the government no longer could. These individuals, many times, did not possess good *Songbun* (성분) or hierarchical social class, but possessed even more wealth than some old party elites. Those in power would take bribes from those with money, and a new power dynamic was created. The market class was not strictly legal, but it was a necessary reform that the leadership at the top has adjusted to and profited from. Under this new reality, Kim Jong Un realized that North Korea could not continue to function with a winning coalition only of the selectorate composed of purely military elites. The fusion system started to emerge in 2013 when Kim Jong Un gave his New Year's Address stating that:

In the same manner as we demonstrated the dignity and might of Songun Korea through the manufacture and launch of the Juche-based application satellite, the entire Party, the whole country and all the people should wage an all-out struggle this year to effect a turnaround in building an economic giant and improving the people's standard of living.¹⁰⁵

Later the same year, during a plenary session of the Party Central Committee, Kim Jong Un affirmed that the new strategic policy of North Korea would be the *Byungjin*, or parallel development. This policy focused on both economic growth and

¹⁰⁵ Kim Jong Un, "New Year Address Made by Kim Jong Un," Press Release, Pyongyang, January 1, 2013, https://www.ncnk.org/sites/default/files/content/resources/publications/KJU_New_Years_2013.pdf.

national defense development, particularly in the nuclear sense.¹⁰⁶ The system was a revision of an older version of Kim Il Sung policy of a “gun in one hand, and a hammer and sickle in the other!”¹⁰⁷ It merged the economic benefits of peaceful nuclear energy and the militarization of the technology. In reality, it was lip service to real economic development, as the country would become the target of increasingly suffocating sanctions, but it did help to propel the scientist and technocrats that would develop the North Korean nuclear and missile programs into the inner circle of the Kim regime.

Another notable development that came out of the March 2013 plenary session of the Party Central Committee was the April 1st Nuclearization Law. The Nuclearization Law declared that North Korea had been driven towards possession of nuclear weapons because of the hostile policies of the U.S. The law laid out the conditions for nuclear use, primarily to repel nuclear-capable invaders, such as the U.S. It stated that North Korea would continue to bolster its nuclear deterrence against hostile aggression and attack. At the same time, it attempted to alleviate some safe keeping concerns and strove to meet international norms of non-proliferation and of promoting a world free of nuclear weapons.¹⁰⁸ This law was used to justify and telegraph the dramatically increased pace of the nuclear and missile program that Kim Jong Un was planning and served as a message

¹⁰⁶ Cheon Seong-Whun, “The Kim Jong-un Regime’s ‘Byungjin’ (Parallel Development) Policy of Economy and Nuclear Weapons and the ‘April 1st Nuclearization Law,’” Korea Institute for National Unification, April 23, 2013, <http://repo.kinu.or.kr/bitstream/2015.oak/2227/1/0001458456.pdf>.

¹⁰⁷ Ibid.

¹⁰⁸ Ibid.

to both internal and external audiences that North Korea was and intended to remain a nuclear power until the world denuclearized.¹⁰⁹

North Korea, under the Kim regime, is one of the most inward-looking countries in the world. Its policy of *Juche* has been a guiding political-economic model of self-determination. The multitude of UN Security Council and U.S. unilateral sanctions against North Korea have only enhanced the countries self-reliance mantra and its ability to mitigate and the effects of sanctions. Today a wide range of sanctions covers almost all possible aspects of the North Korean economy to include luxury goods, coal and oil, arms, nuclear and dual use materials, exports of North Korean labor, and almost anything that North Korea could produce to help provide the regime with hard currency.¹¹⁰ Despite these sanctions, the Kim Regime has been able to manipulate and build a winning coalition of the selectorate that is intertwined with and bound to the regime and the nuclear program itself.

There are, however, cracks in the seams. Information and goods are smuggled across the border, with China giving rise to a quasi-sanctioned merchant class and a generation of everyday North Koreans that consume outside media and dress in foreign fashion.¹¹¹ Despite these influences, the Kim regime has been able to maintain power. In

¹⁰⁹ Cheon Seong-Whun, “The Kim Jong-un Regime’s ‘Byungjin’ (Parallel Development) Policy of Economy and Nuclear Weapons and the ‘April 1st Nuclearization Law.’”

¹¹⁰ Eleanor Albert, “What to Know About Sanctions on North Korea,” Council on Foreign Relations, last updated July 16, 2019, <https://www.cfr.org/backgrounder/what-know-about-sanctions-north-korea>.

¹¹¹ Baek, *North Korea’s Hidden Revolution*.

2017 North Korea was able to demonstrate both that he possessed a thermo-nuclear device and a delivery-mechanism capable of reaching the U.S. With these factors in mind, this analysis must now move forward by examining how these unique circumstances and other more temporal factors have influenced previous denuclearization efforts targeting North Korea.

Why North Korean Denuclearization Efforts Have Failed

This paper now comes to the core of its analysis. This section will utilize the same denuclearization equation to examine past denuclearization failures in North Korea. The remainder of this section will explore the three specific denuclearization efforts as of the Agreed Framework, Six-Party Talks, and Maximum Pressure Campaign.

The 1994 Agreed Framework

The first North Korean nuclear denuclearization effort that this paper will examine is the 1994 Agreed Framework. The backdrop for this policy comes in the wake of a mixture of previous agreements and partial crises. The North Korean regime had become increasingly isolated. It had lost much political and economic support in 1991 from its two primary benefactors and allies, China and the Soviet Union. At the same time, the first Bush administration was pressuring the North Korean regime through a strategy of diplomatic pressure via an international coalition to force the regime into compliance with the IAEA safeguard agreement.¹¹² The North Korean response was to state that they would not accept the restrictions while being threatened with nuclear

¹¹² Oberdorfer, *The Two Koreas*, 256.

weapons by the U.S. in Korea, a line that will come back again and again. However, progress was made in April of 1991. Kim Il Sung declared that the “Korean peninsula should be made a nuclear-free, peace zone.”¹¹³ Later that year, President George Bush unilaterally withdrew all of the U.S. tactical nuclear weapons from the Korean peninsula, a move the Soviet Union reciprocated.¹¹⁴ In January of the following year, peace marched forward between the North and South. The two sides signed the “Joint Declaration of the Denuclearization of the Korean Peninsula,” which was an agreement that laid forth guidelines for future denuclearization efforts and the beginning of a verification process.¹¹⁵ Initially, North Korea was accommodating towards these inspectors, going so far as to present them with a vial of plutonium powder and admitting to having reprocessed about 90 grams of the substance in 1990. What they did not understand was the sophistication of the test that the IAEA possessed and the evidence they would uncover.¹¹⁶ This initial goodwill and accommodation eroded to distrust, stalled progress, and accusations that the IAEA inspectors were working for the CIA. These developments combined with a resumption of the joint U.S.- Republic of Korea military exercise in the spring of 1993, demands of “inspections with teeth,” and a change

¹¹³ Kim Il Sung, “For a free and peaceful new world.”

¹¹⁴ Arms Control Association, “Chronology of U.S.-North Korean Nuclear and Missile Diplomacy.”

