

# **Leveraging Towards Restraint**

## **Nuclear Hedging and North Korea's Shifting Reference Points during the Agreed Framework and the Six-Party Talks**

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### **ABSTRACT**

The emergence of new nuclear aspirants has posed a great threat to the post-Cold War global non-proliferation regime. These states have adopted a nuclear hedging strategy that has been deemed both strategically risky and politically difficult to maintain. Yet, hedging has not automatically resulted in nuclearization. We analyze the conditions under which a nuclear hedger shifts its nuclear policy towards nuclear restraint. Drawing insights from prospect theory, we argue that a nuclear policy shift occurs when a nuclear hedger gains an asymmetric leverage vis-à-vis its adversary. That is, a hedging strategy that is based on loss aversion will only be abandoned when shifts in the nuclear aspirant's reference point occurs during the course of negotiations. To test our theoretical arguments, we conduct an in-depth case study of North Korea's nuclear policies throughout the 1990s and 2000s. The empirical study on the changes in North Korea's negotiating stance during the Agreed Framework negotiations and the Six-Party Talks supports our asymmetric leverage thesis developed in the paper. We conclude with broad policy implications for the non-proliferation regime.

**KEYWORDS** nuclear hedging; nuclear restraint; asymmetric leverage; Agreed Framework; Six-Party Talks; North Korea

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## Introduction

Nuclear proliferation is a path fraught with various costs and political risks. Not only do most nuclear aspirants fail to attain nuclear weapons but many have paid the price of prohibitive sanctions or ran the risk of an arms race during their pursuit.<sup>1</sup> To alleviate these costs, several aspirants have turned to nuclear hedging, a strategy of maintaining nuclear latency and using that technical means for political ends. Yet, despite the availability of material and the signaling of intent, hedgers do not always completely nuclearize as some eventually chose a course of nuclear restraint.<sup>2</sup> Theoretical discussions and conceptual articulation on this link between the nuclear hedging strategy and restraining behavior in the broader framework of nuclear reversals (or rollbacks) have only recently started to garner interest,<sup>3</sup> but it is important given that nuclear hedging is likely to be a more common threat to the non-proliferation regime in the future.<sup>4</sup>

At the heart of post-Cold War threats to the non-proliferation regime is North Korea, a nuclear aspirant that has unambiguously adopted a hedging strategy over the past two

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<sup>1</sup> Nuclear aspirants, broadly, are states that have ‘considered, developed, abandoned, or acquired nuclear weapons programs’, especially after the establishment of the Nonproliferation Treaty (NPT). Etel Solingen, *Nuclear Logics: Contrasting Paths in East Asia and the Middle East* (Princeton: Princeton University Press, 2007), p. 3. On the cases and costs of proliferation, see Thomas Juneau and Sam Razavi, ‘Costly Gains: A Cost-Benefit Assessment of Iran’s Nuclear Program’, *The Nonproliferation Review*, 25:1-2 (2018), pp. 69-86; Robert Jervis, *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon* (Ithaca: Cornell University Press, 1989), p. 3; Nicholas L. Miller, ‘The Secret Success of Nonproliferation Sanctions’, *International Organization*, 68:4 (2014), pp. 913-44; Vipin Narang, ‘Strategies of Nuclear Proliferation: How States Pursue the Bomb’, *International Security*, 41:3 (2016/17), p. 120; and Ariel E. Levite, ‘Never Say Never Again: Nuclear Reversal Revisited’, *International Security*, 27:3 (2002/03), p. 62.

<sup>2</sup> Some examples from the Cold War period include Taiwan and South Korea. While neither completely dismantled their facilities to the point that it is impossible to weaponize their programs today, both rolled back their capabilities under US pressure in the 1970s and 80s. See Rebecca K. C. Hersman and Robert Peters, ‘Nuclear U-Turns’, *The Nonproliferation Review*, 13:3 (2006), pp. 546-9.

<sup>3</sup> For a review of works criticizing the tendency to study nuclear proliferation and nonproliferation as separate issues, see Tristan A. Volpe, ‘Atomic Leverage: Compellence with Nuclear Latency’, *Security Studies*, 26:3 (2017), p. 519.

<sup>4</sup> Ches Thurber, ‘A Step Short of the Bomb: Explaining the Strategy of Nuclear Hedging’, *Journal of Public and International Affairs* 2 (2011), p. 46; and Robert J. Einhorn, ‘Identifying Nuclear Aspirants and their Pathways to the Bomb’, *The Nonproliferation Review*, 13:3 (2006), pp. 496-7.

decades.<sup>5</sup> Even as the latest rounds of Trump-Kim negotiations proceed, experts continue to observe construction or ‘other maintenance related activity’ at key nuclear facilities,<sup>6</sup> and over the past year, North Korea ‘may [even] have produced enough... to add as many as seven nuclear weapons to its arsenal’.<sup>7</sup> The latest iteration of the US-DPRK (Democratic People’s Republic of Korea) negotiations to deal with the North Korean nuclear threat has been roundly criticized within the scholarly and policy circles.<sup>8</sup> Pessimists argue that recent negotiations achieved too little while conceding more to Pyongyang than in previous negotiations, while others question the sincerity of North Korea’s diplomatic stance.<sup>9</sup> Yet, despite the increase in the number of nuclear tests and military provocations under the Kim Jong-un regime over the past few years,<sup>10</sup> North Korea has displayed considerable variation in its nuclear policy, showing an inclination to restrain its nuclear weapons program on several occasions. Such patterns of nuclear restraint have continued in the current round of US-DPRK negotiations, for instance, when Pyongyang announced a moratorium on its nuclear weapons tests and its intercontinental ballistic missile launches in the lead-up to the

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<sup>5</sup> ‘North Korea’s Weapons Programs’, *Council on Foreign Relations*, available at:

{<https://www.cfr.org/event/north-koreas-weapons-programs>}, accessed 15 April, 2019.

<sup>6</sup> Jeffrey Lewis and Dave Schmerler, ‘North Korean Missile Base at Yeongjeo-dong’, *Arms Control Wonk*, available at: {<https://www.armscontrolwonk.com/archive/1206442/north-korean-missile-base-at-yeongjeo-dong/>}, accessed 13 April, 2019; and Frank V. Pabian and Jack Liu, ‘North Korea’s Yongbyon Nuclear Scientific Research Center: Crane Seen at the Experimental Light Water Reactor’, *38 North*, available at: {<https://www.38north.org/2019/04/yongbyon040519/>}, accessed 13 April, 2019.

<sup>7</sup> David Brunnstrom, ‘North Korea May Have Made More Nuclear Bombs, but Threat Reduced: Study’, *Reuters*, available at: {<https://www.reuters.com/article/us-northkorea-usa-nuclear-study/north-korea-may-have-made-more-nuclear-bombs-but-threat-reduced-study-idUSKCN1Q10EL>}, accessed 13 April, 2019.

<sup>8</sup> For an overview, see Leon V. Sigal, ‘Breaking the News Frame of Trump’s nuclear Diplomacy’, *38 North*, available at: {<https://www.38north.org/2018/06/lsigal062118/>}, accessed 13 April, 2019.

<sup>9</sup> For example, Olivia Enos, ‘After Failed Summit in Hanoi: Where Do We Go From Here?’ *The Heritage Foundation*, available at: {<https://www.heritage.org/asia/commentary/after-failed-summit-hanoi-where-do-we-go-here>}, accessed 15 April, 2019; Dennis P. Halpin, ‘Almost a Month On, What did the Singapore Summit Achieve?’ *NK News*, available at: {<https://www.nknews.org/2018/07/almost-a-month-on-what-did-the-singapore-summit-achieve/>}, accessed 15 April, 2019; Jonathan Marcus, ‘Trump Kim Summit: What Did it Actually Achieve?’ *BBC*, available at: {<https://www.bbc.com/news/world-us-canada-44484322>}, accessed 15 April, 2019; and Daniel R. Russel, ‘A Historic Breakthrough or a Historic Blunder in Singapore?’ *Foreign Affairs*, available at: {<https://www.foreignaffairs.com/articles/north-korea/2018-06-12/historic-breakthrough-or-historic-blunder-singapore>}, accessed 15 April, 2019.

<sup>10</sup> Joshua Berlinger and Hilary Whiteman, ‘The Pledge to Halt Missile Tests Comes After a Busy Year of Launches by North Korea’, *CNN*, available at: {<https://www.cnn.com/2018/03/06/asia/north-korea-missile-tests-2017-intl/index.html>}, accessed 13 April, 2019.

Trump-Kim Summit, and dismantled ‘key facilities’ as a part of its ‘confidence building measure’ more recently.<sup>11</sup> Notwithstanding the potential expansion of its nuclear arsenal, such acts of restraint ultimately ‘markedly reduced’ Pyongyang’s threat to the US.<sup>12</sup> ‘When they ended missile testing, [weaponization capabilities] rolled backwards. So when I look at the whole spectrum,’ Siegfried Hecker points out, ‘North Korea... is less dangerous today than it was at the end of 2017, in spite of the fact that they may have made another five to seven weapons worth of nuclear material’.<sup>13</sup>

Under what conditions do nuclear hedging states adopt a policy of nuclear restraint? In this article, we examine the causes of nuclear restraint and analyze the process through which it occurs in the international system. We argue that an aspirant decides to enter the nuclear reversal pathway or, at minimum, temporarily agrees to restrain its nuclear policy due to *asymmetric leveraging*. Asymmetric occurs under two interrelated conditions: 1) when a nuclear hedger perceives its adversary shouldering relatively higher costs; and 2) when it is confident about attaining gains should a deal materialize. Drawing insights from prospect theory, we argue that asymmetric leveraging motivates restraint because of loss aversion. Specifically, a loss-averse hedger would undertake changes to its nuclear policy when its reference point changes. As such, we expect that when the adversary concedes first to meet the aspirant’s central demands, its reference point would shift from one centered on defending its nuclear program to protecting these potential gains. Following which, the

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<sup>11</sup> Justin McCurry, ‘North Korea Halts Nuclear and Missile Tests ahead of Planned Trump Summit,’ *The Guardian*, available at: {<https://www.theguardian.com/world/2018/apr/20/north-korea-suspends-nuclear-missile-tests>}, accessed 26 July, 2018; and ‘North Korea Begins Dismantling Key Facilities at the Sohae Satellite Launching Station’, *38 North*, available at: {<https://www.38north.org/2018/07/sohae072318/>}, accessed 26 July, 2018.

<sup>12</sup> Siegfried S. Hecker, ‘Why Insisting on a North Korea Nuclear Declaration Up Front is a Big Mistake’, *38 North*, available at: {<https://www.38north.org/2018/11/shecker112818/>}, accessed 13 April, 2019.

<sup>13</sup> Brunnstrom, ‘North Korea May Have Made More Nuclear Bombs, but Threat Reduced’.

aspirant then makes the explicit commitments demonstrating changes in its nuclear policy from proliferation to restraint.

Theoretically, by focusing on the policy of restraint, our asymmetric leverage argument contributes to the nuclear nonproliferation literature by analyzing the causal pathway through which aspirants may at minimum initiate the process of nuclear reversal.<sup>14</sup> While nuclear restraint may be taken as a suboptimal outcome to rollback, it may be the next best alternative available given the difficulties associated with a full reversal. From a policy perspective, our argument is somewhat counterintuitive and goes against the general diplomatic stance of the US and the approach of the international community towards rogue regimes in the post-Cold War period.<sup>15</sup> Oftentimes negotiating with nuclear aspirants has been regarded as a form of ‘appeasement’, with potential nonproliferation options criticized as ‘rewarding bad behavior’.<sup>16</sup> In contrast, we argue that the most viable way to put an aspirant on a reversal pathway is by allowing it to fulfil its core interests at the bargaining table. This applies to North Korea in the current context. As Robert Carlin succinctly notes in his 2010 testimony to the US Senate Foreign Relations Committee, North Korea will ‘abide by the core of [a thoughtfully constructed and implemented agreement]’ although ‘they are likely to game the process, exploiting ambiguities and hedging their bets’ in the process.<sup>17</sup>

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<sup>14</sup> Among others, see Scott D. Sagan, ‘Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb’, *International Security*, 21:3 (1996/1997), p. 63; Nicholas L. Miller, ‘Nuclear Dominoes: A Self-Defeating Prophecy?’ *Security Studies*, 23:1 (2014), pp. 33-73; 2014; Jacques E. C. Hymans, *The Psychology of Nuclear Proliferation: Identity, Emotions and Foreign Policy* (New York: Cambridge University Press, 2006); Solingen, *Nuclear Logics*; Maria Rost Rublee, *Nonproliferation Norms: Why States Choose Nuclear Restraint* (Athens, GA: University of Georgia Press, 2009); William Spaniel, *Bargaining over the Bomb: The Successes and Failures of Nuclear Negotiations* (New York: Cambridge University Press, 2019); and Levite, ‘Never Say Never Again’.

