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THESIS

**REASSURING U.S. ALLIES IN THE MODERN
ERA: AVOIDING NUCLEAR PROLIFERATION
IN TURKEY AND SOUTH KOREA**

by

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December 2023

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PROLIFERATION IN TURKEY AND SOUTH KOREA**

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ABSTRACT

This thesis examines the Cold War strategies of deterrence and ally reassurance employed by the United States, focusing on West Germany and Japan, and assesses whether the lessons learned in those studies can be applied to the modern-day cases of Turkey and South Korea. As examples of cases in which the United States successfully leveraged its political and military means to avoid nuclear proliferation, West Germany and Japan offer valuable insight into how Washington can better meet the security needs of Ankara and Seoul to mitigate recent calls for the development of indigenous nuclear weapons programs. Building on historical analyses, this study explores how evolving geopolitical dynamics and regional threats influence Turkey's and South Korea's security perceptions, potentially driving them toward nuclear capabilities. It further suggests how current U.S. foreign policy strategies can be adapted to address the threats faced by these allies while maintaining global nuclear non-proliferation.

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LIST OF ACRONYMS AND ABBREVIATIONS

CTBT	Comprehensive Nuclear Test Ban Treaty
DCA	Dual Capable Aircraft
DMZ	Demilitarized Zone
IAEA	International Atomic Energy Agency
JCPOA	Joint Comprehensive Plan of Action
MLF	Multilateral Force
NATO	North Atlantic Treaty Organization
NPR	Nuclear Posture Review
NPT	Non-Proliferation Treaty
NSS	National Security Strategy
OPCON	Operational Control
ROK	Republic of Korea
SLBM	Submarine-Launched Ballistic Missile
SSBN	Ballistic Missile Submarine
WMD	Weapon of Mass Destruction

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I. INTRODUCTION

A. MAJOR RESEARCH QUESTION

Throughout the Cold War, the United States sought to provide reassurance to its allies by deploying nuclear weapons, extending its nuclear umbrella, and maintaining large contingents of troops in allied territory. Recent years have seen an increasing uncertainty about the commitment of the United States to the security of its allies and partners, leading to concerns about the stability of the international system and the potential for nuclear proliferation. Some U.S. allies, particularly those in regions with a history of conflict or geopolitical instability, may view nuclear weapons as a means of deterring potential aggressors and ensuring their own security. There have been calls within South Korea, which has traditionally relied on the U.S. nuclear umbrella for deterrence, for the country to develop its own nuclear arsenal. Turkey has also been rumored to be considering the development of its own nuclear weapons program, raising concerns about the possibility of increased nuclear tensions in the region.

Providing reassurance to U.S. allies has become a critical challenge, and it requires a multifaceted approach that goes beyond the traditional focus on nuclear weapons and a permanent troop presence. The stationing of nuclear weapons remains an important aspect of American security policy; however, the modern challenge of reassuring allies requires a broader set of tools and strategies. Are there lessons learned from the successful nonproliferation cases of West Germany and Japan, and if so, how can the United States employ them to provide security reassurance to Turkey and South Korea to reduce the potential for nuclear proliferation?

B. SIGNIFICANCE OF THE RESEARCH QUESTION

During the Cold War, U.S. leaders were concerned about proliferation threat posed by American allies in both Europe and Asia. President John F. Kennedy publicly acknowledged the potential threat, noting “there are indications because of new inventions, that 10, 15, or 20 nations will have a nuclear capacity, including Red China, by the end of

the Presidential office in 1964.”¹ Concerns at the time focused on potential proliferators such as Germany, Italy, Turkey, Australia, Japan, Israel, and South Korea.

Designed to prevent this fear from becoming reality, the nuclear Non-Proliferation Treaty (NPT) of 1968 was successful, in part, because of the American effort to provide reassurance to its allies through the extension of the nuclear umbrella. Instead of pursuing the development of their own nuclear weapons, allies in both Europe and Asia opted instead to put their faith in this American security guarantee. Recently, concerns about the credibility of this American nuclear promise have been growing among key allies, notably Turkey and South Korea. They are confronting growing threats from a more aggressive Russia, a China that is growing ever bolder, and now a nuclear North Korea improving its missile capabilities. Regional threats have driven concerns specifically within Turkey. This has left these two critical allies questioning their level of reliance on American backing, be it either nuclear or conventional. In January of this year, South Korean President Yoon Suk-yeol stated during a meeting with his defense officials that “if the issue becomes more serious, we could acquire our own nuclear weapons, such as deploying tactical nuclear weapons here in South Korea.”² Turkish President Tayyip Erdogan has similarly made his opinion known, stating in 2019 to fellow party members that “some countries have missiles with nuclear warheads, not one or two. But (they tell us) we can’t have them. This, I cannot accept.”³ These statements and other calls within both Turkey and South Korea for development of a nuclear weapons capability, though not official policy of either nation, cannot be ignored by the United States if it wishes to retain its commitment to reassurance, and by extension, nonproliferation.

The Joseph P. Biden administration has renewed the American commitment to providing long-term security assurance to its allies, though this may not eliminate ally concerns about the credibility of U.S. security guarantees. The idea that either Turkey or

¹ “October 13, 1960 Debate Transcript,” The Commission on Presidential Debates, accessed May 24, 2023.

² Dasl Yoon, “South Korean President Says Country Could Develop Nuclear Weapons,” *Wall Street Journal*, January 12, 2023.

³ “Erdogan Says It’s Unacceptable That Turkey Can’t Have Nuclear Weapons,” Reuters, September 4, 2019.

South Korea could view the development of their own nuclear weapons program as tenable and necessary for their future security would show that the trust between these allies and the United States has been severely degraded. To reestablish this credibility and reassure these key allies of their commitment, Washington will have to put in the effort to rebuild not only trust and confidence, but also the fundamentals behind the joint collective defense agreements with these allies. With the current global power stage pitting the United States and its allies against two nuclear threats in Russia and China, the United States will need to lead the charge in seeking new ways to work collaboratively to renew these security frameworks. The nuclear aspect of this defense, though seemingly ignored for three decades, is increasingly politically and militarily salient.

American influence and security guarantees have been key to limiting the proliferation of nuclear weapons since their inception. The lessons learned from successful cases, including Germany and Japan, will illustrate how the United States can pursue future reassurance to Turkey and South Korea.

C. LITERATURE REVIEW

1. On Deterrence, Assurance, And Reassurance

This thesis draws on research related to the concepts of deterrence and reassurance, and their impact on the potential for nuclear proliferation. The term reassurance is often used interchangeably with assurance. Recent work has been done to delineate the differences between these two terms, notably by Jeffrey Knopf who synthesized previous works to establish definitions for these terms within the larger framework of deterrence. Knopf makes the point that different types of assurance “tend to entail either a positive commitment to come to the aid of another party or a negative commitment to refrain from taking action against it,” whereas reassurance has the intention of “seeking to persuade another state that one harbors no aggressive intentions toward it.”⁴

⁴ Jeffrey W. Knopf, ed., *Security Assurances and Nuclear Nonproliferation* (Stanford: Stanford University Press, 2012). Ch 2, 13–15.

The effectiveness of extended deterrence was subject to much deliberation throughout the late 20th century, including in the works of Bernard Brodie, Bruce Russett, Paul Huth, Scott Sagan, and Kenneth Waltz.⁵ Ally assurance as an overall component of deterrence, however, is primarily derived from the work of Thomas Schelling.⁶ As deterrence relies on the existence of a direct threat to impose an unacceptable cost on a potential adversary should that adversary take an undesirable action, according to Schelling, there exists an inherent assurance that the unacceptable cost will not be doled out so long as the adversary maintains their end of the bargain. If this assurance were not present, a potential adversary would have no reason to comply with the deterrent scenario. This line of thinking highlights the early ties of assurance to deterrence policy.

The concept of reassurance of American allies received renewed interest with the 2002 National Security Strategy (NSS). Within this document, the George W. Bush administration emphasized that the assurance of American allies as critical to U.S. defense strategy. Per the document, the “military’s highest priority is to defend the United States. To do so effectively, our military must: assure our allies and friends, dissuade future military competition, deter threats against U.S. interests, allies, and friends, and decisively defeat any adversary if deterrence fails.”⁷ This commitment shifted the nature of assurance from being directed not at one’s adversaries, but at one’s allies. The allied-focus nature of assurance and reassurance has been continued in the nuclear realm as well, with the “assurance of allies and partners” being highlighted as one of the critical roles of U.S. nuclear forces in the last three Nuclear Posture Reviews (NPRs).⁸ American security assurances entail more than nuclear threats; they have also implied a response to

⁵ Bernard Brodie, “Strategy in the Missile Age” (RAND Corporation, October 8, 2007); Bernard Brodie, “The Anatomy of Deterrence” (Project Rand, U.S. Air Force, July 23, 1958); Paul Huth and Bruce Russett, “What Makes Deterrence Work? Cases from 1900 to 1980,” *World Politics* 36, no. 4 (July 1984): 496–526; Paul Huth and Bruce Russett, “Deterrence Failure and Crisis Escalation,” *International Studies Quarterly* 32, no. 1 (1988), 29–45; Scott D. Sagan and Kenneth Waltz, *The Spread of Nuclear Weapons: A Debate Renewed*, 2nd ed., 2002.

⁶ Thomas C. Schelling, *Arms and Influence* (Yale University Press, 1966).

⁷ “The National Security Strategy 2002,” The White House, September 2002, <https://georgewbush-whitehouse.archives.gov/nsc/nss/2002/>.

⁸ “2022 Nuclear Posture Review,” in *2022 National Defense Strategy* (Office of the Secretary of Defense).

conventional, non-nuclear threats against U.S. allies with the employment of conventional forces.

The modern use of the term assurance links the concept to the policy of extended deterrence. Within extended deterrence, the aim is to influence the actions of an adversary against an ally. This is intended to both deter an adversary from aggression and convince an ally of one's commitment to their safety. As such, it can be deemed successful only if the adversary is deterred and the ally feels adequately protected.⁹ If not, then the ally may seek further security assurance from another source, either externally through a new security agreement or internally via weapons development.

The concept of ally reassurance, and the structural conditions underlying it, has been reviewed by a few academics. Jeffrey Knopf provided a thorough review in *Security Assurances and Nuclear Nonproliferation*.¹⁰ Looking at reassurance through both psychological and structural aspects, Knopf reviewed the earlier works of academics to compile the most complete work on alliance-focused reassurance to date. Academics that focus on the psychological aspects of reassurance, including Richard Lebow and Janice Gross Stein, point to the value of cooperative initiatives and symbolic gestures in assuring an ally of one's commitment to their security.¹¹ Robert Jervis and Charles Glaser, who place more value on the structural conditions behind ally reassurance, recommend defensive military capabilities as the key to success, which can be extrapolated to include troop basing and weapons deployment.¹² The two schools of thought differ in that those in the Stein and Lebow camp include broad-scale political agreements and public gestures, whereas Jervis and Glaser see it as strictly a military issue.

⁹ James A Russell, "Extended Deterrence, Security Guarantees, and Nuclear Weapons: U.S. Strategic and Policy Conundrums in the Gulf," *Strategic Insights* VIII, no. 5 (December 2009), 5.

¹⁰ Knopf, *Security Assurances and Nuclear Nonproliferation*.

¹¹ Richard Ned Lebow and Janice Gross Stein, "Beyond Deterrence," *Journal of Social Issues* 43, no. 4 (1987): 5–71; Richard Ned Lebow, "Deterrence and Reassurance: Lessons from the Cold War," *Global Dialogue* 3, no. 4 (Autumn 2001), 119–32; Richard Ned Lebow and Janice Gross Stein, "Deterrence and the Cold War," *Political Science Quarterly* 110, no. 2 (1995), 157–81; Richard Ned Lebow and Janice Gross Stein, "Deterrence: The Elusive Dependent Variable," *World Politics* 42, no. 3 (1990), 336–69.

¹² Robert Jervis, "Cooperation Under the Security Dilemma," *World Politics* 30, no. 2 (1978), 167–214.

2. On Nonproliferation

According to Knopf, the use of the term “assurances” is most seen in the realm of nuclear nonproliferation.¹³ The first effort at providing this assurance came from the NPT, which kickstarted the nonproliferation regime and has become nearly universally accepted, though the guarantees therein are rather ambiguous. John Simpson has covered this topic, describing the substance and beneficiaries of NPT-related assurances, though he goes further in questioning whether these can still be applied to future cases.¹⁴ That said, any existing security agreements between the United States and allies have inherently come about from a need for guarantees beyond those in the NPT.

Stephen Meyer argues, in his *The Dynamics of Nuclear Proliferation*, that there are three schools of thought on what could serve as motive for a state to seek out nuclear weapons.¹⁵ Most relevant to this thesis is his military security incentive, in which a country facing an existential threat could pursue nuclear weapons to increase its ability to meet a nuclear-armed adversary or one with an overwhelming conventional force. Kenneth Waltz concurs with this assessment, arguing that a country may feel the need to balance against nuclear-armed adversaries.¹⁶ Other academics have argued that a powerful enough ally offering a credible security guarantee would eliminate the need for a state to pursue its own program.¹⁷ If a U.S. ally were to determine that its security situation had changed, or lost enough belief in the validity of an American-backed deterrent, would it be more apt to turn towards the development of its own nuclear capability?

The challenge of ally reassurance has been tackled before within the context of American national security in the 21st century. INSS Occasional Paper 69, sponsored and

¹³ Knopf, *Security Assurances and Nuclear Nonproliferation*. Ch 2, 16.

¹⁴ John Simpson and Darryl A. Howlett, eds., *The Future of the Non-Proliferation Treaty* (New York, N.Y.: St. Martin's Press, 1995), 143–195.

¹⁵ Stephen M. Meyer, *The Dynamics of Nuclear Proliferation* (Chicago, IL: University of Chicago Press, 1986, Ch 1, 9–11.

¹⁶ Kenneth Waltz, ed., *Theory of International Politics* (Cambridge: Cambridge University Press, 1979).

¹⁷ Sonali Singh and Christopher R. Way, “The Correlates of Nuclear Proliferation: A Quantitative Test,” *The Journal of Conflict Resolution* 48, no. 6 (2004), 859–85.

released by the U.S. Government with input from a Science Applications International Corporation team, examines the challenges the United States has in providing extended deterrence and assurance to its allies. Noting that extended deterrence is becoming increasingly challenging due to changes in the global security environment, the authors point to ally assurance as a means of enhancing deterrent credibility. Of note, the authors concur with a core point from Knopf that U.S. allies may have different perceptions of the nature and scope of U.S. security commitments, further complicating efforts to provide assurance.¹⁸

Even more recently, in 2021, the Chicago Council on Global Affairs published a report from a task force co-chaired by former Secretary of Defense Chuck Hagel, former U.K. Foreign Secretary Malcolm Rifkind, and former Australian Prime Minister Kevin Rudd on the threat of nuclear proliferation among America's allies. The task force concluded that America's nuclear security guarantees are being threatened by a rapidly changing security environment and weakening alliances, due in part to growing military threats from Russia, China, and North Korea.¹⁹ Acknowledging that President Biden has promised to strengthen security obligations to U.S. allies, they recommend further collaboration and a rebuilding of collective defensive frameworks, including their nuclear dimension, in order to prevent nuclear proliferation among allies.²⁰ This call for increased coordination and consultation with allies falls right in line INSS Occasional Paper 69, though this task force goes farther and proposes some steps along the path forward, including increasing conventional defense capabilities in Asia and Europe while pursuing multilateral arms control with both Russia and China.²¹

¹⁸ Justin V. Anderson, Jeffrey A. Larsen, and Polly M. Holdorf, "Extended Deterrence and Allied Assurance: Key Concepts and Current Challenges for U.S. Policy," *USAF Institute for National Security Studies* INSS Occasional Paper 69 (September 2013).

¹⁹ Ivo H. Daalder et al., "Preventing Nuclear Proliferation and Reassuring America's Allies," Research (The Chicago Council on Global Affairs, February 10, 2021).

²⁰ Daalder et al.

²¹ Ibid.

D. POTENTIAL EXPLANATIONS AND HYPOTHESES

This study explores the hypothesis that a review of the U.S. response to historical cases of potential nuclear proliferation in West Germany and Japan can provide useful lessons that can be applied to the current cases of Turkey and South Korea. A rapidly changing global security climate has caused a growing uncertainty in Ankara and Seoul about the credibility of American security assurances, leading to calls for the development of autonomous nuclear weapons programs.

To maintain its nonproliferation goals while meeting the reassurance needs of its allies, the United States must strengthen the credibility of its extended deterrence and adapt it to the changing security environment. In their “Extended Deterrence and Allied Assurance: Key Concepts and Current Challenges for U.S. Policy,” Anderson, Larsen, and Holdorf argue that the credibility of American extended deterrence is based on the skillful display of determined political resolve and the employment of tailored military capabilities.²² Turkey and South Korea (and their adversaries) must be convinced that the United States is ready to bear the potential consequences of upholding its security commitment while deterring acts of aggression across diverse strategic operating landscapes. Can case studies of the United States successfully curtailing nuclear proliferation in West Germany and Japan provide insight into how to do the same with modern-day Turkey and South Korea?

1. Political Resolve

Public statements and diplomatic efforts by national leaders constitute a way of demonstrating political resolve. Strong declarations of support for the defense of allies play a crucial role in assuring those allies. A failure to express security guarantees can leave allies feeling more vulnerable.²³ The word of the president, in the absence of formal defense arrangements, becomes the foundation of the security relationship with partners. Such leadership statements are equally important for extended deterrence, signaling to

²² Anderson, Larsen, and Holdorf, “Extended Deterrence and Allied Assurance: Key Concepts and Current Challenges for U.S. Policy,” 8.

²³ Anderson, Larsen, and Holdorf, 16.

adversaries that certain nations are under U.S. protection. The president's statements carry the weight of the world's sole superpower, deterring threats against U.S. allies and partners.

Another way to demonstrate political resolve is declaratory policy, which guides the use of force. This is especially significant in extended deterrence, defining conditions that would trigger a U.S. military response against adversary actions targeting allies. Allies require clarity on the commitment to protect them from adversaries' nuclear forces, communicated directly from U.S. leadership.²⁴ For allies facing nuclear threats, U.S. declaratory policy is a cornerstone of their security relationship, ensuring that the United States is prepared to employ nuclear force to deter attacks.²⁵

As described by Anderson, Larsen, and Holdorf, political resolve can also be demonstrated by committing to defense treaties and security agreements.²⁶ U.S. security assurances to partners rely on personal relationships between leaders. Most defense commitments to allies, however, are formalized in official documents, which can be politically binding agreements or legally binding treaties. These security pacts underline the significance of written commitments for both the United States and its allies.²⁷ For adversaries of U.S. allies, formal security agreements significantly raise the possible costs of coercion or attack by suggesting the likelihood of U.S. military intervention. Likewise, many allies see these agreements as foundational, cementing the United States' commitment to extended deterrence.

2. Military Capability

The effectiveness of U.S. assurance strategies hinges on the perception of both allies and adversaries that the U.S. military possesses the capability to respond decisively to threats to allies.²⁸ This is especially crucial concerning adversaries with weapons of

²⁴ Keith Payne, Thomas Scheber, and Kurt Guthe, "U.S. Extended Deterrence and Assurance for Allies in Northeast Asia," March 2010, 9–11.

²⁵ Anderson, Larsen, and Holdorf, 14.

²⁶ Anderson, Larsen, and Holdorf, 9.

²⁷ Anderson, Larsen, and Holdorf, 16.