¹¹⁵ Republic of Korea – Democratic People’s Republic of Korea, “Joint Declaration of the Denuclearization of the Korean Peninsula,” January 20, 1992, https://peacemaker.un.org/sites/peacemaker.un.org/files/KR%20KP_920120_JointDeclarationDenuclearizationKoreanPeninsula.pdf.

¹¹⁶ Oberdorfer, *The Two Koreas*, 269-271.

of administrations in both the U.S. and South Korea, lead to a complete reversal of policy by North Korea.¹¹⁷ It is under these tenuous circumstances that North Korea announced that it was going to withdraw from the NPT, sparking the nuclear crisis that would lead to the signing of the Agreed Framework.

In the early '90s the North Korean nuclear program was more of an experimental desire than reality. Based on the worse case U.S. intelligence assessments, North Korea had possibly extracted enough plutonium to develop one or two low yield devices; the best case was that they had extracted much less and that they were still a ways off from being able to produce the bomb. The facilities themselves were primitive, but nothing could be known for sure because of North Korean denial and deception techniques.¹¹⁸ The whole spectrum of 'stick and carrot' approach options were considered as possible approaches to force North Korea back into compliance with their obligations under the NPT. These options ran the gamut to include: negative options such as diplomatic and economic sanctions, economic embargos, the use of military force, or a surgical strike; and positive inducements such as security guarantee, trade agreements, canceling planned joint exercises, or other inducements leading to international cooperation. Of these, the policy of negotiation would go forward as the only viable path towards resolving the crisis.¹¹⁹

¹¹⁷ Ibid., 271-280.

¹¹⁸ Oberdorfer, *The Two Koreas*, 269.

¹¹⁹ Ibid., 282.

In the end, it would take multiple rounds of negotiation and a visit to North Korea by former President Jimmy Carter, but the nuclear crisis was resolved, at least temporarily, under the auspices of the 1994 Agreed Framework. North Korea did not at that time depart from the NPT. The agreement reiterated the objectives of previous diplomatic accords and laid out concrete actions that each side would take to resolve the nuclear issue. The main items of the deal were that both sides would coordinate to replace the DPRK's graphite reactors with LWR, that the U.S. and the 'consortium' that it represents will offset the energy lost by the DPRK keeping its reactors idle prior to the completion of the new LWR, that the DPRK would freeze its graphite-moderated reactors upon receipt of the U.S.' assurances for the provision of the LWR and energy aid, that the DPRK will eventually dismantle its legacy reactors, that the two sides would work "towards full normalization of political and economic relations," and that "both sides will work together for peace and security on a nuclear-free Korean Peninsula."¹²⁰ In addition to these explicit benefits and conditions, the Kim regime also received additional intangible benefits as well, such as, direct negotiations between Pyongyang and Washington as well as a diplomatic visit by former President Carter to North Korea.

By the time President Carter visited North Korea, the nuclear defueling crisis was in full swing. Military options were being examined. UN Sanctions on North Korea were imminent. IAEA inspectors were about to be forced out of the country. North Korea had been abandoned by its allies in the UN Security Council, and the ordinary citizens of

¹²⁰ United States of America and the Democratic People's Republic of Korea, "Agreed Framework," Geneva, October 21, 1994.

North Korea were in the beginning phase of the Arduous March.¹²¹ This was June 1994, Kim Il Sung would die one month later, but still, the proposed bargain struck between him, and Carter would go forward as the Agreed Framework.

With the facts as laid out above, the need for change was evident. When the Agreed Framework was first proposed and then formalized, there was an acute crisis inside North Korea. Regime vulnerability was higher than it had been in decades; the Kim regime could no longer sustain the party and the people via the Public Distribution System. The country was no longer the economic and food aid it was heavily dependent upon. The U.S. military had recently proven itself in Operation Desert Storm.¹²² The world that had sustained North Korea was looking increasingly different and hostile, both externally and internally. The end state for Kim Il Sung was agreeable. At least at that time, he was less concerned about a nuclear weapons program when the North Korean political and economic systems were nearing a full internal crisis. The Soviet Union had collapsed, and China was undergoing market liberalization. Indeed, when Kim Il Sung was first presented with the possibility of obtaining LWR for abandoning the reprocessing program, he stated:

This is a good idea. We can definitely accept it if the U.S. really makes a firm commitment that we can trust . . . What would be the point of making one or two nuclear weapons when [the U.S.] have ten thousand plus delivery systems that we don't have. We would be a laughingstock. We want nuclear power for electricity.¹²³

¹²¹ Oberdorfer, *The Two Koreas*, 316-328.

¹²² Oberdorfer, *The Two Koreas*, 316-328.

¹²³ *Ibid.*, 322.

The process, however, would be a sticking point. What both the U.S. and North Korea lacked in each other was trust. Almost from the start, the two were hedging their bets against one another breaking with their end of the deal. Both parties of the agreement were still feeling each other out, and when it came down to implementation, they were slow to act. The progress on the LWR was very much behind schedule. U.S. Trading with the Enemy sanctions remained in place on North Korea. North Korea, while initially in compliance with the letter of the Agreed Framework, continued to develop its ballistic missile delivery systems, which was an oversight missing from the original agreement. By the time of the dissolution of the framework, North Korea admitted to having a clandestine uranium enrichment program..¹²⁴

Despite a flawed process, the agreement was able to freeze a large portion of the North Korean nuclear program and prevented it from amassing even more nuclear weapons than it does have today. This was accomplished by the crisis, and the model presented above overcoming the resistance factors in the denuclearization equation. The program state was in its infancy but had possibly yielded enough fissile material for a couple of nuclear devices. North Korea realized that giving up such a nascent nuclear program would have little external deterrence cost. The internal domestic cost variable is speculative but stems from the opportunity cost of trading away the program. North Korea is notorious for using provocations and programs as a way of extorting concessions. If the Kim Regime gave away its leverage at the time, when its internal political system was in crisis, it would need to receive something of considerable value.

¹²⁴ Cha and Kang, *Nuclear North Korea*, 136 -138.

Therefore, to assign values into the equation, the Agreed Framework would look like this:

$$\blacktriangle dN = (.8 \times .9 \times .2) > (.2 \times .7 \times .4) \text{ or } \blacktriangle dN = .144 > .056$$

The result would be a .088 or around a 9 percent change in denuclearization. When examined against the facts of history, this amount seems about right. North Korea did freeze its program but did not dismantle its program. It containerized its spent fuel rods from Yongbyon but did not ship them out of the country. It slowed its nuclear program but advanced its delivery systems capabilities. The lack of trust in the process derailed any meaningful progress on the North Korean denuclearization issue under the Agreed Framework.

