

THE POSSIBILITY OF NORTH KOREAN DENUCLEARIZATION: USING PMESII  
SYSTEM ANALYSIS TO DETERMINE THE CONDITIONS NORTH KOREA  
WOULD AGREE TO DENUCLEARIZE

A thesis presented to the Faculty of the U.S. Army  
Command and General Staff College in partial  
fulfillment of the requirements for the  
degree

MASTER OF MILITARY ART AND SCIENCE  
General Studies

by

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2020

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<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved</i> <i>OMB No. 0704-0188</i>		
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<b>1. REPORT DATE (DD-MM-YYYY)</b> 12-06-2020		<b>2. REPORT TYPE</b> Master's Thesis		<b>3. DATES COVERED (From - To)</b> AUG 2019 – JUN 2020	
<b>4. TITLE AND SUBTITLE</b>  The Possibility of North Korean Denuclearization: Using PMESII System Analysis to Determine the Conditions North Korea Would Agree to Denuclearize			<b>5a. CONTRACT NUMBER</b>		
			<b>5b. GRANT NUMBER</b>		
			<b>5c. PROGRAM ELEMENT NUMBER</b>		
<b>6. AUTHOR(S)</b>  Major Sarah E. Naletelich			<b>5d. PROJECT NUMBER</b>		
			<b>5e. TASK NUMBER</b>		
			<b>5f. WORK UNIT NUMBER</b>		
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> U.S. Army Command and General Staff College ATTN: ATZL-SWD-GD Fort Leavenworth, KS 66027-2301			<b>8. PERFORMING ORG REPORT NUMBER</b>		
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b>			<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b>		
			<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>		
<b>12. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for Public Release; Distribution is Unlimited					
<b>13. SUPPLEMENTARY NOTES</b>					
<b>14. ABSTRACT</b> The 2016 United States National Security Strategy defines North Korea a “rogue actor” with the nuclear capability to reach South Korea, Japan, and the United States from coast to coast. Past negotiations have been unsuccessful in understanding the necessary conditions, for North Korea to denuclearize. This paper seeks to understand the conditions that North Korea would be more likely to agree to denuclearize through examining what previously enticed North Korea to conduct nuclear negotiations with the United States, the power or influence North Korea gains from nuclear capability as well as the PMESII factors that led North Korea to pursue nuclear weapons in the first place. This thesis uses qualitative research methods to include content analysis, case studies, and comparative analysis. Through case studies the thesis will study why countries in the past conceded their nuclear capability and the terms involved. Using comparative analysis, the study will seek to understand the unique challenges to North Korean denuclearization.					
<b>15. SUBJECT TERMS</b> North Korea, denuclearization, PMESII					
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b>	<b>18. NUMBER OF PAGES</b>	<b>19a. NAME OF RESPONSIBLE PERSON</b>
<b>a. REPORT</b> (U)	<b>b. ABSTRACT</b> (U)	<b>c. THIS PAGE</b> (U)			<b>19b. PHONE NUMBER (include area code)</b>
			(U)	119	

MASTER OF MILITARY ART AND SCIENCE

THESIS APPROVAL PAGE

Name of Candidate: Sarah E. Nalatelich

Thesis Title: The Possibility of North Korean Denuclearization: Using PMESII System Analysis to Determine the Conditions North Korea Would Agree to Denuclearize

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

**Due to COVID-19 restrictions, original signatures for committee chair and members were unavailable.**

## ABSTRACT

THE POSSIBILITY OF NORTH KOREAN DENUCLEARIZATION: USING PMESII SYSTEM ANALYSIS TO DETERMINE THE CONDITIONS NORTH KOREA WOULD AGREE TO DENUCLEARIZE, by Major E. Sarah Naletelich, 119 pages.

The 2016 United States National Security Strategy defines North Korea a “rogue actor” with the nuclear capability to reach South Korea, Japan, and the United States from coast to coast. Past negotiations have been unsuccessful in understanding the necessary conditions, for North Korea to denuclearize. This paper seeks to understand the conditions that North Korea would be more likely to agree to denuclearize through examining what previously enticed North Korea to conduct nuclear negotiations with the United States, the power or influence North Korea gains from nuclear capability as well as the PMESII factors that led North Korea to pursue nuclear weapons in the first place. This thesis uses qualitative research methods to include content analysis, case studies, and comparative analysis. Through case studies the thesis will study why countries in the past conceded their nuclear capability and the terms involved. Using comparative analysis, the study will seek to understand the unique challenges to North Korean denuclearization.

## ACKNOWLEDGMENTS

First I would like to thank my husband David for his support and understanding throughout this year. Next I would like to thank my chair Dr. David A. Anderson for his patience and guidance throughout this process. To my readers, Mr. Peter S. Im and Mr. David W. Christie, thank you for always having your office door open to talk about North Korea and the possibility of denuclearization. I am incredibly grateful for the excellent committee members I have had and their assistance throughout this process.

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## ACRONYMS

DPRK	Democratic People’s Republic of Korea
IAEA	International Atomic Energy Agency
KEDO	Korean Peninsula Energy Development Organization
LWR	Light Water Reactor
NPT	Non-proliferation Treaty
PMESII	Political Military Economic Information Infrastructure
ROK	Republic of Korea

## CHAPTER 1

### INTRODUCTION

The 2016 *National Security Strategy of the United States* describes North Korea as a “rogue actor” in the international community, with the nuclear capability to strike Japan, South Korea, and the U.S. from Coast to Coast, posing a significant security risk to the region, and international community.<sup>1</sup> North Korea’s military decision making affects not only the countries at risk for attack, but also border countries, Russia and China.<sup>2</sup> However, Six- Party talks, inter-Korean dialogues, and U.S bilateral negotiations have been ineffective in the denuclearization of North Korea.<sup>3</sup> The United States maintains a significant presence on the Korean Peninsula to deter North Korean military action.

In 1953, the Korean War did not end with a peace treaty, but an armistice. The armistice established a demilitarized zone (DMZ) on the 38th parallel, drawing a line between North Korea and South Korea.<sup>4</sup> The DMZ remains one of the most heavily fortified borders in the world.<sup>5</sup> The U.S. military still maintains a presence on the peninsula, with around 28,000 troops stationed in South Korea and routinely conducts combined exercises with the South Korean military, such as Key Resolve Foal Eagle and Ulchi-Freedom Guardian.<sup>6</sup> The U.S. military spends a considerable amount of manpower and resources on deterring North Korean military action, both conventional and unconventional. This is further evidence that North Korean denuclearization negotiations should be a major priority for U.S. policy makers. Fortunately, U.S-North Korean bilateral talks have resumed. Key to successfully negotiations with North Korea is understanding why they want to negotiate, and what could entice them to an agreement.

The North Korean leader, Kim Jong Un has been more open to dialogue with the west during his reign than his predecessor and Father Kim Jong-Il. Kim Jong Un could be more open to western influence due to his western education, he went to school in Switzerland while he was a teenager.<sup>7</sup> President Trump met with North Korea's President along the demilitarized zone the end of June 2019, becoming the first sitting president to cross the armistice line. However, after the symbolic meeting, months later there is no concrete progress between the U.S. and North Korea reaching a negotiation on the potential denuclearization of North Korea. Instead North Korean officials gave the U.S. an ultimatum, stating that the Americans have until the end of the year to make a genuine offer that would result in the lifting of the sanctions.<sup>8</sup> That time has come and gone with no definitive outcome on either side. Key to making a genuine offer in negotiations is understanding what North Korea desires in return. A topic that will be addressed throughout this paper, and crucial to answering the primary research question, Under what conditions would North Korea agree to denuclearize?

Another indicator of the changing domestic conditions in North Korea is the black market. Recently, the North Korean black market has become legitimized and more prevalent in North Korea, although the trade and profits are mainly confined to the elite.<sup>9</sup> The black markets, or jangmadang were formed to fill the void in the food supply during the famine in the 1990s and very heavily regulated.<sup>10</sup> According to a 2019 survey 90 percent of North Korean household expenditures now take place in the black markets.<sup>11</sup> Kim Jong Un, unlike his father has reduced the regulations on black markets and developed a state-sponsored black market.<sup>12</sup>

North Korea has recently opened several tourist attractions to boost their economy and attract foreign visitors, a far cry from the usual description as the “hermit kingdom.”<sup>13</sup> Lonely Travel has a long list of North Korean tourist attractions to visit to include: the Tower of Juche Idea, International Friendship Exhibition, Mansudae Grand Monument, and Mount Paektu.<sup>14</sup> However, the death of American tourist Otto Warmbier in 2017 has repelled western tourists and tourism is mainly confined to Chinese visitors.<sup>15</sup> NK news reported that North Korea made up to 175 million dollars in additional revenue in 2019 through to Chinese tourism.<sup>16</sup> The regime announced in December the creation of a company to develop medical tourism for foreign visitors specializing in hot spring spas, and state-run hospitals.<sup>17</sup> Analysts believe that North Korea is seeking tourism as a means to boost the economy through gaining hard foreign currency.<sup>18</sup> Tourism is exempt from sanctions, and helps to emphasize the North Korean “self-reliant economy.”<sup>19</sup> Through successful tourism North Korea demonstrates that even with sanctions they have the capability and capacity to build resorts as well as hard foreign currency.<sup>20</sup> President Trump attempted to appeal to Kim Jung Un’s economic ambition after their meeting and mentioned the potential for hotels and condos along the North Korean Beaches.<sup>21</sup> Economic rewards and support could yield a successful negotiation of terms.

In addition to the recent changes in the North Korean domestic environment the international environment has changed with regards to nuclear development. Several nations have successfully denuclearized due to U.S. persuasion through economic support and security guarantees to include Libya, South Korea, and South Africa, which will be reviewed in Chapter 4 as part of case study analysis.<sup>22</sup>

What are the conditions that North Korea would agree to denuclearize? This study is significant to the military profession, security professionals, and other scholars because it reviews the motivations and intentions of North Korea's nuclear capability and examines the possibility that North Korea would never denuclearize. The topic will attempt to fill a gap in the scholarly literature through examining nuclear theory, motivations for nations to develop their nuclear program, what decisions nations make to pursue and maintain nuclear weapons capabilities, why nations concede their nuclear capability, the pattern of negotiations between the U.S. and North Korea, and compare decisions of North Korea to pursue and maintain nuclear weapons capabilities to other nuclear nations. The next portion of chapter one will frame the rest of the paper through identifying assumptions, definitions, the limitations to this paper, biases, and what the researcher hopes to contribute to the field of study.

The primary research question of this study is: Under what conditions would North Korea be more likely to agree to denuclearize? Secondary questions are: What power or influence does North Korea gain from nuclear capability? Historically, what enticed North Korea to conduct nuclear negotiations with the United States? What are the factors that led North Korea to pursue nuclear weapons? Why have countries in the past conceded their nuclear capability and under what terms if any? and What may influence North Korea to begin negotiating their denuclearization?

### Assumptions and Definitions

A key assumption for this paper is that the U.S. and international community will not accept a nuclear North Korea, due to the threat of its capability to strike the United States, Japan, and Korea. In the 2017 U.S. National Security Strategy (NSS), the

President defines rogue regimes as, regimes “that violate the principles of free and civilized states.”<sup>23</sup> The NSS further describes North Korea, “North Korea is ruled as a ruthless dictatorship without regard for human dignity. For more than 25 years, it has pursued nuclear weapons and ballistic missiles in defiance of every commitment it has made. Today, these missiles and weapons threaten the United States and our allies.”<sup>24</sup>

### Limitations

A limitation of this paper is the use of classified information to understand decision making of North Korea leadership to predict future decisions. Another constraint is the access to political figures to determine the current U.S. strategy and how it fits into long term strategy to denuclearize North Korea. This study does not have access to attend negotiations and formulate an opinion on how they went. Instead the researcher must rely on journalists and press releases to report on the meetings. Furthermore, the study does not have access to past leaders of North Korea and U.S. policy makers to discuss their decision making in the past and what drove them to negotiate. The researcher can gain access to public records and books written by previous policy makers.

This paper will not cover other countries’ involvement in negotiations. The researcher did not have the necessary time in this study to allocate towards analyzing the motivations of other key players in the region to include China, Russia, South Korea, and Japan. This study will also not cover the possibility of reunification of the Korean Peninsula, due to many second and third order effects which would have to occur to include negotiations, humanitarian missions, and economic repair.

## Contribution to the Field of Study

The purpose of this paper is to understand the motivations of the development of the North Korea nuclear program and seek to understand the circumstances that North Korea would agree to denuclearize. The study aims to do this through conducting, content analysis, case study analysis and comparative analysis using political, military, economic, social, information infrastructure (PMESII) framework, as defined in Joint Publications 2-01.3, 3-0, and 5-0.<sup>25</sup>

The study will examine other nations who have conceded their nuclear capability and compare them to North Korea to understand the factors which led their leaders to believe that nuclear weapons no longer were necessary. Through comparative analysis the study hopes to reveal how policy makers can assist in creating a negotiation environment conducive to denuclearization and understands the necessary incentives to sway North Korea into believing denuclearization is in their best interest. The study will research nuclear theory, North Korean culture, past North Korean nuclear negotiations, nations that decided to gain a nuclear capability, and nations that have successfully denuclearized through a wide range of sources covered in Chapter 2, the literature review.

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<sup>1</sup> U.S. President, *National Security Strategy of the United States of America* (Washington, DC: The White House, December 2017).

<sup>2</sup> Samuel S. Kim, and Tai Hwan Lee, eds., *North Korea and Northeast Asia* (Lanham, MD: Rowman & Littlefield Publishers, Inc., 2002), 5.

<sup>3</sup> Arms Control Association, “Chronology of U.S. North Korean Nuclear and Missile Diplomacy,” accessed April 29, <https://www.armscontrol.org/factsheets/dprkchron>.

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<sup>4</sup> Kim and Lee, *North Korea and Northeast Asia*, 5.

<sup>5</sup> Ibid.

<sup>6</sup> Reuters, “Factbox; U.S. and South Korea’s Security Arrangement, Cost of Troops,” November 12, 2019, accessed May 3, 2020, <https://www.reuters.com/article/us-southkorea-usa-military-factbox/factbox-u-s-and-south-koreas-security-arrangement-cost-of-troops-idUSKBN1XN09I>.

<sup>7</sup> Anna Fifield, *The Great Successor: The Divinely Perfect Destiny of Brilliant Comrade Kim Jong Un* (New York: Public Affairs, 2019), 6.

<sup>8</sup> Lara Jakes and Edward Wong, “Efforts to Denuclearize North Korea will Continue Despite Hard-line Minister, U.S. Says.” *The New York Times*, January 22, 2020, accessed February 16, 2020, <https://www.nytimes.com/2020/01/22/world/asia/north-korea-trump-foreign-minister.html?auth=login-google>.

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<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

<sup>13</sup> The Associated Press, “North Korea Opens New Mountain Resort Amid Tourism Drive,” *Los Angeles Times*, December 8, 2019, accessed February 19, 2020, <https://www.latimes.com/world-nation/story/2019-12-08/north-korea-mountain-resort-tourism-drive>.

<sup>14</sup> Lonely Planet Online, “North Korea Attractions,” accessed May 3, 2020, <https://www.lonelyplanet.com/north-korea>.

<sup>15</sup> Michael Goldstein, “Growing North Korean Tourism Knocked Out by Covid-19,” *Forbes*, April 8, 2020, accessed May 2, 2020, <https://www.forbes.com/sites/michaelgoldstein/2020/04/08/north-korean-tourism-the-real-victim-of-covid-19/#4a4728a116d3>.

<sup>16</sup> Chad O’Carroll, “How a massive influx of Chinese visitors is Changing North Korean Tourism,” *NK News*, November 2019, accessed May 3, 2020, <https://www.nknews.org/2019/11/how-a-massive-influx-of-chinese-visitors-is-changing-north-korean-tourism/>.

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<sup>17</sup> The Associated Press, “North Korea Opens New Mountain Resort Amid Tourism Drive.”

<sup>18</sup> Choe Sang-Hun, “North Korea Touts new Resort, Seeking to Blunt U.N. Sanctions.” *The New York Times*, December 3, 2019, accessed February 19, 2020, <https://www.nytimes.com/2019/12/03/world/asia/north-korea-resorts-sanctions.html>.

<sup>19</sup> Ibid.

<sup>20</sup> Ibid.

<sup>21</sup> Pat Ralph, “Trump applauds North Korea’s great beaches, says they would be a perfect location for condos and hotels,” *Business Insider*, June 2018, accessed February 19, 2020, <https://www.businessinsider.com/trump-says-north-korea-beaches-great-place-for-hotels-condos-2018-6>.

<sup>22</sup> Kim Tong-Hyung, “Denuclearization Successes Around the World,” *AP News*, April 23, 2018, accessed February 19, 2020, <https://apnews.com/2c7ad528e4b64a01807b61ddb3c9c8a2/Denuclearization-successes-around-the-world>.

<sup>23</sup> U.S. President, *National Security Strategy of the United States of America*,

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<sup>25</sup> Joint Chiefs of Staff (JCS), Joint Publication (JP) 2-01.3, *Joint Intelligence Preparation of the Operational Environment* (Washington, DC: JCS, May 21, 2014), I-1; Joint Chiefs of Staff (JCS), Joint Publication (JP) 3-0, *Joint Operations* (Washington, DC: JCS, October 22, 2018), IV-3; Joint Chiefs of Staff (JCS), Joint Publication (JP) 5-0, *Joint Planning* (Washington, DC: JCS, June 16, 2017), IV-11.

## CHAPTER 2

### LITERATURE REVIEW

The purpose of this research is to identify the conditions that North Korea would agree to denuclearize to understand failures of past negotiations and shape the way for creating conditions which would lead to denuclearization. The review is organized broad to specific literature, related to North Korea's nuclear weapons. First, reviewing literature regarding nuclear warfare concepts and theory to gain an understanding of the nuclear military revolution. Then research addressing why nations develop nuclear capability and what entices them to concede the capability. Next, a review of literature specific to North Korean culture, and nuclear negotiations and motivations to understand how culture effects North Korean decision making and the pattern of past negotiations. Finally, literature which reviews the decision making of countries who pursue nuclear weapons and then decide to denuclearize to compare to North Korea.

First reviewed is literature on nuclear logic and strategy. This is essential as a foundation for understanding nuclear strategy to then apply to U.S. and North Korean nuclear relations. In Thomas Schelling's book, *Arms and Influence*, the author stressed the importance of understanding the principles that underlie the diplomacy of violence. Schelling evaluated the way nations use their military capability for bargaining power, specifically nuclear weapons for negotiations, and how it shapes nation's diplomatic actions. This book provided definitions to nuclear theory to include deterrence, and compellence to use throughout the study. He defines deterrence in the introduction as "preventing or discouraging from acting by means of fear, doubt or the like," and compellence as "threatening action that is intended not to forestall some adversarial

action but to bring about some desired action through fear of consequences.”<sup>1</sup>

Deterrence involves consequences if an adversary crosses a line, while compellence is compelling an adversary to act. Key in conducting compellence is having a deadline that gives enough time to comply, but not too much when unnecessary.<sup>2</sup> An example of compellence would be if the United States messaged to North Korea that if the regime didn't stop their nuclear development at Yongbyon by August 2021 the United States would enact economic sanctions. Schelling notes in his book the need to understand the enemy in order to effectively bargain so that the offer is a solution which is preferable to the penalty.<sup>3</sup> The key finding from this concept is the need to understand the proper bargaining strategy to dissuade North Korea from further nuclear development.

Schelling further asserts that with nuclear weapons a military force can inflict violence without the prerequisite of achieving victory, thus changing the dynamics of warfare.<sup>4</sup> A force does not need to win in armed conflict to produce mass casualties with nuclear weapons, but can skip that previously necessary step all together. He raises another important concept in nuclear warfare, communication. He states, “The most important measures of arms control are undoubtedly those that limit, contain, and terminate military engagement.”<sup>5</sup> He explained the necessity through several examples to include the generation of a Soviet-American hotline to ensure in the event of a crisis there was a feedback process to avoid nuclear war.<sup>6</sup> This book provided definitions to nuclear theory, and a realization of the need to understand the enemy and communicate in order to bargain for a desired end state.