²⁸ Anderson, Larsen, and Holdorf, 24.

mass destruction (WMD), as allies (especially those lacking WMD capabilities) rely significantly or entirely on the United States to deter these threats. The commitments of extended deterrence and assurance span the entirety of U.S. military capabilities. U.S. operations designed to provide extended deterrence for allies necessitate the integration of both conventional and nuclear forces.²⁹

According to Anderson, Larsen, and Holdorf, U.S. conventional forces play a vital role in ensuring extended deterrence, serving as the primary means to respond to threats that could harm allies or destabilize strategic regions. They also serve to assure allies, demonstrating the commitment to their protection. The mobility and quick response of these forces offer tangible reassurance, curbing any inclination for destabilizing actions by allies. By deploying carrier groups, strategic air assets, or ground forces, the United States has repeatedly conveyed its commitment and deterred potential adversaries.³⁰

While nuclear weapons play a diminished role in U.S. security strategy, they remain vital for extended deterrence and assurance. American allies, except for the United Kingdom and France, lack independent nuclear arsenals and rely on the United States for nuclear deterrence. This dependence reinforces the role of American nuclear guarantees in discouraging nuclear proliferation. Visible and mobile nuclear forces, particularly nuclear-capable aircraft, hold significance for allies, as they discourage nuclear brinkmanship.³¹ According to the 2022 National Defense Strategy, “extended nuclear deterrence contributes to U.S. non-proliferation goals by giving Allies and partners confidence that they can resist strategic threats and remain secure without acquiring nuclear weapons of their own.”³²

U.S. forces frequently engage in combined exercises with allied and partner militaries. These exercises involve combined maneuvers, simulated combat scenarios, and collaboration between command elements, providing an opportunity for allies to

²⁹ Anderson, Larsen, and Holdorf, 24.

³⁰ Anderson, Larsen, and Holdorf, 26.

³¹ Anderson, Larsen, and Holdorf, 28.

³² “2022 National Defense Strategy of the United States of America: Including the 2022 Nuclear Posture Review and the 2022 Missile Defense Review” (U.S. Department of Defense).

collaborate and be better prepared to operate together in future conflicts.³³ Such exercises are crucial for both allied assurance and extended deterrence. Joint exercises demonstrate U.S. readiness to stand alongside allies and partners in future conflicts, fostering a sense of unity and preparation. These training operations also exhibit U.S. military power regionally, showcasing the ability to counter potential adversaries.

During the Cold War, several allies proposed hosting permanent bases for U.S. forces, including nuclear ones, to ensure a robust response to any attack on their territory. This assurance strategy continues today, as American troops stationed abroad offer a powerful defense against potential threats. While the superpower rivalry of the Cold War has evolved, many allies still value the presence of U.S. forces as a safeguard. They trust that in case of an attack on these forces, the United States would vigorously retaliate to protect them. The rotation of troops or temporary deployments to allied or partner nations also serves assurance purposes. U.S. bases also act as a potent deterrent against potential adversaries. The permanent U.S. presence compels potential enemies to consider the likelihood of American involvement in any conflict. Decisions on maintaining bases involve a long-term commitment requiring substantial resources from both the United States and the host nation, demonstrating a close partnership.

E. RESEARCH DESIGN

Examining Germany and Japan as case studies in the context of extended deterrence and nuclear proliferation provides a significant framework for gaining deeper insights into the complexities of ally reassurance. The historical trajectories and decisions of these two nations can offer valuable lessons that can be applied to contemporary global security challenges and the cases of Turkey and South Korea. Several key factors emphasize the importance of reviewing Germany and Japan as case studies in this context, beginning with the technological and industrial capabilities of both nations. Both Germany and Japan possessed the advanced technological capabilities that could enable them to develop nuclear weapons if they chose to do so, something that South Korea also demonstrates, and

³³ Anderson, Larsen, and Holdorf, “Extended Deterrence and Allied Assurance: Key Concepts and Current Challenges for U.S. Policy,” 20–21.

Turkey is building towards. Nevertheless, their strategic choices have been driven by a combination of international non-proliferation norms, security assurances from the United States, and domestic public sentiment. This restraint in the face of technological opportunity underscores the significance of diplomatic and security considerations in shaping these countries' nuclear decisions and ultimately nonproliferation.

Much like Turkey and South Korea, Germany and Japan have maintained robust alliances with the United States, benefiting from the security assurances provided by the U.S. nuclear umbrella. Their experiences as longtime allies offer insights into the effectiveness of extended deterrence in ensuring nonproliferation and the complexities of managing such alliances in an evolving international landscape. Finally, the geopolitical contexts of Germany and Japan, situated in Europe and East Asia respectively, offer a perspective on how allied nations navigate security challenges in these regions. By juxtaposing the experiences of Germany and Japan in the Cold War era with contemporary cases like Turkey and South Korea, we can draw parallels and contrasts that enhance our understanding of nuclear proliferation and ally reassurance dynamics. Analyzing the reasons behind Germany and Japan's restraint can inform discussions about whether allied nations with advanced technological capabilities might contemplate pursuing independent nuclear capabilities.

To assess the applicability of the German and Japanese experience to the effort to reassure Turkey and South Korea today, the thesis is divided into several chapters. Chapter II examines the German and Japanese cases of potential proliferation and U.S. reassurances. A review of these case studies will be used to identify ways that can be applied to today's effort to reassure Seoul and Ankara. Chapter III will focus on the Turkish case, with a review of the strategies employed by the United States regarding extended deterrence and reassurance for Turkey from the end of Cold War through today. Chapter IV will do the same for South Korea, including the implications of the recently announced Washington Declaration from April 2023. Finally, Chapter V will consist of an analysis of whether the lessons learned from the Germany and Japan case studies could be employed in both Turkey and South Korea to meet the assurance needs of these allies and decrease the potential for proliferation.

II. CASE STUDIES OF GERMANY AND JAPAN

A. CASE STUDY OF WEST GERMANY (LATER GERMANY)

Apprehensions regarding a German nuclear weapon program originated during World War II, when officials and academic alike became concerned that Nazi Germany might choose to devote the resources to equip its revolutionary cruise and ballistic missiles with an effective (nuclear) warhead. In the aftermath of the conflict, a divided Germany was subject to the demilitarization and disarmament efforts outlined in the Potsdam Agreement. Concurrently, the German nuclear industrial base was dismantled, and its senior research members and physics experts were taken into custody by both the Americans (with Operations Epsilon and Alsos under the larger Operation Paperclip) and Soviets. Uranium production in Germany was undermined by allied aerial bombardments carried out in 1945.³⁴ In the immediate postwar period, clandestine nuclear activity would certainly have been challenging for an occupied Germany, but German nuclear proliferation remained a concern for the United States, European allies, and Warsaw Pact adversaries throughout the Cold War.

The thought of German acquisition of an autonomous nuclear capability caused significant concern among policymakers in Washington and Europe before West Germany's acceptance into the North Atlantic Treaty Organization (NATO) in May 1955. On 23 October 1954, in a move aimed at concluding the allied occupation and integrating West Germany into NATO, Chancellor Konrad Adenauer endorsed a revised edition of the 1948 Brussels Treaty. The agreement included a provision stating that "the Federal Republic undertakes not to manufacture in its territory any atomic weapons, chemical weapons, or biological weapons."³⁵ That same month, Werner Heisenberg reaffirmed this commitment to U.S., British, and French officials in Washington, D.C., stating that "Germany would not develop an atomic weapons program" but also expressing a desire to

³⁴ Mark Walker, *German National Socialism and the Quest for Nuclear Power: 1939–1949*, 1. paperback ed (Cambridge: Cambridge Univ. Press, 1993), 266.

³⁵ William Burr, "The Nuclear Nonproliferation Treaty and the German Nuclear Question: Part 1, 1954–1964," National Security Archives, February 2, 2018.

build a reactor, refine uranium, and perhaps enrich it in the future.³⁶ Any such uranium production efforts would have been severely limited by Germany's ratification of the European Defense Community in 1952, a short-lived and never-ratified effort before their eventual acceptance into NATO.

Although Heisenberg's commitment against nuclear weapons was strong, Adenauer's belief in American security guarantees wavered. He sought means to bypass the 1954 declaration, seeing cooperation with France as an answer.³⁷ By mid-1957, London and Washington diplomats became uneasy as France and West Germany formalized plans for advanced weapons development, an agreement that later included Italy. The Americans and British saw a future NATO risk if Germany gained weapons from Franco-German research, bypassing Western European Union restrictions. Adenauer informed Secretary of State John Foster Dulles about the France-Italy-Germany project in December 1957, inaccurately portraying it as a proposal. Dulles sought to further involve the United Kingdom and United States to "keep the situation under control as regards the undue spreading of nuclear weapons."³⁸ Although the France-Italy-Germany project would eventually die out in 1958 after policy changes by French President Charles de Gaulle resulted in the suspension of French nuclear research, American and British concerns about proliferation in western Europe continued.

By 1960, West German leaders were expressing a desire to play an increased nuclear role to counter the growing Soviet strategic missile threat. Concurrently, the United States was becoming concerned that the Soviet threat was causing concerns regarding the credibility of American security guarantees among its NATO partners.³⁹ American

³⁶ "Memorandum of Conversation, 'German Atomic Energy Program,' 27 October 1954" (Department of State Records, Record Group 59, U.S. National Archives (RG 59), Central Decimal Files, 1950–1954, 862A.8458/10-2754).

³⁷ Burr, "The Nuclear Nonproliferation Treaty and the German Nuclear Question: Part 1, 1954–1964."

³⁸ "John Foster Dulles, Memorandum of Conversation with Chancellor Adenauer, 14 December 1957 from Foreign Relations of the United States, 1955–1957, Central and Southeastern Europe, Volume XXVI" (Government Printing Office, 1992).

³⁹ "Hugh S. Cuming, Director, Office of Intelligence and Research, to Secretary of State, 'Growing Revelation of West German Interest in Nuclear Striking Force in Europe,' 18 February 1960," National Security Archives, February 18, 1960.

intelligence would issue a report to the Secretary of State, stating that “there is no evidence to suggest that West Germany has the will at the present time to produce atomic weapons or exercise national control over the use of any such weapons.”⁴⁰ Furthermore, the report would outline that, for West Germans, the “most practical solution” would be to station U.S. strategic nuclear weapons in Europe as a means of “strengthening the U.S. commitment.”⁴¹

The election of President Kennedy in 1960 brought new minds into the positions of power, though concern about West German proliferation would continue. In a message to British Prime Minister Harold Macmillan regarding potentially providing assistance to the French nuclear program, Kennedy voiced his opposition, noting that any such aid would likely lead to increased Germany desire for the bomb while undermining NATO and leading to “serious dangers attendant on proliferation of nuclear weapons capabilities.”⁴² The Berlin Crisis of 1961 seemingly increased the desire of some members of the West German cabinet for a small, autonomous nuclear capability, with the belief that it would provide a better deterrent capability against the Soviet Union while giving its western allies “nothing to fear.”⁴³

In discussions with the West German chancellor in November 1961, Kennedy sought Adenauer’s stance on nuclear matters, specifically his views on the 1954 declaration against producing nuclear, biological, and chemical weapons.⁴⁴ Concerned that West German nuclear experimentation might be a *casus belli* for Moscow, Kennedy was assured

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² “State Department Telegram 5245 to U.S. Embassy United Kingdom, Sending Message from President Kennedy to Prime Minister Macmillan,” National Security Archive, May 6, 1961.

⁴³ “Central Intelligence Agency, Information Report Telegram, ‘Foreign Policy Aims of Strauss, Schroeder and Some FDP Leaders,’” (National Security Archive, November 20, 1961), Record Group 59, Department of State Records, National Archives (RG 59), Bureau of European Affairs. Office of German Affairs, Records Relating to Berlin, 1957–1963 box 4, POL 7 Adenauer, Chancellor Nov 20–22.

⁴⁴ “Memorandum of Conversation, Private Conversations Between the President and Chancellor Adenauer, ‘Germany’” (National Security Archive, November 21, 1961), RG 59, Conference Files, 1949–1972, box 268, CF 1993 Adenauer Visit Washington, 11/20-22/1961.

by Adenauer that his government was not contemplating it.⁴⁵ Despite Kennedy's persistence, Adenauer stated that no domestic pressure existed to alter the nuclear stance but mentioned a desire to be more play a greater role in the maintenance of U.S. warheads in Germany.⁴⁶ The U.S. embassy in Germany still believed that West Germany was considering a nuclear program. In a 1962 telegram, it advised the State Department that German nuclear ambitions could be tempered by "existing treaty commitments, particularly NATO, backed by effective nuclear deterrent" and participation in multilateral nuclear arrangements.⁴⁷

In the early 1960s the Kennedy administration, believing that the Soviets would be open to supporting an agreement on nuclear nonproliferation, began discussions with Moscow. The central point in the suggested agreement, to be presented as a declaration by both nuclear and non-nuclear nations, concerned the status of U.S. nuclear presence in non-nuclear countries.⁴⁸ This non-transfer commitment would not stop either side from stationing nuclear weapons to aid NATO or Warsaw Pact allies but would require that the United States and USSR would maintain control over these weapons. A sticking point in negotiations was the allowance for both powers to position nuclear arms for use by a multinational defense force (such as within NATO or the Warsaw Pact). The first two sections of the agreement outlined obligations for nuclear states to avoid directly or indirectly providing non-nuclear states with nuclear arms. The non-nuclear nations would commit not to produce, receive, or request assistance in creating nuclear arms.⁴⁹

Franco-German cooperative research in the nuclear energy field and the development of nuclear energy reactors in Germany in the 1960s continued to drive some

⁴⁵ "Memorandum of Conversation, Private Conversations Between the President and Chancellor Adenauer, 'Germany'."

⁴⁶ Ibid.

⁴⁷ "U.S. Embassy West Germany Telegram 43 to State Department" (National Security Archive, July 25, 1962), RG 59, Central Decimal Files 1960–1963, 751.5611/7-2562.

⁴⁸ "Secretary of State to the President, 'Agreement on Non-Diffusion of Nuclear Weapons,' 27 November 1962, with Enclosures and Cover Memorandum from McGeorge Bundy, 28 November 1962." (National Security Archive, November 27, 1962), RG 59, Decimal Files, 700.5611/11-2862.

⁴⁹ Ibid.

apprehension on the part of the Kennedy administration, which maintained that German development of its own weapons would only increase the ongoing tensions of the Cold War. Seeking to increase West Germany's role without giving them autonomous control over warheads, Kennedy sought to include them in a Multilateral Force (MLF) proposal. A concept from the Eisenhower administration, the MLF proposal would have seen a fleet of ballistic missile submarines and warships armed with Polaris missiles and crewed by NATO personnel for the defense of western Europe.⁵⁰ Seeing it as a preferred alternative to nuclear proliferation, Kennedy urged Prime Minister Macmillan to support the MLF concept, though disagreements on funding and basing issues ultimately led to it never being implemented.

During an exchange between President Kennedy and Soviet Foreign Minister Andrei Gromyko in October 1963, the Soviet opposition to the MLF and its effect on a potential nonproliferation agreement was prominently highlighted. Gromyko contended that parties should not indirectly access nuclear weapons through alliances, while Kennedy responded by expressing its ability to limit Germany's nuclear ambitions.⁵¹ Gromyko ultimately pressed for a broader agreement, to which Kennedy agreed and emphasized the need for ongoing non-dissemination efforts. Although the MLF was seen as beneficial for nonproliferation efforts by Kennedy administration officials, American allies opposed Germany's involvement, and the Soviets feared West German access to nuclear weapons. These differences eventually hindered the creation of the MLF and progress towards a nonproliferation agreement, though discussions on the MLF would eventually lead to the establishment of the NATO Nuclear Planning Group in 1966.

Concern about German proliferation continued into the Lyndon Baines Johnson administration, with Secretary of Defense Robert S. McNamara directing the U.S. Intelligence Board to conduct an intelligence estimate aimed at providing an analysis of

⁵⁰ Wilfrid L. Kohl, "Nuclear Sharing in NATO and the Multilateral Force," *Political Science Quarterly* 80, no. 1 (March 1, 1965), 89.

⁵¹ "Memorandum of Conversation, 'Non-Dissemination and the MLF,' 10 October 1963" (National Security Archive, October 10, 1963), John F. Kennedy Library, NSF, Box 187, USSR, Gromyko Talks, President.

West Germany's nuclear "capabilities and intentions" in 1966.⁵² The report found that while it was capable of producing the fissile material for a warhead within two years, West Germany would "almost certainly not" develop a weapons program unless it were to fear for its security in a "radical change in the basic structure of the political relationships in the postwar world," such as a drastic shift in U.S. security policy regarding Europe.⁵³ Also noted in the intelligence estimate was the fact that internal support for nuclear weapons development within the country remained low, for fear of alienation and American withdrawal. Of note, intelligence experts also noted that further nuclear proliferation would not seriously impact German decision making or policy unless it was by Japan. Seeing Japan as "another previously defeated country" with close ties to the U.S., it was thought that Japanese nuclear developments might serve to intensify pro-nuclear discussion in West Germany.⁵⁴

As NPT negotiations reached a standstill in Geneva in summer 1966, American leaders began to withdraw their backing for MLF-based agreements, which had been a barrier to reaching a larger understanding with the Soviets.⁵⁵ Over the next few years, discussions on the NPT centered around the issues of physical access to weapons in Europe and Soviet concerns over their "use, control, and ownership," fearing proliferation of U.S. weapons or weapons technology across western Europe.⁵⁶ U.S. proposals for the exact wording of non-transfer agreements were seen by the Soviets as a "hopeful sign," but they still held out over concerns that "existing U.S. bilateral agreements" would provide West Germany with access to weapons.⁵⁷ Only after working out the details on the treaty language with Moscow did President Johnson bring West German leaders into the

⁵² William Burr, "The Nuclear Nonproliferation Treaty and the German Nuclear Question Part II, 1965–1969," National Security Archive, March 21, 2018.

⁵³ "National Intelligence Estimate 23–66, 'West German Capabilities and Intentions to Produce and Deploy Nuclear Weapons,'" (National Security Archive, April 28, 1966).

⁵⁴ Ibid.

⁵⁵ Burr, "The Nuclear Nonproliferation Treaty and the German Nuclear Question Part II, 1965–1969."

⁵⁶ Ibid.

⁵⁷ "Adrian Fisher, Acting Director, ACDA, to Hays Redmon, Staff Assistant to the President, Enclosing 'Summary of Recent Soviet "Signals" on Non-Proliferation'" (National Security Archive, September 23, 1966), RG 383, Director's Office NPT Files, box 8, Non-Proliferation, William C. Foster.

discussion. West German leaders were initially skeptical and wary due to their lack on inclusion from the start, but became more receptive after receiving assurances from the United States on interpretations of the treaty with regards to “anti-ballistic missile weapons, the application of IAEA safeguards, peaceful nuclear explosives, and the peaceful uses of nuclear energy.”⁵⁸ Even with U.S. pressure to support to the NPT, West Germany would not sign on until 28 November, 1969 after the election of Chancellor Willy Brandt resulted in increased determination towards the effort.

Maintaining U.S. forces in West Germany was a visible representation of the American commitment to defending NATO allies and its role in deterring potential Soviet aggression in Europe. The troop levels reflected the intensity of the Cold War tensions and the strategies employed by both NATO and the Soviet-led Warsaw Pact. During the early years of the Cold War, the United States deployed a substantial number of troops to West Germany, ranging from around 100,000 to 200,000. This number remained significantly high during the 1960s and 1970s, with troop levels estimated at between 200,000 and 250,000 personnel.⁵⁹ The defensive partnership between the United States and West Germany also encompassed multiple command centers, weapons systems, and extensive storage facilities for equipment and operational bases. This represented an extraordinary concentration of military capability within a single nation, with indispensable American assistance and a substantial contribution from West Germany.