How then should the U.S. strategic ways be characterized towards North Korea leading up to and through the implementation of the Agreed Framework? As mentioned previously, there was consensus that a diplomatic approach needed to go forward; however, it was not just diplomacy without any implications. This initial engagement was filled with both positive and negative inducements during a time of crisis for North Korea. It provided negative inducements via threats of impending sanctions and a possible military buildup or intervention and positive incentives in terms of economic assistance, peaceful nuclear development, and a plan to normalize relations between North Korea and the U.S. The Agreed Framework was achieved using a coercive diplomatic approach. After the agreement, the U.S. and the international community were supposed to engage in robust engagement, but due to a lack of trust, the agreement took on a posture of more hesitant engagement. This stance led to the next North Korean nuclear crisis and the genesis of the Six-Party Talks.

The Six-Party Talks

The Agreed Framework collapsed in 2002. The hopes of the Clinton administration working with North Korea to achieve real progress was gone. The world was undergoing immense change once again. After the 9/11 attack on the homeland, the Bush administration adopted a policy of doctrine of preemptive war. During the 2002 State of the Union Address, President Bush declared North Korea as part of the axis of evil, and that it had armed with missiles and weapons of mass destruction.¹²⁵ North Korea had indeed progressed in both its missile and nuclear programs. They had tested multiple No Dong short-range ballistic missiles (SRBM) and conducted a satellite launch using the Taepo Dong-1.¹²⁶ After being confronted with evidence from the U.S.’ intelligence community, North Korea allegedly admitted to having a clandestine uranium enrichment program. This revelation sparked it to announce its withdrawal from the NPT, eject IAEA inspectors from the country, restart the Yongbyon nuclear reactor and begin reprocessing the spent fuel rods that had been containerized under the Agreed Framework. As of 2002, the Central Intelligence Agency estimated that North Korea had produced enough plutonium for one or two nuclear weapons.¹²⁷

¹²⁵ Bush, “The President’s State of the Union Address.”

¹²⁶ Missile Defense Project, “Taepodong-1,” Missile Threat, Center for Strategic and International Studies, August 9, 2016, last modified January 22, 2019, <https://missilethreat.csis.org/missile/taepodong-1/>.

¹²⁷ Arms Control Association, “Chronology of U.S.-North Korea Nuclear and Missile Diplomacy.”

If the failure of the Agreed Framework stemmed from a problem with a flawed implementation process, The Six-Party Talks were designed to be the best means to achieve implementation.¹²⁸ Throughout the entirety of the Six-Party Talks, the process stayed constant and agreed upon. However, the desired model for the ends was more contentious between the DPRK and the U.S. The U.S. wanted Complete Verifiable Irreversible Denuclearization to include North Korea's peaceful nuclear program. This inclusion of peaceful nuclear energy production was a point of contention between the two. The DPRK believed that they had the right to peaceful nuclear energy use.¹²⁹

Under the Six-Party Talks, the strategic ways designed to achieve denuclearization shifted from the earlier policy of robust engagement to a form of 'hawk-engagement' that was supported by Washington hardliners, such as then Under Secretary of State for Arms Control, John Bolton.¹³⁰ The strategic messaging was clear to the world. North Korea was a member of the 'axis of evil,' Kim Jong Il was a tyrant, and while his people were starving the regime was working towards arming itself with weapons of mass destruction.¹³¹ These actions by North Korea were something, that in

¹²⁸ Kwak Tae-Hwan, "Resolving the North Korean Nuclear Issue Through the Six-Party Process: A Creative Formula," *The Journal of East Asian Affairs* 20, no. 1 (2006): 1-25. Accessed April 25, 2020, www.jstor.org/stable/23258243.

¹²⁹ Kwak Tae-Hwan, "Resolving the North Korean Nuclear Issue Through the Six-Party Process."

¹³⁰ John Bolton, "Beyond the Axis of Evil: Additional Threats from Weapons of Mass Destruction," The Heritage Foundation, May 6, 2002, <https://www.heritage.org/defense/report/beyond-the-axis-evil-additional-threats-weapons-mass-destruction-0>.

¹³¹ Bush, "The President's State of the Union Address."

the era of the Global War on Terror, that the U.S. would ensure it took “whatever steps necessary to protect and defend our interest and eliminate the terrorist threat.”¹³² The preferred way of dealing with the nuclear issue was through “strengthened nonproliferation efforts to prevent rogue states and terrorists from acquiring the materials, technology, and expertise necessary for weapons of mass destruction.”¹³³ However, because the threat posed by these weapons had become too great, and inaction too risky, the U.S. would use military force, and “if necessary, act preemptively.”¹³⁴ It is this new doctrine of preemption, the same philosophy that forced the Complete Verifiable Irreversible Denuclearization model in Libya that would prompt an acute crisis of confidence in of vulnerability in the Kim regime. This crisis would spin the North Koreans into action and lead to Six-Party Talks.

Why then did this crisis in regime vulnerability and the accompanying process of the Six-Party Talks not only fail to achieve denuclearization but lead to a change in the other direction, with North Korea detonating a nuclear device in 2006? At the end of the Agreed Framework period, the state of the nuclear program was not much more advanced. North Korea had not yet, developed a viable nuclear weapon, but it did possess the ambiguity of possibly possessing one, which in of itself produced a level of deterrence. That level was, however, no longer sufficient to reduce regime vulnerability

¹³² Bolton, “Beyond the Axis of Evil.”

¹³³ U.S. President, *The National Security Strategy of the United States of America* (Washington, DC: The White House, September 2002), <https://history.defense.gov/Portals/70/Documents/nss/nss2002.pdf?ver=2014-06-25-121337-027>.

¹³⁴ Ibid.

to a manageable level. They needed to prove to the world they had a real nuclear deterrence, a lesson they learned after the U.S. preemptive war in Iraq.

The justification for this change can be deduced by a careful examination of the history of the U.S. – North Korean nuclear diplomacy and developments.¹³⁵ Those insights can be applied to the nuclearization formula in reverse. Under the Agreed Framework, North Korea only conducted missile program provocations, which were not included in the agreement. These were designed for two purposes, one to advance their program, but more importantly, they were launched to exact the concessions of positive inducements that were being delayed under the Agreed Framework. They did possess a clandestine uranium enrichment program, but it was clandestine, and something they had no desire or need to do away until it was publicly outed. If anything, it was a concession they could use to fall back on later.

However, once the Bush administration took a hard-liner hawk approach to North Korea, and particularly after it messaged a possibility of regime change, it caused a crisis in the Kim regime. Instead of that crisis leading to denuclearization, it sparked the exact opposite effect. The change occurred because the Kim regime saw the best way to reduce their regime vulnerability was not through the model of Complete Verifiable Irreversible Denuclearization as proposed by the U.S., but instead was to prove they had an actual nuclear deterrence. The process of the Six-Party Talks was the perfect venue for this because it facilitated regular engagement that would temporarily reduce regime vulnerability from externally induced regime change while giving time for North Korea

¹³⁵ Arms Control Association, “Chronology of U.S.-North Korea Nuclear and Missile Diplomacy.”

to acquire the bomb. The reason that North Korea chose to increase nuclearization versus decrease nuclearization comes from the nature of their predicament. In this alternate approach to the problem, North Korea had a more acceptable strategic ends to work towards, significantly increasing the change factors side of the equation.