According to Evan Jones, Herman Kahn's book *On Thermonuclear War*, was the first to make sense of nuclear weapons. His book is a core foundational book for

understanding nuclear strategy and definitions. Kahn conducts analysis on the four typical postures of nuclear strategy: finite deterrence, counterforce as insurance, pre-attack mobilization base, and credible first strike capability examining it from the perspective of U.S. and Soviet Union points of view.<sup>7</sup> Finite deterrence is described as wanting enough in the nuclear arsenal to conduct punishing retaliation but does not want any more strategic capability than just that.<sup>8</sup> The concern is that if Russia strikes first the U.S. would strike with a damaged force and be at a disadvantage. Those who support finite deterrence would like a mixed force to cover all contingencies and discover countermeasures.<sup>9</sup>

Counterforce as insurance includes having an active counterforce that can destroy or damage the enemy on the ground as well as an active and passive defense systems. Many finite deterrence supporters find counterforces destabilizing and a useless diversion of forces. However, they are willing to insure against unreliability, or that deterrence may fail due to miscalculation or human irrationality.<sup>10</sup> Preattack mobilization base is defined as having a complete spectrum of adequate military capabilities, advance planning, and physical preparations.<sup>11</sup> Credible first strike capability is defined as being willing to accept the other side's blow and depends on the destruction the initiator can do, not on the harm of the retaliatory blow.<sup>12</sup> Kahn asserted that it is hard for most people to believe that any nation would wage a thermonuclear war against an opponent capable of retaliation, but some military planners oppose conducting limited war against provocations.<sup>13</sup> Kahn's work assists in understanding the diversity of deterrence strategies available for diplomatic efforts.

*From Cold War to Long War* by Austin Long: Lessons from Six Decades of Rand Research examines lessons from the Cold War to 2008 of deterrence as a U.S. Strategy, theoretical basics of deterrence, why deterrence was the adopted strategy for the Cold War, and ways to make deterrence effective in the modern day. The author provides a comparison of definitions and theory from core foundational authors to include Schelling and Kahn. Long provides in depth analysis to competing nuclear theory and definitions as well as understanding of previous U.S. policy during the Cold War to attempt to deter the USSR. He provided insight to the necessity of reassurance, and the importance of knowing the difference between a threat and a warning.

The book arranges deterrence challenges into three large categories: peer or near peer competitor, regional power, and a significant nonstate actor. Peer or near peer competitors are competitors that seek to challenge U.S. interests.<sup>14</sup> A regional power is a competitor that can harm U.S. interests in their region.<sup>15</sup> A significant nonstate actors is a group with the capability to hurt the U.S. or its allies globally or regionally.<sup>16</sup> Long claims that these definitions help frame policy understanding for dealing with the three different categories in deterrence strategy.

Long reviews theoretical basics of deterrence through examining the definitions of deterrence from Schelling, Kahn, and Kaufman.<sup>17</sup> The takeaway from examining Schelling's analysis was the importance of reassurance to deterrence, and the difference between a warning and a threat. Schelling believes that without credible reassurance there is no deterrence, and pivotal is the security dilemma. The security dilemma is the situation when one party takes action to increase security but in turn it makes another party feel vulnerable.<sup>18</sup> A warning conveys the deterrer's true interest and a threat

communicates the deterrer's commitment to a position that was not clearly true or an inherent interest. Looking at Cold War history Schelling believed the U.S.'s intent declaration to retaliate for an attack on U.S. soil was not a threat but a warning.<sup>19</sup> A threat was required to communicate extended nuclear deterrence beyond U.S. soil, for example that the U.S would attack Moscow if Berlin was attacked.<sup>20</sup>

As a result of examining Kahn's nuclear theory, Long realized the amount of fear involved in deterrence, and asserts that deterrence is thought, calculation, as well as an element of emotion, residing in the mind of the individual. From Kaufman the book drew the two elements of deterrence: the credible capability to harm and the credible intent to carry out harm.<sup>21</sup>

Then the book reviews the deterrence strategy of the U.S. during the Cold war against the USSR. Long claims that deterrence based on nuclear weapons was chosen due to resource constraints. The U.S. invested in a small force, the Strategic Air Command, and a conventional force in Europe instead of causing societal changes such as enacting the draft.<sup>22</sup> Through the U.S. continuing to develop the nuclear program the USSR reacted and spent a disproportionate amount of resources on the Soviet Air Defense. Long claims this strategy as, "virtual attrition in which the response to a threat reduced overall enemy capabilities by spreading resources thin."<sup>23</sup> He described this strategy as dependent on competition based on status quo during peacetime through deterrence.<sup>24</sup> Essentially the USSR and the U.S. were conducting an arms race with the U.S. focusing mainly on nuclear capability, and the USSR spending resources on how to combat U.S. threats. This is relevant to the study because North Korea is spending the bulk of its

military defense budget on nuclear capability vice a conventional military force, similar to the U.S. during the Cold War.<sup>25</sup>

Finally, the book reviews how to effectively employ deterrence in the modern day. Long reviewed the situation in North Korea and identified the issue with deterring North Korea as the ability for the U.S. to communicate its actions are to deter and nothing more.<sup>26</sup> If the U.S. conducts exercises on the peninsula to deter and does not effectively reassure North Korean leadership on intentions, the regime might attack out of paranoia and miscalculation. Long states that, “the general problem of effective deterrence without excessive provocation is the crux of the security dilemma.”<sup>27</sup>

Written in 1985 during the Cold War, Honore M. Catudal’s book *Nuclear Deterrence-Does It Deter?* examines the effectiveness of deterrence with relation to the Soviet Union. He sought to answer two questions in his book, (1) What are the basic assumptions underlying deterrence theory, (2) Can we rely on national decision-makers armed with nuclear weapons to action in a rational (utility maximizing) way?<sup>28</sup> He concluded that there is a growing body of evidence that suggests that nuclear deterrence does not deter-at least not as U.S. policy makers think it does. He reviewed three types of deterrence strategies: deterrence by denial, deterrence by punishment and deterrence by defeat. Deterrence by denial is described as the enemy will not go to war because they are convinced that they cannot achieve its war objectives and would not gain from going to war.<sup>29</sup> Deterrence by punishment is defined as the enemy would not start a war because if it did, they would be met with unacceptable damage.<sup>30</sup> Finally, deterrence by defeating the enemy, described as the adversary would not start war because they know that they would be defeated.<sup>31</sup> He distinguishes between defense and deterrence by defining

defense as physical and deterrence being psychological. However, measures for defense can also deter, such as a strong tank force which can also defend a country. He argues that there is a divide between conventional and nuclear due to the inability for a nuclear missile to go from deterrence to defending, it is only used for one purpose. He believes that deterrence is flawed for several reasons to include rationality, perception, credibility, sufficiency, and threats.

He disagrees with the concept of rationality because high level decision makers do not always act rationally in stressful conditions. Also, because rationality requires an evaluation of the consequences of all moves, however, decision makers cannot possibly understand all the outcomes available.<sup>32</sup> The other issue with deterrence is perception, he states that the issue with policy makers is that they see what is rational in terms of their own view of the world, and the enemy in their own image.<sup>33</sup> Another problem with deterrence is credibility, the enemy must believe that the U.S. will use nuclear weapons, and we do not know how we can make an opponent believe our threats.<sup>34</sup> Sufficiency is a problem in nuclear deterrence because we do not have data on how much we need in our nuclear arsenal to dissuade enemy and properly deter.<sup>35</sup> Threats are an issue as a policy of deterrence because we do not know how nations are going to respond.<sup>36</sup> This body of work provides insight to understanding the flaws in deterrence strategy and how diplomatic efforts may go awry if policy makers do not understand their adversary and their decision-making process.

In *Nuclear Logics: Contrasting Paths in East Asia and the Middle-East*, Etel Solingen conducts a case study of the East Asian and Middle Eastern countries to examine why countries decide to develop nuclear weapons and groups them by region,

specifically analyzing why the Middle-East has evolved towards nuclearization, and East Asia has moved in the opposite direction since the 1970s. This book introduces the models to use to explain why nations develop nuclear weapons programs, and why some reverse their programs. In her conclusion she recommends for further research to focus on understanding the domestic model of political survival, and the domestic conditions which lead to nuclear reversal, which guides this research paper's focus.

She seeks to answer the following questions: Why do some states seek nuclear weapons, why do some reverse such decisions, and why do others never embark on such a quest? Solingen believes that the most important factor to studying nuclear choices is the relationship between regime and state security or internal and external political survival.<sup>37</sup> She reviewed nine countries' motivation to include Japan, South Korea, Taiwan North Korea, Iraq, Iran, Israel, Libya, and Egypt through five different approaches neorealism, neoliberal institutionalism, constructivism, democracy and nuclear power, and domestic models of political survival and nuclear preferences.<sup>38</sup>

According to Solingen neorealism is usually the standard explanation for why states seek nuclear weapons and is the theory that states strive to increase their power relative to others in a purely competitive international structure.<sup>39</sup> She found through examining the nine countries that theory is inconsistent in determining a nation's acquisition of nuclear weapons because several vulnerable states do not have nuclear weapons. The anomalies in the nine countries he studied include Taiwan, South Korea, Egypt, and Japan.<sup>40</sup> Many countries secure alliances with other nuclear nations so they themselves do not need their own protection.<sup>41</sup> Neorealism did not sufficiently describe

why nations decide to acquire nuclear weapons due to the inconsistencies of behavior of vulnerable nations.

Next Solingen evaluated the concept of neorealism institutionalism which involves states advancing their interests through alliances and cooperation in international institutions.<sup>42</sup>

She found that neo-realism institutionalism alone could not explain states' nuclear decisions because She could not get data to support cost-benefit analysis of states who signed the NPT, nor that those numbers alone support compliance to the NPT, and it would not explain challenges to the NPT either.<sup>43</sup> She states that there could be other factors which are not accounted for in states' decision-making process.<sup>44</sup> The theory also does not account for domestic influences on states' behavior.

Through evaluating constructivism, defined as "studies of institutions and norms as socialization processes in which a logic of appropriateness, not interests or rational expectations determines institutional purpose and shapes compliance."<sup>45</sup> Solingen finds the theory does not encapsulate the reasoning for states developing nuclear weapons. She found the following issues with the framework: the theory's inability to distinguish between nuclear acquisition, consideration, and use, the devalued status of nuclear weapons may not be due to norms but due to rational disincentives, the deceptive nuclear weapons programs that are hidden to avoid adverse effects internationally, there is not enough research to understand if countries denuclearize due to global pressure or internal pressure, and studies need to review other factors which would change norms in a country to include ethnic and religious factors.<sup>46</sup>

Solingen then reviewed the democratic peace hypothesis the hypothesis that “democracies do not wage wars against each other.”<sup>47</sup> She found that the hypothesis did not accurately describe nuclear behavior and that relative power, models of political survival, and norms unrelated to regime type better describe nuclear decisions.<sup>48</sup> Looking at the regions she studied she found that autocracies did not exhibit uniform nuclear behavior in the region, and the only continuous middle eastern country, Israel, has nuclear capabilities due to distrust of the autocracies in the region.<sup>49</sup>

Next Solingen reviewed domestic political economy considerations. She found that there are three models: internationalizing, inward oriented, and compromise hybrid. Her analysis of inward-oriented, meaning the country is resisting integration into the global political economy through trade protection, import substitution, and state entrepreneurship, because it most resembles the current situation in North Korea.<sup>50</sup> She found that only leaders and ruling coalitions advancing through export-led industrialization to internationalize sought to denuclearize to include Japan, Taiwan, South Korea, Egypt under Sadat, South Africa, Brazil and Argentina.<sup>51</sup> Her conclusion from analysis is that internationalizing models are not necessary but likely to be enough for denuclearization except under two circumstances: (a) when neighboring inward-looking regimes seek nuclear weapons (or other WMD); and (b) when nuclear weapons were acquired prior to the inception of internationalizing models.<sup>52</sup> Solingen believes that inward-oriented models are close to finding conditions for nuclear weapons programs, but can be researched further by studying the conditions internationalizing models which do not aid in denuclearization, finding out what domestic mechanisms may trigger

reversals specifically in inward looking leaders, and improving understanding on the relationship between democratization and internationalization.<sup>53</sup>

Essential to determining if a nation will denuclearize is first understanding why the nation developed the nuclear capability in the first place. In *Nonproliferation Norms: Why States Choose Nuclear Restraint* the author, Maria Rost Rublee, examines nonproliferation and the social environment of a denuclearized country. She continued the research that Solingen conducted on nuclear restraint theory and furthers the study through focusing on domestic politics and inward-looking leader's decision making using social psychology. The author seeks to answer the following questions in her book:

What do states consider to help or hurt their security? Why do most states believe their security does not require nuclear weapons while a few believe the opposite? How is that a state such as Egypt—having lost in conflict against a nuclear-armed adversary and with regional competitors known to be working on nuclear weapons—does not require nuclear weapons for security, whereas South Africa—a state facing few external security threats—did want them.<sup>54</sup>

She explores those questions by conducting case studies on Japan, Egypt, German, Sweden, and Libya through using a social psychology framework and constructivism. She reviewed previous theory on nuclear restraint like Solingen to include realism, and neoliberal institutionalism. She takes issue with Solingen's analysis of neoliberal institutionalism due to the absence of the idea of newly democratizing states wanting to be a part of the "western club" not only for economic benefits but also for status and social reasons.<sup>55</sup> However, Rublee states that she agrees with Solingen on two points, "Solingen is correct on two accounts; to understand variation in nuclear decisions, we need to go beyond the structural level to look at policymaking and coalitions; and second, liberalizing coalitions are likely a force in getting fence-sitters to come down."<sup>56</sup>

The book also reviewed idea-centered analysis, the theory that because of a state's norms framed by the international nonproliferation regime, states run cost-benefit calculations and do not seek nuclear weapons.<sup>57</sup> A competing idea-centered theory is that ideas affect decision making at two key times, "as basic interests are transformed into policy preferences, and as preferences and the environment combine to create policy strategy."<sup>58</sup> She recommends to further analyze individual beliefs through social psychology to understand large-scale pattern behavior.

The book defines social psychology as, "the scientific study of how individuals think and feel about, interact with, and influence on another, individually, and in groups."<sup>59</sup> She selected social psychology as a framework because nuclear policy is usually conducted by a small group of political elites.<sup>60</sup> This is true for North Korea, it also has a small elite class that have positions in the government. She found that behavior change is based on two factors a cost benefit calculation leading to change in behavior through either material costs and benefits or social costs and benefits, and a change in preferences that leads to change in behavior.<sup>61</sup> Other theorists such as Ian Johnston believe that multilateral institution also exert social influence through a carrot-stick approach or a social reward that is factored into a state's cost-benefit analysis.<sup>62</sup> the author argues that social influence is not the right term, and instead it is social conformity due to a state's public proclamation of acceptance, but private rejection.<sup>63</sup> According to Rublee also essential to the social psychology framework is the theory of identification as a method of behavior change. Identification is defined as, when an actor wants to be like another and changes actions to mimic the entity admired, or when a friend agrees with another friend not because they believe it but because it is important to the friend.<sup>64</sup> This

concept raises an important question, is there a state that North Korea identifies with that could persuade the regime to denuclearize?

After conducting the case studies on the nine countries Rublee found the importance of the following tools: linking, activation, and consistency to denuclearization. She defined linking as policymakers connecting the value of nonproliferation to values of the state we are trying to influence.<sup>65</sup> She found in several of the case study countries that this involved linking nuclear nonproliferation to being a civilized member of the international community, and the reverse would be linking violations of the NPT to rogue states such as North Korea or Iran.<sup>66</sup> She found that understanding state's interests and values is essential to conducting linking as a methodology for nonproliferation compliance.<sup>67</sup> The book defined activation as reminding a state of their commitment to nuclear nonproliferation. The author found in the case studies this involved an antinuclear group questioning politicians' nuclear aspiration in a manner which would hurt their political goals.<sup>68</sup> Consistency is the concept that it is harder for a state to reverse their renouncement of nuclear weapons.<sup>69</sup> Rublee believes that these three approaches used the right way could assist in disarming North Korea, however, she cautions that used in the wrong way they could encourage further North Korean nuclear development.<sup>70</sup> She recommends that the U.S. change its stance on the identification of North Korea as an axis of evil, and instead focus on past successful negotiations.<sup>71</sup> She believes that framing it in a positive way would allow North Korea to keep face instead of having to agree with being an "axis of evil" or rogue actor.<sup>72</sup>

In The book *Pulling Back from Nuclear Brink: Reducing and Countering Nuclear Threats* the authors study lessons learned from US experiences attempting to halt proliferation in Iraq and North Korea and studies victories in nonproliferation. The authors review victories for nonproliferation through studying why Argentina, Brazil, South Africa, Belarus, Kazakhstan, and Ukraine decided to denuclearize. The authors challenge the security benefits of having nuclear weapons, and suggests that, “there is a growing awareness in the nuclear weapons states that nuclear weapons are inappropriate instruments for achieving tangible foreign and military policy objectives.”<sup>73</sup>

Schneider and Brody assess that the international community can draw lessons from recent US experiences dealing with nonproliferation in Iraq and North Korea. The book asserts that, “we must fight a war in order to disarm a country that has nuclear weapons under development, it is best to fight and win that war before it gets the weapons.”<sup>74</sup> The authors argue that prior to the Gulf war that the Iraqi government was a year or two from producing a usable nuclear weapon.<sup>75</sup> If the Iraqi government had nuclear weapons prior to the Gulf War it may have been harder to put together a coalition. The inspections following the gulf war were a result of UN security council resolution 687, and not because of the International Atomic Energy Agency (IAEA) safeguards agreement.<sup>76</sup> The inspections took place because of the coalition victory in the Gulf War.

The second lesson is the effectiveness of the United Nations in preventing the proliferation of nuclear weapons.<sup>77</sup> The deemed from studying the two countries that when the UN works with the Security Council, and states provide the means and operational capability the UN can successfully conduct inspections.<sup>78</sup> The authors also

argue that the UN Sanctions and Security council positively impacted the Iraq regime and prevented further proliferation.

The third lesson the book asserts is that the International Atomic Energy Agency can be more effective. The IAEA Director-General believed that the IAEA was unable to discover WMD materials in Iraq during years of inspection because the organization did not have the intelligence information available to the UN Special Commission or the capability to become confrontational.<sup>79</sup> The fourth lesson the authors learned from studying North Korea and Iraq non-proliferation is the importance on focusing on capabilities and not intentions if you could only do one, specifically fissile material production capability and the availability of fissile material.<sup>80</sup> This focus is called the Willie Sutton rule, named after the bank robber who said he robbed banks because they have money.<sup>81</sup>

The fifth lesson the authors learned from studying North Korea and Iraq is the importance of the international associations and agreements involved in nonproliferation to include the Non-proliferation Treaty and the International Atomic Energy Agency.<sup>82</sup> The book emphasizes that it is easier to gain international support for action against a country if there is evidence that the country is in violation of a treaty agreement.<sup>83</sup> The sixth lesson the book gleans from studying the two countries is the importance of intelligence to assess a nation's nuclear activity.<sup>84</sup> Specifically, impact that international intelligence had in disarming Iraq's weapons of mass destruction.<sup>85</sup>

The seventh lesson the authors took away is that international diplomacy requires a credible threat of the use of force.<sup>86</sup> The United Nations Security Council took actions to conduct inspections in Iraq because of the assessed threat of hostilities. The final

lesson the authors learned is the importance of understanding how cases in the past differ.<sup>87</sup> Nations that seek nuclear weapons now are greatly different in intent and regional dynamics than Iraq and North Korea.

The authors evaluate the tradeoff and opportunity costs for nuclear weapons. They believe that many nations today have the capability to build nuclear weapons but have chosen not to.<sup>88</sup> Out of the 21 countries that have made efforts to gain nuclear weapons only five have become nuclear weapons states. The five states Israel, India, Pakistan, Iran, and North Korea. Argentina, Brazil South Africa, Taiwan, South Korea, and Sweden started nuclear weapons programs and subsequently renounced them and allowed for inspections to verify.<sup>89</sup> Ukraine, Belarus and Kazakhstan pledged to eliminate the nuclear weapons they inherited from the Soviet Union and join the NPT. The authors have two research questions in the book, “In an era when more and more states could develop nuclear arms due to widespread knowledge of basic nuclear weapon design and the easy availability of delivery systems, why have a few actually done so? More importantly, what actions and conditions might encourage other states to practice nuclear abstinence or to roll back their nuclear weapon development efforts.”<sup>90</sup> The authors believe these two questions can be answered through reassessing the role of nuclear weapons in countries’ defense strategies. As well as reviewing incentives and disincentives roles in decision making.