<sup>15</sup> Geoffrey Wiseman, ‘Introduction’, in Geoffrey Wiseman (ed.), *Isolate or Engage: Adversarial States, US Foreign Policy and Public Diplomacy* (Stanford: Stanford University Press), p. 3

<sup>16</sup> Fred Kaplan, ‘Rolling Blunder: How the Bush Administration Let North Korea Get Nukes’, *Washington Monthly*, available at: {<http://washingtonmonthly.com/magazine/may-2004/rolling-blunder-2/>}, accessed 13 July, 2018; and Robert McMahon, ‘Negotiating with Hostile States’, *Council of Foreign Relations*, available at: {<https://www.cfr.org/background/negotiating-hostile-states>}, accessed 13 July, 2018.

<sup>17</sup> United States Senate, ‘Testimony of Robert Carlin Before the Senate Foreign Relations Committee’, available at: {[https://www.foreign.senate.gov/imo/media/doc/Carlin\\_Testimony.pdf](https://www.foreign.senate.gov/imo/media/doc/Carlin_Testimony.pdf)}, accessed 12 August, 2018.

The remainder of the article is organized as follows. In the next section, we first conceptualize nuclear hedging strategy and make the case that nuclear behavior should be considered as a continuum rather than a dichotomy. We then develop and elaborate on the asymmetric leverage argument within the nuclear proliferation continuum in detail. In the following section, we test the theoretical arguments developed by conducting an in-depth case study of North Korea's nuclear policies during the 1994 Agreed Framework negotiations and the Six-Party Talks. The final section concludes with broad theoretical and policy implications for the future of non-proliferation in the post-Cold War era.

### **Nuclear Hedging and the Proliferation Continuum**

It is argued that nuclear proliferation in the post-Cold War era is more of an exception than the rule.<sup>18</sup> Yet, notwithstanding the exclusiveness of the nuclear club and the broad support for the Non-Proliferation Treaty (NPT), the history of nuclear hedging and other weaponization strategies, 26 and 21 instances respectively,<sup>19</sup> suggests that states' desire to own or at least to have the capability to develop nuclear weapons is not yet forgone.<sup>20</sup> Moreover, while not prohibited by the NPT, latent capabilities concern the non-proliferation regime because advanced nuclear technologies 'could result in strategic surprise' should states decide to go nuclear.<sup>21</sup> Still, in contrast to the scholarly attention devoted to the causes

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<sup>18</sup> Jacques E.C. Hymans, 'The Threat of Nuclear Proliferation: Perception and Reality', *Ethics & International Affairs* 27:3 (2013), pp. 281-98.

<sup>19</sup> Narang, 'Strategies of Nuclear Proliferation', p. 137. For a discussion on the challenges to and successes of the non-proliferation regime, see William C. Potter, 'The NPT & the Sources of Nuclear Restraint,' *Daedalus*, 139:1 (2010), pp. 68-81.

<sup>20</sup> T. V. Paul, *Power versus Prudence: Why Nations Forgo Nuclear Weapons* (Montreal & Kingston: McGill-Queen's University Press, 2000), p. 57; and Avner Cohen and Benjamin Frankel, 'Opaque Nuclear Proliferation', *Journal of Strategic Studies*, 13:3 (1990), pp. 14-44.

<sup>21</sup> Joseph F. Pilat, 'Report of a Workshop on Nuclear Latency', Report presented at the Woodrow Wilson International Center for Scholars, available at: {<https://www.wilsoncenter.org/sites/default/files/Report--Workshop%20on%20Nuclear%20Latency--20141002.pdf>}, accessed 3 May, 2018. For recent discussions, see Matthew Kroenig, 'Exporting the Bomb: Why States Provide Sensitive Nuclear Assistance', *American Political Science Review*, 103:1 (2009), pp. 113-33; Matthew Fuhrmann, 'Spreading Temptation: Proliferation and

of nuclear pursuit, the strategic decision undertaken by states, such as nuclear hedging, remains conceptually vague and theoretically underspecified within the proliferation literature.<sup>22</sup> We first begin by unpacking the different concepts of the proliferation continuum.

Nuclear hedging is a state strategy where an aspirant maintains ‘a viable option for the relatively rapid acquisition of nuclear weapons, based on an indigenous technical capacity’.<sup>23</sup> Depending on the aspirant’s technological state for nuclear weapons acquisition, a variety of hedging strategies exists ranging from technical to hard hedging.<sup>24</sup> Two key features underpin the strategy, one technical and the other political. The first is nuclear latency, advanced technological capabilities that are steps away from weaponizing a state’s nuclear program.<sup>25</sup> While states may possess varying levels of latency, this aspect carries threat potential because it facilitates nuclear weapons acquisition should the state choose to do so.<sup>26</sup> Furthermore, nuclear hedging strategy equally applies to states that have yet to develop the ‘technological

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Peaceful Nuclear Cooperation Agreements’, *International Security*, 34:1 (2009), pp. 7-41; and Nicholas L. Miller, ‘Why Nuclear Energy Programs Rarely Lead to Proliferation’, *International Security*, 42:2 (2017), pp. 40-77.

<sup>22</sup> According to Wyn Bowen and Matthew Moran, ‘the fact that the concept is regularly described in political and diplomatic discourse without mention of the specific term “hedging” is perhaps indicative of a certain confusion with regard to... proliferation behaviour. This vocabulary comprises a number of overlapping terms and concepts ... that are frequently used interchangeably and without discrimination.’ Wyn Bowen and Matthew Moran, ‘Iran’s Nuclear Programme: A Case in Hedging?’ *Contemporary Security Policy* 35:1 (2014), p. 27. Also, see Mark Fitzpatrick, ‘Nuclear Latency with an Attitude’, *International Institute for Strategic Studies*, available at: {<http://www.iiss.org/en/politics%20and%20strategy/blogsections/2014-d2de/october-931b/nuclear-latency-c8a6>} accessed 18 June, 2018.

<sup>23</sup> Levite, ‘Never Say Never Again’, p. 69; and Narang, ‘Strategies of Nuclear Proliferation’, pp. 117-20. Also, see Mitchell Reiss, ‘The Nuclear Tipping Point: Why States Reconsider Their Nuclear Choices’, in Kurt M. Campbell, Robert J. Einhorn and Mitchell B. Reiss (eds.), *The Nuclear Tipping Point: Why States Reconsider their Nuclear Choices* (Washington, DC: Brookings Institute Press, 2004), pp. 3-17.

<sup>24</sup> Narang, ‘Strategies of Nuclear Proliferation’, pp. 117-20.

<sup>25</sup> Matthew Fuhrmann and Benjamin Tkach, ‘Almost Nuclear: Introducing the Nuclear Latency Dataset’, *Conflict Management and Peace Science*, 32:4 (2015), pp. 443-61; Pilat, ‘Report of a Workshop on Nuclear Latency’; Rupal N. Mehta and Rachel Elizabeth Whitlark, ‘The Benefits and Burdens of Nuclear Latency’, *International Studies Quarterly*, 61:3 (2017), pp. 517-28; and Scott D. Sagan, ‘Nuclear Latency and Nuclear Proliferation’, in William C. Potter with Gaukhar Mukhatzhanova (eds), *Forecasting Nuclear Proliferation in the 21<sup>st</sup> Century: The Role of Theory* (Stanford, CA: Stanford University Press, 2010), pp. 80-101.

<sup>26</sup> Bowen and Moran, ‘Iran’s Nuclear Programme’, p. 32.

requirements... [that meet] a state's nuclear posture'.<sup>27</sup> The second relates to a state's deliberate decision to leverage the threat potential to achieve political objectives, i.e., hedging is a political strategy.<sup>28</sup> Israel and South Africa, for instance, have hedged through the opaque development of their nuclear weapons to avoid abandonment by their nuclear allies while maintaining 'an important deterrent of major psychological value'.<sup>29</sup> At the same time, they would provide assurances and threats to get the US, in particular, to remain engaged or provide materials that further advanced their nuclear research and development.

As a strategy that lies 'between nuclear pursuit and nuclear rollback', hedging is conceptually distinct from the policy of nuclear restraint.<sup>30</sup> Nuclear restraint is a policy (or an external commitment) undertaken by the aspirant that 'at least initially, falls short of nuclear rollback but nonetheless keeps it from proceeding with some prominent nuclear activities' pertaining to its nuclear posture.<sup>31</sup> Nuclear restraint can be conceptualized by the notion of a 'red line' – a policy tool 'meant to influence-usually to constraint- the actions of another actor... [and]

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<sup>27</sup> As Mark Bell points out the point of nuclear acquisition is "defined as the point at which the state acquires the technological capability to use nuclear weapons in the way the state envisages using them". Mark S. Bell, 'Beyond Emboldenment: How Acquiring Nuclear Weapon Can Change Foreign Policy', *International Security*, 40:1 (2015), p. 92; and Mark S. Bell, 'Nuclear Opportunism: A theory of how states use nuclear weapons in international politics', *Journal of Strategic Studies*, 42:1 (2019), p. 10. North Korea still does not possess the required reentry technologies for its ICBMs to strike US mainland, assuming that is its goal for developing nuclear weapons. For more on the state of North Korea's nuclear capabilities, see Hans M. Kristensen and Robert S. Norris, 'North Korean nuclear capabilities, 2018', *Bulletin of the Atomic Scientists*, 74:1 (2018), pp. 46-8.

<sup>28</sup> Levite, 'Never Say Never Again', pp. 66, 72; Bowen and Moran, 'Iran's Nuclear Programme', pp. 30-1; and Narang, 'Strategies of Nuclear Proliferation', p. 117 (fn. 20). By threat potential, we do not mean that the program is developed merely as a tool to negotiate with the great powers; in fact, few aspirants have proliferated simply to do so. See Charles L. Glaser, *Analyzing Strategic Nuclear Policy*, (Princeton: Princeton University Press, 1990), p. 347.

<sup>29</sup> Or Rabinowitz and Nicholas L. Miller, 'Keeping the Bombs in the Basement: U.S. Nonproliferation Policy toward Israel, South Africa, and Pakistan', *International Security*, 40:1 (2015), pp. 51, 68; Frank V. Pabian, 'The South African Denuclearization Exemplar: Insights for Nonproliferation Monitoring and Verification', *Nonproliferation Review*, 22:1 (2015), pp. 27-52;68, and Mitsuru Kitano, 'Opaque Nuclear Proliferation Revisited: Determinants, Dynamism, and Policy Implications', *Nonproliferation Review*, 23:4 (2016), pp. 459-79.

<sup>30</sup> Levite, 'Never Say Never Again', p. 59.

<sup>31</sup> 'Such restraint typically pertains to refraining from the construction of certain facilities; the production (of certain or all fissionable materials), testing, assembly, or deployment of weapons; or proclamations of nuclear status.' Levite, 'Never Say Never Again', p. 68.



distinguishes acceptable actions from unacceptable actions’.<sup>32</sup> In this context, a nuclear hedger would be maintaining a policy of restraint insofar as it stays within the red line that is laid down by itself or other actors as the building block for the initiations or continuation of interactions. Relating to the ongoing US-DPRK negotiations, the, one red line which US Senator Lindsey Graham identified is North Korea’s ‘testing [of] another warhead on an intercontinental ballistic missile’, which Pyongyang has not violated since 2018.<sup>33</sup>

Owing to the conceptual distinction, nuclear hedging behavior may be observed even after a state decides to shift its nuclear proliferation (or non-proliferation) policy from one to another: hedging strategy ‘may be adopted either during the process of developing a bomb or as part of the rollback process, as a way of retaining the option of restarting a weapons program that has been halted or reversed’.<sup>34</sup> That states would continue to hedge in spite of its commitment toward restraint should not be surprising since hedging can serve to limit risks or maximize bargaining leverage, or both.<sup>35</sup> Having clarified the definitions of the key concepts in this paper, we join other scholars in disaggregating the existing binary view of nuclear proliferation,<sup>36</sup> and re-conceptualize the three concepts as follows:

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<sup>32</sup> Dan Altman and Nicholas L. Miller, ‘Red Lines in Nuclear Nonproliferation’, *Nonproliferation Review*, 24:3-4 (2017), p. 317.

<sup>33</sup> John Grady, ‘Graham: Only a ‘Matter of Time’ before North Korea Crosses a Red Line’, *U.S. Naval Institute*, available at: {<https://news.usni.org/2018/01/17/graham-matter-time-north-korea-crosses-red-line>}, accessed 5 April, 2019 ; and Michael Elleman, ‘Why a Formal End to North Korean Missile Testing Makes Sense’, *38 North*, available at: {<https://www.38north.org/2019/02/melleman022619/>}, accessed 5 April, 2019.

<sup>34</sup> Following Levite, we adopt a broad definition of nuclear hedging. Levite, ‘Never Say Never Again’, p. 70.