The cost side of the equation was also more favorable for achieving nuclear deterrence over complying with Complete Verifiable Irreversible Denuclearization. The U.S. was pre-empting states from arming themselves with WMD but was busy with Afghanistan and Iraq at the time, so it was not likely to start a war with North Korea immediately. On the contrary, completely denuclearizing would have lowered the deterrence value of the ambiguity that the program provided. In terms of domestic political cost, it would have been perceived as far more costly for North Korea to trade away its nuclear program under the winning coalition of the ‘military-first’ era. An issue occurred however, when the regime did not successfully perceive all the cost of their actions, such as in the actions that the U.S. Treasury Department took against Banco Delta Asia in September 2005 for their role in facilitating North Korea’s illicit financing. While this action was tied to North Korea’s counterfeiting efforts of producing ‘supernotes’ it seriously complicated the Six-Party Talks and increased regime vulnerability via the dissatisfaction of the winning coalition variable.¹³⁶ The regime had built up mitigation measures to navigate around its pariah status, but this was a severe blow towards its finances.

¹³⁶ Dina Temple-Raston and Harvey Rishikof, “The Department of the Treasury: Brogues on the Ground,” in *The National Security Enterprise: Navigating the Labyrinth*, 2nd ed., eds. Roger Z. George and Harvey Rishikof (Washington, DC: Georgetown University Press, 2017), 162-184.

Instead of leading to denuclearization change, each time the international community applied more pressure via diplomatic pressure and economic sanctions, the North reacted with further provocations either through threats, nuclear admissions, missile testing, or finally proving nuclear deterrence through testing. The reason is simple; increased pressure resulted in increased regime vulnerability. When faced with high levels of regime vulnerability, a regime will take steps to lower it. In this case, the Kim regime took the path that was most consistent with their strategic ends that posed the least amount of cost.

There was some oscillating by North Korea between increasing deterrence and reducing acute regime vulnerability. One example of this is the international response to the first North Korean nuclear test. The UN Security Council passed Resolution 1718, sanctioning military equipment, WMD program items, and luxury goods.¹³⁷ North Korea responded by returning to the table to reduce immediate tensions and regime vulnerability temporarily. However, the overall strategic ways and ends that North Korea pursued was the route of enhancing nuclear deterrence in order to be able to bolster regime security against preemptive aggression, while simultaneously trying to elicit concession in terms of economic inducements. Just like the concept that “today’s carrots are tomorrow’s most effective sticks,”¹³⁸ the same can be said in reverse. Today’s nuclear test can be tomorrow’s most effective concession.

¹³⁷ United Nations Security Council, “Resolution 1718.”

¹³⁸ Cha and Kang, *Nuclear North Korea*, 90.

All in all, there were six rounds of Six-Party Talks spanning from 2003 to 2009. During which time, North Korea was able to demonstrate that it possessed a workable nuclear device. The regime was able to resolve the Banco Delta Asia issue and have the sanctions removed from the Trading with the Enemy Act. In return, North Korea had shut down the reactor at Yongbyon and agreed to IAEA inspections. However, it also declared that it had already weaponized its fissile material and that it could not be inspected.¹³⁹ Verification and sampling became highly contentious and resulted in a further breakdown of talks.¹⁴⁰ This breakdown likely occurred because of the history that the sophistication of IAEA testing, and what it had revealed in the past. Also, there is the distinct possibility that North Korea never had any intention of dismantling its existing nuclear arsenal, at least not until the U.S. acceded to all its preconditions first, and maybe not even then.

The Six-Party Talks died shortly thereafter. North Korea launched a Taepo Dong-2 rocket under the auspices of its civilian space program and declared they would no longer participate in the Six-Party Talks.¹⁴¹ One month later, North Korea conducted its second nuclear test. This led to further condemnation from the international community and the passage of UNSCR 1874, “expressing the gravest of concern at the nuclear test conducted by the DPRK.”¹⁴² This milestone can be seen as the shift in the U.S.’ strategic

¹³⁹ Arms Control Association, “The Six-Party Talks at a Glance,” accessed September 29, 2019, <https://www.armscontrol.org/factsheets/6partytalks>.

¹⁴⁰ Arms Control Association, “The Six-Party Talks at a Glance.”

¹⁴¹ Ibid.

¹⁴² United Nations Security Council, “Resolution 1874,” United Nations, June 12, 2009, <http://unscr.com/en/resolutions/doc/1874>.

approach in dealing with the North Korean misbehavior. The time for engagement had ended, now was the time for strategic patience, a policy that promoted the use of “multiple means to increase their isolation and bring them into compliance with international nonproliferation norms.”¹⁴³

The Maximum Pressure Campaign

Strategic patience did not produce the desired results. One reason that it failed is that unlike other successful denuclearization efforts, it did not create a crisis of regime vulnerability. Instead, it used the slow boil of isolation, an environment that North Korea was increasingly becoming adept at surviving in. By the time that President Trump was elected, the U.S. Director of National Intelligence proclaimed that nuclear weapons were North Korea’s “ticket to survival” and that “the notion of getting the North Koreans to denuclearize is probably a lost cause.”¹⁴⁴

Kim Jong Un adoption of the *Byungjin* policy drastically accelerated the pace of development and testing of North Korean nuclear and missile programs. North Korea has conducted its fifth nuclear test and proclaimed it possessed the hydrogen bomb. At the same time, they were also parading untested ICBM in Pyongyang and developing a

¹⁴³ U.S. President, *The National Security Strategy*.

¹⁴⁴ Rick Gladstone, “North Korea Giving Up Nuclear Arms ‘a Lost Cause,’ Official Says,” *New York Times*, October 25, 2016, <https://www.nytimes.com/2016/10/26/world/asia/north-korea-james-clapper.html>.

nuclear deterrence survivability prototype by adding a submarine launchable capability to its repertoire of asymmetric capabilities.¹⁴⁵

Despite then-candidate Trump's initial offer to sit down with and have a dialogue with Kim Jong Un, a vastly different policy would mark the first few years of his administration. The U.S. initiated a campaign of "maximum pressure on the North Korean regime [that] has resulted in the toughest-ever sanctions. [The U.S.] united our allies in an unprecedented effort to isolate North Korea."¹⁴⁶ This campaign was designed to "compel Pyongyang to cease its provocative actions and return to sincere and constructive talks."¹⁴⁷ President Trump "urged all UN member states to swiftly and fully implement UNSCR obligations and took note, with appreciation, of constructive actions ... to exert diplomatic and economic pressure on the DPRK to return to credible negotiations on denuclearization," noting "the important role China could play to this end."¹⁴⁸

As the Kim Regime raced to acquire a nuclear deterrent that could hold the continental U.S. hostage, the Trump administration ratchet up pressure on the rogue

¹⁴⁵ Arms Control Association, "Chronology of U.S.-North Korea Nuclear and Missile Diplomacy."

¹⁴⁶ Trump, "Remarks by President Trump on the Administration's National Security Strategy."

¹⁴⁷ United States-Republic of Korea, "Joint Statement between the United States and the Republic of Korea," The White House, June 30, 2017, <https://www.whitehouse.gov/briefings-statements/joint-statement-united-states-republic-korea/>.

