



Calhoun: The NPS Institutional Archive

Theses and Dissertations

Thesis Collection

2007-12

The impact of the North Korean nuclear crisis on Northeast Asia

Han, Jonghun.

Monterey, California. Naval Postgraduate School

<http://hdl.handle.net/10945/3167>



Calhoun is a project of the Dudley Knox Library at NPS, furthering the precepts and goals of open government and government transparency. All information contained herein has been approved for release by the NPS Public Affairs Officer.

Dudley Knox Library / Naval Postgraduate School
411 Dyer Road / 1 University Circle
Monterey, California USA 93943

<http://www.nps.edu/library>



**NAVAL
POSTGRADUATE
SCHOOL**

MONTEREY, CALIFORNIA

THESIS

**THE IMPACT OF THE NORTH KOREAN NUCLEAR
CRISIS ON NORTHEAST ASIA**

by

Jonghun Han

December 2007

Thesis Advisor:
Thesis Co-advisor:

Edward A. Olsen
Robert E. Looney

Approved for public release; distribution is unlimited

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE			<i>Form Approved OMB No. 0704-0188</i>
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.			
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE December 2007	3. REPORT TYPE AND DATES COVERED Master's Thesis	
4. TITLE AND SUBTITLE The Impact of the North Korean Nuclear Crisis on Northeast Asia		5. FUNDING NUMBERS	
6. AUTHOR(S) Jonghun Han		8. PERFORMING ORGANIZATION REPORT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000		10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A		11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.	
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited		12b. DISTRIBUTION CODE	
13. ABSTRACT (maximum 200 words) The DPRK's nuclear issue is difficult to be managed in a peaceful way because of the negative aspects of nuclear proliferation, unacceptable not only on the Korean Peninsula but also in the international community. North Korea, the U.S., Japan, and Russia have sharply divided views on the solution to North Korea's nuclear issue. In particular, given the bilateral and multilateral talks in history, despite small progress, it seems that the U.S. and North Korea cannot bridge the gap of understanding. Therefore, this study comes to the conclusion that nuclear issues cannot be resolved under the mistrust that has lasted for half a century, given that North Korea and the U.S. consider each other archrivals. Even though it will take a long time, scaling down the deep-rooted mistrust through "negotiations" and "engagement" remains the most realistic option for both sides. Changing leadership in the U.S., Japan, and South Korea will usher related parties into another chapter of opportunity to end the North Korean nuclear conundrum - this time, surely with more carrots than sticks.			
14. SUBJECT TERMS North Korea, Nuclear, The United States, China, Japan, Russia, Foreign Policy, Six-Party Talks		15. NUMBER OF PAGES 97	
		16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release; distribution is unlimited

**THE IMPACT OF THE NORTH KOREAN NUCLEAR CRISIS ON
NORTHEAST ASIA**

Jonghun Han
Captain, ROK Army
B.A., Korea Military Academy, 2000

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF ARTS IN NATIONAL SECURITY AFFAIRS

from the

**NAVAL POSTGRADUATE SCHOOL
December 2007**

Author: Jonghun Han

Approved by: Edward A. Olsen
Thesis Advisor

Robert E. Looney
Thesis Co-Advisor

Douglas Porch
Chairman, Department of National Security Affairs

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

The DPRK's nuclear issue is difficult to be managed in a peaceful way because of the negative aspects of nuclear proliferation, unacceptable not only on the Korean Peninsula but also in the international community. North Korea, the U.S., Japan, and Russia have sharply divided views on the solution to North Korea's nuclear issue. In particular, given the bilateral and multilateral talks in history, despite small progress, it seems that the U.S. and North Korea cannot bridge the gap of understanding. Therefore, this study comes to the conclusion that nuclear issues cannot be resolved under the mistrust that has lasted for half a century, given that North Korea and the U.S. consider each other archrivals. Even though it will take a long time, scaling down the deep-rooted mistrust through "negotiations" and "engagement" remains the most realistic option for both sides. Changing leadership in the U.S., Japan, and South Korea will usher related parties into another chapter of opportunity to end the North Korean nuclear conundrum—this time, surely with more carrots than sticks.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
	A. PURPOSE.....	1
	B. IMPORTANCE.....	1
	C. LITERATURE REVIEW	2
	1. Proliferation Optimist: Deterrence Proponent	3
	2. Proliferation Pessimist: Deterrence Opponent	4
	D. METHODOLOGY	5
II.	THEORETICAL BACKGROUND FOR NUCLEAR PROLIFERATION	7
	A. FORMATION OF NEW WORLD ORDER AND NUCLEAR PROLIFERATION.....	7
	1. Cold War Era	7
	2. Post-Cold War Era	8
	B. NUCLEAR WEAPONS AND THEORETICAL BACKGROUND FOR NUCLEAR PROLIFERATION.....	9
	1. Traits of Nuclear Weapons	9
	2. Nuclear Weapon Proliferation Theory	12
	a. <i>Proliferation Optimist: Deterrence Theory.....</i>	<i>12</i>
	b. <i>Proliferation Pessimist.....</i>	<i>14</i>
	c. <i>Minor Powers' Dilemma in Pursuit of Nuclear Possession..</i>	<i>17</i>
III.	NORTH KOREAN NUCLEAR POLICY	19
	A. EVOLUTION OF NORTH KOREA'S NUCLEAR PROGRAM	19
	B. NORTH KOREAN CONVENTIONAL MILITARY STRENGTH	23
	C. SOCIO-ECONOMIC ANALYSIS	25
	D. MOTIVATIONS FOR DEVELOPING NUCLEAR WEAPONS.....	31
	1. Historical Motivation.....	31
	2. Internal Motivation.....	32
	3. External Motivation.....	33
	E. NUCLEAR CAPACITY.....	35
	1. Nuclear Technology	35
	a. <i>Plutonium.....</i>	<i>35</i>
	b. <i>Uranium</i>	<i>37</i>
	2. Delivery Method.....	39
IV.	IMPACT ON SURROUNDING STATES: RELEVANT STATES' POSITIONS AND POLICIES	41
	A. THE UNITED STATES	41
	1. Expanding Engagement	42
	2. Non-Military Containment	43
	3. Military Containment.....	44
	4. Other Options.....	46
	B. CHINA	46
	C. JAPAN	51

D.	RUSSIA	53
V.	INTERNATIONAL IMPACT OF NUCLEAR CRISIS	57
A.	FIRST NUCLEAR CRISIS AND U.S.-NORTH KOREA MEETING	57
B.	SECOND NUCLEAR CRISIS AND SIX-PARTY TALKS.....	60
VI.	CONCLUSION	73
	LIST OF REFERENCES	77
	INITIAL DISTRIBUTION LIST	83

LIST OF TABLES

Table 1. South Korean vs. North Korean military strength23

THIS PAGE INTENTIONALLY LEFT BLANK

ACKNOWLEDGMENTS

I wish to greatly thank Professors Edward Olsen and Robert Looney for guiding me through the thesis process and providing their expert knowledge to my thesis.

I would like to thank all my professors, who provided me with precious opportunities and exposure to their expertise and knowledge of their field. I express my great gratitude to the following professors: Edward Olsen for Government and Security in Korea and Seminar on Northeast Asian Security; Robert Looney for Comparative Economics; Suzanne Gehri for Comparative Politics; Alice Miller for History and Cultures of East Asia; Feroz Khan for Security in South Asia; James Moltz for Nuclear Strategy and National Security; and Tuong Vu for Political Economy of Asia and Asia and the Modern World.

Last but not least, I wish to thank my lovely wife, Hei Jin, for taking care of me even during her pregnancy and my newly born daughter, Sophia Song-hee Han.

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

A. PURPOSE

The main purpose of this thesis is to analyze the impact of the North Korean nuclear impasse on Northeast Asia based on nuclear proliferation theory. An examination of the influence of the North Korean nuclear threat on neighboring powers and the international community, as well as regional and international positions and policies to resolve the crisis, can suggest a desirable direction of development to maintain a peaceful Korean peninsula. At the same time, this thesis will offer a basic foundation to predict the possibility of cooperation between neighboring states and North Korea.

B. IMPORTANCE

There are manifold elements threatening peace and stability on the Korean Peninsula, among which North Korea's nuclear program has recently stood out in terms of its disruptive impact. Pyongyang's nuclear brinkmanship is the paramount destabilizing factor in Northeast Asian politics. The DPRK's October 9, 2006, nuclear test illustrated the danger its "Weapons of Mass Destruction (WMD) and nuclear programs pose to ... peace and security in Northeast Asia."¹ By increasing security tension, North Korea prompts its neighboring countries to employ a variety of hedging strategies.

North Korea's nuclear weapons development program upsets the balance of Northeast Asian peace. For the United States, as a "uni-hegemon,"² resolution of the North Korean nuclear issue is a face-saving opportunity and, considering its implications for the threat of nuclear terrorism, stopping North Korean nuclear proliferation has become more important than before. China, for its part, devotes itself to balancing U.S. power. By providing leadership in the settlement of the North Korean nuclear crisis

¹ Nicholas R. Burns, U.S. Policy towards North Korea, Testimony to the House International Relations Committee, <http://www.state.gov/p/us/rm/2006/76178.htm> (accessed March 13, 2007).

² Here I term the United States as a "uni-hegemon" because it is broadly conceived as either the top country in a unipolar world or at least a hegemon in a variety of regions, including East Asia.

China is certain to expand its influence as a hegemon in Asia. North Korea's proven nuclear capability has fueled Japanese discussion about revising its pacifist constitution and rearming, even to the point of developing its own nuclear weapons.³ Japanese security and nuclear normalization would increase tensions not only between Japan and the DPRK, but also between Japan and China, and Japan and the ROK. The two Koreas' relations have changed according to changes in relations between North Korea and the United States, as seen in the first and second nuclear crises of North Korea starting in 1993. Compounding the challenge of managing this situation, each and every state pursues its own national interests.

Therefore, as a result of there being a number of concerned parties, each with a different and sometimes conflicting perspective, the North Korean nuclear issue has developed into an all the more complicated situation. In this context, the sole peaceful channel to solve the North Korean nuclear crisis is the six-way talks. The second phase of the fourth round of talks produced the September 19 (2005) joint statement, bringing hope for solving the nuclear crisis in a peaceful way. The third phase of the fifth round of talks resulted in the February 13 (2007) agreement which resolved the stalemate on the Banco Delta Asia (BDA) issue and thereby obtained an agreement from North Korea to denuclearize again. But prospects for implementation of this agreement remain dubious.

In this vein, considering North Korea's nuclear breakout, culminating in its October 2006 nuclear test, it is worthwhile to ponder the impact of the North Korean nuclear crisis on Northeast Asia. Because it is unlikely that Kim Jong-il will be willing to negotiate away the entirety of his nuclear weapons programs—at least in the near future—evaluating this issue continues to be important.

C. LITERATURE REVIEW

Based on available literature, this thesis will introduce nuclear proliferation theory as a theoretical background for the study of the impact of the nuclear crisis on Northeast Asia. This is because the possibility of further nuclear proliferation is the most serious

³ Dae-woong Jin, "Nuke Test Could Give Momentum to Japan's Rearmament," *The Korea Herald*, <http://w3.nexis.com/new/results/docview> (accessed October 10, 2006).

and worrisome aspect of the North Korean nuclear crisis. Therefore, this thesis will begin by introducing the impact of nuclear proliferation. More specifically, for this theory there is no united view among scholars on the impact of nuclear weapons proliferation on international peace and security, with the debate centering on two camps. One argument is optimistic, anchored in the logic of deterrence: if all states had nuclear weapons, each state would be less likely to wage war out of fear of the consequences.⁴ The other adopts the pessimistic view that the more states that acquire nuclear weapons, the higher the likelihood that they will be used.

1. Proliferation Optimist: Deterrence Proponent

Since the only application of nuclear weapons in interstate conflict at the conclusion of World War II, the most essential effect of nuclear weapons on global security has been to deter a nuclear exchange (nuclear weapons certainly have not prevented war). Here, “deterrence” means the decision to give up nuclear weapons by political leaders based on their assessment of their state's own capabilities and the likely results of war.⁵ If leaders believe that a first strike could lead to victory, deterrence fails regardless of how great the counterpart's capabilities. Likewise, if the leaders of one state believe that a first strike can neutralize an opponent’s ability to launch a retaliatory strike, deterrence would have no effect. Thus this theory consists of two major concepts: first strike and retaliatory second strike. Deterrence was effective in preventing war between the United States and the Soviet Union because neither had a first strike capability that could neutralize its adversary and both had the capability to launch a second retaliatory strike after the counterpart’s first strike.⁶ If both countries had only possessed

⁴ An equality (nuclear proliferation=higher chance of nuclear war) is the overwhelmingly supported view among scholars who study whether nuclear proliferation would influence international politics and politicians of existing nuke states. This logic is like that if “*n*+1 states” went nuclear, the world would be more unstable than if “*n* states” went nuclear. Therefore, existing nuke states claim that such a situation should be prevented. As a representative scholar, Kenneth N. Waltz argued that war is caused by unclear evaluation of an enemy’s capacity, so by possessing nuclear weapons, military capacity is clearly assessed. Scholar Morton A. Kaplan assumed the “Unit Veto System,” in which nuclear proliferation is completed to some degree that any states can deny other states’ intention, whereby war can be deterred.

⁵ Robert Jervis, et al., *Psychology and Deterrence* (Baltimore: The Johns Hopkins University Press, 1985).

⁶ Michael Howard, “Lessons of the Cold War,” *Survival* vol. 36, no. 4 (Winter 1994-1995), 161-163.

conventional weapons at the time of the Cuba missile crisis in 1962, the world could very likely have experienced World War III. We should then acknowledge that the existence of nuclear weapons likely contributed to the prevention of a major war between the United States and the Soviet Union.

2. Proliferation Pessimist: Deterrence Opponent

The equality of “nuclear proliferation=higher chance of nuclear war” is the overwhelmingly supported view among scholars who study whether nuclear proliferation would influence international politics and the leaders of nuclear-capable states. This logic is that if “ $n+1$ states” go nuclear, the probability of an outbreak of nuclear war occurring would be higher than the case of only “ n states” going nuclear. Therefore, existing nuclear states claim that any increase in the number of nuclear weapons states should be prevented. The claim that an increase in the number of nuclear states would lead to a reduction in stability is based on an arithmetic logic. The political logic contains the idea that potential nuke states are the small and weak ones controlled by “unreliable leaders” and thus more likely to resort to nuclear war.⁷ This is because, conceivably, North Korea’s going nuclear is more threatening than Israel’s possession of nuclear weapons.

Since 1976, in fact, there have only been five nations listed in the Non-Proliferation Treaty (NPT) as internationally legitimate nuclear states. The United States, the Soviet Union, the United Kingdom, France, and China were so-called member states of the nuclear club. There have been many states mentioned since the 1970s in terms of capability and probability of nuclear armament, such as Israel, Germany, Brazil, India, Pakistan, Argentina, South Africa, Japan, South Korea, Taiwan, and North Korea.⁸ One problem caused by a number of the potential nuclear states listed above going nuclear results from their political instability. In the case of a domestically unstable regime the concern is that their control of their nuclear arsenal would also be unstable. This is because states that are not politically stable pose the risk that their nuclear weapons could

⁷ Donald M. Snow, *The Shadow of the Mushroom Shaped Cloud* (Columbus Ohio: The Ohio State University, 1978), 23.

⁸ Stockholm International Peace Research Institute, *Preventing Nuclear-Weapon Proliferation* (Stockholm: SIPRI, 1975), 7-20.

fall into the hands of insurgents or rogue elements within the regime. Moreover, leaders of non-democratic nuclear states driven by an internal or external crisis might be more likely to cause an international conflict to divert attention from domestic problems than a democratic state.

Based on these competing theories of nuclear proliferation theory (both theories have their own logic, so it is hard to draw any conclusion one way or the other), this thesis will analyze the impact of North Korean nuclearization on regional security. First, it will explore North Korea's motivations to develop nuclear weapons from a historical standpoint, assessing both internal and external dynamics. It will next examine North Korea's current nuclear policy. Finally, it will analyze the policies of neighboring states toward the North Korean nuclear crisis, including the United States and China, and finish with an assessment of the six-party-talks framework. Through an evaluation of these points, it may be possible to achieve a solution to the North Korean nuclear puzzle and develop a foundation from which to step forward towards peace and prosperity on the Korean Peninsula—and in East Asia as well

D. METHODOLOGY

The main purpose of this thesis as noted above is to evaluate the impact of the North Korean nuclear crisis on Northeast Asia based on nuclear proliferation theory, and to suggest an optimal approach to resolve the nuclear impasse.

To this end, this thesis centers on North Korea's effort to develop nuclear weapons. Because problems concerning the North Korean nuclear crisis originally started from Pyongyang's decision to go nuclear, the first issue is "why does North Korea want to develop nuclear weapons?" To answer this question, this thesis will deal with the implications of nuclear weapons possession for any given state and the way international politics change as nuclear weapons proliferate. These questions are the basis of the thesis, which will also touch on issues such as the history of the North Korean nuclear weapons program, the extent of North Korea's nuclear weapons capability, and the North Korean nuclear crisis as a threat to international security. Moreover, this thesis will analyze the

root causes of North Korea adapting a policy to develop nuclear weapons and, by so doing, attempt to anticipate the future development of the North Korean nuclear issue. These issues—or questions—will be dealt with in Chapters I, II, and III.

Second, in Chapter IV this thesis will address the fundamental issues motivating all states involved to strive to stop North Korea from developing nuclear weapons. Certainly, it is the United States that is interested in this issue the most. Thus, this thesis will investigate in detail U.S. strategies, including its evolving stance on North Korea. In addition to the United States, this thesis will study the stances of China, Russia, and Japan.

Third, Chapter V will suggest plausible alternatives for the way ahead. It will offer a logical foundation for the possibility of cooperation among surrounding countries in order to solve the nuclear conundrum by explaining and analyzing the six-party talks in light of the stances of Japan, China, and Russia discussed in Chapter IV. Finally, this thesis will attempt to offer a workable approach for the United States to follow to resolve the North Korean nuclear impasse.

II. THEORETICAL BACKGROUND FOR NUCLEAR PROLIFERATION

A. FORMATION OF NEW WORLD ORDER AND NUCLEAR PROLIFERATION

1. Cold War Era

In 1948, in the aftermath of nuclear bombs dropped in Hiroshima and Nagasaki, a need for nonproliferation of nuclear weapons emerged based on their formidable destructive power. The U.S., Canada, and the U.K. suggested establishing a committee of nuclear energy under the United Nations in order to fully eliminate the possibility of nuclear energy use for destructive purposes. In the United Nations General Assembly of January 1946, all members reached a consensus on banning the possession of nuclear weapons individually. The United States also suggested that all nuclear-related materials and activities potentially dangerous to world peace and security should be under the United Nations' possession and control. This proposal, called the "Baruch Plan,"⁹ failed to be adopted due to opposition by the Soviet Union because of its fear of a United States' nuclear weapons monopoly.

Initially, it was thought that, proliferation of nuclear weapons was unlikely to spread because nuclear weapons and technology would be difficult to gain. However, as the Soviet Union in 1949, the United Kingdom in 1952, France in 1960, and China in 1964 went nuclear, all permanent members in the current UN Security Council officially became nuclear states. There existed widespread awareness that horizontal proliferation of nuclear weapons would be a grave threat to world peace and security, resulting from the multiplication of conflict areas, violation of orders, and accidents. These concerns

⁹ The Baruch Plan was a proposal by the U.S. government, written mainly by Bernard Baruch to the United Nations Atomic Energy Commission (UNAEC) in its first meeting in June 1946 to:

- 1) extend between all nations the exchange of basic scientific information for peaceful ends;
- 2) implement control of atomic energy to the extent necessary to ensure its peaceful nuclear use;
- 3) eliminate from national armaments atomic weapons and all other weapons of mass destruction;
- 4) establish effective safeguards by way of inspection and other means to protect complying States against the hazards of violations and evasions.

eventually led to a vote for the Nuclear Non-Proliferation Treaty (NPT)¹⁰ in 1968. In spite of the control of the NPT regime and the Nuclear Suppliers Group (NSG)¹¹ founded in 1975, Israel in 1968, India in 1974, and Pakistan in 1978 went nuclear as well.¹² Exceptionally, the Republic of South Africa produced nuclear weapons in 1970 but abandoned them in 1990, joining NPT afterwards.¹³ If North Korea became a member of this nuclear club, the number of nuclear states which have nuclear weapons or capability would be expanded to nine states including five permanent members in the official nuclear club defined by the NPT. However, the more important issue in an era of Cold War was not nuclear proliferation but the prevention of all-out nuclear war between the U.S. and the Soviet Union.