<sup>35</sup> Nuclear reversal may be ‘fraught with political risks’ due to the need ‘to address the security, prestige, and bureaucratic appeal of a nuclear program’. Hence, nuclear reversal hardly progresses immediately towards rollback or proceeds in a smooth linear manner since states must manage domestic resistance and other risks associated with it. Levite, ‘Never Say Never Again’, pp. 67, 74-5. For more examples on how states have used hedging or the like to minimize risks or maximize leverage, see Hersman and Peters, ‘Nuclear U-Turns’, pp. 539-53; and Volpe, ‘Atomic Leverage’, pp. 517-44.

<sup>36</sup> Volpe, ‘Atomic Leverage’, p. 519; Sonali Singh and Christopher R. Way, ‘The Correlates of Nuclear Proliferation: A Quantitative Test’, *Journal of Conflict Resolution*, 48:6 (2004), pp. 865-7; Vipin Narang, *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict* (Princeton, NJ: Princeton University Press, 2014), p. 299; and Wyn Bowen, Matthew Moran and Dina Esfandiary, *Living on the Edge: Iran and the Practice of Nuclear Hedging* (London: Palgrave Macmillan, 2016).

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Existing scholarship offers two insights on why states adopt the nuclear hedging strategy. First, hedging provides aspirants with the capability to deter adversaries or compel concessions, or both. States with security concerns could hedge, for instance, to guard against the lack of assurances accorded by alternative security arrangements. In the 1970s, South Korea, for example, continued advancing its nuclear program despite acceding to US pressure to denuclearize because it could not be sure that the US would maintain its extended deterrence in the Korean peninsula.<sup>37</sup> By creating the impression that one has advanced technology, states, such as Italy, have also hedged in the 1950s in order to demand greater security protection as a condition for abandoning their indigenous nuclear weapons program.<sup>38</sup>

Secondly, nuclear aspirants have reasons to espouse rhetoric and gain buy-in from domestic constituents because popular support is often needed when undertaking huge investments like nuclear development. Domestic support for a nuclear program, however, does not necessarily imply support for a nuclear weapons program. Hence, states might be handicapped by their own rhetoric, such that while they are able to justify progress in terms of nuclear latency, they are unable to exercise the option of weaponization. In this case, hedging could become ‘the only approach that allows the regime to reconcile any potential moves towards nuclear weapons with the consensus on nuclear advancement that the broader nuclear narrative has facilitated’.<sup>39</sup>

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<sup>37</sup> Hersman and Peters, ‘Nuclear U-Turns’, pp. 541-2. Also, Gene Gerzhoy, ‘Alliance Coercion and Nuclear Restraint: How the United States Thwarted West Germany’s Nuclear Ambitions’, *International Security*, 39:4 (2015), pp. 91-129.

<sup>38</sup> Levite, ‘Never Say Never Again,’ p. 66.

<sup>39</sup> Bowen and Moran, ‘Iran’s Nuclear Programme’, pp. 37-40.

In short, motivations for adopting the hedging strategy are broadly understood to be driven either by international or domestic reasons. However, if nuclear hedging reveals, by definition, the desire to keep the re-nuclearization option open, then such states are also more likely to be particularly sensitive to losses.<sup>40</sup> Derived from prospect theory,<sup>41</sup> loss aversion describes one's tendency to 'overvalue losses relative to comparable gains'.<sup>42</sup> Centered on a given reference point, loss aversion implies that the value function in the loss domain tends to be steeper than the gain side for a given state.<sup>43</sup> A loss-averse state would rather retain something it owns than to give it up for something new, even if the latter is of the same value ("endowment effect").<sup>44</sup> As such, reaching a negotiated settlement 'is more difficult than expected-utility predicts because people overweight what they concede in bargaining relative to what they get in return'.<sup>45</sup> Moreover, loss-averse behavior may persist with changes in the initial reference point if unrealized expectations are regarded as losses.<sup>46</sup>

Such inclination towards maintaining one's possession becomes even more pronounced when the costs of the nuclear hedging strategy are considered ("sunk cost fallacy"). States

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<sup>40</sup> Given that we adopt a broad definition of hedging, we acknowledge that there are other causal pathways to nuclear restraint. We identify a key causal pathway that is in accordance to loss aversion.

<sup>41</sup> On prospect theory, see Daniel Kahneman and Amos Tversky, 'Choices, Values and Frames', *American Psychologist*, 39:4 (1984), pp. 341-50; and Jonathan Mercer, 'Prospect Theory and Political Science', *Annual Review of Political Science*, 8 (2005), pp. 1-12. On some recent application of prospect theory to international relations, see Rose McDermott, *Risk-Taking in International Politics: Prospect Theory in American Foreign Policy* (Ann Arbor: University of Michigan Press, 1998); David A. Welch, *Painful Choices: A Theory of Foreign Policy Change* (Princeton: Princeton University Press, 2005), chapters 2-3; Jeffrey D. Berejikian and Bryan R. Early, 'Loss Aversion and Foreign Policy Resolve', *Political Psychology*, 34:5 (2013), pp. 649-71; and Jeffrey W. Taliaferro, *Balancing Risks: Great Power Intervention in the Periphery* (Ithaca: Cornell University Press, 2004).

<sup>42</sup> Jack S. Levy, 'Prospect Theory, Rational Choice, and International Relations', *International Studies Quarterly*, 41:1 (1997), p. 89; and McDermott, *Risk-Taking in International Politics*, pp. 27-9.

<sup>43</sup> Jack S. Levy, 'Applications of Prospect Theory to Political Science', *Synthese*, 135:2 (2003), p. 235.

<sup>44</sup> Jack S. Levy, 'Loss Aversion, Framing Effects, and International Conflict: Perspectives from Prospect Theory', in Manus I. Midlarsky (ed.), *Handbook of War Studies II* (Ann Arbor: University of Michigan Press, 2000), p. 195.

<sup>45</sup> Jack S. Levy, 'Psychology and Foreign Policy Decision-Making', in Leonie Huddy, David Sears, and Jack Levy (eds.), *The Oxford Handbook of Political Psychology*, 2nd ed. (Oxford: Oxford University Press, 2013), pp. 315-6.

<sup>46</sup> Berejikian and Early, 'Loss Aversion and Foreign Policy Resolve', pp. 650-3.

developing nuclear weapon capabilities may account for inadvertent nuclear accidents or wars, potential regional nuclear arms racing, and political and technological costs imposed by the strengthening of the nuclear nonproliferation regime and the international community.<sup>47</sup> As such, loss-averse states engaging in nuclear hedging should have had undergone substantial ‘duress’ in the process, which would cause policy changes to make little logical sense and commitments to reversal even more difficult.<sup>48</sup> Yet, Iran’s recent agreement to the Joint Comprehensive Plan of Action (JCPOA) and North Korea’s brief abidance by the 1994 Agreed Framework demonstrate that policy shift towards restraint is possible even in the hardest cases of nuclear hedging. To resolve this puzzle, we propose a set of conditions which we term as *asymmetric leveraging* to explain the otherwise inconsistent shift in nuclear policy by nuclear hedgers.

### **Asymmetric Leverage and Nuclear Restraint**

A leverage in a bargain is conceptually identified by its relative costs: ‘the more it costs Party B not to have an agreement with Party A, the more leverage Party A has’.<sup>49</sup> Given that we do not expect a nuclear hedger to be easily enticed by inducements, we expect it would take more for a hedger to eventually accept an agreement. Nuclear restraint due to asymmetric leveraging thus occurs under two interrelated conditions: 1) when a nuclear hedger perceives its adversary’s cost to exceed its own; and 2) is confident about attaining gains should it cooperate toward their materialization. Once the reference point has shifted towards these potential gains and the nuclear hedger again operates in a realm of loss, what underpins the two conditions is loss aversion. A change in nuclear policy is therefore encouraged as a loss-

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<sup>47</sup> Doyle and Engstrom, ‘The Utility of Nuclear Weapons’, pp. 41, 43, 47.

<sup>48</sup> Narang, ‘Strategies of Nuclear Proliferation’, p. 113.

<sup>49</sup> Roger Volkema, *Leverage: How to Get It and How to Keep It in Any Negotiation* (New York: Amacom, 2006), p. 3.

averse nuclear hedger shifts its reference point from defending its nuclear weapons program to preserving the potential gains of a successful deal.<sup>50</sup>

We begin by elaborating the first condition. If nuclear hedging most often occur when states undergo duress,<sup>51</sup> the risks of committing to and making concessions would expectedly be high.<sup>52</sup> Given the stakes, the adversary must therefore first incur costs signaling its commitment (or ‘irrevocable commitment’) towards a successful negotiation for the aspirant’s reference point to begin shifting away from deterrence.<sup>53</sup> ‘Disarming gestures’ like the respectful exchanges between Donald Trump and Kim Jong-un communicate a change on the adversary’s part, which could soften, to some degree, the aspirant’s insistence on holding on to its initial reference point.<sup>54</sup>

However, as mentioned, loss-averse nuclear hedgers should not be expected to shift reference points easily. Hence, following preliminary shifts in its adversary’s posture, we would expect the aspirant to evaluate the magnitude of change in its adversary’s position which, in the context of negotiations, refers to the assessment of its willingness to also meet the hedger’s central demands. Leverage in this sense becomes asymmetric because the adversary (often a more powerful state that has the means and interest to counter nuclear proliferation) is

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<sup>50</sup> This inference is consistent with Amos Tversky and Daniel Kahneman’s assertion that ‘[b]ecause a shift of reference can turn gains into losses and vice versa, it can give rise to reversals of preference’. Amos Tversky and Daniel Kahneman, ‘Loss Aversion in Riskless Choice: A Reference-Dependent Model,’ *The Quarterly Journal of Economics*, 106: 4 (1991), p. 1047.

<sup>51</sup> Narang, ‘Strategies of Nuclear Proliferation’, pp. 113-6.

<sup>52</sup> We do not claim to be able to accurately identify a state’s reference point in this paper. Rather, we examine how it is adjusted through changes in preferences for action. Levy, ‘Applications of Prospect Theory to Political Science’, p. 216; Robert Jervis, ‘Political Implications of Loss Aversion’, *Political Psychology*, 13:2 (2002/03), p. 196; and Evelyn Stommel, *Reference-Dependent Preferences: A Theoretical and Experimental Investigation of Individual Reference Point Formation*, (Essen, Germany: Springer Gabler, 2013), p. 97.

<sup>53</sup> Irrevocable commitment is a strategy intended ‘to reassure... adversaries of [a country’s] benign intentions and to create incentives for negotiations’. Richard Ned Lebow and Janice Gross Stein, ‘Beyond Deterrence’, *Journal of Social Issues*, 43:4 (1987), p. 47.

<sup>54</sup> Sigal, ‘Breaking the News Frame of Trump’s nuclear Diplomacy’.

regarded as having less bargaining power than the weaker aspirant. Once these demands are agreed to and the reference point shifts, the aspirant would then work towards maintaining this newly gained leverage and the attainment of demands even if it meant freezing its own nuclear deterrent capabilities.<sup>55</sup> The impression that the Trump-Kim summits serve ‘as a “victory” for North Korea’ and the extent to which the summits led Kim Jong-un to expect an ‘exchange skewed largely in his regime’s favor’ exemplify precisely this apparent asymmetry.<sup>56</sup>

When asymmetric leverage holds, we should also *not* expect to see maximalist demands from the aspirant. Contrary to tendencies for negotiators to make ‘extreme demands’ at the bargaining table,<sup>57</sup> a loss-averse nuclear hedger would rather cooperate to defend its newly acquired leverage and its associated potential gains. Hence, demands should remain within the range it has been consistently claiming, reflecting perhaps its core interests or more urgent needs. Insofar as the adversary shows willingness to negotiate around the range, the aspirant should then yield on points considered to be secondary – including, in this case, potential advancements of its nuclear weapons program. Lastly, when negotiations or the outcome fall short of the aspirant’s demands, perceptions of loss are reconfirmed, and the aspirant should reinitiate nuclear development in a bid to ‘break even’.<sup>58</sup>

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<sup>55</sup> Our arguments on the conditions of asymmetric leverage places greater emphasis on the policy changes that stem from shifts in reference point rather than changes in domains. For example, Kai He and Huiyun Feng, *Prospect Theory and Foreign Policy Analysis in the Asia Pacific: Rational Leaders and Risky Behavior* (New York: Routledge, 2013); and Victor D. Cha, ‘Hawk Engagement and Preventive Defense on the Korean Peninsula’, *International Security*, 27:1 (2002), pp. 40-78.

<sup>56</sup> Sigal, ‘Breaking the News Frame of Trump’s nuclear Diplomacy’; Soo Kim, ‘The Hanoi Summit – We Asked Soo Kim What Happens Next in U.S.-North Korea Relations’, *The National Interest*, available at: <https://nationalinterest.org/blog/korea-watch/hanoi-summit-%E2%80%93-we-asked-soo-kim-what-happens-next-us-north-korea-relations-47282>}, accessed 13 April, 2019.

