

Bargaining Failure and the North Korean Nuclear Program's Impact on International Nonproliferation Regimes

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I . Introduction

The Democratic People's Republic of Korea (DPRK or North Korea) has taken a number of steps in violation of past nonproliferation commitments, and these actions have arguably undermined international nonproliferation regimes, particularly the Nuclear Nonproliferation Treaty (NPT). However, the long-term effects of the North Korean nuclear program on nonproliferation regimes are difficult to assess now that diplomatic efforts to rollback the program are underway.

Some analysts argue that North Korea has wanted to acquire nuclear weapons for a long time, and that nothing short of "regime change" will end Pyongyang's efforts to deploy a nuclear arsenal. However, there is substantial evidence to discount this argument. If this were true, Pyongyang probably would have acquired a nuclear arsenal by now. Furthermore, the nuclear option is not without costs because Pyongyang has now acknowledged that economic reform and opening are necessary for a long-term political stability and a regime sustainability.

Before addressing the impact of a nuclear-armed DPRK, this paper will first address some of the bargaining problems in dealing with North Korea over the nuclear issue. I argue that all concerned parties could be better off with a negotiated settlement, but that bargaining failure does occur, and that bargaining failure is certainly possible in the North Korean nuclear case. In addressing the issue of bargaining over the North Korean nuclear program, I make the following assumptions:

1. War is costly
2. Despite power asymmetry, this is a case of strategic interaction
3. The North Korean nuclear program is one component of North Korea's comprehensive security strategy, and Pyongyang faces trade-offs in its security strategy (nuclear weapons acquisition has opportunity cost)
4. Domestic politics matter

The first assumption, that war is costly, seems obvious, but it is not trivial. Under conditions of sufficient common interests and perfect information, nations should reach negotiated settlements for disputes and avoid the costs of war. Countries could arrive at the same arrangement that would follow a war, but without suffering the costs of war. Nevertheless, wars do occur and countries arguably go to war for three reasons: 1) there are no common interests (or common aversions), and thus both sides prefer to fight (this is probably very uncommon); 2) imperfect information about an adversary's resolve, intentions or capabilities causes countries to stumble into war; or 3) commitment problems prevent the two sides from upholding a negotiated settlement.

The second assumption of strategic interaction is important because North Korean reactions must be considered when forming policy. Many analysts view the power asymmetry between the U.S. and the DPRK and conclude that it's simply a matter of Washington using its power to force Pyongyang's compliance. However, North Korea can

worsen the U.S. fallback position, and the fallback position of regional allies, if no negotiated settlement is reached.

The third assumption about North Korea's comprehensive national security strategy and the trade-offs North Korean policymakers face is often overlooked. The DPRK faces a number of internal and external security threats that require a comprehensive strategy for the Korean Workers Party (KWP) to sustain its rule. Different parts or components of the strategy have opportunity costs, and all of the objectives in the comprehensive strategy might be impossible to achieve simultaneously.

Fourth, domestic politics matter in both Washington and Pyongyang, but North Korean politics are opaque, making it difficult to analyze political trends in Pyongyang. However, North Korean policy changes have distributional consequences for domestic political actors, and the North Korean leadership must consider these consequences when deciding the future of the nuclear weapons program.

II. North Korea's National Security Strategy

Kim Jong Il was elected as the chairman of the National Defense Commission in 1993, so he was already establishing his control of the military before his father's death in July 1994. With the economy in decline and the state's capacity to provide basic public services crumbling in the 1990s, Kim Jong Il ruled the country through his control of the military, and through his father's directives issued from the grave.