2. Post-Cold War Era

In the post-Cold War era, nuclear proliferation has become a global issue. Therefore, how to stop nuclear proliferation around the world has been one of the most essential issues in terms of U.S. foreign policy designed to maintain U.S.-led new world order—with less possibility of nuclear war between the U.S. and the Soviet Union due to the demise of communism in Eastern Europe and the USSR in the late 1980s. The United States regards the third world becoming nuclear or developing weapons of mass destruction (WMDs) as the most important challenge to threaten new world order. In 1993, Defense Secretary Les Aspin stated that “the new nuclear danger we face is

¹⁰ The Nuclear Non-Proliferation Treaty (NPT) is an international treaty to limit the spread of nuclear weapons, opened for signature on July 1, 1968. There are currently 189 states party to the treaty, five of which have nuclear weapons: the United States, the United Kingdom, France, Russia, and the People's Republic of China. Only four nations are not signatories: India, Pakistan, Israel, and North Korea. India and Pakistan both possess and have openly tested nuclear bombs. Israel has had a policy of opacity regarding its own nuclear weapons program. North Korea ratified the treaty, violated it, and later withdrew.

¹¹ The Nuclear Suppliers Group (NSG) is a multinational body concerned with reducing nuclear proliferation by controlling the export and re-transfer of materials that may be applicable to nuclear weapon development and by improving safeguards and protection on existing materials. It was founded in 1975 in response to the 1974 Indian nuclear test, which demonstrated that certain non-weapons-specific nuclear technology could be readily turned to weapons development.

¹² Martin van Creveld, *The Sword and the Olive. A Critical History of the Israeli Defense Force* (New York, New York: Public Affairs, 1998), 174; Z. Khalilzad, “Pakistan and the Bomb,” *Survival*, xxi:6 (November/December 1979), 244.

¹³ Frank V. Pabian, “South Africa’s Nuclear Weapons Program: Lessons for U.S. Nonproliferation Policy,” *The Nonproliferation Review*, vol. 3, no. 1 (Fall 1995), 1-19.

perhaps a handful of nuclear devices in the hands of rogue states, and the engine of this new danger is proliferation.”¹⁴ Under such a backdrop, North Korea's nuclear issue was very seriously recognized. It is not limited to only the Korean Peninsula or Northeast Asia but is regarded as a full-scale challenge to the United States' foreign policy.

When nuclear proliferation is such that nuclear states are expanded vertically, there is no united view of scholars on the resulting impact on peace and security of international politics. One view is the arithmetic argument that as the number of nuclear states increases, so does the possibility of nuclear war. The other is based on the logic that if all states had nuclear weapons, it is highly unlikely that they would threaten enemy states and this would restrain war in the end.

B. NUCLEAR WEAPONS AND THEORETICAL BACKGROUND FOR NUCLEAR PROLIFERATION

1. Traits of Nuclear Weapons

Modern weapons are so varied that there are many ways to categorize them. In particular, conventional weapons and weapons of mass destruction are two major kinds. Tank or armored vehicles and field artillery are the former, while nuclear, chemical, biochemical weapons, and ballistic missiles which deliver all these weapons are the latter. In the early 1990s, with the demise of the USSR and Eastern European communist countries, the world welcomed the post-Cold War era. Although there is unlikely to be any nuclear war threat between the U.S. and Russia at present, the world is at an alarming level in terms of proliferation of WMDs and their delivery technology with the risk of local warfare and low-intensity conflict (LIC) increasing. At present, to begin with, when it comes to nuclear weapons, there are five authorized nuclear states, with 16 states having suspected nuclear manufacturing capability, 24 states possessing nuclear weapons or in the process of developing them. North Korea, Iran, Iraq and Libya are some of the cases in point. All WMDs are a grave threat when a nuclear warhead is combined with sophisticated missile delivery means. While it could be possible for submarines or

¹⁴ Counterproliferation Initiative Presidential Decision Directive (PDD)/NSC, December 18, 1993, <http://www.fas.org/irp/offdocs/pdd18> (accessed June 3, 2007).

aircraft to be used to convey or drop weapons, the most threatening modern warfare are ballistic missiles, which are unmanned weapons. Currently, more than 12 states have ballistic missiles able to be launched any time, and more are reportedly developing plans. For instance, North Korea sold the 'Scud C missile,' which has a longer shooting distance, to Syria and Iran and has agreed to sell it to Libya, too.¹⁵ It is safe to say that the world now is less dangerous than before. However, it is also undeniable that the world is less stable when compared with the Cold War era. Ties of traditional allied powers have been loosened not only in Communism nations but also in Western nations. Therefore, many are aware that they should strengthen their own military power to include WMDs to defend themselves. In addition, WMDs are cheaper than conventional weapons. North Korea's conventional weapons power functions as a countermeasure to its counterpart's better weapon system.

The international community has put great effort into preventing proliferation of WMDs through the Partial Test Ban Treaty in 1963, the Nuclear Non-Proliferation Treaty in 1968, the Biological Weapons Convention in 1972, and the Chemical Weapons Convention in 1992, the Comprehensive Test Ban Treaty in 1996.¹⁶ Notable here is that Washington officially mentioned ballistic missiles as well as nuclear and biochemical weapons as targets of regulation for the first time. This is contrary to the 1993 FM 100-5, the US Army doctrine which mentions new operational environments with WMDs but only discusses NBC(Nuclear, Biological, and Chemical) weapons.¹⁷ This seems to be based on the awareness of efficiency of the delivery methods as much as on a warhead itself. Nuclear weapons are so-called absolute arms, in that nuclear weapons have absolute destructive power and it is hard to stop them. If nuclear bombs are used for military purposes by both sides, they will certainly cause massive destruction. Thus, there is no victory in nuclear warfare and no one would win or gain from war.

¹⁵ Joseph Bermudez and W. Seth Carus, "Iran's Growing Missile Forces," *Jane's Defence Weekly*, July 1988, 126,131; Joseph Bermudez, "Syria's Acquisition of North Korean 'Scuds'," *Jane's Intelligence Review*, June 1991.

¹⁶ Arthur H. Westing, *Cultural Norms, War and the Environment*, (Oxford & New York: Oxford University Press, 1988), 163-179.

¹⁷ For details, see FM 100-5, Operations (United States: Department of the Army, June 1993).

These days, the standard unit of general explosive power of nuclear bombs is the megaton. In the past, all warheads the U.S. and Soviet Union possessed had at least one megaton in explosive power. Megaton means a million tons and one megaton in explosive power is equivalent to the explosive power of a million tons of TNT, which is able to scorch any city within a 6.5 km radius. During the Korean War, the entire amount of bombs the U.S. dropped in the Korean Peninsula was 0.47 million tons, which is less than the explosive power of just one nuclear bomb at present.¹⁸ If North Korea succeeds in manufacturing nuclear weapons, the explosive power of possible nuclear bombs would be 20 Kt or so—that is similar to one of nuclear bombs dropped in Nagasaki. Nuclear weapons physically destroy all humans and property and explode successively with three stages. The explosion of one megaton of nuclear weapons causes an enormous pillar of fire with approximately an 800m diameter. The temperature of the pillar of fire reaches 20,000°C, which can melt and burn everything within several kilometers.¹⁹ The first destructive effect of the one megaton nuclear bomb is to melt and burn everything in this horrific fire pillar. This fire pillar is instantly ignited and absorbs all air including oxygen at the igniting point. As a result, a vacuum is formed around the pillar. This suddenly formed vacuum absorbs all the air, causing a heat storm and heading to ground zero where nuclear bombs are detonated. Remaining people and unmelted buildings or things after the first hideous fire are demolished through this heat storm. Under such circumstances, all storms around ground zero soar to the sky. Nuclear bombs dropped in Hiroshima caused a mushroom cloud more than 10 km high. Inside a mushroom cloud, there is a lot of sand and dust, and irradiated things gradually fall down to the ground. Such fallout inflicts the survivors with radioactivity. This is the third damage of nuclear bomb explosion. Ultimately, all-out nuclear war makes survivors envy the dead, and the city hit by nuclear attack cannot return to life for the time being.

Possession of nuclear weapons with such destructive power greatly affects international relations. Nuclear states have strategic advantage over non-nuclear states,

¹⁸ Samuel B. Payne, Jr., *The Conduct of War: An Introduction to Modern Warfare* (London: Blackwell, 1989).

¹⁹ Wm. Robert Johnston, "On fire effects of nuclear weapons and military planning," January 31, 2004, <http://www.johnstonsarchive.net/opinion/opinion2004-01> (accessed April 23, 2007).

provided that such nuclear power cannot be offset with other warfare. Let's assume that a country possesses a nuclear weapon which can destroy its rival's capital with a single strike. In this case, the nuclear state has an absolute upper hand on any kinds of conflicts or negotiations. Non-nuclear states cannot trust the goodwill of nuclear states, so they cannot help but take all blackmails from nuclear states. Unlike conventional weapons, nuclear weapons are not developed for use in a real war but for threat or blackmail. If it works, it partly did its own job. The way to offset this threat is for the counterpart also to retain nuclear weapons. International politics explain such circumstances based on deterrence theory²⁰ and proliferation theory: the greater the number of nuclear states, the higher the probability of nuclear war.

2. Nuclear Weapon Proliferation Theory

a. Proliferation Optimist: Deterrence Theory

An apparent contradiction lies at the center of our understanding about nuclear weapons and deterrence. On the one hand, it is widely believed that nuclear weapons were an important factor in maintaining the perpetual peace between the United States and the Soviet Union during the Cold War. The two superpowers avoided war despite a deep geopolitical rivalry, repeated crises, and a prolonged arms race. Then how does deterrence work under ideal conditions? Generally, successful deterrence requires three components: capability, communication, and credibility. First, the party fearing nuclear attack must have the capability to retaliate with nuclear weapons against an attacker. Second, retaliation must be clearly communicated to the adversary by a trustworthy source. Third, the potential aggressor must understand that the first two elements exist and are credible.²¹

²⁰ An equality (nuclear proliferation=higher chance of nuclear war) is the overwhelmingly supported view among scholars who study whether nuclear proliferation would influence international politics and politicians of existing nuclear states. This logic is like that if “*n*+1 states” went nuclear, the world would be more unstable than if “*n* states” went nuclear. Therefore, existing nuclear states claim that a such situation should be prevented. As a representative scholar, Kenneth N. Waltz argued that war was caused by unclear evaluation of an enemy’s capacity, so by possessing nuclear weapons, military capacity is clearly assessed. Scholar Morton A. Kaplan assumed the “Unit Veto System,” in which nuclear proliferation is completed to some degree that any states can deny other states’ intention, whereby war can be deterred.

²¹ Mario E. Carranza, “An Impossible Game: Stable Nuclear Deterrence after the Indian and Pakistani Tests,” *The Nonproliferation Review* (Spring/Summer 1989), 16.

Capability requires the ability to punish the aggressor to such a degree as to not risk further provocation. Waltz argues that this condition has been facilitated by the increase of nuclear weapons, though small arsenals are also effective as a war deterrent.²² Proliferation optimists point to the lack of nuclear war as proof of this concept. This concept has made many believe that the mission of the military in the nuclear age has changed from winning wars to preventing wars.²³

Communication made by a reliable or authorized source is the second component of deterrence. For deterrence to work properly, it is important to communicate capability and resolve to adversaries. Communication of the threat can be lost in a crisis due to competing signals and information overload.²⁴ The final component of deterrence is credibility that the threat is real. This is the most complex of the three components. It is based upon the existence of both capability and a communicated threat. A nuclear response must appear to be credible, not a bluff.²⁵

Fundamental data for the policy-making process by political leaders is proven war performance ability. If leaders think that the first strike could lead to victory, nuclear weapons cannot act as a war deterrent, in spite of the greatness of the counterpart's war performance. Likewise, if some leaders believe that the first strike could neutralize the second retaliatory strike, the deterrence theory would not be effective at all. The reason that war deterrence was effective between the U.S. and USSR was that neither had the first strike capability to neutralize its counterpart. However, the U.S. and USSR both had the capability of a retaliatory strike after the counterpart's first strike.

²² See Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: A Debate* (New York: W. W. Norton and Company, 1995).

²³ Bernard Brodie, "Implications for Military Policy," *The Absolute Weapon: Atomic Power and World Order*, ed. Bernard Brodie (New York: Harcourt, Brace, and Company, 1946), 76.

²⁴ Richard Ned Lebow, "Conclusions," *Psychology and Deterrence*, ed. Robert Jervis, Richard Ned Lebow, and Janice Gross Stein (Baltimore: The John Hopkins University Press, 1985), 205-211.

²⁵ David W. Tarr, *Nuclear Deterrence and International Security: Alternative Nuclear Regimes* (New York, Longman, 1991), 68-69.

If the U.S. and USSR had only possessed conventional weapons at the moment of the Cuba missile crisis in 1962, the world would have experienced World War III. We should acknowledge that the existence of nuclear weapons contributed to the prevention of World War III between the U.S. and Soviet Union.

In this context, John Mearsheimer believes that “nuclear weapons are a superb deterrent” and argues that both Germany and Ukraine should be encouraged to become nuclear powers in the post-Cold War era.²⁶ Stephen Ban Evera also calls for German acquisition of a nuclear arsenal to deter Russia, and Barry Posen recommends that Ukraine should keep nuclear weapons as a deterrent against Russian military intervention.²⁷ Shai Feldman argues that nuclear proliferation in the Middle East could stabilize the Arab-Israeli conflict.²⁸ Waltz even maintains that “the probability of major war among states having nuclear weapons approaches zero.”²⁹ If this is true, then the spread of nuclear weapons should have positive consequences, and the possession of nuclear weapons should reduce the likelihood of war because it makes the costs of war so great.

b. Proliferation Pessimist

Such optimistic views of the effects of nuclear proliferation have criticism, of course, and a number of scholars have argued that nuclear deterrence may not be stable

²⁶ John J. Mearsheimer, “Back to the Future: Instability in Europe after the Cold War,” *International Security*, vol. 15, no. 1 (Summer 1990), 5-56; Mearsheimer, “The Case for a Ukrainian Nuclear Deterrent,” *Foreign Affairs*, vol. 72, no. 3 (Summer 1993), 50-66.

²⁷ Stephen Ban Evera, “Primed For Peace: Europe After the Cold War,” *International Security*, vol. 15, no. 3 (Winter 1990/91), 54; Barry R. Posen, “The Security Dilemma and Ethnic Conflict,” *Survival*, vol. 35, no. 11 (Spring 1993), 44-45.

²⁸ Shai Feldman, *Israeli Nuclear Deterrence: A Strategy for the 1980s* (New York: Columbia University Press, 1982), 142-175.

²⁹ Kenneth N. Waltz, “The Origins of War in Neorealist Theory,” eds., Robert I. Rotberg and Theodore K. Rabb, *The Origin and Prevention of Major Wars* (Cambridge, UK: Cambridge University Press, 1988), 50-51.

in specific regional settings.³⁰ Most notably, the deterrence theory is based on the assumption that all policy makers are so rational and reasonable that they can judge the situation and the enemy's military power rightly.

In addition to the assumption that states behave in a basically rational manner, pursuing their interests according to the expected utility theory, another realistic set of assumptions views government leaders as intending to behave rationally, yet envisions their beliefs, the options available to them, and the final implementation of their decisions as being influenced by powerful organizational actors. If this is the case, organization theory should be useful to aid the understanding of the consequences of proliferation as well.

Two widespread themes in the organization theory focus on the major impediments to pure rationality in organizational behavior. First, large organizations function within a severely “bounded” form of rationality; they have inherent limits on calculation and coordination and use simplifying mechanisms to understand and respond to uncertainty in the external environment.³¹ As James March and Herbert Simon put it, “the world tends to be perceived by the organization members in terms of the particular concepts that are reflected in the organization’s vocabulary. The particular categories it employs are reified, and become, for members of the organization, attributes of the world rather than mere conventions.”³²

Second, most complex organizations have multiple conflicting goals, and the process by which objectives are chosen and pursued is intensely political. Such a political perspective views apparently irrational behaviors as serving the narrow interests of some units within the organization, even if the decisions are absolutely stupid from the leadership’s overall perspective.³³

³⁰ Karl Kaiser, “Non-Proliferation and Nuclear Deterrence,” *Survival*, vol. 31, no. 2 (March/April 1989), 123-136.

³¹ Jonathan Bendor and Thomas H. Hammond, “Rethinking Allison’s Models,” *American Political Science Review*, vol. 86, no. 2 (June 1992), 301-322.

³² March and Simon, *Organization*, 165.

³³ Martha S. Feldman and James G. March, “Information in Organizations as Signal and Symbol,” *Administrative Science Quarterly*, vol. 26, no. 2 (June 1981), 174.

We do not know about the likely influence of the structure and biases of military organizations on the prevention of unauthorized uses of nuclear weapons. It is harder to predict how decision makers in North Korea, one of the most isolated states in the world, effect the prevention of accidental uses of nuclear weapons.

Going back to the Cold War era, if the USSR could not destroy a U.S. submarine with a single strike, it would be demolished with a U.S. second retaliatory strike. Then could such a nuclear deterrent be effective to North Korea as it was between the U.S. and USSR? When small rival states possess nuclear weapons, can these weapons be effective as a deterrent between them? We cannot answer this question based on experience because there are no parallels involving small states.

There have been no official small rival nuclear states such as inter-Korea in history. Though North Korea proclaimed its possession of nuclear weapons in 2006, North and South Korea are not officially nuclear states as of yet. Therefore, deterrence among small states has only been considered based on logical analogy. First, if one small state possessed nuclear weapons, it would have absolute advantage over rival states by threatening them with its nuclear power. The non-nuclear states would have to choose whether to take the nuclear strike or surrender. Under such circumstances, it is not an exaggeration to say that North Korea's nuclear possession would be fatal to South Korea's peace and security. Thus, South Korea has no other choice but to obtain nuclear weapons to counter North Korea.

Assume that states in trouble go nuclear. Suppose two states with a population of 70 million and a size of 200,000 km² have ten nuclear warheads and delivery missiles. Moreover, the nations are adjacent with a two to three minute flight time. If they were in a serious situation, what would happen? Due to the fact that both leaders would be well aware of the result of nuclear war, they would try to avoid war unless they were insane. In other words, it is possible that the deterrence that was effective between the U.S. and USSR could be effective among minor powers.

When two small and weak states have nuclear weapons and are in trouble, there exists the critical view that it could lead to nuclear war.³⁴ The view is that because both states are small, the first hit would be fatal. It would be almost impossible to launch second retaliatory strike missiles after realizing the enemy's launch of nuclear missiles. In consequence, crises and conflicts among small and weak states would be likely to cause an obsession or seduction of preemptive strike. Therefore, it would deteriorate the stability of international relations. As said, in effect, there could be higher likelihood of nuclear war. It is certain that we cannot expect certain deterrence among closely located states. In particular, given the level of science technology concerning construction of arms system, nuclear bombs of minor powers are more likely to cause accidental wars rather than prevent wars.

c. Minor Powers' Dilemma in Pursuit of Nuclear Possession

The U.S.-Soviet deterrence framework rested on the existence of two huge, dispersed nuclear arsenals. If the USSR missed just one U.S. submarine with a first strike, it would be demolished by the inevitable U.S. second strike. Can the smaller nuclear arsenals of small rival states act as an effective deterrent between them? We cannot answer this question based on experience because there are no parallels among small states. Israel's rivals in the Middle East do not have nuclear weapons, and nuclear possession by both India and Pakistan is not yet formalized by the Non-Proliferation Treaty.

