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Extended Deterrence in the Nuclear Era: Strategy, Theory, and Consequences

Logan, David

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EXTENDED DETERRENCE IN THE NUCLEAR ERA: STRATEGY, THEORY, AND CONSEQUENCES

David C. Logan

A DISSERTATION

PRESENTED TO THE FACULTY

OF PRINCETON UNIVERSITY

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Abstract

How do states practice extended deterrence? This dissertation examines how major powers make commitments to deter and defeat aggression against their junior allies, the conditions under which major powers use which practice, and the relative effectiveness of each framework in achieving the major powers' strategic goals. With this dissertation, I make three core contributions to the fields of international relations and security studies. First, drawing on the signaling and deterrence literatures, I develop a novel typology of the strategies that major countries, such as the Soviet Union, the United Kingdom, and the United States, use to signal their commitments to deter and defeat attacks on their allies. By identifying how these countries use treaties, troops, and nukes to signal extended deterrence commitments, the typology brings coherence to our understanding of extended deterrence practices and shows how they systematically vary across both time and space.

Second, I develop a theory identifying the conditions under which major powers will select a given strategy in the typology. I argue that the presence of a given strategy is largely driven by a strategic-choice process driven by the major power. The major power selects the strategy it believes will most satisfy its security goals, conditional upon the external and internal constraints it confronts. I identify system-, state, and alliance-level variables which, together, explain the outcomes of this strategic choice process and the major power's selection of extended deterrence framework. I then test my theory using both a pattern-matching exercise against the universe of cases and a series of intensive case studies. Drawing on multilingual archival and secondary sources, I demonstrate how my theory outperforms prominent alternative explanations in the international relations literature.

Third, using statistical methods, I evaluate the relative success of each framework in achieving various – and, at times, conflicting – strategic goals of the major power, such as deterring the adversary, reassuring the junior ally, and restraining the junior ally. The results indicate that major powers face tradeoffs in pursuing their extended deterrence goals and that simultaneously accomplishing multiple strategic goals will require the selection of more costly extended deterrence frameworks.

Dedication

To Jiali, who has taught me so much.

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Introduction

Extended deterrence has gained new prominence in policy and academic circles. The election of Donald Trump, for many, raised concerns about the credibility of the U.S.'s extended deterrence commitments. Political leaders in U.S. allies fretted about the dependability of U.S. promises, publics across Western Europe expressed little confidence in the new American president, and political scientists roundly predicted both an erosion of credibility of U.S. commitments. Simultaneously, there are growing concerns about Chinese, North Korean, and Russian aggression against American security partners, raising new questions about how to deter and defeat aggression abroad.

Against this backdrop, observers have called for measures to shore up the credibility of the U.S.'s extended deterrence commitments. Leaders in European capitals have expressed concern that President Trump might withdraw U.S. conventional forces from Europe. South Korea's defense minister has suggested that the U.S. should consider redeploying tactical nuclear weapons to the Korean Peninsula. American policymakers have argued for returning nuclear-armed Tomahawk cruise missiles to the U.S. arsenal and even for developing new lower-yield tactical nuclear weapons.

How do states practice extended deterrence? Why do they select certain strategies for signaling their intent to deter and defeat attacks against a junior ally and what do these strategic choices imply for alliance dynamics, proliferation

behavior, and interstate conflict? These questions have important implications for both scholarship and policy.

Existing studies of extended deterrence have often focused on examining the consequences of different state tools without giving sufficient attention to the drivers of those tools. The extended deterrence literature has also largely focused on individual tools of extended deterrence in isolation, without considering the ways that senior allies can strategically bundle various tools together, using them as complements or substitutes. Finally, much of the literature is case-specific, examining the experiences of individual senior-junior ally pairs, without considering how the variation among extended deterrence practices may be systematic.

Argument in Brief

I argue that senior allies will strategically select an extended deterrence strategy in order to pursue their goals of avoiding entrapment, deterring conflict, and minimizing costs, subject to the political and material constraints they confront. I also argue that these strategies of extended deterrence vary systematically across time and space.