Four years after Kim Il Sung's death, the formal transfer of power to Kim Jong Il finally occurred. The transfer began with an election on 26 July 1998 for seats in the Supreme People's Assembly (SPA), the legislative branch of the North Korean government. Although the SPA is little more than a rubber stamp for the directives of the Korean Workers Party elite, 107 active duty military members were elected out of 687 total legislators—an increase over the 62 military legislators that were in the previous SPA. There were 443 new SPA members

elected in July 1998, and Kim Jong Il was elected by district 666, a Korean People's Army constituency.¹ SPA elections results from 3 August 2003 indicate that more Kim Jong Il loyalist have moved into the DPRK's legislature.²

After Kim Jong Il appointed his supporters to key military positions in the 1990s, and then had his supporters elected to the SPA in July 1998, he was able to push through a constitutional revision that formally elevated Kim to the pinnacle of the North Korean government. The SPA approved the new "DPRK Socialist Constitution" on 5 September 1998, which was one day after the North Korean media announced that a Korean rocket (the Paektusan-1) had successfully placed a satellite into earth orbit on 31 August.³

1 The election results were announced on the following day 27 July, which is the anniversary of the Korean War Armistice signing. It's interesting to note that The Korean Central News Agency carried a report in Korean about foreign residents in North Korea participating as observers and their impression of the "political freedoms North Koreans possess through such free and democratic elections." However, KCNA carried no such report in English. See "선거장 참관한 외국인 반향," *Korean Central News Agency*, 27 July 1998, <http://www.kcan.co.jp>. For reports of the election and results, see Shin Yong-bae, "Elections Signal Change in North Korea Policy on South," *Korea Herald*, 29 July 1998, in KINDS, <http://www.kinds.or.kr>; 김영식, "최고인민회의 대의원 선거 결과 정부 분석," 「세계일보」, 29 July 1998, in KINDS, <http://www.kinds.or.kr>; 임을출, "북 대의원 64% '물갈이'," 「한겨레신문」, 29 July 1998, in KINDS, <http://www.kinds.or.kr>; "Korean Voters Participate in SPA Election," *Korean Central News Agency*, 27 July 1998, <http://www.kcna.co.jp>; "Kim Jong Il Elected to SPA," *Korean Central News Agency*, 27 July 1998, <http://www.kcna.co.jp>; "100 Percent Vote for Candidates," *Korean Central News Agency*, 27 July 1998, <http://www.kcna.co.jp>; "99.85프로가 선거참가, 100프로찬성투표, 687명의 대의원선거," *Korean Central News Agency*, 27 July 1998, <http://www.kcna.co.jp>.

2 "Results of SPA Election Announced," *Korean Central News Agency*, 4 August 2003, <http://www.kcna.co.jp>; "Kim Jong Il Elected to SPA," *Korean Central News Agency*, 4 August 2003, <http://www.kcna.co.jp>; "최고인민회의 제 11기 대의원 선거결과에 대하여," *Korean Central News Agency*, 5 August 2003, <http://www.kcna.co.jp>; "김정일총비서를 최고인민회의 대의원으로 높이 추대—중앙선거위원회 보도," *Korean Central News Agency*, 5 August 2003, <http://www.kcna.co.jp>; Charles Whelan, "Leader Kim Jong-Il Wins Landslide in North Korea-Style Elections," *Agence France Presse*, 4 August 2003, in Lexis-Nexis, <http://www.lexis-nexis.com>.

3 "DPRK Socialist Constitution," *Korean Central News Agency*, 5 September 1998, <http://www.kcna.co.jp>; "조선민주주의인민공화국 사회주의헌법," *Korean Central News Agency*, 5 September 1998, <http://www.kcna.co.jp>; "Successful Launch of

In 1998, institutional changes were under way to formalize Kim Jong Il's rise to power, but a new state ideology based upon building a *kangsŏngdaeguk* (强盛大國), or a “strong and powerful country” was also introduced. This term first appeared in reference to Kim Jong Il providing “on-the-spot guidance” during a visit to Chagang Province in early 1998,⁴ and then the term came into wide-spread use in late August 1998.⁵

The concept of building a *kangsŏngdaeguk* is very broad; “strong and powerful countries” should be potent across every dimension, but the Korean Workers Party focuses on three elements of this concept as it addresses policy matters. In order to become a “strong and powerful country,” the Kim Jong Il regime believes North Korea must be strong in “political ideology, military capabilities, and economic capacity.” The leadership apparently believes that *chuch'e*(主體, literally “self-reliance,” the ideology of his father) has instilled the people with a strong political ideology, and that the country had achieved the military capabilities to be considered a “strong and powerful country.” However, the nation's economic performance is admittedly inadequate, and now the leadership is questioning whether the KPA's military capabilities are sufficient to achieve state goals.⁶