A multitude of combined arms exercises were conducted throughout the 1950s and 1960s to showcase NATO intentions and capabilities to counter potential adversaries. The U.S. contribution was crucial, emphasizing its effort to establish the Alliance’s deterrence and defense credibility. An illustrative instance of a deployment exercise was Operation Big Lift (22-23 October 1963), when 14,500 American troops were swiftly flown from Texas to Europe to exhibit rapid emergency reinforcement. Starting in 1969, the Return of Forces to Germany series of exercises further underscored both the commitment and

⁵⁸ “‘Interpretations Regarding Draft Non-Proliferation Treaty Formulations’” (U.S. Department of State, February 22, 1967), RG 383, Director’s Office NPT Files. box 3, Nonproliferation Treaty Germany Jan-Feb-March 1967.

⁵⁹ NATO, “Germany and NATO,” NATO, accessed August 12, 2023, http://www.nato.int/cps/en/natohq/declassified_185912.html.

capability of the United States regarding the defense of West Germany on an annual basis.⁶⁰

Prior to the 1990 German reunification, both East and West Germany voted to ratify Treaty on the Final Settlement with Respect to Germany. With this treaty, a unified Germany reaffirmed its rejection of creating, holding, or controlling nuclear, biological, and chemical weapons. The agreement also prohibited the placement of nuclear weapons within East Germany, establishing a permanent Nuclear-Weapon-Free Zone. Despite regular demonstrations in Germany against the staging of American nuclear weapons, German leadership has supported the NATO nuclear weapons sharing arrangement, under which the United States allocates B61 nuclear bombs for use in wartime by German dual-capable aircraft.⁶¹ With few exceptions, German leaders in the post-Cold War period have supported the nuclear deterrent of American weapons and the NATO sharing agreement. In response to a 2007 statement by former German defense secretary Rupert Scholz that Germany should pursue its own nuclear capability, Chancellor Angela Merkel reiterated that Germany “had no interest in possessing nuclear weapons.”⁶² As recently as November 2021, current Chancellor Olaf Schulz again reaffirmed Germany’s commitment to the NATO nuclear sharing commitment, demonstrating the effectiveness of the practice in limiting nuclear proliferation.⁶³

B. LESSONS LEARNED FROM GERMANY

West Germany’s decision to not pursue a nuclear weapon is a testament to the ability of keen political resolve, demonstrated through public statements, diplomacy, and security agreements, and the presence of effective military capability, including

⁶⁰ Ibid.

⁶¹ “NATO’s Nuclear Sharing Arrangements: Factsheet” (North Atlantic Treaty Organization, February 2022).

⁶² “Yankee Bombs Go Home: Foreign Minister Wants U.S. Nukes out of Germany,” *Der Spiegel*, April 10, 2009.

⁶³ Sebastian Sprenger, “Incoming German Government Commits to NATO Nuclear Deterrent,” *Defense News*, November 24, 2021.

conventional and nuclear forces, combined exercises, and troop basing, in meeting the security needs of both the United States and its allies.

American apprehensions about a clandestine German program were based in the Nazi atomic bomb initiative during WWII. The post-war landscape of a divided Germany subjected to demilitarization and disarmament efforts following the Potsdam Agreement shifted the narrative. The dismantling of the German nuclear industrial base, coupled with the removal of senior research members, significantly impeded any potential nuclear endeavors. Despite this, the United States and NATO allies remained concerned about the potential for a West German nuclear weapon.

Crucial to Germany's trajectory during this time was Chancellor Konrad Adenauer's endorsement of the revised 1948 Brussels Treaty in 1954, pledging not to manufacture atomic weapons on German soil. This political commitment was reinforced by physicist Werner Heisenberg's reassurances in Washington, D.C., emphasizing West Germany's decision to not pursue a nuclear weapons program. Internally, however, West Germany was still considering an autonomous nuclear capability. Despite his assurances to the U.S., Chancellor Adenauer's waning confidence in American security commitments led him seek cooperation with France, reflecting a delicate balance between U.S. national interests and an ally's reassurance.

Even West Germany's integration into NATO in 1955, an example of the demonstration of political resolve via cooperative security agreement, did not fully eliminate concerns over proliferation. The evolving political landscape led to Franco-German cooperative research, raising concerns among American officials. President Kennedy's efforts to involve Germany in the MLF proposal and his one-on-one meetings with Chancellor Adenauer in 1961 demonstrate the utilization of security agreements and diplomacy, respectively, in securing an alternative to autonomous weapons development.

Throughout this period, the presence of American troops in West Germany underscored the commitment to its defense and the deterrence of Soviet aggression. Combined arms exercises like Operation Big Lift in 1963 showcased NATO capabilities, and the REFORGER exercises emphasized rapid reinforcement, further emphasizing the

importance of the demonstration of consistent, effective military capability in both extended deterrence and ally reassurance.

During the 1960s and 1970s, amid the complexities of the Cold War and the evolving political landscape, West German leaders became increasingly more receptive to U.S. assurances and diplomatic efforts to prevent nuclear proliferation, including taking part in NATO nuclear sharing and agreeing to the basing of nuclear weapons on their soil. U.S. intelligence estimates and diplomatic efforts with West Germany's leaders highlighted the nation's commitment to security within established treaties and a desire for cooperation in management of nuclear assets within their borders. Ultimately, German leaders' belief in the effectiveness and validity of U.S. security commitments led them to abandon an autonomous nuclear capability and ratify the NPT.

The culmination of these efforts further resulted in a unified Germany's rejection of nuclear weapons, solidified in the Treaty on the Final Settlement with Respect to Germany. The continued commitment to NATO's nuclear sharing agreement and Chancellor Olaf Schulz's recent affirmation of Germany's dedication to the arrangement underscore the enduring impact of America's political resolve and military capability in shaping Germany's decision not to pursue nuclear weapons.

C. CASE STUDY OF JAPAN

Japan's nuclear history predates the 1945 attacks on Hiroshima and Nagasaki, as the nation's military pursued atomic energy for both explosives and propulsion during WWII. Limitations in industrial infrastructure and resources, as well as fissionable materials, hindered progress on this front. Post-war public sentiment in Japan naturally turned against nuclear endeavors due to their wartime experience and the 1954 Lucky Dragon incident, during which radioactive fallout from a U.S. test in Bikini Atoll contaminated a fishing vessel. Despite this history, some more conservative Japanese leaders have called for potential nuclear armament since the end of Japanese post-war occupation in 1952. As early as 1956, future Japanese Prime Minister Kishi Nobusuke

faced a public backlash and retracted a statement about Japan possessing tactical nuclear weapons.⁶⁴

While the Japanese Constitution does not outlaw nuclear weapons, the 1955 Atomic Energy Basic Law expressly forbid any military intentions behind Japanese nuclear endeavors. The fundamental principle outlined in Article 2 of this law is that all research and use of nuclear energy will be exclusively for peaceful purposes.⁶⁵ The law also created supervisory institutions to oversee safety and regulatory matters and forms the foundation of Japan's continuing commitment to a peaceful and open nuclear program.⁶⁶

While the government opposed nuclear weapons on Japanese soil publicly, officials knew they could not halt U.S. deployments due to the terms laid out under the post-war alliance.⁶⁷ U.S. military leaders and government officials, recognizing the potential issues at hand and acknowledging public opinion, chose not to stage nuclear weapons on the Japanese mainland, instead choosing to base them on the Bonin and Ryukyu islands over which it maintained authority.⁶⁸

While fully mission ready nuclear weapons were not allowed on the mainland, Japan still housed a vast infrastructure of American strategic weaponry and warships with nuclear arms frequented Japanese ports. Okinawa, the primary Ryukyu island and a pivotal Pacific location, became a crucial base for both conventional and nuclear forces during this time.⁶⁹ Iwo Jima and Chichi Jima in the Bonin island chain also served as depots for resupplying nuclear submarines.⁷⁰ Benefiting from a greater operational freedom in these territories compared to limitations with their mainland bases, the U.S. military was

⁶⁴ John Swenson-Wright, *Unequal Allies?: United States Security and Alliance Policy Toward Japan, 1945–1960* (Stanford: Stanford University Press, 2005), 150–159.

⁶⁵ “Atomic Energy Basic Act – Japanese/English,” Japanese Law Translation, December 19, 1955.

⁶⁶ Emma Chanlett-Avery and Mary Beth Nikitin, “Japan’s Nuclear Future: Policy Debate, Prospects, and U.S. Interests” (Congressional Research Service, February 19, 2009).

⁶⁷ Robert S. Norris, William M. Arkin, and William Burr, “Where They Were: How Much Did Japan Know?,” *The Bulletin of the Atomic Scientists* 55, no. 6 (February 2000), 12.

⁶⁸ Ibid.

⁶⁹ Norris, Arkin, and Burr, 13.

⁷⁰ Ibid.

reluctant to relinquish these positions. Consequently, it opposed attempts to restore Japanese administrative control over these territories.

In June 1960, the Japanese and American officials completed deliberation and signed the Treaty of Mutual Cooperation and Security between the United States and Japan (or U.S.-Japan Security Treaty). Intended to replace an earlier version signed in 1951 which concluded the U.S.-led Occupation of Japan, the new treaty substantially altered the U.S.-Japan security agreement to foster greater mutual cooperation, establishing a de facto military alliance. The initial 1951 treaty had allowed for the United States to deploy forces within East Asia without consulting Japan and lacked a clear commitment to defend Japan.⁷¹ The new agreement introduced clauses outlining mutual defense obligations and mandating prior notification to Japan before U.S. force mobilization. Additionally, it granted Tokyo a veto over nuclear weapons deployment. Later agreements between the two nations ensured that Japan would still accept port visits by nuclear-armed American ships.⁷²

Throughout the 1960s, the United States maintained a substantial and conspicuous nuclear stockpile in the region as a visible testament to its commitment to Japanese security. The Asia-Pacific region housed around 3,000 U.S. nuclear weapons, with approximately 1,200 located in Okinawa, where American strategic bombers were stationed.⁷³ These deployments served to not only reassure U.S. allies in the region but also to send a formidable deterrent message to potential adversaries.⁷⁴

Shortly before Eisaku Satō's assumption as prime minister in 1964, China conducted its first successful nuclear test, pressuring Japan to respond to this new potential threat. Initially, Prime Minister Satō's solution was straightforward. He believed that if

⁷¹ Swenson-Wright, *Unequal Allies? United States Security and Alliance Policy Toward Japan, 1945–1960*, 138.

⁷² Fintan Hoey, "Japan and Extended Nuclear Deterrence: Security and Non-Proliferation," *Journal of Strategic Studies* 39, no. 4 (June 6, 2016), 484–501.

⁷³ Richard J. Samuels and James L. Schoff, "Japan's Nuclear Hedge: Beyond 'Allergy' and Breakout," *Political Science Quarterly* 130, no. 3 (2015), 475–503.

⁷⁴ Sean A Newman, "Japan and the Bomb: Perspectives from Southeast Asia" (Thesis, Monterey, CA, Naval Postgraduate School, 2019), 35.

others possessed nuclear weapons, Japan should as well, stating to U.S. Ambassador Edwin Reischauer “if [the] other fellow had nuclear [weapons] it was only common sense to have them oneself”.⁷⁵ This aligned with earlier American intelligence noting Satō’s enthusiasm for proliferation and caused Reischauer to convey his concerns about Satō to the State Department. With specter of a nuclear China now a real threat, the U.S. embassy emphasized the need to reassure Japanese leaders about U.S. deterrent power in Asia and the Pacific.

A U.S. intelligence report at the time estimated that, were Japan to pursue nuclear weapons, it could “test its first nuclear device as early as 1971” and be able to produce nuclear-capable ballistic missiles at scale by 1975.⁷⁶ While it was clear that Japan possessed the means to develop an autonomous nuclear weapon, it now appeared as though they were strongly considering doing so.⁷⁷

In Washington, policymakers grappled with the global proliferation implications of this report and China’s test. Some leaders viewed further proliferation as inevitable, seeing allies taking more of a role in their own defense as a positive; others warned that more nuclear weapon states could destabilize and escalate conflicts while simultaneously diminishing U.S. influence.⁷⁸ To bridge these viewpoints, multilateral options for nuclear weapon sharing were proposed, including a nuclear-sharing scheme for Asian allies that was similar in nature to the MLF proposed in Europe. Vice President Hubert Humphrey noted that such a move could achieve the combined security goals of Japan and the United States regarding China, inviting Japanese Foreign Minister Miki Takeo to have “a hand on the [nuclear] umbrella” during a meeting in 1965.⁷⁹

⁷⁵ Roland Popp, Liviu Horovitz, and Andreas Wenger, *Negotiating the Nuclear Non-Proliferation Treaty: Origins of the Nuclear Order* (Taylor & Francis, 2016), 165.

⁷⁶ Francis J. Gavin, *Nuclear Statecraft* (Cornell University Press, 2012), 88. Source pulled from Newman, “Japan and the Bomb: Perspectives from Southeast Asia”

⁷⁷ Newman, “Japan and the Bomb: Perspectives from Southeast Asia,” 33.

⁷⁸ Hoey, “Japan and Extended Nuclear Deterrence,” 489.

⁷⁹ Hoey, 490.

During Satō's initial meeting with President Lyndon Johnson in January 1965 these plans were discussed, but not solidified. Johnson assured Satō that the U.S., as ensured by the U.S.-Japan Security Treaty, would safeguard Japan against any attack, to include nuclear.⁸⁰ This verbal pledge of an extended deterrent by the American President was reiterated, likely with the secondary intent to temper Satō's interest in an independent Japanese deterrent, according to Fintan Hoey.⁸¹ This assurance was later revealed to have been motivated by the U.S. government's aim to prevent Japan from developing its nuclear arsenal, rather than introducing nuclear weapons to Japan. Ultimately the failure of the European MLF concept likely doomed its Asian counterpart, as did a shift in U.S. policy towards a robust global non-proliferation policy, eventually culminating in the signing of the NPT.

Despite such a significant change in American nuclear policy, Japan experienced a more gradual shift in approach from considering an independent nuclear capability towards reliance on the U.S. nuclear umbrella.⁸² This change was heavily influenced by public opinion, which remained largely against rearmament and an independent Japanese deterrent.⁸³ Perhaps surprisingly was that, despite a lack of desire for nuclear weapons, 75% of Japanese citizens believed it was probable that Japan would eventually develop them per a 1970 poll.⁸⁴ A major shift in Satō's public declarations came during a speech to the Japanese legislature in December 1967. Here, he would introduce the Three Non-Nuclear Principles, pledging against producing, possessing, or allowing nuclear weapons on Japanese territory.⁸⁵ Satō's would later introduce the Four Pillars of Nuclear Policy concept, adding on global disarmament, peaceful nuclear energy use, and reliance on the

⁸⁰ Hoey, "Japan and Extended Nuclear Deterrence," 490.

⁸¹ Ibid.

⁸² Hoey, 491.

⁸³ Ibid.

⁸⁴ Yasumasa Tanaka, "Japanese Attitudes Toward Nuclear Arms," *The Public Opinion Quarterly* 34, no. 1 (1970), 26–42. Source pulled from Hoey, "Japan and Extended Nuclear Deterrence."

⁸⁵ Hoey, 492.

U.S. nuclear deterrent though only the initial Three Non-Nuclear Principles would be adopted as an official resolution by the Japanese legislature.

Despite assurance from the United States, Satō instructed the Japanese Cabinet Research Bureau to initiate a covert study review of Japan's potential for nuclear weapon development by assessing the feasibility and advisability of such a program.⁸⁶ Known as the 1968/70 Internal Report, the study evaluated both the political and technical aspects of a program, highlighting Japan's technical capability but emphasizing challenges such as test site scarcity. The report emphasized the U.S. nuclear umbrella as Japan's best security option, avoiding neighbor provocation and domestic opposition, echoing the Four Pillar concept.⁸⁷ Of note, the study specifically called out France's development of an independent deterrent, deeming a potential Japanese emulation of the same as more of a vanity project than a security strategy.⁸⁸

The report underlined the complexities of Japan's position at the time, facing two nuclear-armed potential adversaries within its security sphere of concern, China, and the Soviet Union.⁸⁹ An independent deterrent could serve to destabilize regional security and trigger concerns in both potential adversaries and their American allies. Neighboring countries would also naturally view a Japanese bomb with alarm. Satō reassured neighboring leaders of Japan's non-nuclear stance at diplomatic engagements during this time, seeing extended deterrence emerge as Japan's most suitable nuclear security solution.⁹⁰

Securing the benefits of the American nuclear umbrella proved challenging to Satō, who faced internal public opinion pressure against rearmament and for reversion of

⁸⁶ Anthony Difilippo, *Japan's Nuclear Disarmament Policy and the U.S. Security Umbrella* (New York: Palgrave Macmillan U.S., 2006), 45. Source pulled from Hoey, "Japan and Extended Nuclear Deterrence."

⁸⁷ Hoey, "Japan and Extended Nuclear Deterrence," 494.

⁸⁸ Benjamin Self and Jeffrey W. Thompson, eds., *Japan's Nuclear Option: Security, Politics, and Policy in the 21st Century* (Washington, D.C.: The Henry L. Stimson Center, 2003), 7.

⁸⁹ Yuri Kase, "The Costs and Benefits of Japan's Nuclearization: An Insight Into the 1968/70 Internal Report," *The Nonproliferation Review* 8, no. 2 (June 2001), 55.

⁹⁰ Hoey, "Japan and Extended Nuclear Deterrence," 494.

previous Japanese holdings, including Okinawa. By 1969, the new Nixon administration aimed to reach a settlement regarding the return of the Ryukyu Island chain. The presence of nuclear weapons on Okinawa posed a significant hurdle, as the U.S. military opposed their removal due to regional strategic concerns.⁹¹ Despite their secrecy, it was widely believed that nuclear weapons were present on the island. Initially, Satō maintained a neutral stance in hopes that public desire for territory reversion and reunification would overshadow the public's aversion to nuclear weapons placement, though later he would push for non-nuclear reversion.⁹²

The development of submarine-launched ballistic missiles (SLBMs) offered an alternative to forward nuclear bases on Japanese soil and a potential solution to the Okinawa issue. The Japanese Foreign Ministry crafted a draft secret agreement indicating Japan's willingness to reintroduce nuclear weapons in times of heightened tensions, aimed at maintaining the credibility of the nuclear umbrella, and a secret commitment was eventually signed by both Nixon and Satō, ensuring nuclear diplomacy during the reversion of Okinawa.⁹³ This episode highlighted the willingness of Japanese officials to maintain the credibility of extended deterrence, even while keeping the details hidden from their public due to potential political consequences.⁹⁴

Japan encountered another critical juncture concerning nuclear weapons when it came to ratifying the NPT. Despite its history as the sole victim of nuclear attacks, Japan's support for the NPT was countered by opposition within both the government and military by hardliners that feared a loss of autonomy. Some members of the ruling Japanese political party resisted committing to a permanent renunciation of nuclear weapons, supported by the civilian nuclear energy sector which was wary of potential espionage during inspections

⁹¹ Ibid.

⁹² Hoey, 495.

⁹³ Wakaizumi Kei, *The Best Course Available: A Personal Account of the Secret U.S.-Japan Okinawa Reversion Negotiations* (University of Hawai'i Press, 2002), 196.