I identify six strategies of extended deterrence. Five of these are what I call "core strategies," meaning that one and only one of the strategies should be present in each instance of extended deterrence. The first, and least intensive of these strategies is the *conditional alliance*, which consists of only a legalized commitment by the senior ally to defend the junior ally under specific, limited conditions. The

conditional alliance does not couple this legal commitment with any forward military deployments. Second, the *security guarantee* deepens the senior ally's commitment to the junior ally by providing an open-ended, unconditional legal commitment, but still does not couple this commitment with any forward military deployments. Third, the *conventional barrier* couples an open-ended, unconditional legal commitment with the forward deployment of conventional ground combat forces to deter and defeat aggression against the junior ally. Fourth, the *nuclear tripwire* couples an open-ended, unconditional legal commitment with the forward deployment of ground-based tactical nuclear weapons and token conventional troops. Fifth, the *nuclear barrier* strategy consists of an open-ended, unconditional legal commitment, forward deployed ground-based tactical nuclear weapons, and large conventional troops. In addition to these five core strategies, I also identify a sixth auxiliary strategy, the *power projection* strategy. This strategy, which may or may not be present alongside one of the five core strategies, features the forward deployment of long-range naval and air forces to enhance the senior ally's power projection capabilities.

I argue that senior allies will strategically select from among these strategies depending on the conditions they confront. I present a theory that explains variation among these strategies called "extended deterrence selection theory." This is a generalizable and falsifiable theory that specifies the conditions under which a senior ally will select a given extended deterrence strategy in the typology. The theory argues that senior allies will select a strategy to pursue their goals of avoiding

entrapment, deterring conflict, and minimizing costs, subject to the political and material constraints they confront.

I structure the theory as a decision tree in which the senior ally's selection of a strategy is determined by the interaction of six variables. The theory is illustrated below in figure 0-1. The theory examines state dyads involving a senior and a junior ally. The first node in the tree examines whether the senior ally perceives significant entrapment risks in its defense commitments to the junior ally. Specifically, the theory asks whether the adversary portfolios of the senior and junior allies overlap or whether the junior ally confronts an adversary that is not shared by the senior patron. If the junior ally confronts an unshared adversary, then the senior ally will perceive greater entrapment concerns and, in order to mitigate those entrapment risks, will provide only the limited, conditional alliance. If there is sufficient overlap, entrapment concerns are more muted, the senior ally will feel comfortable providing a more intensive commitment, and the theory proceeds to the next node on the decision tree.