Another important pillar of Kim Jong Il's plan to build a “strong and powerful country” is the concept of “military first politics (先軍政治).”⁷ Military first politics in North Korea means: ensuring the

First Satellite in DPRK,” *Korean Central News Agency*, 4 September 1998, <http://www.kcna.co.jp>; “우리 나라에서 첫 인공지구위성 성과적으로 발사/조선 중앙통신사 보도,” *Korean Central News Agency*, 4 September 1998, <http://www.kcna.co.jp>.

4 Chagang Province is the site of several munitions factories, and has the legacy of having been the location where KPA supporters overcame hardship to produce weapons and other necessities during the Korean War.

5 대한민국 통일부, 『북한개요 2000』 (서울: 통일부, December 1999), p. 88.

6 For an introduction to the concept of building a *kangsŏngdaeguk*, see 대한민국 통일부, 『북한개요 2000』 (서울: 통일부, December 1999), pp. 88-89; 정낙근, “김정일의 ‘경제 강성대국’ 마스터플랜” 『신동아』, August 2000, http://www.donga.com/docs/magazine/new_donga/200008/nd2000080030.html; 정내송, 『사회주의 강성대국건설사상』 (평양: 사회과학출판사, 2000).

7 The term “military first politics (선군정치)” first appeared in July 1997. For a

sovereignty of North Korea; ensuring that the KPA has priority in the allocation of scarce resources; and ensuring that Kim Jong Il takes care of the main component in his ruling coalition—the military. Prior to the war in Iraq to topple Saddam Hussein, the North Korean leadership was confident that the “single-minded unity behind the Supreme Commander Kim Jong Il” was even more powerful than nuclear weapons, and that the KPA could therefore defeat any “imperialist aggressor.”⁸

However, before the conclusion of the war in Iraq, and when the U.S. prepared to ask the UN Security Council to consider a resolution condemning Pyongyang’s withdrawal from the Nuclear Non-Proliferation Treaty (NPT), the North Korean Foreign Ministry issued a statement on 6 April 2003 that included:

Only the physical deterrent force, tremendous military deterrent force powerful enough to decisively beat back an attack supported by

brief description of the DPRK’s “military first politics,” see *T’ongil Kyongje*, 1 July 2002, pp. 28-36, in “Significance of DPRK Munitions Industry Viewed—Graphics,” FBIS Document ID: KPP20020808000110; 서주석, “북한의 산업(X): 군수 산업,” 『통일경제』, July/August 2002, pp. 28-30; Ko Yu-hwan, *Kukpang Journal* (National Defense Journal), 1 September 2001, pp. 39-43, in “DPRK’s ‘Military First’ Politics Compared With PRC ‘Prosperity’ Theory,” FBIS Document ID: KPP20010927000093; 고유환, “북한의 先軍정치와 중국의 先富論,” 『국방저널』, 1 September 2001, <http://www.dapis.go.kr/journal/journal.html>; “Rodong Sinmun on Kim Jong Il’s Election as NDC Chairman,” *Korean Central News Agency*, 9 April 2001, <http://www.kcna.co.jp>; “위대한 령장을 국방의 수위에 모신 우리 공화국은 금성철벽/로동신문 사설,” *Korean Central News Agency*, 9 April 2001, <http://www.kcna.co.jp>; 김현환, 『김정일장군 정치방식연구』(평양: 평양출판사, 2002).