The authors found that nuclear weapons provide short term security benefits, but as adversaries also develop nuclear weapons the long-term effects become negative.<sup>91</sup> A mutual insecurity may develop. Advances in conventional weapons have also outweighed the benefit of nuclear arms. The authors argue that energy efficiency is currently being

replace by information efficiency, and in turn a military technical revolution is in place.<sup>92</sup>

Technology has developed to detect and prevent states from developing nuclear weapons to include surveillance, remote sensors, imagery, laser radars, and forensic analysis.<sup>93</sup>

These technologies act as a deterrent because nations are unable to develop nuclear capability undetected.<sup>94</sup> Furthermore, the book argues that the nuclear taboo has increased due to South Africa, Brazil, Belarus, Kazakhstan, and Ukraine joining international agreements to eliminate nuclear weapons.<sup>95</sup>

Through studying Sweden's decision to halt efforts to develop nuclear weapons the authors found that security-related dis-incentives, the international community, and domestic politics played a heavy role in their decision making.<sup>96</sup> The security-related incentives included worry of mass retaliation of the Soviet Union, and the Soviet Union no longer respecting their neutrality with the nuclear weapon.<sup>97</sup> Sweden assessed that the US would include it in its nuclear umbrella because of its orientation to the west.<sup>98</sup> The Swedish public were concerned that the nuclear weapons program would take too much funding from conventional forces and compromise their military.<sup>99</sup> Also, the program would take resources from the nuclear energy program.<sup>100</sup>

The authors believe that South Africa ultimately decided to denuclearize due to the decrease in external security threats; the Angolan-Namibian peace settlement (a negotiated cease-fire), and the collapse of the Soviet Union. Previously, South Africa believed they needed nuclear weapons if the Soviet Union attempted to intervene in its affairs.<sup>101</sup> The collapse of the Soviet Union meant nuclear weapons were no longer needed.<sup>102</sup>

Argentina and Brazil did not pursue nuclear weapons due to domestic opposition.<sup>103</sup> The public and officials believed that the cost, environmental concerns, and political ramifications were not worth it.<sup>104</sup> The public believed that becoming nuclear would have negative effects on foreign investment and trade. Like Sweden, the defense budget would suffer, and the conventional military would have less resources.<sup>105</sup>

The authors studied Ukraine, Belarus, and Kazakhstan and found that the three countries decided to give up nuclear capability due to economic, political, and security factors.<sup>106</sup> With the collapse of the Soviet Union all three nations had limited resources and relied on other nations, such as the US for economic assistance.<sup>107</sup> The countries were concerned if they continued their nuclear programs there would not be the much-needed economic assistance from the international community. Domestically, the recent Chernobyl disaster weighed on the public mind and there was an increased concern on the safety of maintained nuclear weapons.<sup>108</sup> Politically all three countries strove to distance from Russia and create new bonds with the West and believed that renouncing their nuclear weapons and joining the NPT would enhance partnerships.<sup>109</sup>

Through studying the successful non-proliferation and denuclearization of the above countries the author assesses that political-military-economic conditions shape nations' decisions on the cost-benefit analysis of nuclear weapons procurement.<sup>110</sup> The authors believe that the US and its allies should develop non-proliferation strategies which incorporate a political, economic, and military dimension, and strategies should be tailored to the unique regional situation of the country.<sup>111</sup>

The book further emphasized the need to tailor non-proliferation and denuclearization strategies to the specific region of focus and to incorporate the domestic

political, economic, and military situation of the country into the strategy. This book had similar research questions and will assist in answering the primary and secondary research questions of this study.

In *The North Korean Economy: Between Crisis and Catastrophe*, the author seeks to describe the North Korean economy and its performance. Eberstadt defines the North Korean economic strategy as a policy of international political extortion through generating strategic insecurity in the region.<sup>112</sup> Before examining the economy, the author describes the limitation of reliable statistical data to fully understand the economic situation in North Korea.<sup>113</sup> The author assesses that North Korea is unable to release comprehensive and reliable statistical data to the foreign public, deterring potential foreign investors due to the lack of information.<sup>114</sup> In the book the author seeks to answer the following research questions: What lies in store for the DPRK and its people? Whether or not the North Korean economy is recovering and advancing after the 1990s tragedies with famine? If North Korea were really reforming how could we tell and what would we see?

To answer the first research question, what lies in store for the DPRK and its people? The author attempts to answer the research question through studying “mirror statistics,” defined as reports released from trade partners gathered from the United Nation’s International Commodity Trade Database for the years 1970-1995 and from official Soviet trade yearbooks for 1972-1995 valued in current dollars and exchange rates.<sup>115</sup> He examines DPRK’s trade trends in food, energy, and transport due to North Korean leaders’ pronouncement of issues in all three.<sup>116</sup> Through studying mirror statistics in food, the author discovered that North Korea adopted a financial self-

sufficiency program, spending no more on the purchase of foreign foodstuffs than foreigners paying for North Korean food products.<sup>117</sup> North Korea attempts to use other industries to finance domestic agricultural development. The author identified that the mirror statistics in food do not account for the bilateral and international food aid that North Korea receives, which assists in their preservation.<sup>118</sup>

Through studying mirror statistics in energy, the author found that North Korea had a disruption in their energy supplies due to the downfall of the USSR, and in the early 1992 energy imports were down by more than one-half.<sup>119</sup> To have a more complete understanding of the energy situation in North Korea the author looked at the coal, coke, oil and refined oil products North Korea's trade partners were selling and purchasing from North Korea from 1986-1995.<sup>120</sup> He found that crude oil and petroleum products dropped due to the collapse of the Soviet Union, and China's decreased oil and oil products exports to North Korea.<sup>121</sup> Prior to the collapse of the USSR North Korea also received most of their coking coal from the Soviets resulting in a drastic fall of imports. North Korea's coal imports rose from 400,000 tons to 750,000 tons in the years 1991-1995.<sup>122</sup> However, North Korea's exports in coal decrease. After analyzing the specific energy domains the author concluded that as a result of a drop in petro-product imports the transport system would suffer, as well as fertilizers and pesticides for agriculture.<sup>123</sup> The drop in coking coal could result in a decrease in iron and steel industries. The author speculated that the drop in coal production could be due to the result of other energy shortages such as fuel to run mining equipment.<sup>124</sup> Eberstadt found that North Korea's level of transport imports in the 1990s may be lower than the 1970s, and there is an issue of underinvestment in foreign transport equipment.<sup>125</sup> Through

studying the three domains of food, energy, and transport the author concluded that North Korea is attempting to fill the gap in food and energy through aid-based solutions.<sup>126</sup>

The author also sought out to answer the research question of whether the North Korean economy is recovering and advancing after the 1990s tragedies (famine).<sup>127</sup> He assesses that it is too early to judge whether the North Korean economy has stabilized or recovered since the 1990s.<sup>128</sup> He argues that the human capital has reduced and resulted in a reduced capacity to produce.<sup>129</sup> The UN World Food Program in 2004 reported that that thousands of people in North Korea were still suffering from hunger and the food crisis was ongoing, further justifying the assessment that there is a reduced human capital in North Korea.<sup>130</sup>

The third research question Eberstadt sought out to answer in his book was: If North Korea were really reforming how could we tell and what would we see?<sup>131</sup> First the author outlines the limitations in understanding North Korean behavior due to the regime's policy of strategic deception and unpredictability.<sup>132</sup> The author identified several signs of change you the international community would see to include increased North-South relations in trade, relations with the United States, increased international diplomacy, international security policy, and changing economic policy.<sup>133</sup> He found that North-South relations increased with the 1998 agreement for tourism in the Kumgang Mountain area, and 2000 ROK-DPRK agreement for an industrial park in Kaesong.<sup>134</sup> He determined that relations with the U.S. have increased beginning with Kim Jong Il and former Secretary of State Albright meeting in Pyongyang.<sup>135</sup> Evidence points to an increase in North Korean international diplomacy with the 2000 establishment of relations with the eleven OECD countries and the European Union as well as the DPRK

becoming a member of the ASEAN Regional forum the same year.<sup>136</sup> In 2001 Kim Jong Ill met with Chinese officials to evaluate profit-oriented Chinese, Japanese, and American owned factories.<sup>137</sup> Following the meeting DPRK requested the United Nations Industrial Development Organization to teach North Korean college students marketing and management.<sup>138</sup> After studying these changes, the author asked the secondary research question, “how profound are these changes, what accounts for them, and what do they argue for the DPRK’s habitually adversarial relations with its neighbors and the rest of the outside world?”<sup>139</sup> He discovers that to answer the secondary research questions he needed to understand the intentions of North Korean leadership, which he is unable to do due to the lack of information.<sup>140</sup>

Instead, Eberstadt assesses that for DPRK to change the regime would have to answer three problems dealing with the identity of the country: the problem of the ideological and cultural infiltration, WMD and regime survival, and South Korea’s legitimacy.<sup>141</sup> Ideological and cultural infiltration refers to the North Korean perception that outside influence threatens the regime.<sup>142</sup> To solve this problem North Korea would have to become more open to outside influence in economics versus the current system of international extortion for survival.<sup>143</sup> The current problem with WMD and regime survival is the current direct linkage between the two.<sup>144</sup> The author assesses that if the regime changed their view of WMD from “valuable” and not “vital” it would allow for denuclearization negotiations.<sup>145</sup> Eberstadt asserts that to solve the problem of South Korea’s legitimacy North Korea would have to acknowledge South Korea as a legitimate government.<sup>146</sup> This would allow for what the author coins, a “one nation, two states policy” which would allow for a Seoul-Pyongyang peace agreement.<sup>147</sup>

After identifying the conditions that would need to change, the author reviews the current North Korean trends. The author assesses that as of 2006 the North Korean policy still opposed ideological and cultural infiltration to include in economic trade.<sup>148</sup> Eberstadt dismissed the significance of the North Korean leadership 2001 Shanghai tour because after the tour the DPRK did not implement any change as a result of the visit.<sup>149</sup> WMD is still tied to regime survival, the author quotes the June 2001 *Nodon Sinmun* editorial as evidence, which states, “We should hold fast to the military first politics and build up our military strength in every possible way.”<sup>150</sup> Finally, the author found that North Korea still does not recognize South Korea as a legitimate state due language used in the North-South declaration regarding the terms of the reunification of the two states.<sup>151</sup>

In the book *North Korea and Economic Integration in East Asia* the authors argue that a path to save North Korea from poverty and adversity is through economic development.<sup>152</sup> The book focuses on specific economic policies in trade and forest investment that could lead to economic reform in the North Korean economy.<sup>153</sup> The authors highlight three main points throughout the book. First, that there must be concrete proposals for specific economic policies so that North Korea is aware of tangible options for decision making.<sup>154</sup> Second that North Korea would benefit most from economic participation in their region, East Asia.<sup>155</sup> Lastly, that the concrete proposals should incorporate other reforms to include exchange rate policies, structural policies, and social policies.<sup>156</sup>

The authors believe that concrete policy choices are essential in order to minimize fear associated with change. The fear that the North Korean people have is specific to

their societal class.<sup>157</sup> Those in the top social class, or *nomenklatura* fear that economic change would result in change in their societal standing.<sup>158</sup> Citizens participating in government sanctioned private businesses fear that they will not be able to adapt to survive in a market-oriented environment.<sup>159</sup> The lower-class North Koreans on the other hand are in survival mode, do not share the same fear and have more to gain from economic reform.<sup>160</sup>

The authors assess that North Korean participation in the regional economic of East Asia is the best option because it will assist in external economic relations and further development projects.<sup>161</sup> They believe that due to North Korea's geographical location, bordering South Korea, and China with proximity to Japan, that once North Korea opens its economy it will easily be able to trade regionally and continue to expand.<sup>162</sup> The authors believe that open trade would then lead to economic reforms and regional cooperation.<sup>163</sup>

The authors argue in the book that North Korea is a rational actor because it follows its perceived self-interests, and irrational actors make decisions that do not align with self-interest.<sup>164</sup> They believe the reason that there is a wide range of opinions on North Korean objectives is due to the limited information on North Korea.<sup>165</sup> The book categorizes the ranges of opinions on North Korean actions from hard to middle to soft liners.<sup>166</sup> Hardliners believe that North Korea is pursuing reunification on the peninsula on their own terms through use of conventional and unconventional capabilities to defeat South Korea.<sup>167</sup> Hardliners also think that North Korea will never give up their nuclear weapons.<sup>168</sup> The middle line view is that North Korea would like to become a strong, independent, autonomous state through economic reforms and joining the world

economic system.<sup>169</sup> Middle liners also believe that North Korea may reduce its military and nuclear weapons.<sup>170</sup> Finally, soft liners believe that North Korea is not a true threat and just looking for ways that the regime can survive.<sup>171</sup> They also believe that North Korea is willing to negotiate their nuclear program if the US and South Korea do not threaten regime survival.<sup>172</sup>

The authors seek to understand the motives of North Korea's external economic relations through examining the differences in economic motivation of a capitalist country vice North Korea.<sup>173</sup> The authors found in their study that North Korea places the political motive above the economic motive.<sup>174</sup> In North Korea international transactions are owned and directed by the state and represent state interests and political motives.<sup>175</sup> While in capitalist countries economic interactions follow three fundamentals: comparative advantage, economies of scale, and international borrow and lending.<sup>176</sup>

North Korea previously depended on China and the Soviet Union for economic and technical support, and as a result had political influence over North Korea.<sup>177</sup> North Korea developed *Juche* or self-reliance as an ideology to avoid further external influence on the country and practice self-containment.<sup>178</sup> The authors assess that in order to have leverage in external relationships North Korea will seek bilateral relationships to balance the powers surrounding it.<sup>179</sup> The authors demonstrate this concept through using the example of North Korea balancing the US and China as partners to leverage relationships against each other to get what it wants.<sup>180</sup>

Through studying recent external economic relations, the authors came to the three conclusions. First that North Korean foreign economic transactions are still very

limited.<sup>181</sup> Second, external economic relations are largely focused on China, due to sanctions from the rest of the international community and the inability to attract other foreign investors.<sup>182</sup> Thirdly, limited external economic interactions fluctuate dramatically especially in foreign investment.<sup>183</sup> The book cited example of the drop in foreign investment after a North Korean nuclear test in 2006.<sup>184</sup> The authors determined through their study that North Korea's objective for conducting external trade is to gain hard currency or meet basic needs.<sup>185</sup> The country is not conducting trade to enhance their development strategy or competitiveness in the global market.<sup>186</sup> The authors believe that for North Korea to prevent deterioration of the country and regime instability the country needs to support economic reforms and modernize to become globally economically open.<sup>187</sup> They recommend that North Korea achieve this goal through expanding external economic interactions and variety of products to drive an increase in foreign investment and trade.<sup>188</sup>

The authors believe that the first place that North Korea should expand trade is in the regional East Asia market due to its capability to provide the most success.<sup>189</sup> They assess that East Asia can provide the largest market for North Korea's exports to thrive due to its sheer size and continuing growth.<sup>190</sup> The authors cite the gravity model, where the two key variables that affect international trade are the size of the participating economies and the distance between trading partners, as further proof that North Korea can be successful.<sup>191</sup> For the first variable, the East Asia market is large and continuing to grow and secondly, North Korea shares a border with the economic power houses in the region: South Korea, China, and Japan.<sup>192</sup>

Furthermore, trade would be mutually beneficially since Korea, China, and Japan are currently seeking additional investment opportunities due to the saturation in their domestic markets.<sup>193</sup> However, internal problems, and international sanctions currently deter foreign investors from the North Korean market.<sup>194</sup> Another positive effect of North Korea expanding trade in would be the reduction of the dependency on a single country and/or sector. Lastly, the authors assess that if North Korea expanded trade partners and foreign investments external relations would in turn be stabilized.<sup>195</sup> Another effect of regional economic integration would be economic reforms and the opening of North Korea.<sup>196</sup> The authors believe that there are several opportunities for North Korea due to its geographic location in Northeast Asia, specifically, for land bridge transcontinental projects: the Tran-Siberian Railway, Trans-Korean Railway, and natural gas pipelines running from Russia through North and South Korea.<sup>197</sup>

Lastly, the authors reviewed options for North Korean trade policy which they believe is a pillar for growth and development strategy.<sup>198</sup> The authors assert that North Korea should adopt trade policy and foreign investment policy as part of their economic development scheme, versus their current policy of international transactions to collect hard currency.<sup>199</sup> First, North Korea should change its current reputation as a “grave yard” for foreign investment, the authors cited several examples of North Korea backing out of negotiations after a considerable amount of money was invested: Volvo, Orascom Telecom Media and Technology and holding, and Xiyang.<sup>200</sup> Next, the authors argue that North Korea should join international trade and financial organizations such as the World Trade Organization and International Monetary Fund to enhance its credibility internationally for open trade.<sup>201</sup> Lastly, North Korea should establish a Free Trade

Agreement or customs union with South Korea.<sup>202</sup> This book provided valuable insight on the importance of economic development in relation to North Korean denuclearization negotiations and transformation into an “open country.” Throughout the book the authors solidified economics as a major factor in North Korean denuclearization.

In *The Real North Korea: Life and Politics in the Failed Stalinist Utopia* the author describes the history of North Korean foreign interaction and examines the rationality of North Korean leadership’s decision making to gain nuclear weapon capability for bargaining.<sup>203</sup> The author analyzes the history of *juche* in North Korea. North Korea created the theology of *juche* to create independence between itself and China and Soviet Russia.<sup>204</sup> *Juche* usually is defined as “self-reliance” but its actual translation is closer to “self-importance” or “self-significance,” and is described as the need to give primacy to one’s own national interests.<sup>205</sup> Kim Il Sung presented the *juche* theology in a 1955 speech but it did come to fruition until the 1960s when it was adopted into the official ideology of the North Korea state.<sup>206</sup> The North Korean leadership justified its country’s superiority through *juche*. They marketed the ideology as superior to Maoist and post-Stalinist versions of Marxism-Leninism.<sup>207</sup> Kim Jung Il said that *juche* was the quintessence of Kimilsungism, and though himself in the same league as Marx, Confucius, and Aristotle.<sup>208</sup>

North Korea became the first Communist Monarch when Kim Il Sung announced his son, Kim Jong Il, as his successor. The author claims that Kim Il Sung decided to do this due to the chaos that occurred the Soviet Union when Stalin died without pronouncing a successor.<sup>209</sup> In the 1940s North Korea was the most industrially advanced region in East Asia besides Japan, outpacing south Korea. In the 1940s North

Korea produced 85 percent of metals, 88 percent of chemicals, and 85 percent of all electricity.<sup>210</sup> However, during the Korean War a large part of the industrial complex was destroyed.<sup>211</sup> In the late 1960s North Korea's economy slowed down, and South Korea had one of the world's highest growth rates.<sup>212</sup> The author assesses that this shift of economic success from North Korea to South Korea determined the current political situation on the Korean Peninsula.<sup>213</sup>

The author claims that until the 1970s North Korea believed that they could forcefully unify Korea, and to do so they needed to invest in the military.<sup>214</sup> South Korea had twice the population, so North Korea had to invest more in hardware and require citizens to extend their mandatory military service.<sup>215</sup> When South Korea began to economically outpace North Korea, North Korea still tried to maintain military spending as a result their economy suffered. In the 1990s North Korea had the highest ratio of citizens serving in the military in the world, and its economy suffered greatly.<sup>216</sup> Previously North Korea received economic aid from China and the Soviet Union, but in the 1990s the aid stopped leading to two decades of crisis.<sup>217</sup> The most notable event of this time period is the Great North Korean Famine from 1996-1999 where it is estimated that 2.5 percent of the population died.<sup>218</sup> However, through this horrible event the North Korean regime allowed limited capitalism since the state sanctioned economy was not providing for the population.<sup>219</sup>

A black market developed replacing the failed state run and state-owned economy. The author assesses that from 1998-2008 black market activities represented 78% of the total income of North Korean households.<sup>220</sup> It also became more acceptable for citizens to have ties to China in the 1990s to gain additional capital.<sup>221</sup> Prior to the

1990s the regime frowned upon citizens with relatives overseas.<sup>222</sup> Chinese involvement in North Korean economy resulted in the phrase the “Yuanization” of the market to describe the use of Chinese yuan and prevalence of foreign currency.<sup>223</sup> As result of the black market and acceptability of travel North Koreans became more tolerable of foreigners than they were 15 to 20 years ago during Kim Il Sung’s era.<sup>224</sup>