<sup>57</sup> For instance, see Jeff Weiss, Aram Donigian and Jonathan Hughes, ‘Extreme Negotiations,’ *Harvard Business Review*, available at: <https://hbr.org/2010/11/extreme-negotiations>}, accessed 11 August, 2018.

<sup>58</sup> ‘Anything below this target is regarded as a loss and triggers risk-seeking behavior’, thus, individuals are willing to sink in greater costs in order to make up for the gap with the new reference point. David Hardman, *Judgment and Decision Making: Psychological Perspectives* (West Sussex, UK: John Wiley & Sons Ltd., 2009), p. 70.

In all, if the causal logic of asymmetric leveraging holds then we should observe the following. First, increase in the aspirant's bargaining leverage based upon its adversary's willingness to concede first, and the former's assessment that the latter would be willing to yield to its central demands. Having recognized the asymmetric leverage, the aspirant should largely shift its focus from defending its deterrence force towards concluding a deal and attaining its potential outcomes. Second, in the case that its central demands are formally acceded to, the aspirant should make explicit commitments demonstrating changes in its policy from proliferation to restraint. That said, because loss aversion represents a behavioral trait that accompanies a heightened sensitivity towards losses, we should also observe a quick re-initiation of proliferation activities or the lack of cooperation from the aspirant when its leverage appears to diminish in order to compensate for intermediary losses. This should not come as a surprise if the causal logic based on loss aversion is in play. That is, what is not yet acquired – a successful deal and adherence to its central demands – should not be expected to be defended as strongly as what the aspirant already owns and is putting at risk.

### **North Korean Case Studies**

To test the arguments of asymmetric leveraging presented above, we analyze the conditions under which North Korea adopted a policy of nuclear restraint in the post-Cold War era – the 1994 Agreed Framework and the Six-Party Talks. The North Korean nuclear issue is perhaps the biggest threat to the nonproliferation regime in the post-Cold War era and serves as a crucial case for our study. Unlike existing works in prospect theory that investigates the close relationship between changes in domain and risk propensity, we start with the assumption that aspirants are always in the domain of loss and primarily focus on analyzing the shifts in reference point. As such, we focus on the negotiation phase and examine the causal pathway

that led to Pyongyang's adoption of the nuclear restraining policy. We use process-tracing to infer and test the causal process while maintaining a high level of conceptual validity.<sup>59</sup> In the process, we further elaborate the antecedent variables and necessary conditions that led to the adoption of nuclear restraining behavior in the international system.<sup>60</sup> Our goal is to be 'descriptively accurate' in our case studies, 'which can in turn enrich explanatory and descriptive goals'.<sup>61</sup>

### ***US-North Korea 1994 Agreed Framework***

#### *Nuclear Hedging and the First Nuclear Crisis (1991-94)*

Washington's overall relationship with Pyongyang can broadly be summarized as one mired in hostility and isolation for the latter.<sup>62</sup> After the first US deliberations on the use of atomic bombs during the Korean War,<sup>63</sup> no other country since 'has been the target of more American [compellent] nuclear threats than North Korea'.<sup>64</sup> Even after 'engagement replaced containment of China [in the early 1970s], the DPRK remained the target of containment'.<sup>65</sup> Serious efforts to develop an indigenous program began in earnest during the Cold War period after doubts around the Soviet Union's economic and military assistance arose and

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<sup>59</sup> Alexander L. George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences* (Cambridge: MIT Press, 2005), chapters 9-10.

<sup>60</sup> Gary Goertz and Jack Levy, 'Causal Explanation, Necessary Conditions, and Case Studies', in Gary Goertz and Jack S Levy (ed), *Explaining War and Peace: Case Studies and Necessary Condition Counterfactuals* (London: Routledge, 2007), pp. 23-29.

<sup>61</sup> Rose McDermott, 'Prospect Theory in Political Science: Gains and Losses from the First Decade', *Political Psychology* 25:2 (2004), p. 292.

<sup>62</sup> Curtis H. Martin, 'Rewarding North Korea: Theoretical Perspectives on the 1994 Agreed Framework', *Journal of Peace Research*, 39:1 (2002), p. 61; Scott Snyder, 'North Korea: Engaging a Hermit Adversarial State', in Geoffrey Wiseman (ed), *Isolate or Engage: Adversarial States, US Foreign Policy and Public Diplomacy* (Stanford: Stanford University Press, 2015): pp. 85-109; and Robert Litwak, *Regime Change: U.S. Strategy through the Prism of 9/11* (Washington, DC: Woodrow Wilson Center Press, 2007), p. vii.

<sup>63</sup> Roger Dingman, 'Atomic Diplomacy During the Korean War', *International Security*, 13:3 (1988/89), pp. 50-91; and Rosemary J. Foot, 'Nuclear Coercion and the Ending of the Korean Conflict', *International Security*, 13:3 (1988/89), pp. 92-112.

<sup>64</sup> Leon V. Sigal, *Disarming Strangers: Nuclear Diplomacy with North Korea* (Princeton: Princeton University Press, 1998), 20. Also, see Jonathan D. Pollack, *No Exit: North Korea, Nuclear Weapons and International Security* (London: Routledge, 2011), p. 47.

<sup>65</sup> C. Kenneth Quinones, 'US Domestic Politics' Impact on Policy toward North Korea: A Historical Perspective,' in by Tae-Hwan Kwak and Seung-Ho Joo (eds.), *North Korea and Security Cooperation in Northeast Asia* (Surrey: Ashgate Publishing Limited, 2014), p. 94.



South Korean plans to acquire its own nuclear capabilities were uncovered.<sup>66</sup> Thus, despite limited means and materials,<sup>67</sup> North Korea pushed forth with nuclear research and development, having in operation a 5-megawatt reactor by 1986.<sup>68</sup>

When Russia and China moved towards rapprochement with South Korea in the 1990s, once reliable pillars of support furthermore ceased to exist for North Korea and ‘the balance of power ... shifted in [South Korea’s] favor’.<sup>69</sup> These events sent a ‘transformative shock’ throughout Pyongyang as the systemic shift in the geopolitical situation accentuated existing regional threats (for instance, US-ROK and US-Japan alliances) with limited time for adjustments.<sup>70</sup> At this juncture, signs of North Korea’s hedging strategy became increasingly apparent as statements expressing Pyongyang’s intent to establish a nuclear weapons program began to emerge, shortly after it agreed to sign the NPT in December 1985.<sup>71</sup>

However, following the withdrawal of American tactical nuclear weapons from the Korean peninsula in the early 1990s, the relationship between North and South Korea thawed,

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<sup>66</sup> Alexandra Y. Mansourov, ‘The Origins, Evolution, and Current Politics of the North Korean Nuclear Program’, *The Nonproliferation Review*, 2:3 (1995), p. 28. The influence of South Korea’s nuclear plans on North Korea’s decision to go nuclear, see ‘Memorandum, Hungarian Foreign Ministry’, August 26, 1975, History and Public Policy Program Digital Archive, MOL, XIX-J-1-j ENSZ, 1975, 159. doboz, V-730, 004711/1975. Obtained and translated for NKIDP by Balazs Szalontai, available at: <http://digitalarchive.wilsoncenter.org/document/111470>}, accessed 22 April, 2018.

<sup>67</sup> ‘Report on a Conversation between the Soviet Ambassador in North Korea Vasily Moskovsky and Soviet Specialists in North Korea’, October 16, 1963, History and Public Policy Program Digital Archive, AVPRF, fond 0102, opis 19, papka 97, delo 5, list 185. Obtained and translated for NKIDP by Sergey Radchenko, available at: <http://digitalarchive.wilsoncenter.org/document/110613>}, accessed 22 April, 2018.

<sup>68</sup> Jina Kim, *The North Korean Nuclear Weapons Crisis: The Nuclear Taboo Revisited?* (London: Palgrave Macmillan, 2014), p. 16.

<sup>69</sup> Quinones, ‘US Domestic Politics’ Impact on Policy toward North Korea’, p. 94.

<sup>70</sup> Zhang Xizhen and Eugene Brown, ‘Policies toward North Korea: A Time for New Thinking’, *Journal of Contemporary China*, 9:25 (2000), p. 537; Van Jackson, *Rival Reputations: Coercion and Credibility in US-North Korea Relations* (Cambridge: Cambridge University Press, 2016), pp. 142-3; Mi-yeon Hur, *The Six-Party Talks on North Korea: Dynamic Interactions among Principal States* (Singapore: Springer Nature, 2018), p. 107; and Seongji Woo, ‘Pyongyang and the World: North Korean Perspectives on International Relations under Kim Jong-il’, *Pacific Focus*, 26:2 (2011), pp. 194-6.

<sup>71</sup> For instance, “On April 6, 1994, the DPRK Ambassador to India Cha Song-ju reportedly stated, “Our nuclear arms, if developed, would be primarily designed to contain Japan.” Mansourov, ‘The Origins, Evolution, and Current Politics of the North Korean Nuclear Program’, p. 30; and Andrew Mack, ‘The Nuclear Crisis on the Korean Peninsula’, *Asian Survey*, 33:4 (1993), p. 346.

manifesting in the Joint Declaration on the Denuclearization of the Korean Peninsula.<sup>72</sup> This willingness to negotiate denuclearization for diplomatic normalization with the US and its regional allies has continuously served as Pyongyang's basic foreign policy line. In fact, normalization of relations, an end to US nuclear threats, and a peace treaty to officially end the Korean War remain North Korea's fundamental demands since the 1970s.<sup>73</sup> Yet Pyongyang's demands have often been disregarded: '[s]enior officials in the [George] Bush and the [Bill] Clinton Administrations were themselves skeptical that diplomacy could succeed. Given the doubt and hostility in Congress and in the foreign policy establishment, both administrations were loath to try'.<sup>74</sup>

The final straw leading to the first nuclear crisis, however, was the IAEA demand for 'special inspections' in the light of discrepancy between its analysis of North Korea's nuclear development and that declared by Pyongyang.<sup>75</sup> Against the backdrop of the resumed joint US-ROK (Republic of Korea) military exercise, *Team Spirit*, and Pyongyang's perception that the IAEA was being unfair, North Korea undertook an even harder stance on self-defense. Eventually, Pyongyang 'declared its intention to withdraw from the NPT', which finally prompted the international community, and especially the US, to engage with it formally in 'high-level talks'.<sup>76</sup> Nevertheless, even as withdrawal discussions were taking

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<sup>72</sup> Sigal, *Disarming Strangers*, pp. 25-32.

<sup>73</sup> In his 1972 interview with the *New York Times*, Premier Kim Il-sung stated DPRK's policy toward the US as follows: "If the United States Government stops its unfriendly attitude toward us and stops obstructing the unification of our country, then there is no reason why we should have hostile attitudes toward the United States... We demand such things – mail, visits and trade." 'Excerpts From Interview With North Korean Premier on Policy Toward the U.S.', *New York Times*, available at: <http://www.nytimes.com/1972/05/31/archives/excerpts-from-interview-with-north-korean-premier-on-policy-toward.html>}, accessed 4 December, 2017. Also, see Leon V. Sigal, 'Bad History', *38 North*, available at: <http://www.38north.org/2017/08/lsigal082217/>}, accessed 22 September, 2017; Pollack, *No Exit*, pp. 117, 125; Hyung-min Joo, 'Deciphering What Pyongyang Wants', *Problems of Post-Communism*, 61:4 (2014), p. 26; Sigal, *Disarming Strangers*, pp. 38-42; and Kim, *The North Korean Nuclear Weapons Crisis*, pp. 65-7.

<sup>74</sup> Sigal, *Disarming Strangers*, p. 14.

<sup>75</sup> Kim, *The North Korean Nuclear Weapons Crisis*, pp. 24-6.

<sup>76</sup> Michael J. Mazaar, 'Going Just a Little Nuclear: Nonproliferation Lessons from North Korea', *International Security*, 20:2 (1995), p. 95.

place, DPRK made sure *not* to exceed the threshold towards nuclear weaponization.<sup>77</sup>

Evidently, Pyongyang was adopting a hedging strategy in order to mitigate its position of disadvantage and provide itself with abilities to defend its interests, which were so often dismissed by the broader community.

### *Asymmetric Leveraging and the 1994 Agreed Framework*

The high-level talks culminated in the US-DPRK Joint Statement, which was regarded by Pyongyang as a ‘historic’ agreement. The US ‘promised not to use force (including nuclear weapons) against North Korea, to respect its sovereignty, and not to interfere in its internal affairs’.<sup>78</sup> For Pyongyang, the apparent move toward normalization was deemed such an achievement that despite its initial unwillingness to discuss the suspension of its NPT withdrawal, it unilaterally proceeded to doing so.