¹⁴⁸ Ibid.

nation to abandon their nuclear program. This pressure did not stay in only the diplomatic and economic realms, as suggested above. There was an overbearing military element involved, along with the unknown variable of what President Trump would do. President Trump's actions evoked the 'madman theory' of international relations in international relations. No one knew exactly how far he would go to pursue denuclearization, going so far as to tell "Rex Tillerson, our wonderful Secretary of State, that he is wasting his time trying to negotiate with Little Rocket Man...Save your energy Rex, we'll do what needs to be done!"¹⁴⁹ This approach accomplished its goal. It dramatically increased Kim Jong Un's perception of regime vulnerability, both internally and domestically, but also just like the doctrine of preemption. It also ensured that Kim Jong Un would make sure he had a deterrent that could impact the U.S.' homeland and not just his neighbors to the south. The testing only stopped once he achieved his goal. No further testing was necessary. It was now time to work on lowering regime vulnerability through a process of manageable denuclearization efforts that have come to be known as the 'charm offensive' and culminating the spectacular presidential summit in Singapore in June 2018.

Despite all the positive outpouring that this time may be different, it was not. The notion that North Korea would hand over its nuclear weapons program ushering in an era of FFVD has failed to materialize as of the time of this writing. Once again, the world finds itself in remarkably familiar territory. The negotiations stalled out in Hanoi almost a

¹⁴⁹ Tim Naftali, "The Problem With Trump's Madman Theory: It didn't work for Nixon. It's even less likely to work now," *The Atlantic*, October 4, 2017, <https://www.theatlantic.com/international/archive/2017/10/madman-theory-trump-north-korea/542055/>.

year after the first summit because neither side wanted to move first. North Korea demanded sanctions relief before progressing beyond the initial self-imposed moratorium on nuclear and long-range missile testing. Hard-liners in the National Security apparatus, most notably then-National Security Advisor John Bolton, favored more of a Libya style approach to denuclearization,¹⁵⁰ a process that once started would swiftly disarm the Kim regime without it being able to stop the process once its regime vulnerability was no longer unbearable.

In danger of writing a post-mortem about a policy that is still national policy, this paper will attempt to examine why it has failed just like all other previous U.S. led denuclearization efforts toward North Korea have. The maximum pressure campaign probably produced a higher level of regime vulnerability than any of the earlier policies towards North Korea. There were many indicators in the rhetoric that war or a surgical strike to forcefully neutralize the program or induce regime change were imminent. The method of using a high-level summit was also favorable to get all parties moving forward was probably a suitable venue. However, this is where the positive aspects to push the Kim regime to denuclearize end.

The resistance factors to FFVD were almost insurmountable. The program state was complete for all intents and purposes. The lack of a proven reentry capability is a risky gamble for an administration pursuing a military option. Handing over the delivery mechanism or weapon program would have extracted a high cost in terms of external

¹⁵⁰ John Bolton, interview, *Face the Nation*, April 29, 2018, https://www.realclearpolitics.com/video/2018/04/29/john_bolton_north_korea_will_go_by_libya_2004_model_of_denuclearization.html.

threat deterrence, a deterrence that by this time was deemed as existential to the Kim regime. They had studied the lessons of history and watched as how one by one each time a nation fully denuclearized; they had paid dearly in horrific and graphic ways. One can look at the examples of Libya, Iraq, Ukraine, and Iran to see that security guarantees once extracted in denuclearization negotiations do not always stand the test of history. Because of the *Byungjin* policy now more than ever before, there was also high domestic political cost toward denuclearization. The winning coalition of the selectorate had shifted from the party and the military to the scientist and technocrats that enabled the development of the nuclear program. The model presented by the U.S. left the future of many of these individuals uncertain at best. Denuclearization at that time would be a hard pill for North Korea to swallow and would need to be coated with ice cream and sugar before swallowing, not after.

Kim Jong Un was working under a different premise for the strategic end state of North Korean denuclearization. North Korea had already enshrined its nuclear power status in its constitution..¹⁵¹ A ‘freeze for freeze’ end state is the model that Kim Jong Un envisioned..¹⁵² He raced to achieve his deterrence and then immediately started trying to ramp down pressure, unilaterally, with his moratorium on nuclear and missile tests and

¹⁵¹ Jeong Sung-jo, “Contents of the Revision of the North Korean Socialist Constitution,” *Yonhap News Agency*, July 11, 2019. <https://www.yna.co.kr/view/AKR20190711134500504>.

¹⁵² Tarun Chhabra, “A slushy ‘freeze-for-freeze’: The deal China and North Korea always wanted,” *Brookings*, June 12, 2018, <https://www.brookings.edu/blog/order-from-chaos/2018/06/12/a-slushy-freeze-for-freeze-the-deal-china-and-north-korea-always-wanted/>.

the dismantling of key test sites.¹⁵³ Despite the U.S.’ official position of demanding FFVD, the ‘freeze for freeze’ deal is more close to what was actualized in Singapore.¹⁵⁴ With this alternate model being *de facto fait accompli*, Kim Jong Un accomplished the intermediate goal of reducing regime vulnerability to an acceptable level.

The maximum pressure campaign was still ongoing in name only. Diplomacy was to be given space to work, and the pressure was off. In 2018 the U.S. was “waging a campaign of maximum pressure to prevent . . . North Korea’s reckless pursuit of nuclear missiles”¹⁵⁵ from threatening the homeland. In 2019, after the Singapore summit and before Hanoi, President Trump championed a new policy in his State of the Union

Address:

As part of a bold new diplomacy, we continue our historic push for peace on the Korean Peninsula. Our hostages have come home, nuclear testing has stopped, and there has not been a missile launch in 15 months. If I had not been elected President of the United States, we would right now, in my opinion, be in a major war with North Korea with potentially millions of people killed. Much work

¹⁵³ Soyoung Kim and Cynthia Kim, “North Korea says will stop nuclear tests, scrap test site,” *Reuters*, April 20, 2018, <https://www.reuters.com/article/us-northkorea-missiles/north-korea-says-will-stop-nuclear-tests-scrap-test-site-idUSKBN1HR37J>.

¹⁵⁴ Michael Crowley and David E. Sanger, “In New Talks, U.S. May Settle for a Nuclear Freeze by North Korea,” *New York Times*, June 30, 2019, <https://www.nytimes.com/2019/06/30/world/asia/trump-kim-north-korea-negotiations.html>.