The author also examined the techniques the regime uses to successfully survive. He assesses that the North Korea elite believe that if they adopt Chinese style economic reforms it may trigger a regime collapse and as a result the regime seeks out economic aid to supplement their economy.<sup>225</sup> However, the regime cannot lobby for normal aid due their inability to agree on the conditions the aid comes with. Instead the regime uses a variety of diplomatic survival skills to receive aid on their own terms.<sup>226</sup> The author asserts that to North Korean leaders the nuclear weapons program is used for regime survival, and ultimately a rational decision.<sup>227</sup> The author also believes that due to domestic and international concerns North Korea is unlikely to ever reconsider their nuclear weapons program.<sup>228</sup>

Next the author gave a summary of the history of North Korea’s nuclear weapon program and blackmail negotiation tactics.<sup>229</sup> In 1975 North Korea decided to develop their own nuclear weapon program due to information that South Korea was seeking to develop its own.<sup>230</sup> The Soviet Union agreed to technically assist North Korea in developing nuclear weapons on the condition that it would join the non-proliferation regime.<sup>231</sup> The author believes that North Korea had two main goals for developing a nuclear weapons program.<sup>232</sup> First to serve as a military deterrent, and second to use as diplomatic blackmail.<sup>233</sup> The North Korean regime believed that it needed its own

deterrent because it assessed that China would not get into a major confrontation with other countries to save the regime.<sup>234</sup> North Korea has used nuclear weapons as blackmail since 1990 when they signed the Agreed Framework in Geneva promising to freeze its military nuclear program and allow international monitoring of its nuclear facilities in exchange for economic aid.<sup>235</sup> Through signing the agreement north Korea gained over a billion of dollars from South Korea, Japan, and the U.S.<sup>236</sup>

Through freezing their nuclear program from 1996-2001 the North Koreans gained much needed humanitarian aid to assist with the ongoing famine.<sup>237</sup> The regime avoided conditions-based inspections to receive the aid associated with gaining the aid.<sup>238</sup> The second nuclear crisis occurred in 2002 and North Korea attempted the same nuclear blackmailing, however, it did not yield the same results.<sup>239</sup> The nuclear crisis occurred when the United States received intelligence that North Korea was pursuing a highly uranium enriched program (HEU), violating the previous agreement.<sup>240</sup> The author believes that the North Koreans attempted to receive a buyout of their HEU program, similar to their previous negotiation tactic.<sup>241</sup> Instead the U.S. stopped providing aid, Korean Peninsula Energy Development Organization (KEDO) efforts ceased, and in 2003 North Korea withdrew from the Non-Proliferation Treaty.<sup>242</sup>

As a result of the second nuclear crisis six party talks began with U.S, China, South Korea, Russia, Japan, and North Korea in 2003.<sup>243</sup> The author asserts that following the six party talks North Korea began a cycle of their blackmail tactics.<sup>244</sup> The cycle involves North Koreans believing they can receive more aid, driving international tensions and creating a crisis, through missile launches and negotiations ensuing.<sup>245</sup> For example: in 2006 North Korea tested their nukes, and shortly after the U.S. announced

the willingness to engage in six-party talks again since sanctions and pressure did not work.<sup>246</sup> The author asserts that this incident confirmed North Korea's belief that their nuclear blackmail tactic gets results.<sup>247</sup>

In the book, *Failed Diplomacy: The Tragic Story of How North Korea Got the Bomb* the author conducts an after-action review of the attempted six party talks during the first term of President George W. Bush. The author has firsthand knowledge since he was the special envoy for negotiations with North Korea during the Bush administration.<sup>248</sup> He also identifies missed opportunities and what we can learn from them, which will benefit my research in identifying future strategy in negotiations.

First the author reviews in depth the United States confrontation with North Korea in 2002 over the discovery of their highly enriched uranium.<sup>249</sup> The 1992 agreement between the Republic of Korea and North Korea as well as the Agreed Framework in 1994 between the U.S. and North Korea forbade the possession of uranium-based facilities.<sup>250</sup> The discovery led to the cancellation of the Bold Approach concept, which was an approach to normalize relation between the U.S and North Korea.<sup>251</sup> North Korean First Vice Minister Kang Sok-ju claimed that the 1994 Agreed Framework was null, "due to the U.S. designation of North Korea as a member of the axis of evil, the preemptive strike policy, and inclusion of North Korea among potential targets for a nuclear attack. As a result the DPRK decided to reinforce its "Military First Policy."<sup>252</sup> Ambassador Li Gun also justified the regime's actions due to the threat of preemption by the United States and cited Article III of the Agreed Framework that the U.S is not to use nuclear weapons against North Korea or threaten North Korea with nuclear weapons.<sup>253</sup> The First Vice Minister also said, "We are a part of the axis of evil and you are a

gentleman. This is our relationship. We cannot discuss matters like gentlemen. If we disarm ourselves because of U.S. pressure then we will become like Yugoslavia or Afghanistan's Taliban, to be beaten to death.”<sup>254</sup>

The author then reviews the actions the U.S. took after North Korea's HEU admission. The U.S. ceased heavy fuel shipments which were a part of the U.S contribution to KEDO and required the rest of the KEDO board members to agree.<sup>255</sup> KEDO board members included Japan, South Korea, the European Union, and the United States.<sup>256</sup>

Next the author reviews the several rounds of six-party talks starting with the August 2003.<sup>257</sup> The first six-party talks only lasted 30 minutes and did not have any clear results.<sup>258</sup> The Chinese representative blamed American policy towards DPRK as the problem with the talks.<sup>259</sup> The author asserts that a main issue with the talks was the ability for the U.S to commit to normalizing relations and to guarantee North Korea's security.<sup>260</sup> The second round of six party talks occurred in February of 2004 and lasted an hour and a half, once again there was no result.<sup>261</sup> President Bush said that the six party talks rest on the ability for North Korea to dismantle its program, and military action could occur if North Korea did not admit to its HEU program and stop its plutonium and HEU nuclear weapons programs.<sup>262</sup>

The third round of six party talks occurred in June 2004 and marked the first U.S. proposal.<sup>263</sup> In the proposal the U.S would give North Korea three months to “prepare to dismantle its nuclear program” and provide a comprehensive list of nuclear material, activities, and operations.<sup>264</sup> However, in the proposal North Korea did not get heavy fuel

in exchange for agreement. The regime responded with a proposal that if the U.S. stops its hostile policy towards them, they in turn would renounce their nuclear program.<sup>265</sup>

The fourth round of talks were in July of 2008 and lasted 21 days. The author believes that the talks took place due to three changes in the administration: the administration realized the North Korea policy previously used failed, Condoleezza Rice was appointed secretary of state, and the appointment of Ambassador Chris Hill as he assistant secretary of East Asia and Pacific affairs at the state department and selection as the head of delegation for the six party process.<sup>266</sup> The author also assesses that the pressure from China on North Korea to engage in the talks and the realization of North Korea of the importance of its relationship with China led to their decision to take part.<sup>267</sup> During the fourth six party talks the United States agreed to discuss the provision of light water reactors (LWRs) with North Korea at an undetermined time and stated that it wanted to terminate KEDO at the end of the year.<sup>268</sup> North Korea believed that it had the right to peaceful nuclear energy which did not require involvement in the NPT, like India.<sup>269</sup> North Korea further stated that the U.S supported India's right to a peaceful nuclear energy program, and therefore should support their right.<sup>270</sup> The author found the KEDO termination problematic since its purpose was to build LWRs for North Korea when nonproliferation conditions were satisfied.<sup>271</sup> In effect the U.S. ended LWR projects and announced support for North Korea to gain LWRs when conditions were met.<sup>272</sup>

The U.S. tried to negotiate for the fifth round of talks by asking for North Korea to shut down nuclear operations at the Yongbyon complex.<sup>273</sup> North Korea did not accept these terms but told the U.S. their representative could still visit.<sup>274</sup> The author's opinion

is that this was not an appropriate pre-condition to ask North Korea for prior to six-party talks.<sup>275</sup> Basically, the U.S. asked for North Korea to, “give up one of its strongest negotiating cards” prior to talks resuming.<sup>276</sup> The fifth-round of talks took place in November and did not yield any results. During the talks, the U.S. national security advisor stated that the U.S. would not give any economic aid to North Korea before it ended its nuclear program.<sup>277</sup> This book provided a summary of North Korea negotiations in six party talks and assisted in understanding what brings North Korea to the negotiation table.

The book *North Korea and Northeast Asia* examines how the potential of North Korean collapse effects regional politics in North East Asia. The book also looks at how the threat of collapse increases North Korea’s leverage from its position of relative weakness and contributes to its survival strategy.<sup>278</sup> The author believes that North Korea’s security policy can be explained through mercantile realism.<sup>279</sup> He assesses that North Korea discriminates between the possibility and probability of war and has a short term goal of military deterrence and long term goal of maintaining its economic structure.<sup>280</sup> The book argues that North Korea balances military security and economic survival. The author reviews past negotiations through a mercantile realist account to explain decision making. He assessed that North Korea would continue to bargain its nuclear capability with the international community for economic resources to secure regime survival.<sup>281</sup> The book is integral in understanding how geography effects North Korean decision making and overall strategy.

The book *The Great Successor: The Divinely Perfect Destiny of Brilliant Comrade Kim Jong UN* provides an in depth look at the life of Kim Jong Un and how it

shapes his decision making. The author provides a brief history of the North Korean monarchy and describes how its leaders are viewed as deity in their country with the divine right to rule. She describes the significance of Mount Paektu and its role in North Korean culture.<sup>282</sup>

The *Historical Dictionary of the Democratic People's Republic of Korea* provides helpful definitions to North Korean organizations, terms, and policies with a historical background. The book covers a large breadth of topics for easy reference.

After gaining a base of understanding on nuclear strategy, why nations develop it, and North Korean culture I sought out literature specific to North Korean and U.S. nuclear negotiations. A bulk of the literature was in the form of reports and past dissertations. I have grouped them in chronological order first starting with an occasional paper by the Institute for National Security Studies on *North Korea's Nuclear Program: The Clinton Administration's Response*. The report serves as a history of past negotiation attempts with North Korea specifically focusing on the Clinton administration's counterproliferation policy efforts.<sup>283</sup> This book will assist in understanding previous North Korean diplomatic behavior with the U.S and what conditions led to negotiations then. In *Negotiating on the Edge: North Korean Negotiating Behavior*, Scott Snyder seeks to understand the patterns of North Korean behavior and throw away the familiar response that "North Koreans are Crazy."<sup>284</sup> The book studies the cultural and historical factors that influence negotiating behavior such as *juche* and the state owned media.<sup>285</sup> This book will assist my research in understanding the cultural nuances of North Korea and dismiss the previous assertions that "North Korea is an irrational actor."

The report, *North Korea's Nuclear Question: sense of Vulnerability, Defensive Motivation, and Peaceful Solution* by Kwang Ho Chun is an important piece of literature for the study because the thesis question is similar to this paper. The monograph attempts to ask how Pyongyang's sense of vulnerability can be significantly reduced in or to make it more likely to give up its nuclear arms program.<sup>286</sup> The author reviews two competing perspectives on North Korea's decision making to develop nuclear weapons. The first perspective he reviews is that North Korea began its nuclear program to be on the offensive, while the second perspective is that North Korea developed the program to deter its adversaries looking to topple the regime.<sup>287</sup> Through the offensive perspective North Korea is seeking to unify the peninsula through its nuclear capability.<sup>288</sup> The deterrent perspective is that North Korea believes it is vulnerable to military presence on the peninsula (U.S, ROK) and therefore needs a deterrent to prevent an attack.<sup>289</sup> Although the author examines the decision making of a different leader (Kim Jong Un took office in December 2011) it is still relevant.

The NPS paper "Reassurance Strategy: Incentives for Use and Conditions for Success," examines the situations when reassurance is an appropriate strategy. This is an alternate viewpoint to the current U.S. strategy of deterrence to examine the appropriateness to North Korea.<sup>290</sup> Lastly, I reviewed the current United States strategy communicated in the National Security Strategy released December of 2017.<sup>291</sup>

Next, the study reviewed literature which compares North Korea to other nuclear capable nations. Beginning with literature which compares North Korea and Iran, two outliers in their regions. The book *Nuclear Logics Contrasting Paths in East Asia and the Middle-East* was a good starting point since it reviews nations in both regions and why

they did or did not decide to become nuclear capable.<sup>292</sup> In the report “North Korea and Iran: Drawing Comparative Lessons” the author compares Iran and North Korea to better understand why both are outliers in their regions with nuclear weapon capability.<sup>293</sup> Next the study reviewed the book *The Iran Threat: President Ahmadinejad and the Coming Nuclear Crisis* to compare Iran and North Korea’s nuclear strategy.<sup>294</sup>

My study will differ from others because the environment has changed. I will seek to understand negotiations in the current operational environment. June 2019 was a historical event demonstrating U.S. focus and determination to negotiate with North Korea. Kim Jun Un is not his father and President Trump has different decision making from his predecessor, President Obama.

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<sup>1</sup> Thomas Schelling, *Arms and Influence* (London: Yale University Press, 2008), x.

<sup>2</sup> Ibid., 73.

<sup>3</sup> Ibid., 3.

<sup>4</sup> Ibid., 22.

<sup>5</sup> Ibid., 263.

<sup>6</sup> Ibid., 260.

<sup>7</sup> Herman Kahn, *On Thermonuclear War* (New York: Routledge, 2017), X.

<sup>8</sup> Ibid., 13.

<sup>9</sup> Ibid., 14.

<sup>10</sup> Ibid., 16.

<sup>11</sup> Ibid., 25.

<sup>12</sup> Ibid., 32.

<sup>13</sup> Ibid.

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<sup>14</sup> Austin Long, *Deterrence: From Cold War to Long War* (Santa Monica: RAND Corporation, 2008), 6.

<sup>15</sup> *Ibid.*

<sup>16</sup> *Ibid.*, 7

<sup>17</sup> *Ibid.*, 6.

<sup>18</sup> *Ibid.*, 10.

<sup>19</sup> *Ibid.*, 13.

<sup>20</sup> *Ibid.*

<sup>21</sup> *Ibid.*, 9.

<sup>22</sup> *Ibid.*, 18.

<sup>23</sup> *Ibid.*, 9.

<sup>24</sup> *Ibid.*, 21.

<sup>25</sup> CNBC, “Less Than One Aircraft Carrier? The Cost of North Korea’s Nukes,” accessed April 18, 2020, <https://www.cnbc.com/2017/07/20/less-than-one-aircraft-carrier-the-cost-of-north-koreas-nukes.html>.

<sup>26</sup> Long, *Deterrence from Cold War to Long War*, 80.

<sup>27</sup> *Ibid.*

<sup>28</sup> *Ibid.*, 47.

<sup>29</sup> *Ibid.*, 50.

<sup>30</sup> *Ibid.*

<sup>31</sup> *Ibid.*, 51.

<sup>32</sup> *Ibid.*, 60.

<sup>33</sup> *Ibid.*, 64.

<sup>34</sup> *Ibid.*, 79.

<sup>35</sup> *Ibid.*, 78.

<sup>36</sup> *Ibid.*, 79.

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<sup>37</sup> Etel Solingen, *Nuclear Logics: Contrasting Paths in East Asia and the Middle East* (Princeton: Princeton University Press, 2007), x.

<sup>38</sup> Ibid.

<sup>39</sup> Ibid., 24.

<sup>40</sup> Ibid., 25.

<sup>41</sup> Ibid.

<sup>42</sup> Ibid., 28.

<sup>43</sup> Ibid., 31.

<sup>44</sup> Ibid.

<sup>45</sup> Ibid., 32.

<sup>46</sup> Ibid., 36.

<sup>47</sup> Ibid., 37.

<sup>48</sup> Ibid., 39.

<sup>49</sup> Ibid.

<sup>50</sup> Ibid., 4.

<sup>51</sup> Ibid., 45.

<sup>52</sup> Ibid., 46.

<sup>53</sup> Ibid., 52.

<sup>54</sup> Maria Rost Rublee, *Nonproliferation Norms: Nonproliferation Norms: Why States Choose Nuclear Restraint* (Athens: The University of Georgia Press, 2009), XII.

<sup>55</sup> Ibid., 12.

<sup>56</sup> Ibid., 13.

<sup>57</sup> Ibid.

<sup>58</sup> Ibid., 15.

<sup>59</sup> Ibid., 16.

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<sup>60</sup> Ibid.

<sup>61</sup> Ibid.

<sup>62</sup> Ibid., 17.

<sup>63</sup> Ibid., 18.

<sup>64</sup> Ibid., 18.

<sup>65</sup> Ibid., 125.

<sup>66</sup> Ibid.

<sup>67</sup> Ibid.

<sup>68</sup> Ibid.

<sup>69</sup> Ibid., 216.

<sup>70</sup> Ibid.

<sup>71</sup> Ibid.

<sup>72</sup> Ibid.

<sup>73</sup> Barry R. Schneider and William L. Dowdy, eds. *Pulling Back from the Nuclear Brink: Reducing and Countering Nuclear Threats* (London: Frank Cass Publishers, 1998), 41.

<sup>74</sup> Ibid., 7.

<sup>75</sup> Ibid.

<sup>76</sup> Ibid., 8.

<sup>77</sup> Ibid.

<sup>78</sup> Ibid.

<sup>79</sup> Ibid., 9.

<sup>80</sup> Ibid., 10.

<sup>81</sup> Ibid.

<sup>82</sup> Ibid., 12.

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- <sup>83</sup> Ibid.
- <sup>84</sup> Ibid., 13.
- <sup>85</sup> Ibid.
- <sup>86</sup> Ibid., 14.
- <sup>87</sup> Ibid., 15.
- <sup>88</sup> Ibid., 39.
- <sup>89</sup> Ibid.
- <sup>90</sup> Ibid., 40.
- <sup>91</sup> Ibid., 41.
- <sup>92</sup> Ibid., 42.
- <sup>93</sup> Ibid.
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- <sup>95</sup> Ibid., 43.
- <sup>96</sup> Ibid., 44.
- <sup>97</sup> Ibid.
- <sup>98</sup> Ibid.
- <sup>99</sup> Ibid..
- <sup>100</sup> Ibid.
- <sup>101</sup> Ibid., 46.
- <sup>102</sup> Ibid.
- <sup>103</sup> Ibid., 47.
- <sup>104</sup> Ibid.
- <sup>105</sup> Ibid.
- <sup>106</sup> Ibid., 48.
- <sup>107</sup> Ibid.

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<sup>108</sup> Ibid., 49.

<sup>109</sup> Ibid.

<sup>110</sup> Ibid., 51.

<sup>111</sup> Ibid.

<sup>112</sup> Nicholas Eberstadt, *The North Korean Economy: Between Crisis and Catastrophe* (New Brunswick: Transaction Publishers, 2007), xiv.

<sup>113</sup> Ibid., 52.

<sup>114</sup> Ibid., 45.

<sup>115</sup> Ibid., 101.

<sup>116</sup> Ibid., 100.

<sup>117</sup> Ibid., 111.

<sup>118</sup> Ibid., 112.

<sup>119</sup> Ibid., 115.

<sup>120</sup> Ibid.

<sup>121</sup> Ibid., 116.

<sup>122</sup> Ibid., 118.

<sup>123</sup> Ibid.

<sup>124</sup> Ibid.

<sup>125</sup> Ibid., 106.

<sup>126</sup> Ibid., 119.

<sup>127</sup> Ibid., 198.

<sup>128</sup> Ibid.

<sup>129</sup> Ibid.

<sup>130</sup> Ibid., 215.

<sup>131</sup> Ibid., 221.

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<sup>132</sup> Ibid., 223.

<sup>133</sup> Ibid., 224.

<sup>134</sup> Ibid., 223.

<sup>135</sup> Ibid.

<sup>136</sup> Ibid., 224.

<sup>137</sup> Ibid.

<sup>138</sup> Ibid.

<sup>139</sup> Ibid.

<sup>140</sup> Ibid., 225.

<sup>141</sup> Ibid., 226.

<sup>142</sup> Ibid.

<sup>143</sup> Ibid., 225.

<sup>144</sup> Ibid., 226.

<sup>145</sup> Ibid.

<sup>146</sup> Ibid.