North Korea proclaimed its possession of nuclear weapons only in 2006, so there has been little time to determine what impact this might have on South Korea and neighboring countries. Therefore, deterrence among small states can only be considered on the basis of logical analogy. First, if one small state possesses nuclear weapons, it would have absolute advantage over rival states by threatening them with nuclear weapons. If the state's despotic leader had a decisive say for the nuclear use, it would be a great threat to neighboring non-nuclear states. Thus, North Korea's nuclear

³⁴ Donald M. Snow, *The Shadow of the Mushroom Shaped Cloud* (Columbus Ohio: The Ohio State University, 1978), 23.

possession could be detrimental to the security of South Korea and Japan. In turn, South Korea or Japan would feel compelled to acquire nuclear weapons to offset the threat from North Korea. This virtual situation would mean the failure of the U.S. policy objective to maintain a non-nuclear Korean peninsula. In summary, it would be very difficult for a damaged adjacent minor state to conduct a retaliatory strike following a nuclear attack. In the case that one or more of the states in question was especially untrustworthy or non-democratic, we cannot ignore the possibility that the possession of nuclear weapons by neighboring minor powers would be especially destabilizing. Since neither state could pose a legitimate capacity to conduct a retaliatory strike, the probability of any state conducting a first strike simply on the basis of self-defense would increase.

III. NORTH KOREAN NUCLEAR POLICY

A. EVOLUTION OF NORTH KOREA'S NUCLEAR PROGRAM

The North Korean regime sees the U.S. as its most significant threat and considers nuclear capability essential to deter a U.S. attack. It claims the threat of a U.S. attack justifies its weapons development programs and views the Bush administration's hawkish comments and reluctance to sign a nonaggression pact as indicators that U.S. military action may be imminent. Some academics argue that North Korea's poor financial straits, lack of allies, and diplomatic isolation lead it to see a nuclear capability as "the only way to guarantee the regime's survival."³⁵ They suggest that in addition to providing a deterrent, nuclear capability provides a bargaining chip, which can be manipulated to win humanitarian and economic aid. In light of North Korea's ongoing economic and agricultural crises, its nuclear weapons program could be viewed as an attempt to develop an asset other countries would view as worth trading for increased economic and food aid. North Korean statements appear to confirm this perspective. North Korea claimed its detonation of a nuclear warhead on September 9, 2006 was intended to urge the United States back to the negotiating table, indicating that Kim Jong-il is trying to leverage one of his few advantages.

The DPRK's nuclear program began after the "Russo-DPRK accord on peaceful use of nuclear"(March 1956) was signed. At that time, North Korea signed an accord with the Soviet Union and arranged the legal ground to be supported by nuclear technology from the USSR. In addition, North Korea dispatched dozens of nuclear scientists to the "Duvena nuclear institute" for technical training. After that, North Korea introduced IRT-2000, a small reactor for study purposes, which it obtained from the USSR in 1962 in order to set up an infrastructure for developing nuclear technology; North Korea also established a nuclear laboratory in Younbyun, 100 miles north of

³⁵ Victor Cha, "Hawk Engagement and Preventive Defense on the Korean Peninsula," *International Security*, vol. 27, no. 1, 42.

Pyongyang, in 1964.³⁶ Pyongyang's initial decision to develop a nuclear bomb came from a Kim Il-sung directive, probably in the 1960s.³⁷ At this time, North Korea is estimated to be interested in the development of nuclear weapons along with the nuclear energy.

North Korea entered into the IAEA in September 1974 and formed the "Partial Nuclear Safety Measure Treaty." With this effort, the DPRK intensively tried to introduce the nuclear plant through bargaining with Japan, France during the 1970s, and Germany during the 1980s. At this time, South Korea gave an impetus to building military forces and defense industry to narrow the gap of military power with North Korea. With the United States being defeated in the Vietnam War and the Carter administration withdrawing the United States forces, South Korea pursued nuclear development in the mid-1970s for the purpose of security. As the United States prevented France from exporting its reprocessing facility in 1977, the nuclear project of South Korea was perpetually suspended. It is speculated that North Korea was stimulated to develop its nuclear project in response to the efforts of South Korea.

In 1985, Pyongyang signed the Nuclear Non-Proliferation Treaty (NPT), but in 1989 Yongbyon's main research and plutonium production reactor was shut down for approximately 100 days, which signaled refueling and extraction of weapons grade plutonium.³⁸ Without IAEA inspectors in place to verify the propriety of this shutdown, U.S. intelligence was left to speculate about plausible scenarios; 100 days provided adequate time to completely refuel the reactor and extract the necessary materials to produce nuclear weapons.

In 1992, North Korea signed a nuclear safeguards agreement introducing International Atomic Energy Agency (IAEA) inspectors. It appeared that North Korea was finally offering access to the small amount of plutonium separated during their "one-

³⁶ For a description of North Korea's nuclear facilities, see "North Korean WMD Facilities and Chronologies," on the Nuclear Threat Initiative website, http://www.nti.org/e_research/e1_nkorea_profile.html (accessed January 23, 2007).

³⁷ Interview with North Korean defector by Daniel A. Pinkston, November 1, 2001, Seoul.

³⁸ Joseph Cirincione, Jon B. Wolfsthal, and Miriam Rajkumar, *Deadly Arsenals: Nuclear Biological, and Chemical Threats* (Washington, D.C.: Carnegie Endowment for International Peace, 2005), 284.

time plutonium extraction experiment.”³⁹ The chemical analysis during inspection showed the DPRK conducted three to four plutonium separation experiments since 1989.⁴⁰ When the IAEA requested to visit and inspect waste sites, the DPRK refused, and by 12 March 1993, they withdrew from the NPT. Following negotiations with the U.S., Pyongyang rescinded its declaration of withdrawal from the NPT, but clarified it was no longer a full party to the NPT and severely restricted routine IAEA inspections.⁴¹ In 1994, the DPRK issued a statement that it would defuel its 5-MWe reactor at Yongbyon, essentially signaling an overt declaration of reprocessing up to 30 kilograms of plutonium.⁴² The outcome of intense negotiations was the Agreed Framework (AF), under which the U.S. declared a non-hostile stance toward the DPRK. The DPRK received two light water reactors in exchange for a freeze on its nuclear weapons facilities and full compliance with its IAEA safeguard agreement.⁴³ The AF created a loophole for Pyongyang to acquire uranium enrichment programs.

As possible payment for DPRK support in the creation of Pakistan’s Ghari 1 missile, AQ Khan, former director of the Khan Research Laboratory in Pakistan, provided the DPRK with technology, old and discarded centrifuge and enrichment machines, and depleted uranium hexafluoride.⁴⁴ George Tenet, former CIA director, stated to the Senate Select Committee on Intelligence, “We . . . believe Pyongyang is pursuing a production-scale uranium enrichment program based on technology provided by AQ Khan, which would give the DPRK an alternative route to nuclear weapons.”⁴⁵

³⁹ Joseph Cirincione, Jon B. Wolfsthal, and Miriam Rajkumar, *Deadly Arsenals: Nuclear Biological, and Chemical Threats* (Washington, D.C.: Carnegie Endowment for International Peace, 2005), 285.

⁴⁰ Paul Leventhal and Steven Dolley, “The North Korean Nuclear Crisis,” *Nuclear Control Institute*, June 16, 1994, <http://www.nci.org/nkib1.htm> (accessed March 15, 2007).

⁴¹ Cirincione, 286.

⁴² Ibid.

⁴³ Ibid., 287.

⁴⁴ Christopher Oren Clary, “The A. Q. Khan Network [electronic resource]: Causes and Implications” <http://library.nps.navy.mil/uhtbin/hyperion/05Dec%5FClary.pdf> (accessed February 20, 2007).

⁴⁵ “Weapons of Mass Destruction: Trade between North Korea and Pakistan,” *Congressional Research Service*, Report for Congress, March 11, 2004, <http://fpc.state.gov/documents/organization/30781.pdf> (accessed June 23, 2007).

In 2002, the DPRK reinvigorated its plutonium program at Yongbyon, and the U.S. stopped all programs outlined in the AF.⁴⁶ First Deputy Foreign Minister Kang Sok Ju admitted to James Kelly, the Assistant Secretary of State for East Asian and Pacific affairs, that the DPRK possessed a uranium enrichment facility.⁴⁷ Although the admission came under severe scrutiny, it is still possible that Kang “slipped up” in revealing their position. Finally, in January 2003, the DPRK announced their withdrawal from the NPT and expelled the IAEA inspectors. They continued to claim their peaceful nuclear intentions, even offering “separate verification” of their nuclear program, an offer they would later recant.⁴⁸

In February 2005, the DPRK admitted it possessed nuclear weapons.⁴⁹ The ambiguity of the situation remained for 18 months until October 9, 2006, when it conducted an underground test of a small nuclear device. Pyongyang has not allowed physical inspection of the detonation site, but the U.S. detected radioactive materials in the air around North Korea some days later.⁵⁰

Since August of 2003, the U.S., China, South Korea, Japan, and Russia along with North Korea have participated in six-party talks aimed at denuclearizing the Korean Peninsula. Although the talks began in August 2003, they were stalemated until September 2005, when the six parties produced a statement of principles. Then, the talks deadlocked again as North Korea and the U.S. provided very different interpretations of the six-party statement; North Korea announced its second major boycott of the talks in November 2005.

⁴⁶ Selig S. Harrison, “Did North Korea Cheat?” *Foreign Affairs*, vol. 84, no. 1 (2005), 99, <http://proquest.umi.com/pqdweb?did=845825861&Fmt=7&clientId=65345&RQT=309&VName=PQD> (accessed April 23, 2007).

⁴⁷ Ibid.

⁴⁸ John Burton, Guy Dinmore, and Mark Turner, “North Korea pulls out of key treaty on nuclear arms: Dispute with US becomes full-blown international crisis,” *Financial Times*, January 11, 2003, 1, <http://proquest.umi.com/pqdweb?did=276279921&Fmt=7&clientId=65345&RQT=309&VName=PQD> (accessed June 3, 2007).

⁴⁹ Anna Fifield, “Pyongyang punctures hopes for nuclear deal: North Korea has surprised its dialogue partners with claims to have WMD and refusal to resume talks,” *Financial Times*, February 11, 2005, 9, <http://proquest.umi.com/pqdweb?did=791943221&Fmt=7&clientId=65345&RQT=309&VName=PQD> (accessed May 4, 2007).

⁵⁰ Ibid.

In February 2007, the participants in the six-party talks announced that North Korea agreed to a set of initial actions to achieve denuclearization of the Korean Peninsula. North Korea committed to allowing IAEA inspectors to return to assist with shutting down the Yongbyon nuclear facility. In return, the other parties agreed to provide emergency energy assistance and enable North Korea's access to previously blocked foreign bank accounts.⁵¹

B. NORTH KOREAN CONVENTIONAL MILITARY STRENGTH

To understand North Korea's rationale for developing a nuclear capability, it is important to succinctly address North Korea's conventional military strength. Since the Korean War armistice, North Korea has maintained a bellicose posture that can best be judged by comparison against South Korean forces. The table below shows that South Korean vs. North Korean military strength in manpower and materials seems to favor North Korea.

Table 1. South Korean vs. North Korean military strength⁵²

Country	South Korea	North Korea
<u>Yearly Military Expenditures</u>	\$21,060,000,000	\$5,217,400,000
<u>Available Military Manpower</u>	12,458,257	5,851,801
<u>Total Military Personnel</u>	5,209,000	5,995,000
<u>Active Frontline Personnel</u>	687,000	1,106,000
<u>Aircraft</u>	1,481	1,624
<u>Armor</u>	4,650	6,560
<u>Artillery</u>	5,528	21,400

⁵¹ Sean McCormack, "North Korea's 60-day Assessment," U.S. Department of State, <http://www.state.gov/r/pa/prs/ps/2007/apr/83051.htm> (accessed May 8, 2007).

⁵² GlobalFirePower.com, "World Military Strength," http://www.globalfirepower.com/countries_comparison_detail.asp (accessed August 31, 2006).

Country	South Korea	North Korea
<u>Missile Defense Systems</u>	7,032	16,075
<u>Navy Units</u>	85	708
Major Ports	5	11
<u>Oil Consumption</u>	2,168,000 (bbl per day)	25,000 (bbl per day)
<u>Arms Exports</u>	\$14,000,000	\$NR
<u>Arms Imports</u>	\$103,000,000	\$NR
<u>Land Area</u>	98,480 sq km	120,540 sq km
<u>Airports</u>	108	79
<u>Labor Force</u>	23,530,000	9,600,000
<u>Purchasing Power</u>	\$956,300,000,000	\$40,000,000,000

bbl = barrel of oil (1 bbl = 42 U.S. gallons or 159 liters)

This data, however, does not tell the entire story. North Korea has an active 1.1 million soldier army, which is primarily poised along the Demilitarized Zone (DMZ) that runs along the 38th parallel.⁵³ The North Korean artillery pieces number in the thousands with many of them aimed at Seoul, just a few miles south of the DMZ. South Korea also has a capable standing military, but it is much smaller than North Korea's. South Korea's forces are augmented by a small number of U.S. troops in and around the DMZ, which would slow an attack until reinforcements arrive. This balance of power has remained virtually unchanged since 1953.

Throughout the Cold War, the Soviet Union provided North Korea with advanced weaponry. In the 1980s, North Korea's Soviet-provided fighter aircraft such as Mig-29s and front-line tanks presented a substantial threat to South Korea.⁵⁴ At the same time,

⁵³ *Jane's Sentinel Security Assessments*, s.v. "North Korea," http://www4.janes.com/subscribe/sentinel/CNAS_doc_view.jsp?Sent_Country=Korea.%20North&Prod_Name=CNAS&K2DocKey=/content1/janesdata/sent/cnasu/nkors100.htm@current (accessed August 24, 2006).

⁵⁴ *Ibid.*

North Korea continued to develop long-range missiles and embarked on the nuclear program that has the world concerned to this day. After the fall of the Soviet Union, the fortunes of the North Korean military declined rapidly. Soviet technicians no longer repaired Soviet weapons systems; spare parts became nonexistent, and military readiness declined because of a series of floods and subsequent poor crop yields that caused mass starvation of the North Korean population. While the regime supplied the military first for everything including food, the loss of Soviet support was felt in the armed forces. While still a powerful military force, North Korea is now severely weakened and vulnerable.⁵⁵

Viewed in this light, pursuing nuclear weapons in support of a deterrent strategy against the U.S. makes sense. Goldstein argues, “Although developing, deploying, and maintaining a nuclear arsenal is neither cheap nor easy in an absolute sense, against an adversary whose capabilities one cannot match, nuclear weapons married to a deterrent strategy promise greater security than that provided by comparable spending on conventional forces married to a defensive strategy.”⁵⁶ Nuclear weapons provide an economically efficient deterrent.

C. SOCIO-ECONOMIC ANALYSIS

North Korea is a closed state with a communist dictatorial government in complete control. It's a country isolated from the realities of the world community, led by a regime desperate to stay relevant to its people. “The North Korean regime and its practices are an anathema to nearly every civilized value. The starving of children; the relative deprivation that forces farmers to sell their daughters for Chinese cattle; the

⁵⁵ *Jane's Sentinel Security Assessments*, s.v. “North Korea,” http://www4.janes.com/subscribe/sentinel/CNAS_doc_view.jsp?Sent_Country=Korea,%20North&Prod_Name=CNAS&K2DocKey=/content1/janesdata/sent/cnasu/nkors100.htm@current (accessed August 24, 2006).

⁵⁶ Avery Goldstein, “Why Nukes Still Trump: Deterrence and Security in the 21st Century,” <http://www.fpri.org/enotes/military.200001113.goldstein.nukesstilltrumhtml> (accessed April 8, 2007).

physical handicaps that a generation of youth will bear due to a basic lack of nutrition and medicine all occur while the political regime and military survive in relative splendor.”⁵⁷

How did things go wrong for North Korea? Following the Soviet model, Kim established complete control of all aspects of the country to include instituting a command economy and nationalizing large percentages of indigenous North Korean industry. This allowed the Korean Worker's Party to control all of the country's manufacturing for both export and internal consumption. All aspects of the economy from money flow to infrastructure upgrades and improvements were carried out only by the state. Agriculture followed the communist policy as well. Land was seized and redistributed to the peasant classes, and the command economy dictated production requirements. Following the examples of China and the Soviet Union, collectivization was instituted in the 1950s, and by 1960, almost all agricultural production had reverted to collectivization.

North Korea followed the communist theory of diverting all available resources into heavy industries; military production became one of its highest priorities. Consumer goods were neglected in deference to the state. North Korea's command economy paid workers a low fixed rate for wages and products and used the surplus to finance its industrialization effort.⁵⁸ The results of this industrialization increased the living standard of its population up through the early 1960s.⁵⁹ By the late 1960s however, the North Korean economy was beginning to become sluggish. The difference in income distribution between rural and urban areas became greater because of stagnation in the production of agriculture. North Korea's continued massive spending on military procurement and crumbling existing infrastructure led to economic stagnation and increasing debt.

⁵⁷ Elizabeth Rosenthal, “In North Korean Hunger, Legacy is Stunned Children,” *New York Times*, December 16, 1998.

⁵⁸ U.S. Library of Congress, *North Korea: A Country Study*, <http://countrystudies.us/north-korea/2.htm> (accessed September 6, 2006).

⁵⁹ J. Barkley Rosser, Jr., *Comparative Economics in a Transforming World Economy*, 2nd edition, Cambridge, Massachusetts: MIT Press, 2004, 517-520.

North Korea's philosophy of self-reliance and its resistance to foreign interference compounded its problems. The guiding philosophy of the North Korean state is called "Juche." What is Juche? The 1998 revised version of the DPRK's constitution, which reinforced Juche, stated unequivocally in Article 20 that "the means of production are owned solely by the State and co-operative organizations."⁶⁰ Juche is an original theory by Kim Il-song, the Soviet-installed father of modern North Korea. This theory maintains that North Korea will move to economic independence without the help of foreigners. Kim skillfully combined Confucian tradition, Marxism, Leninism, and Maoism to form his Juche philosophy, and applied these revolutionary ideas to Korean social structures to form the economic and military philosophy to guide his country.⁶¹

By the 1970s, North Korea's economy had declined and was no longer able to produce enough to support the floundering North Korean economy. Capitalist areas of the world were outstripping command economies by moving into advanced stages of industry, moving away from heavy coal burning industries. Countries such as South Korea were reaping the benefits of an aggressive market economy. South Korea's economic prosperity led to the formation of a stable democratic government with an emerging capitalist market-driven economy, in stark contrast to North Korea. By the mid-1970s, South Korean economic reforms led progressively to its passing North Korea economically and militarily.⁶²

Trade certainly has a positive impact on the North Korean economy, but the extent is difficult to determine because it is a closed system, and North Korea does not report its numbers. Additionally, South Korean reporting is inconsistent because it views its dealings with North Korea as inter-Korean trade and does not report its interactions as foreign trade.⁶³ North Korea also engages in illegal arms sales, drug trafficking, and

⁶⁰ 1998 DPRK Constitution, http://210.145.168.243/pk/061st_issue/98091708.htm (accessed August 13, 2006).

⁶¹ Hamm, *Arming the Two Koreas, State Capital and Military Power*, 71-74.

⁶² *Ibid.*, 156-157.

⁶³ Economist Intelligence Unit, "Economic Structure," *Country Report: North Korea* (February 2006), 8.

narcotics, which provide a stream of hard currency income that is difficult to trace. Yet another source of income comes from its diasporas living in other countries, including the Chosen Soren group living in Japan.⁶⁴

North Korea and its leader Kim Il-sung found it difficult to respond to South Korean prosperity and became increasingly alarmed that this well-armed economic giant undermined the legitimacy of the North Korean leadership. Kim realized that he had to do something. In China, Deng Xiaoping was instituting reforms by opening China to foreign investment and instituting a dual track economic system, but because of Kim's Juche philosophy, he did not follow the Chinese model. Kim opted instead to increase his country's reliance on Juche. This exacerbated North Korea's isolation from the world, discouraging investment and preventing needed technological upgrades to its faltering industrial and agricultural sectors. By 1980, North Korea had defaulted on all of its foreign loans, and by 2000, its industrial output was in a perpetual decline.