Still, crisis once again escalated following President Clinton’s contemplation of military options, evident in his examination of the United States Forces Korea (USFK)’s defense posture, and the Pentagon’s consideration of a potential air strike on North Korea’s Yongbyon nuclear facility.<sup>79</sup> By June 1994, sanctions were ordered and threats were so rife that goods sold out in grocery stores as South Koreans prepared for a potential war.<sup>80</sup> However, war was averted as then ROK President Young-sam Kim was opposed to the use of military force and Clinton was deterred when told the war could sacrifice 1 million lives –

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<sup>77</sup> Kim, *The North Korean Nuclear Weapons Crisis*, p. 39.

<sup>78</sup> Joo, ‘Deciphering What Pyongyang Wants’, p. 30.

<sup>79</sup> Kim, *The North Korean Nuclear Weapons Crisis*, p. 29; and Robert S. Litwak, *Preventing North Korea’s Nuclear Breakout* (Washington DC: Wilson Center, 2017), p. 78.

<sup>80</sup> Mazaar, ‘Going Just a Little Nuclear’, p. 96.

including more than 50,000 Americans – approximately \$100 billion and another \$1,000 billion due to interference to the global and regional economies.<sup>81</sup>

As tension continued to heighten, Clinton finally sanctioned Jimmy Carter’s visit to North Korea to discuss a ‘peaceful resolution’ to the ongoing nuclear crisis.<sup>82</sup> The former president was warmly welcomed as it marked a departure from traditional US reluctance on high-level talks despite Pyongyang’s preference for bilateral negotiations.<sup>83</sup> In addition to assuring Kim Il-sung that the US had no intentions of initiating nuclear attacks against North Korea, Carter publicly affirmed that the US had ceased efforts to pursue sanctions – a direct contradiction of the Clinton administration’s North Korea policy. In the words of the then US negotiators, the press was already peppered with ‘[negativity], suggesting [the administration’s] weakness and vacillation in the face of imminent sanctions’ by the day after Carter’s visit.<sup>84</sup> However, ‘Carter’s pledge that he would urge the Clinton administration to negotiate with Pyongyang was highly validating to Kim.’<sup>85</sup>

North Korea had all the reasons to believe that the bargaining leverage had moved in its favor given the changes in US position to Pyongyang’s various demands, and the ensuing *fait accompli* diplomatic stance. As such, to the extent that nuclear hedgers are inclined to defend against potential losses, Pyongyang had all the incentives to recognize and prevent the loss of this newfound leverage. As Carter acknowledged, ‘the North Koreans emphasized that they

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<sup>81</sup> Tim Beal, *North Korea: The Struggle against American Power* (Ann Arbor, Michigan: Pluto Press, 2005), p. 78; ‘Interview: Jimmy Carter’, *PBS*, available at: <https://www.pbs.org/wgbh/pages/frontline/shows/kim/interviews/carter.html>}, accessed 22 December, 2017.

<sup>82</sup> ‘Carter Trip Paves the Way for U.S.-North Korean Pact’, *The Carter Center*; and Joel S. Wit, Daniel B. Poneman, and Robert L. Gallucci, *Going Critical: The First North Korean Nuclear Crisis*, (Washington, D.C.: The Brookings Institution, 2004), p. 207.

<sup>83</sup> Mark P. Barry, ‘On A U.S. President Meeting Kim Jong Un: The Importance of Senior-Level Engagement’, *International Journal on World Peace*, 33:3 (2016), p. 79; and Kim, *The North Korean Nuclear Weapons Crisis*, pp. 76-7.

<sup>84</sup> Wit, Poneman, and Gallucci, *Going Critical*, p. 233.

<sup>85</sup> Pollack, *No Exit*, p. 117.

wanted peaceful relations with the United States and their neighbors ... a peace treaty ... and to end the economic sanctions that has been very damaging to them' every time they met.<sup>86</sup> Moreover, Kim immediately agreed to Carter's request to assist in recovering the remains of American soldiers from the Korean War, to permit IAEA supervision and to pursue a mutual agreement with the US regarding the peace treaty. Pyongyang even agreed to not restart the 5-megawatt reactor, which was an added precondition by the US to 'raise the bar [higher than where Carter] had set it'.<sup>87</sup> Effectively, beyond not being able to *separate* plutonium – America's original precondition for negotiations – North Korea could not even *produce* such materials in the interim.<sup>88</sup>

To emphasize, nuclear hedging behavior remained evident throughout the negotiation process. For instance, despite the Joint Statement of July 1993, Robert Gallucci, then chief negotiator with North Korea, recalls that Pyongyang 'deliberately did' all that the US warned them not to. Rather than facilitate IAEA's inspection, North Korea 'shuffled the fuel elements... so that the possibility of eventually reconstructing a reactor operating history was destroyed'.<sup>89</sup> Hence, all these preliminary and especially unilateral concessions, which were absent in 1993, should be regarded as each side's devotion towards diplomacy that arguably contributed to the quick return to negotiations by July 1994.

Kim Il-sung's dedication towards diplomacy continued to bear upon the trajectory of the negotiations after his death. As commentators noted, Kim Jong-il, the successor to Kim Il-sung, had the added responsibility of completing the latter's 'last wish' because '[n]o one

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<sup>86</sup> 'Statement from Former U.S. President Jimmy Carter on Current U.S.-North Korea Relations', *Carter Center*, available at: {<https://www.cartercenter.org/news/pr/north-korea-081017.html>}, accessed 17 August, 2017.

<sup>87</sup> 'Interview: Robert Gallucci', *PBS*, available at: {<https://www.pbs.org/wgbh/pages/frontline/shows/kim/interviews/gallucci.html>}, accessed 23 December, 2017.

<sup>88</sup> Wit, Poneman, and Gallucci, *Going Critical*, p. 230-1.

<sup>89</sup> 'Interview: Robert Gallucci', *PBS*.

could disobey the will of the dying patriarch, especially in such a traditional society'.<sup>90</sup> Furthermore, '[t]he North Korean media also emphasized that denuclearization was "the dying wish [yuhun] of Supreme Leader Kim Il-sung"'.<sup>91</sup> Thus, failing to conclude a deal could result more so in a political suicide for the younger Kim than a boost to his legitimacy. Kim Jong-il soon made clear his position to 'honor the promises by his father' and negotiations resumed after a temporary pause.<sup>92</sup>

In October 1994, the US and North Korea finally signed the grand bargain – the Agreed Framework. On the one hand, North Korea agreed to restrain by freezing its Yongbyon plutonium production facilities and permitting IAEA inspection. On the other hand, the US guaranteed to not use nuclear weapons against North Korea, establish diplomatic representation in Pyongyang, loosen existing economic sanctions, and provide North Korea with \$4 billion worth of 'proliferation-resistant' light-water reactors and a 10-year supply of heavy fuel oil.<sup>93</sup>

Economically, the generous financial aid via sanctions relief and energy assistance was timely given North Korea's dire economic situation in the 1990s.<sup>94</sup> Security-wise, while negative nuclear security guarantees were not new in the US-DPRK nuclear discussions, 'the Agreed Framework committed the US publicly and formally to not using or threatening to use nuclear weapons against the DPRK'; that is, it implied the 'permanent suspension of the

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<sup>90</sup> Mansourov, 'The Origins, Evolution, and Current Politics', p. 34; and Pollack, *No Exit*, p. 117.

<sup>91</sup> Joo, 'Deciphering What Pyongyang Wants', p. 26.

<sup>92</sup> 'Statement from Former U.S. President Jimmy Carter on Current U.S.-North Korea Relations', *Carter Center*.

<sup>93</sup> Victor D. Cha, 'What Do They Really Want? Obama's North Korea Conundrum', *The Washington Quarterly*, 32:4 (2009), p. 123; Mansourov, 'The Origins, Evolution, and Current Politics', p. 33; and Mazaar, 'Going Just a Little Nuclear', p. 98.

<sup>94</sup> Robert Hennelly, 'Sanctions on North Korea may be losing their Bite', *CBSNews*, available at: <http://www.cbsnews.com/news/after-decades-of-sanctions-on-north-korea-will-more-work/>, accessed 15 January, 2017; and 'North Korea: Likely Response to Economic Sanctions', *National Intelligence Council*, available at: [https://www.cia.gov/library/readingroom/docs/DOC\\_0005380437.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0005380437.pdf), accessed 15 June, 2016.

‘Team Spirit’’.<sup>95</sup> Politically, in order to normalize relations, the US further offered to open diplomatic and political channels with North Korea.<sup>96</sup> Arrangements to exchange low-level diplomatic offices were also made and this move proved vital as diplomatic exchanges such as Carter’s visit and Washington’s agreement to open liaison offices were regarded by North Korea as a demonstration of US commitment toward the deal.<sup>97</sup>

The terms of the deal affirm the final attribute of the asymmetric leverage argument. North Korea officially shifted to a policy of nuclear restraint only when the US formally agreed to satisfy its central and urgent demands: Pyongyang’s need for economic assistance and security reassurances, and its desire for a normalization of US-North Korean relations.<sup>98</sup> In evidence, *Rodong Sinmun*, the official newspaper of North Korea’s ruling party, ‘published a full text of the accord as well as President Bill Clinton’s separate letter of assurance to Kim Jong-il on its front page’ to publicize the country’s ‘major victory’.<sup>99</sup>

#### *Unrealized Goals and Return to Nuclear Proliferation*

Signing of the Agreed Framework was not risk-free for North Korea. Most evidently, while the DPRK delegation had asked for the deal to be legally binding, the US representatives managed at best to produce a ‘beefed-up political guarantee’. In effect, this guarantee is but an ‘impressive’ sounding phrase which, in legal terms, suggests that ‘the president was not committing the U.S. government beyond the scope of his constitutional powers’.<sup>100</sup> Plainly

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<sup>95</sup> Mansourov, ‘The Origins, Evolution, and Current Politics’, p. 36.

<sup>96</sup> Joo, ‘Deciphering What Pyongyang Wants’, p. 26.

<sup>97</sup> Wit, Poneman, and Gallucci, *Going Critical*, pp. 298, 328-330.

<sup>98</sup> ‘North Korea was not about to be bluffed. Nor was it about to comply first and hope to reap the benefits later. Only when Washington satisfied its concerns did Pyongyang relent. A strategy of cooperative security, not coercive diplomacy, accounts for the success of diplomacy in Korea.’ Sigal, *Disarming Strangers*, p. 9.

<sup>99</sup> Pollack, *No Exit*, p. 118.

<sup>100</sup> The guarantee further lacked congressional commitment without which the President did not have much room to maneuver. Wit, Poneman, and Gallucci, *Going Critical*, pp. 266-7.

put, North Korea was, to some extent, betting on the US's good faith to reap its long desired rewards.<sup>101</sup>

Moreover, even though the Korean Peninsula Energy Development Organization (KEDO) was established to finance the light water reactors and implement several other aspects of the agreement, these promises to North Korea remained unmaterialized.<sup>102</sup> Members to KEDO struggled to agree on the cost structure and the implementation process as none was ready to commit to the \$4.6 million project. By 1998, debts amounted to \$50 million and five years lapsed before KEDO would sign a contract with a South Korean power corporation to construct the agreed light water reactors.<sup>103</sup> Meanwhile, the US provided little leadership to smoothen the process. Not only did Congress exercise its influence over public expenditure to delay both the delivery of fuel oil and reactors but the president's power to fund KEDO through national security waiver was also lost to an amendment restricting US-North Korea nuclear cooperation.<sup>104</sup> Aggravated by deteriorating US-DPRK relations due to the Bush administration's preference for tougher policies, North Korea re-operated its Yongbyon facility and the Agreed Framework effectively ended in the early 2000s.<sup>105</sup>

### ***Six-Party Talks***

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<sup>101</sup> Kim, *The North Korean Nuclear Weapons Crisis*, p. 32; and Konstantin Asmolov, 'US-DPRK: How the US "Observed" the 1994 "Agreed Framework"', *Global Research*, available at: {<https://www.globalresearch.ca/us-dprk-how-the-us-observed-the-1994-agreed-framework/5619927>}, accessed 28 November, 2017.

<sup>102</sup> Davenport, 'Chronology of U.S.-North Korean Nuclear and Missile Diplomacy'.

<sup>103</sup> Curtis H. Martin, 'Lessons of the Agreed Framework for Using Engagement as a Nonproliferation Tool', *The Nonproliferation Review*, 6:4 (1999), p. 44; and 'Korea Peninsula Energy Development Organization (KEDO)', *Nuclear Threat Initiative*, available at: {<http://www.nti.org/learn/treaties-and-regimes/korean-peninsula-energy-development-organization-kedo/>}, accessed 12 April, 2017.