8 “DPRK Ready to Punish Yankees in Singlehearted (sic) Unity More Powerful than A-Bomb,” *Korean Central News Agency*, 24 December 2002, <http://www.kcna.co.jp>; 이영중, “[북한 핵 파문] 북한 ‘더 강력한 무기’는 무엇,” 『중앙일보』, 18 October 2002, <http://www.joins.com>; Korean Central Broadcasting Station, 19 August 2002, in “DPRK Warns of ‘Fully Ready Combat Posture’; Says Ready for ‘Both War, Talks,’” FBIS Document ID: KPP20020819000083; *Korean Central Broadcasting Station*, 25 July 2002, in “DPRK Decries ‘Axis of Evil’ Remark, US Attempt To Launch ‘Preemptive Strike,’” FBIS Document ID: KPP 20020725000138; *Korean Central Broadcasting Station*, 25 June 2002, in “DPRK Urges US To Withdraw Preconditions Before Dialogue,” FBIS Document ID: KPP20020625000110; Chon Song-ho, *Rodong Sinmun*, 21 April 2002, in “DPRK Political Essay Marks Founding of Korean People’s Army,” FBIS Document ID: KPP20020426000034.

any ultra-modern weapons, can avert a war and protect the security of the country and the nation. This is a lesson drawn from the Iraqi war (emphasis added).⁹

This statement indicates that Pyongyang felt the abstract deterrent provided by the “single-hearted unity of the Korean people behind the great General Kim Jong Il” was no longer sufficient. Some analysts concluded this “physical deterrent” referred to nuclear weapons, but this is not necessarily the case. On 9 June 2003, the Korean Central News Agency issued a report that declared the DPRK was willing to deploy a nuclear deterrent force, contingent on U.S. actions.

The DPRK has no intention to have a nuclear deterrent force without any reason, quite contrary to Washington's noisy propaganda. The DPRK is willing to clear up the U.S. concern as regards the nuclear issue if it drops its hostile policy toward Pyongyang and addresses its concern. But if the U.S. keeps threatening the DPRK with nukes instead of abandoning its hostile policy toward Pyongyang, the DPRK will have no option but to build up a nuclear deterrent force.¹⁰

North Korea repeated its claim that it has a “nuclear deterrent force” when Ri Yong Ho, North Korean ambassador to the United Kingdom, told a Reuters reporter in November 2003 that Pyongyang has a “nuclear deterrent capability.” Ri refused to say this meant “nuclear weapons” and said this could mean anything, but that it is powerful enough to deter any U.S. attack against North Korea.¹¹ Many analysts concluded this amounts to a declaration that North Korea has

9 “Statement of FM Spokesman Blasts UNSC's Discussion of Korean Nuclear Issue,” *Korean Central News Agency*, 6 April 2003, <http://www.kcna.co.jp>; “조선외무성 대변인성명 조선반도핵문제를 유엔안보리에서 취급하는 자체가 전쟁전주곡,” *Korean Central News Agency*, 6 April 2003, <http://www.kcna.co.jp>.

10 “KCNA on DPRK's Nuclear Deterrent Force,” *Korean Central News Agency*, 9 June 2003, <http://www.kcna.co.jp>; “조선중앙통신 론평 우리의 핵억제력은 결코 위협수단이 아니다,” *Korean Central News Agency*, 9 June 2003, <http://www.kcna.co.jp>.

11 Katherine Baldwin, “N. Korea Envoy Says Nuclear Deterrent Ready to Use,” *Reuters*, 7 November 2003, <http://www.reuters.com>.

weaponized and deployed nuclear bombs, but Pyongyang has an incentive to exaggerate its capability if North Korean leaders believe this could deter a possible U.S. military attack.

Since governments are monopoly suppliers of security to its citizens, there is also an incentive to exaggerate external threats in order to increase rents captured through the provision of security.¹² The North Korea government could be an extreme case in the exaggeration of external threats to maintain social order and as justification for its large amount of resources allocated to the military. However, the North Korean media often cite the excerpts released from the U.S. “Nuclear Posture Review”¹³ of January 2002, President George W. Bush’s inclusion of North Korea in his “axis of evil,”¹⁴ the preventive war in Iraq and the willingness of the U.S. to execute preemptive strikes as described in “The National Security Strategy of the United States of America”¹⁵ released in September 2002, as evidences that North Korea could be the target of U.S. military strikes.

If the North Korean leadership believes the external threat to national security is increasing, then North Korea’s military capabilities must be increased to remain on the path to building a *kangsŏngdaeguk*. On the other hand, if external threats are static or in decline, then more resources can be allocated to economic recovery and development. But since economic recovery is necessary for North Korean security, many American advocates of North Korean “regime change” believe the Korean Workers Party will collapse if the economy is sufficiently squeezed from the outside.