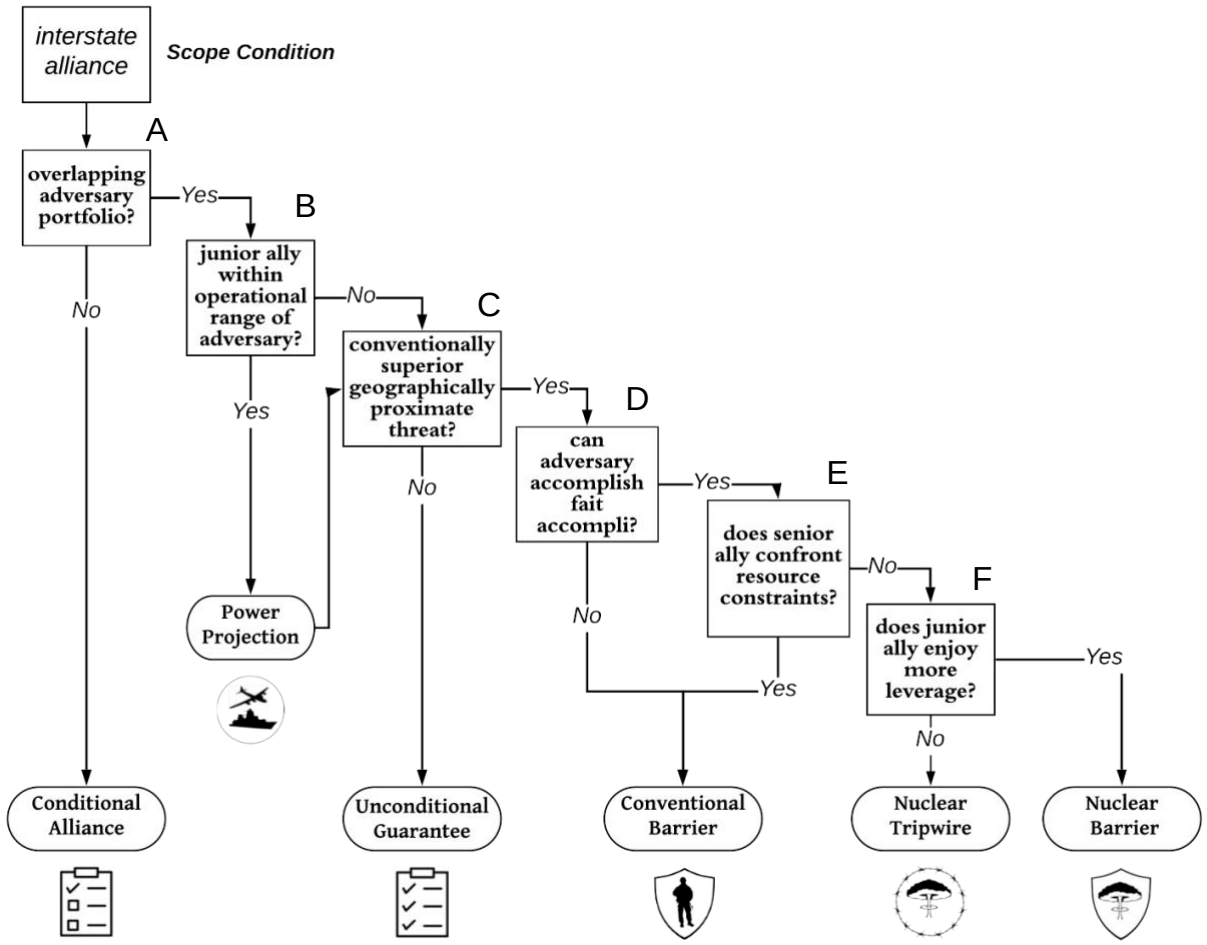

Figure 0-1: Extended Deterrence Selection Theory

Next, at node B, the theory asks whether the junior ally is within operational range of an adversary. That is, given the junior ally's location and the senior ally's military technology, can long-range naval or air assets stationed on the territory of the junior ally strike an adversary? If so, the theory predicts the selection of the auxiliary power projection strategy.

At node C, the theory examines the security environment of the junior ally by asking if it confronts a conventionally superior geographically proximate offensive threat. If the junior ally does not confront this type of threat, the theory predicts the

senior ally will select an unconditional guarantee without any forward military deployments. If, however, the junior ally does confront a relevant threat, the theory continues to the next node.

Here, at node D, the theory asks whether the adversary confronting the junior ally is capable of executing a fait accompli against the junior ally or whether, given both the local conventional balance and the balance of power between the senior ally and the adversary, forward conventional military deployments would be sufficient to precent a fait accompli. If the adversary is viewed as incapable of accomplishing a fait accompli, then the theory predicts the senior ally will select a conventional barrier.

If the adversary is viewed as capable of executing a fait accompli, node E asks whether the senior ally confronts resource constraints on the deployment of ground-based tactical nuclear weapons. Not all senior allies will have developed the technological or organizational capacity for deploying these military capabilities. If the senior ally does confront relevant constraints on the deployment of these systems, then the theory predicts it will be forced to choose the conventional barrier strategy. If, however, the senior ally does not confront any relevant constraints and is able to deploy ground-based tactical nuclear weapons, the theory moves to the final node.

Node F examines the bargaining leverage between the senior and junior allies and asks whether the junior ally enjoys significant leverage over the senior patron. If not, then the senior ally will provide the relatively less intensive nuclear tripwire strategy. If, however, the junior ally does enjoy significant leverage over the senior

ally, then the theory predicts the junior ally will be able to compel the senior ally to provide the more intensive nuclear barrier.

In this way, the theory can both explain and predict state practices of extended deterrence, as well as the underlying drivers of the variation in those practices. I test the theory in two ways. First, I conduct a pattern-matching exercise on the universe of cases. This exercise suggests the strong explanatory power of the theory, correctly explaining roughly 85 percent of cases. In addition, to validate that state leaders are acting with reference to the variables identified in the theory, I also conduct a series of case studies to highlight the underlying mechanisms driving variation in extended deterrence practices. These case studies, which cover the extended deterrence experiences of senior allies such as the United States, the Soviet Union, the United Kingdom, and France, validate that the theoretical predictions generated by the theory are largely reflected in the empirical record. Finally, I also offer tentative evidence of how each of the strategies of extended deterrence identified here vary in their ability to accomplish the goals of deterrence, assurance, and restraint.