⁹⁴ Hoey, "Japan and Extended Nuclear Deterrence.," 496.

by the International Atomic Energy Agency.⁹⁵ Once these concerns were addressed, opposition to the NPT melted, and Japan eventually ratified the treaty in 1976. The Japanese leaders initially opposed to NPT ratification discussed a latent deterrent strategy as a sort of nuclear hedging approach.⁹⁶

In the late 90s and early 2000s, Japanese policymakers increasingly brought the validity of the three non-nuclear principles into question. In 1998, the nuclear tests conducted by both India and Pakistan and the launch of a North Korean Taepodong-1 missile over Japan prompted public concern and led some to advocate for either military buildup or the pursuit of nuclear weapons.⁹⁷ Concerned about a perceived lack of international condemnation towards these actions, Deputy Vice Minister of Defense Shingo Nishimura suggested initiating a serious discussion on Japan's nuclearization.⁹⁸ This proposal led to an immediate public outcry, resulting in Nishimura's resignation from his position. Prime Minister Keizō Obuchi responded by reiterating Japan's commitment to its non-nuclear principles. In 2002, Chief Cabinet Secretary (and future Prime Minister) Yasuo Fukuda made a comment suggesting that Japan might need to possess nuclear weapons based on circumstances and public opinion.⁹⁹ This too, was met with immediate public outrage, and Prime Minister Junichiro Koizumi was forced to insist that his government has no intention of reevaluating Japan's non-nuclear principles.

This period also witnessed a period of heightened defense collaboration between the two allies. Japan began participating in the biennial Rim of the Pacific Exercise in 1992, conducting combined air and naval operations, and enhancing the partnership's deterrent effect. In 2015, under Prime Minister Abe, Japan underwent a significant constitutional reinterpretation, allowing its military to defend allies for the first time, albeit under

⁹⁵ John E. Endicott, "The 1975–76 Debate Over Ratification of the NPT in Japan," *Asian Survey* 17, no. 3 (February 11, 1948): 275–92. Source pulled from Hoey, "Japan and Extended Nuclear Deterrence."

⁹⁶ Endicott, "The 1975–76 Debate Over Ratification of the NPT in Japan."

⁹⁷ Yuki Tatsumi, "Japan's Nuclear Option: A Debate Revisited," *St Antony's International Review* 4, no. 2 (2009), 81.

⁹⁸ Jonathan Watts, "Japanese Apology for Nuclear Call," *The Guardian*, October 21, 1999..

⁹⁹ Alex Wagner, "Japanese Aide's Comments on Nuclear Policy Spark Controversy," Arms Control Association, August 2002.

restricted circumstances. This transformation played a pivotal role in enabling the United States and Japan to revisit their defense guidelines, thus broadening the scope of their military collaboration; combined exercises between United States and Japan's Self Defense Forces became increasingly more common.¹⁰⁰ This increased cooperation focused the alliance on addressing contemporary threats and emerging technologies, including in the realm of missile defense. Per the 2019 Department of Defense Missile Defense Review, the United States now conducts bilateral missile defense training exercises with Japan and recognizes them as one of our "strongest missile defense partners."¹⁰¹

Over the past decade, Japanese leadership has been more supportive of the U.S. nuclear umbrella. Former Prime Minister Shinzo Abe and Former President Donald Trump released a joint statement in 2017 in which they explicitly renewed their dedication to the alliance backed by both conventional nuclear capabilities, including "commitment of the United States to provide highly sophisticated defensive equipment to Japan, particularly in the area of ballistic missile defense to ensure the readiness and effectiveness of the Japanese Self Defense Forces."¹⁰² Following the Russian invasion of Ukraine, and after his term in office had ended, Abe even floated the idea that Japan could potentially accommodate U.S. nuclear weapons on its territory, similar to certain NATO nations and as was previously done on US-controlled Okinawa.¹⁰³ Though in favor of overall denuclearization, current Prime Minister Fumio Kishida maintained in 2022 that Japan could only work towards its goals of a nuclear free world as long as it did not endanger its security relationship with the United States, which he noted was "Japan's only defense ally."¹⁰⁴

¹⁰⁰ Llewelyn Hughes, "Why Japan Will Not Go Nuclear (Yet): International and Domestic Constraints on the Nuclearization of Japan," *International Security* 31, no. 4 (2007), 68.

¹⁰¹ "2019 Missile Defense Review" (Office of the Secretary of Defense, n.d.).

¹⁰² "President Donald J. Trump's Summit Meeting with Prime Minister Shinzo Abe of Japan" The White House. November 6, 2017.

¹⁰³ "A New Nuclear Debate in Japan," *The Wall Street Journal*, March 1, 2022, sec. Review and Outlook.

¹⁰⁴ Marcus Donaldson, "Kishida, 'PM from Hiroshima', Is Shifting Japan's Long-Standing Pro-Nuclear Weapons Posture," *The Wire*, August 17, 2022.

D. LESSONS LEARNED FROM JAPAN

Japan's response to the complex nuclear weapons issue, including its rejection of an autonomous deterrent, the concept of nuclear hedging, and recent efforts toward global disarmament, hinges on the provision of extended deterrence by the United States. According to Fintan Hoey in his in-depth analysis of the case in "Japan and Extended Nuclear Deterrence: Security and Non-proliferation" this deterrent, combined with the US-Japan alliance, has served as a cornerstone of regional security.¹⁰⁵ The process leading to Japan's adoption of this approach was intricate and influenced by factors that all American allies consider, including public opinion, prestige, U.S. security commitments, and Japan's security concerns.¹⁰⁶

Japan's decision not to pursue a nuclear weapons program is a result of the intricate interplay between political resolve and military capability, as demonstrated through public statements, diplomacy, security agreements, and the presence of both conventional and nuclear forces. Japan's nuclear history, dating back to its pre-World War II pursuit of atomic energy, creates a unique backdrop. The bombings of Hiroshima and Nagasaki, along with the 1954 Lucky Dragon incident, solidified Japanese public sentiment against nuclear endeavors. Despite this, conservative leaders occasionally called for and sought out nuclear armament. However, the post-war Japanese Constitution and the 1955 Atomic Energy Basic Law emphasized the peaceful use of atomic energy, laying the foundation for a purely non-military nuclear program.

The U.S.-Japan Security Treaty of 1960, aimed at fostering security cooperation, introduced mutual defense obligations and a veto power over nuclear weapons deployment to Japan. This agreement allowed the United States to maintain a strategic nuclear presence in the region with nuclear-capable warship while reassuring Japan's security concerns. U.S. nuclear stockpiles in the Asia-Pacific, along with a steady rotation of conventional forces to the Japanese mainland, emphasized its commitment to regional stability and provided a tangible deterrent against adversaries.

¹⁰⁵ Hoey, "Japan and Extended Nuclear Deterrence.," 498.

¹⁰⁶ Ibid.

The emergence of China's nuclear capabilities prompted Japanese leaders to contemplate nuclear armament. However, Prime Minister Satō's engagement with President Lyndon Johnson in the mid-1960s underscored the importance of diplomatic efforts in maintaining effective extended deterrence, with the United States assuring Japan of its protection against any form of attack.

Japan's official adoption of the Three Non-Nuclear Principles in 1967 reflected a public commitment against producing, possessing, or allowing nuclear weapons on Japanese soil. However, the secret 1968/70 Internal Report revealed a deeper potential for nuclear development.¹⁰⁷ Despite possessing the technical capability, Japanese leaders recognized that the U.S. nuclear umbrella and maintain the mutual defense alliance was preferable to destabilizing regional security. Japan's eventual ratification of the Treaty on the NPT in 1976, despite some opposition within the government and military, demonstrated its commitment to international nonproliferation efforts.

Recent years have seen occasional shifts in Japanese leadership's statements on nuclear issues, but the core conviction remains consistent. The U.S. nuclear umbrella, in conjunction with the U.S.-Japan alliance strengthened by yearly bilateral combined exercises and cooperation of missile defense, has been central to Japan's approach. This extended deterrence strategy has ensured regional stability while meeting both the security needs of Japan and the nonproliferation desires of the United States. Japan's decision not to pursue nuclear weapons stands as a testament to the effectiveness of political resolve and military capability in achieving a delicate balance between national security and nonproliferation efforts.

¹⁰⁷ Yuri Kase, "The Costs and Benefits of Japan's Nuclearization: An Insight Into the 1968/70 Internal Report," *The Nonproliferation Review* 8, no. 2 (June 2001), 55–68.

III. CASE STUDY OF TURKEY

A. BACKGROUND

The relationship between the United States and Turkey offers valuable context for evaluating the effectiveness of extended nuclear deterrence and ally reassurance. Much of the material for this section was derived from the work of William G. Eldridge, who conducted an in-depth review of extended nuclear deterrence and Turkey in 2011. Per Eldridge, Turkey's case exhibits three characteristics that make its potential nuclear proliferation important for review.¹⁰⁸ First, Turkey has stood as a longstanding and crucial ally of the United States. Due to intermittent challenges, however, there are concerns about the stability of the alliance between Turkey and the United States, as well as that of Turkey and NATO. Second, Turkey's geographical proximity to numerous security challenges including Russia and Iran, make it an important subject for studying methods to mitigate security threats faced by an ally. Third, Turkey's burgeoning nuclear energy capabilities, developed with Russian assistance, provide it with the beginnings of the technical capability required for the development of a weapon. Combined with its close ties with a recognized nuclear proliferator in Pakistan, this positions Turkey prominently among nations capable of pursuing independent nuclear arsenals.¹⁰⁹

Post-Cold War, Turkey has regularly been seen as a potential contender for nuclear proliferation. In 2006, Stephen Rosen cited Turkey as a country that might seek its own nuclear capabilities if Iran were acquire them.¹¹⁰ Subsequent reports and statements from Turkish officials have further fueled speculations about Turkey's potential nuclear pursuits, including a 2019 statement by President Erdogan that "some countries have

¹⁰⁸ William G. Eldridge, "The Credibility of America's Extended Nuclear Deterrent: The Case of the Republic of Turkey," *The Walker Papers*, Air Force Fellows, no. Walker Paper No. 18 (September 2011), 2-4.

¹⁰⁹ Kurt M. Campbell, Robert J. Einhorn, and Mitchell B. Reiss, eds., *The Nuclear Tipping Point: Why States Reconsider Their Nuclear Choices* (Washington, D.C.: Brookings Institution, 2004), 145.

¹¹⁰ Stephen Peter Rosen, "After Proliferation: What to Do If More States Go Nuclear," *Foreign Affairs* 85, no. 5 (2006), 9. Source pulled from William G. Eldridge, "The Credibility of America's Extended Nuclear Deterrent: The Case of the Republic of Turkey."

missiles with nuclear warheads, not one or two. But (they tell us) we can't have them. This, I cannot accept.”¹¹¹ Furthermore, actions taken by Turkey, including not granting access to its bases during the 2003 U.S.-led operation in Iraq, and a shift towards Russian cooperation in Turkey's civilian nuclear energy program have raised concerns among American policymakers.

B. RELEVANT HISTORY OF U.S.-TURKISH ALLIANCE

The history of U.S.-Turkish relations and the associated potential for nuclear proliferation is a complex narrative that provides context for the current situation. From the aftermath of World War II to the present day, key events and decisions have shaped the dynamics between the two countries and their stance on the nuclear question. After demands from the Soviet Union for post-war reparations from Turkey led Turkish leaders to turn to the West for assistance, President Truman sought and obtained Congressional approval for \$400 million in aid to Greece and Turkey in 1947.¹¹² This aid served to bolster Turkey's military and began the development of U.S. air bases for long-range aircraft.

After the end of World War II, Turkey became increasingly concerned with the threat of Soviet invasion. Soviet demands for military bases on the Dardanelles Straits were seen as a threat to Turkish sovereignty, and the resulting Soviet dissolution of the 1925 Treaty of Friendship and Non-Aggression between the two states only served to further increase tension.¹¹³ Seeking a safeguard against Soviet aggression, Turkish leaders looked toward the United States and NATO. Turkish involvement in the Marshall Plan served to bring the two sides closer together, and Turkey eventually achieved full NATO status in 1952.¹¹⁴

¹¹¹ Shannon Bugos, “Turkey Shows Nuclear Weapons Interest,” Arms Control Association, October 2019.

¹¹² Eldridge, “The Credibility of America's Extended Nuclear Deterrent: The Case of the Republic of Turkey,” 71.

¹¹³ Mustafa Aydin, “Determinants of Turkish Foreign Policy: Changing Patterns and Conjectures during the Cold War,” *Middle Eastern Studies* 36, no. 1 (2000), 107.

¹¹⁴ *Ibid.*, 110.

In 1954, the construction of Incirlik Air Base was completed, and its use by the U.S. Air Force quickly commenced. The following year, a bilateral agreement between the United States and Turkey signified their intent to cooperate in the peaceful use of nuclear energy as part of the Atoms for Peace program.¹¹⁵ Amid these developments, Turkey established the Turkish Atomic Energy Commission in 1956 to further oversee its growing interest in nuclear research and technology.

During the late 1950s and early 1960s, the United States deployed nuclear-tipped missiles in Europe as part of NATO's Atomic Stockpile Plan, aiming to counter potential Soviet aggression and enhance deterrence. This involved the basing of nuclear-armed Jupiter intermediate range ballistic missiles and gravity bombs in Turkey, as agreed to by the Eisenhower administration and Turkish officials in October 1959.¹¹⁶ The deployment of Jupiter missiles occurred throughout the second half of 1961 with NATO approval, with the last missile becoming operational in March 1962. With NATO oversight, Turkish and American crews began co-manning Jupiter missile sites, sharing command and control of the systems.¹¹⁷ The Cuban Missile Crisis late that year prompted President Kennedy to agree to the removal of the Jupiter missiles, albeit without consulting Turkish leaders. While the gravity bombs remained, the decision to remove the Jupiter missiles strained U.S.-Turkish relations over Turkish concerns about a decreased deterrent posture.¹¹⁸

Throughout the 1960s and 1970s, Turkey's pursuit of nuclear power for civilian energy faced several setbacks due to financial difficulties and two coup d'états. Development of the Ankara Nuclear Research and Training Center (ANRTC) began in 1966, though these domestic issues limited progress on the facility. In 1966 NATO established the Nuclear Planning Group. Turkey is a member state. Turkey elected to

¹¹⁵ Hakan Mehmetcik, "Nuclear Latency: The Turkish Case," *Asian Journal of Peacebuilding* 6, no. 2 (November 30, 2018), 251.

¹¹⁶ Hans M. Kristensen, "U.S. Nuclear Weapons in Europe: A Review of Post-Cold War Policy, Force Levels, and War Planning" (Natural Resources Defense Council, February 2005); William Burr, "Nuclear Weapons and Turkey Since 1959," National Security Archive, October 30, 2019.

¹¹⁷ William G. Eldridge, "The Credibility of America's Extended Nuclear Deterrent: The Case of the Republic of Turkey," 73.

¹¹⁸ Ibid.

integrate into NATO's new nuclear sharing system (designed, in part, to prevent proliferation among Western allies) alongside Belgium, Germany, the Netherlands, and Italy.

Despite it taking part in NATO nuclear sharing, the United States became concerned about Turkey's desire for an autonomous nuclear weapon capability in the mid-1960s. In September 1966, the U.S. embassy in Ankara sent a letter to the Assistant Secretary of the Department of State regarding the potential for a Turkish weapons program.¹¹⁹ Citing the calls for nuclear reactor development in the country at the time, Ambassador Parker Hart believed that the Turks were not immediately readying a program but instead "simply putting themselves in a position to jump on the bandwagon" should proliferation become a larger problem.¹²⁰ After expressing some concern to the U.S. Department of State regarding security assurances for nonnuclear states under the NPT, Turkey eventually signed the treaty in 1969, although ratification was delayed until 1980 due to more internal political upheaval. A pivotal moment occurred in 1974 when the United States, in response to Turkish intervention in Cyprus, imposed an arms embargo.¹²¹ This action further strained relations between the two allies, with the Turks viewing it as a slap in the face.¹²² Meanwhile, Turkish discussions and plans for the development of nuclear power plants continued but were again abandoned.

Following the third coup d'état in twenty years, the new Turkish government and the United States signed a new Defense and Economic Cooperation Agreement in 1980. The agreement provided the Turkish parliament with increased control over U.S. military actions within its borders and further restricted the American use of Incirlik Air Base for

¹¹⁹ Colum Lynch, "Turkey Has Long Had Nuclear Dreams," *Foreign Policy* (blog), November 1, 2019.

¹²⁰ "Stuart Rockwell to Mr. [Benjamin] Read, 'Turkish Interest in Atomic Weapon Development'" (National Security Archive, October 6, 1966). Source pulled from William G. Eldridge, "The Credibility of America's Extended Nuclear Deterrent: The Case of the Republic of Turkey."

¹²¹ Eldridge, "The Credibility of America's Extended Nuclear Deterrent: The Case of the Republic of Turkey," 33.

¹²² Aaron Stein, "Turkey and Tactical Nuclear Weapons: A Political Love Affair" (Centre for Economics and Foreign Policy Studies, 2012), 2.

NATO nuclear sharing purposes.¹²³ Despite this warmer relationship, the United States expressed concern about the potential proliferation of nuclear weapons to Turkey in 1981, highlighting its close relationship with Pakistan as a potential source.¹²⁴

After a 1985 agreement for nuclear energy cooperation with Canada and a 1990 agreement with Argentina both fell through, Turkey signed the Comprehensive Test Ban Treaty (CTBT) in 1996, emphasizing its commitment to global non-proliferation efforts. Turkey became a member of the Missile Technology Control Regime in 1997, the Nuclear Suppliers Group in 2000, and ratified the Additional Protocol for IAEA verification that same year.

The end of the Cold War brought new challenges to the relationship, with financial strains resulting from supporting the U.S.-led Gulf War in 1991 affecting Turkish perceptions of the relationship.¹²⁵ In 2003, Turkey's parliament rejected the American request to use its territory in support of an invasion into Iraq, a move in stark contrast with the support it offered twelve years earlier. That decision was, at least in part, fueled by a perception among Turkish leaders that the United States and NATO did not fulfill their defensive obligations for Turkey in a timely manner during the Gulf War in the event of an Iraqi missile attack.¹²⁶ The parliamentary rejection resulted in NATO hesitation to deploy Patriot missile batteries to Turkey, raising further questions in the minds of Turkish leaders about their place in the alliance.¹²⁷

Interest in civilian nuclear energy continued, as Turkey announced the intent to build up to five nuclear power plants in 2006. The United States and Turkey signed a “123

¹²³ “Report by the Comptroller General of the United States: The Defense and Economic Cooperation Agreement – U.S. Interests and Turkish Needs” (Government Accountability Office, May 7, 1982).

¹²⁴ Mustafa Kibaroglu, “Nuclearization of the Middle East and Turkey’s Possible Responses: Does Turkey Need to Be Reassured That It Does Not Need to Develop Nuclear Weapons?” (Centre for Economics and Foreign Policy Studies, 2012), 12.

¹²⁵ “Chain Reaction: Avoiding a Nuclear Arms Race in the Middle East,” *Report to the Committee on Foreign Relations, United States Senate*, February 2008, 37. Source pulled from William G. Eldridge, “The Credibility of America’s Extended Nuclear Deterrent: The Case of the Republic of Turkey.”

¹²⁶ *Ibid.*, 39; Eldridge, “The Credibility of America’s Extended Nuclear Deterrent: The Case of the Republic of Turkey,” 30.

¹²⁷ Nilsu Gören, “Turkey’s Nonnuclear Decisions on Nuclear Issues,” *CISSM Policy Brief*, September 2016, 2.

Agreement” in January 2008, known as the U.S.-Turkey Agreement for Peaceful Nuclear Cooperation.¹²⁸ Despite this partnership agreement, Turkey announced in September of that year that the Russian State Atomic Energy Corporation, Rosatom, had won the bidding war to develop a nuclear reactor facility in Akkuyu.¹²⁹ While disputes with Russia kept construction of the facility on hold for nearly a decade and a half, the first of four planned Russian-designed VVER-1200 reactors was completed in early 2023, with Turkey receiving the first batch of nuclear fuel from Russia in April.¹³⁰ Under an agreement between Turkey and Russia, the Akkuyu facility will be operated entirely by Rosatom. Because the reactors are designed to operate with unique fuel assemblies, this agreement includes a plan for the delivery and repatriation of nuclear fuel for the next six decades, making Turkey reliant on Russian cooperation to operate the plant.¹³¹ The facility is expected to be fully operational by 2026.