12 David A. Lake, “Powerful Pacifists: Democratic States and War,” *American Political Science Review*, 86 (March 1992), pp. 24-37.

13 U.S. Department of Defense, “Nuclear Posture Review [Excerpts],” 8 January 2002, <http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm>;

14 George W. Bush, “The President’s State of the Union Address,” 29 January 2002, <http://www.whitehouse.gov>.

15 “The National Security Strategy of the United States of America,” September 2002, <http://www.whitehouse.gov/nsc/nss.html>.

III. Bargaining Problems since the Collapse of the Agreed Framework

Since the Agreed Framework began to unravel in the fall of 2002, the U.S. and the DPRK have been engaged in an implicit and explicit bargaining process where both sides have been sending and interpreting signals about their intentions, resolve and capabilities. This signaling game has consequences, including the possibility of bargaining failure, which would be costly for both sides. For the U.S., the failure would mean a North Korean breakout from the constraints on its nuclear program. And for North Korea, the costs of failure could also be severe. The US would implement an “isolation and containment” strategy that could include the interdiction of shipping under the Proliferation Security Initiative (PSI) or even pre-emptive military action.

In principle, a bargain should be available that would satisfy the interests of both Washington and Pyongyang, as well others in the region. However, negotiations do break down despite the costs of bargaining failure, and agreements that would enhance the security of both parties sometimes fail to be completed or implemented. First, countries may be unable to reach agreement because of imperfect information about intentions, resolve and capabilities. Second, credible commitment problems may make it difficult or impossible to implement satisfactory agreements.

In the course of strategic bargaining, states have an incentive to misrepresent their intentions to reshape the bargaining space and extract a better deal. A bargainer might signal excessively benign intent with the hope of influencing the recipient’s view of his intentions. This could lead to an expanded bargaining space and the recipient being “suckered” into a worse deal. However, the sender’s credibility is undermined if his true intentions are revealed. States also have an incentive to exaggerate their intentions by issuing threats, with

the objective of causing the recipient to back down and thus obtain a better bargain. However, threats can elicit a hostile response, and threats can undermine credibility if they are not credible.

Incentives and Consequences in Strategic Bargaining

	Incentives to Misrepresent	Possible Unintended Consequences
Signaling basic intentions		
Signaling benign intent	To expand bargaining space by “suckering” adversary.	Undermines credibility if true intentions are revealed.
Threats	To worsen the fall back position of adversary if they fail to back down.	Elicits hostile response. Undermines credibility if threat is not believable.
Signaling resolve		
Showing the willingness to walk away from negotiations or fight	To deter adversary. To extract bargaining concessions.	Target interprets signal as evidence of hostile intent. Increases resolve of adversary. Strengthens “hardliners” in adversary. Undermines credibility if signal is not believable. Creates direct risks of war, for example, by inviting preemption.
Misrepresenting capabilities		
Exaggerating capabilities	To deter adversary. To extract bargaining concessions.	Undermines credibility if detected.
Concealing capabilities	To conceal aggressive intent. To reduce risks of challenge.	Reveals hostile intent if detected. Elicits hostile response.

Establishing a steadfast resolve is important in extracting a better deal, but misrepresenting resolve can shrink the bargaining space and even eliminate the possibility of a settlement. Signaling resolve can also have unintended consequences while the recipient is continually

updating his assessment of the potential adversary. Even though the signaling party might only intend to establish resolve, the recipient can interpret the signal as evidence of hostile intent and then respond with greater resolve of his own. The sender also runs of the risk of diminished credibility if the signal is unbelievable.