<sup>147</sup> Ibid.

<sup>148</sup> Ibid., 227.

<sup>149</sup> Ibid., 228.

<sup>150</sup> Ibid., 232.

<sup>151</sup> Ibid., 234.

<sup>152</sup> Yeongseop Ree and Patrick Messerlin, *North Korea and Economic Integration in East Asia* (New York: Routledge, 2020), viii.

<sup>153</sup> Ibid.

<sup>154</sup> Ibid.

<sup>155</sup> Ibid.

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- <sup>156</sup> Ibid., ix.
- <sup>157</sup> Ibid., 2.
- <sup>158</sup> Ibid.
- <sup>159</sup> Ibid.
- <sup>160</sup> Ibid.
- <sup>161</sup> Ibid., 4.
- <sup>162</sup> Ibid.
- <sup>163</sup> Ibid.
- <sup>164</sup> Ibid., 25.
- <sup>165</sup> Ibid.
- <sup>166</sup> Ibid.
- <sup>167</sup> Ibid.
- <sup>168</sup> Ibid.
- <sup>169</sup> Ibid., 26.
- <sup>170</sup> Ibid.
- <sup>171</sup> Ibid.
- <sup>172</sup> Ibid.
- <sup>173</sup> Ibid., 27.
- <sup>174</sup> Ibid.
- <sup>175</sup> Ibid.
- <sup>176</sup> Ibid.
- <sup>177</sup> Ibid., 29.
- <sup>178</sup> Ibid.
- <sup>179</sup> Ibid.
- <sup>180</sup> Ibid.

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<sup>181</sup> Ibid., 48.

<sup>182</sup> Ibid.

<sup>183</sup> Ibid.

<sup>184</sup> Ibid.

<sup>185</sup> Ibid.

<sup>186</sup> Ibid.

<sup>187</sup> Ibid.

<sup>188</sup> Ibid.

<sup>189</sup> Ibid., 66.

<sup>190</sup> Ibid.

<sup>191</sup> Ibid.

<sup>192</sup> Ibid.

<sup>193</sup> Ibid.

<sup>194</sup> Ibid.

<sup>195</sup> Ibid., 67.

<sup>196</sup> Ibid., 66.

<sup>197</sup> Ibid., 68.

<sup>198</sup> Ibid., 70.

<sup>199</sup> Ibid., 125.

<sup>200</sup> Ibid., 107.

<sup>201</sup> Ibid., 125.

<sup>202</sup> Ibid.

<sup>203</sup> Andrei Lankov, *The Real North Korea: Life and Politics in the Failed Stalinist Utopia* (New York: Oxford University Press, 2013), xii.

<sup>204</sup> Ibid., 67.

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205 Ibid.  
206 Ibid.  
207 Ibid.  
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209 Ibid.  
210 Ibid., 69.  
211 Ibid.  
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218 Ibid., 79.  
219 Ibid., 80.  
220 Ibid., 82.  
221 Ibid.  
222 Ibid., 84.  
223 Ibid.  
224 Ibid., 91.  
225 Ibid., 145.  
226 Ibid.  
227 Ibid., 146.  
228 Ibid.  
229 Ibid., 148.

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<sup>230</sup> Ibid.

<sup>231</sup> Ibid.

<sup>232</sup> Ibid.

<sup>233</sup> Ibid., 149.

<sup>234</sup> Ibid.

<sup>235</sup> Ibid., 151.

<sup>236</sup> Ibid.

<sup>237</sup> Ibid.

<sup>238</sup> Ibid., 152.

<sup>239</sup> Ibid.

<sup>240</sup> Ibid., 153.

<sup>241</sup> Ibid., 153.

<sup>242</sup> Ibid., 154.

<sup>243</sup> Ibid., 155.

<sup>244</sup> Ibid.

<sup>245</sup> Ibid., 156.

<sup>246</sup> Ibid.

<sup>247</sup> Ibid., 157.

<sup>248</sup> Charles L. Pritchard, *Failed Diplomacy: The Tragic Story of How North Korea Got the Bomb* (Washington, DC: Brookings Institution Press, 2007), X.

<sup>249</sup> Ibid., 27.

<sup>250</sup> Ibid.

<sup>251</sup> Ibid.

<sup>252</sup> Ibid., 37.

<sup>253</sup> Ibid.

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- <sup>254</sup> Ibid., 38.
- <sup>255</sup> Ibid., 41.
- <sup>256</sup> Ibid.
- <sup>257</sup> Ibid., 102.
- <sup>258</sup> Ibid.
- <sup>259</sup> Ibid.
- <sup>260</sup> Ibid., 103.
- <sup>261</sup> Ibid., 104.
- <sup>262</sup> Ibid., 105.
- <sup>263</sup> Ibid.
- <sup>264</sup> Ibid., 106.
- <sup>265</sup> Ibid.
- <sup>266</sup> Ibid., 108.
- <sup>267</sup> Ibid., 109.
- <sup>268</sup> Ibid., 126.
- <sup>269</sup> Ibid.
- <sup>270</sup> Ibid.
- <sup>271</sup> Ibid.
- <sup>272</sup> Ibid., 127.
- <sup>273</sup> Ibid.
- <sup>274</sup> Ibid.
- <sup>275</sup> Ibid., 128.
- <sup>276</sup> Ibid.
- <sup>277</sup> Ibid., 129.
- <sup>278</sup> Kim and Lee, *North Korea and Northeast Asia*, 199.

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- <sup>279</sup> Ibid.
- <sup>280</sup> Ibid.
- <sup>281</sup> Ibid., 201.
- <sup>282</sup> Fifield, *The Great Successor*, 25.
- <sup>283</sup> William E. Berry Jr., *North Korea's Nuclear Program: The Clinton Administration's Response* (U.S. Air Force Academy, Colorado: Institute for National Security Studies, 1995), X.
- <sup>284</sup> Scott. Snyder, *Negotiating on the Edge: North Korean Negotiating Behavior* (Washington, DC: United States Institute of Peace Press, 1999), 47.
- <sup>285</sup> Ibid.
- <sup>286</sup> Kwang Ho Chun, *North Korea's Nuclear Question: Sense of Vulnerability, Defensive Motivation, and Peaceful Solution* (U.S. Army War College, Carlisle, PA: Strategic Studies Institute, 2010), 2.
- <sup>287</sup> Ibid., 3.
- <sup>288</sup> Kwang Ho Chun, *North Korea's Nuclear Question: Sense of Vulnerability, Defensive Motivation, and Peaceful Solution* (U.S. Army War College, Carlisle, PA: Strategic Studies Institute, 2010), 4.
- <sup>289</sup> Ibid., 5.
- <sup>290</sup> Junsoo Kim, "Reassurance Strategy: Incentives for Use and Conditions for Success," (PhD diss., Naval Postgraduate School, Monterey, CA, 2010), X, accessed September 08, 2019, <https://search.dtic.mil/#/results?search=%7B%22query%22:%22north%20korea%22%7D>.
- <sup>291</sup> U.S. President, *National Security Strategy of the United States of America*, 26.
- <sup>292</sup> Solingen, *Nuclear Logics*, X.
- <sup>293</sup> Jaclyn McEachern, *North Korea and Iran: Drawing Comparative Lessons*, US-Korea Institute at SAIS, X, accessed September 3, 2019, <https://www.jstor.org/stable/resrep11134>.
- <sup>294</sup> Alireza Jafarzadeh, *The Iran Threat: President Ahmadinejad and the Coming Nuclear Crisis* (New York: Palgrave Macmillan, 2008), X.

## CHAPTER 3

### RESEARCH METHODOLOGY

The purpose of this study is to understand the conditions that North Korea would agree to denuclearize and identify the plausibility of creating those conditions in the current operational environment. The study is conducted through qualitative research due to its suitability to the subject and does not involve dealing with human subjects. A characteristic of qualitative research is that it focuses on phenomenon that is occurring or has occurred and involves capturing and studying the complexity of a phenomena.<sup>1</sup> The North Korean nuclear program issue is complex requiring an in-depth review of the many factors that contribute to the regional strategic environment, and an understanding of how regional dynamics influenced the regime to decide to adopt the nuclear program as a key aspect of their military defense policy.

The study employs multiple qualitative research methods to answer the four secondary research questions, to include: content analysis, case studies, and comparative analysis. No one single method could answer all four questions. The content analysis research method involves extensive research on a subject to identify patterns, themes, or biases.<sup>2</sup> Content analysis will assist in understanding theoretical literature on nuclear weapon strategy, diplomacy, as well as answering two secondary research questions, 1) What power or influence does North Korea gain from nuclear capability? And 2) Historically, what enticed North Korea to conduct nuclear negotiations with the United States? Through studying literature on previous North Korean negotiations, the study will attempt to identify patterns of past negotiations. To find the additional power or influence

that North Korea gained from nuclear weapons the study will analyze the impact of the adoption of nuclear weapons on the North Korean defense strategy.

Through the case study research method, the study will seek to answer the following secondary research questions: What are the factors that lead a nation to pursue nuclear weapons? Why have countries in the past conceded their nuclear capability? A case study is appropriate for answering the above questions because it seeks to discover why a decision or set of decisions were made, how they were conducted, and the results of that decision.<sup>3</sup> Through analysis of countries that pursue nuclear weapons the researcher will look for commonalities among countries and the effect of the decision on their global bargaining capability. The study will also examine the denuclearization of Libya, South Africa, and South Korea. focusing on the decision making that led them to denuclearize, and the effects of that decision on the respective country. Lastly, the analysis will end with comparative analysis to discover what brought other nations to concede their nuclear capabilities and how those conditions compare to the current operational environment in North Korea. All secondary questions will be addressed using the systems approach within the context of political, military, economic, social, information infrastructure (PMESII) framework, as defined in Joint Publications 2-01.3, 3-0 and 5-0.<sup>4</sup>

The systems approach allows a researcher to examine how elements interact to form a whole and determine elements of the system which contribute or detract from an overall goal.<sup>5</sup> The study will conduct content analysis, case study analysis, and comparative analysis using the same format going through PMESII of each topic. For example, nuclear theory will start with understanding the political aspect and then

transition to military and so on. Each section will follow the same order of analysis. The goal in this paper is to determine the conditions necessary for North Korean denuclearization. The paper will focus on the following subfactors: North Korean economic policy, North Korean regime's acceptability of outside influence, and significance of WMD in North Korean defense policy. During the process of the literature review, these three themes were consistently identified indicators of North Korean readiness to negotiate throughout a variety of sources and therefore deemed appropriate to examine during this study. After conducting PMESII systems analysis, the chapter will end with a summary of the findings and how the analysis answered the secondary research questions.

The researcher tailored the literature review to support the three methodologies: content analysis, case study analysis and comparative analysis. The literature selected to support content analysis of nuclear theory includes: *Arms and Influence*, *Nuclear Deterrence-Does It Deter*, *On Thermonuclear War*, and *From Cold War to Long War*. The second part of content analysis will involve examining literature on North Korean culture through PMESII and will include analysis of the following books: *The North Korean Economy: Between Crisis and Catastrophe*, *North Korea and Economic Integration in East Asia*, *The Real North Korea: Life and Politics in the Failed Stalinist Utopia*, *Failed Diplomacy: The Tragic Story of How North Korea Got the Bomb*, *Negotiating on the Edge: North Korean Negotiating Behavior*, *North Korea's Nuclear Question: Sense of Vulnerability, Defensive Motivation, and Peaceful Solution and North Korea and Northeast Asia*. The following books support case study analysis: *Nuclear Logics: Contrasting Paths in East Asia and the Middle East*, *Nonproliferation Norms:*

*Why States Choose Nuclear Restraint, Pulling Back from Nuclear Brink: Reducing and Countering Nuclear Threats*, “North Korea and Iran: Drawing Comparative Lessons” and *The Iran Threat: President Ahmadinejad and the Coming Nuclear Crisis*. To conduct comparative analysis the researcher chose literature which covered North Korean regional dynamics and culture as well as information on previously denuclearized nations. Literature chosen to address North Korean regional dynamics and culture include: *The North Korean Economy: Between Crisis and Catastrophe*, *North Korea and Economic Integration in East Asia*, *Nuclear Logics Contrasting Paths in East Asia and the Middle East*, *North Korea’s North Korea and Northeast Asia*, and *In The Real North Korea: Life and Politics in the Failed Stalinist Utopia*. In addition to the case studies the researcher chose the report “North Korea and Iran: Drawing Comparative Lessons” and *The Iran Threat: President Ahmadinejad and the Coming Nuclear Crisis* to aid in comparative analysis.

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<sup>1</sup> Paul D. Leady and Jeanne Ellis Ormrod, *Practical Research: Planning and Design* (New York: Pearson Education, 2019), 228.

<sup>2</sup> *Ibid.*, 235.

<sup>3</sup> Robert K. Yin, *Case Study Research: Design and Methods* (Thousand Oaks, CA: Sage Publications Inc., 2009), 17.

<sup>4</sup> JCS, JP 2-01.3, I-1; JCS, JP 3-0, IV-3; JCS, JP 5-0, IV-11.

## CHAPTER 4

### ANALYSIS

The purpose of this chapter is to answer the secondary research questions through the research methodology. The secondary research questions include the following: What power or influence does North Korea gain from nuclear capability? Historically, what enticed North Korea to conduct nuclear negotiations with the United States? What are the factors that led North Korea to pursue nuclear weapons? Why have countries in the past conceded their nuclear capability and under what terms if any? What may influence North Korea to begin negotiating their denuclearization?

The study will perform a PMESII systems perspective analysis for each qualitative research method starting with content analysis, then case study, and ending with a comparative analysis. After conducting the analysis, the chapter will conclude with a summary of the findings. Through content analysis the study will gain an understanding of theoretical literature on nuclear weapon strategy, diplomacy, as well as answering the two remaining secondary research questions, 1) What power or influence does North Korea gain from nuclear capability? and 2) Historically, what enticed North Korea to conduct nuclear negotiations with the United States? The literature the researcher reviewed for content analysis on theoretical nuclear weapon strategy includes: *Arms and Influence, On Thermonuclear War, Nuclear Deterrence-Does It Deter* and *From Cold War to Long War*.

## Content Analysis: Nuclear Theory

The key findings from content analysis of nuclear theory include an understanding of nuclear strategy, and the power a nation gains from nuclear weapons. The research found that there are four potential nuclear strategies a nation can adopt through nuclear weapons: finite deterrence, counterforce as insurance, preattack mobilization base, and credible first strike.<sup>1</sup> Finite deterrence is when a national only obtains enough in the nuclear arsenal to conduct punishing retaliation but does not want any more strategic capability than just that.<sup>2</sup> Counterforce as insurance includes having an active counterforce that can destroy or damage the enemy on the ground as well as an active and passive defense systems.<sup>3</sup> Pre-attack mobilization base is when a nation has a complete spectrum of adequate military capabilities, advance planning, and physical preparations.<sup>4</sup> Credible first strike capability is a nation being willing to accept the other side's blow and depends on the destruction the initiator can do, not on the harm of the retaliatory blow.<sup>5</sup>

Through content analysis of nuclear theory the study found the importance of the information element of PMESII for a nation to communicate intent and capability of its nuclear weapon system for bargaining power.<sup>6</sup> A nation cannot influence bargaining through nuclear weapons if its threats are not deemed credible.<sup>7</sup> Credible capability is the credibility of the threat, found through intelligence community threat estimates, and is composed of three elements: aggregate forces, proximity, and power project capability.<sup>8</sup> Aggregate forces encompass the tangible number of soldiers and equipment as well as training, leadership, and doctrine.<sup>9</sup> Proximity is the geography of the force, if it is closer it is a more credible threat.<sup>10</sup> Power projection is the logistics, mobility, and

transportation assets a force can use to close the distance.<sup>11</sup> If a nation has these three elements it has credible capability to use nuclear weapons for negotiating power.

If a nation can communicate its nuclear capability and intent effectively it can then use the “diplomacy of violence.” Diplomacy of violence is a nation’s use of its capacity to destroy for bargaining power.<sup>12</sup> However, a key issue is the degree to which a nation’s intent is communicated. Nations are unable to confidently assess whether the adversary interprets the message as a threat, warning, or if the message was not received at all.<sup>13</sup> <sup>14</sup> For example, if the U.S conducts an exercise on the Korean Peninsula with the intent to deter and does not effectively reassure North Korean leadership on intentions, the regime may not interpret the act as deterrence, but as positioning for war and might attack out of paranoia and miscalculation.<sup>15</sup> This situation is called the security dilemma and is described as the situation when one party takes action to increase security but in turn it makes another party feel vulnerable.<sup>16</sup> This occurred when North Korea gained intelligence on South Korea’s nuclear program, and as a result felt vulnerable and developed their own.<sup>17</sup> The study reviews this situation further in the North Korea content analysis section.

Through studying U.S. defense strategy in the Cold War the study found that funding nuclear weapons were less expensive than developing a robust conventional military.<sup>18</sup> Nuclear weapons are cheaper than conventional means of destruction, they just require an initial large investment.<sup>19</sup> For example, the Eisenhower Administration made the decision to invest in nuclear weapons to prevent excessive military spending to build a conventional army that would damage the fragile economy.<sup>20</sup>

If a nation has nuclear weapons it does not need a robust military to fight its adversary and can spend money that would be used to train, man and equip the force to further develop nuclear weapons, and assist the economy.<sup>21</sup> In summary, through content analysis the study found that nuclear weapons allow a nation to gain political, military, and economic capital if they can communicate credible capability and intent in the information domain to shape bargaining. If a nation is unable to make an adversary believe the threat of use of nuclear weapons the nuclear weapons capability is null and does not advance a nation's international bargaining credibility.<sup>22</sup>

#### Content Analysis: North Korea

Next the study will review the findings of PMESII content analysis of North Korea, focusing on the secondary research questions: What power or influence does North Korea gain from nuclear capability? Historically, what enticed North Korea to conduct nuclear negotiations with the United States? and What are the factors that led North Korea to pursue nuclear weapons. The literature which supports the content analysis of this section includes *The North Korean Economy: Between Crisis and Catastrophe*, *North Korea and Economic Integration in East Asia*, *The Real North Korea: Life and Politics in the Failed Stalinist Utopia*, *Negotiating on the Edge: North Korean Negotiating Behavior*, *North Korea and Northeast Asia*, *North Korea's Nuclear Question: Sense of Vulnerability, Defensive Motivation, and Peaceful Solution*, *The Great Successor: The Divinely Perfect Destiny of Brilliant Comrade Kim Jong Un* and *Failed Diplomacy: The Tragic Story of How North Korea Got the Bomb*.