¹⁵⁵ Donald J. Trump, “President Donald J. Trump’s State of the Union Address,” The White House, January 30, 2018, <https://www.whitehouse.gov/briefings-statements/president-donald-j-trumps-state-union-address/>.

remains to be done, but my relationship with Kim Jong Un is a good one. And Chairman Kim and I will meet again on February 27 and 28 in Vietnam.¹⁵⁶

The meeting in Vietnam did happen. Both sides blamed each other for demanding too much too soon, and the talks stalled.¹⁵⁷ North Korea has since pronounced that it is no longer bound by its testing moratorium and that Kim Jong Un would give the U.S. a ‘Christmas present’ that could only be more testing.¹⁵⁸ Christmas 2019 came and went, and there was no present, but also there was no additional pressure on North Korea. President Trump’s State of the Union Address in 2020 did not even mention North Korea.¹⁵⁹ As threats were flying from Kim Jong Un, President Trump remarked that “We’ll see what happens, maybe it’s a nice present. Maybe it’s a present where he sends me a beautiful vase as opposed to a missile test.”¹⁶⁰

The Kim regime was no longer in crisis. There was no real threat of externally induced regime change. However, the lack of results in relieving economic sanctions was

¹⁵⁶ Donald J. Trump, “President Donald J. Trump’s State of the Union Address,” The White House, February 5, 2019, <https://www.whitehouse.gov/briefings-statements/president-donald-j-trumps-state-union-address-2/>.

¹⁵⁷ Edward Wong, “Trump’s Talks With Kim Jong-un Collapse, and Both Sides Point Fingers,” *New York Times*, February 28, 2019, <https://www.nytimes.com/2019/02/28/world/asia/trump-kim-vietnam-summit.html>.

¹⁵⁸ Choe Sang-Hun, “What Kim Jong-un’s Latest Threats Say About His Trump Strategy,” *New York Times*, January 1, 2020, <https://www.nytimes.com/2020/01/01/world/asia/north-korea-kim-trump.html>.

¹⁵⁹ Donald J. Trump, “Remarks by President Trump in State of the Union Address,” February 4, 2020, <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-state-union-address-3/>.

¹⁶⁰ Kevin Breuninger, “Trump jokes that North Korea’s ‘Christmas Gift’ may be a ‘beautiful vase,’ not a missile test,” *CNBC*, December 24, 2019, <https://www.cnbc.com/2019/12/24/trump-north-koreas-christmas-gift-may-be-vase-not-missile-test.html>.

beginning to become costly domestically. Therefore Kim Jong Un acted belligerently by firing numerous short-range ballistic missiles into the East Sea to help appease domestic audiences without violating the freeze for freeze. The Kim regime demonstrated it clearly understood the Trump administration's redlines. If North Korea violated them, it would undoubtedly increase regime vulnerability once again.

The failure of the Maximum Pressure Campaign has two primary reasons. The first is that the U.S. and North Korea had different end states they were working towards. The second reason is that diplomatic engagement and the freeze for freeze lowered regime vulnerability to an acceptable level for Kim Jong Un. Without the crisis of regime vulnerability, the resistance to change factors of a developed nuclear program, and the cost to external deterrence, and domestic politics were all too high to overcome. Had the U.S. offered the Kim Regime different more acceptable ends before reducing regime vulnerability it is possible that more could have been achieved.

Table 3. Denuclearization Cases

Denuclearization Equation Formula												
Instance	Change Factors						Resistance Factors				▲dN	New PS
	RV			E	P	CF	LD	PC	PS	RF		
	ETP	RSD	RV									
Libya	1	0.8	0.9	0.9	0.9	0.729	0.1	0.2	0.5	0.01	0.719	-0.219
Ukraine	0.8	0.8	0.8	1	0.5	0.4	0.2	0.5	0.7	0.07	0.33	0.37
Iran	0.4	0.8	0.6	0.8	0.8	0.384	0.3	0.3	0.6	0.054	0.33	0.27
Agreed Framework	0.7	0.9	0.8	0.9	0.2	0.144	0.2	0.7	0.4	0.056	0.088	0.312
Six Party (US Ends)	0.9	0.5	0.7	0.2	0.5	0.07	0.75	0.7	0.5	0.2625	-0.1925	0.6925
Maximum Pressure	1	0.7	0.85	0.4	0.3	0.102	0.9	0.8	0.9	0.648	-0.546	1.446
Preemptive Engagement	0.25	0.8	0.525	1	0.75	0.3938	0.1	0.5	0.9	0.045	0.34875	0.55125

Source: Created by author.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Hypothetical Approaches

The Risks

Any theoretical approach to neutralize the threat posed by North Korea's nuclear weapons program has a myriad of complex challenges to overcome. To start, the risks involved with any strategic ways must not exacerbate the situation further. Therefore in our hypothetical strategic ways, there will not be any proposals for using military force to overthrow the regime or any other action that is likely to induce the very act that this paper is trying to negate, the Kim regime using a nuclear weapon. Surgical strikes to decapitate the regime also fall into this category because, as the recent episode demonstrates, where Kim Jong Un was 'missing' for a period during April 2020, there are simply too many intelligence gaps to suggest that as a strategic way.¹⁶¹ Along the same line of thinking, there would also be many anticipated and unanticipated risks associated with inducing regime collapse as a strategic way to include possible nuclear use or proliferation. Without having perfect knowledge of the North Korean nuclear program, it is hard to know for sure where and exactly how many nuclear warheads are present in North Korea. Unless the U.S. can account for whereabouts of all the nuclear material of concern and ensure nonproliferation and prevent the use of any of the nuclear warheads, the strategic ways available to be employed are severely restricted. The

¹⁶¹ Choe Sang-Hun, "Kim Jong-un's Absence and North Korea's Silence Keep Rumor Mill Churning," *New York Times*, April 26, 2020, <https://www.nytimes.com/2020/04/26/world/asia/kim-jong-un-absence-north-korea.html>.

constraints imposed by strategic risks forces diplomacy as a key instrument of national power in dealing with the North Korean nuclear issue. Depending on the strategic ends that the U.S. wants to pursue, there are different strategic ways that could be used to increase the chance to achieve the desired change in denuclearization.

The Ends

The possible strategic ends for denuclearization span the spectrum of acceptability to the Kim regime, with the most acceptable ends being something along the lines a freeze for freeze approach. Less acceptable ends or models to North Korea are isolation, deterrence, FFVD, and denuclearization through force. The more in line with an acceptable outcome, the higher possibility that the Kim regime will accept it and facilitate the changes. There are variations on all these ends and can include different positive aspects as well.

In the case of an ideal freeze for freeze ends, North Korea abides by a testing moratorium, shuts its known nuclear program facilities, and retains its already developed nuclear weapons. In this end state, they may even accede to handing over some of their nuclear weapons but retains enough to maintain a credible nuclear deterrence to externally induced regime change. This model would include keeping its human capital in nuclear scientists, continuing research into and further developing the use of nuclear power for peaceful purposes. In this model, the U.S. could also provide funding for the development of the long-desired LWR. In return for these concessions of a freeze, the Kim regime would expect to see positive inducements to include the normalization of diplomatic relations, the removal of economic sanctions, and at a minimum, a freeze of hostile military actions, such as U.S.- Republic of Korea military

exercises. Depending on the specifics and details included in a freeze for freeze ends, this end state has an acceptability factor of around .85. The only end state more acceptable would be the unilateral withdrawal of the U.S. from the peninsula, normalization of diplomatic and economic ties, North Korea retaining its complete nuclear program, and the reunification of Korea under the Kim regime.