Misrepresenting capabilities is usually a greater issue when states are seeking to conceal hostile intent and gain an advantage over adversaries. However, there are also incentives to exaggerate capabilities, particularly for weaker or insecure parties. States might exaggerate their capabilities with the objective of deterring an adversary or extracting concessions. However, if the exaggeration is revealed, it could undermine the sender's credibility. In the North Korean case, the DPRK Foreign Ministry and its diplomats could have been exaggerating the country's capabilities when they declared in April 2003 that the reprocessing of spent fuel rods was in the "final stages," even though intelligence did not corroborate the statements.¹⁶ The exaggeration could have been issued to deter a preemptive strike against the Yŏngbyŏn nuclear complex. On 6 November 2003, Ri Yong Ho, the DPRK ambassador to the United Kingdom, could have also been exaggerating North Korea's nuclear capability when he told a reporter, "What we are saying is, a nuclear deterrent capability...When we say deterrent, it can be anything, but the effect is that the U.S. side will have to be very careful if they are to attack us... (it is) powerful enough to deter any U.S. attack."

Signaling and information problems will likely restructure the bargaining space as the U.S. seeks a diplomatic solution to the North Korean nuclear problem. But even if a satisfactory deal is available, it could be impossible to implement because of credible commitment problems. Authoritarian states are plagued by commitment problems because dictators can more easily renege on commitments *ex post*. The DPRK's commitment problem is especially problematic because

¹⁶ See "Factsheet on North Korean Nuclear Reprocessing Statement," Center for Nonproliferation Studies, 23 April 2003, <http://cns.miis.edu/research/korea/repro.htm>.

Pyongyang has violated several arms control agreements in the past. Furthermore, North Korea believes the U.S. has credible commitment problems, and Pyongyang will not sign an agreement unless the leadership believes Washington will fulfill its responsibilities under the agreement. Therefore, Washington should be prepared to satisfy Pyongyang's concerns over U.S. credibility if it can do so in relatively costless ways.

IV. The North Korean Economy and Linkages to Security

Many analysts believe that North Korean economic recovery provides Pyongyang with the means to expand its WMD development programs. However, recent North Korean economic reforms could be an opportunity to link the DPRK economy to the outside world and make it very costly, and not in the leadership's interest, to reverse the abandonment and dismantlement of the nuclear program.

North Korean efforts to reform its economy are not new, but the reform measures of July 2002 are focused on the microeconomic level. In the early 1970s, North Korea expanded trade and used debt financing to modernize its factories, but balance of payments problems forced Pyongyang to default on its loans.¹⁷ North Korea also passed a joint venture law in 1984, but subsequent direct foreign investment was insignificant. However, by the late 1990s, the economic contraction and declining state capacity to manage resource allocation meant more extensive policy measures, namely liberalization, were required.

There is evidence that members of the North Korean leadership, including Kim Jong Il, have been dissatisfied with the economy for several years. For example, in a secret tape recording of a conversation between Kim Jong Il and Shin Sang Ok in 1983, Kim criticized the

¹⁷ Most of these loans had been received from Western Europe. See Gregory F. T. Winn, "Sohak: North Korea's Joint Venture with Western Europe," Chapter 12 in Jae Kyu Park, Byung Chul Koh and Tae-Hwan Kwak, *The Foreign Relations of North Korea* (Seoul: Kyungnam University Press, 1987), pp. 299-300.

system of compensation in the socialist economy as destroying incentives to work. Kim acknowledged that North Korea had to open up to the West to resolve its food supply problem and that there were benefits to opening but he was concerned about security issues.¹⁸

In 1998, Kim Jong Il approved plans for the economic reforms that were implemented in July 2002, but Kim Jong Il was hesitant to open the economy in the wake of the 1997~1998 East Asian financial crisis. In preparation for the reforms, North Korea sent people abroad for training in market economics, and in early 2002, officials were sent throughout the country to instruct factory managers on the new system of economic governance. The economic reforms included the lifting of price ceilings on certain commodities including rice, and an adjustment of the exchange rate to more accurately reflect the value of the North Korean Won. The large devaluation of the currency indicates that North Korea is probably seeking to open its economy and increase exports to earn foreign exchange. Furthermore, the authority to set prices has been delegated to firms, and productivity is supposed to be reflected in wages and compensation.¹⁹

Critics argue that the reforms have failed,²⁰ and that any economic

18 Cho Kap Che, Wolgan Chosun, October 1995, pp. 104-128, in "Transcript of Kim Chong-il 'Secret' Tape Viewed," *FBIS* Document ID: FTS19951001000017.