<sup>104</sup> 'H.Amdt.324 to H.R.2415', *Library of Congress*, available at: {<https://www.congress.gov/amendment/106th-congress/house-amendment/324>}, accessed 9 January, 2018; Charles Kartman, Robert Carlin and Joel Wit, 'A History of KEDO 1994-2006', *Center for International Security and Cooperation*, (June 2012), p. 12; Jeffrey Lewis, 'Revisiting the Agreed Framework', *38 North*, available at: {<http://www.38north.org/2015/05/jlewis051415/>}, accessed 9 January, 2018; Martin, 'Lessons of the Agreed Framework for Using Engagement as a Nonproliferation Tool', p. 44.

<sup>105</sup> 'Korea Peninsula Energy Development Organization (KEDO)', *Nuclear Threat Initiative*; and Pollack, *No Exit*, pp. 136-7.



### *Path to the Second Nuclear Crisis*

The second nuclear crisis was sparked in October 2002, amid U.S. intelligence reports indicating the existence of a clandestine highly enriched uranium (HEU) weapons program in North Korea. With the unwinding of the Agreed Framework, the international context had substantially been altered to heighten Pyongyang's sense of insecurity. The newly inaugurated Bush administration wanted to chart a vastly different course from his predecessor. Grounded in skepticisms of North Korea, Washington shunned bilateral political dialogue and approached the nuclear issue more 'resolutely and decisively'.<sup>106</sup> Sentiments for a tougher policy towards DPRK were similarly echoed among the Republican Party leaders.<sup>107</sup> Moreover, following the 9/11 terror attacks, North Korea was now designated as part of the 'axis of evil', rogue states that posed immediate threats to the US and its regional allies.<sup>108</sup> The Bush Doctrine and the notion that preventive war could ultimately lead to 'another Iraq' had altered Pyongyang's reference point towards the need for a strong deterrence once again.<sup>109</sup>

Intent on fulfilling its core demands of diplomatic normalization with and security guarantees from the US, North Korea desired and pushed for the resumption of the Agreed Framework through bilateral discussions.<sup>110</sup> Such overtures were rebuffed and the US, instead, called for

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<sup>106</sup> Charles L. Pritchard, *Failed Diplomacy: The Tragic Story of How North Korea Got the Bomb* (Washington, DC: Brookings Institution Press, 2007), pp. 2-3; Scott Snyder, 'U.S.-North Korean Negotiating Behavior and the Six-Party Talks', in Seung-ho Joo and Tae-Hwan Kwak (ed), *North Korea's Second Nuclear Crisis and Northeast Asian Security* (Hampshire: Ashgate, 2007), p. 152; and Pollack, *No Exit*, p. 131.

<sup>107</sup> Pritchard, *Failed Diplomacy*, p. 4; and Hur, *The Six-Party Talks on North Korea*, pp. 30-1.

<sup>108</sup> Pritchard, *Failed Diplomacy*, p. 137; Snyder, 'U.S.-North Korean Negotiating Behavior and the Six-Party Talks', pp. 152-3; Pollack, *No Exit*, pp. 131-2; and Hur, *The Six-Party Talks on North Korea*, p. 35.

<sup>109</sup> Chung-in Moon and Jong-Yun Bae, 'The Bush Doctrine and the North Korean Nuclear Crisis', in Melvin Gurtov and Peter Van Ness (eds), *Confronting the Bush Doctrine: Critical Views from the Asia-Pacific* (London: Routledge, 2004), p. 40; Edward A. Olsen, 'The Bush Administration and North Korea's Nuclear Policy', in Seung-ho Joo and Tae-Hwan Kwak (ed), *North Korea's Second Nuclear Crisis and Northeast Asian Security* (Hampshire: Ashgate, 2007), pp. 45-64; Jackson, *Rival Reputations*, pp. 160-1; and Victor Cha, *The Impossible State: North Korea, Past and Present* (London: Bodley Head, 2012), p. 255.

<sup>110</sup> John S. Park, 'Inside Multilateralism: The Six-Party Talks', *Washington Quarterly*, 28:4 (2005), pp. 76, 79-80; and Hur, *The Six-Party Talks on North Korea*, p. 39.

complete nuclear disarmament ahead of any substantive negotiations. Kim Jong-il's regime responded by undoing the core vestiges of the 1994 Agreed Framework. Given the evolving state of the international realm, returning to the status quo under the existing Agreed Framework was, thus, unacceptable to Pyongyang as the conditions outlined were 'not sufficient to provide for either the regime's security concerns or its energy needs'.<sup>111</sup> Subsequently, North Korea's attitude began to harden as it began placing greater emphasis on 'its right to develop nuclear weapons programs'.<sup>112</sup>

Under the politics of *songun* (a 'strong and powerful country'), nuclear weapons program served a variety of domestic roles for Kim's regime.<sup>113</sup> But most importantly, North Korea desired a 'powerful physical deterrent force' against the US that would be economically feasible and able to offset its conventional inferiority.<sup>114</sup> Pyongyang's nuclear policy was best captured by Li Gun, then North Korean director general for American affairs: 'with the Bush administration putting an end to bilateral political dialogue, its "axis of evil" pronouncement, and defining North Korea as a target of preemptive nuclear strike, the nuclear question has come back to the starting point'.<sup>115</sup>

Without guarantees from the US, North Korea continued its hedging strategy in the lead-up to the Six-Party Talks and 'chose to heighten its bargaining leverage while willing to bear the

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<sup>111</sup> Moreover, with North Korea having broken its side of the bargain also provided the early basis for US insistence on CVID. James Cotton, 'North Korea and the Six-Party Process: Is a Multilateral Resolution of the Nuclear Issue Still Possible?' *Asian Security*, 3:1 (2007), p. 38.

<sup>112</sup> Former ambassador to ROK, Donald Gregg, recalls in his 2002 meeting with DPRK General Ri Chan-bok stating his concerns of potential US attacks on North Korea. Hur, *The Six-Party Talks on North Korea*, p. 107-8.

<sup>113</sup> Habib, 'North Korea's Nuclear Weapons Programme and the Maintenance of the Songun System' *Pacific Review*, 24: 1 (2011), pp. 56-9. Also, see Seongji Woo, 'Pyongyang and the World: North Korean Perspectives on International Relations under Kim Jong-il', *Pacific Focus*, 26:2 (2011), pp. 192-3.

<sup>114</sup> Jae-Bong Lee, 'US-Deployment of Nuclear Weapons in 1950s South Korea & North Korea's Nuclear Development: Toward Denuclearization of the Korean Peninsula', *Asia-Pacific Journal – Japan Focus*, 7:3 (2009), p. 14; Pollack, *No Exit*, p. 144; and Victor Cha, 'North Korea's Weapons of Mass Destruction: Badges, Shields, or Swords?' *Political Science Quarterly*, 117:2 (2002), pp. 29-30.

<sup>115</sup> Pritchard, *Failed Diplomacy*, p. 2.

political and diplomatic cost of being brandished as a ‘defiant state’’.<sup>116</sup> Even while admitting its nuclear production in October 2002, Kang Suk Joo, First Vice Foreign Minister, ‘claimed that North Korea was willing to abandon its nuclear program should U.S.-DPRK ties are completely normalized, and *until that time it will continue to demand compensation for the freezing of its nuclear program*’.<sup>117</sup>

### *Asymmetric Leveraging and the Six-Party Talks*

As new tensions escalated rapidly between the US and DPRK, a trilateral meeting was organized by China in early 2003.<sup>118</sup> The negotiations were soon expanded to include South Korea, Japan and Russia, reflecting ‘the Bush administration's view that the [North Korean] nuclear issue was a “neighborhood problem”’.<sup>119</sup> From the outset of the Six-Party talks in August 2003, the US displayed an uncompromising stance towards the DPRK, which Wang Yi, then Chinese Vice Minister, noted: ‘[t]he American policy towards DPRK – this is the main problem we are facing’.<sup>120</sup> In other words, the US approached negotiations from a position of strength and, buttressed by its belief in North Korean collapsism, was willing to pressure Pyongyang and take its time. As such, negotiations assumed ‘a primarily tactical role rather than a wholehearted effort to engage the DPRK’.<sup>121</sup>

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<sup>116</sup> Hur, *The Six-Party Talks on North Korea*, p. 110.

<sup>117</sup> Dae-Kyu Yoon, ‘Issues and Expectations for the 2nd Round of Six-Party Talks’, *The Institute for Far Eastern Studies*, available at: [http://ifes.kyungnam.ac.kr/kor/PUB/PUB\\_0202V.aspx?code=FRM1010\\_000103](http://ifes.kyungnam.ac.kr/kor/PUB/PUB_0202V.aspx?code=FRM1010_000103)}, accessed 24 February, 2014, emphasis added.

<sup>118</sup> The Six-Party Talks took place over six rounds: preliminary trilateral (US-China-DPRK) talks (April 23-5, 2005); round 1 (27-9 August, 2003); round 2 (February 25-8, 2004); round 3 (June 23-6, 2004); round 4 (July-26-August 7, September 13-9, 2005); and round 5 (session 1: November 9-11, 2005, session 2: December 18-22, 2006, and session 3: February 8-13, 2007). Pritchard, *Failed Diplomacy*, pp. 85-6.

<sup>119</sup> Park, ‘Inside Multilateralism’, p. 76

<sup>120</sup> Quote in Pritchard, *Failed Diplomacy*, p. 102. Also, see Hur, *The Six-Party Talks on North Korea*, p. 86.

<sup>121</sup> Curtis Martin, ‘G.W. Bush and North Korea: A Levels of Analysis View’, *Pacific Focus*, 22:1 (2007), pp. 112-4.

Second round of negotiations the following year did not result in much progress and Washington began to shift its focus towards the issue of CVID (Complete, Verifiable and Irreversible Dismantlement), while intensifying its baseline negotiating stance.<sup>122</sup> Vice President Dick Cheney insisted on hard language in any potential joint statement while President Bush ‘highlighted the implication that all options were still on the table’ during his March 2004 interview with *The Washington Post*.<sup>123</sup> Other senior US officials in the Bush administration continued to advocate a tough policy towards North Korea,<sup>124</sup> and the US ‘sought to apply multilateral pressures to isolate, contain, and transform North Korea through sanctions and related measures’.<sup>125</sup>

Portrayed as ‘an outpost of tyranny’ and Kim Jong-il as an ‘irresponsible leader’ by US officials, Pyongyang perceived diplomatic overtures as signs of insincerity and ‘left many observers puzzled as to the likely next steps’.<sup>126</sup> As US pressures intensified, Pyongyang remained flexible in its approach and consistently probed for terms that would see its adversary bear the heavier costs. As a senior North Korean official noted, nuclear development was part of a plan ‘to force Bush to negotiate on terms more favorable to North Korea’.<sup>127</sup> By the end of the third round, it was clear that both sides were approaching the Six-Party negotiations with maximalist demands. North Korea demanded security assurances

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<sup>122</sup> Snyder, ‘U.S.-North Korean Negotiating Behavior and the Six-Party Talks’, p. 155.

<sup>123</sup> Cheney reportedly said: ‘I have been charged by the president with making sure that none of the tyrannies in the world are negotiated with. We don’t negotiate with evil; we defeat it.’ Pritchard, *Failed Diplomacy*, pp. 103-5.

<sup>124</sup> Martin, ‘G.W. Bush and North Korea’, p. 124. Prior to the start of negotiations in August 2003, State Secretary, Colin Powell, was the only who signaled intentions to provide some form of security assurances that would be satisfactory to Pyongyang. Hideya Kurata, ‘A Conceptual Analysis of the Six-Party Talks: Building Peace through Security Assurances’, *Asian Security*, 3:1 (2007), p. 18.

<sup>125</sup> Moon and Bae, ‘The Bush Doctrine and the North Korean Nuclear Crisis’, p. 39.

<sup>126</sup> Cotton, ‘North Korea and the Six-Party Process?’ p. 28.

<sup>127</sup> Quote from Tristan Volpe, ‘The Unraveling of North Korea’s Proliferation Blackmail Strategy’, in Sung Chull Kim and Michael D. Cohen (eds), *North Korea and Nuclear Weapons: Entering the New Era of Deterrence* (Washington, DC: Georgetown University Press, 2017), p. 82; and Kurata, ‘A Conceptual Analysis of the Six-Party Talks’, p. 19.

and other compensatory measures in exchange for complete denuclearization while the US regarded CVID as a prerequisite for the initiation of any serious discussions.<sup>128</sup>

With both sides unable to narrow the gap, negotiations reached a deadlock as the US did not budge from its initial position, that is, to normalize relations with a rogue state only after North Korea had completely denuclearized.<sup>129</sup> Pyongyang, instead, continued its hedging strategy by engaging with the Six-Party Talks while continuing with its nuclear development. Even as diplomacy was at a standstill in February 2005, ‘Kim Jong Il reiterated to Wang Jiarui, Minister of the International Department of the Chinese Communist Party, that he had no intention of withdrawing from the Talks’.<sup>130</sup> Yet, at the same time, the North Korean lead negotiator for the Six-Party Talks declared North Korea to be ‘a dignified nuclear weapons possessing state’ and, as such, demanded discussions to focus on bilateral arms control negotiations.<sup>131</sup> Indicatively, the costs of North Korean denuclearization, in Pyongyang’s view, had shifted and became much more expensive for the negotiating counterpart by this stage.