Much of the history regarding the presence of U.S. nuclear gravity bombs in Turkey remains classified, including the decision-making behind the choice to maintain them after the end of the Cold War. Despite this, information in the public record allows for an estimate of approximately 50 B61 bombs presently maintained at Incirlik AFB as part of NATO nuclear burden sharing.¹³² Of note, Turkey doesn’t train its pilots in the deployment of these weapons systems, with Turkish aircraft serving exclusively as non-nuclear air defense escorts during NATO training exercises.¹³³

¹²⁸ Jessica C Varum, “Closing the Nuclear Trapdoor in the U.S.-Turkey ‘Model’ Partnership,” Center on the United States and Europe (CUSE) at Brookings, Turkey Project Policy Paper No. 1, June 2013, 3.

¹²⁹ Ibid., 5.

¹³⁰ Joanne Burge, “IAEA Chief Highlights Sustainable Energy as First Nuclear Fuel Arrives in Türkiye,” Text (IAEA, April 28, 2023).

¹³¹ Jessica Jewell and Seyithan Ahmet Ates, “Introducing Nuclear Power in Turkey: A Historic State Strategy and Future Prospects,” *Energy Research & Social Science* 10 (November 2015): 275–77; Jochen-Andreas H Moos, “Limitations of an Illusionary Giant: Russian Relations with Egypt and Turkey” (Master of Arts in Security Studies, Monterey, CA, Naval Postgraduate School, 2023), 83.

¹³² William Burr, “Nuclear Weapons and Turkey Since 1959,” National Security Archive, October 30, 2019; Kristensen, “U.S. Nuclear Weapons in Europe: A Review of Post-Cold War Policy, Force Levels, and War Planning,” 8.

¹³³ Mustafa Kibaroglu, “Turkey, NATO & Nuclear Sharing: Prospects after NATO’s Lisbon Summit – Nuclear Policy Paper No.5” (Arms Control Association, BASIC, Institute for Peace Research and Security Policy at the University of Hamburg, April 27, 2011), 2.

C. ASSESSING THE EFFECTIVENESS OF REASSURANCE FOR TURKEY

The apparent deterioration in the relationship between the United States and Turkey could impact the Turkish leadership's view of American security guarantees. Until recently, Turkey had limited capabilities for building nuclear weapons. Its leadership is currently enhancing this potential by initiating a civilian nuclear energy program. Determining the true intentions of Turkish leadership regarding a nuclear program is critical to meeting U.S. nonproliferation goals. While official Turkish statements tend to deny any pursuit of nuclear weapons, the occasional statement to the contrary, combined with their burgeoning civilian nuclear energy capabilities, historic friendship with known proliferator Pakistan, and regional security concerns offer the potential for such a program to be initiated.

The strength of the U.S.-Turkish alliance has certainly diminished over time, a cause for concern given that maintaining a strong bilateral relationship is critical to regional security and nonproliferation concerns. Turkish leaders view their relationships with the United States and NATO as critical to their national security and in support of their security objectives: maintaining a minimum nuclear deterrent, eliminating Turkish vulnerability to threats arriving from the Middle East, and providing a safeguard against a nuclear-armed Iran.¹³⁴ Additionally, NATO serves as an additional communication channel with the United States. Since the end of the Cold War, some Turkish officials have discussed the country's dissatisfaction with their NATO relationship, highlighting "a feeling that Turkey has given more to NATO than NATO has provided Turkey."¹³⁵

This perception depends not only on the alliance's robustness but also on the ability of the United States and Turkey to reconcile their often-differing Middle East policies. Since 2003, the foreign policies of the United States and Turkey have grown increasingly divergent. This issue is perhaps most complicated by Iran's nuclear program. Both American and Turkish leaders see Iran's nuclear ambitions as undesirable and a challenge to the power balance in the region. Following the U.S. withdrawal from the Joint

¹³⁴ Gören, "Turkey's Nonnuclear Decisions on Nuclear Issues," 3.

¹³⁵ "Chain Reaction: Avoiding a Nuclear Arms Race in the Middle East," 39.

Comprehensive Plan of Action (JCPOA) in 2018, however, the two states have disagreed on the solution to the issue.¹³⁶ Seeing the withdrawal as a mistake, Turkey has called for salvaging the JCPOA. While it certainly does not desire a nuclear Iran, Turkey's relationship with Tehran is "defined by the shared belief in noninterference, amicable neighborly relations, and economic and security cooperation."¹³⁷ As such, the Turkish government has been vocal about preferring a diplomatic resolution to the crisis, putting it at odds with the American and European policy of imposing strict sanctions. Furthermore, since 2007, Turkish leaders have engaged with Syria and Sudan, and have become more economically tied to Russia. Their efforts to balance these relationships with their U.S. and NATO ties have left Turkey at times caught between a rock and a hard place. These divergences in U.S. and Turkish policies may place further strain on their alliance and potentially continue to undermine Turkey's confidence in the validity of U.S. extended deterrence.

Post-Cold War, the basing and continuous presence of American forces in Turkey has gradually decreased. Currently, the United States maintains approximately 5,000 military personnel deployed across Turkey, primarily at Incirlik Air Base.¹³⁸ The decreasing U.S. presence theoretically weakens the perceived strength of its extended deterrent commitment, and further troop withdrawals could raise concerns among Turkish leadership.

Historically, Turkish policymakers have supported the retention of a U.S. nuclear arsenal on their soil. They generally strongly endorse the presence of B61 gravity bombs, considering them symbolic of the U.S. commitment to the alliance, and would prefer that they remain.¹³⁹ According to Turkish researcher Mustafa Kibaroglu, "the fundamental

¹³⁶ Zelal Özdemir, "The Nuclear Deal and its Ramifications for Turkey-US Relations," *Panorama* (blog), March 11, 2023.

¹³⁷ Sinan Ülgen, "Turkey and the Bomb," *The Carnegie Papers*, Nuclear Policy, February 2012, 6.

¹³⁸ Victor Davis Hanson, "Our Untenable Alliance with Turkey," *National Review* (blog), October 24, 2019.

¹³⁹ Gören, "Turkey's Nonnuclear Decisions on Nuclear Issues," p. 3; Mustafa Kibaroglu, "Turkey and Nuclear Weapons: Can This Be Real?," in *Turkey's Nuclear Future*, ed. George Perkovich and Sinan Ülgen (Carnegie Endowment for International Peace, 2015), 135.

reason why Turkish officials want to keep the weapons has more to do with the nature and the scope of Turkish/American relations in particular.”¹⁴⁰ Since Turkish officials also “consider nuclear weapons more as political weapons than as having a significant military value,” it can be reasonably posited that they could consider an autonomous capability should the U.S.-Turkish relationship deteriorate further or the B61s be withdrawn .¹⁴¹

Of note, Turkish officials have expressed a desire for increased involvement in the nuclear planning process. In 2008, during an interview process conducted by COL William Eldridge for the Air University, Turkish ministers recommended increased discussion and prior consultation with allies if the United States were to make any major nuclear policy changes; doing so would “demonstrate commitment to the alliance and also acknowledge the allies’ contributions to alliance burden-sharing.”¹⁴²

D. CURRENT POTENTIAL FOR TURKISH PROLIFERATION

Currently, the short-term likelihood of Turkey pursuing a nuclear weapon is low. Nevertheless, Turkish decision-makers may adopt a cautious approach by electing to further their burgeoning civilian nuclear energy program. While some high-ranking Turkish political figures have considered the idea of a nuclear weapons program, public acknowledgment of such intentions is rare, and domestic support among the Turkish populace is even scarcer. Given regional security concerns, particularly Iran’s potential for nuclear proliferation, Turkish leaders may find themselves drawn to the prospect of nuclear hedging by advancing their nuclear energy program, though the agreement for the operation of the Akkuyu nuclear facility could pose a hinderance to the acquisition of fissile material.¹⁴³

After the Cold War, Turkey faced a broader range of security challenges. Although none of them required Turkey to pursue a nuclear weapons program, that may not always

¹⁴⁰ Mustafa Kibaroglu, “Isn’t It Time to Say Farewell to Nukes in Turkey?,” *European Security* 14, no. 4 (December 2005), 449.

¹⁴¹ Ibid.

¹⁴² Eldridge, “The Credibility of America’s Extended Nuclear Deterrent: The Case of the Republic of Turkey,” 35.

¹⁴³ Ibid., 36.

be the case. Their security situation would change drastically if Iran were to obtain nuclear weapons, and such an occurrence might exert pressure on Turkish leaders to consider a strategy to counter Iran's potential threat and increased regional influence. Turkish officials interviewed for a 2008 U.S. Senate Foreign Relations Committee study strongly hinted at their desire for proliferation in just such a scenario. Clearly stating that "Turkey would lose its importance in the region if Iran has nuclear weapons and Turkey does not," they added that Turkey would be forced to seek an autonomous nuclear capability if Iran were to do so.¹⁴⁴ Despite these rather brazen statements, when asked about whether a more robust security commitment and the U.S. nuclear umbrella would deter Turkey from pursuing such action, the Turkish officials agreed that it would.¹⁴⁵ Such statements, though they represent a prestige argument rather than a security one, demonstrate that Turkish leaders have fairly recently considered nuclear proliferation and may, given a worsening security situation, do so again.

A second potentially motivating factor for Turkey to pursue its own nuclear weapon, highlighted by Henri Barkey in 2009, is the country's domestic politics.¹⁴⁶ The AKP (Justice and Development Party) currently in power has made significant efforts to position itself as a leader in the region, engaging in regional conflicts using its substantial soft power.¹⁴⁷ This approach has resonated with the Turkish public, and President Erdogan has used his diplomatic initiatives to bolster Turkish nationalism.¹⁴⁸ The current government has actively fueled and capitalized on this nationalist sentiment. In the event of a nuclear arms race in the Middle East, if Turkey were to refrain from involvement and lose influence by relying solely on the U.S. nuclear umbrella, there would likely be

¹⁴⁴ "Chain Reaction: Avoiding a Nuclear Arms Race in the Middle East," 4. Source pulled from Eldridge, "The Credibility of America's Extended Nuclear Deterrent: The Case of the Republic of Turkey," 36; David Yost, "Assurance and U.S. Extended Deterrence in NATO," *International Affairs* 85, no. 4 (July 2009), 763.

¹⁴⁵ "Chain Reaction," 41.

¹⁴⁶ Henri J Barkey, "Turkey's Prospectives on Nuclear Weapons and Disarmament," ed. Barry M Blechman, *Henry L. Stimson Center*, no. Brazil, Japan, and Turkey (September 2009), 87.

¹⁴⁷ Ziya Meral, "Turkey's Perspective on Iran and the Question of Nuclear Enrichment," Royal United Services Institute (RUSI), April 7, 2022.

¹⁴⁸ Henri J Barkey, "Turkey's Prospectives on Nuclear Weapons and Disarmament," 87.

significant nationalist backlash.¹⁴⁹ If such a scenario were to coincide with increasing Turkish disillusionment regarding the prospects of European Union membership, the Erdogan government may find it challenging to resist mounting pressure for nuclearization.

There is reason to be concerned about Turkey drifting away from the American and NATO spheres of influence, as discussed by Aaron Stein in a 2019 *War on the Rocks* article. In recent years the Turkish government has been striving to adjust to what it considers to be a shifting global order. Ankara sees China's ascension and Russia's revisionist actions as signs of a general decline in American power.¹⁵⁰ In response to this evolving power distribution, Turkey is looking to move away from its dependency on the west and aiming to advance its own interests, even if those interest put it at odds with NATO and the United States.¹⁵¹ This is demonstrated by President Erdogan's hesitation to align with his historical Western allies after Russia's invasion of Ukraine in 2014 and again in 2022. Clearly, disapproval from Washington is no longer sufficient to deter Turkish decisionmakers from acting against U.S. wishes, as evidence by Erdogan's decision to acquire the S-400 air and missile defense system from Russia in 2019.¹⁵²

Several obstacles would serve to hinder Turkey from pursuing nuclear weapons, perhaps the most obvious of which would be how opting to develop nuclear weapons would strain Turkey's relationships with the United States and NATO, and only further jeopardize its already tenuous progress towards EU membership. Turkish military and civilian leaders attach significant importance to these alliances, serving as substantial barriers to nuclear weapons proliferation. Any significant shift in Turkish governance towards a more isolationist stance could serve as a potential proliferation indicator.

Second, support for development of nuclear weapons among the Turkish public is limited, though support for the adoption of a civilian nuclear energy program is

¹⁴⁹ Ibid.

¹⁵⁰ Aaron Stein, "Erdogan Doesn't Want Nukes, He Wants to Blow Up the System," *War on the Rocks*, September 12, 2019.

¹⁵¹ Ibid.

¹⁵² Ibid.

increasing.¹⁵³ This lack of popular support for a military nuclear program would present a significant proliferation obstacle for a Turkish administration that wants to be seen as increasingly democratic and transparent.

Third, Turkey has an active member of the global nonproliferation framework since signing the NPT in 1969.¹⁵⁴ During the 1990s, Turkey committed to several pillars of the global nonproliferation regime. In 1996, it became a signatory to the Comprehensive Test Ban Treaty, later ratifying it in 2000. In 1997, they became a member of the Missile Technology Control Regime, notably being the sole Middle Eastern nation to do so. Additionally, in 1999, Turkey became a participant in the Zangger Committee. At the 2007 UN Conference on Disarmament, Turkey reaffirmed its commitment to nuclear nonproliferation, stating “Turkey believes that the NPT is still a unique and irreplaceable multilateral instrument...we should exert every effort to protect its integrity and credibility.”¹⁵⁵ Any Turkish action to acquire an autonomous nuclear weapon would necessitate a complete withdrawal from the global nonproliferation regime, placing further strain on security alliances, potentially endangering partnerships, and likely subjecting Turkey’s fragile economy to international sanctions.¹⁵⁶

Additionally, Turkey’s ability to deploy a nuclear weapon is limited. While it does currently provide Dual-Capable Aircrafts (DCAs) to NATO for nuclear sharing missions via F-16 aircraft, these aircraft will be reaching the end of their life cycle in the mid-2020s.¹⁵⁷ The S-400 deal resulted in the forfeiture of access to the F-35 fighter jet. If Turkey continues with the purchase of the S-400, any future replacement from or their current F-16s would have to come from another source. Notably, such an occurrence would

¹⁵³ Eldridge, “The Credibility of America’s Extended Nuclear Deterrent: The Case of the Republic of Turkey,” 42.

¹⁵⁴ Ibid.

¹⁵⁵ “Conference on Disarmament Hears Statements from Cuba and Turkey,” in *Meeting Summaries* (The United Nations Office at Geneva, 2007). Source pulled from Eldridge, “The Credibility of America’s Extended Nuclear Deterrent: The Case of the Republic of Turkey.”

¹⁵⁶ Eldridge, “The Credibility of America’s Extended Nuclear Deterrent: The Case of the Republic of Turkey,” 43.

¹⁵⁷ Stein, “Erdogan Doesn’t Want Nukes, He Wants to Blow Up the System.”

also result in a limited effectiveness of the NATO nuclear sharing agreement as it would be without its Turkish contingent.

Finally, Turkey's current industrial and technical capacity to develop a nuclear weapon is in its infancy. On April 27, 2023, Turkey opened its inaugural nuclear power plant at the Akkuyu facility. Representing the culmination of over six decades of work towards nuclear energy, the facility is the result of a "build-own-operate" (BOO) agreement with Rosatom in 2010.¹⁵⁸ After surviving several challenges and delays before its eventual opening, the facility could serve as a source of the fissile material necessary for a nuclear weapon. This is unlikely, however, as the Turkish agreement with Rosatom obligates the Russian company to provide and repatriate the spent fuel from the facility. As such, Turkey would have to interdict the material if it desired to produce the plutonium required for a bomb. Any action of this nature would likely cause a major incident and draw criticism from both Turkey's NATO allies and Russia, which would probably end the agreement and withdraw any support of the Akkuyu facility, crippling Turkey's civilian nuclear energy program.

Naturally, possessing fissile material is not the only precursor required for weapon development. Although Turkey engages in some uranium mining and refining, it does not possess an enrichment capability and would not be able to build or operate one without "significant outside assistance."¹⁵⁹ While these limitations currently hold Turkey back from developing a completely autonomous nuclear program, its history of nuclear energy engagements with other countries and its ties to Pakistan could potentially offer sources of expertise if Turkish leadership genuinely committed to pursuing such a program.¹⁶⁰

¹⁵⁸ Ali Alkis, "Nuclear Security for Nuclear Newcomers: Exploring Türkiye's Readiness" (Nonproliferation, August 14, 2023).

¹⁵⁹ Jessica C. Varum, "Turkey in Transition: Toward or Away from Nuclear Weapons?," in *Forecasting Nuclear Proliferation in the 21st Century: A Comparative Perspective*, ed. William C. Potter and Gaukhar Mukhatzhanova, vol. 2 (Stanford, Calif.: Stanford Security Studies/Stanford University Press, 2010), 249.

¹⁶⁰ Eldridge, "The Credibility of America's Extended Nuclear Deterrent: The Case of the Republic of Turkey," 41.

What is concerning is that Turkey could use its nuclear power program as a guise to acquire the technology, material, and hardware required for nuclear weapons. Per the *Bulletin of the Atomic Scientists*, there are indications of technology transfer having already taken place; Turkey has been sending its engineering students to study nuclear science in Russia, much as Iran and North Korea did during the development of their nuclear programs.¹⁶¹ Furthermore, during Russia's construction of a civilian nuclear power facility in Iran, additional agreements facilitated the exchange of equipment and knowledge unbeknownst to U.S. intelligence and IAEA inspectors, ultimately aiding Iran's weapons program.¹⁶² Something similar could take place in the development of Turkey's civilian program.

E. CONCLUSION

The current credibility of U.S. extended nuclear deterrence for Turkey is in decline. Despite Turkey's strong commitment to NATO and its partnership with the United States, differences in their approaches to Middle East issues, and a changing Turkish view on the balance of global security may lead Turkish leaders to question their reliance on the nuclear umbrella.

Turkey's active role in NATO nuclear sharing and its partnership with the United States helps mitigate regional security threats. While Turkish leaders do not openly support nuclear weapons, the pressure to hedge against regional nuclear developments may lead to exploring nuclear energy options. Any pursuit of an autonomous nuclear weapons program would require Turkey to renounce its international commitments and rapidly expand upon its burgeoning civilian nuclear program, neither of which are likely to happen.

The tipping point for Turkey to pursue nuclear weapons would likely occur if clear proliferation became widespread in the Middle East, likely prompted first by Iranian acquisition of a weapon. For nationalist reasons, Erdogan's government could be drawn to proliferating, perhaps relying on Pakistani assistance or through the further hedging of their

¹⁶¹ John Spacapan, "Conventional Wisdom Says Turkey Won't Go Nuclear. That Might Be Wrong.," *Bulletin of the Atomic Scientists* (blog), July 7, 2020.

¹⁶² Ibid.

civilian nuclear program. In opposition to this prospect lie several factors discouraging Turkish nuclear proliferation. These include Turkey's prioritization of alliance ties, its longstanding support to the global nonproliferation regime, and its lack of the technical and industrial capacity to develop a weapons program without outside assistance.

To meet the security needs of its ally and prevent Turkey from pursuing nuclear capabilities, "the extended deterrence of the United States must remain convincing and credible to Turks."¹⁶³ As summarized by William Eldridge, the primary factor influencing the effectiveness of the U.S. security guarantees are not the technical details surrounding the U.S. nuclear arsenal or the quantity of warheads deterring attacks on Ankara, but Turkey's perception of its overall relationship with the United States.¹⁶⁴

¹⁶³ Duygu Bazoglu Sezer, "Turkey's New Security Environment, Nuclear Weapons and Proliferation," *Comparative Strategy* 14, no. 2 (April 1995), 168.