19 See 최척호, "北, 주요 산업체에 '경제지도원' 수백명 파견," *Yonhap News Agency*, 25 July 2002, <http://www.yonhapnews.co.kr>; Don Kirk, "North Korean Ending Rationing, Diplomats Report," *New York Times*, 20 July 2002, <http://www.nytimes.com>; 강철환 및 김미영, "북 세급제 28년만에 부활," 「조선일보」, 25 July 2002, <http://nk.chosun.com>; Kang Chol-hwan, "North Korea Undergoing Economic Reform," *Chosun Ilbo*, 25 July 2002, <http://english.chosun.com>; Brent Choi, "N.K. Enforces Reform in Payrolls, Consumer Price," *Joongang Ilbo*, 12 July 2002, <http://english.joins.com>; You Kwang-jong, "North Korea Abolishes Food Rationing System," *Joongang Ilbo*, 19 July 2002, <http://english.joins.com>; 유광중, "북한, 식량 배급제 공식폐지" 「중앙일보」, 19 July 2002, in KINDS, <http://www.kinds.or.kr>; 유광중, "북한, 달러 환율 대폭 현실화," 「중앙일보」, 24 July 2002, in KINDS, <http://www.kinds.or.kr>.

20 John Pomfret, "Reforms Turn Disastrous for North Koreans; Nuclear Crisis May Have Roots in Economic Failure," *Washington Post*, 27 January 2003, p. A1, in Lexis-Nexis, <http://web.lexis-nexis.com>. A recent traveler to Pyongyang has described the city as suffering from inflation, energy shortages for heating, and a shortage of consumer goods. See 신지호, "북한에 가져온 변화는 인플레이와 가중된 생활고뿐," 「월간조선」, April 2003, <http://monthly.chosun.com>.

recovery or growth will only result in North Korea allocating more resources to the development of WMD and ballistic missiles. However, Pyongyang is looking to Seoul, Tokyo and Washington as important keys to its economic recovery. North Korea acknowledges that foreign technology, foreign direct investment, and access to foreign markets are necessary for economic recovery. While the DPRK overestimates external sources of the country's economic woes, most North Koreans probably resent the U.S. for maintaining economic sanctions. The North Korean media frequently describe Washington's refusal to completely lift sanctions and remove Pyongyang from the State Department's terrorism list as evidence of a policy to "strangle the DPRK."

The unilateral lifting of sanctions or the simple provision of an economic aid package in exchange for North Korea abandoning its nuclear program would amount to "blackmail," as many critics have emphasized. Instead, a much more intrusive program—analogue to IMF conditionality—should be provided in a way that is not threatening to Pyongyang, but at the same time changes economic governance in a way that would make it very costly for the DPRK to renege on future nonproliferation commitments. If economic incentives are part of any negotiated settlement to end North Korea's nuclear program, it must be structured and promoted as a binding mechanism to address Pyongyang's commitment problem, otherwise, the U.S. domestic political audience will likely view it as "blackmail" or "appeasement."

V. Impact on International Nonproliferation Regimes if Bargaining Fails

There is widespread speculation about the impact of a nuclear North Korea on the nuclear nonproliferation regime if the Six-Party Talks fail to resolve the North Korean nuclear crisis. There are fears that a nuclear North Korea could trigger a nuclear arms race in East

Asia, which could mean the end of the nuclear nonproliferation regime. While countries in the region and the United States address the North Korean nuclear problem directly, the nuclear nonproliferation regime and other concerned countries are likely to respond to the shock of a nuclear North Korea.

The Nuclear Nonproliferation Treaty (NPT) was designed to reduce transactions costs in state efforts to avoid the security dilemma and nuclear arms races. Critics argue that the regime has failed to deal effectively with determined proliferators such as North Korea. Pyongyang signed the NPT in December 1985, but failed to conclude a safeguards agreement with the International Atomic Energy Agency (IAEA) within the allocated eighteen months time. When North Korea finally ratified its IAEA safeguards agreement in April 1992, Pyongyang's initial declaration of its nuclear facilities and materials contained discrepancies that indicate North Korea almost certainly reprocessed and diverted fissile material for military use.²¹ The Agreed Framework was designed to address the discrepancies and enable North Korea to come into full compliance with its IAEA safeguards commitments, but the agreement collapsed in the fall of 2002. North Korea declared its withdrawal from the NPT in January 2003, but Pyongyang had been in gross violation of its commitments for years.