Today the North Korean economy is described as "the possibility of Perestroika, the impossibility of Glasnost."⁶⁵ This means that North Korean leadership, out of desperation, has explored the process of economic liberalization without any hint of political liberalization. This seems to imitate China's initiatives in the 1990s to open a dual track economy. Deng Xiaoping decided to open China economically, by slowly allowing foreign direct investment first while maintaining a state-controlled command economy. Gradually other sectors of the economy were opened, allowing market pressures to change the economy without the economic and social upheavals that occurred with the breakup of the Soviet Union. The result has been a steady economic transformation of the Chinese economy without any significant changes to the political reality in China.⁶⁶ This appears to be the model that North Korea is trying to pursue. Granted, North Korea has not instituted the reforms that the Chinese have, and this has led to some serious economic problems for this isolated country.

⁶⁴ Dick Nanto and Emma Chanlett-Avery, "The North Korean Economy: Background and Policy Analysis," *CRS Report to Congress* (Updated January 24, 2006), RL32493: 18-20.

⁶⁵ French, *North Korea: The Paranoid Peninsula, A Modern History*, 73.

⁶⁶ Mary E. Gallegher, "Reform and Openness," *World Politics*, vol. 54, no. 3 (2002), 338-72.

Even though North Korea has looked at the Chinese example, its economy is structured like that of the former Soviet Union. In China, only about 20% of the population was working in the industrialized sectors when Deng began his reforms. In North Korea, over 90% of the work force is engaged in highly industrialized state-owned enterprises (SOEs). While China could make economic reforms and affect only 20% of its population, major reforms in North Korea would affect the social benefits of over 90% of its workers; this puts North Korea in a precarious position, much like that of the former Soviet Union and Eastern European countries.⁶⁷ Another crucial difference between North Korea and China is their valuation of Foreign Direct Investment(FDI). Because of North Korea's Juche philosophy, the FDI has been viewed as unnecessary. In fact, in 1980 Kim Il-sung declared, "North Korea is a self-sufficient socialist economy with no need for foreign capital."⁶⁸ China's reform required massive amounts of foreign investment, while North Korea has experienced very little direct investment from abroad. Even potential investment was stifled by the regime's habit of defaulting on foreign debts and its propensity to put rigid controls on any foreign endeavor in North Korea. Kim Jong-il has begun to realize that foreign investment is essential to improving the economy, but the track record of the regime leads to caution and hesitance from potential investors.

North Korea seems unable to rid itself of its Juche philosophy. This is slowly strangling the country, placing it in a desperate economic situation. The leadership recognizes that a liberalization of the economy is necessary, but this is not as easy as it may seem. To adopt economic openness would be like admitting that Kim Il-sung and his philosophy of Juche were wrong. This poses a tremendous challenge in today's North Korea. Kim Il-sung is the god of the North Korean people. Unlike Mao and Stalin in China and the former Soviet Union, Kim Il-sung is forever the savior of the North Korean people. Mao and Stalin were seen as great leaders but they were never looked upon as gods. In fact, their successors blamed them for failed economic policies and used this as

⁶⁷ French, *North Korea: The Paranoid Peninsula, A Modern History*, 84-85.

⁶⁸ *Ibid.*, 86-87.

an excuse to pursue other economic paths. In North Korea, Kim Il-sung is the foundation of the state. He is the president forever for the DPRK and Kim Jong-il's legitimacy is based on his father's legacy and continued worship within the country.

Kim Il-sung's ancestors are revered revolutionaries, dating back to the 1800s. North Korean propagandists claim the entire family to be of noble birth. This propaganda machine fabricates every aspect of North Korean society. Children learn stories of the Kim family's exploits; they are taught that North Korea could not exist without the guidance of Kim Il-sung and his family. The people believe that while their lives are desperate, they live in the only functioning society in the world. To change economic philosophies from Juche would admit that the "The Great Father" was wrong. This is not something the current North Korean regime could consider. "Even if a serious reform program were attempted, it is by no means preordained that such a program would be successful. The three robust predictors of success in reforming centrally planned economies are the degree of macroeconomic stability at the time that reform is initiated; the legacy of a functional pre-socialist commercial legal system; and the size of the agricultural sector."⁶⁹

The North Korean people suffer a continuing deterioration of living standards. The results of the communist dictatorship and its ruinous policies of self-determination and isolation have made North Korea one of the poorest and most backward countries on earth. The gap between the living standards of the citizens of North Korea and the South is immeasurable. A comparison of the two German nations prior to reunification is not analogous to the Korean situation. Such a wide gap in socioeconomic status would ensure difficulty in any future unification of the Korean Peninsula. This highlights the belief that economic engagement could lessen the shock of a future reunification of the Korean people.

⁶⁹ Simon Johnson, "How To Stabilize: Lessons from Post-Communist Countries," *Brookings Papers on Economic Activity* 1: 217-313 (1996).

D. MOTIVATIONS FOR DEVELOPING NUCLEAR WEAPONS

In October 2002, when United States Assistant Secretary of State James A. Kelly visited Pyongyang to discuss a number of important issues with North Korea and presented evidence of a North Korean program to enrich uranium, North Korean First Vice Foreign Minister Kang Sok Chu acknowledged the existence of the program after initially denying the accusations.⁷⁰ Considering that developing and producing nuclear weapons take time, especially for developing countries like North Korea, it is necessary to go back to the starting point of the dispute to find a solution to the North Korean nuclear impasse. More specifically, it is important to delve into the North Koreans' threat perceptions over the past half century to clearly understand their motivations for acquiring the nuclear bomb.

The North Korean leadership's political decision to seek nuclear weapons was not made from nothing. North Korean nuclear development started from a deeper rationale. Basically, North Korea faces a number of external and internal security problems. Korea is surrounded by major powers, and the peninsula has been subject to numerous invasions over past centuries. Notably, Japanese invasion in 1552 and 1597 still has psychologically lingering effects on the Korean people, even though it occurred centuries ago. A number of historical, internal, and external factors during the 20th century have been rooted deep inside of the North Korean ruling elite and their supporters. A strong military posture and nuclear weapons systems not only help the leadership deal with external threats, but they are also popular among nationalistic people who are constantly reminded of the potential external threats to North Korea.

1. Historical Motivation

Even though U.S. military forces have been stationed in South Korea since the end of the Korean War to deter another North Korean invasion across the 38th parallel like the one on 25 June 1950, all North Koreans are taught that the United States invaded

⁷⁰ Press Statement, Richard Boucher, Spokesman, "North Korean Nuclear Program," U.S. Department of State, October 16, 2002, <http://www.state.gov/r/pa/prs/ps/2002/14432.htm>; David E. Sanger, "North Korea Says It Has a Program on Nuclear Arms," *New York Times*, A1, October 17, 2002, <http://www.nytimes.com> (accessed December 23, 2006).

the North on that day, and that Kim Il-sung repelled the American invasion during the “Fatherland Liberation War.”⁷¹ The North Korean media has provided extensive propaganda of U.S. military intervention since 1950 and of the need to remain ideologically awake against the possibility of “another American attack.”⁷²

Despite Pyongyang’s historical revisionism, such fixed ideas provide North Korean leaders with the motivation to acquire a capability to strike U.S. targets, in order to deter American military intervention with nuclear weapons and ballistic missiles. North Korean leaders are well aware that conventional weapons cannot deter U.S. military intervention. In addition, during the Korean War, Pyongyang was severely threatened by U.S. nuclear weapons. More specifically, these threats included President Truman’s press conference on 30 November 1950, when he mentioned the possibility of using nuclear weapons to end the Korean War; General MacArthur’s request for 34 atomic bombs to use in Korea and Manchuria; and statements by candidate and President Eisenhower about using nuclear weapons to end the Korean War.⁷³ Because of this experience, North Korean leaders are highly motivated to develop nuclear weapons and long-range missiles.

2. Internal Motivation

Many analysts argue that inter-Korean rivalry has also motivated North Korea to acquire nuclear weapons. It is unclear how North Korea would use a nuclear bomb against South Korea, except for deterrence and/or coercive diplomacy, because North Korea would be well aware that attacking South Korea would lead directly to the end of the North Korean regime. From North Korea’s perspective, eliminating the South Korean government and reunifying the country on Pyongyang’s terms would certainly resolve

⁷¹ See “Kim Il Sung’s Exploits in War Eulogized,” *Korean Central News Agency*, July 24, 2002, <http://www.kcna.co.jp> (accessed February 24, 2007).

⁷² For example, see “Korean Called Upon to Frustrate U.S. Moves for Aggression and War,” *Korean Central News Agency*, June 24, 2002, <http://www.kcna.co.jp> (accessed February 23, 2007).

⁷³ Peter Hayes, *Pacific Powerkeg: American Nuclear Dilemmas in Korea* (Lexington: Lexington Books, 1991), 9-12; *Korea and the Undoing of an American Hero* (New York: Simon & Schuster, 2000), 257-264.

North Korea's main security problem and attain the original objective. North Korea claims to be the sole legitimate government for all the Korean people and all of the territory on the Korean Peninsula.

According to North Korea's Socialist Constitution, "all state activities shall be conducted under the leadership of the Korean Worker's Party (KWP), and the North Korean state will complete the revolution based on "Juche"⁷⁴ under the leadership of the KWP." In its first chapter, the constitution also declares that the North Korean government represents the interests of all the Korean people.⁷⁵ All North Korean government activities are guided by the KWP, which is also committed to revising the status quo on the Korean Peninsula. The KWP bylaws state that the party is to liberate all the people on the peninsula, complete the revolution, and establish communism and Juche ideology throughout all of Korean society. Furthermore, the KWP is to "continuously strengthen unification solidarity based on Juche ideology."⁷⁶

3. External Motivation

After the Korean War in 1953, the potential nuclear conflict in Korea had not completely disappeared. There have been several incidents since the war that could have escalated into a nuclear conflict: the North Korean capture of the USS *Pueblo* in 1968, a North Korean commando raid on the South Korean presidential residence in 1968, the ax-murders of two U.S. soldiers at Panmunjum in 1976, the assassination attempt against South Korean President Chun Tu Hwan in Burma in 1983, and the standoff over North Korea's refusal to permit the completion of IAEA safeguards inspections in 1994.

Given Pyongyang's threat perception and security needs, North Korea has sought to strengthen its military capabilities by forming security alliances and by allocating a tremendous amount of resources to the military sector under the "Sungun" or military-first policy adopted by Kim Jong-il. In this context, North Korea signed security alliances

⁷⁴ *Juche* literally means "independence" or "self-reliance." For a brief description of North Korea's "Juche ideology" see the ROK National Intelligence Service, "Ruling Ideology" in "North Korea: Politics," http://www.nis.go.kr/english/democratic/politics_index.html (accessed July 17, 2007).

⁷⁵ Jong-go Choi, *The DPRK Socialist Constitution* (Seoul: Parkyoungsa, 2001), 95, 97.

⁷⁶ *Ibid.*, 137.

with China and the Soviet Union, but North Korean leaders have been disappointed with their alliance partners on several occasions. For example, during the Korean War when China and the USSR provided assistance, Kim Il-sung, who wished to have more support than he received, was really dissatisfied that Stalin did not provide ground and air forces and other resources to repulse the American forces. As a result, U.S. forces succeeded in the Inchon landing operation and went up toward Pyongyang and even to the Imjin river. In December 1962, the Central Committee of the Korean Worker's Party adopted "four policy lines" as follows;

- improve political and technical discipline in the military
- modernize the military
- arm all the people with "class conscientiousness" and military technology
- fortify the whole country⁷⁷

One of the other factors that inherently shook Pyongyang's previous dependence on alliance and changed its stance into a more nationalistic policy line was China's evolving normalization with other surrounding countries, which were once in hostile relations: the normalization of U.S.-China relations and the normalization of relations between Beijing and Seoul. The collapse of the USSR and the socialist countries in Eastern Europe and the normalization of relations between Moscow and Seoul added to the shock. In sum, these events led North Korean leaders to question the credibility of their alliance partners, while all the more strengthening their Juche ideology and increasing Pyongyang's perceived need to have nuclear weapons and ballistic missiles.

Considering the situation in which North Korea develops its nuclear weapons program, coupled with the highly enriched uranium (HEU), some argue that Bush administration policies could have pressured North Korea into admitting its plutonium program, along with its HEU program in an effort to negotiate and to meet U.S. demands over its nuclear program. On the other hand, others argue that Bush administration policies could have encouraged North Korea to accelerate its program to acquire nuclear weapons through the HEU route. However, Pyongyang has undoubtedly expressed

⁷⁷ ROK Ministry of Unification, *North Korea Outline 2000* (Seoul: Ministry of Unification, December 1999), 160-161; 262-263.

concern about being included in George W. Bush's "axis of evil," and about the possibility of being subject to a "preemptive nuclear strike."⁷⁸ In this context, we can be well aware of how much North Korea was influenced by international components as well as domestic components.

E. NUCLEAR CAPACITY

1. Nuclear Technology

a. Plutonium

On October 9, 2006, North Korea announced it conducted its first nuclear test. After several days of evaluation, U.S. authorities confirmed that the underground explosion was nuclear, but that the test produced a low yield of less than one kiloton. Most estimates place the blast's yield between 0.2–1 kiloton.⁷⁹ In early December 2006, intelligence sources indicated activities were underway at the Mount Mantap nuclear test site near the village of Punggye-ri in the North Hamgyong Province. The activities were first disclosed by South Korean National Assemblyman Chong Hyong Gun of the Grand National Party on December 21.⁸⁰ Chong's disclosure followed South Korean Defense Minister Kim Chang Su's December 15 admonition to 130 senior military commanders "to be thoroughly prepared to counter the possibility of a second or third nuclear test by North Korea."⁸¹ According to him, Pyongyang had prepared two tunnels under Mount Mantap, and the October 9, 2006, test was conducted in a tunnel on the eastern side of the mountain while recent activities have been at the western tunnel. Chong also stated that

⁷⁸ "Conclusion of Non-Aggression Treaty between DPRK and U.S. Called For," *Korean Central News Agency*, October 25, 2002, <http://www.kcna.co.jp> (accessed June 10, 2007).

⁷⁹ Siegfried S. Hecker, "Report on North Korean Nuclear Program," *Center for International Security and Cooperation*, Stanford University, November 15, 2006.

⁸⁰ "North Korea May Be Preparing to Hold Second Nuke Test – Yonhap," *AFX – Asia*, December 21, 2006, in Lexis-Nexis, <http://www.lexis-nexis.com>; "North Korea 'at it again;' Nuke Test Suspicion," *Geelong Advertiser* (Australia), December 22, 2006, 24, in Lexis-Nexis, <http://www.lexis-nexis.com> (accessed January 2, 2007).

⁸¹ "Defense Minister Calls for Readiness against Possible North Korean Provocation," *Yonhap News Agency*, December 16, 2006, in Lexis-Nexis, <http://www.lexis-nexis.com> (accessed March 23, 2007).

the North Koreans were seen constructing a temporary building ten meters from the tunnel entrance, and it is very likely the North Koreans were preparing the tunnel for a nuclear test.⁸²

As for North Korea's amount of nuclear materials, there are many guesses and estimates in the world. According to some estimates from U.S. sources, North Korea has reprocessed some fuel rods from the 5 MW reactor at Yonbyon, and separated 12 to 14 kilograms of plutonium, which is enough for one or two bombs.⁸³ In addition, there is an unconfirmed report saying that about 56 kilograms of plutonium was smuggled from Russia in the early 1990s.⁸⁴

The low yield of the October 9th test could indicate that North Korean scientists and engineers have the ability to control the yield of nuclear explosions, or that they are seeking to achieve this capability. But it is unclear to what degree North Korean scientists sophisticatedly weaponize their nuclear bombs, and it is not known whether they can mount them on their ballistic missiles.

North Korean officials reportedly informed Beijing hours before the October 9th nuclear test that the target yield for the blast was four kilotons of TNT; Dr. Siegfried Hecker, former director of Los Alamos National Laboratory, believes that North Korea tested a device with a simple design, but he does not rule out the possibility that the DPRK attempted to detonate a sophisticated device.⁸⁵ On the other hand, Richard Garwin and Frank von Hippel feel that if the target yield was 4 kilotons, then North Korea was not testing a simple Nagasaki-type device, speculating that the test was related to missile warhead development. They noted that the Nagasaki bomb weighed about four

⁸² Gyeon Gyong-sam, "Additional North Korean Nuclear Test Possible if Six-Party Talks Break Down," *Seoul Sinmun*, December 22, 2006, in KINDS, <http://www.kinds.or.kr> (accessed June 7, 2007).

⁸³ Larry A. Nicksch, "North Korea's Nuclear Weapons Program," Congressional Research Service, The Library of Congress, Order Code IB1141, October 9, 2002, 5; David Albright, Frans Berkhout, and William Walker, *Plutonium and Highly Enriched Uranium*, 1996, 295-306.

⁸⁴ Larry A. Nicksch, "North Korea's Nuclear Weapons Program," 6.

⁸⁵ *Ibid.*

tons, and North Korean aircraft and missiles could not deliver such a device, so presumably the DPRK could be working on a device in the range of 500 to 1000 kilograms which can be delivered by North Korean ballistic missiles.⁸⁶

Peter Hayes and Kang Jung Min concluded that the test was more of a failure than a success because the DPRK failed to demonstrate the capability to deliver a reliable nuclear weapon. Hayes and Kang believe Pyongyang was unable to “pole-vault into the ranks of nuclear weapons states” and that the DPRK likely will test again, but the timing will depend upon the U.S. response and the international political environment.⁸⁷ Hayes and Kang correctly emphasize that achieving criticality in the test was a significant achievement and they raise three additional possible technical successes: DPRK scientists and engineers could be confident in their ability to detonate larger devices and are concentrating on smaller and more sophisticated weapons; the test used a small amount of plutonium, which economized on a scarce resource, and the DPRK was able to limit the release of radioactive fallout from the test.

Based on the above analysis, it can be concluded that there are no essential technical barriers for North Korea to build plutonium-use nuclear weapons. If North Korea has not done it yet, it could predictably make some nuclear weapons in a short time.

b. Uranium

The controversy surrounding North Korea’s “highly enriched uranium (HEU) program” began in mid-2002, when the United States obtained what it then considered to be convincing evidence that North Korea was pursuing such a program. A key piece of evidence was, apparently, Pyongyang’s purchase from Russia of 150 tons of aluminum tubes that the United States then believed were designed to serve as the

⁸⁶ Richard L. Garwin and Frank N. von Hippel, “A Technical Analysis: Deconstructing North Korea’s October 9 Nuclear Test,” *Arms Control Today*, November 2006, http://www.Armscontrol.org/act/2006_11/tech.as (accessed May 20, 2007).

⁸⁷ Jungmin Kang and Peter Hayes, “Technical Analysis of the DPRK Nuclear Test,” *Nautilus Institute Policy Forum Online*, October 20, 2006, <http://www.nautilus.org/fora/security/0689HayesKang.html> (accessed June 12, 2007).

stationary outer casings of uranium enrichment centrifuges.⁸⁸ At the time, Pyongyang had frozen its plutonium production program, pursuant to the “1994 Agreed Framework.”⁸⁹ Although North Korea denied making the admission, at an October 2002 bilateral meeting in Pyongyang the U.S. negotiators asserted that North Korean representatives had defiantly admitted pursuing such a program.⁹⁰

The following evidence has since come out: North Korea acquired aluminum tubes from Russia and obtained about 20 centrifuges, equipment for uranium enrichment, provided by the Pakistani nuclear scientist A. Q. Khan in the mid- to late-1990s; in April 2003, Egyptian customs authorities seized 22 tons of aluminum tubes destined for China and transshipment to North Korea. What is funny is that the tubes were ordered by Mr. Yun Ho Jin, who had served as the North Korean ambassador to the IAEA in Vienna in the early 1990s for the North Korean firm Namchongang. In addition, European enrichment specialists have testified in German court proceedings that the tubes seized in Egypt had the precise specifications of tubes used for the outer casings of enrichment centrifuges.⁹¹

In 2002, a CIA estimate provided to the U.S. Congress declared that North Korea was building an enrichment facility that would be able to produce enough “weapons-grade uranium for two or more nuclear weapons per year as soon as mid-

⁸⁸ Nobuyoshi Sakajiri and Yoshihiro Makino, “U.S. knew of North Nukes Plan in 2002,” *Asahi Shimbun*, June 6, 2005 in Lexis-Nexis.