¹⁶⁴ Eldridge, "The Credibility of America's Extended Nuclear Deterrent: The Case of the Republic of Turkey," 5.

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IV. CASE STUDY OF SOUTH KOREA

A. BACKGROUND

A review of the history of the relationship between the United States and South Korea reveals the effectiveness of nuclear reassurance and the potential for South Korean nuclear proliferation. First, South Korea has been a longstanding and crucial ally of the United States, although intermittent challenges have raised concerns about the stability of the alliance, particularly in the context of North Korean nuclear threats. Second, South Korea's geographic proximity to North Korea and China makes it an important subject for studying methods to reassure an ally by mitigating security threats. Third, South Korea's advanced technological capabilities would allow it to pursue an independent nuclear arsenal. The South Korean case can provide insight into why this enduring alliance partner might develop an indigenous nuclear capability instead of relying on U.S. nuclear security assurances.

South Korea's interest in nuclear capabilities has been documented in various reports and statements. Additionally, actions taken by South Korea, such as pursuing advanced missile programs, have raised questions about its commitment to non-proliferation agreements and reliance on U.S. nuclear deterrence. In January 2023, during a meeting with his defense officials, South Korean President Yoon Suk-yeol stated that "It's possible that the problem gets worse and our country will introduce tactical nuclear weapons or build them on our own."¹⁶⁵ No South Korean leader has spoken as openly about developing a nuclear weapons program as President Yoon. This statement, as well as the other factors described, has prompted discussions about the potential for South Korean nuclear proliferation and its implications for regional security.

¹⁶⁵ Dasl Yoon, "South Korean President Says Country Could Develop Nuclear Weapons," *Wall Street Journal*, January 12, 2023.

B. RELEVANT HISTORY OF U.S.-SOUTH KOREAN ALLIANCE

In their exhaustive study of the effectiveness of U.S. deterrence for South Korea, Keith Payne, Thomas Scheber, and Kurt Guthe cover the historical relationship between the two countries since the end of the Korean War.¹⁶⁶ They state that the nuclear impact on the relationship has been evident since the beginning, as both the Harry S. Truman and Dwight D. Eisenhower administrations contemplated using nuclear weapons, though the impact of these threats in bringing the conflict to a close has been contested.¹⁶⁷ Later, as part of their plans to safeguard South Korea and manage costs for large conventional forces, the United States deployed nuclear arms to the peninsula in the late 1950s, keeping them there until the early 1990s. In deterring North Korea and reassuring South Korea, American officials relied on U.S. nuclear weapons. Secretary of Defense James Schlesinger aimed to alleviate South Korea's concerns about the American commitment to its security by suggesting that the use of tactical nuclear weapons for defending South Korea would be carefully considered if circumstances warranted it.¹⁶⁸

The Mutual Defense Treaty, signed in October 1953 shortly after the Korean War armistice, was primarily aimed at reassuring Seoul that Washington would remain committed to their defense.¹⁶⁹ The treaty expressed both parties' determination "to defend themselves against external armed attack so that no potential aggressor could be under the illusion that either of them stands alone in the Pacific area."¹⁷⁰ Recognizing South Korea's belief in the importance of a continued American military presence, the United States is

¹⁶⁶ Keith B. Payne, Thomas Scheber, and Kurt Guthe, "U.S. Extended Deterrence and Assurance for Allies in Northeast Asia" (National Institute for Public Policy, March 2010)."

¹⁶⁷ Payne, Scheber, and Guthe, "U.S. Extended Deterrence and Assurance for Allies in Northeast Asia," 6; Roger Dingman, "Atomic Diplomacy during the Korean War," *International Security* 13, no. 3 (1988); Rosemary J. Foot, "Nuclear Coercion and the Ending of the Korean Conflict," *International Security* 13, no. 3 (1988).

¹⁶⁸ Payne, Scheber, and Guthe, 6.

¹⁶⁹ Kang Choi and Joon-Sung Park, "South Korea: Fears of Abandonment and Entrapment," in *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*, ed. Muthiah Alagappa (Stanford, CA: Stanford University Press, 2008), 374.

¹⁷⁰ "Mutual Defense Treaty Between the United States and the Republic of Korea, Signed October 1, 1953, Ratifications Exchanged November 17, 1954."

given the right to position its military forces in and around South Korea under the treaty.¹⁷¹ While American troop numbers in South Korea decreased significantly after the war (from over 300,000 in 1953 to 85,000 two years later), a substantial force remained.¹⁷²

During NPT deliberations in the late 1960s, South Korea was initially hesitant to sign, wanting to maintain the option of developing its own nuclear capability. Per Payne, Scheber, and Guthe, this is because it feared the possibility of a China either conducting a nuclear attack or providing North Korea with a nuclear weapon.¹⁷³ By reiterating its commitment to defend Seoul, the United States convinced South Korea to sign the NPT in July 1968.¹⁷⁴

Despite signing on to the NPT, South Korea initiated a covert nuclear weapons program in the 1970s due to “serious doubts about the reliability of the United States.”¹⁷⁵ The partial removal of American troops from South Korea, perceptions of weak American responses to prodding from Pyongyang, the Vietnam withdrawal, and other signs of reduced commitment to Asian allies created a lack of confidence in U.S. security guarantees.¹⁷⁶ South Korea’s ties with the United States were additionally strained by Washington’s response to domestic repression under the Park Chung-Hee government.

Given this backdrop, President Park sought a means of deterring North Korea that did not rely solely on the U.S. security commitment. In early 1972, Park discreetly instructed trusted officials to “secure the technology needed to produce nuclear weapons.”¹⁷⁷ Upon discovering the program, the United States worked with its allies to

¹⁷¹ “Mutual Defense Treaty Between the United States and the Republic of Korea, Signed October 1, 1953, Ratifications Exchanged November 17, 1954.”

¹⁷² Choi and Park, “South Korea: Fears of Abandonment and Entrapment,” 397.

¹⁷³ Payne, Scheber, and Guthe, 10.

¹⁷⁴ Choi and Park, 399.

¹⁷⁵ Payne, Scheber, and Guthe, 10.

¹⁷⁶ Jeffrey W. Taliaferro, “The United States and South Korea’s Nuclear Weapons Program, 1970–1981,” in *Defending Frenemies: Alliances, Politics, and Nuclear Nonproliferation in U.S. Foreign Policy*, 161.

¹⁷⁷ Taehwa Hong, “Comparing Contexts: South Korea’s Potential Nuclear Armament in the 1970s & 2020s,” *Korea Economic Institute of America* (blog), March 9, 2023; William Burr, “The United States and South Korea’s Nuclear Weapons Program, 1974–1976,” National Security Archive, March 14, 2017.

block the transfer of necessary technology, threatened to withdraw its financial backing of South Korea's civilian nuclear power program, and gave a stark warning about the risk to the two nations' security relationship.¹⁷⁸ South Korea eventually abandoned its nuclear program, ratifying the NPT in 1975. For its part, Washington reaffirmed its security guarantees to South Korea.¹⁷⁹

To rebuild trust in the alliance and ease South Korea's insecurity, the Combined Forces Command (CFC), a unified command element, was established in 1978. The CFC marked a significant shift in the relationship of the allies, "reducing South Korea's feeling of insecurity."¹⁸⁰ Per the agreement, the United States maintained operational control of South Korean forces during wartime, a situation that remained in place until April 2012.

In 1991, the United States completed the removal of all of its nuclear weapons from South Korea as part of a process of reducing nuclear tensions with the Soviet Union.¹⁸¹ U.S. officials also believed that these weapons were no longer necessary for South Korea's defense and hoped that their removal would encourage Pyongyang to shutter its nuclear program and allow the IAEA to inspect its facilities.¹⁸²

In 1994, North Korea, a signatory of the NPT, removed spent fuel rods from a graphite-moderated, plutonium-producing Yongbyon reactor without IAEA oversight. The United States and other members of the global nonproliferation regime, concerned that the reprocessing of these rods would allow Pyongyang to acquire enough plutonium for several nuclear weapons, threatened to levy economic sanctions on the Kim Il-sung regime.¹⁸³ In return, North Korea warned that sanctions would escalate the conflict to war. To deter a potential North Korean attack, the United States bolstered its military capabilities in the region by deploying new Apache attack helicopters, additional A-10

¹⁷⁸ Payne, Scheber, and Guthe, 10.

¹⁷⁹ Kurt M. Campbell, Robert J. Einhorn, and Mitchell B. Reiss, eds., *The Nuclear Tipping Point: Why States Reconsider Their Nuclear Choices* (Washington, D.C.: Brookings Institution, 2004), 261.

¹⁸⁰ Choi and Park, 378.

¹⁸¹ Payne, Scheber, and Guthe, 10.

¹⁸² Ibid.

¹⁸³ Payne, Scheber, and Guthe, 18.

aircraft, Bradley fighting vehicles, advanced radar, and about 1,000 additional troops.¹⁸⁴ Secretary Perry and Secretary of State Warren Christopher met with the South Korean foreign minister in Washington, reassuring him of the United States' commitment to its security and demonstrating this by deploying Patriot missile batteries and Stinger anti-aircraft missiles to Pusan.¹⁸⁵ The crisis came to an end with the signing of the Agreed Framework on October 21, 1994. Under the agreement, North Korean leader Kim Il-sung pledged to cease activities at the Yongbyon nuclear site, dismantle the 5 MT plutonium-producing reactor, cease work on two planned reactors, and allow IAEA inspectors to establish a presence at the Yongbyon complex. In return, the United States established the Korean Peninsula Energy Development Organization (KEDO) international consortium to construct two light-water reactors and provide oil for heating and energy production in the interim.¹⁸⁶

In 2002, the United States discovered that Kim Il-sung was operating a uranium enrichment program, violating their previous international agreements, and demanded that North Korea halt this program.¹⁸⁷ Instead, North Korea announced the reactivation of the Yongbyon plutonium production facility, withdrew from the NPT, and kicked out the IAEA inspectors. The United States temporarily increased its military presence in East Asia in response, deploying additional F-15 fighters to South Korean bases, sending a carrier battle group to the region, and stationing B-1 and B-52 bombers in Guam to deter any potential aggression.¹⁸⁸ Shortly thereafter, however, the George W. Bush

¹⁸⁴ Payne, Scheber, and Guthe, 9.

¹⁸⁵ Joel S. Wit, Daniel B. Poneman, and Robert L. Gallucci, *Going Critical: The First North Korean Nuclear Crisis* (Washington, D.C.: Brookings Institution Press, 2004), 167.

¹⁸⁶ "Agreed Framework of 21 October 1994 Between the United States of America and the Democratic People's Republic of Korea, INFCIRC/457" (International Atomic Energy Agency, November 2, 1994).

¹⁸⁷ Payne, Scheber, and Guthe, 19.

¹⁸⁸ Yoichi Funabashi, *The Peninsula Question: A Chronicle of the Second Korean Nuclear Crisis* (Washington, D.C.: Brookings Institution, 2007), 114; Payne, Scheber, and Guthe, 19.

administration's Global Posture Review decreased the number of U.S. troops in South Korea to 28,500.¹⁸⁹

Following North Korea's October 2006 nuclear test, officials in Seoul called for a rewording of the U.S. nuclear guarantee as written in the Security Consultative Meetings communiqués.¹⁹⁰ This critical change is highlighted by Payne, Scheber, and Guthe, who note that shift in wording from: "Secretary [of Defense Donald] Rumsfeld reaffirmed the U.S. commitment to the security of the [Republic of Korea] ROK, and to the continued provision of a nuclear umbrella for the ROK, consistent with the Mutual Defense Treaty" to: "Secretary Rumsfeld offered assurances of firm U.S. commitment and immediate support to the ROK, including continuation of the extended deterrence offered by the U.S. nuclear umbrella, consistent with the Mutual Defense Treaty."¹⁹¹

After North Korea's second nuclear test in May 2009, President Barack Obama's administration sought to reassure South Korea and strengthen the alliance. In June of that year, after announcing a joint vision for the alliance, President Obama and South Korean President Lee Myung-bak reaffirmed a "continuing commitment to extended deterrence, including the nuclear umbrella."¹⁹² Four months later, the October 2009 Security Consultative Meeting included an expanded definition of extended deterrence. The new definition encompassed a broader range of military capabilities, including conventional forces and missile defenses.¹⁹³

Following Pyongyang's second nuclear test and the launch of the Unha-2 missile in 2010, events that raised concerns in both Seoul and Washington regarding emerging deterrence challenges, the two allies established the Extended Deterrence Policy

¹⁸⁹ "The Global Posture Review of United States Military Forces Stationed Overseas" (Washington, D.C.: Second Session, 108th Congress, September 23, 2004).

¹⁹⁰ Payne, Scheber, and Guthe, "U.S. Extended Deterrence and Assurance for Allies in Northeast Asia," 6.

¹⁹¹ "37th (2005) U.S.-ROK Security Consultative Meeting Joint Communiqué" (U.S. Department of State, October 21, 2005); "38th (2006) U.S.-ROK Security Consultative Meeting Joint Communiqué" (U.S. Department of State, October 20, 2006); Payne, Scheber, and Guthe, 6–7.

¹⁹² "Joint Vision for the Alliance of the United States of America and the Republic of Korea" (The White House, Office of the Press Secretary, June 16, 2009).

¹⁹³ Payne, Scheber, and Guthe, 7.

Committee (EDPC). The objective was to comprehensively strengthen the regional deterrence framework in Northeast Asia and enhance alliance cooperation. The EDPC served as a consultative mechanism to address South Korea's security apprehensions and make the U.S. commitment to extended nuclear deterrence more tangible. One of the key concerns that led to these discussions was South Korea's perception that the U.S. declaratory policy commitment was insufficient to deter North Korea. This perception was partially rooted in the alliance's failure to prevent North Korea's aggressive actions, such as the sinking of a South Korean ship in 2010 and the shelling of Yeonpyong Island.¹⁹⁴

During his presidency, Donald Trump took an unconventional approach to North Korea by engaging in direct diplomacy with its leader, Kim Jong-un. The two leaders met in three summits: Singapore (2018), Hanoi (2019), and an impromptu meeting at the Demilitarized Zone (DMZ) in 2019. Marking the first time a U.S. President and North Korean leader have met, the discussions primarily focused on denuclearizing the Korean Peninsula. While these summits led to a temporary reduction in tensions and certain symbolic gestures, they did not yield a comprehensive agreement, with the two sides failing to agree on the specifics of North Korean denuclearization and the United States' provision of sanctions relief.¹⁹⁵ Since at least the 1970s, the United States and South Korea have conducted numerous combined exercises. One of these, called Team Spirit, was annual field exercise held from 1976 to 1993 intended to prepare U.S. and South Korean forces to respond to a potential North Korean invasion.¹⁹⁶ South Korean leaders considered Team Spirit vital for maintaining military readiness and displaying strength to North Korea.¹⁹⁷ Another annual exercise since 2001 called Foal Eagle/Key Resolve, encompassed a wide range of training activities, including special forces operations, field maneuvers with opposing forces, naval operations against air, surface, and submarine threats, air force

¹⁹⁴ Choi and Park, 388.

¹⁹⁵ Mark E. Manyin, Emma Chanlett-Avery, and Mary Beth D. Nikitin, "Nuclear Negotiations with North Korea, R45033" (Congressional Research Service, May 4, 2021).

¹⁹⁶ Payne, Scheber, and Guthe, 16.

¹⁹⁷ Robert Collins, "A Brief History of the US-ROK Combined Military Exercises," 38 North, February 26, 2014.

counter-air operations, and amphibious landings.¹⁹⁸ The United States announced the suspension of semiannual war games with South Korea in 2018, though combined exercises resumed with Ulchi Freedom Shield under the Biden administration in August 2023.¹⁹⁹

C. ASSESSING THE EFFECTIVENESS OF REASSURANCE FOR SOUTH KOREA

As stressed by Payne, Scheber, and Guthe, the Mutual Defense Treaty, joint command structure, and U.S. nuclear assurance are the key to South Korea's belief in the U.S. commitment to its defense. With these three pillars at its core, the United States is legally bound to support South Korea militarily, with the Combined Forces Command and wartime operational control being a symbolic representation of the alliance.²⁰⁰ South Korea views this arrangement as critical, as it obligates the United States to maintain and honor its defense obligations.

The importance of official statements in assuring South Korea has been emphasized in multiple interactions throughout the alliance, but is perhaps best highlighted by an assistant secretary of state in 2009, who stated: "...almost every senior interlocutor, in his or her meetings with the Japanese or Korean counterparts, underscores the importance of extended deterrence."²⁰¹ There is clear evidence that South Korea desires explicit and repeated assurances of the nuclear umbrella. As Kang Choi and Joon-Sung Park initially commented, which Payne, Scheber, and Guthe further highlighted, it was South Korea that advocated for the adoption of new extended deterrence verbiage in the 2006 Security Consultative Meeting communiqué to underscore the protection provided by the nuclear

¹⁹⁸ Kevin Baron, "What Is Foal Eagle?," *Foreign Policy* (blog), April 4, 2013.

¹⁹⁹ "The Republic of Korea and United States Announce Exercise Ulchi Freedom Shield 23," United States Forces Korea, August 13, 2023.

²⁰⁰ Payne, Scheber, and Guthe, 5.

²⁰¹ Yoichi Kato, "U.S. Warm to Proposal to Reaffirm Security Pact, Interview Comments from Assistant Secretary of State for East Asian and Pacific Affairs Kurt Campbell," *Asahi Shimbun*, July 23, 2009. Source pulled from Payne, Scheber, and Guthe, "U.S. Extended Deterrence and Assurance for Allies in Northeast Asia."

umbrella.²⁰² In Seoul’s view, the inclusion of extended deterrence terminology reinforced the U.S. nuclear commitment and provided a basis for discussion regarding the nature of that commitment. South Korean leaders find assurance in these objectives.²⁰³

After North Korea’s second nuclear test, South Korea insisted that President Barack Obama reaffirm the nuclear deterrent as part of the new U.S.-ROK Joint Vision. This new reaffirmation to the longstanding commitment served to bolster the confidence of South Korean Leaders regarding the United States’ ability to meet the North Korea threat, according to two South Korean defense analysts.²⁰⁴ Seoul believes that regular reiterations of the American security guarantee are critical to deterring North Korean aggression, serving as a warning, exerting pressure on Pyongyang to abandon nuclear development, and dispelling any illusions North Korea may have about using nuclear weapons as leverage in its dealings with South Korea.²⁰⁵

Approximately 28,500 service members are stationed in South Korea in 2023.²⁰⁶ According to a 2021 opinion survey, the overwhelming majority of South Koreans (94%) believe the presence of the U.S. military supports South Korean stability.²⁰⁷ The same poll finds that 77% of South Koreans believe that the United States would be “fully committed” to the defense of South Korea in the event of conflict. The disposition of U.S. troops in South Korea has been more strategically significant than simply the number deployed, with the majority positioned along potential invasion routes between the DMZ and Seoul. This placement has acted as a “trip wire,” ensuring that American would respond in the event of an attack, thereby strengthening deterrence against North Korean aggression and

²⁰² Choi and Park, 392; Payne, Scheber, and Guthe, 40.

²⁰³ Ibid.

²⁰⁴ Choi and Park, 393.

²⁰⁵ Robert Einhorn and Duyeon Kim, “Will South Korea Go Nuclear?” *Bulletin of the Atomic Scientists* (blog), August 15, 2016.

²⁰⁶ “Burden Sharing: Benefits and Costs Associated with the U.S. Military Presence in Japan and South Korea GAO-21-270” (U. S. Government Accountability Office, March 17, 2021).