Keeping North Korea isolated and deterred from military action is an end that the U.S. could use to reduce the speed of nuclear and missile program development and prevent North Korea from using or proliferating nuclear devices. However, this end does not achieve any real level of denuclearization. Instead, just like history has shown, during times of less robust diplomatic and economic engagement, North Korea is likely to react to enhanced regime vulnerability by increasing nuclearization instead of denuclearizing. During times of non-crisis, this end works towards reducing the immediate threat from North Korea; however, if unanticipated events, such as famine or the untimely passing of Kim Jong Un without a designated successor, creates a crisis in regime vulnerability it is likely that North Korea will act by increasing provocations. During which there is always a distinct risk of a nuclear miscalculation.

A less than acceptable model or ends for North Korea is something along the lines of FFVD. Under this strategic ends, North Korea would hand over its entire nuclear program, including its nuclear warheads, and clandestine enrichment facilities. Under these ends, North Korea would completely forfeit its deterrence to externally induced regime change and lose its only bargaining chip to elicit future concessions. These costs towards denuclearization would seriously impede any progress towards denuclearization under this model, without some other factor pushing denuclearization along more acutely,

such as extreme regime vulnerability, and a process to help mitigate the cost along the way, such as by reducing the perceived cost to deterrence and domestic politics by removal of sanction and signing a formal peace treaty before denuclearization change occurs. To achieve FFVD, the process variable will be increasingly important. FFVD as an end state, is generally unacceptable to the Kim regime and has a factor of around .25.

There is one model that is even less acceptable to the regime than FFVD. This end is regime change or regime collapse and carries an acceptability factor of 0. Under this model, the Kim regime ceases to be the ruling government of North Korea, and the new government either willingly denuclearizes, or the U.S. forcibly removes the nuclear weapons. Because dictators that undergo regime change have a high probability of not surviving, the Kim regime wants to avoid this fate at all cost, and while not an ends that will be explored further due to the risks involved, the possibility that the U.S. could pursue this as an alternative end for denuclearization makes the FFVD end state slightly more agreeable to Kim Jong Un.

Of all the possible strategic end states that can be imagined, there really are only two viable end states when risks are considered. The U.S. can pursue FFVD, and the complete denuclearization of North Korea or the U.S. can accept a freeze of the North Korean nuclear program. FFVD has the benefit of being a final solution for the North Korean nuclear program. It eliminates the North Korean nuclear threat; however, it has the downside in being generally unacceptable to North Korea, and its acceptance comes at a high cost to the Kim regime. Accepting a freeze of the North Korean nuclear program, on the other hand, is much more acceptable and less costly to the Kim regime. The negative to using this end state is that it leaves North Korea in possession of a

considerable nuclear arsenal that does not require any further testing, to begin with. It also requires that the U.S. give positive inducements to a rogue regime without achieving its overall objective of attaining complete North Korean denuclearization. However, a freeze for freeze agreement could go a long way in establishing trust-building measures between the U.S. and North Korea and could become a transitional or intermediate strategic end along the path towards future denuclearization.

The Ways

Diplomatic engagement is one of the ways that the U.S. will have to deal with the North Korean nuclear issue. Regardless of whatever other ways are used to ensure that diplomatic efforts are successful, diplomacy will be an aspect of their strategic ways. Within diplomacy, there are multiple ways that the U.S. can approach the North. The U.S. could engage in hawkish diplomacy, robust engagement, strategic patience, or maximum pressure. The ways can be accomplished either unilaterally, bilaterally, or multilaterally. Economic, information, and military instruments of national power are all available to support the implementation.

No matter the instrument of power or the strategic way adopted, the approach must work by either increasing the change factors or lowering the resistance factors towards denuclearization. On the change side of the equation, this can be accomplished by either increasing regime vulnerability, offering a more acceptable model, or implementing the perfect process. The end state determines the model, and the process is a function of means; therefore, for ways, the primary variable that can be influenced is regime vulnerability. In order to enact the maximum change, the U.S. would need to induce a crisis of regime vulnerability. Theoretically, the larger the crisis, the more

change that can be accomplished. This can be done via either increasing external threat perception, the dissatisfaction of the real selectorate, or preferably both. The regime perception of threat to externally induced regime change can be accomplished by telegraphing an impending regime change or issuing an ultimatum or possibly by conducting a noncombatant evacuation operation of U.S. citizens from the Korean peninsula. Increasing dissatisfaction of the winning coalition of the selectorate can be accomplished targeting the winning coalition of the selectorate via one or many of the instruments of national power or by working to change who the winning coalition of the selectorate is. The latter of which has the potential over the long term as the information blockade on North Korea ebbs, but is not feasible or actionable in the short term. An approach designed to maximize a crisis regime vulnerability would be something along the lines of the Maximum Pressure Campaign. The risks of which are to achieve the maximum results the North Korean regime needs to be taken as close to the edge as possible to be able to overcome the significant resistance factors. A crisis of this magnitude risks regime collapse, miscalculations on all sides, and possibly a renewal of war on the Korean peninsula. Additionally, without either an acceptable end-state or a process to ensure denuclearization before a reduction of crisis, the cost of the loss of external deterrence would be almost insurmountable to overcome.

The other way that the U.S. could elicit denuclearization change is by lowering the resistance factors towards denuclearization. This can be accomplished by lowering the perception of the cost of the loss of nuclear deterrence, a reduction of the domestic political cost, or reversing the program state. To reduce the perceived loss of nuclear deterrence, the U.S. would need to alleviate the Kim regime's security concerns. This

could include actions such as signing a peace treaty or non-aggression pact with North Korea, a suspension of Republic of Korea -U.S. military exercises, a reduction of troops in South Korea, or other such actions to message a conciliatory stance. The domestic political cost can be alleviated to a degree through positive inducements such as sanctions relief, restoration of diplomatic and economic ties, trade investments, providing energy or food aid, or other trust-building measures. However, for both variables, the U.S. would have to take action before any real change occurred for the resistance factors to decrease from their current level. The nuclear program state would, at first glance, appear to be either fixed or continually increasing, but that is not true. For instance, with the Ukraine example, the initial deal did not achieve immediate denuclearization, but it did lower the program state, which in turn facilitated continued denuclearization. Therefore, an iterative approach could help promote further denuclearization in North Korea as well. The best way for the U.S. to achieve a reduction in the resistance side of the equation is a policy of robust, almost unconditional engagement. During periods of robust engagement, North Korea made less progress on its nuclear program and committed fewer provocations than during times of hawk engagement or maximum pressure, which is probably because as engagement increases, regime vulnerability tends to decrease. This is a double-edged sword. A lack of a crisis in regime vulnerability tends to promote stagnation, with no change towards nuclearization or denuclearization. It lowers the immediate threat but does not force the change necessary to continue denuclearization.