⁸⁹ The 1994 Agreed Framework, negotiated between the United States and North Korea, outlined the U.S. commitment to provide North Korea with a package of economic, diplomatic, and energy-related benefits, and North Korea’s consent to halt its nuclear program. Specifically, the agreement provided for the shutdown of North Korea’s plutonium facilities, to be monitored by the IAEA, in exchange for the annual delivery to North Korea of 500,000 tons of heavy oil and the construction in North Korea of two light water nuclear reactors. A separate protocol signed in 1995 by the United States, South Korea, and Japan, established the Korean Peninsula Development Organization (KEDO) to implement the Agreed Framework. The European Union also later joined. After confronting North Korea about a secret uranium program, the United States suspended shipments of oil, and KEDO suspended work on the reactors in December 2003.

⁹⁰ Joseph Cirincione, Jon B. Wolfsthal, and Miriam Rajkumar, *Deadly Arsenals*, Washington, D.C., Carnegie Endowment for International Peace, 2005, 282-283.

⁹¹ David Sanger and William Broad, “U.S. Had Doubts on North Korean Uranium Drive,” *New York Times*, February 28, 2007, <http://www.nytimes.com>; see the autobiography of Pakistani President Pervez Musharraf, *In the Line of Fire*, New York, Free Press, 2006, 296; Georg Mascolo, “Germany: Attempted Sale of Tubes to DPRK Believed for Nuclear Program,” *World News Connection*, July 7, 2003, in Lexis-Nexis (accessed July 27, 2007).

decade.”⁹² However, according to a U.S. intelligence estimate declassified in February 2007, the degree of progress towards producing enriched uranium still remains unknown.⁹³

2. Delivery Method

On August 31, 1998, North Korea launched a TaepoDong 1 from the Musudan-ri launch facility in North Hamgyonh Province, located on the northeast coast of North Korea. Before this event, very little was known about the North Korean ballistic missile program. Initial U.S. intelligence reports postulated that the TaepoDong 1 missile was only a two-stage rocket. The first stage fell into international waters 300 km east of Musudan-ri and the second stage flew over the Japanese island of Honshu and fell into the water 330 km away from the Japanese port of Hachinohe for a total distance of approximately 1,646 km.⁹⁴ Further analysis of radar tapes revealed that the TaepoDong 1 had a small third solid propellant stage.⁹⁵ Debris from this third stage was believed to have impacted as far as 4,000 km from the launch point.⁹⁶ In June 2006, the TaepoDong 2 was observed being assembled and fueled at the Musudan-ri test site along the northeast coast of North Korea. On July 4, 2006, North Korea launched the TaepoDong 2, which was preceded by three shorter-range ballistic missile launches.

The North Korean TaepoDong program traces its origins to the No Dong medium-range ballistic missile program of the late 1980s. In the early 1990s, North Korea initiated the development of two ballistic missile programs known to the West as TaepoDong 1 and TaepoDong 2.⁹⁷ The supposed design objectives for the TaepoDong 1 system were to deliver a 1,000 to 1,500 kg warhead to a range of 1,500 to 2,500 km and

⁹² Glenn Kessler, “New Doubts on Nuclear Efforts by North Korea,” *Washington Post*, March 1, 2007.

⁹³ Ibid.

⁹⁴ Michael Dutra and Gaurav Kampani, “North Korea: A Second TaepoDong Test?” *Monterey Institute of International Studies*, 1999, 2.

⁹⁵ Ibid.

⁹⁶ Joseph S. Bermudez, “North Korea’s Long-Range Missiles,” *Jane’s Ballistic Missile Proliferation*, 2000, 6.

⁹⁷ Joseph S. Bermudez, “A History of Ballistic Missile Development in the DPRK, Occasional Paper No. 2,” *Monterey Institute of International Studies Center for Nonproliferation Studies*, 1999, 26.

for the TaepoDong 2 to deliver the same warhead to a 4,000 to 8,000 km range.⁹⁸ Some analysts further believe that the TaepoDong 2 could deliver a 700 to 1,000 kg payload as far as 6,700 km.

The Washington Times indicated that North Korea is in the process of developing and deploying at least two new intermediate range ballistic missile systems.⁹⁹ The two new missiles are believed to be based on the decommissioned Soviet R-27 submarine-launched ballistic missile. The R-27 was allegedly acquired from Russia in the 1990s and possibly enhanced with the help of Russian missile specialists.¹⁰⁰ Its forty-year-old, liquid-fuelled technology is considered within the technological and industrial capabilities of North Korea, and versions of its engines are already used in North Korean SCUDs and NoDong missiles.

The new missiles, if they are indeed closely modified versions of the R-27, are likely more accurate and have greater range than North Korea's previously shown missiles. Since North Korea is close in distance to South Korea, Japan, and the U.S. military bases in East Asia, these new missiles can be said to establish a deterrent force. North Korea does not have to produce an advanced, long-range missile for deterrence. Several plutonium-use bombs and short-range missiles which can reach South Korea and Japan are necessary conditions for deterrence. In this sense, as long as North Korea can minimize and load its nuclear weapons into a warhead, North Korea has no problem in delivering its nuclear weapons for the purpose of deterrence.

⁹⁸ Joseph S. Bermudez, "North Korea's Long-Range Missiles," *Jane's Ballistic Missile Proliferation*, 2000, 5.

⁹⁹ Bill Gertz, "North Korea to Display New Missiles," *Washington Times*, September 9, 2003.

¹⁰⁰ Joseph S. Bermudez, "North Korea Deploys New Missiles," *Jane's Defense Weekly*, August 4, 2004.

IV. IMPACT ON SURROUNDING STATES: RELEVANT STATES' POSITIONS AND POLICIES

A. THE UNITED STATES

According to the Rand institute, the North Korean nuclear issue presumably will be the most critical security issue in Asia that the U.S. will face.¹⁰¹ This is not because it could be a direct threat to U.S. national security, but because it will have an enormous negative ripple effect on the security of Northeast Asia, along with the Middle East.

North Korea's attempt to acquire a nuclear deterrent risks the disruption of East Asia's nuclear balance. A North Korean bomb could jeopardize long-term stability in the region by triggering the nuclear ambitions of Japan, South Korea, or even Taiwan. China already has three nuclear neighbors in Russia, India, and Pakistan. A regional nuclear arms race among existing non-nuclear neighbors could leave it surrounded. The disclosure in September 2004 of South Korea's near bomb-grade uranium-enrichment experiment and plutonium-based nuclear research in the early 1980s heightened such concerns. Japan is widely believed to possess the capability to develop nuclear weapons quickly and easily if it chooses to do so. Reports in October 2004 show that Taiwan may have carried out plutonium-separation experiments in the mid-1980s.¹⁰²

Given these circumstances, the most fundamental U.S. goals of the confrontation with North Korea are to prevent the further proliferation of weapons of mass destruction and to prevent an attack—either nuclear or conventional—on the United States or on its allies in the Northeast Asia. Both actions would dramatically diminish U.S. security. The Bush administration, or the next probably democratic administration appears to be divided on how to best achieve these goals, with one group favoring negotiations to shape North Korea's behavior and another group advocating measures that will contain and weaken the regime and ultimately likely to lead its collapse.

¹⁰¹ Zalmay M. Khalilzad, et al., "Stopping the North Korean Nuclear Program," *RAND Issue Paper* (December 1993), 1.

¹⁰² "Taiwan May Have Experimented With Atomic Bomb Ingredient," *New York Times*, October 14, 2004.

The options below provide alternatives in which elements of several strategies can be combined.

1. Expanding Engagement

How can the United States prevent North Korea from supporting terrorism? Analysts who support engagement policy maintain that “America’s trade leadership can build a coalition of countries ... Open markets are vital for developing nations, many of them fragile ... that rely on the international economy to overcome poverty and create opportunity; we need to answer for those who ask for economic hope to counter internal threats to our common values.”¹⁰³

The analysts contend that economic reform allows an authoritarian regime to remain legitimate in the eyes of its people because it is seen as bringing increased prosperity to the country. Over time, however, the competitive pressure inherent in the liberalization of economies leads to increased convergence with capitalism.¹⁰⁴ Reform and economic openness produce economic change without political liberalization in the short term but they also produce a reduction of societal resistance to reform, buying the existing regime time to implement politically difficult reforms and to reformulate the ideological foundation of their legitimacy to rule.¹⁰⁵ North Korea’s Juche ideology could buy Kim Jong-il's regime more time to balance the pace of opening its market and political system, but ultimately economic openness will slowly move North Korea in a more positive direction by forces of the market.

North Korea’s primary security concern is a military strike by the United States with the purpose of regime change. At the same time that South Korea extended offers of economic benefits and increased ties with North Korea, President Bush labeled North Korea a part of the “axis of evil.”¹⁰⁶ For Kim Jong-il, continued existence has to take precedence over economic enticements. As long as the United States has troops on the

¹⁰³ Kevin Sullivan, “US Relations Change Suddenly for Mexico,” *Washington Post*, September 20, 2001.

¹⁰⁴ Mary E. Gallegher, “Reform and Openness,” *World Politics* 54, no. 3(2002), 338-72.

¹⁰⁵ *Ibid.*

¹⁰⁶ President George W. Bush, “State of the Union Address,” January 29, 2002.

Korean territory and refuses to renounce the preemptive use of force as an option, North Korea will continue to view economic measures as secondary to the United States military threat.

2. Non-Military Containment

U.S. estimates of the threat posed by the DPRK rose substantially after the September 11 attacks, and the mistrust generated by the unraveling of the 1994 Agreed Framework has further increased the difficulty of relying exclusively on diplomacy. Hawks in the Bush administration who tend to equate scrapping North Korea's nuclear weapons program with toppling Kim Jong-il's regime have contemplated a more coercive approach toward North Korea.

Applying pressure to obtain North Korean compliance has been a major component of the Bush administration's diplomatic strategy towards North Korea. Although North Korea has been under some form of U.S. sanctions since the Korean War, President George W. Bush issued Executive Order 13382 on June 29, 2005 to seize any U.S. assets of WMD proliferators and their supporters. The order named three North Korean entities and authorized executive agencies to expand the list of sanctioned entities if warranted.¹⁰⁷ On October 21, 2005, the U.S. Treasury Department added eight North Korean entities to the sanctions list, and on April 6, 2006, the department issued a provision prohibiting any U.S. person from "owning, leasing, operating or insuring any vessel flagged by North Korea."¹⁰⁸

The measures are part of an administration strategy to increase pressure on Pyongyang to abandon its nuclear weapons program and implement the statement of principles of September 19, 2006. The strategy includes the Proliferation Security Initiative (PSI), which is designed to intercept WMDs and WMD-related materials in the

¹⁰⁷ "Executive Order 13382 – Blocking Property of Weapons of Mass Destruction Proliferators and Their Supporters," Federal Register, vol. 70, no. 126, July 1, 2005; U.S. Department of the Treasury Office of Foreign Assets Control, "Nonproliferation: What You Need to Know about Treasury Restrictions," March 30, 2006.

¹⁰⁸ U.S. Department of the Treasury Office of Foreign Assets Control, "North Korea: What You Need to Know about Sanctions," April 6, 2006, <http://www.ustreaas.gov/offices/enforcement/ofac/programs/nkorea/nkorea.pdf> (accessed May 13, 2007).

air, on land, and at sea.¹⁰⁹ The U.S. State Department is coordinating the administration's Illicit Activities Initiative, which is targeted at North Korea and designed to dry up Pyongyang's illicit sources of foreign exchange, such as counterfeiting and narcotics trafficking.¹¹⁰

Pyongyang views Washington's economic sanctions as an effort to topple the North Korean government and is refusing to return to the six-party talks until the imposed sanctions are lifted. The sanctions appear to have affected North Korea's international transactions and legitimate trade.¹¹¹ Since Executive Order 13382 is aimed at WMD proliferators and their supporters, the target of U.S. sanctions is open to interpretation by U.S. executive branch agencies. Two of the eight entities sanctioned in October 2005—Korea Mining Development Corporation and Korea Ryonbong General Corporation—were targeted for being the parent companies of firms engaged in proliferation activities.¹¹²

Though strategy of applying sanctions has its own validity, this is not a balanced option for several reasons: the United States may not have the economic leverage to squeeze North Korea; Seoul and Beijing that have the leverage would maintain their engagement policy.

3. Military Containment

Proponents of this option point to three key reasons why hard power is the correct engagement policy for North Korea. First, economic engagement or appeasement of North Korea places blind faith in North Korea's ability to reform and does not build a coalition with the ability to respond to North Korea when needed. Opting for engagement

¹⁰⁹ "Proliferation Security Initiative," Inventory of International Nonproliferation Organizations & Regimes, *Center for Nonproliferation Studies*, <http://cns.miis.edu/pubs/inven/pdfs/psi.pdf> (accessed June 7, 2007).

¹¹⁰ Raphael F. Perl and Dick K. Nanto, "North Korean Counterfeiting of U.S. Currency," *CRS Report for Congress*, Order Code RL 33324, March 22, 2006.

¹¹¹ Barbara Demick, "No More Gambling on N. Korea," *Los Angeles Times*, April 6, 2006, A1.

¹¹² "Treasury Targets North Korean Entities for Supporting WMD Proliferation," U.S. Department of the Treasury Press Release JS-2984, October 21, 2005, <http://www.ustreas.gov/press/releases/js2984.htm> (accessed January 5, 2007).

strategies such as South Korea's "Sunshine Policy" toward North Korea buys time for the regime and fails to reveal the North's unchanged intentions. Second, if North Korea reverts to brinkmanship tactics and bad "attention-inducing" behavior, then the likely American response will be a punitive one.¹¹³ It is better to out the intentions of North Korea early and deal with them rather than wasting time. Third, if and when all other engagement strategies fail, military responses like preemptive action, massive retaliatory strikes (in response to a North Korean missile launch or artillery barrage), food distribution centers off North Korean shores and borders, and guarantees of safe havens for refugees should be taken.

Those who favor military action to resolve the North Korean problem feel now is the time to engage North Korea militarily to prevent any opportunity for the North Koreans to export technology to terrorists. A weakened North Korean military force, with a population starving and in desperate need of help, indicates an opportunity for decisive military action.¹¹⁴ In the event that North Korea transfers nuclear material, the use of military force cannot be ruled out because the proliferation of a nuclear weapon or material to a terrorist group may pose the biggest threat to U.S. security.¹¹⁵

Even so, a range of military options might be considered not as a direct action, but as a threat because most analysts worry about the possibility of a devastating North Korean retaliation on either South Korea or Japan, the uncertainty of Chinese reaction, the burden on the U.S. military, and the global cost of war in a economically vibrant region. When the Clinton administration considered military action on North Korea's nuclear facilities in 1993, estimates of human casualties from an invasion totaled 52,000 U.S. military and nearly half a million South Korean soldiers dead or wounded, with an

¹¹³ Chuck Downs, *Over the Line: North Korea's Negotiation Strategy*, Washington, D.C., The AEI Press, 1999, 27.

¹¹⁴ Kang, "Nuclear North Korea, A Debate on Engagement Strategies," 88-92.

¹¹⁵ Charles Krauthammer, "What Will Stop North Korea," *Washington Post*, October 13, 2006.

untold number of civilian deaths.¹¹⁶ The possibility of striking North Korea's nuclear facilities is considered unlikely to be successful, given the lack of information about unidentified nuclear facilities.¹¹⁷

4. Other Options

Some commentators have suggested that the U.S. military is overstretched, so they should be gradually withdrawn in pace with U.S. strategic change.¹¹⁸ In other words, they insist that United States forces Korea should be withdrawn in return for abandonment of North Korea's nuclear ambition. However, even if the United States maintained its forces in Japan and elsewhere in Asia, the U.S. will unlikely cede its current leadership in the Korean Peninsula.

Some analysts maintain that North Korea will never be willing to give up its nuclear weapons, so accepting North Korea into the "nuclear club" and pressing for it to become a responsible nuclear power is the most realistic option. In this scenario, North Korea would be pushed to make nonproliferation commitments and develop non-military purposed nuclear development under IAEA inspection. However, considering the deep-gorged distrust of the U.S. toward North Korea, the U.S. would not accept North Korea's nuclear status, as is the case for India, Pakistan, and Israel.

B. CHINA

Beijing has been too cautious and lenient toward Pyongyang and limited itself to behind-the-scenes attempts to influence the hermit kingdom diplomatically, without being willing to get tough and use real leverage. China and the DPRK have hailed their continuously strengthened friendship during the course of their 55-year diplomatic relationship.¹¹⁹ However one conspicuous and evolving dynamic is that China and the

¹¹⁶ Michael Hirsh, Melinda Liu, and George Wehrfritz, "Special Report: How North Korea Got the Bomb," *Newsweek*, October 23, 2006.

¹¹⁷ "For U.S. Military, Few Options to Defang North Korea," *Christian Science Monitor*, July 7, 2006.

¹¹⁸ Anatol Lieven and John Hulsman, "North Korea Isn't Our Problem," *Los Angeles Times*, Opinion Section, October 11, 2006.

¹¹⁹ "Chinese, DPRK Leaders Exchange Greetings on Anniversary of Diplomatic Ties," *Xinhua*, October 5, 2004.

United States have entered a new era of bilateral relations through their post-September 11 cooperation in the war on terrorism. Secretary of State Colin Powell described the state of U.S.–China relations in 2006 as the best that they have been in more than 30 years.¹²⁰

Although some may wonder what leverage Beijing holds over Pyongyang, China’s role as a sincere broker appears indispensable to craft a solution to the nuclear crisis, considering the decades-long legacy of deep hostility and mistrust between the United States and the DPRK.

Recently China has surprisingly departed from its traditionally low-profile diplomacy on the Korean Peninsula with an explicit message that North Korea must put an end to its nuclear weapons program. This decisiveness contrasts sharply with Beijing’s non-intervention policy, which it held in the first North Korean nuclear crisis, when it emphasized that “the issue was a direct matter between the DPRK and the three sides—the International Atomic Energy Agency (IAEA), the United States, and the Republic of Korea.”¹²¹

Ten years later, however, security concerns along its northeastern border have prompted Beijing’s more active diplomacy, because a nuclear North Korea could seriously undermine the regional stability underlying China’s economic growth. China’s relations with its other neighbors have improved, facilitating its economic and strategic interests. China has forged friendly, cooperative relations with countries of the Association of Southeast Asian Nations (ASEAN) and the Shanghai Cooperation Organization with Russia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan in a joint effort to fight terrorism, separatism, and extremism, and it has also promoted economic cooperation with India, which improved its sometimes prickly relations with its southwestern neighbor.

¹²⁰ Colin Powell, interview by Maria Bartiromo, *Wall Street Journal Report*, CNBC, November 12, 2004.

¹²¹ “U.S. DPRK Meeting Welcomed,” *Beijing Review*, May 17-23, 1993, 7.

China's development strategy aims to achieve a comprehensively well-off society, defined by Deng Xiaoping in 1984 as *xiaokang shehui*, or a per capita gross national product of \$800, by 2020. China cannot afford another "lost decade" caused by domestic or international turmoil. Accordingly, for the past decade, the notion of concealing strength and waiting for opportunities (*taoguang yanghui*) has guided China's diplomacy. This conservative practice has created a favorable international environment that promotes domestic development.

To put it simply, China seeks to stabilize this border and reinforce the status quo. Neither a North Korean nuclear program nor regime instability, much less regime change, serves those interests. In October 2004, China acknowledged for the first time Pyongyang's intention to conduct a uranium-enrichment program.¹²² A scenario in which the U.S. military attacks against the DPRK cannot be completely ruled out. If this were to happen, Beijing's 1961 Treaty of Friendship, Cooperation and Mutual Assistance with the DPRK would force Beijing to be involved in an upsetting confrontation with the United States, threatening China's well-maintained economic growth, with one estimate predicting a reduction in growth of 10 to 20 percent.¹²³

Refugees from North Korea is another security concern for China. In July 2004, 468 North Korean border crossers reportedly were airlifted to Seoul through a Southeast Asian country.¹²⁴ When President George W. Bush pressed the DPRK with the North Korean Human Rights Act in October 2004, authorizing \$20 million annually until 2008 to help DPRK refugees, the Chinese Foreign Ministry urged foreign diplomats in China to refuse to protect North Korean asylum seekers and instead punish them in accordance with Chinese law.¹²⁵

Accompanying these security concerns is China's desire to build positive relations with the United States. U.S. preoccupation with Iraq has increased the value of China's

¹²² "China Says N.K. Tried to Enrich Uranium: Report," *Korea Herald*, October 5, 2004.