Through content analysis of the North Korean political system the study found that the nuclear weapons program ensures the survival of the North Korean political

party, the Korea Worker's Party, and its monarchy.<sup>23</sup> The regime began the nuclear program to serve as a military deterrent and use for diplomatic leverage through blackmail.<sup>24</sup> The North Korean regime believed that it needed its own deterrent because it assessed that China would not get into a major confrontation with other countries to save the regime.<sup>25</sup> North Korea has used nuclear weapons as blackmail since 1994 when they signed the Agreed Framework in Geneva promising to freeze its military nuclear program and allow international monitoring of its nuclear facilities in exchange for economic aid.<sup>26</sup> As a result they received over one billion dollars' worth of aid.<sup>27</sup> North Korea's adherence to the Agreed Framework ended in October 2002 when the U.S. discovered that North Korea had a program to enrich uranium.<sup>28</sup> Subsequently, in January of 2003 North Korea withdrew from the nuclear NPT.<sup>29</sup>

North Korea's military policy is called *songun* and translates to military first.<sup>30</sup> Under the military first policy the military is the primary tool for North Korea to solve social, economic, and political problems.<sup>31</sup> North Korea began the military first policy because the regime believed that they could use the military to unify the Korean Peninsula. In the 1970s South Korea's population was twice the size of North Korea's and North Korea further increased their military spending to compensate for manpower.<sup>32</sup> Furthermore, North Korea began development of their own nuclear program due to intelligence of South Korean nuclear development.<sup>33</sup> Through the military first policy North Korea traded in economic power for security and invested in nuclear weapons.<sup>34</sup> Militarily through nuclear weapons North Korea gains regional security and military deterrence to prevent attacks on the regime.<sup>35</sup>

Economics play a large role in North Korea's nuclear calculus. As mentioned above North Korea invests in their military vice their economy.<sup>36</sup> The regime has purposely decided to avoid economic reforms for fear that it could cause the regime to topple.<sup>37</sup> Instead North Korea seeks out economic aid to supplement their economy and leverages their nuclear weapons to negotiate the aid.<sup>38</sup> The North Korean economy needs the aid because their economy is deficient in food and energy.<sup>39</sup> Their tactic of nuclear blackmail for economic aid for survival is best illustrated during the Great Famine.<sup>40</sup> Through freezing their nuclear program during this time period the regime was able to survive and provide the international aid to its citizens.<sup>41</sup> North Korea has demonstrated a cycle based on need of economic aid were it purposely drives tensions through its nuclear weapon testing to get to the international negotiation table to receive aid.<sup>42</sup> Through nuclear weapons North Korea is able to blackmail the international community and receive aid to avoid regime collapse.<sup>43</sup> However, nuclear weapons also bring a negative effect to the North Korean economy. Due to the volatility of the country and international sanctions North Korea is unable to attract foreign investors.<sup>44</sup>

As a result of the dire economic situation during the famine the regime started allowing outside influence through the jangmadang, which translates to black market.<sup>45</sup> Going against their juche doctrine of the regime. Juche is the doctrine that defines the social and information aspect of North Korea. In the juche doctrine people are masters of their destiny, and should remain independent of all outside influences, extended to the economy.<sup>46</sup> However, the regime decided to look the other way due to the failure of many state-ran industries such as the restaurant, transportation, energy and agricultural industries.<sup>47</sup> Previously North Korea received aid and "friendship prices" from the Soviet

Union, but once it dissolved in 1991 the aid was gone.<sup>48</sup> Through the black market the country became exposed to outside influence and it became more acceptable to have ties in other countries to assist in state-sanctioned black market activities.<sup>49</sup> The North Korean *juche* doctrine can also explain why North Korea decided to produce its own nuclear weapons. The regime decided to acquire its own deterrent because it did not think that China would get into a major confrontation for North Korea and found itself vulnerable, tying back to the need to be self-reliant.<sup>50</sup>

Another important social aspect of North Korea is their belief that their leader, Kim Jung Un has the divine right to lead.<sup>51</sup> The deity aspect of the monarch began with his father, Kim Jong Il who according to North Korean legend says was born in a guerrilla camp on Mount Paektu, on the border of China.<sup>52</sup> In North Korean culture Mount Paektu is a sacred place where unusual phenomenon occur to include the birthplace of the father of the Korean people, a half-deity half-bear.<sup>53</sup> Because Kim Jong Il was born at Mount Paektu he is considered to be born from heaven and divine.<sup>54</sup> Kim Jung Un is from the same Paektu bloodline and is considered a divine ruler to the North Korean people.<sup>55</sup>

In the information domain the regime seeks to avoid outside influence and controls digital communication.<sup>56</sup> All media is state controlled, and serves to influence its citizens as well as negotiations.<sup>57</sup> An article in the *Business Insider* found that North Korea has started to generate its own smartphones, but they can't make phone calls outside of the country or connect to the internet.<sup>58</sup> Cell phone use is restricted to the North Korean network, and it is illegal to link cell phones to other servers.<sup>59</sup> It is reported

that many people have their cell phones linked to Chinese servers near the border, but it is illegal and they are subject to punishment.<sup>60</sup>

Through studying the North Korean economic sectors, the study found that its infrastructure is severely lacking. North Korea has poor internal transport systems due to the lack of investment in foreign transport equipment.<sup>61</sup> Through researching the coal, coke, oil, and refined oil products industry the study found that North Korea has limited energy capability.<sup>62</sup> Through studying the Great Famine the study found that the regime cannot sustain itself agriculturally and relies on aid-based solutions through nuclear blackmail.<sup>63</sup>

The next section covers the findings from the case study analysis through PMESII analysis. The purpose of the case study is to answer the following secondary research questions: What are the factors that lead a nation to pursue nuclear weapons? and Why have countries in the past conceded their nuclear capability? The study conducted case study analysis on the nuclear decision making of Iraq, Iran, and Israel to determine why countries decide to acquire nuclear weapons. The study reviewed Libya, South Africa, and South Korea to find out why countries in the past conceded their nuclear capability. The literature that supported the case studies included the following: *Nuclear Logics: Contrasting Paths in East Asia and the Middle East*, *Nonproliferation Norms: Why States Choose Nuclear Restraint*, *Pulling Back from Nuclear Brink: Reducing and Countering Nuclear Threats*, “North Korea and Iran: Drawing Comparative Lessons” and *The Iran Threat: President Ahmadinejad and the Coming Nuclear Crisis*.

First the study will review the case study analysis through PMESII of nations who decided to gain nuclear weapons to understand their decision making. The nations studied include Iraq, Iran, and Israel.

### Case Study: Iraq

When Iraq acquired nuclear weapons Saddam Hussein was in power through the Ba'ath party.<sup>64</sup> The regime was primarily focused on survival and combatting foreign and domestic threats.<sup>65</sup> Any foreign interaction was considered a threat to the regime.<sup>66</sup> The Iraqi nuclear weapons program was directly tied to deterring Iran and intimidating domestic rivals.<sup>67</sup> Saddam also justified nuclear weapons by saying he would use them to “protect the dignity of Iraq, Iraqis, and the Arab nations.”<sup>68</sup>

Economically the regime was inward-focused and suffered a decline in trade openness due to economic reforms and investment focusing on state enterprises and the military-industrial complex.<sup>69</sup> The Ba'ath party exercised economic socialism and regulated trade.<sup>70</sup> Saddam gained favor with tribal leaders through distributing resources to them to include weapons, cash, land, and authority.<sup>71</sup> Saddam placed the military first economically and was not concerned with the effects of military spending on the country's infrastructure.<sup>72</sup> In the Middle-East region Iraq had the highest military spending, with 51 percent of its GDP from 1973-1985.<sup>73</sup> Due to Saddam's unwillingness to dismantle the WMD program sanctions ensued and resulted in an economic crisis.<sup>74</sup> This crisis led Iraq to agree to UNSC Resolution 986, an oil for food program to supplement the economy. Iraqi infrastructure deteriorated under the Ba'ath regime due to the shift in focus to heavy industry and military spending, requiring 70% of food to be imported.<sup>75</sup> As stated previously the regime looked negatively upon outside influence in

the information domain.<sup>76</sup> The Iraqi regime considered all foreigners as spies, contact was to be limited; and those who violated this rule would face charges for treason.<sup>77</sup>

### Case Study: Iran

In 1979 the Islamic revolutionary system took control of Iran and ousted the Shah.<sup>78</sup> Ruhollah Khomeini became the supreme leader of Iran and had both political and religious authority.<sup>79</sup> Initially the leader saw the nuclear program as part of evil western influence, a remnant of the Shah's rule and wanted to disband the program.<sup>80</sup> However, after Israel's attacks on Iraq's nuclear reactor in 1981, the leader felt vulnerable and decided to revive the nuclear weapons program.<sup>81</sup> Their defeat in the Iran-Iraq War occurring from 1985-1989 with conventional weapons solidified the revolution's belief that they needed a nuclear weapon to win.<sup>82</sup> The revolution was focused on staying in power and avoiding domestic and international threats to their rule.<sup>83</sup>

The Pasadaran also called the Revolutionary Guards Corps had the third largest military industrial complex in the country and was entrusted with the responsibility of protecting the revolution.<sup>84</sup> According to one of Khomeini's advisors the Pasadaran was one of the main driving forces of the nuclear program.<sup>85</sup> As mentioned previously after the defeat in the Iran-Iraq War the revolution believed that they lacked the appropriate conventional military forces to combat Iraq again and needed to focus on a nuclear program to secure victory in the future.<sup>86</sup> In addition to the defeat in the Iraq-Iran war, knowledge of Iraq's nuclear development program also contributed to the vulnerability of Iran.<sup>87</sup>

Under the revolution the state controlled major industries to include oil, petrochemicals, foreign trade, banking, mining, insurance, transportation.<sup>88</sup> The state also

maintained control of a large portion but not all of construction, manufacturing and agriculture industries.<sup>89</sup> The main source of income for Iran was oil and gas exports.<sup>90</sup> Eighty percent of the economy was composed of the state-controlled companies and tax exempt foundations named *bonyads* which were mainly composed of clerics, and former military officers appointed by Khomeini.<sup>91</sup> This system mainly benefitted the middle class and did not give opportunities to the lower class to climb the economic ladder.<sup>92</sup>

The revolution also justified the necessity of nuclear weapons through using religion, one of Khomeini's advisors told an Iranian scientist, "it is your duty to build the atomic bomb for the Islamic Republican Party."<sup>93</sup> Additionally, another one of Khomeini's advisors said, "because the enemy has nuclear facilities, the Muslim states too should be equipped with the same capacity . . . I am not talking about one Muslim country, but rather the entirety of Muslim states."<sup>94</sup> The revolution saw nuclear capability as means to stay in power and did not care about international norms and their effect on Iran's standing internationally.<sup>95</sup> The revolution sought to avoid western influence in all domains, and those who had foreign contacts were suspect of being spies.<sup>96</sup> Iran consistently messages the desire to, "wipe Israel off the map" and describes Israel as a "cancerous tumor."<sup>97</sup> This messaging furthered the Israel's justification for a nuclear weapons program as well as adding to the overall regional insecurity.

### Case Study: Israel

Israel's nuclear policy has been ambiguous since its inception in 1958, but as of 2018 analysts believe that Israel has 80-90 nuclear warheads.<sup>98</sup> In 1948 Israel declared independence, and stood up a democratic republic with a parliament, headed by a Prime Minister.<sup>99</sup> Due to regional isolation, and threats on all borders the Premier David Ben-

Gurion ordered the construction of a nuclear complex in 1958.<sup>100</sup> Israel never signed the Non-proliferation treaty obligating it to adhere to the treaty.<sup>101</sup> In 1968 Israel admitted to knowledge of how to produce nuclear weapons, but that it did not produce the weapons.<sup>102</sup> Israel denied production and told the international community that, “Israel would not be the first to introduce nuclear weapons to the Middle-East.”<sup>103</sup>

In 1948, when Israel declared its independence, five Arab countries attacked Israel in 1948.<sup>104</sup> Due to the belief Israel needed to secure its survival and deter external attacks it started the nuclear weapons program.<sup>105</sup> Israel specifically worried about Iran, due to persistent messaging that Iran wanted to wipe Israel off the face of the planet with its own nuclear program.<sup>106</sup>

During the inception of the nuclear program Israel focused on self-reliance and had a hybrid of economic socialist principles and free market practices.<sup>107</sup> The premier believed that nuclear energy would assist the economy and provide electricity and water since the country lacked the natural resources of oil and water.<sup>108</sup> In the 1990s Israel started economic reforms to focus on competition, international institutions, the global economy, and the futility of technological fixes as solutions to Israel’s security dilemma, transitioning Israel from an inward-looking country to internationalizing.<sup>109</sup> The Israeli government kept the nuclear program secret to its citizens and some portions of the government. Israeli defense forces were kept out of the loop to avoid perception of competition of resources and comparison of the defense budget versus the nuclear budget.<sup>110</sup>

Israeli citizens have had mixed views of the necessity of a nuclear Israel that waned with the threat of attack. Israel has avoided domestic divide through its ambiguous

messaging throughout the years.<sup>111</sup> According to a survey in 1986, 66 percent of the survey participants rejected nuclear weapons or their use.<sup>112</sup> However, in 1991, with the Iraqi threat, 92 percent of Israelis thought Israel should develop nuclear weapons.<sup>113</sup> Several international institutions over the years have asked for Israel to sign some form of treaty regarding non-proliferation, but Israel has remained non-committal.<sup>114</sup> Israel did however sign the Nixon-Meir understanding in 1969 to neither test nor declare nuclear capabilities.<sup>115</sup> President Nixon did not want to press his allies to join and ratify the NPT or tie conditions for military sales to denuclearization.<sup>116</sup> In 2018 Israel began to invest more heavily in their infrastructure and focused on their transport system to assist in economic growth.<sup>117</sup> Previously it did not dedicate the appropriate amount of its budget to infrastructure development compared to other developed countries of its stature.<sup>118</sup>

Next the study conducted PMESII analysis of nations that decided to denuclearize to include Libya, South Africa, and South Korea. The methodology for this section is to focus on the PMESII of the country when it decided to develop a nuclear capability and describe the PMESII when it decided to denuclearize.

#### Case Study: Libya

Libya is the only country that both started and ended their nuclear program under the same leader.<sup>119</sup> Prime Minister Muammar al Qadhafi came into power through orchestrating a coup with his Revolutionary Command Council to overthrow then leader King Idris in 1969.<sup>120</sup> Under King Idris' rule Libya signed the NPT in 1968 and had close ties to Britain and the United States.<sup>121</sup> Under Qadhafi's regime Libya moved away from western influence and practiced anti-imperialism, Arab socialism, and focused on Arab Unity.<sup>122</sup> Shortly after the coup Qadhafi started Libya's nuclear weapon

program.<sup>123</sup> Qadhafi conducted the coup when he was a Colonel in the military, and the military remained one of his strong allies in the government.<sup>124</sup> He ensured that the military had the necessary weapons and technology.<sup>125</sup> The military defense budget accounted for one fourth of Libyan imports.<sup>126</sup>

Qadhafi justified weapons as part of the self-reliant economic model, and to help the pan-Arab nations.<sup>127</sup> As a result of Libya's ties to terrorist individuals and actions President Carter emplaced economic sanctions on Libya.<sup>128</sup> Six years later the UN emplaced universal oil and travel sanctions because of the involvement of Libya in the Lockerbie bombings in 1988.<sup>129</sup> Although Qadhafi promoted Libya's economic self-reliance, oil exports accounted for 95 percent of their foreign exchange to purchase food, technology and capital equipment.<sup>130</sup> Libya became dependent on the international market, and the sanctions meant that Tripoli could not export oil or import oil-field technology.<sup>131</sup> In 2003 Qadhafi wanted to give up his nuclear program in exchange for normalization with Britain and the U.S.<sup>132</sup> Qadhafi called the nuclear arms race "crazy," and "we would like to have a better economy and an improved life."<sup>133</sup> There is a clear linkage between the economic decline and Libya's desire to give up nuclear weapons to assist in economic internationalization.<sup>134</sup> Furthermore, in 2003 the former trade and economy minister and premier said, "we thought this would make us look better in the eyes of the world and set an example for others in the Middle-East to follow, especially Israel . . . Weapons of mass destruction are very costly. It's better that we concentrate on our economic development."<sup>135</sup>

Initially, Qadhafi messaged to his citizens that nuclear weapons were necessary to combat the Israeli threat to the Arab and Muslim world's security.<sup>136</sup> But in 2003, with

the decline of the economic situation in Libya, due to effective sanctions, its citizens began to oppose nuclear weapons.<sup>137</sup> Qadhafi faced internal threats and found that nuclear weapons were a “major liability” for regime survival.<sup>138</sup> In December of 2003 Libya ended their nuclear weapons program, ratified the comprehensive Nuclear Test Ban, and in 2004 signed the IAEA additional protocol.<sup>139</sup> As a result of these changes the U.S removed restrictions on their oil imports and lifted most sanctions.<sup>140</sup> In 2005 economic growth rose eight percent due to foreign investment and oil production.<sup>141</sup>

In the short term there were many positive effects of Libya’s decision to denuclearize. In 2011 the U.S and European allies took military action against Libya due to Qadhafi’s treatment of civilians.<sup>142</sup> The U.S. and its European allies launched airstrikes in Libya, sending a negative message to the international community about disarming Libya.<sup>143</sup>

#### Case Study: South Africa

In 1989, South Africa became the first country to denuclearize, “an indigenous nuclear program,” unlike the previously Soviet run countries which inherited the nuclear program.<sup>144</sup> The South African government justified its nuclear weapons program due to the threat of Soviet attack on itself and its allies in Southern Africa in the 1970s.<sup>145</sup> At the time South Africa also controlled Namibia.<sup>146</sup> Two peace settlements in the 1980s led South Africa to no longer feel threatened: the de facto cease fire between itself, Cuba and Angola in 1988 and the withdrawal of South Africa in Angola and a tripartite agreement between the UN, South Africa, Cuba and Angola resulting in the independence of Namibia and withdrawal of 50,000 Cuban troops from Angola.<sup>147</sup> The peace agreements also signaled the end of Soviet Union support to South African enemies.<sup>148</sup> Furthermore,

the Soviet Union itself began to crumble, ceasing the Cold War.<sup>149</sup> In 1989 the South African president transitioned from President Pieter Williem Botha to Frederick Willem de Klerk.<sup>150</sup> De Klerk's goal was to end previous apartheid policies, and focus on joining the international community.<sup>151</sup> He believed that part of joining the international community was giving up South Africa's nuclear weapons.<sup>152</sup> Additionally, de Klerk believed that the security situation had changed and the threats that previously warranted South Africa's nuclear weapons program were obsolete: the Soviets were no longer on South Africa's borders.<sup>153</sup>

De Klerk believed that giving up nuclear capability would result in rewards for the country.<sup>154</sup> To ensure support of ending the nuclear program he decreased the amount of military personnel in government positions and promoted civilian leadership.<sup>155</sup> This change led to a decrease in support of the nuclear weapons program in the government.<sup>156</sup> De Klerk believed that if South Africa signed the NPT, sanctions on nuclear trade would end and South Africa would be rewarded by the ability to join the Nuclear Suppliers Group and rejoin the International Atomic Energy Agency Board of Governors.<sup>157</sup> The actual cost of the nuclear program was not a contributing factor to the decision.<sup>158</sup> July 10, 1991 South Africa signed the NPT, however, the country maintains its stock of highly enriched uranium (HEU), giving them the capability to build nuclear weapons in the future.<sup>159</sup>

### Case Study: South Korea

South Korea gained nuclear capabilities under Presidents Park Chung Hee's administration.<sup>160</sup> President Park seized power of South Korea when he was a General in the military in 1961.<sup>161</sup> Initially, he was focused on inward-looking policies.<sup>162</sup> However,

in 1963 President Park saw Japan and North Korea economically progressing past South Korea and decided to shift towards an internationalizing model of economics focused on exports.<sup>163</sup> Park believed that if he was able to demonstrate his capability to improve the South Korean economy he would gain South Korean citizens' trust in his ability to lead.<sup>164</sup> The regime's motto became "Nation Building through Exports" and "Think Exports First."<sup>165</sup> In 1968 South Korea signed the NPT when it was first drafted.<sup>166</sup> However, in 1969 President Nixon announced the "Guam doctrine" requesting Asian allies to practice self-reliance, which led South Korea feeling vulnerable and abandoned by the U.S.<sup>167</sup> In 1970 South Korean vulnerability furthered when the U.S. withdrew 24,000 troops unilaterally from South Korea.<sup>168</sup> Despite the changes in U.S. support South Korea signed the IAEA in 1972.<sup>169</sup>

Park ratified South Korea's position on signing the NPT in 1975 after China and North Korea did not sign, and Japan delayed ratification.<sup>170</sup> U.S. decline in military support was also a major contributing factor.<sup>171</sup> Park justified his position and said that South Korea needed its own deterrent if U.S. support was removed.<sup>172</sup> When South Korea ratified the NPT, North Korea had the assistance of Soviet and Chinese forces while the U.S. military support started to decline and stopped completely in 1978.<sup>173</sup> South Korea spent 4-6 percent of its GDP on their military from the 1970s-1990s. However, overall GDP grew 10 percent from 1965-1989.<sup>174</sup> They maintained a 600,000-man military with modern equipment, while North Korea had twice that size by 1958.<sup>175</sup> South Korea's smaller force with modern weapons was considered far more advanced than North Korea's.<sup>176</sup>

After ratifying the NPT Park worked towards purchasing a French reprocessing facility and a Canadian heavy water reactor for plutonium production. The U.S pressured South Korea to stop negotiations to acquire a French reprocessing plant, and that if they didn't cease U.S economic and military aid would end.<sup>177</sup> Park used the potential for a nuclear weapons program as a bargaining chip with the U.S. to ensure it maintained South Korea under its nuclear umbrella.<sup>178</sup> Park cancelled the reprocessing plant in 1976 under pressure from the U.S.<sup>179</sup> South Korea relied on the U.S. and Japan for 85 percent of its Foreign Direct Investment, most of its foreign debt, and 60 percent of imports and exports, South Korea needed to maintain the trade relationship.<sup>180</sup>

In the 1970s Park reinstated price controls and introduced martial law under the “October Revitalization Reforms” with *juche* rhetoric, national identity, and national security.<sup>181</sup> Park turned towards authoritarianism and inward industrial “deepening” favoring military industrialization as a result military expenditures went up 25-50 percent in the 1970s and raised from 5 to 7.5 percent of their GNP.<sup>182</sup> There was a divide in the South Korean citizens over support for Park’s previous policies of internationalizing the economy versus new inward industrialism in the 1970s.<sup>183</sup> Under this new inward policy and the U.S withdrawal of 20,000 troops Park recommended nuclear development and approved the purchase of a French reprocessing facility and a Canadian heavy water reactor for plutonium production.<sup>184</sup> As mentioned above international pressure and ties to global economics led South Korea to cease work to acquire nuclear weapons. South Korea signed an IAEA agreement in 1975 placing all present and future nuclear facilities under international safeguards, and agreeing not to develop enrichment or reprocessing facilities, accepting limits on acquiring full fuel cycle capabilities.<sup>185</sup> The cycle began

again when in 1977 President Carter said that U.S. troops and nuclear weapons would be drawn from South Korea.<sup>186</sup> Park responded in kind and threatened to develop an independent nuclear deterrent.<sup>187</sup> He did not develop a nuclear deterrent, but instead focused on dedicating resources towards South Korean economic growth.<sup>188</sup> A key point in these negotiations is South Korea's need for U.S. protection under their nuclear umbrella to abstain from nuclear development.<sup>189</sup>

### Comparative Analysis

Next the study will conduct comparative analysis of the case study countries. First comparing the PMESII of North Korea to the PMESII of the case countries that pursued nuclear weapons to include Iraq, Iran, and Israel to find commonalities in their reasons for deciding to develop a nuclear weapon capability.