In July 2005, new rounds of talks commenced, after a year-long absence, largely through the efforts of Christopher Hill, then the assistant secretary for East Asia and Pacific Affairs at the State Department. By this time, the US adopted a much more conciliatory approach and attempted to engage North Korea in order to determine the boundaries for further action.<sup>132</sup>

During round four talks, the North Korean representatives continued to argue for its right to

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<sup>128</sup> Cotton, ‘North Korea and the Six-Party Process’, p. 29; Pritchard, *Failed Diplomacy*, p. 106; Snyder, ‘U.S.-North Korean Negotiating Behavior and the Six-Party Talks’, pp. 161-2; and Moon and Bae, ‘The Bush Doctrine and the North Korean Nuclear Crisis’, p. 40.

<sup>129</sup> Hur, *The Six-Party Talks on North Korea*, p. 98.

<sup>130</sup> Kurata, ‘A Conceptual Analysis of the Six-Party Talks’, p. 23.

<sup>131</sup> Pollack, *No Exit*, p. 148.

<sup>132</sup> Snyder, ‘U.S.-North Korean Negotiating Behavior and the Six-Party Talks’, p. 156; Pritchard, *Failed Diplomacy*, p. 109; and Pollack, *No Exit*, pp. 146-7.

develop peaceful nuclear capability and insisted on the light-water reactor requirement as a way ‘to overemphasize Pyongyang’s early (going-in) negotiating position’.<sup>133</sup> After several delays and other holdups, talks would ultimately result in the September 19 Joint Statement.<sup>134</sup> Despite both sides agreeing to several overarching goals, such as abandonment of nuclear weapons and return to the NPT, much of the substance remained vague in terms of timeline and sequencing.<sup>135</sup> Consequently, Pyongyang and Washington were ‘interpreting the agreement according to their own predilections that unfortunately ‘resembled a multilateral version of the 1994 U.S.-DPRK Agreed Framework’.<sup>136</sup>

The Joint Statement was not a planned proposal for North Korea to denuclearize or for Pyongyang to stop its hedging strategy for the foreseeable future. Consequently, North Korea took an even firmer stance on negotiations during the fifth round of the Six-Party talks. For instance, the spokesman for the Ministry of Foreign Affairs highlighted that denuclearization meant the whole Korean peninsula rather than just DPRK and emphasized that the joint statement from the previous round ‘started precisely from the principled position of *denuclearisation through the normalisation of relations, not the normalisation of relations through denuclearisation*’.<sup>137</sup> Efforts to hammer out the details of the initial joint statement in the last minutes ultimately fell short. Insistence on denuclearization prior to normalization did

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<sup>133</sup> Pritchard, *Failed Diplomacy*, p. 119; and Cotton, ‘North Korea and the Six-Party Process’, pp. 29-30.

<sup>134</sup> Department of State, ‘Joint Statement of the Fourth Round of the Six-Party Talks’, available at: <https://www.state.gov/p/eap/regional/c15455.htm>, accessed 2 July, 2018.

<sup>135</sup> Tae-Hwan Kwak, ‘Resolving the North Korean Nuclear Issue Through the Six-Party Process: A Creative Formula’, *The Journal of East Asian Affairs*, 20:1 (2006), pp. 7-10.

<sup>136</sup> Charles K. Armstrong, ‘South Korea and the Six-Party Talks: The Least Bad Option?’ *Joint US-Korea Academic Studies*, 21 (2011), p. 169; Cotton, ‘North Korea and the Six-Party Process’, pp. 31-2; and Pritchard, *Failed Diplomacy*, pp. 121-3.

<sup>137</sup> The spokesman further noted that ‘*once US nuclear threats are removed and the US nuclear umbrella for South Korea disappears, we will not need nuclear weapons, either...* [but] as long as the United States hostile policy toward the DPRK and nuclear threats are not fundamentally eliminated, we will never give up our nuclear weapons first, not even in a hundred years’. Pollack, *No Exit*, p. 159, emphasis in original. Also, see Cotton, ‘North Korea and the Six-Party Process’, p. 34.

not sit well with Pyongyang. As such, it did not see itself bound by any arms limitation agreement and continued with nuclear hedging.<sup>138</sup>

Ultimately, negotiations reached a stalemate as the US Treasury Department imposed sanctions on Banco Delta Asia (BDA), a bank in Macau that was suspected of counterfeiting, which led to the freezing of '\$25 million of North Korea's funds'.<sup>139</sup> These sanctions were perceived by North Korea 'as a clear sign of U.S. hostility' and had urged Pyongyang to move ahead with missile and nuclear tests.<sup>140</sup> Weeks after North Korea's first partially successful nuclear tests in 2006, its chief negotiator, Kim Gye Gwan, and Ambassador Hill held a face-to-face meeting in China. This long-sought-after meeting is significant for it signaled to North Korea the US's 'respect for North Korea's legitimacy'. Moreover, contrary to the White House's insistence on not having bilateral arrangements with North Korea, Hill 'agreed to create a bilateral working group' to resolve the BDA issue. To reciprocate the US's apparent concession, North Korea returned to the negotiation table.<sup>141</sup>

In January 2007, a separate Kim-Hill meeting took place in Berlin outside the framework of the Six-Party talks. Immediately following the meeting, Hill stated that the US was willing to engage DPRK in a 'bilateral process' and prepared to 'really offer North Korea a hand as it

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<sup>138</sup> Amanda Lilly, 'Why the Six-Nation Talks?' *Washington Post*, available at: <http://www.washingtonpost.com/wp-dyn/content/article/2009/06/18/AR2009061802560.html>, accessed 27 June, 2018.

<sup>139</sup> Mary Beth D. Nikitin, Emma Chanlett-Avery, Mark E. Manyin, *Nuclear Negotiations with North Korea: In Brief, R45033* (Washington, DC: Congressional Research Service, 2017), p. 8.

<sup>140</sup> Leon V. Sigal, 'Looking for Leverage in All the Wrong Places', *38 North*, available at <https://www.38north.org/2010/05/looking-for-leverage-in-all-the-wrong-places/>, accessed 13 April, 2019; Tae-Hwan Kwak and Seung-Ho Joo, 'The U.S. Financial Sanctions against North Korea,' *Pacific Focus*, 22:1 (2007), pp. 95-6.

<sup>141</sup> Mike Chinoy, 'Bush on North Korea: Wrong Again', *38 North*, available at: <https://www.38north.org/2010/11/bush-on-north-korea-wrong-again/>, accessed 26 July, 2018; and Siegfried S. Hecker, Robert L. Carlin, and E.A. Serbin, 'A Technical and Political History of North Korea's Nuclear Program over the past 26 years', *Center for International Security and Cooperation*, Stanford University, p.7, available at: <https://fsi-live.s3.us-west-1.amazonaws.com/s3fs-public/narrativescombinedfinv2.pdf>, accessed 8 July, 2018, p. 7.

moves along the road’; through Hill’s comments, ‘for the first time, the U.S. would engage in direct bilateral talks with the DPRK, as Pyongyang has long demanded’.<sup>142</sup> Specifically, promises to unfreeze North Korean assets at BDA during the Berlin meetings were critical in that they displayed not only the US’s willingness to negotiate bilaterally but also save ‘face for North Korea and signaled a change of U.S. hostile policy toward the Kim Jong Il regime’.<sup>143</sup> Subsequently, Washington finally accepted Pyongyang’s demand for ‘sequenced actions-for-actions’ and showed willingness to acquiesce to Pyongyang’s demands of a front-loaded economic reward structure.<sup>144</sup> With the February 2007 Beijing agreement, North Korea announced that ‘each side agreed on temporary suspension of the nuclear facilities [in Yongbyon and Taechon], and provision of energy equivalent to 1 million tons of heavy oil’.<sup>145</sup> Furthermore, North Korea agreed, amongst other things, to dismantle vital nuclear facilities which would ‘not only make [restarting its nuclear program] difficult, but also ... expensive’.<sup>146</sup> In return, bilateral talks were set to continue between Washington and Pyongyang, and five working groups were due to be established to implement plans for the ‘denuclearization of the Korean Peninsula, DPRK-US normalization, DPRK-Japan normalization, economy and energy cooperation, and Northeast Asia Peace and Security Mechanism’.<sup>147</sup> The two-phase agreement itself was significant as Pyongyang signaled to the US and the international community that it was willing to take the necessary physical steps for the first time to halt the production of weapons-grade material. Upon successful

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<sup>142</sup> Kwak and Joo, ‘The U.S. Financial Sanctions against North Korea,’ pp. 99-102.

<sup>143</sup> Kwak and Joo, ‘The U.S. Financial Sanctions against North Korea,’ p. 103.

<sup>144</sup> Martin, ‘G.W. Bush and North Korea,’ p. 115.

<sup>145</sup> Kim, *The North Korean Nuclear Weapons Crisis*, p. 113; and Department of State, ‘Joint Statement of the Fourth Round of the Six-Party Talks’, available at: {<https://www.state.gov/p/eap/regional/c15455.htm>}, accessed 2 July 2018.

<sup>146</sup> ‘Status of the Six-Party Talks for the Denuclearization of the Korean Peninsula,’ *Hearing before the Committee on Foreign Relations, United States Senate, One Hundredth Tenth Congress, Second Session*, available at: {<http://www.gpoaccess.gov/congress/index.html>}, accessed 26 July, 2018, pp. 6-7.

<sup>147</sup> Moon Chung-in, ‘The Six Party Talks and Implications for a Northeast Asia Nuclear Weapons Free Zone’, *NAPSNet Special Reports*, available at: {<https://nautilus.org/napsnet/napsnet-special-reports/the-six-party-talks-and-implications-for-a-northeast-asia-nuclear-weapons-free-zone/>}, accessed 26 July, 2018.



completion of the agreement, the reconstitution of North Korea's plutonium production would have been considerably much more difficult and consume more than 12 months. Furthermore, despite Pyongyang's dissatisfaction with the tardy delivery of promises in the beginning of 2008, it remained to be a cooperative partner in the implementation phase at least up until the middle of the year. Delegates from the US and DPRK reached a compromise regarding the details of North Korea's declaration on its nuclear capabilities; and Pyongyang submitted an approximately 18,000-page report that details the operations of its facilities in Yongbyon, and later, a 'package of items' which acknowledged the Washington's 'concerns about the DPRK's uranium enrichment and nuclear proliferation activities' amongst other things.<sup>148</sup> In all, the 2007 Beijing agreement achieved results that are largely consistent with the minimum goal of keeping Pyongyang's nuclear program in check.

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<sup>148</sup> Christopher R. Hill, 'North Korean Six-Party Talks and Implementation Activities', *U.S. Department of State*, available at: (<https://2001-2009.state.gov/p/eap/rls/rm/2008/07/107590.htm>), accessed 14 August, 2018. Kelsey Davenport, 'Chronology of U.S.-North Korean Nuclear and Missile Diplomacy', *Arms Control Association*, available at: {<https://www.armscontrol.org/factsheets/dprkchron#2008>}, accessed 14 August, 2018.

### *Failure and Nuclear Advancements*

Yet differences on the verification procedure proved to be incompatible as North Korea, after rounds of intensive discussions, argued that ‘disablement did not imply dismantlement’ and refused ‘any commitment to written, binding pledges on verification’.<sup>149</sup> Pyongyang felt that the steps towards dismantlement displayed in ‘good faith’, such as blowing up of the 5MWe reactor cooling tower and allowing IAEA inspectors back into Yongbyon, had not been reciprocated.<sup>150</sup> The US had shifted its initial policy and requested for a stronger verification regime to oversee the dismantlement process in exchange for the removal of North Korea from its terrorism list.<sup>151</sup> Needless to say, Pyongyang felt that it was deceived in the process and that the Bush administration was clearly not willing to shoulder the costs of peaceful dismantlement. By this point, the Six-Party talks was pretty much over. Overtures for the continuation of multilateral dialogue made by the next administration were turned down as ‘Kim Jong Il... called the new administration ‘hostile’ and ‘unchanged’ from the Bush era’.<sup>152</sup>

In all, the Six-Party Talks did manage to accomplish more than the 1994 Agreed Framework in terms of engaging North Korea with the process of denuclearization, such as its core facilities and reactors at Yongbyon and Taechon.<sup>153</sup> However, it ultimately failed in pushing North Korea towards, at minimum, a sustained nuclear restraint policy. The ‘uncoordinated’

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<sup>149</sup> Volpe, ‘The Unraveling of North Korea’s Proliferation Blackmail Strategy’, p. 83

<sup>150</sup> Hecker, Carlin, and Serbin, ‘A Technical and Political History of North Korea’s Nuclear Program over the past 26 years’, pp. 7-8, 15.