¹²³ Sheng Jiru, "The Urgency Affairs in Maintaining Northeast Asia Security: To Curb the Dangerous Game on the North Korean Nuclear Issue," *International Politics and Economy*, no. 9 (2003): 53.

¹²⁴ "More N. Koreans Airlifted to South," BBC News, July 28, 2004, <http://news.bbc.co.uk/2/hi/asia-pacific/3931873.htm> (accessed December 25, 2004).

¹²⁵ Zhang Qiyue, October 26, 2004 (Foreign Ministry briefing).

shared interest in a non-nuclear Korean peninsula. Beyond the war in Iraq, divergent approaches within the Bush administration and a lack both of military and diplomatic means for dealing with Kim Jong-il's regime have paralyzed Washington. Beijing, however, enjoys political and economic leverage over Pyongyang and therefore could be a valuable partner to play hardball. During the past few years, as China and the United States have substantially improved their relationship, the North Korean issue conveniently created a new synergy between the two countries. In such a context, the traditional "lips and teeth" relationship between China and the DPRK, in which Beijing envisioned using North Korea as a buffer against the United States, appears both obsolete and self-destructive.

Since the initial disclosure of North Korea's highly enriched uranium program in October 2002, Beijing has expressed its willingness to host dialogues for interested parties while continuing to stress dialogue and negotiation as the most effective means to settle the nuclear issue.¹²⁶ Since April 2003, China has hosted one trilateral negotiation and three rounds of six-party talks. Beijing has gone beyond its initial role as a host, assuming further responsibilities as peacemaker and mediator. Besides providing the venue, China also mapped out the framework for negotiations, mediated between disagreeing parties, and has worked hard to get the talks back on track since they stalled in September 2004. To reenergize the talks, Hu reaffirmed with Bush both sides' determination to continue multilateral negotiations during a phone conversation on October 7, 2004. Beijing also sent out its special envoy, Ambassador Ning Fukui, to shuttle between South Korea and the United States to discuss ways to bring North Korea back to the negotiation table. China's efforts to facilitate talks have been substantial and internationally regarded as constructive. As Assistant Secretary of State for East Asian and Pacific Affairs James A. Kelly remarked, "Achievements from the talks are in no small part due to the extensive efforts of the Chinese... and we are extremely grateful for the hard work they have been doing."¹²⁷

¹²⁶ Zhang Qiyue, January 15, 2003 (Foreign Ministry briefing).

¹²⁷ James Kelly, "Six-Party Talks," opening remarks before the Senate Foreign Relations Committee, Washington, D.C., March 2, 2004, <http://www.state.gov/p/eap/rls/rm/2004/30093.htm> (accessed December 25, 2004).

On the other hand, Bush's branding of North Korea as a member of the "axis of evil" or "rogue state" along with Iraq and Iran raised great concern in China about a rising unilateralist trend in U.S. foreign policy. Although China sees eye to eye with the United States on the need for North Korea to denuclearize, China is against the use of "axis of evil" rhetoric in international relations and issued an early warning within days of the 2002 U.S. State of the Union address, saying that "consequences will be very serious if the U.S. proceeds with this kind of logic."¹²⁸ Beijing seems to take North Korea's security concerns seriously and considers that the "axis of evil" rhetoric, coupled with the United States' toppling of Saddam Hussein's regime in Iraq, has presumably heightened North Korea's fears about security.

China's attitude during the last two years of talks, however, has shown a cautious but clear change. Especially in comparison to relations 50 years ago, China no longer provides blind support to North Korea. In other words, the Chinese leadership has indicated to Kim Jong-il that reluctance on Pyongyang's part to dismantle its nuclear weapons program would severely hamper Beijing's ability and willingness to continuously offer aid. This was expressed in Hu's three suggestions to Pyongyang in August 2003, encouraging North Korea to attain economic self-sufficiency, try reform, and improve relations with its neighbors by halting its weapons of mass destruction program.¹²⁹ On February 12, 2003, China voted for a resolution in the IAEA that accused North Korea of violating the Nuclear Non-Proliferation Treaty (NPT) and referred the issue to the UN Security Council. China has generally refrained from using its lifeline assistance, which is believed to account for 70 to 90 percent of North Korea's fuel and one-third of its food imports, to exert economic pressure on North Korea. China even cut off its oil supplies to North Korea for three days in March 2003 for North Korea's boycott of six-party talks.

Even so, China rarely uses sanctions in its diplomacy. Beijing doubts the effectiveness of sanctions against North Korea. Whenever the U.S. has made a threat

¹²⁸ Kong Quan, February 5, 2002 (Foreign Ministry briefing).

¹²⁹ "Time to Act, China Tells N. Korea," *CNN*, August 5, 2003, <http://edition.cnn.com/2003/WORLD/asiapcf/east/08/24/willy.column> (accessed December 25, 2004).

against it, Pyongyang has always retaliated with more hawkish rhetoric. On July 4, 2003, China and Russia voted against a proposed Security Council resolution condemning North Korea's nuclear program and withdrawal from the NPT, believing that such a resolution would only provoke North Korea.

Instead, China recommends that the DPRK attain economic self-sufficiency and try Chinese-style reform. The multilateral talks provide a platform to expose North Korea to this idea and motivate it to reform through interaction with various parties who are equally eager to see changes in Pyongyang. Having already shown Kim Jong-il the benefits of the economic changes taking place in China, Beijing must convince him that a controlled market economy can best reduce political and social risks, maintaining North Korea's own regime.

C. JAPAN

Since the end of the Cold War, Japan has pursued normalization of relations with the North in anticipation that it would better serve regional peace and stability and could put an end to its burdensome post-war settlement issues. Similarly, North Korea seemed to acknowledge that improved relations with Japan would be vital for reviving its failed economy. Thus, Japan-DPRK normalization offered incentives to both parties and normalization was considered both a key to opening up the North to the international community and a major inducement for it to give up its nuclear programs. However, as Pyongyang failed to remove the obstacle of the abduction issue by providing more transparency on what happened to the abductees and shows unwillingness to resolve the nuclear issue, normalization talks between the two countries has been faltering.¹³⁰

While Japan's policy was under pressure at home by the abduction issue, North Korea dropped another bombshell. On February 10, 2005 the North Korean Foreign Ministry unexpectedly declared the possession of nuclear weapons and also announced

¹³⁰ For details, see Yoshida and Takahara, "Remains not those of Yokota," *Japan Times*, December 9, 2004.

that it would not participate in the six-party talks.¹³¹ Because of the North's previous signals of appeasement toward Japan, this was viewed as even more provocative in the eyes of the Japanese.

In response, the Japanese government clearly stated its position that it will not improve relations with North Korea without solving the nuclear issue as well as the abduction issue by banning remittances from Koreans in Japan, and stopping North Korean ships from entering Japanese ports.¹³² The momentum built up by the Pyongyang declaration dissipated in the high winds of negative public opinion within Japan as nuclear-related tension spread across the entire Northeast Asian region. It was reported that surveys showed that 70% of the Japanese people supported sanctions.¹³³

When looking more broadly at the North Korean problem, careful consideration must be given to another aspect. Japan finds ample justification in the North Korean threat for advancing its goal of becoming a "normal state." As North Korea's nuclear weapons and missile development pose credible threats not only to Japan's security but also to the region's peace and stability, and the United States has been encouraging Japan to assume more international responsibilities, Japan has been working diligently to improve its defense posture, modernize its military, and try to expand its international role. In order to support this effort, though the "Exclusively Defense-Oriented Policy" (EDOP) requires that military forces cannot be exercised until armed attack has been initiated,¹³⁴ Japan has pushed for new legislations of a series of emergency laws, revision of existing laws and bilateral treaties, and even constitutional amendments regarding Japan's responsibilities in the U.S.-Japan alliance framework, and more broadly in U.N. operations.

¹³¹ "DPRK FM on Its Stand to Suspend Its Participation in Six-Party Talks for Indefinite Period," *Korean Central News Agency*, February 10, 2005, <http://www.kcna.co.jp> (accessed November 23, 2006).

¹³² Takahara, "Yokota's dad repeats call for sanctions against North Korea," *Japan Times*, December 10, 2004.

¹³³ Mathew Rusling, "Japan tests North Korea sanctions waters," *Asia Times Online*, March 3, 2005.

¹³⁴ "Japan's Defense Policy," Japan Defense Agency, http://www.jda.go.jp/e/index_.htm (accessed February 23, 2007).

Under the current circumstances, Japan no longer hesitates to implement hard-line policy options against the North. Japan is acting in concert with the United States to further strengthen its participation in the PSI and missile defense, and at the same time it also executes its own unilateral sanctions to put more intense pressure on North Korea while consistently taking advantage of North Korean nuclear ambition for the purpose of being a “normal state.”

New Prime Minister Yasuo Fukuda said that he would drop the hostile policies against North Korea previously held by his predecessor, Abe. In his first policy speech to parliament on October 1, 2007, Fukuda said, “Together with efforts to return the Japanese abductees, I will do my utmost to resolve historical disputes and normalize ties with North Korea.”¹³⁵ While some analysts say that Japan may ultimately control the pace of the turnaround in its policies toward North Korea, given its anti-North Korean sentiment, some Japanese media also reported that the Fukuda administration would extend economic sanctions, which are due to expire on October 13, 2007, against North Korea.¹³⁶

D. RUSSIA

At the end of Yeltsin’s presidency (1992-1999), Russia was in disarray. The economy was in limbo, political power was divided, and foreign policy was adrift. Under Putin, Russia’s economy is witnessing steady growth due mainly to high oil prices, centralized political power, and improved foreign policy. President Putin’s foreign policy is characterized by pragmatism, balance, and realism. Putin believes that Russia’s development of Russian Far East and security structures of the Asia-Pacific region will provide the momentum for Russia’s overall economic development and guarantee its security.

In Russia’s Northeast Asia policy, Korea takes up a special place due to Korea’s geostrategic location, North Korea’s nuclear crisis, and Russia’s enormous potential for

¹³⁵ “Fukuda vows to drop hostility toward the North but extends sanctions,” *The Hankyoreh*, October 2, 2007.

¹³⁶ *Ibid.*

economic cooperation with the two Koreas especially in the field of energy and transportation. Russia's goals and interests vis-à-vis the Korean Peninsula may be summarized as follows: Russia is opposed to any power dominating the Korean Peninsula. Since Korea is geostrategically important for Russia's Far East policy, Russia considers Korea's domination by one alien power a direct and grave threat to its security. Thus, Russia will keep on putting forth every effort to minimize U.S., Chinese, or Japanese influence over the Korean Peninsula. Russia's new foreign policy adapted in April 2000 made a special statement that "Russia's efforts will be concentrated on ensuring our country's full and equal participation in efforts to settle the Korean problem and on maintaining balanced relations with both Korean states."¹³⁷

Russia wants to maintain peace and stability on the Korean Peninsula. Russia does not want security instability since it would inevitably disrupt Russia's endeavor to grow its economy and implement reforms at home. In particular, chaos caused by North Korean nuclear weapons and its succeeding influx of Korean refugees into Russia would deeply threaten the security and the prosperity of Russia.¹³⁸

For these reasons, Putin tries to maintain an even-handed relationship with the two Koreas. Departing from the pro-Seoul direction and the uneven policy of his predecessors such as Gorbachev and Yeltsin, Putin has sought to maintain a balanced relationship with the divided Korean states. The new 2000 foreign policy concept reflects Russia's intention to be a more active actor in the Korean peace process and a balancer between the two Koreas. Russia's rapprochement with North Korea in 2000 was a product of Putin's pragmatic foreign policy line.¹³⁹

Russia's policies on North Korea's nuclear problem boil down to three principles. First, North Korea should dismantle its nuclear weapons programs. Russia fears that North Korea's acquisition of nuclear weapons would destabilize Northeast Asia and

¹³⁷ "The Foreign Policy Concept of the Russia Federation," 7.

¹³⁸ Vadim Tkachenko, "A Russian View on Korean Security after the North-South Summit," *The Korean Journal of Defense Analysis*, vol. 12, no. 2 (Winter 2000), 28.

¹³⁹ Seung-Ho Joo, "The New Friendship Treaty between Moscow and Pyongyang," *Comparative Strategy*, vol. 20, no. 5 (Winter 2001), 467-480.

cause a nuclear arms race in the region, in addition to disrupting its economic development. Second, North Korea's nuclear crisis should be resolved through dialogue and negotiations. Russia stresses diplomatic negotiations before economic sanctions or military options. In this sense, Russia rejected U.S. attempts to impose sanctions on North Korea until North Korea's missile tests in July 2006 and its nuclear weapons explosion in October 2006. Lastly, the international community should satisfy North Korea's needs in exchange for North Korea's denuclearization. Russia has pointed out the necessity of political normalization, security guarantee, and economic assistance in order to resolve North Korea's nuclear crisis and bring about everlasting peace and security in the Korean Peninsula.¹⁴⁰

¹⁴⁰ G. Toloraya, "Security and Confidence Building in Korean peninsula: A Russian Point of View," LNCV-Korean Peninsula: Enhancing Stability and International Dialogue, June 1-2, 2000, Roma, on the Internet at <http://www.lxmi.mi.infn.it/~landnet/corea/proc/043.pdf> (accessed November 3, 2006).

THIS PAGE INTENTIONALLY LEFT BLANK

V. INTERNATIONAL IMPACT OF NUCLEAR CRISIS

A. FIRST NUCLEAR CRISIS AND U.S.-NORTH KOREA MEETING

North Korea signed the NPT in 1985. In a denuclearization agreement signed in December 1991, North Korea and South Korea pledged not to possess nuclear weapons, not to possess plutonium or uranium enrichment facilities, and to negotiate a mutual nuclear inspection system. In January 1992, North Korea signed a safeguards agreement with the IAEA, which required North Korea to report all nuclear programs to the IAEA and gave the IAEA the right to conduct a range of inspections of North Korean nuclear installations and programs. In 1992, North Korea rebuffed South Korea regarding implementation of the denuclearization agreement, but it did allow the IAEA to conduct six inspections during the period June 1992 to February 1993.¹⁴¹

In late 1992, the IAEA found evidence that North Korea had reprocessed more plutonium than the 80 grams it had disclosed to the agency. The IAEA Board of Governors adopted a resolution on February 25, 1993, urging North Korea to extend full cooperation to the IAEA and to permit access to these sites. North Korea continued to refuse, and on March 12 sent a letter to the U.N. Secretary-General stating its intention to withdraw from the NPT. On May 11, the Security Council passed a resolution urging North Korea to reconsider its stated intention to withdraw from the NPT and to comply with its NPT safeguards agreement. The Security Council invited all U.N. members to support that effort. This set the stage for direct U.S.-North Korea talks.¹⁴²

On June 11, 1993, following talks in New York, the United States and North Korea issued a joint statement in which North Korea agreed to suspend its withdrawal from the NPT. In a separate statement, the United States also noted that the dialogue

¹⁴¹ International pressure had been a lever by which North Korea had been induced to take positive action on nuclear issues since the United States had requested the Soviet Union to pressure North Korea to join the NPT in 1985 and the IAEA in 1992.

¹⁴² Larry A. Niksch, "North Korea's Nuclear Weapons Program," *CRS Report for Congress*, Order Code IB 91141, January 27, 2005.

could continue only if North Korea avoided certain steps including additional reprocessing, any break in the continuity of IAEA safeguards, or a withdrawal from the NPT.¹⁴³

In May 1994, North Korea refused to allow the IAEA to inspect the 8,000 fuel rods that it had removed from the five-megawatt reactor. In June 1994, North Korea's President Kim Il-sung reactivated a longstanding invitation to former U.S. President Jimmy Carter to visit Pyongyang. Kim offered Carter a freeze of North Korea's nuclear facilities and operations. Kim took the initiative after China reportedly informed him that it would not veto a first round of economic sanctions, which the Clinton administration had proposed to members of the U.N. Security Council. According to former Defense Secretary William Perry, the Pentagon also developed a contingency plan to bomb the Yongbyon nuclear facilities if North Korea began to reprocess the 8,000 stored fuel rods. The Clinton administration reacted to Kim's proposal by dropping its sanctions proposal and entering into a new round of high-level negotiations with North Korea.¹⁴⁴

A further step was taken at the next round of talks, which were held in Geneva from July 14-19, 1994. In the joint statement issued at the close of these discussions, North Korea agreed that it was "prepared to begin" consultations with the IAEA on outstanding issues and with South Korea on bilateral issues including the nuclear issue. The United States made clear that continuation of dialogue would require continuation of safeguards on North Korean nuclear facilities and a resumption of the North-South dialogue.¹⁴⁵

¹⁴³ "The U.S.-DPRK Joint Statement expressed support for the peaceful unification of Korea and for the South-North Joint Declaration on the Denuclearization of the Korean Peninsula," *Korea Times*, June 14, 1993.

¹⁴⁴ C. Kenneth Quinones, "Korea-From Containment to Engagement: U.S. Policy toward the DPRK 1988-1993," conference paper presented in Seoul, April 1996.

¹⁴⁵ Agreed Framework between the United States of America and the Democratic People's Republic of Korea, signed October 21, 1994; available on the Korean Peninsula Energy Development Organization (KEDO) website, <http://www.kedo.org/pdfs/AgreedFramework.pdf> (accessed March 23, 2007).

The United States agreed that it was prepared to support substitution of light water reactors for North Korean graphite-moderated reactors as part of a broad and thorough solution to the nuclear issue. Light water reactors are not optimal producers of plutonium for nuclear weapons programs and can be more effectively safeguarded than North Korea's current graphite moderated reactors.

On October 21, 1994, after sixteen months of negotiations, the United States and North Korea signed an Agreed Framework, designed to lead to an end of the threat of proliferation on the Korean Peninsula, and to provide the basis for more normal relations between North Korea and the rest of the world.

In the Agreed Framework, North Korea committed itself to forgo reprocessing and eventually ship out its spent fuel from its existing 5 MWe reactor; immediately freeze, and later eliminate, its entire graphite-moderated reactor program under IAEA monitoring; and to remain in the NPT and ultimately allow full implementation of its safeguards agreement with the IAEA, including special inspections.¹⁴⁶

The Agreed Framework also provided that the United States would organize an international consortium to supply two light-water reactors to North Korea to replace the graphite reactor program which is terminated under the Agreed Framework. However, no critical components were to be supplied until North Korea satisfied the IAEA that it was in full compliance with its NPT obligations.¹⁴⁷

In 1997 the United States and North Korea continued to implement the Agreed Framework. North Korea froze its nuclear program, the freeze was verified by a continuous IAEA presence at the Yongbyon site, and virtually all of North Korea's spent fuel was stored in sealed canisters under IAEA safeguards. The United States, along with the Republic of Korea and Japan, organized the Korean Peninsula Energy Development Organization (KEDO), which allowed North Korea the provision of two South Korean model 1,000 MWe light-water reactors (LWR). KEDO membership now includes 11

¹⁴⁶ Agreed Framework between the United States of America and the Democratic People's Republic of Korea, signed October 21, 1994; available on the Korean Peninsula Energy Development Organization (KEDO) website, <http://www.kedo.org/pdfs/AgreedFramework.pdf> (accessed July 27, 2007).

¹⁴⁷ Ibid.

states and the European Union. South Korea and Japan committed to fund the bulk of the LWR project through KEDO. Further, the United States and KEDO delivered another annual quota of 500,000 tons of heavy fuel oil to North Korea for heating and electricity production in 1997. As part of the Agreed Framework, the United States agreed to arrange to supply this oil in order to compensate for the energy forgone due to the freeze on North Korea's reactors.¹⁴⁸

The Agreed Framework does not rely on trust. All of its steps are verifiable. If fully implemented, the Agreed Framework will defuse one of the most dangerous nuclear hot spots in the world and will ultimately resolve this nonproliferation threat. Since the inception of the agreement, North Korea has halted construction and operation activities at its reactors, cooperated in storing its spent fuel without reprocessing, and allowed IAEA monitoring of its nuclear facilities. However, it has not yet allowed “special inspections” pursuant to its NPT safeguards agreement.