If diplomacy fails to bring North Korea back into the NPT as a good standing member, we should expect it to impact the nuclear nonproliferation regime in the following areas: membership rules; monitoring and verification; and centralization of authority.²² Since signatories of the NPT should be more sensitive about members defecting from the regime, the IAEA will likely require more stringent membership rules for signatories to remain in good standing,

21 For a description of the discrepancies in North Korea's initial declaration, see David Albright and Kevin O'Neill, editors, *Solving the North Korean Nuclear Puzzle* (Washington, D.C.: The Institute for Science and International Security, 2000).

22 Much of this argument is based upon Barbara Koremenos, Charles Lipson, and Duncan Snidal, "The Rational Design of International Institutions," *International Organization*, Vol. 55, No. 4(Autumn 2001), pp. 761-799.

particularly for nontransparent states suspected of embracing nuclear ambitions. The IAEA has already moved in this direction with the drafting of the additional protocol (INFCIRC/540) to the safeguards agreements between states and the agency in September 1997.²³

In the case of monitoring and verification, members of the NPT should expect higher standards in the area of monitoring and verification. States will likely be expected to be more transparent and more forthcoming in their nuclear activities, and states will expect the IAEA to develop new technologies or methods to verify compliance. The problem with monitoring and verification is that monitoring is costly, and NPT members must address collective action problems for the provision of this public good. Signatories must share the costs of monitoring and verification, as well as the costs of developing new monitoring technologies, but states have an incentive to shirk and pass the costs onto other states.

Since states have an incentive to shirk in the area of monitoring and verification, it's possible that we could see a greater centralization of authority in the IAEA. Larger groups have greater difficulties in addressing collective action problems, which encourages delegation of authority to smaller groups.²⁴ However, there is a second collective action problem that arises in the area of monitoring and verification: sanctioning violators. Even if authority is centralized in the IAEA, the regime has no authority to punish violators. Punishing defectors is particularly costly in the realm of nuclear weapons, and the regime is ambiguous in this area; violations trigger a report to the United Nations Security Council, and delegation to the Council for action.

The nuclear nonproliferation regime's failure or perceived failure to deal adequately with defectors could cause some states to seek

23 See INFCIRC/540, "Model Protocol Additional to the Agreement(s) between States(s) and the International Atomic Energy Agency for the Application of Safeguards," International Atomic Energy Agency, September 1997, <http://www.iaea.org>.

24 The classic work on this topic is Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (Cambridge, Mass.: Harvard University Press, 1965)

redress elsewhere, which could ultimately damage the regime. The United States already appears to be moving in this direction to address the North Korean case by forming the Proliferation Security Initiative (PSI) in mid 2003.²⁵ If the PSI or other coercive measures taken by “coalitions of the willing” successfully address the problem of North Korea’s defection from nuclear nonproliferation regime, we could see a shifting of authority to these ad hoc coalitions and a concomitant weakening of the regime. On the other hand, if North Korea breaks out from the regime with impunity and becomes a medium-sized nuclear weapons state, the regime will also be weakened because the signal to other states will be clear: nuclear weapons offer security benefits with little or no associated costs. The result could be a world where the security dilemma brings nuclear arms races and states worse off than if they had abided by their nuclear nonproliferation commitments.

²⁵ “Remarks by the President to the People of Poland,” Office of the Press Secretary, 31 May 2003, <http://www.whitehouse.gov/news/releases/2003/05/20030531-3.html>; Elisabeth Bumiller, “The President in Europe: Alliance; Praising Alliance, Bush Asks Europe to Work with U.S.,” *New York Times*, 1 June 2003, p.1, in Lexis-Nexis, <http://www.lexis-nexis.com>.