Plan for the Book

Chapter 1 begins by introducing extended deterrence selection theory. It begins by motivating the project, identifying gaps in the literature and highlighting the need for a generalizable theory of extended deterrence practices. I then proceed to develop a new typology of the strategies that senior allies use to practice extended deterrence. I identify how these strategies vary along three dimensions: type of legalized defense commitment, type of forward conventional deployment, and type of

forward nuclear deployment. Variation along these three dimensions produces six total strategies of extended deterrence: conditional alliance, unconditional guarantee, conventional barrier, nuclear tripwire, nuclear barrier, and the power projection strategy. These consist of five core strategies, one of which is present in each observation, and an additional sixth auxiliary power projection strategy, which may or may not be present alongside one of the five core strategies. Next I introduce the theory which specifies the conditions under which a senior ally should select a given strategy from the typology. The theory identifies how political, geographic, technological, and security variables interact in a strategic selection process wherein the senior ally selects an extended deterrence strategy it believes will best achieve its goals. I first test the theory through a pattern-matching exercise on the universe of cases which shows that the theory correctly explains more than 85 percent of cases.

In chapter 2, I produce the first case study, an examination of the U.S. extended deterrence strategy provided to South Korea from the end of fighting in the Korean War to today. This chapter traces the evolution of that commitment across three phases. Following the Armistice in the Korean War, the United States maintained a conventional barrier strategy in South Korea. The forward deployed conventional forces were seen as sufficient for maintaining deterrence, especially in light of the mutual arms control and inspection provisions established by the Armistice. However, in the mid-1950s, as there was growing concern that Communist violations of the agreement had upset the delicate balance of power, American officials opted for a nuclear barrier strategy, deploying ground-based tactical nuclear

weapons to offset the perceived conventional superiority of the North. This strategy remained in place for several decades until the end of the Cold War and the more permissive security environment it ushered in permitted the removal of nuclear weapons from the Korean Peninsula. Today, U.S. conventional forces remain in South Korea as part of an ongoing conventional barrier strategy in the country.

In chapter 3, I continue with the United States' experience but focus on a lesser studied case: Italy. Here, I trace the U.S. strategy across three phases. In the first phase, in the early years of the Cold War, the United States provided an unconditional guarantee coupled with the auxiliary power projection strategy. In the mid-1950s, Italy's security situation shifted with the creation of the Warsaw Pact and the neutralization of Austria, which left an undefended avenue of advance from Warsaw Pact countries into Italy's northeast. In response, the United States would deploy ground-based tactical nuclear weapons to Italy's northeast, signifying the shift to a nuclear tripwire strategy. At the time, Italian officials requested a stronger American ground presence but Italy's relative lack of leverage over the United States meant American officials maintained only a token ground force alongside the new forward deployed nukes. This nuclear tripwire strategy remained until the end of the Cold War when the removal of American ground combat forces from the country signaled the return to a security guarantee, which remains in place today alongside the auxiliary power projection strategy.

In chapter 4, I examine the extended deterrence experience the other Cold War superpower, the Soviet Union, through a case study of its commitment toward

Mongolia. In the years after World War II, the Soviet Union provided Mongolia with an unconditional guarantee given the limited threats to Mongolia. However, following the Sino-Soviet split, officials in both Moscow and Ulaanbaatar viewed Chinese aggression as more likely, leading to the 1966 Soviet deployment to Mongolia of tens of thousands of troops, including ground-based tactical nuclear weapons. This nuclear barrier strategy

In chapter 5, I conduct three mini-cases, examining the extended deterrence commitments provided by the United Kingdom to Belize, France to Djibouti, and the United States to Israel. These cases extend the study of extended deterrence practices by assessing the experiences of other non-superpower senior allies. It also broadens the empirical investigation by looking at examples of less intensive cases. Together, these case studies expand the geographic, temporal, and political scope of the study.

Chapter 6 shifts extended deterrence strategies from the dependent variable to the independent variable in order to examine how different strategies of extended deterrence differentially affect patterns of interstate conflict and nuclear proliferation. Here I replicate several large-N studies examining how frequently junior allies are targeted in militarized disputes, initiate nuclear programs, or initiate their own militarized disputes. The findings suggest that senior allies face tradeoffs in simultaneously pursuing the goals of deterrence, assurance, and restraint.

Finally, I conclude with an overview of the work and its implications. I summarize the findings of the book and evaluate the theory's explanatory power alongside several competing explanations. I show how extended deterrence selection

theory outperforms several prominent alternative explanations and both validates and extends recent work on extended deterrence. I also discuss implications for both scholarship and policy.