²⁰⁷ David Choi, “US Alliance Under Biden More Popular with South Koreans than Under Trump, Poll Finds,” *Stars and Stripes*, November 4, 2021.

alleviating South Korean concerns about potential U.S. abandonment.²⁰⁸ The troop withdrawals that took place from 2004 to 2006 as part of the Global Posture Review altered the arrangement of American forces and raised two key concerns in South Korea. First, with fewer American troops, the deterrent against North Korean attacks might be less effective. Second, the potential use of American forces in South Korea for other contingencies in the region could weaken the overall U.S. security presence.²⁰⁹

Prompt, conventional military responses to external threats have allowed the United States to demonstrate its dedication to defending South Korea, as highlighted by its initial response to the 1994 North Korean nuclear crisis by deploying an additional 1,000 troops, Apaches, A-10s, and Bradleys. Conversely, when the United States has responded to escalating North Korean aggression with perceived weakness, anxieties have increased in Seoul. North Korea engaged in numerous provocations in the 1960s and 70s, including assassination attempts against ROK leaders, intentional and unintentional border infiltrations, and the U.S.S. *Pueblo* incident.²¹⁰ The United States, preoccupied with the Vietnam War and reluctant to enter another conflict, failed to meet South Korea's expectations for a robust military response, resulting in a decreased security commitment credibility for Seoul.²¹¹ President Park initiated a nuclear weapons program as a response which, through pressure from Washington and increased reassurance measures, was ultimately halted.²¹²

The number of nuclear warheads deployed to the peninsula reached several hundred in the late 1960s before gradually decreasing to around 100 before their complete withdrawal.²¹³ Similar to conventional capabilities, the presence of these nuclear arms demonstrated the American commitment to defend South Korea against aggression. They

²⁰⁸ Payne, Scheber, and Guthe, 12.

²⁰⁹ Christopher W. Hughes, "North Korea's Nuclear Weapons: Implications for the Nuclear Ambitions of Japan, South Korea, and Taiwan," *Asia Policy* 3, no. 1 (January 2007), 96.

²¹⁰ Payne, Scheber, and Guthe, 19.

²¹¹ Choi and Park, 375; Payne, Scheber, and Guthe, 19.

²¹² Choi and Park, 385; Hughes, "North Korea's Nuclear Weapons," 94.

²¹³ Hans M. Kristensen and Robert S. Norris, "A History of U.S. Nuclear Weapons in South Korea," *Bulletin of the Atomic Scientists* 73, no. 6 (October 26, 2017), 349.

could also be employed in the immediate defense of South Korea, serving as a deterrent to North Korean conventional advantages. After their removal in 1990, the U.S. nuclear guarantee has been upheld by offshore strategic nuclear forces, primarily SSBNs.

Starting in 1978, the U.S. nuclear commitment to South Korea has been consistently reaffirmed by the secretary of defense during annual Security Consultative Meetings with their ROK counterpart.²¹⁴ American officials are often hesitant to provide specific details regarding how the United States would respond to a North Korean nuclear attack when discussing with South Korean leaders. According to Choi and Park, with concurrence from Payne, Scheber, and Guthe, this reluctance stems from concerns that a detailed commitment could limit flexibility in strategic U.S. plans and prompt criticism from other regional actors.²¹⁵ South Koreans, however, seek discussions on strategy, operational doctrine, and nuclear targeting to gain greater reassurance from the United States.²¹⁶

Senior U.S. officials repeatedly affirming security guarantees is crucial for assuring Seoul, holding significance precisely because South Koreans place great importance on them.²¹⁷ As such, official restatements of the guarantee have proven effective in persuading South Korea to refrain from pursuing its own nuclear arsenal, as seen prior to their signing of the NPT and again after the discovery of their covert program in the 1970s.

The reassuring value of combined exercises has also been demonstrated consistently since the 1970s. Payne, Scheber, and Guthe highlight a professor at the Korea Military Academy who, after examining various joint exercises in South Korea, deduced that “combined exercises clearly strengthen the ROK-U.S. Alliance and improve deterrence.”²¹⁸ South Korean officials saw the value in maintaining annual training

²¹⁴ Payne, Scheber, and Guthe, 6.

²¹⁵ Choi and Park, 394; Payne, Scheber, and Guthe, 8.

²¹⁶ Tae-Woo Kim, “ROK-U.S. Defense Cooperation against the North Korean Nuclear Threat – Strengthening Extended Deterrence,” in *The U.S.-ROK Alliance in the 21st Century*, ed. Jung-Ho Bae and Abraham Denmark (Korea Institute for National Unification, 2009), 181–220. Source pulled from Payne, Scheber, and Guthe, “U.S. Extended Deterrence and Assurance for Allies in Northeast Asia.”

²¹⁷ Payne, Scheber, and Guthe, 11.

²¹⁸ Jeongwon Yoon, “Alliance Activities: Meetings, Exercises, and the CFC’s Roles,” in *Recalibrating the U.S.-Republic of Korea Alliance*, ed. Donald W. Boose et al. (U.S. Army War College Strategic Studies Institute, May 2003, 2003), 89–110.

exercises, noting that the now defunct Team Spirit exercise was “invaluable in maintaining military readiness and conducting a show of force against the North.”²¹⁹ This has certainly continued with the annual conduct of Foal Eagle/Key Resolve and computer-based Command Post Exercises (CPX) like Ulchi Freedom Guardian.

North Korea’s missile and nuclear tests since 2013, which pose an increased threat, have led some South Koreans to question U.S. security guarantees. There has been a marked increase in calls within South Korea to redeploy U.S. tactical nuclear weapons, and polls indicate that support for developing domestic nuclear capabilities is as high as 71% of the South Korean populace.²²⁰ To address these concerns, the United States and South Korea issued the Washington Declaration during President Yoon’s visit in April 2023, pledging to enhance joint planning and consultations on nuclear deterrence. They established a Nuclear Consultative Group to bolster deterrence against North Korean nuclear threats, with a focus on joint planning and visibility of U.S. strategic assets on the Korean Peninsula. Despite this, questions persist about the long-term viability of the Washington Declaration as South Korea debates its relationship with nuclear weapons.²²¹

D. CURRENT POTENTIAL FOR SOUTH KOREAN PROLIFERATION

While the discussion of nuclear proliferation is currently hypothetical, it is not merely confined to fringe elements of South Korean politics. Rather, several prominent members of the ruling People Power Party (PPP), including the mayor of Seoul and President Yoon Suk Yeol, have suggested that Seoul should consider acquiring nuclear weapons. When these statements from public officials are paired with the results of public opinion polling, it becomes clear that the nuclear proliferation debate is gaining in prominence within South Korea. A substantial majority of the populace (67%) favors

²¹⁹ John F. Farrell, “Team Spirit: A Case Study on the Value of Military Exercises as a Show of Force in the Aftermath of Combat Operations,” *Air & Space Power Journal* 23, no. 3 (Fall 2009), 100.

²²⁰ Toby Dalton, Karl Friedhoff, and Lami Kim, “Thinking Nuclear: South Korean Attitudes on Nuclear Weapons,” Carnegie Endowment for International Peace, February 21, 2022; Mark A. Green, “Seventy-One Percent of South Koreans Now Support the Return of Nuclear Weapons to Their Country—Even If It Means Developing Their Own,” Wilson Center, January 31, 2023.

²²¹ Emma Chanlett-Avery, Caitlin Campbell, and Christina L. Arabia, “U.S.-South Korea Alliance: Issues for Congress” (Congressional Research Service, September 12, 2023).

developing an independent nuclear capability over redeploying American tactical nuclear weapons (9%).²²²

A recent report from the Korea Economic Institute of America identifies the key factors driving South Korean public opinion about nuclear weapons.²²³ First, a change in the perception of North Korean nuclear capabilities and a diminishing confidence in the American extended deterrence commitment have left South Koreans feeling less secure. A second factor, an increasing doubt among the public about the adequacy of conventional deterrence against North Korea, further drives considerations of the nuclear option. Third, the ongoing conflict in Ukraine has seemingly convinced some in South Korea that pursuing a nuclear weapon may be the only means of deterring aggression from a nuclear-armed state. Finally, growing nationalism in the country has led many South Koreans to view nuclear weapons as a “symbol of prestige” that can boost confidence in the country’s security and deter North Korean threats. Overall, the South Korean public and political elites desire greater control over their own national security and less reliance on the United States.²²⁴

In terms of technical capability, South Korea possesses an advanced civilian nuclear program that could form the basis of a latent nuclear weapon capability and make it a prime breakout candidate. It ranks among the leading global producers of nuclear energy and maintains substantial infrastructure for the fuel cycle, which is subject to oversight by the International Atomic Energy Agency. This infrastructure includes 25 active nuclear power reactors. Nevertheless, South Korea’s nuclear infrastructure and supply chain do have certain vulnerabilities that would pose challenges in the pursuit of a military nuclear capability. South Korea operates an open nuclear fuel cycle and lacks its own uranium mining operations, as well as large-scale enrichment and reprocessing

²²² Dalton, Friedhoff, and Kim, “Thinking Nuclear: South Korean Attitudes on Nuclear Weapons.”

²²³ Avi Kirpekar, “South Korea’s National Security Debate Goes Nuclear,” *The Nuclear Threat Initiative* (blog), April 26, 2023; Jennifer Ahn, “The Evolution of South Korea’s Nuclear Weapons Policy Debate,” *Council on Foreign Relations* (blog), August 16, 2022.

²²⁴ Ibid.

facilities.²²⁵ Furthermore, South Korea heavily relies on imports to sustain its civilian nuclear program, and any disruptions in trade controls could severely impact its nuclear activities.²²⁶ Despite these hinderances, a 2016 estimate claimed Seoul could develop and deploy a testable nuclear weapon within “only 1.5 years once the decision is made.”²²⁷

South Korea has historically been a strong advocate for international nonproliferation efforts, actively participating in the NPT regime and using it to condemn North Korean nuclear activities. Therefore, pursuing an indigenous nuclear weapons program would contradict its participation in the nonproliferation regime, damaging South Korea’s international reputation as a responsible actor and possibly leading to international isolation and economic sanctions. Additionally, developing nuclear weapons would risk severely straining its relationship with the United States and incurring crippling economic or military sanctions.

Despite all of this, and given South Korea’s challenging security environment, a decision to proliferate may be understandable. South Korea’s threat perception could enable it to maintain moral and legal high ground, utilizing the Article X provision of the NPT that allows for withdrawal if extraordinary events jeopardize the country’s supreme interests.²²⁸ North Korea’s dedication to maintaining its nuclear status, the passage of a law endorsing a preemptive nuclear strike, and continued claims to the Korean peninsula further heighten the threat. Conceivably, this could provide a legal argument for a potential withdrawal from the NPT as a matter of survival, though such an argument would likely not be supported by the United States or other regional actors.

²²⁵ Lami Kim, “South Korea’s Nuclear Hedging?” Belfer Center for Science and International Affairs, Spring 2018.

²²⁶ Heather Williams and Jessica Link, “Global Reverberations of a Nuclear South Korea,” Korea Economic Institute of America, February 27, 2023.

²²⁷ Lee Young-Wan, “6 Months to Produce Fissile Materials, 6–9 Months to Develop a Detonation Device...South Korea Could Arm Itself with a Nuclear Weapon in 1.5 Years,” trans. Raymond Ha, *Chosun Ilbo*, February 19, 2017.

²²⁸ Ramon Pacheco Pardo, “South Korea Could Get Away with the Bomb,” *Foreign Policy* (blog), March 16, 2023.

South Korea could also potentially mitigate the international criticism and fallout that would arise from withdrawing from the NPT by following Israel's example as a test-free, apparent nuclear power. South Korea could rely on its nuclear energy expertise, computer modeling, and data from other nations' tests, to quietly develop its program without the need for testing.²²⁹ As Israel's test-free status has not hindered it from maintaining a close alliance with the United States, the adoption of a similar program may be preferable for South Korean leaders. In the event that a nuclear test would be desirable for their deterrence goals, the global backlash that would inevitably arise might not pose a strong enough disincentive. Strategic considerations sometimes outweigh proliferation concerns for the United States, as evidenced by the Indian case. The desire for a stronger relationship with New Delhi eventually outweighed U.S. criticism after the 1998 tests, and economic sanctions were eventually dropped in favor of increased partnership.

Given the modern geopolitical landscape, the Biden administration has prioritized security interests in competition with China. As an example, the AUKUS security pact, involving the United States, the United Kingdom, and Australia, raises questions about potential proliferation for the sake of sharing nuclear technology among allies.²³⁰ This, along with the Israeli and Indian cases, demonstrate that strategic considerations can take precedence over proliferation concerns for the United States and its partners. South Korean leaders could view potential nuclear proliferation as achievable in the modern global context.

E. CONCLUSION

For almost seventy years, South Korea has benefited from the security provided by U.S. extended deterrence. During this time, this assurance has deterred both nuclear and conventional aggression from North Korea. In recent years, it has very likely been crucial in preventing North Korean nuclear coercion. The credibility of the assurance stems from the longstanding military alliance, the presence of American forces in the region, the

²²⁹ Ibid.

²³⁰ James M. Acton, "Why the AUKUS Submarine Deal Is Bad for Nonproliferation—And What to Do About It," Carnegie Endowment for International Peace, September 21, 2021.

conduct of joint military exercises, and the history of the United States coming to the support of South Korea in times of crisis. This approach to assurance has generally been successful.

Seoul's confidence in the security commitments of the United States has wavered due to factors like troop withdrawals, heightened North Korean threats, weak American response to prodding from Pyongyang, and changes in the alliance's command structure. Comments from South Korean leaders and public opinion polling in South Korea shows that there is currently a significant support for both the redeployment of American tactical nuclear weapons and the development of a domestic nuclear capability. Any further degradation in South Korean assurance should not be ignored or underestimated. U.S. security guarantees have so far been instrumental in reassuring South Korea, but further loss of credibility could remove barriers to South Korea developing nuclear weapons and introducing further instability to the region.

V. COMPARISONS AND POLICY RECOMMENDATIONS

This chapter offers comparisons between two sets of case studies: West Germany and Turkey, and Japan and South Korea. It draws lessons learned from the Cold War era reassurance of West Germany and Japan to see how these insights might be applicable in the contemporary contexts of Turkey and South Korea. By juxtaposing these nations' experiences, it identifies how the United States can better reassure Ankara and Seoul and avoid nuclear proliferation. The chapter concludes with policy recommendations to shore up Turkish and South Korean confidence in the credibility of the U.S. nuclear deterrent.

A. COMPARING THE WEST GERMAN AND TURKISH CASES

The case study of West Germany offers lessons applicable to modern Turkey. Both nations, as members of NATO, have played significant roles in the alliance's nuclear burden-sharing arrangements, illustrating their commitment to collective defense and strategic stability. West Germany's experience during the Cold War, positioned at the center of East-West tensions, mirrors Turkey's current strategic posture as a middle ground between Europe and the Middle East. Furthermore, both countries have demonstrated a deep interest in European security issues, acknowledging that their security is inextricably linked with the broader stability of the European continent. This shared strategic context, underpinned by NATO membership and active participation in nuclear burden-sharing, establishes a strong foundation for comparing the historical experiences of West Germany with the contemporary challenge of Turkey in terms of nuclear deterrence and ally reassurance.

West Germany's decision against pursuing a nuclear weapon highlights the effectiveness of a multifaceted approach combining political resolve, military capability, and diplomacy. The United States and NATO's efforts, including troop basing and combined exercises, played a crucial role in reassuring West Germany. When combined with political commitments, these met the security needs of both the United States and West Germany. The U.S. approach, characterized by a blend of diplomacy and military presence, was pivotal in shaping West Germany's trust in U.S. security commitments, its

eventual ratification of the NPT, and its abandonment of its covert nuclear weapons program.

The U.S.-Turkish relationship, marked by its strategic importance in the face of Soviet threats, has been complex and evolving. The establishment of U.S. bases in Turkey, including Incirlik Air Base, and the deployment of nuclear weapons during the Cold War, were significant in enhancing Turkey's security. The unilateral U.S. decision to remove Jupiter missiles during the Cuban Missile Crisis, without consulting Turkey, strained the relationship and raised concerns about Washington's security commitment.²³¹ Despite this and other challenges, Turkey's integration into NATO's nuclear sharing reflect its alignment with U.S. and NATO objectives. Recent Turkish actions, however, including the S-400 deal, the Rosatom nuclear energy agreement, and statements in favor of proliferation by President Erdogan have raised concerns about Turkish proliferation in Washington.

Both West Germany and Turkey benefited from U.S. military presence and political commitments. The American approach with West Germany was more consistent and integrated, whereas in Turkey, unilateral moves on behalf of the United States indicated a less cohesive strategy. The United States engaged in active diplomacy with West Germany, addressing its concerns and building trust over decades. In contrast, the U.S.-Turkish relationship has experienced periods of tension and a misalignment of goals, partly due to differing perceptions and priorities in the region.

Both countries participated in NATO's nuclear sharing, but their experiences differed. Apart from Pershing II and ground-launched cruise missile (GLCM) deployments in the 1980s, West Germany's integration was smoother and more aligned with U.S. and NATO policies. Turkey's experience was marked by more periods of uncertainty and strained relations, particularly during the Cyprus crisis and the end of the Cold War. Some of this difference is likely due to differences in threat perception. West Germany's primary concern was the Soviet threat, aligning it closely with U.S. and NATO interests. Today,

²³¹ William G. Eldridge, "The Credibility of America's Extended Nuclear Deterrent: The Case of the Republic of Turkey," The Walker Papers, Air Force Fellows, no. Walker Paper No. 18 (September 2011), 73.

Turkey has a broader range of security concerns, including the ongoing conflict in Syria, tensions with neighboring Greece, instability in Iraq, and the threat of a nuclear Iran.

The U.S. experience with West Germany suggests that a consistent, integrated approach combining military presence, political commitments, and active diplomacy creates effective nuclear reassurance. Applying these lessons to Turkey requires acknowledging the unique regional dynamics and Turkey's broader security concerns. Consistent engagement, respecting Turkey's strategic perspectives, and addressing its specific security needs are key to ensuring effective nuclear reassurance today. This approach should be tailored to reflect the evolving geopolitical landscape and the complexities of the U.S.-Turkish relationship.

B. POLICY RECOMMENDATIONS FOR REASSURING TURKEY

Due to the increasingly divergent foreign policy directions of the two countries and the limited means with which the United States can influence the decision-making of Turkish authorities, reassuring Turkey may prove difficult. Washington must increase the perception of American political resolve, with public statements and increased diplomacy playing a vital role. Similarly, maintaining Turkish confidence in American military capability and the commitment to Ankara's security can help alleviate the possibility of nuclear backsliding.

To maintain its security guarantees, the United States needs to involve Turkey in alliance-related decision-making, as past unilateral actions have strained ties. As highlighted by William Eldridge, historical grievances, including the withdrawal of Jupiter missiles without consultation and past arms embargoes, weigh heavily in Turkish memories.²³² Maintaining Turkey's role in NATO burden sharing and nuclear policymaking can strengthen cooperation and political rapport. American support for

²³² William G. Eldridge, "The Credibility of America's Extended Nuclear Deterrent: The Case of the Republic of Turkey," The Walker Papers, Air Force Fellows, Walker Paper No. 18 (September 2011).