<sup>151</sup> Leon V. Sigal, ‘Lessons from the Unhappy History of Verification in North Korea’, *38 North*, available at: <https://www.38north.org/2018/07/lisigal070918/>, accessed 13 April, 2019.

<sup>152</sup> Lilly, ‘Why the Six-Nation Talks?’

<sup>153</sup> ‘Status of the Six-Party Talks for the Denuclearization of the Korean Peninsula’, *Hearing before the Committee on Foreign Relations, United States Senate, One Hundredth Tenth Congress, Second Session, 6 February, 2008*, available at: [https://www.foreign.senate.gov/imo/media/doc/020608\\_Transcript\\_Status%20of%20the%20SixParty%20Talks%20for%20Denuclearization%20of%20the%20Korean%20Peninsula.pdf](https://www.foreign.senate.gov/imo/media/doc/020608_Transcript_Status%20of%20the%20SixParty%20Talks%20for%20Denuclearization%20of%20the%20Korean%20Peninsula.pdf), accessed 2 July, 2018; and Cha, *The Impossible State*, pp. 260-3.

and ‘abruptly’ imposed BDA sanctions undermined the action-for-action process to fully put North Korea on a path of denuclearization.<sup>154</sup> Inter-Korean relations around this period also soured when the incoming conservative Lee Myung-bak government adopted a tougher policy line towards its neighbors, and Washington’s passive diplomacy in Northeast Asia was lacking urgency in dealing with North Korean nuclear issues.<sup>155</sup> Moreover, a crisis of succession with Kim Jong-il’s deteriorating health led to a re-emphasis of the importance of nuclear deterrence by Pyongyang in order to ‘reaffirm the loyalty of key stakeholders as the leadership dealt with the succession challenge’.<sup>156</sup>

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<sup>154</sup> Catherine Killough, ‘Trump Should Heed the Lessons of past U.S.-North Korea Talks’, *The National Interest*, available at: {<https://nationalinterest.org/feature/trump-should-heed-lessons-past-us-north-korea-talks-45612>}, accessed 9 April, 2019.

<sup>155</sup> Park, ‘Inside Multilateralism’, pp. 78-9; Cha, *The Impossible State*, p. 263; and Chung-in Moon, ‘The Six Party Talks and Implications for Peninsular and Regional Peace and Security’, in Rudiger Frank and John Swenson-Wright (eds), *Korea and East Asia: The Stony Road to Collective Security* (Leiden: Brill, 2012), p. 231.

<sup>156</sup> Evans J.R. Revere, ‘Re-Engaging North Korea After Kim Jong-il’s Death: Last, Best Hope or Dialogue to Nowhere?’, *Brookings Policy Paper* 29, (January 2012), p. 11.

## **Conclusion**

Like policies aimed towards nuclearization, the decision to forego it is a costly and contentious endeavor, and it oftentimes ends up being a long-drawn-out process. Yet, nuclear hedgers have displayed a willingness to restrain their nuclear policies in the post-Cold War era. To understand the strategic decision-making process under which nuclear aspirants accept the terms of nonproliferation, we have outlined two interrelated necessary conditions based on the insights of prospect theory. First, a nuclear hedger must perceive itself as holding a greater leverage than its adversary. Owing to loss aversion, a state that chooses to adopt a nuclear hedging strategy would be particularly sensitive to losses and thus, the tendency would be to hold on to its initial position. Consequently, a shift away from this initial reference point, which originally underpinned nuclear proliferation, will only occur when its adversary concedes first.

If the first condition deals with shifts in reference points, the second deals with the nuclear aspirant's tendency to remain on the reversal pathway. The nuclear aspirant will explicitly commit to a restraining policy during negotiations and work towards concluding a successful deal if its adversary also agrees to yield to its core demands. It is only when these minimum conditions are satisfied that nuclear aspirants will shift its initial reference point and undergo changes towards nuclear nonproliferation. However, remaining on the nuclear reversal pathway should not necessarily rule out the continuation of hedging strategy. On the contrary, nuclear hedging by loss-averse aspirants can continue even when on the nuclear reversal pathway because it would seek to do its best to compensate for intermediary losses.

An in-depth study of North Korea's nuclear policy provides support for our asymmetric leveraging thesis. Attempts by the US and the international community to deal with North

Korea's nuclear weapons program in the post-Cold War era have been frustrated countless times and have fallen short on numerous occasions. Yet, a closer examination of the pathway reveals that North Korea has shifted its nuclear policy towards nuclear restraint in the past. During negotiations around the 1994 Agreed Framework, Pyongyang accepted to restrain its nuclear weapons program only when the US formally agreed to satisfy its central and urgent demands of security and economic assurances and diplomatic normalization. The Six-Party Talks initially proved to be more problematic as both the US and DPRK held on to maximalist demands. Yet, the Beijing Agreement in 2007 was finally concluded when the US displayed a willingness to acquiesce to Pyongyang's demands and shoulder the costs of denuclearization. In both cases, the loss-averse hedger, North Korea, shifted its nuclear policy from deterrence to restraint only when it held asymmetric leverage over its adversary. Moreover, once its reference point had shifted, the aspirant explicitly committed to the nuclear agreements until it felt that the bargaining leverage had disappeared.

Finally, the theoretical and policy implications that follow from our research are threefold. First, hedging strategy is not necessarily abandoned with the commencement of negotiations. As our case studies demonstrate, hedging continues to occur even during negotiations, which means, one should not expect North Korea, or any other nuclear aspirants, to exercise complete restraint throughout the whole negotiation period. In the lead-up to the Trump-Kim summit, Pyongyang, through its official news agency, continued to criticize the US approach and warned against taking its conciliatory posture as signs of North Korea's weakness or that it was willing to denuclearize.<sup>157</sup> Yet, North Korea has simultaneously displayed a preference for nuclear restraint policy as Kim Jong-un publicly claimed that it would not proliferate its

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<sup>157</sup> Haejin Choi and Hyonhee Shin, 'North Korea says denuclearization pledge not result of U.S.-led sanctions,' *Reuters*, available at: {<https://www.reuters.com/article/us-northkorea-southkorea/north-korea-says-denuclearization-pledge-not-result-of-u-s-led-sanctions-idUSKBN1I703M>}, accessed 8 July, 2018.

nuclear technology and made ‘an unprecedented offer’ as soon as Washington agreed last October to ‘put the end-of-war declaration on the negotiating table’.<sup>158</sup> With security concerns still dominating North Korea’s national discourse,<sup>159</sup> Pyongyang, as Carlin points out, needs to be certain about the US’s ‘own commitment, [or] they will pursue hedging’.<sup>160</sup> While hedging continues our theoretical explanation also expects North Korea to stay within the lines of restraint so long as the US refrains from undertaking punitive actions and the prospect of attaining Pyongyang’s goals remains practicable.<sup>161</sup>

Second, conceptually linking hedging strategy to restraining policy helps us better understand the whole process of nuclear proliferation and provides policymakers with a full spectrum of options in dealing with future nuclear aspirants, rather than a narrow hardline stance that the US and the international community have undertaken in the past. For instance, it has recently been noted that reassurance strategy serves as a valuable yet distinct means through which a nuclear state can signal nonaggressive intention to aspirants.<sup>162</sup> Our study supports this claim and shows that there exist varieties of reassurance strategies within the nuclear reversal framework.

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<sup>158</sup> Adam Mount and Ankit Panda, ‘North Korea Is Not Denuclearizing,’ *The Atlantic*, available at: <https://www.theatlantic.com/international/archive/2018/04/north-korea-kim-jong-un-trump-nuclear-summit-weapons-missiles/558620/>, accessed 8 July, 2018; and Leon V. Sigal, ‘Picking Up the Pieces from Hanoi’, *38 North*, available at: <https://www.38north.org/2019/03/lsigal030519/>, accessed 13 April, 2019.

<sup>159</sup> Bruce Klingner, ‘North Korea Heading for the Abyss’, *The Washington Quarterly*, 37:3 (2014), pp. 173-4.

<sup>160</sup> Jim Geraghty, ‘What It’s Like to Talk with North Korea’, *National Review*, 27 April, 2018, available at: <https://www.nationalreview.com/2018/04/north-korea-south-korea-peace-talks/>, accessed 28 June, 2018. Similarly, Catherine Killough points out that Pyongyang ‘has also demonstrated a talent for hedging against the United States, as evidence by its development of a uranium enrichment program’. Killough, ‘Trump Should Heed the Lessons of past U.S.-North Korea Talks’.

<sup>161</sup> Thus far, this expectation appears reasonable as Kim remains open to the idea of a third summit, and as he suggests, ‘If I didn’t have the will [to denuclearize], I wouldn’t be here right now’. ‘Supreme Leader Kim Jong Un Makes Policy Speech at First Session of 14th SPA’, *The Diplomat*, available at:

<https://manage.thediplomat.com/wp-content/uploads/2019/04/thediplomat-supreme-leader-kim-jong-un-makes-policy-speech-at-first-session-of-14th-spa.pdf>, accessed 13 April, 2019; and Soo Kim, ‘The Hanoi Summit – We Asked Soo Kim What Happens Next in U.S.-North Korea Relations’.

<sup>162</sup> Jeffrey Knopf, ‘Varieties of Assurance’, *Journal of Strategic Studies*, 35:3 (2012), p. 387.

Lastly, bargaining with nuclear aspirants should be regarded as a process rather a distinct outcome. As such, the rollback process would most likely be long regardless of whether the aspirant is a threat or an ally of the US.<sup>163</sup> For instance, both South Korea and Taiwan ‘preserved their options about committing to or giving up a nuclear weapons program until the last possible moment’.<sup>164</sup> This should be no different in the case of North Korea and, as Scott Snyder notes, the restart of US-DPRK nuclear dialogue marks ‘the beginning rather than the culmination of a process’.<sup>165</sup> A hedging strategy is a significant component of this long process and should be assumed so as it enters the nuclear reversal pathway.

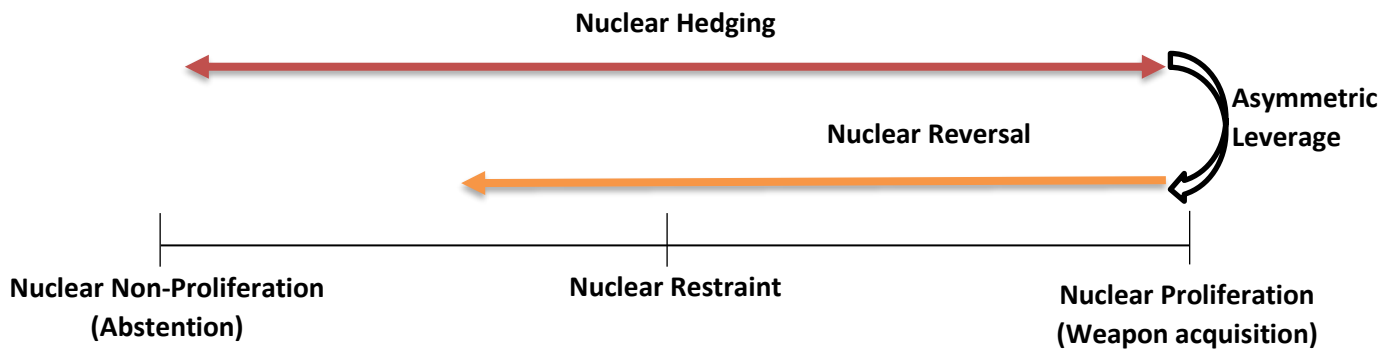
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<sup>163</sup> Levite, ‘Never Say Never Again’, p. 67.

<sup>164</sup> Hersman and Peters, ‘Nuclear U-turns’, p. 548.

<sup>165</sup> John Hudson, ‘Compared with Trump, Previous Presidents Extracted More Concessions from N. Korea, Experts Say’, Washington Post, available at: {[https://www.washingtonpost.com/world/national-security/compared-with-trump-previous-presidents-extracted-more-concessions-from-n-korea-experts-say/2018/06/12/84ea6aeb-2ce9-4d73-abf1-0614c5c56e68\\_story.html?utm\\_term=.129bd96247f7](https://www.washingtonpost.com/world/national-security/compared-with-trump-previous-presidents-extracted-more-concessions-from-n-korea-experts-say/2018/06/12/84ea6aeb-2ce9-4d73-abf1-0614c5c56e68_story.html?utm_term=.129bd96247f7)}, accessed on 15 June, 2018.

**FIGURE 1: Nuclear Proliferation Continuum: Re-conceptualization**



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