B. SECOND NUCLEAR CRISIS AND SIX-PARTY TALKS

In the summer of 2002, U.S. intelligence reportedly discovered evidence to support suspicions that North Korea was engaged in procurement activities for the development of a uranium enrichment program. On October 4, 2002 James Kelly confronted the North Koreans in a meeting in Pyongyang with the U.S. evidence for the uranium enrichment program and the North Koreans admitted to it.¹⁴⁹ Since then, North Korea's uranium enrichment program issue has surfaced and remains a critical obstacle in the six-party talks, and the program is a serious challenge given North Korea's ability to

¹⁴⁸ Agreed Framework between the United States of America and the Democratic People's Republic of Korea, signed October 21, 1994; available on the Korean Peninsula Energy Development Organization (KEDO) website, <http://www.kedo.org/pdfs/AgreedFramework.pdf> (accessed June 23, 2006).

¹⁴⁹ Joby Warrick, “U.S. Followed the Aluminum: Pyongyang's Efforts to Buy Metal Was Tip to Plans,” *Washington Post*, October 18, 2002, A1; David E. Sanger, “In North Korea and Pakistan, Deep Roots of Nuclear Barter,” *New York Times*, November 24, 2002, 1.

conceal any enrichment facility underground. However, in the late 1980s, North Korea was already acquiring dual-use equipment that could be used for uranium metal processing and applied to a uranium enrichment program.¹⁵⁰

Following the collapse of the 1994 Agreed Framework, the United States and North Korea declared their intention to seek a diplomatic solution to the crisis, but the two sides disagreed on the format for diplomacy. Washington insisted upon a multilateral format, but Pyongyang demanded a bilateral setting. The two sides eventually compromised and agreed to hold trilateral talks with China in Beijing April 23–25, 2003.¹⁵¹ After this meeting, the Bush administration approached South Korea and Japan and pledged to include them in future meetings. Four months later, the first six-party talk was held in China that included Russia as well.

The second round of six-party talks was held from 25–28 February 2004 with no real progress. Many reports indicated that it was a tactical victory by Pyongyang in the way it crafted the talks into an excuse to do nothing.¹⁵² Furthermore, North Korea watchers contended that the U.S. was playing into Pyongyang's calculations to stall the talks until the presidential elections in November 2004 to see if they could get a better deal with a new administration, or worse yet, to give itself eight more months to continue its development of nuclear weapons.¹⁵³ Indeed, the third round of the talks, held from 23–26 June 2004 in Beijing, showed little progress. The U.S., however, was seen as softening its stance when it offered Pyongyang a series of incentives, including a significant infusion of foreign aid. Still the Bush administration had previously insisted on complete disarmament as a first step to improved relations and aid. It was reported that Washington was prodded by China, South Korea, and Japan to abandon its hard-line

¹⁵⁰ Daniel A. Pinkston, "When Did WMD Deals between Pyongyang and Islamabad Begin?" *CNS Research Story*, October 28, 2002, <http://cns.miis.edu/pubs/week/pdf/nkpaki2.pdf> (accessed June 23, 2007).

¹⁵¹ David E. Sanger, "North Korea Says It Now Possesses Nuclear Material," *New York Times*, April 25, 2003, A1.

¹⁵² See (author unattributed), "No Surprise from North Korean Talks," *Far Eastern Economic Review*, Hong Kong, March 11, 2004.

¹⁵³ See (author unattributed), "North Korea Waits for Kerry," *Christian Science Monitor*, Boston, MA, March 2004 ; Also see Mark Magnier and Babara Demick, "Pyongyang May Stall During Nuclear Talks, Hoping for Better Deal for a New President," *Los Angeles Times*, February 25, 2004.

stance.¹⁵⁴ Then, in July 2004, Secretary of State Colin Powell met with North Korea's foreign minister in what was the highest level meeting between the two countries in two years. The meeting lasted for about 20 minutes and both sides tried to clarify their positions on proposals advanced during the third round of six-party talks in June. From all indications, however, there was no real progress to speak of as North Korea remained guarded and did not offer any compromises on its nuclear weapons program.¹⁵⁵

After a long break, the fourth round of six-party talks resumed in July 2005. Even though the meeting was not fruitful, in the succeeding meeting in September 2005 after the three-week recess due to ASEAN Regional Forum (ARF), the party members were able to come to an agreement and announced a joint statement at its conclusion. It was considered a productive meeting, and the joint statement contained six points. The first point reaffirmed that the party members agreed that the goal of these talks would lead to the denuclearization of the Korean Peninsula in a peaceful way. Within this point, North Korea announced that it had a right to pursue nuclear energy for peaceful purposes, would fully quit its nuclear program, and would return to both NPT and IAEA safeguards in the near future. The United States, in turn, announced that it had no nuclear weapons on the peninsula and that it had no intention of attacking North Korea with either nuclear or conventional weapons. South Korea stated that it did not have nuclear weapons within its territory, that it would not accept them in the future, and that the 1992 joint declaration of the denuclearization of the Korean Peninsula should be observed. The other party members stated their respect for this goal and agreed to discuss supplying North Korea with light-water reactors at the appropriate time.¹⁵⁶

In the second point, all party members agreed to recognize each state, using international norms and relations. Within this point, North Korea and the United States agreed to respect each other's sovereignty, and to take steps to normalize relations. North Korea and Japan agreed to take steps to normalize their relationship as well.

¹⁵⁴ See Christopher Marquis, "Powell Meets Foreign Minister of North Korea to Discuss Arms," *New York Times*, July 2, 2004.

¹⁵⁵ Ibid.

¹⁵⁶ "Six-Party Talks End 19 Sep; Joint Agreement Adopted," September 19, 2005, <http://www.yonhapnews.net/Engservices/3000000000.html> (accessed September 19, 2005).

The third point addressed the cooperation to promote energy, trade, and investment either in a bilateral or multilateral environment. Within this point, all party members agreed to assist North Korea with meeting its energy needs. The last three points were aimed at improving regional stability, advancing the talks in a productive manner, and agreeing to meet again in November 2005.¹⁵⁷

While the six-party talks addressed six points, the ones that stood out involved North Korea's agreeing to stop its nuclear program and to return to the NPT, and the statement of intention to provide light-water reactors to North Korea at a time to be determined in the future. The latter statement jumped to the forefront when North Korea made an announcement the following day. In less than twenty-four hours, North Korea announced it would not abandon its nuclear program unless it received light-water reactors first. This comment not only drew attention and criticism within the United States, but also from the other party members. Tension about this provision remained high through the next round of talks that were held in November.¹⁵⁸

As speculated, the talks in November 2005 were not as productive as the previous meeting. The only item that resulted from the talks was that another full meeting would be scheduled for December 2005 or January 2006, and that bilateral and working level type meetings should continue until the next full meeting. The provision dealing with the light-water reactor was brought up by North Korea, but it was not pressed further. South Korea, Japan, and China agreed that North Korea should abandon its program before discussing the light-water reactor subject.¹⁵⁹

Against such a hard-nosed attitude from the North Koreans, the United States decided to impose financial sanctions in March 2006. These sanctions were applied to accounts North Korea held in a Macao-based bank, which were linked with WMD

¹⁵⁷ "Six-Party Talks End 19 Sep; Joint Agreement Adopted."

¹⁵⁸ Barbara Demick, Mark Maginer and Sonni Efron, "N. Korea Sets Condition on Nuclear Pact," *LA Times*, September 20, 2005, <http://www.latimes.com> (accessed September 21, 2005).

¹⁵⁹ Phillip Pan, "N. Korea Arms Talks End with Little Progress," *Washington Post*, November 12, 2005, 26, <http://www.washingtonpost.com> (accessed November 14, 2005).

proliferation activity and money laundering. The United States had placed sanctions against other North Korean accounts in June, which were suspected in WMD proliferation activities.

Under these acute circumstances, strenuous Chinese diplomacy produced a meeting between U.S. Assistant Secretary of State Christopher Hill and North Korean Vice Foreign Minister Kim Gye-gwan on October 31, 2006. North Korea agreed to a U.S. proposal that resumed six-party talks would include a U.S. – North Korea bilateral “working group” to address the issue of U.S. financial sanctions and North Korean illegal activities. North Korea had boycotted the six-party talks since November 2005, demanding that the Bush administration lift financial sanctions against a bank in the Chinese territory of Macau that the U.S. Treasury charged was a conduit for North Korean money laundering connected with North Korean drug trafficking and exports of counterfeit U.S. currency, cigarettes, and pharmaceuticals.

The negotiations resumed on December 18, 2006, but ended on December 22, 2006, without progress. North Korean negotiators refused to negotiate on the nuclear issue until the Bush administration agreed to end its financial sanctions against North Korea.¹⁶⁰ North Korea apparently also refused to negotiate over a Chinese proposal to establish five working groups to negotiate on different aspects of the nuclear issue. Moreover, North Korea restated its previous conditions for dismantlement of its nuclear programs, including the demand of August-September 2005 that light water nuclear reactors be completely constructed in North Korea before North Korea would begin to dismantle nuclear programs.

Another subject of diversion occurred when the United States and Korean peninsula Energy Development Organization (KEDO) made the decision to stop all work on the light-water reactors, as part of the 1994 Agreed Framework. North Korea stated that this pullout by the United States caused a huge economic loss, and believed it was entitled to receive compensation for this loss. Other party members agreed with the United States that this issue should be solved bilaterally and not as part of the six-party

¹⁶⁰ Edward Cody, “Nuclear talks with N. Korea end in failure,” *Washington Post*, December 23, 2006, A12.

talks.¹⁶¹ During that time, too, North Korea demanded that the United States supply it with heavy oil. North Korea also called for the talks to negotiate “nuclear disarmament” in Northeast Asia, which Pyongyang has defined as the acceptance by the United States of major reductions and limitations on its military forces and military operations in South Korea and Japan.¹⁶² During the six-party meeting, Kim Gye-gwan made clear that even if the Bush administration agreed to lift financial sanctions, it would have to make concessions on these North Korean conditions for a freeze and/or dismantlement of nuclear programs.¹⁶³ Kim also indicated that any North Korean agreement to freeze its nuclear facilities would allow the IAEA to only monitor the freeze rather than conduct full IAEA inspections.¹⁶⁴

Prior to and during the six-party meeting, Christopher Hill called on North Korea to take initial steps to implement its pledge in the September 19, 2005 six-party statement, which stated the goal of termination of North Korea’s nuclear programs. The steps proposed by Hill included a freeze of the operating nuclear facilities at Yongbyon, a shutting down of the site of the October 9, 2006 nuclear test, admittance of the IAEA into North Korea with full rights of inspection, and a full disclosure by North Korea of nuclear programs and nuclear weapons to the IAEA. Hill also stressed that North Korea must take these steps within a short time frame—“a lot shorter than a year.”¹⁶⁵ One

¹⁶¹ “EPRK Party Organ Reportedly Claims 6-Party Talks ‘Can’t Resume’ Amid U.S. Sanctions,” *Open Source Center*, December 6, 2005, <http://www.opensource.gov> (accessed December 5, 2005).

¹⁶² Jack Kim, “N. Korea brings laundry list of demands to talks,” *Reuters News*, December 18, 2006; Lee, Brian. “North has a long list of demands in Beijing,” *Joong Ang Ilbo* (Seoul, internet version), December 19, 2006; “N. Korea demands mutual disarmament talks,” *Chosun Ilbo* (Seoul, internet version), December 19, 2006.

¹⁶³ “N. Korea: ending sanctions won’t guarantee nuke freeze,” *Dow Jones International News*, December 24, 2006; Cody, Edward, “Nuclear talks with N. Korea end in failure,” *Washington Post*, December 23, 2006, A12.

¹⁶⁴ Kwang-tae Kim, “N. Korea willing to freeze nuclear facilities, S. Korean envoy says,” *Associated Press*, December 27, 2006.

¹⁶⁵ Burt Herman, “North Korea not budging on sanctions,” *Associated Press*, December 20, 2006.

report stated that Hill also specified that North Korea must freeze the five megawatt reactor at Yongbyon and admit the IAEA within 1.5 to 2 months. Diplomatic sources reported that China supported Hill's proposed steps for North Korea.¹⁶⁶

In the working group meeting over U.S. financial sanctions, U.S. Treasury Department officials reportedly demanded that North Korea deal with "its illicit finance."¹⁶⁷ North Korean officials, however, refused to admit that North Korea had used Banco Delta in Macau to support illicit counterfeiting and drug trafficking.¹⁶⁸

On February 13, 2007, the governments taking part in the fifth round of six-party talks concerning nuclear disarmament of North Korea released an action plan designed to lead to the denuclearization of the Korean Peninsula (February 13 Action Plan).¹⁶⁹ China, Japan, Russia, South Korea, the United States, and North Korea agreed to specific initial actions and timetables that support the objectives of terminating and eliminating North Korea's plutonium-based nuclear weapons program.

The February 13 Action Plan builds upon a previous joint statement issued after the fourth round of six-party talks on September 19, 2005 (September 19 Joint Statement), according to which North Korea "committed to abandoning all nuclear weapons and existing nuclear programs."¹⁷⁰ Efforts to achieve this objective were set back by North Korea's July 2006 missile firings over the Sea of Japan and its October

¹⁶⁶ Noko Naoko, "6-way talks extended a day to Friday, differences remain," *Kyodo News* (Tokyo), December 20, 2006; "U.S. to N. Korea. 2 months to move on denuclearization," *Dow Jones Commodities Service*, December 27, 2006. Sukhorukov, Alexei, "U.S. demands that N. Korea liquidate nuke program in 2 months," *Itar-Tass World Service* (Moscow), December 27, 2006.

¹⁶⁷ Ibid; Aoki Naoko, "6-way talks extended a day to Friday, differences remain," *Kyodo News* (Tokyo), December 20, 2006.

¹⁶⁸ "N. Korea refuses U.S. Treasury's financial reports on BDA bank accounts," *Dong-A Ilbo* (internet version), December 20, 2006.

¹⁶⁹ "Initial Actions for the Implementation of the Joint Statement," available at <http://www.fmprc.gov.cn/eng/zxxx/t297463.htm>, February 13, 2007 (hereinafter "February 13 Action Plan" or "Action Plan") (accessed August 23, 2007).

¹⁷⁰ "Joint Statement of the Fourth Round of the Six-Party Talks," available at <http://usinfo.state.gov/usinfo/Archive/2005/Sep/19-187747.html?chanlid=washfile>, September 19, 2005 (hereinafter "September 19 Joint Statement" or "Joint Statement") (accessed June 3, 2007).

2006 announcement of a successful underground test of a nuclear weapon.¹⁷¹ These North Korean actions led to Security Council Resolutions 1695 (2006) and 1718 (2006), condemning the actions and making certain legally binding decisions, including that North Korea “shall abandon all nuclear weapons and existing nuclear programs in a complete, verifiable and irreversible manner.”¹⁷²

By the terms of the February 13 Action Plan, North Korea agreed that, within 60 days, it would shut down and seal for the purpose of eventual abandonment the Yongbyon nuclear facility. In exchange, the five parties agreed to provide North Korea with up to one million tons of fuel oil and other economic and humanitarian assistance, and Japan and the United States pledged to move toward normalizing relations with North Korea. The Action Plan also announced the establishment of five working groups tasked with discussing and formulating specific plans for the implementation of the September 19 Joint Statement. It, however, did not address the status of North Korean membership in the Nuclear Non-Proliferation Treaty (NPT) or contain any provisions on this issue, although North Korea committed in the September 19 Joint Statement to returning to the NPT “at an early date.”

The Action Plan does not immediately obligate North Korea to abandon its plutonium nuclear weapons program, only to “freeze” it, and it does not impose any immediate obligations concerning North Korea’s nuclear weapons program utilizing highly enriched uranium. In addition, North Korea agreed to invite back inspectors from the IAEA in order to conduct all necessary monitoring and verifications related to the shutting down and sealing of the Yongbyon facility, but this commitment was qualified by language indicating that the scope of such inspections will be “agreed between IAEA and DPRK” at a later date.

¹⁷¹ Frederick L. Kirgis, North Korea’s Missile Firings, ASIL Insight, July 24, 2006, at <http://www.asil.org/insights/2006/07/insights060724.html>; Christopher J. Le Mon, International Law and North Korean Nuclear Testing, ASIL Insight, October 19, 2006, at <http://www.asil.org/insights/2006/10/insights061020.html> (accessed July 23, 2007).

¹⁷² UN Security Council Resolution 1695 (2006), July 15, 2006, U.N. Doc. S/RES/1695; UN Security Council Resolution 1718 (2006), October 14, 2006, U.N. Doc. S/RES/1718 (hereinafter S.C. Res. 1718).

The parties to the Action Plan have made political commitments to take specific steps toward North Korea's disarmament, but the Action Plan does not constitute a treaty creating legal obligations. For an international agreement to be considered a treaty, the parties must enter into the agreement with the intent that international law governs it.¹⁷³ The February 13 Action Plan is an unsigned recitation of "initial actions" for implementing the non-binding September 19 Joint Statement, and the Action Plan contains no indication that the parties intended to create international legal obligations. The only concrete measures are the shutting down and sealing of North Korea's Yongbyon facility and the provision of an initial 50,000 tons of fuel oil to North Korea. The remaining actions listed in the Action Plan are procedural, such as the commitments by Japan and the United States to start bilateral talks with North Korea on normalizing relations, or involve the establishment of working groups to carry out the Action Plan's provisions.

Additionally, the Action Plan cannot be construed as containing statements from any party that might be binding under international law. The Action Plan involves heavily negotiated commitments finalized in a form that reveals the parties' intention not to be bound by international law. For a statement or declaration to create international legal obligations, the state in question has to make the statement with the intent to be bound by it under international law.¹⁷⁴ Given the negotiated, reciprocal commitments in the February 13 Action Plan and the lack of any reference to legal obligations, North Korea's pronouncements in the February 13 Action Plan do not bind North Korea under international law.

Although not a binding international agreement, the February 13 Action Plan is an important and substantial step toward the goal of eliminating North Korea's nuclear weapons program, and if implemented, it would move North Korea toward compliance with the binding demands for WMD disarmament made by the Security Council.

¹⁷³ Vienna Convention on the Law of Treaties, art. 2(1)(a), available at http://untreaty.un.org/ilc/texts/instruments/english/conventions/1_1_1969.pdf (accessed January 3, 2007).

¹⁷⁴ See *Nuclear Tests (Austl. v. Fr.)*, 1974 I.C.J. 253, para. 46 (Dec. 20); *Nuclear Tests (N.Z. v. Fr.)*, 1974 I.C.J. 457, para. 46 (December 20). See also *Le Mon*, supra note 4 (arguing that no statements in the September 19 Joint Declaration created international legal obligations on North Korea).

Continuing the ongoing negotiations with North Korea has both potential positive and negative outcomes. The positive outcomes may include a denuclearized Korean peninsula and regional stability, while the negative outcomes potentially include indefinite instability in the region and a potential implosion of North Korea. Reviewing the past events with North Korea, it is not hard to envision the potential negative consequences. North Korea relies heavily on China for its support, although the ROK has also provided limited assistance. It is neither in China's nor the ROK's interest for the state of North Korea either to continue in isolation or to implode. Both scenarios would impose an economic strain on each of them, as a potential flood of North Koreans would spill over into both countries.

In addition, other potential pitfalls exist in the continuation of six-party talks. North Korea could raise other issues and attempt to include them as part of the six-party agenda. For example, human rights issues could cause the talks to deadlock and grind to a halt. As North Korea opens up to the international community and global market, so will its vulnerabilities to international norms. In this respect, its reclusive nature has protected its authoritarian regime from outside prying eyes. The potential for this issue to rise to the top of the agenda is real, because China is known for its past human rights abuses. China, as the most powerful influence on North Korea, would also be inviting such scrutiny upon itself as these talks successfully make progress.

Slow progress may also prevent the six-party talks from reaching their goal. North Korea may draw attention to the similarity of the current progression of talks compared with the 1994 Agreed Framework. If the party members are brought into this argument, this could cause the talks to disintegrate. At any time, if one of the other party members supports any one of the arguments the North Koreans may make, this endeavor will surely fail. Successful cooperation among all countries involved in dealing with North Korea is the key to success.