Through conducting PMESII analysis the study found that North Korea, Iraq, Iran, and Israel are all similar in that nuclear weapons were developed to ensure survival of the country. Iraq, Iran, and North Korea share the same type of governance, autocratic rule. Israel is the outlier as a democratic country. The difference in the countries is the type of threat they faced. North Korea and Iraq developed nuclear weapons to combat internal threats in addition to deterring external threats. Nuclear weapons were a means to ensure regime survival from domestic turmoil. Through content analysis of the North Korean political system the study found that the nuclear weapons program ensures the survival of the North Korean political party, the Korea Worker's Party, and its Monarchy.<sup>190</sup> Similarly Saddam Hussein developed a nuclear weapons program for Iraq to deter domestic rivals as well as to deter Iran.<sup>191</sup>

Meanwhile Iran and Israel exclusively focused on deterring external threats through nuclear weapons. Iran saw the need for nuclear weapons after the defeat in the Iran- Iraq War because they lacked the appropriate conventional military forces to combat Iraq again and needed to focus on a nuclear program to secure victory in the future.<sup>192</sup> In addition to the defeat in the Iraq-Iran war, knowledge of Iraq's nuclear development program also contributed to the vulnerability of Iran.<sup>193</sup> Israel's president, David Ben-Gurion, looked to develop nuclear capability after five different countries attacked Israel, and they became regionally isolated.<sup>194</sup> The leadership believed that to secure survival from external attacks it needed a nuclear weapons program.<sup>195</sup>

All four countries shared the same inward-focused economic structure and state-controlled economy when they decided to develop a nuclear weapons program. North Korea's economic policy is inward-focused and follows the military first policy, training economic power for security and investing heavily in nuclear weapons.<sup>196</sup> The regime decided to avoid economic reforms for fear that it could cause the regime to topple.<sup>197</sup> Instead North Korea seeks out economic aid to supplement their economy and leverages their nuclear weapons to negotiate the aid.<sup>198</sup> The North Korean economy needs the aid because their economy is deficient in food and energy.<sup>199</sup> Through nuclear weapons North Korea can blackmail the international community and receive aid to avoid regime collapse.<sup>200</sup> North Korea's attempts to acquire foreign investors have been unsuccessful.<sup>201</sup> The security situation creates a volatile market, repelling foreign investors from investing in North Korea.<sup>202</sup> Although, North Korea is inward-focused the country does rely on outside goods through the black market.<sup>203</sup>

Iraq was inward-focused and suffered a decline in trade openness due to economic reforms and investment focusing on state enterprises and the military-industrial complex.<sup>204</sup> The Ba'ath party exercised economic socialism and regulated trade.<sup>205</sup> Saddam placed the military first economically and was not concerned with the effects of military spending on the country's infrastructure.<sup>206</sup> In the Middle-East region Iraq had the highest military spending, with 51 percent of its GDP from 1973-1985.<sup>207</sup>

Iran had state control of major industries to include oil, petrochemicals, foreign trade, banking, mining, insurance, transportation when it decided to develop nuclear capability.<sup>208</sup> The state also maintained control of a large portion but not all of construction, manufacturing and agriculture industries.<sup>209</sup> However, the main source of income was oil and gas exports, making them dependent on global trade.<sup>210</sup> Due to their reliance on exports, economic sanctions have more of an effect on their economy.

When Israel decided to develop a nuclear program their economy also focused on self-reliance; however, they had a had a hybrid of economic socialist principles and free market practices.<sup>211</sup> Israeli leadership saw nuclear energy as a means to assist the economy and provide electricity and water since the country lacked the natural resources of oil and water.<sup>212</sup> Israel transitioned in the 1990s to an internationalizing model focusing on competition, international institutions, and the global economy.<sup>213</sup> However, intelligence reported that they still maintain a nuclear weapons capability.<sup>214</sup> Although all four countries had inward-focused economies when development of nuclear weapons began North Korea, Iran, and Israel all relied on the international market to a degree.

North Korea, Iraq, and Iran all shared the same belief that outside influence was negative when they developed nuclear weapons. North Korea, through the juche doctrine

believes that their country should remain independent of all outside influences, extended to the economy.<sup>215</sup> The North Korean *juche* doctrine can also explain why North Korea decided to produce its own nuclear weapons. The regime decided to acquire its own deterrent because it did not think that China would get into a major confrontation for North Korea and found itself vulnerable, tying back to the need to be self-reliant.<sup>216</sup>

Under Saddam's regime, Iraq looked negatively upon outside influence in the information domain.<sup>217</sup> The Iraqi regime considered all foreigners as spies, contact was to be limited; and those who violated this rule would face charges for treason.<sup>218</sup> Iran sought to avoid western influence in all domains, and those who had foreign contacts were suspect of being spies.<sup>219</sup> However, initially Khomeini saw the inherited nuclear program as a left over remnant of the Shah's western influence.<sup>220</sup> He quickly changed his mind after Israel attacked Iraq, and Iran was defeated in the Iraq-Iran War.<sup>221</sup>

Israel is the exception and did not have strong views on foreign influence. However, the government hid the nuclear program from its citizens and the international community. Initially, Israel was able to hide their nuclear program to avoid international scrutiny and domestic divide.<sup>222</sup> Once the international community became cognizant of Israeli nuclear development several international institutions asked for Israel to sign some form of treaty regarding non-proliferation, but Israel has remained non-committal.<sup>223</sup> Israel did however sign the Nixon-Meir understanding in 1969 to neither test nor declare nuclear capabilities.<sup>224</sup> President Nixon did not want to press his allies to join and ratify the NPT or tie conditions for military sales to denuclearization.<sup>225</sup> The foreign community has not applied economic sanctions to pressure Israel to denuclearize.<sup>226</sup>

North Korea and Iran are similar in that they both use religion as a means for justification or authority to have nuclear weapons. In North Korea, their leader has the divine right to lead and make decisions, to include decisions regarding nuclear capability.<sup>227</sup> In Iran Ruhollah Khomeini has both political and religious authority.<sup>228</sup> Under Khomeini's rule Iran enacted divine law, or shari'a for social, economic, and political affairs.<sup>229</sup> One of Khomeini's advisors said, "because the enemy has nuclear facilities, the Muslim states too should be equipped with the same capacity . . . I am not talking about one Muslim country, but rather the entirety of Muslim states."<sup>230</sup> Iraq did not use religious justification, but justified its nuclear weapons program through ethnic orientation by saying he would use them to "protect the dignity of Iraq and Iraqis and the Arab nations."<sup>231</sup> Israel has not publicly justified nuclear capability and is vague on its capability.<sup>232</sup>

Lastly, the study will compare the PMESII of North Korea to the PMESII of the case countries that denuclearized: Libya, South Africa, and South Korea. Libya and South Korea differ from North Korea in that the leaders that started the nuclear program also ended it. The leaders of Libya and South Korea came into power through the similar violent means and were both military commanders when they orchestrated the coup.<sup>233</sup> Prime Minister Muammar al Qadhafi came into power through orchestrating a coup with his Revolutionary Command Council to overthrow then leader King Idris in 1969.<sup>234</sup> President Park seized power of South Korea when he was a General in the military in 1961.<sup>235</sup> Both leaders initially practiced inward-looking policies when they developed the capability. South Africa is the outlier, President de Klerk came to power through peaceful democratic elections and inherited the program from previous administrations.<sup>236</sup>

Unlike North Korea, South Africa and South Korea believed they no longer faced the same military threat as when they decided to develop the nuclear program. In South Africa President de Klerk believed the security situation had changed and the threats that previously warranted South Africa's nuclear weapons program were obsolete.<sup>237</sup> South Korean President Park initially justified a nuclear program because he believed that U.S. military support on the peninsula was going to be removed.<sup>238</sup> President Park ceased nuclear development after the U.S. said that it would remove economic and military aid if South Korea went forward with purchasing a French reprocessing facility and a Canadian heavy water reactor for plutonium production.<sup>239</sup> Park used the potential development of a nuclear weapons program as a bargaining chip with the U.S. to ensure it maintained South Korea under its nuclear umbrella.<sup>240</sup>

North Korea still believes that it needs a nuclear capability to serve as a military deterrent due to regional instability with U.S. military forces working with ROK on the peninsula.<sup>241</sup> Additionally, North Korea believes that they do not have an ally to come to their aid, and justify the need for nuclear weapons through their *juche* or self-reliance doctrine.<sup>242</sup> Libya's decision-making to denuclearize did not involve a change in the security situation.

Economics played a large role in all three countries' decision making to denuclearize. Economics weighed heavily on Qadhafi's decision to denuclearize; when he decided to initiate negotiation for denuclearization it was in exchange for normalizing trade with Britain and the U.S.<sup>243</sup> Libya was dependent on the international market and the U.N. economic sanctions effected their capability to export oil or import oil-field technology.<sup>244</sup> When Libya gave up its nuclear weapons and signed the IAEA additional

protocol restrictions on their oil imports and most sanctions were removed.<sup>245</sup> As a result of their denuclearization in 2005 economic growth rose eight percent due to foreign investment and oil production.<sup>246</sup>

President de Klerk wanted to join the international community, to include economically and felt that it was contingent on giving up nuclear weapons.<sup>247</sup> De Klerk believed that if South Africa signed the NPT, sanctions on nuclear trade would end and South Africa would be rewarded by the ability to join the Nuclear Suppliers Group and rejoin the International Atomic Energy Agency Board of Governors.<sup>248</sup>

As mentioned previously, the U.S. threatened to remove both economic and military aid to South Korea if they proceeded with developing nuclear weapons.<sup>249</sup> Instead of going forward with developing nuclear weapons in 1977 Park dedicated resources towards South Korean economic growth.<sup>250</sup> In addition to a reduction in economic aid, South Korea relied on the U.S. and Japan for 85 percent of its Foreign Direct Investment, most of its foreign debt, and 60 percent of imports and exports, South Korea needed to maintain the trade relationship.<sup>251</sup>

North Korea is in a different economic situation, although sanctions influence their economy they are not as dependent on international trade as the case study countries.<sup>252</sup> North Korea circumvents sanctions to provide for their population through the black market.<sup>253</sup> Through nuclear weapons North Korea benefits economically through its ability to blackmail the international community to receive much needed economic assistance.<sup>254</sup> However, North Korea's nuclear program severely impacts its ability to broaden the economy. The volatility of North Korea's market and sanctions have repelled potential foreign investors.<sup>255</sup>

Libya, and South Africa faced social pressure to denuclearize. As the economic situation deteriorated in Libya its citizens began to oppose the nuclear program.<sup>256</sup> Previously, the citizens of Libya supported the need for nuclear weapons to combat the Israeli threat, but that was no longer.<sup>257</sup> President de Klerk shaped the South African governmental positions ensure that there was a decrease in nuclear support to assist in his endeavor to denuclearize.<sup>258</sup> In South Korea pressure came from the international community to denuclearize and was threatened that military and economic aid would cease otherwise.<sup>259</sup> North Korea does not face internal pressure to denuclearize, partly due to the inability for citizens to overtly disagree with their divine leader.<sup>260</sup> However, North Korea does face international pressure through economic sanctions to denuclearize.

#### Summary and Conclusions

Through conducting content analysis using PMESII of nuclear theory, the study found that countries who develop nuclear weapons gain bargaining capability, however, if a nation does not make its threat credible the capability is void.<sup>261</sup> Nuclear weapons also provide a military deterrent that is more economically feasible to acquire than a robust conventional military force.<sup>262</sup>

Through content analysis using PMESII of North Korea, the study found the capabilities that it gains from nuclear weapons and why they come to the negotiating table. North Korea gains a military deterrent, ensuring regime survival.<sup>263</sup> Through nuclear weapon blackmail Kim Jung Un receives economic aid to supplement the country's deficit in transport, energy, and agriculture.<sup>264</sup> North Korea has demonstrated a cycle based on need of economic aid were it purposely drives tensions through its nuclear weapon testing to get to the international negotiation table to receive aid.<sup>265</sup>

Through case study analysis of Iraq, Iran, and Israel using PMESII systems analysis the study answered the secondary research question: What are the factors that lead a nation to pursue nuclear weapons? The study found the commonality that all countries sought nuclear weapons to act as a military deterrent when they were facing regional instability. Another common factor was that all countries shared the same inward-focused economic structure and state-controlled economy when they decided to develop a nuclear weapons program.

Through conducting case study analysis using PMESII of previously denuclearized nations the study answered the question, “Why have countries in the past conceded their nuclear capability?” Through PMESII analysis the study found the common factors in denuclearizing were economics and social pressure. The next chapter will review the significance of these findings and answer the primary research question, “Under what conditions would North Korea agree to denuclearize?”

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<sup>1</sup> Kahn, *On Thermonuclear War*, 13; Long, *Deterrence*, 6, 40.

<sup>2</sup> Kahn, *On Thermonuclear War*, 13.

<sup>3</sup> *Ibid.*, 16.

<sup>4</sup> *Ibid.*, 25.

<sup>5</sup> *Ibid.*, 32.

<sup>6</sup> Long, *Deterrence*, 10; Schelling, *Arms and Influence*, 36.

<sup>7</sup> Long, *Deterrence*, 10; Schelling, *Arms and Influence*, 36; Honore M. Catudal, *Nuclear Deterrence-Does it Deter?* (Atlantic Highlands: Humanities Press International, 1986), 78, 102.

<sup>8</sup> Long, *Deterrence*, 10.

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- <sup>9</sup> Ibid., 11.
- <sup>10</sup> Ibid.
- <sup>11</sup> Ibid., 12
- <sup>12</sup> Schelling, *Arms and Influence*, 30.
- <sup>13</sup> Long, *Deterrence*, 14.
- <sup>14</sup> Catudal, *Nuclear Deterrence-Does it Deter?*, 78.
- <sup>15</sup> Long, *Deterrence*, 80.
- <sup>16</sup> Ibid., 10.
- <sup>17</sup> Lankov, *The Real North Korea*, 148.
- <sup>18</sup> Long, *Deterrence*, 18; Catudal, *Nuclear Deterrence-Does it Deter?*, 104.
- <sup>19</sup> Schneider and Dowdy, *Pulling Back from the Nuclear Brink*, 150.
- <sup>20</sup> Catudal, *Nuclear Deterrence-Does it Deter?*, 104.
- <sup>21</sup> Long, *Deterrence*, 18.
- <sup>22</sup> Schelling, *Arms and Influence*, 36.
- <sup>23</sup> Eberstadt, *The North Korean Economy*, 226; Lankov, *The Real North Korea*, 146; Kim and Lee, *North Korea and Northeast Asia*, 65.
- <sup>24</sup> Lankov, *The Real North Korea*, 149.
- <sup>25</sup> Ibid.
- <sup>26</sup> Ibid., 151.
- <sup>27</sup> Lankov, *The Real North Korea*, 149; Kim and Lee, *North Korea and Northeast Asia*, 201.
- <sup>28</sup> Arms Control Association, “Chronology of U.S. North Korean Nuclear and Missile Diplomacy.”
- <sup>29</sup> Ibid.
- <sup>30</sup> James E. Hoare, *Historical Dictionary of the Democratic People’s Republic of Korea* (Lanham, MD: The Rowman & Littlefield Publishing Group Inc., 2012), 352.

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<sup>31</sup> Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 352; Eberstadt, *The North Korean Economy*, 232; Fifield, *The Great Successor*, 29.

<sup>32</sup> Lankov, *The Real North Korea*, 71.

<sup>33</sup> Lankov, *The Real North Korea*, 148; Kim and Lee, *North Korea and Northeast Asia*, 64.

<sup>34</sup> Kim and Lee, *North Korea and Northeast Asia*, 201.

<sup>35</sup> Chun, *North Korea's Nuclear Question*, 5; Lankov, *The Real North Korea*, 149; Pritchard, *Failed Diplomacy*, 37; Kim and Lee, *North Korea and Northeast Asia*, 201.

<sup>36</sup> Kim and Lee, *North Korea and Northeast Asia*, 201.

<sup>37</sup> Lankov, *The Real North Korea*, 145.

<sup>38</sup> Eberstadt, *The North Korean Economy*, xiv, 119.

<sup>39</sup> *Ibid.*, 119.

<sup>40</sup> Lankov, *The Real North Korea*, 151.

<sup>41</sup> *Ibid.*, 152.

<sup>42</sup> *Ibid.*, 156.

<sup>43</sup> Eberstadt, *The North Korean Economy*, xiv; Lankov, *The Real North Korea*, 156.

<sup>44</sup> Ree and Messerlin, *North Korea and Economic Integration in East Asia*, 48; Eberstadt, *The North Korean Economy*, 45; Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 23.

<sup>45</sup> Lankov, *The Real North Korea*, 82; Jeppesen, "Shopping In Pyongyang, and Other Adventures in North Korean Capitalism,"; Lankov, *The Real North Korea*, 82.

<sup>46</sup> Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 192.

<sup>47</sup> Lankov, *The Real North Korea*, 85; Fifield, *The Great Successor*, 28.

<sup>48</sup> Lankov, *The Real North Korea*, 73; Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 23.

<sup>49</sup> Lankov, *The Real North Korea*, 91, 82; Jeppesen, "Shopping In Pyongyang, and Other Adventures in North Korean Capitalism,"; Ree and Patrick Messerlin, *North*

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*Korea and Economic Integration in East Asia*, 48; Lankov, *The Real North Korea*, 80; Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 24.

<sup>50</sup> Lankov, *The Real North Korea*, 149; Chun, *North Korea's Nuclear Question*, 2.

<sup>51</sup> Fifield, *The Great Successor*, 24.

<sup>52</sup> Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 211; Fifield, *The Great Successor*, 25.

<sup>53</sup> Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 211; Fifield, *The Great Successor*, 25.

<sup>54</sup> Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 211; Fifield, *The Great Successor*, 25.

<sup>55</sup> Fifield, *The Great Successor*, 65.

<sup>56</sup> Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 68; BBC, "North Korea's Tightly Controlled Media," December 19, 2011, accessed April 26, 2020, <https://www.bbc.com/news/world-asia-pacific-16255126>; Snyder, *Negotiating on the Edge*, 47.

<sup>57</sup> Snyder, *Negotiating on the Edge*, 47; Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 92.

<sup>58</sup> Antonio Villas-Boas, "North Korea Has Its Own Smartphones That You Can't Buy Anywhere Else-Check Out Some Of The Smartphones North Koreans Are Using," *Business Insider*, July 31, 2018, accessed April 29, 2020, <https://www.businessinsider.com/north-korea-smartphones-2018-7>.

<sup>59</sup> Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 92.

<sup>60</sup> Ibid.

<sup>61</sup> Eberstadt, *The North Korean Economy*, 106.