Turkey's accession to the European Union could also prove fruitful, as close integration with Western institutions lessens the likelihood of nuclear proliferation.²³³

To improve the strength of the alliance, the United States should anticipate a more autonomous Turkish foreign policy, particularly regarding the Middle East. Turkey's engagement in the region is driven by its economic and security considerations. It has inherent political and economic ties to its neighbors, which naturally results in differing approaches to regional issues. Recent Turkish assertiveness and domestic policy shifts can be seen as an expansion and legitimation of its foreign policy and desire to serve as a regional leader, and the United States could capitalize by utilizing Turkey as an intermediary on challenging issues.²³⁴

To deter Turkey from pursuing nuclear arms, the United States should help reduce Turkey's primary security threat by preventing Iran from obtaining nuclear weapons. Doing so would eliminate the primary reason for Turkey to develop its own nuclear capability.²³⁵ To this end, the United States should reengage with Iran and take the necessary steps to salvage the JCPOA, a move for which Turkey has been actively calling.²³⁶ The United States leveraging Turkey's influence on the issue to bring about a successful conclusion could enhance U.S.-Turkish relations even further.

Turkey certainly benefits from U.S. and NATO military support, but there is room for enhanced relations through more extensive military exchanges, increased involvement in NATO drills, and increased military assistance. Intelligence sharing and counterterrorism efforts on the part of the United States regarding threats from the Kurdistan Workers' Party (PKK) and the Islamic State of Iraq and Syria (ISIS) has already

²³³ Michael O Wheeler, "The Changing Requirements of Assurance and Extended Deterrence," Institute for Defense Analyses, July 2010, B-6.

²³⁴ Frances G. Burwell, "The Evolution of U.S. Turkish Relations in a Transatlantic Context" (United States Army War College Press, April 1, 2008), 45; Eldridge, "The Credibility of America's Extended Nuclear Deterrent: The Case of the Republic of Turkey."

²³⁵ Kurt M. Campbell, Robert J. Einhorn, and Mitchell B. Reiss, eds., *The Nuclear Tipping Point: Why States Reconsider Their Nuclear Choices* (Washington, D.C.: Brookings Institution, 2004), 161; Wheeler, "The Changing Requirements of Assurance and Extended Deterrence," B-6.

²³⁶ Ziya Meral, "Turkey's Perspective on Iran and the Question of Nuclear Enrichment," Royal United Services Institute (RUSI), April 7, 2022.

positively influenced Turkish officials.²³⁷ Deeper collaboration between the two countries could strengthen the perception of U.S. commitment to Turkey's security. In addition to looking for increased partnership opportunities, the United States should avoid further reducing the presence of its military forces on Turkish soil. As a visual representation of U.S. commitments, Turkish officials see the presence of American forces as important.²³⁸ Furthermore, integrating Turkey into missile defense initiatives can both alleviate its security concerns and strengthen the U.S. military presence there, though this will be increasingly difficult after the S-400 agreement.

As a demonstration of U.S. extended deterrence, U.S. nuclear weapons in Turkey should be maintained at their current level. They symbolize U.S. dedication to enable burden sharing, which strengthens the alliance. These weapons have historically dissuaded NATO countries from pursuing their own nuclear capabilities, as evidenced by the West German case study. Hosting U.S. nuclear weapons also elevates Turkey's standing in NATO, something desired by Ankara.²³⁹ Any U.S. decision to reduce its nuclear arsenal in Europe should only occur following discussions with NATO allies, particularly burden-sharing members like Turkey. If this were to occur, alternatives such as increased conventional forces should be employed to maintain ally reassurance and deterrence.

The United States needs to remain vigilant about any Turkish political narratives that may suggest nuclear weapons as a security solution and maintain a watchful stance on Turkey's international engagements, particularly with pro-nuclear proliferation entities. Increased nuclear rhetoric from the Erdogan administration could continue to be a cause for concern. While Turkey adheres to the pillars of the international nonproliferation regime, strong public denunciations of proliferation, possibly in tandem with the United States, could further politically disincentivize any move toward nuclear armament.

²³⁷ Eldridge, "The Credibility of America's Extended Nuclear Deterrent: The Case of the Republic of Turkey," 55.

²³⁸ Ibid.

²³⁹ Mustafa Kibaroglu, "Turkey, NATO & Nuclear Sharing: Prospects after NATO's Lisbon Summit – Nuclear Policy Paper No.5" (Arms Control Association, BASIC, Institute for Peace Research and Security Policy at the University of Hamburg, April 27, 2011), 7.

The United States should keep a watchful eye on Turkey's burgeoning civilian nuclear energy program and perhaps assist Turkey in diversifying its energy sources and routes, thereby reducing its dependence on external actors like Russia and Iran. The 123 Agreement with Turkey, renewed in June 2023, provides a framework for nuclear cooperation, and allows the United States to monitor Turkey's nuclear program.²⁴⁰ A closer collaboration could better ensure the prevention of any unauthorized technology transfer between Turkey and Russia. Additionally, Washington should continue to track Turkey's use of fissionable materials, including the transfer and repatriation of material under their agreement with Rosatom. Maintaining an oversight of Turkey's potential weapons development capacity, which is currently minimal, while Turkey remains compliant with IAEA inspections at the Ankara facility, is critical.²⁴¹

Strengthening reassurance for Turkey hinges on a sophisticated approach that addresses its political, economic, and security issues. Closer engagement between the two allies is crucial. Shared burdens and collaboration serve to enhance the alliance. The United States could bolster its role as a security ally by easing trade restrictions and boosting arms sales to Turkey. U.S. troops and nuclear weapons stationed in Europe are pivotal signs of American dedication; any reduction should be discussed with Turkey and replaced with an alternative means to sustain their trust. The United States should also be alert and responsive to signs that could prompt Turkey towards nuclear armament and counter potential security risks, including the threat of a nuclear Iran. Involving Turkey in joint defense projects military exchanges while respecting its domestic sovereignty could deter Turkey from considering nuclear options. Monitoring Turkey's civilian energy program and cooperation with Russia can allow the United States to apply preventive measures proactively.

²⁴⁰ "U.S.-Turkey Agreement for Peaceful Nuclear Cooperation" (U.S. Department of State, June 2, 2008); Jessica C. Varnum, "Closing the Nuclear Trapdoor in the U.S.-Turkey 'Model' Partnership," Center on the United States and Europe (CUSE) at Brookings, Turkey Project Policy Paper No. 1, June 2013.

²⁴¹ "Chain Reaction: Avoiding a Nuclear Arms Race in the Middle East," 45.

C. COMPARING THE JAPANESE AND SOUTH KOREAN CASES

The historical experience of Japan in the context of nuclear deterrence and reassurance offers insight into the contemporary case of South Korea. Both Japan and South Korea have navigated a complex and evolving security landscape in East Asia, characterized by the persistent threat from neighboring powers. Throughout the Cold War, the looming presence of China and the Soviet Union presented significant strategic challenges to both Japan and South Korea, a scenario that mirrors both nations' current security concerns, particularly regarding North Korea. Unlike in the European case studies, where NATO provides a collective security framework, Japan and South Korea have had to rely more heavily on bilateral alliances and regional diplomacy to meet their security needs. The similarities in their strategic environments, both historical and modern, coupled with the absence of a unifying alliance akin to NATO, make the comparison between Japan and South Korea regarding nuclear deterrence and reassurance both relevant and insightful.

Japan's approach to nuclear weapons, as described by Fintan Hoey, is characterized by its rejection of an autonomous deterrent in favor of relying on the United States for extended deterrence.²⁴² This decision was heavily influenced by Japan's unique historical experiences, including the Hiroshima and Nagasaki bombings and the Lucky Dragon incident, which ingrained a strong anti-nuclear sentiment among the public. The U.S.-Japan Security Treaty of 1960 and Japan's adoption of the Three Non-Nuclear Principles in 1967 further cemented its stance against nuclear armament. This stance contrasts with South Korea's growing support for nuclear armament in response to the immediate threat from North Korea.

South Korea's situation, as explained by Payne, Scheber, and Guthe, differs from Japan's in that it faces a more immediate and direct nuclear threat from North Korea.²⁴³ The Mutual Defense Treaty and the presence of U.S. troops in South Korea are central to Seoul's security. South Korea's desire for explicit and repeated assurances of the U.S.

²⁴² Hoey, "Japan and Extended Nuclear Deterrence."

²⁴³ Payne, Scheber, and Guthe, "U.S. Extended Deterrence and Assurance for Allies in Northeast Asia."

nuclear umbrella, especially following North Korea's nuclear tests, highlights its need for a more tangible commitment from Washington. The removal of American nuclear weapons from South Korea in 1991 and the subsequent reliance on offshore strategic nuclear forces have led to increased calls within South Korea for the return of American nuclear weapons or the acquisition of indigenous nuclear capabilities.²⁴⁴ These calls reflecting a growing concern about the credibility and effectiveness of the U.S. nuclear guarantee.

The U.S.-Japan alliance has been characterized by close cooperation in regional security, economic matters, and global diplomacy. South Korea, on the other hand, has had a more complex relationship with the United States. While the U.S. military presence and political commitment have been strong, particularly following the Korean War, there have been periods of tension and diverging interests. The United States has been a key security guarantor for South Korea against North Korean aggression, but issues such as the deployment of U.S. military assets and differing approaches to North Korea have occasionally strained the relationship.

Japan's alignment with U.S. policies has been relatively smooth, apart from the Okinawa issue, with shared democratic values and mutual economic interests reinforcing the alliance. South Korea, while sharing these democratic values, has had to navigate a more immediate and volatile security situation on the Korean Peninsula, leading to a more nuanced and sometimes fluctuating alignment with U.S. policies. Both Japan and South Korea host significant U.S. military forces; only South Korea has hosted U.S. nuclear weapons on its mainland, albeit without the nuclear sharing relationship employed with NATO allies. Japan's Self-Defense Forces have a high degree of interoperability with the U.S. military, reflecting decades of joint exercises and defense cooperation. South Korea's military, operating for decades under the Combined Forces Command, has had a more integrated security partnership.

²⁴⁴ Toby Dalton, Karl Friedhoff, and Lami Kim, "Thinking Nuclear: South Korean Attitudes on Nuclear Weapons," *Carnegie Endowment for International Peace*, February 21, 2022; Mark A. Green, "Seventy-One Percent of South Koreans Now Support the Return of Nuclear Weapons to Their Country—Even If It Means Developing Their Own," *Wilson Center*, January 31, 2023.

While the U.S. experience with Japan provides a successful model of ally reassurance and non-proliferation, the evolving security landscape in South Korea necessitates a more dynamic and responsive approach. Understanding the distinct historical, cultural, and geopolitical contexts of each ally is essential in crafting effective security strategies that address their unique security needs to foster reassurance while promoting regional stability and non-proliferation.

D. POLICY RECOMMENDATIONS FOR REASSURING SOUTH KOREA

Due to North Korea's nuclear ambitions and the strategic uncertainties posed by a rising China, Seoul's security calculus is increasingly complex. The United States, as South Korea's principal ally, has a vested interest in preventing the proliferation of nuclear weapons on the Korean Peninsula. To achieve South Korean reassurance in support of this goal, the United States should employ a multi-dimensional strategy that reinforces its commitment to South Korea's security.

The United States can make broad efforts towards reassuring South Korea by deepening diplomatic engagement and security guarantees. Efforts along these lines took a considerable leap forward with the announcement of the Washington Declaration in April 2023. The declaration took steps to expand security consultations between the United States and South Korea and integrated the forces of the two nations more closely together to increase the deterrent posture.²⁴⁵ The first major policy outcome of the declaration is a U.S. committal to "make every effort to consult with the ROK on any possible nuclear weapons employment on the Korean Peninsula."²⁴⁶ Though it falls short of establishing a formal requirement for consulting with Seoul, this statement serves to reassure Seoul that the United States would seek input and be open to consultation with South Korea leaders on the matter of nuclear weapons.

²⁴⁵ Ankit Panda, "The Washington Declaration Is a Software Upgrade for the U.S.-South Korea Alliance," Carnegie Endowment for International Peace, May 1, 2023; "Washington Declaration," The White House, April 26, 2023.

²⁴⁶ "Washington Declaration," The White House.

The United States can further reassure South Korea by strengthening the military alliance and overall defensive posture on the peninsula. The U.S. military presence on the Korean Peninsula serves as a powerful deterrent against North Korean provocations. To reinforce this posture, the United States can increase the frequency and scale of joint military exercises, ensuring that both U.S. and South Korean forces are prepared for a range of contingencies. The resumption of combined military exercises after a hiatus, as highlighted by Ulchi Freedom Shield in 2023, should continue to demonstrate a reconstituted commitment to the combined defense of South Korea. To enhance the reassurance value of the U.S. nuclear guarantee, these exercises should involve U.S. nuclear-capable forces and integrate nuclear weapons planning.

While the United States has operated a Terminal High Altitude Area Defense (THAAD) battery in South Korea since 2017, missile defense is an additional area in which it could expand security cooperation with South Korea. The integration of American, South Korean, and Japanese air defense systems, as was seen in a trilateral missile defense exercise in August 2023, serves to deepen cooperation and improve defenses against North Korean missiles.²⁴⁷ Integrated early warning, be it through terrestrial or space-based capability, can offer another area for enhanced trilateral cooperation between the United States, South Korea, and Japan.

The adoption of South Korea into the Quadrilateral Security Dialogue as a full partner could also serve to bring Korea into a wider security framework and enhance deterrence. This broader engagement would not only enhance deterrence against common threats, particularly from North Korea and China, but also provide South Korea with a more robust security network. By participating permanently in the Quad, South Korea would benefit from increased intelligence sharing, joint military exercises, and coordinated diplomatic strategies, thereby reinforcing its defense posture and regional stability. Moreover, this integration would send a strong signal of collective resolve and solidarity

²⁴⁷ Dzirhan Mahadzir, “U.S., South Korea, Japan Hold Joint Ballistic Missile Defense Drills,” *USNI News* (blog), August 29, 2023.

among the participating nations, thereby offering a greater sense of security reassurance to South Korea.

Historically, ROK military leaders have expressed a dissatisfaction with the level of coordination on nuclear issues, including targeting. While they are appreciative of the extended deterrence provided by the U.S. nuclear umbrella, they “place a high value on the opportunity to discuss sensitive security matters with their American counterparts” and feel that the United States had not been forthcoming in involving South Korea in nuclear planning.²⁴⁸ South Korean leaders desired a means of collaboration on nuclear issues that closely resembled the NATO Nuclear Planning Group, and got their wish with the announcement of the Nuclear Consultation Group (NCG) as part of the Washington Declaration. The NCG will be a forum between the two allies with the intent to discuss “nuclear and strategic planning.”²⁴⁹ The group will also allow for the discussion of ROK conventional support to American nuclear operations. By giving South Korea a larger say in nuclear planning, the United States is attempting to address a growing sense of vulnerability by South Korean leaders.²⁵⁰ In order to expand the scope of the NCG, the United States should push for the inclusion of Japan and the formation of a trilateral mechanism for nuclear and extended deterrence discussions in Northeast Asia.

To provide a larger punch to its deterrence efforts the United States should ramp up its commitment under the Washington Declaration to “further enhance the regular visibility of strategic assets to the Korean Peninsula.”²⁵¹ The overflight of B-2s in March, the docking of a U.S. SSBN in Busan in July, and the landing of B-52s for the first time in 30 years in October 2023 serve as demonstrations of both the military capability and political resolve of the United States to back up its nuclear security guarantees.²⁵² Visible and

²⁴⁸ Robert Einhorn and Duyeon Kim, “Will South Korea Go Nuclear?,” *Bulletin of the Atomic Scientists* (blog), August 15, 2016.

²⁴⁹ “Washington Declaration,” The White House.

²⁵⁰ Panda, “The Washington Declaration Is a Software Upgrade for the U.S.-South Korea Alliance.”

²⁵¹ “Washington Declaration,” The White House.

²⁵² Joseph Clark, “Austin Affirms ‘Ironclad’ U.S. Commitment to Deterrence on Korean Peninsula,” U.S. Department of Defense, November 13, 2023; Joseph Su, “Another Washington Declaration: U.S. Nuclear Weapons on the Korean Peninsula,” Foreign Policy Research Institute, August 9, 2023.

publicized visits of U.S. nuclear weapons to the peninsula would be the ultimate tangible means of providing reassurance, while also providing leverage in future discussions with Pyongyang regarding denuclearization.

The Washington Declaration also highlights new methods of bolstering U.S. nuclear initiatives in South Korea through the aid of conventional ROK forces, although details of this collaboration remain vague.²⁵³ This could involve direct support from South Korean conventional forces, such as missile and air support, for U.S. nuclear missions. There's also the potential for adopting a NATO-style arrangement wherein South Korean aircraft provide air support to U.S. nuclear bombers as a burden sharing measure.²⁵⁴ If Washington were to pursue returning nuclear weapons to the peninsula, it should look to integrate ROK conventional forces into its nuclear operations as much as possible to strengthen the partnership and deterrent effect.

As another means of avoiding nuclear proliferation, the United States should maintain its civilian nuclear cooperation with South Korea under the 123 Agreement. Extended through 2040 in 2015, the agreement enhances the strategic relationship between the two nations, establishing a High-Level Bilateral Commission designed to enhance cooperation on issues such as spent fuel management, assured fuel supply, and nuclear surety.²⁵⁵ By upholding its commitments under the agreement, the United States can maintain an awareness of South Korea's civilian nuclear endeavors. This close-knit partnership enables the highest standards of nuclear safety and provides a strong disincentive for South Korean proliferation.

Finally, the United States should take any opportunity in diplomatic meetings to emphasize its support for South Korea's participation in international non-proliferation efforts. In the Washington Declaration, South Korea announced its dedication to the tenants of the Nuclear Nonproliferation Treaty and reaffirmed its obligations under the 123

²⁵³ "Washington Declaration," The White House.

²⁵⁴ Panda, "The Washington Declaration Is a Software Upgrade for the U.S.-South Korea Alliance."

²⁵⁵ "U.S.-Republic of Korea (R.O.K.) Agreement for Peaceful Nuclear Cooperation," United States Department of State, accessed May 9, 2023.

Agreement with the United States.²⁵⁶ The United States should also continue its coordination with South Korea in international non-proliferation efforts such as the Missile Technology Control Regime, Nuclear Suppliers Group, and Proliferation Security Initiative.

To better reassure South Korea and deter it from seeking its own nuclear weapons, the United States should implement a comprehensive strategy that encompasses diplomatic and military dimensions. This strategy should aim to strengthen the U.S.-South Korean alliance, enhance regional security frameworks, promote non-proliferation norms, and address the underlying security challenges posed by North Korea and other regional actors. By doing so, the United States can maintain stability on the peninsula and further foster South Korean reassurance.

E. CONCLUSION AND AREAS FOR FUTURE RESEARCH

The case studies of West Germany and Japan provide critical insights for the United States in reinforcing its reassurance strategies towards Turkey and South Korea, emphasizing the importance of political resolve and military capability. The experience of West Germany, a key NATO ally during the Cold War, highlights the significance of consistent political interaction, military commitment, and participation in nuclear burden-sharing, elements that can be applied to Turkey to meet their current regional security challenges. Meanwhile, Japan's approach to managing complex security issues in East Asia without a comprehensive alliance framework like NATO mirrors South Korea's situation. The West German and Japanese experiences underline the necessity for the United States to demonstrate strong and tailored political support and substantial military capability to address the unique security concerns of Turkey and South Korea. By learning from these historical precedents, the United States can better tailor its approach, combining diplomatic efforts with tangible military support, to ensure regional stability and strengthen its ally reassurance in these strategically vital areas.

²⁵⁶ "Washington Declaration," The White House.

Future research on this topic should consider revisiting the case of Turkey, especially following the emergence of a nuclear-armed Iran or drastic changes in its nuclear energy relationship with Russia. These evolving scenarios could significantly alter Turkey's calculus and alter their view on proliferation. Similarly, the case of South Korea warrants a reexamination following the implementation of the Washington Declaration, particularly to assess the effectiveness of its measures aimed at enhancing the deterrent posture against North Korean threats. Analyzing the impact of these initiatives after some time would offer further insights into the effectiveness of the renewed bilateral arrangement on South Korean reassurance.

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