It is a complicated path, and at the same time an optimistic goal, to envision a denuclearized Korean peninsula and regional stability. The United States and members in the region were initially heading down that path in 1994 when the Agreed Framework was established. The Agreed Framework was a good deal for North Korea, and had this

agreement continued through to the end. North Korea would have been able to receive the light-water reactors, heavy fuel oil at no cost, diplomatic relations with the United States, lifting of the United States economic embargo, and most likely a United States nuclear security guarantee. In return, North Korea would have frozen its nuclear program, would have come into full compliance with the Safeguards Agreement, would have provided accurate disposition of the discharged fuel rods from the 5MWe reactor, and would have dismantled its nuclear facilities.¹⁷⁵

Through the six-party talks, similar goals for North Korea are available. It remains in the best interest overall if North Korea complies with CVID(Complete, verifiable and Irreversible Dismantlement). When this situation is achieved on the peninsula and it receives the commitments from all party members, the region is destined to increase in stability. As relations and trust grow between the countries involved along with the potential programs countries have stated they would support pending the outcome of a denuclearized peninsula, North Korea could potentially emerge as the biggest winner.

As the region becomes more stable, the potential for greater trade increases. North Korea could be the stimulus for trade to increase, as it would be a great source of labor. If this occurs, the peninsula as a whole will benefit. Once North Korea complies with CVID principles of its nuclear program, a potential increase in business, technology, and commercial trading will follow. As its neighbor on the peninsula, the ROK would benefit both directly and indirectly from the increased trade. All the other members in the region would also indirectly benefit from this activity.

The potential for peace and stability in the region remains an attainable goal as long as the party members continue to have dialogue. September 2005 joint statement, February 2006 action plan, when compared with the first three rounds of talks, are distinct evolvment in the six-party talks. As the six-party talks continue to meet and make progress, however small, it will be up to all the members to remain focused on the goal. North Korea will probably continue to extend these talks indefinitely, as it will

¹⁷⁵ Larry A. Niksch, "North Korea's Nuclear Weapons Program," *CRS Report for Congress*, Order Code IB 91141, January 27, 2005.

benefit from this action. Communication diffused the tension during the 1994 crisis on the peninsula, and communication will be the key to accomplishing the goal of a denuclearized Korean peninsula, and potentially a reunified, denuclearized Korea.

THIS PAGE INTENTIONALLY LEFT BLANK

VI. CONCLUSION

As seen above, there are three important variables that are the key to resolving the North Korean nuclear crisis: North Korea's policy change, the United States's will to change the DPRK, and China's role as an active mediator. Surely Japan and Russia can also make small yet important contributions to the cooperation. By looking into the first and second North Korean nuclear crisis and the historical background of the crisis and six-party talks, we can speculate what the outcome of talks will be in the next six-party talks slated by the end of 2007. Despite the effort through bilateral and multilateral talks in history, many analysts believe that the talks have reached deadlock, and despite two and a half years of diplomacy, they do not expect a denuclearized Korean peninsula. Why? What is missing? A conspicuous obstacle still remains: the commitment (trust) problem.

According to the "U.S.-DPRK Joint Statement" on June 11, 1993, Washington had already agreed to provide assurances against the use of force, including the use of nuclear weapons.¹⁷⁶ And according to the "U.S.-DPRK Joint Communiqué" on October 12, 2000, Washington and Pyongyang agreed that "neither government would have hostile intent toward the other and confirmed the commitment of both governments to make every effort in the future to build a new relationship free from past enmity."¹⁷⁷ In addition to these statements in the U.S.-DPRK talks, the U.S. affirmed in the six-party talks that it has no intention to attack or invade North Korea and will provide a security guarantee. North Korea, however, still has grave security concerns. Since many North Korean officials probably believe the Bush administration is determined to topple Kim Jong-il and the Korean Workers Party, the commitment problem might be insurmountable until Washington undergoes 'regime change' in January 2009.

¹⁷⁶ "U.S.-DPRK Joint Statement," June 11, 1993, <http://www.nautilus.org/DPRKBriefingBook/agreements> (accessed August 23, 2007).

¹⁷⁷ "U.S.-DPRK Joint Communiqué," U.S. State Department, October 12, 2000, quoted in *Arms Control Today*, <http://www.armscontrol.org/Events/communique.as> (accessed June 17, 2007).

North Korea acknowledges the commitment problem in resolving the nuclear crisis, and Pyongyang insists that the U.S. provision of a light water reactor (LWR) will resolve this problem. While the U.S. delivery of an LWR would symbolize a U.S. sense of trust, it is unclear how an LWR project would eliminate the underlying mistrust that has lasted for over half a century. While Washington is correct in pointing out the severity of Pyongyang's commitment problem given its record of renegeing on numerous international agreements, North Korea will neither accept nor implement any negotiated settlement until Washington's commitment problem, as perceived by Pyongyang, is addressed. While the resolution of the U.S. commitment problem is necessary for the implementation of any agreement, the discussion of Washington's commitment problem is politically unpalatable in the United States.

Although the United States needs to put in more effort to build up mutual confidence with North Korea, it has strengthened U.S. sanctions in the past. Ceasing to breathe life into North Korea, Beijing and South Korea could invite a larger influx of illegal border crossers and overwhelming economic and social burden that they would bring. Washington is less concerned about such issues, with its priority of preventing nuclear proliferation largely obscuring other considerations. Those who expect more hard power from China and South Korea ignore the fact that paving the way for regime change in North Korea by initiation of economic collapse is not in both countries' interest. However, Beijing's embrace of multilateralism, initiation of active intervention, and willingness to flex some diplomatic muscles are essential to end the North Korean nuclear crisis.

The North Korean nuclear card is largely an impractical one, however, because either attacking the United States or selling weapons to terrorists would result in North Korea's self destruction. A more reasonable solution for the DPRK would be to trade its nuclear card in return for help to address its more urgent security and economic needs. The United States also has limited choices, as the price of confrontation is much higher than a negotiated settlement and is altogether undesirable. Even though it will take a long time, scaling down the deep-rooted mistrust through "negotiations" and "engagement"

remains the most realistic option for both sides. Changing leadership in the U.S., Japan, and South Korea will usher us into another chapter of opportunity to end the North Korean nuclear conundrum—this time, surely with more carrots than sticks.

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF REFERENCES

- 1998 DPRK Constitution. http://210.145.168.243/pk/061st_issue/98091708.htm (accessed August 13, 2006).
- “After the North Korea Nuclear Breakthrough: Compliance or Confrontation.” *International Crisis Group*, April 30, 2007, 8.
- Ahrari, Ehsan. “Paying China for Pressuring Pyongyang.” *Asia Times Online*, October 28, 2004. <http://www.atimes.com/atimes/China/FJ28Ad03.html> (accessed February 2007).
- Armitage, Richard L. “A Comprehensive Approach to North Korea.” *Strategic Forum*, no. 159, March 1999.
- Barry, John. “North Korea: Help from Beijing.” *Newsweek*: New York, October 30, 2006, 10.
<http://libproxy.nps.navy.mil/login?url=http://proquest.umi.com.libproxy.nps.navy.mil/pqdweb?did=1150361641&sid=3&Fmt=3&clientId=11969&RQT=309&VName=PQD> (accessed November 21, 2006).
- “BBC Monitoring Asia Pacific, Russia’s Putin Reaffirms Support for Korean Unification.” *Yonhap News Agency*, November 17, 2005.
- Blank, Stephen. “Russian Policy and the Changing Korean Question.” *Asian Survey*, vol. 35, no. 8, August 1995, 711.
<http://www.jstor.org/view/00044687/di014548/01p0043x/1?frame=noframe&userID=cd9b41e2@nps.navy.mil/01cc99331500501b2e4f0&dpi=3&config=jstor> (accessed June 17, 2007).
- Brito, Dagobert L., et al., eds. *Strategies for Managing Nuclear Proliferation*. Lexington: Lexington Books, 1983.
- Burns, R. Nicholas. U.S. Policy towards North Korea, Testimony to the House International Relations Committee. <http://www.state.gov/p/us/rm/2006/76178.htm> (accessed March 13, 2007).
- Burton, John, Guy Dinmore, and Mark Turner. “North Korea pulls out of key treaty on nuclear arms: Dispute with U.S. becomes full-blown international crisis.” *Financial Times*, January 11 2003,
<http://proquest.umi.com/pqdweb?did=276279921&Fmt=7&entId=65345&RQT=309&VName=PQD> (accessed May 17, 2007).

- Bush, George W. "State of the Union Address." January 29, 2002. Available electronically at <http://www.whitehouse.gov/news/releases/2002/01/20020129-11.html> (accessed June 3, 2007).
- Cha, Victor D. and Kang, David C. *Nuclear North Korea, A Debate On Engagement Strategies*. New York: Columbia University Press, 2003.
- Cha, Victor. "Abandonment, Entrapment, and Neoclassical Realism in East Asia: The United States, Japan and Korea." *International Studies Quarterly*, Blackwell Publishers, Malden, MA, 2000, vol. 44, 272.
<http://www.jstor.org.libproxy.nps.navy.mil/view/00208833/di012121/01p0026d/10?searchUrl=http%3a//www.jstor.org/search/BasicResults%3fhp%3d25%26so%3dNewestFirst%26si%3d101%26Query%3dkorea%2bunification%2bAND%2bjapan&frame=noframe¤tResult=00208833%2bdi012121%2b01p0026d%2b0%2c7FFCFFFF&userID=837833b1@nps.navy.mil/01cc9933257dc910f2c35e2e3&dpi=3&config=jstor> (accessed January 12, 2007).
- Cha, Victor. "Hawk Engagement and Preventive Defense on the Korean Peninsula." *International Security*, vol. 27, no. 1, 42.
- Ching, Frank. "Recalcitrant Pyongyang Holds out for More." *New Straits Times*, 25. Malaysia, November 3, 2005.
http://w3.nexis.com/new/results/docview/docview.do?risb=21_T853026027&format=GNBFI&sort=BOOLEAN&startDocNo=226&resultsUrlKey=29_T853026030&cisb=22_T853026029&treeMax=true&treeWidth=0&csi=151977&docNo=240 (accessed July 18, 2007).
- Choo, Yong Shik. "Handling North Korea: Strategy and Issues." *SAIS Review*, vol. 23, no. 1, Johns Hopkins University Press, 2003, 43.
http://muse.jhu.edu.libproxy.nps.navy.mil/journals/sais_review/v023/23.1choo.html (accessed February 20, 2007).
- Cirincione, Joseph, Jon B. Wolfsthal, and Miriam Rajkumar. *Deadly Arsenals: Nuclear Biological, and Chemical Threats*. (Washington, D.C., Carnegie Endowment for International Peace, 2005), 284.
- Clary, Christopher Oren. "The A. Q. Khan Network [electronic resource]: Causes and Implications." <http://library.nps.navy.mil/uhtbin/hyperion/05Dec%5FClary.pdf> (accessed February 20, 2007).
- CNN. "Russia Scold North Korea Over Nuke." October 31, 2002.
- Congressional Research. "North Korea's Nuclear Weapons Program." Washington, D.C.: Congressional Research Service, January 25, 1994.

- Cummings, Bruce. *Korea's Place in Sun: A Modern History*. New York: W. W. Norton Company, 1997.
- Downs, Chuck. "Over the Line: North Korea's Negotiation Strategy." Washington, D.C.: *The AEI Press*, 1999.
- Economist Intelligence Unit. "Economic Structure," *Country Report: North Korea* (February 2006), 8.
- Fifield, Anna. "Pyongyang punctures hopes for nuclear deal: North Korea has surprised its dialogue partners with claims to have WMD and refusal to resume talks." *Financial Times*, February 11, 2005, 9.
<http://proquest.umi.com/pqdweb?did=791943221&Fmt=7&clientId=65345&RQT=309&VName=PQD.GlobalFirePower.com>, "World Military Strength,"
http://www.globalfirepower.com/countries_comparison_detail.asp (accessed August 31, 2006).
- French, Paul. *North Korea: The Paranoid Peninsula, A Modern History*. New York: Zed Books, 2005.
- Gallegher, Mary E. "Reform and Openness." *World Politics*, vol. 54, no. 3 (2002), 338-72.
- GlobalSecurity.org, "Korean Peoples Army." <http://www.globalsecurity.org/military/world/dprk/army.htm> (accessed September 8, 2006).
- Goldstein, Avery. "Why Nukes Still Trump: Deterrence and Security in the 21st Century." <http://www.fpri.org/enotes/military.200001113.goldstein.nukesstilltrumhtml> (accessed April 8, 2007).
- Graham, Tomas W. "The Economics of Producing Nuclear Weapons in the North Korea." In Dagobert L. Brito, et al., eds. *Strategies for Managing Nuclear Proliferation*. Lexington: Lexington Books. 1983.
- Hamm, Taik-young. *Arming the Two Koreas, State Capital and Military Power*, New York: Routledge, 1999, 73-74.
- Harrison, Selig S. "Did North Korea Cheat?" *Foreign Affairs*, vol. 84, no. 1 (2005): 99.
<http://proquest.umi.com/pqdweb?did=845825861&Fmt=7&clientId=65345&RQT=309&VName=PQD> (accessed April 10, 2007).

- Harrison, Selig. "What does North Korea Want." Talk of the Nation. *National Public Radio*, October 19, 2006. http://w3.nexis.com/new/results/docview/docview.do?risb=21_T849630606&format=GNBFI&sort=BOOLEAN&startDocNo=1&resultUrlKey=29_T849630609&cisb=22_T849630608&treeMax=true&treeWidth=0&csi=8398&docNo=9 (accessed July 9, 2007).
- Harrison, Selig. *Korean Endgame: A Strategy for Reunification and U.S. Disengagement*. Princeton, New Jersey: University Press, 2002.
- Higgins, Benjamin. "The Concept of Secular Stagnation." *American Economic Review*, vol. 40, no. 1 (March 1950), 160-166.
- Horowitz, Michael. "Who's Behind That Curtain?" *The Washington Quarterly*, Winter 2004-2005, The Center for Strategic and International Studies and the Massachusetts Institute of Technology, http://www.muse.jhu.edu.libproxy.nps.navy.mil/journals/washington_quarterly/v028/28.1horowitz.pdf (accessed November 21, 2006).
- Jane's Sentinel Security Assessments, s.v. "North Korea," http://www4.janes.com/subscribe/sentinel/CNAS_doc_view.jsp?Sent_Country=Korea,%20North&ProdName=CNAS&K2DocKey=/content1/janesdata/sent/cnasu/nkors100.htm@current (accessed August 24, 2006).
- Jin, Dae-woong. "Nuke Test could Give Momentum to Japan's Rearmament." *The Korea Herald*, October 10, 2006. http://w3.nexis.com/new/results/docview/docview.do?risb=21_T1040023511&format=GNBFI&sort=BOOLEAN&startDocNo=1&resultsUrlKey=29_T1040019497&cisb=22_T1040019496&treeMax=true&treeWidth=0&csi=158208&docNo=10 (accessed January 20, 2007).
- Johnson, Simon. "How to Stabilize: Lessons from Post-Communist Countries." *Brookings Papers on Economic Activity* 1: 217-313 (1996).
- Johnston, Alastair and Robert Ross. *New Directions in the Study of China's Foreign Policy*. Stanford, CA: Stanford University Press, 2006.
- Kahn, Joseph and Helene Cooper. "North Korea Will Resume Nuclear Talks." *New York Times*: New York, November 1, 2006, A1. <http://libproxy.nps.navy.mil/login?url=http://proquest.umi.com.libproxy.nps.navy.mil/pqdweb?did=1154403541&sid=3&Fmt=3&clientId=11969&RQT=309&VName=PQD> (accessed November 21, 2006).
- Kakijawa, Koji. "Japan's Position on Suspected Nuclear Weapons Development by North Korea." *The Korean Journal of Defense Analysis* vol. IV, no. 1 (Summer 1992).
- Koh, Byung Chul. *Korea: Dynamics of Diplomacy and Unification*, Monograph Series, Number 12 (Claremont McKenna College: Keck Center for International and Strategic Studies, 2001) 34.

- Krawitz, Howard M. "Resolving Korea's Nuclear Crisis: Tough Choices for China." *Strategic Forum 201* (August 2003). <http://www.ndu.edu/inss/press/nduphtml> (accessed January 2007).
- Leventhal, Paul and Steven Dolley. "The North Korean Nuclear Crisis." Nuclear Control Institute, June 16, 1994. <http://www.nci.org/n/nkib1.htm> (accessed March 15, 2007).
- Levite, Ariel E. "Never Say Never Again: Nuclear Reversal Revisited." *International Security* vol. 21, no. 3 (2002): 59-88.
- Luttwak, Edward N. *The Pentagon and Art of War*. New York: Simon and Schuster, 1984.
- McCormack, Sean. "North Korea's 60-day Assessment." U.S. Department of State, <http://www.state.gov/r/pa/prs/ps/2007/apr/83051.htm> (accessed May 8, 2007).
- Nanto, Dick and Emma Chanlett-Avery. "The North Korean Economy: Background and Policy Analysis." CRS Report to Congress (updated January 24, 2006), RL32493.
- "North Korea Wants Japan to Stay Away from Six-Party Talks." *China Daily*, November 4, 2006, http://www.chinadaily.com.cn/world/2006-11/04/content_724549.htm (accessed January 2007).
- "Nuclear Weapons Testing." Weapons of Mass Destruction, Global Security.org. <http://www.globalsecurity.org/wmd/world/dprk/nuke-test.htm> (accessed February 2007).
- Park, John S. "Inside Multilateralism: The Six-Party Talks." *Washington Quarterly*, vol. 28, no. 4, 2005, 87. http://muse.jhu.edu.libproxy.nps.navy.mil/journals/washington_quarterly/v028/28.4park.html (accessed July 15, 2007).
- Pinkston, Daniel A. and Kazutaka Sakurai. "Japan Debates Preparing for Future Preemptive Strikes Against North Korea." *The Korean Journal of Defense Analysis* vol. 18, no. 4 (Winter 2006): 95-121.
- Rosenthal, Elizabeth. "In North Korean Hunger, Legacy is Stunned Children." *New York Times*, December 16, 1998.
- Rosser, J. Barkley, Jr. *Comparative Economics in a Transforming World Economy*, 2nd edition. Cambridge, Massachusetts: MIT Press, 2004, 517-520.
- Scott, Snyder. "Negotiating on the Edge: North Korean Negotiating Behavior." Washington, D.C.: United States Institutes of Peace Press, 1999.
- Shanker, Thom and David E. Sanger. "North Korean Fuel Identified as Plutonium." *New York Times*, October 17, 2006.

Shen Dingli. "North Korea's Strategic Significance to China." *China Security* (Autumn 2006): 19-34.

Snow, Donald M. *The Shadow of the Mushroom Shaped Cloud*. Columbus, Ohio: The Ohio State University Press, 1978.

Sutter, Robert G. *Chinese Policy Priorities*. Rowman and Littlefield Publishers, Inc., 1999.

Tkacik, John. Discussion of the book "Shaping China's Security Environment: The Role of The People's Liberation Army." Heritage Foundation Discussion, Washington, D.C. October 17, 2006.

http://w3.nexis.com/new/results/docview/docview.do?risb=21_T849515230&format=GNBFI&sort=BOOLEAN&startDocNo=1&resultsUrlKey=29_T849508828&cisb=22_T849515233&treeMax=true&treeWidth=0&csi=8104&docNo=6

(accessed July 19, 2007).

U.S. Department of State, Bureau of East Asian and Pacific Affairs, October 2006.

<http://www.state.gov/r/pa/ei/bgn/2792.htm> (accessed October 26, 2006).

U.S. Department of State, Background Note: South Korea.

<http://www.state.gov/r/pa/ei/bgn/2800.htm> (accessed April 9, 2007).

U.S. Library of Congress, North Korea: A Country Study. <http://countrystudies.us/north-korea/2.htm> (accessed September 6, 2006).

"Weapons of Mass Destruction: Trade between North Korea and Pakistan."

Congressional Research Service. Report for Congress, March 11, 2004.

<http://fpc.state.gov/documents/organization/30781.pdf> (accessed June 23, 2007).

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
Ft. Belvoir, Virginia
2. Dudley Knox Library
Naval Postgraduate School
Monterey, California