<sup>62</sup> Ibid., 119.

<sup>63</sup> Ibid.

<sup>64</sup> Solingen, *Nuclear Logics*, 154.

<sup>65</sup> Ibid.

<sup>66</sup> Ibid., 162.

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- <sup>67</sup> Ibid., 163.
- <sup>68</sup> Ibid.
- <sup>69</sup> Ibid., 155.
- <sup>70</sup> Ibid.
- <sup>71</sup> Ibid., 154.
- <sup>72</sup> Ibid.
- <sup>73</sup> Ibid., 156.
- <sup>74</sup> Ibid., 159.
- <sup>75</sup> Ibid.
- <sup>76</sup> Ibid., 161.
- <sup>77</sup> Ibid., 157.
- <sup>78</sup> Ibid., 176.
- <sup>79</sup> Ibid.
- <sup>80</sup> Jafarzadeh, *The Iran Threat*, 131.
- <sup>81</sup> Ibid.
- <sup>82</sup> Ibid., 132, 153.
- <sup>83</sup> Solingen, *Nuclear Logics*, 186.
- <sup>84</sup> Ibid., 177.
- <sup>85</sup> Ibid.
- <sup>86</sup> Jafarzadeh, *The Iran Threat*, 132.
- <sup>87</sup> Solingen, *Nuclear Logics*, 167.
- <sup>88</sup> Ibid., 176.
- <sup>89</sup> Ibid.
- <sup>90</sup> Ibid.
- <sup>91</sup> Ibid.

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<sup>92</sup> Ibid.

<sup>93</sup> Ibid., 177.

<sup>94</sup> Ibid.

<sup>95</sup> Ibid., 186.

<sup>96</sup> Ibid., 177.

<sup>97</sup> Ibid., 189.

<sup>98</sup> Solingen, *Nuclear Logics*, 187; Arms Control Association, “Arms Control and Proliferation Profile: Israel.”

<sup>99</sup> Encyclopedia Britannica, “Government of Israel,” accessed April 29, 2020, <https://www.britannica.com/place/Israel/Government>.

<sup>100</sup> Solingen, *Nuclear Logics*, 187.

<sup>101</sup> Ibid., 196.

<sup>102</sup> Ibid., 202.

<sup>103</sup> Ibid., 203.

<sup>104</sup> Ibid., 187.

<sup>105</sup> Ibid.

<sup>106</sup> Ibid., 189.

<sup>107</sup> Ibid., 197.

<sup>108</sup> Ibid., 198.

<sup>109</sup> Ibid., 205.

<sup>110</sup> Ibid., 200.

<sup>111</sup> Ibid., 210.

<sup>112</sup> Ibid., 207.

<sup>113</sup> Ibid., 208.

<sup>114</sup> Ibid., 209.

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<sup>115</sup> Ibid., 203.

<sup>116</sup> Ibid.

<sup>117</sup> Tova Cohen and Ari Rabinovitch, “Israel invest billions to get rail and roads up to speed,” *Reuters*, November 28, 2018, accessed April 29, 2020, <https://www.reuters.com/article/us-israel-infrastructure/israel-to-invest-billions-to-get-rail-and-roads-up-to-speed-idUSKCN1NX1AI>.

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<sup>119</sup> Rublee, *Nonproliferation Norms*, 151.

<sup>120</sup> Solingen, *Nuclear Logics*, 220; Rublee, *Nonproliferation Norms*, 228.

<sup>121</sup> Solingen, *Nuclear Logics*, 220; Rublee, *Nonproliferation Norms*, 228.

<sup>122</sup> Solingen, *Nuclear Logics*, 220.

<sup>123</sup> Ibid.

<sup>124</sup> Ibid., 221.

<sup>125</sup> Ibid.

<sup>126</sup> Ibid.

<sup>127</sup> Ibid., 222.

<sup>128</sup> Ibid.

<sup>129</sup> Rublee, *Nonproliferation Norms*, 156.

<sup>130</sup> Solingen, *Nuclear Logics*, 222.

<sup>131</sup> Solingen, *Nuclear Logics*, 222; Rublee, *Nonproliferation Norms*, 153.

<sup>132</sup> Solingen, *Nuclear Logics*, 223; Rublee, *Nonproliferation Norms*, 154.

<sup>133</sup> Solingen, *Nuclear Logics*, 223.

<sup>134</sup> Solingen, *Nuclear Logics*, 223; Rublee, *Nonproliferation Norms*, 156.

<sup>135</sup> Solingen, *Nuclear Logics*, 225.

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<sup>136</sup> Ibid., 227.

<sup>137</sup> Ibid.

<sup>138</sup> Ibid., 228.

<sup>139</sup> Ibid., 226.

<sup>140</sup> Ibid.

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<sup>142</sup> Megan Specia and David E. Sanger, How the Libya Model Became a Sticking Point in North Korea Nuclear Talks, *The New York Times*, May 16, 2018, accessed April 29, 2020, <https://www.nytimes.com/2018/05/16/world/asia/north-korea-libya-model.html>.

<sup>143</sup> Ibid.

<sup>144</sup> Schneider and Dowdy, *Pulling Back from the Nuclear Brink*, 80.

<sup>145</sup> Ibid., 81.

<sup>146</sup> Ibid.

<sup>147</sup> Ibid., 82.

<sup>148</sup> Ibid.

<sup>149</sup> Ibid.

<sup>150</sup> Ibid.

<sup>151</sup> Ibid.

<sup>152</sup> Ibid.

<sup>153</sup> Ibid.

<sup>154</sup> Ibid., 83.

<sup>155</sup> Ibid.

<sup>156</sup> Ibid.

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- <sup>160</sup> Solingen, *Nuclear Logics*, 87.
- <sup>161</sup> Ibid.
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- <sup>165</sup> Ibid., 88.
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- <sup>167</sup> Ibid., 83.
- <sup>168</sup> Ibid.
- <sup>169</sup> Ibid., 85.
- <sup>170</sup> Ibid.
- <sup>171</sup> Ibid.
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- <sup>173</sup> Ibid., 84.
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- <sup>175</sup> Ibid.
- <sup>176</sup> Ibid.
- <sup>177</sup> Ibid., 83.
- <sup>178</sup> Ibid., 89.
- <sup>179</sup> Ibid., 92.
- <sup>180</sup> Ibid.
- <sup>181</sup> Ibid.
- <sup>182</sup> Ibid., 90.
- <sup>183</sup> Ibid.

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- <sup>184</sup> Ibid., 89.
- <sup>185</sup> Ibid., 85.
- <sup>186</sup> Ibid., 83.
- <sup>187</sup> Ibid.
- <sup>188</sup> Ibid., 97.
- <sup>189</sup> Ibid., 86.
- <sup>190</sup> Eberstadt, *The North Korean Economy*, 226; Lankov, *The Real North Korea*, 146.
- <sup>191</sup> Solingen, *Nuclear Logics*, 163.
- <sup>192</sup> Jafarzadeh, *The Iran Threat*, 132.
- <sup>193</sup> Solingen, *Nuclear Logics*, 167.
- <sup>194</sup> Ibid., 187.
- <sup>195</sup> Ibid., 189.
- <sup>196</sup> Kim and Lee, *North Korea and Northeast Asia*, 201.
- <sup>197</sup> Lankov, *The Real North Korea*, 145.
- <sup>198</sup> Eberstadt, *The North Korean Economy*, xiv., 119.
- <sup>199</sup> Ibid., 119.
- <sup>200</sup> Eberstadt, *The North Korean Economy*, xiv; Lankov, *The Real North Korea*, 156.
- <sup>201</sup> Ree and Messerlin, *North Korea and Economic Integration in East Asia*, 48; Eberstadt, *The North Korean Economy*, 45; Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 23.
- <sup>202</sup> Ree and Messerlin, *North Korea and Economic Integration in East Asia*, 48; Eberstadt, *The North Korean Economy*, 45; Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 23.
- <sup>203</sup> Lankov, *The Real North Korea*, 82; Jeppesen, "Shopping In Pyongyang, and Other Adventures in North Korean Capitalism,"; Lankov, *The Real North Korea*, 82.
- <sup>204</sup> Solingen, *Nuclear Logics*, 155.

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- <sup>205</sup> Ibid.
- <sup>206</sup> Ibid.
- <sup>207</sup> Ibid., 156.
- <sup>208</sup> Ibid., 176.
- <sup>209</sup> Ibid.
- <sup>210</sup> Ibid.
- <sup>211</sup> Ibid., 197.
- <sup>212</sup> Ibid., 198.
- <sup>213</sup> Ibid., 205.
- <sup>214</sup> Solingen, *Nuclear Logics*, 187; Arms Control Association, “Arms Control and Proliferation Profile: Israel.”
- <sup>215</sup> Hoare, *Historical Dictionary of the Democratic People’s Republic of Korea*, 192.
- <sup>216</sup> Lankov, *The Real North Korea*, 149; Chun, *North Korea’s Nuclear Question*, 2.
- <sup>217</sup> Solingen, *Nuclear Logics*, 161.
- <sup>218</sup> Ibid., 157.
- <sup>219</sup> Ibid., 177.
- <sup>220</sup> Jafarzadeh, *The Iran Threat*, 131.
- <sup>221</sup> Ibid., 132, 153.
- <sup>222</sup> Solingen, *Nuclear Logics*, 210.
- <sup>223</sup> Ibid., 209.
- <sup>224</sup> Ibid., 203.
- <sup>225</sup> Ibid.
- <sup>226</sup> Ibid.
- <sup>227</sup> Fifield, *The Great Successor*, 24.

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- <sup>228</sup> Solingen, *Nuclear Logics*, 176.
- <sup>229</sup> McEachern, *North Korea and Iran*, 11.
- <sup>230</sup> Solingen, *Nuclear Logics*, 177.
- <sup>231</sup> *Ibid.*, 163.
- <sup>232</sup> *Ibid.*, 187.
- <sup>233</sup> Rublee, *Nonproliferation Norms*, 151.
- <sup>234</sup> Solingen, *Nuclear Logics*, 220.
- <sup>235</sup> *Ibid.*, 87.
- <sup>236</sup> Schneider and Dowdy, *Pulling Back from the Nuclear Brink*, 82.
- <sup>237</sup> *Ibid.*
- <sup>238</sup> Solingen, *Nuclear Logics*, 85.
- <sup>239</sup> *Ibid.*, 83.
- <sup>240</sup> *Ibid.*, 89.
- <sup>241</sup> Lankov, *The Real North Korea*, 149.
- <sup>242</sup> *Ibid.*
- <sup>243</sup> Solingen, *Nuclear Logics*, 223; Rublee, *Nonproliferation Norms*, 154.
- <sup>244</sup> Solingen, *Nuclear Logics*, 222; Rublee, *Nonproliferation Norms*, 153.
- <sup>245</sup> Solingen, *Nuclear Logics*, 226.
- <sup>246</sup> *Ibid.*
- <sup>247</sup> Schneider and Dowdy, *Pulling Back from the Nuclear Brink*, 83.
- <sup>248</sup> *Ibid.*
- <sup>249</sup> Solingen, *Nuclear Logics*, 83.
- <sup>250</sup> *Ibid.*, 97.
- <sup>251</sup> *Ibid.*, 92.

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<sup>252</sup> Eberstadt, *The North Korean Economy*, 45; Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 23.

<sup>253</sup> Lankov, *The Real North Korea*, 82; Jeppesen, "Shopping In Pyongyang, and Other Adventures in North Korean Capitalism,"; Lankov, *The Real North Korea*, 82.

<sup>254</sup> Eberstadt, *The North Korean Economy*, 119.

<sup>255</sup> Ree and Messerlin, *North Korea and Economic Integration in East Asia*, 48.

<sup>256</sup> Solingen, *Nuclear Logics*, 227.

<sup>257</sup> Ibid.

<sup>258</sup> Schneider and Dowdy, *Pulling Back from the Nuclear Brink*, 83.

<sup>259</sup> Solingen, *Nuclear Logics*, 83.

<sup>260</sup> Fifield, *The Great Successor*, 65.

<sup>261</sup> Long, *Deterrence*, 10; Schelling, *Arms and Influence*, 36; Catudal, *Nuclear Deterrence-Does it Deter?*, 78, 102.

<sup>262</sup> Schneider and Dowdy, *Pulling Back from the Nuclear Brink*, 150.

<sup>263</sup> Lankov, *The Real North Korea*, 149.

<sup>264</sup> Ibid., 151.

<sup>265</sup> Ibid., 156.

## CHAPTER 5

### CONCLUSIONS AND RECOMMENDATIONS

The purpose of this chapter is to review the findings from Chapter 4 and how they assist in answering the primary research question, “Under what conditions would North Korea agree to denuclearize?” In this chapter the study will review the findings and implications of PMESII content analysis, case study analysis of countries that pursued nuclear weapons, case study analysis of countries that denuclearized, and comparative analysis of the case study countries to North Korea. Next, the chapter will review recommendations for further study. The chapter will end with a summary of the conclusions.

Through conducting content analysis using PMESII of nuclear theory, the study found that countries who develop nuclear weapons gain bargaining capability, however, if a nation does not make its threat credible the capability is void.<sup>1</sup> Nuclear weapons provide a military deterrent that is more economically feasible to acquire than a robust conventional military force.<sup>2</sup> A nation must be able to message its capability and make its adversary believe that it will use it. North Korea has effectively messaged to the world their intent to use nuclear weapons if the regime is threatened. Because it is easier economically for North Korea to maintain a nuclear capability over conventional forces it will be hard to convince them to denuclearize. The cost-benefit analysis would lead them to believe that nuclear weapons are the only capability which provide, the “biggest bang for the buck.”

Through content analysis using PMESII of North Korea, the study found the capabilities that it gains from nuclear weapons and why they come to the negotiating

table. North Korea gains a military deterrent, ensuring regime survival.<sup>3</sup> North Korea would need to be assured that its regime was not a risk from an internal coup or external threats to convince them that a military deterrent was no longer needed.

Through nuclear weapon blackmail Kim Jung Un receives economic aid to supplement the country's deficit in transport, energy, and agriculture.<sup>4</sup> North Korea has demonstrated a cycle based on need of economic aid were it purposely drives tensions through its nuclear weapon testing to get to the international negotiation table to receive aid.<sup>5</sup> If North Korea were to agree to denuclearize it would no longer have the same leverage to bargain the international community.

Through case study analysis of Iraq, Iran, and Israel using PMESII systems analysis the study answered the secondary research question: What are the factors that lead a nation to pursue nuclear weapons? The study found the commonality that all countries sought nuclear weapons to act as a military deterrent when they were facing regional instability. This analysis holds true for North Korea, it currently uses nuclear weapons as a military deterrent against U.S. and ROK forces on the peninsula, as well as to ensure regime survival.

All of the case study countries had a similar economic structure when they decided to pursue nuclear weapons, inward-focused and state-controlled. This holds true with North Korea, it exercises an inward-focused economic structure and state-controlled economy, except for the foreign influence through the black market.<sup>6</sup> This implies that the countries who pursue nuclear weapons do not depend on international trade, and therefore make the decision without the weight of how their economy will be affected by its trade partners view of nuclear weapons. In other words, they are less tied to the global

market, and therefore economic sanctions from nuclear weapons do not have the same type of affect as countries that are internationalizing and dependent on the global market for a majority of their GNP.

Through conducting case study analysis using PMESII of previously denuclearized nation the study answered the question: Why have countries in the past conceded their nuclear capability? Through PMESII analysis the study found the common factors in denuclearizing were economic incentives and social pressure. All case study countries that denuclearized sought to expand their economic situation and move from inward-focused economics to internationalizing. Nuclear weapons prevented them from joining the world market, and through denuclearizing they reaped economic benefits.

North Korea is currently seeking to diversify and increase hard currency through investing in tourism.<sup>7</sup> The regime announced in December the creation of a company to develop medical tourism for foreign visitors specializing in hot spring spas, and state-run hospitals.<sup>8</sup> However, the death of American tourist Otto Warmbier has repelled western tourists and tourism is mainly confined to Chinese visitors.<sup>9</sup> If negotiators could convince North Korea into believing that the long term economic benefit of internationalizing outweighs the bargaining capability that nuclear weapons gives them for short term economic aid it could be a powerful negotiating tool. Unfortunately, North Korea remembers Libya's fate, although Qadhafi reaped economic benefits, he traded in his military deterrent.<sup>10</sup> This resulted in the U.S. and its European allies launching airstrikes in Libya, and ultimately Qadhafi's demise.<sup>11</sup>

A factor that was true for South Africa and South Korea and ultimately led to long term success was the security situation had changed and they no longer required nuclear weapons. South Africa no longer had the Soviet threat on its borders and therefore no longer required a military deterrent.<sup>12</sup> While South Korea had reassurance that the U.S. would place South Korea under its nuclear umbrella.<sup>13</sup> The security threat did not change for Libya, and the results varied. Key to convincing North Korea to denuclearize is the belief that the security threat is no longer the same, or that it is under an allies' nuclear umbrella.

All denuclearized case study countries faced social pressure from the international community or from their citizens to give up nuclear weapons for better international economic standing. The international pressure was tied to economic sanctions, with the reward of the sanctions being lifted if they agreed to denuclearize. Once they denuclearized the countries gained the ability to join the international market. North Korea does not face the same domestic dissent due to the leader's divine right to rule. Economic sanctions have yet to overturn North Korea's decision to denuclearize.

Through conducting PMESII analysis of successfully denuclearized nations the study found that the conditions that North Korea may agree to denuclearize. These conditions involve a change of the security situation on the peninsula, and economic incentives that outweigh the nuclear capability. Negotiators should focus on convincing the regime that there is no longer a need for a military deterrent to ensure regime survival because the security situation changed, or because an ally would protect them from U.S. and ROK forces on the peninsula. Currently North Korea does not believe that China would come to its aid in a major confrontation.<sup>14</sup> In addition to the security situation

policy makers should convince North Korea the rewards of participating in the international economic market outweigh the benefits of the nuclear capability. Currently, North Korea conducts nuclear blackmail for economic aid to make up for the trade deficit.

### Recommendations for Future Research

This study did not do an in-depth review of the factors which influence a nation to transition from an inward-looking to internationalizing economy. In the future countries such as the former Soviet Union and China should be studied to understand the motivation to internationalize, and the steps taken to transition from a relatively closed society to one that accepts capitalism. In addition to studying motivations to internationalize, the study could further through examining the influence that Russia and China have on North Korean nuclear decision making and their relationships.

This study could have spent more time researching and understanding the history of nuclear negotiations between North Korea and the international community, specifically the chronology of Six-Party Talks. This study recommends future theses on the subject devote more time on researching previous negotiations.

This study found that economics and regional security play a pivotal role in a country's decision to denuclearize. If a country no longer feels threatened or has an ally which can provide security guarantees it is more likely to denuclearize. In addition to the security situation, if a nation is seeking to transition from inward-focused economics to internationalizing the international community is more likely to incentivize the economic benefits of denuclearizing. Future North Korean denuclearization negotiations should

focus on how North Korea's security and economic situation can change to conditions which incentivize denuclearization.

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<sup>1</sup> Long, *Deterrence*, 10; Schelling, *Arms and Influence*, 36; Catudal, *Nuclear Deterrence-Does it Deter?*, 78, 102.

<sup>2</sup> Schneider and Dowdy, *Pulling Back from the Nuclear Brink*, 150.

<sup>3</sup> Lankov, *The Real North Korea*, 149.

<sup>4</sup> *Ibid.*, 151.

<sup>5</sup> *Ibid.*, 156.

<sup>6</sup> Hoare, *Historical Dictionary of the Democratic People's Republic of Korea*, 192.

<sup>7</sup> Sang-Hun, "North Korea Touts new Resort, Seeking to Blunt U.N. Sanctions."

<sup>8</sup> The Associated Press, "North Korea Opens New Mountain Resort Amid Tourism Drive."

<sup>9</sup> Goldstein, "Growing North Korean Tourism Knocked Out by Covid-19."

<sup>10</sup> Specia and Sanger, "How the Libya Model Became a Sticking Point in North Korea Nuclear Talks."

<sup>11</sup> *Ibid.*

<sup>12</sup> Schneider and Dowdy, *Pulling Back from the Nuclear Brink*, 82.

<sup>13</sup> Solingen, *Nuclear Logics*, 89.

<sup>14</sup> Lankov, *The Real North Korea*, 149.

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