A Way Forward

The crux of the problem for achieving denuclearization of North Korea is that by inducing a crisis increases the resistance factors and that lowering tensions via

engagement reduces regime vulnerability. Both sides of the equation are working against the other to sabotage any possible effort. Because of this phenomenon, the only workable combination would be a hybrid alternating approach with an iterative end. The combination of the Maximum Pressure Campaign and ensuring Charm Offensive produced a tentative freeze for freeze end state. North Korea is no longer under a true free for freeze, but is instead adjusting to the stalled state by producing a change in the other direction, but it does prove that the Maximum Pressure Campaign produced a crisis that could have been able to achieve a level of denuclearization equal to a freeze for freeze approach. To understand how to proceed, the variables need to be examined as to where they rest today. Regime vulnerability is probably around .5 because it sees little possibility of externally induced regime change (.2) but is under crippling economic sanctions (.8). This lowered regime vulnerability is why North Korea is only testing shorter-range ballistic missiles and staying away from making any sweeping program changes. The program state remains at .9 because of the lack of a demonstrated reentry vehicle capability.

A potentially workable solution would preemptive engagement strategy. The initial ends for this would be the freeze of the North Korean nuclear and missile programs, with a long-term goal of the eventual denuclearization of the Korean peninsula. In return for this freeze, the U.S. should preemptively enact all necessary efforts to normalize relationships with North Korea to include a formal peace treaty and the removal of all sanctions except for those tied directly to the furtherment of the nuclear program. These positive inducements should go in effect immediately but should be conditioned to automatically expire if North Korea does not make similar concessions tied to specific

time markers. This engagement strategy is similar to the framework that almost worked under the JCPOA with Iran but was decertified under the Trump administration.

This strategic way is most likely to achieve the immediate goal of reducing the threat posed by the North Korean nuclear problem. It would also work by reducing regime vulnerability and by slowly integrating the North Korean economy with the global economy. One of the primary reasons that North Korea has been able to resist sanctions in the first place has been its inward-looking political-economic model of *Juche* and the subsequent military first model of *Songun*. If diplomacy and economic relations are normalized, it will allow the Kim regime to resume rewarding members of the winning coalition with the spoils of this victory. The Kaesong Industrial Facility and other joint ventures could be reopened, transferring wealth, commerce, and information across the border. It is not likely that North Korea would adopt a liberal market economy immediately, but Kim Jong Un does indeed want to develop the economy of the country. It is in the U.S.' and the worlds' interest to facilitate that development and start reintegrating North Korea into the world of nations. This would help develop economic, diplomatic, and information ties to the world that would begin to moderate North Korea's behavior, especially if they understand that crossing a red line and instigating a provocation could immediately cause a resumption of sanctions.

A critic of this approach can say that it has been tried and failed under the Agreed Framework and the Sunshine Policy era. A counter to that argument is that preemptive engagement has never really been tried, and even under the Agreed Framework, the U.S. was slow to deliver on many of its promises, such as providing the LWR or even normalizing economic or diplomatic relationships. The goal must be to counter the

narrative that has kept North Korea in isolation for so long. Instead of hesitating to act, the U.S. should over-deliver on its promises and engagement posture with North Korea. Once this has been accomplished, and North Korea becomes used to a new normal, the U.S. can then leverage all the carrots that it had provided to North Korea and use them to ensure that the North continues to abide by its commitments towards denuclearization.

The risks associated with preemptive engagement are minimal, but still, need to be addressed. The most obvious risk is that North Korea will cheat on, rollback its commitments, or escalate to provocations as it had done in the past when it was confronted with a crisis. This strategy mitigates those risks by working to alleviate regime vulnerability and thus removing the need for North Korea to further its nuclear program or make provocations to gain concessions. Provocations would not be necessary as it will already be receiving any benefits it could have hoped to extract internationally. The second risk is that North Korea will use its new economic capital and reduced sanctions to speed up the development of its nuclear and weapons program. While it is true this would increase the legitimacy of the Kim regime and his power and stability internally, North Korea is unlikely to conduct the necessary and overt testing that is required to advance the program when it is receiving so many benefits from not. Even today, North Korea has shown restraint from any long-range missile or nuclear testing that could derail the diplomatic deterrence they achieved from the Charm Offensive. Another risk of this strategy is that it may help prevent North Korea from any potential future collapse that experts have repeatedly been predicting. However, these predictions have also repeatedly proven false. Also, despite the horrific brutality of the Kim regime, regime collapse would potentially carry more risks than a heavily engaged and

increasingly dependent North Korean state. The last risk that will be discussed is the action of the rewarding of a long history of bad behavior by the Kim regime with overwhelming positive inducements would set a bad precedent. That such a precedent would reinforce similar actions by other states and could lead to further proliferation and the eventual acceptance of North Korea as a nuclear state. This is a real risk, but there are also few states that could have endured the history of punishing international sanctions, diplomatic isolation, and military pressure the way that North Korea has. The international community has already extracted a pound of flesh from the North, and it is unlikely that many will want to follow in their footsteps to achieve a nuclear deterrence.

There are no perfect solutions to the North Korean nuclear problem, but a strategy of preemptive engagement carries a possibility of success and at least diminishes the tension and, therefore, the threat caused by the North Korean nuclear problem. If the only acceptable end state is FFVD, then preemptive engagement still holds the best prospect for success without the extreme risks involved with a brinkmanship approach coming as close to war as possible. This works by first reducing the resistance factors side of the equation, the cost of the loss of deterrence, the domestic political cost for action, and reducing the program state. After the cost side of the equation is significantly diminished, the timed phased nature of requiring North Korea to meet certain milestones by specific deadlines would heighten regime vulnerability if they did not comply. As the winning coalition of the selectorate becomes accustomed to the benefits they are receiving under the preemptive engagement strategy, any actions to derail the benefits will become more costly domestically, increasing the dissatisfaction of the selectorate variable if the Kim regime does not continue on the path. By ensuring that each phase of compliance is an

acceptable intermediate end state, it increases the chance that North Korea will continue down the path of engagement and not return to alternate end state to achieve the desired results. After a time the program state variable will continue to diminish as will the other cost as the U.S. and North Korea continue to engage in trust-building measures, while the possible dissatisfaction of the winning coalition of the selectorate ensures that reforms continue.

Recommended Further Study

The concept of preemptive engagement as defined above is not a complete strategy that could be implemented today without further refinement. It covers only the basic ways, ends, and risks associated with that strategic approach. It does not cover the means and the process by which it could be implemented. Further study on the best means and how to structure an implementation process to ensure results should be accomplished before moving forward with a new policy on North Korean denuclearization.

The theoretical concept of the denuclearization equation was adequate for making basic assumptions about the causation of denuclearization change, but also can be used with modifications to understand what leads to increased nuclearization as well. Further study is needed to continue to test the variables identified in the equation and determine via a more comprehensive analysis of nuclear change to see if it continues to hold true. Additionally, refinement in the linkage between the different variables needs to be further examined to determine how, when one variable is acted upon, what effect it has on the other variables. This is required in order to fully understand the tension between crisis

and cost and determine if there is a way to induce crisis, while simultaneously lowering cost.

Lastly, this study was conducted over a short period of time with limited resources and only one researcher. A more extensive study over a longer period with additional analysts should be devoted to fully develop the theoretical underpinnings and implication derived from further study and use of the denuclearization equation.

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