Chapter 1

The Sources of Extended Deterrence Strategies

How do states practice extended deterrence? Why do they select certain strategies for signaling their intent to deter and defeat attacks against a junior ally and what do these strategic choices imply for alliance dynamics, proliferation behavior, and interstate conflict? These questions have important implications for both scholarship and policy.

The extended deterrence literature has focused more on the effects of different deterrence practices rather than their causes. Scholars have identified a range of tools states may use to signal their commitment to defend an ally, including treaties, forward deployed troops, arms transfers, leadership visits, leadership statements, or military exercises and have investigated the relationship between these tools and the onset of interstate crises and conflicts. [1] However, researchers have dedicated comparatively little time to understanding how states choose tools of extended

[1] See, for example, Paul K. Huth, "The Extended Deterrent Value of Nuclear Weapons," *Journal of Conflict Resolution*, Vol. 34, No. 2 (1980), pp. 270-290; James D. Fearon, "Signaling Foreign Policy Interests: Tying Hands Versus Sinking Costs," *Journal of Conflict Resolution*, Vol. 41, No. 1 (1997), pp. 68-90; Volker Krause, "Hazardous Weapons? Effects of Arms Transfers and Defense Pacts on Militarized Disputes, 1950-1995," *International Interactions*, Vol. 30, No. 4 (2004), pp. 349-371; Brett V. Benson, "Unpacking Alliances: Deterrent and Compellent Alliances and Their Relationship with Conflict, 1816-2000," *Journal of Politics*, Vol. 74, No. 3 (2011), pp. 427-439; Jesse C. Johnson and Brett Ashley Leeds, "Defense Pacts: A Prescription for Peace?" *Political Analysis*, Vol. 7, No. 1 (2011), pp. 45-65; Matthew Fuhrmann and Todd D. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science*, Vol. 58, No. 4 (October 2014), pp. 919-935; Roseanne W. McManus, "Making It Personal: The Role of Leader-Specific Signals in Extended Deterrence," *Journal of Politics*, Vol. 80, No. 3 (July 2018), pp. 928-995; Joshua D. Kertzer, Jonathan Renshon, and Keren Yarhi-Milo, "How Do Observers Assess Resolve?," British Journal of Political Science, Vol. 51, No. 1 (January 2021), pp. 308-330; and Neil Narang, "When Nuclear Umbrellas Work: Signaling Credibility in Security Commitments through Alliance Design," working paper.

deterrence and the relationship between those tools. This work attempts to address this gap by developing a novel typology of extended deterrence strategies and advances a theory explaining why states select which strategy.

The academic literature provides some guidance on whether, in isolation, certain signals can bolster the credibility of a patron's extended deterrence commitments, including signing alliance treaties, deploying troops abroad, dispatching senior leaders to the client, making statements in support of the client, providing the client arms, and engaging in military exercises with the client. However, we still lack a generalized understanding of when and how states practice extended deterrence. The literature has largely suffered from several weaknesses, including by engaging in an implicit "existential bias," considering deterrent signals only in isolation, employing inappropriate operationalizations of extended deterrence signals, focusing on the experience of the United States, and emphasizing the effects of extended deterrence signals at the expense of examining their causes.

This chapter introduces extended deterrence selection theory, a theory which specifies, explains, and predicts the conditions under which senior allies will select a given extended deterrence strategy. The chapter proceeds as follows. First, I discuss the literature on extended deterrence and identify important theoretical and empirical shortcomings that my work addresses. Second, drawing on both international relations theory and the historical record, I develop a novel typology of strategies that states use to practice extended deterrence. Third, I introduce extended deterrence selection theory, a testable theory explaining under what conditions states

should select a particular extended deterrence strategy in the typology. Fourth, I test the theory through a pattern-matching exercise on the universe of relevant extended deterrence cases.

Extending Extended Deterrence Research: Addressing Theoretical and Empirical Shortcomings

International relations scholars have devised many frameworks for understanding deterrence, from the distinction between deterrence by denial to deterrence by punishment[2] and structural deterrence theory's emphasis on the international system's distribution of power,[3] to decision-theoretic framework's stress of threats and perfect deterrence theory's attention to credible signaling.[4] In the most widely used model of deterrence, a defender (state) confronts a challenger (state). The defender believes that the challenger may harm the defender. To prevent that harm, the defender threatens to harm the challenger if the challenger acts but promises not to harm the challenger if the challenger does not act. If the threat is viewed as sufficiently costly and credible, the challenger will retreat, and the defender succeeds in deterring. If not, the challenger acts and deterrence has failed. Despite the theory's intuitive simplicity, deterrence has often proved difficult to practice (and even more

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[2] Glenn H. Snyder, *Deterrence and Defense: Toward a Theory of National Security*, (Princeton, N.J.: Princeton University Press, 1961).
[3] See, for example, Kenneth N. Waltz, *Theory of International Politics*, (Reading, MA: Addison-Wesley, 1979); and John J. Mearsheimer, "Back to the Future: Instability in Europe after the Cold War," *International Security,* Vol. 15, No. 1, pp. 5–56.
[4] Thomas C. Schelling, *The Strategy of Conflict* (Cambridge, MA: Harvard University Press, 1960); Thomas C. Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966); James D. Fearon, "Signaling Foreign Policy Interests: Tying Hands Versus Sinking Costs," *Journal of Conflict Resolution*, Vol. 41, No. 1 (1997), pp. 68-90.

difficult to study). Selection effects and hidden successes bedevil attempts to delimit and study the universe of cases—after all, the marker of successful deterrence is that nothing happens.[5] Scholars have hotly debated the best methodological tools and actor assumptions to tackle empirical study of deterrence successes and failures[6] while, in the real world, the practice off deterrence can be hampered by a range of obstacles, including bureaucratic discoordination, alliance disunity,[7] cognitive errors,[8] misperception,[9] and information asymmetries.[10]

If deterrence is hard, extended deterrence is harder.[11] As Schelling rightly observed, "[T]he difference between the national homeland and everything 'abroad' is the difference between threats that are inherently credible, even if unspoken, and the threats that have to be made credible. To project the shadow of one's military force over other countries and territories is an act of diplomacy."[12] During the Cold War, Europeans doubted whether their American guarantors would "risk New York or

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[5] James D. Fearon, "Selection Effects and Deterrence," *International Interactions*, Vol. 28, No. 1 (2002), pp. 5-29.
[6] Richard Ned Lebow and Janice Gross Stein, "Rational Deterrence Theory: I Think, Therefore I Deter," *World Politics*, Vol. 41, No. 2 (1989), pp. 208-224; and Christopher H. Achen and Duncan Snidal, "Rational Deterrence Theory and Comparative Case Studies," *World Politics*, Vol. 41, No. 2 (1989), pp. 143-169.
[7] Thomas J. Christensen, *Worse Than a Monolith* (Princeton, N.J.: Princeton University Press, 2011).
[8] Jeffrey D. Berejikian, "A Cognitive Theory of Deterrence," *Journal of Peace Research*, Vol. 39, No. 2 (2002), pp. 165-183.
[9] Robert Jervis, "Deterrence and Perception," *International Security*, Vol. 7, No. 3 (Winter 1982/1983), pp. 3-30.
[10] James D. Fearon, "Rationalist Explanations for War," *International Organization*, Vol. 49, No. 3 (Summer 1995), pp. 379-414; and Muhammet Bas and Robert Schub, "Mutual Optimism as a Cause of Conflict: Secret Alliances and Conflict Onset," *International Studies Quarterly*, Vol. 60, No. 3 (2016), pp. 552-564.
[11] Thomas C. Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966); Paul K. Huth, *Extended Deterrence and the Prevention of War* (New Haven, CT: Yale University Press, 1988); James D. Morrow, "Alliances, Credibility, and Peacetime Costs," *Journal of Conflict Resolution*, Vol. 38, No. 2 (1994), pp. 270-297; and
[12] Thomas C. Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966), p. 36.

Detroit to save Hamburg or Lyons."[13] Today, decision-makers on the Korean Peninsula speculate about the likelihood of the United States trading Los Angeles for Seoul. Not only is extended deterrence challenging, but it can also be costly. Senior allies may have to develop and deploy military capabilities beyond what would be necessary purely for homeland defense. The senior ally may feel compelled to redirect resources from securing itself to securing its partner and its reputation may be tarnished if it fails to support its junior partner in its time of need. Providing extended deterrence guarantees can increase the risk that the senior ally will become entangled in an undesired and an unfavorable conflict.[14] With extended deterrence, even success can be pyrrhic. If the junior ally becomes convinced of the senior ally's unwavering support, the alliance relationship may be infected with moral hazard, leading the junior partner to act rashly and raising the likelihood of conflict breaking out.[15]

Confronting this complex calculus, how do states practice extended deterrence? And when and why do they succeed and fail in that practice? Scholars have investigated various dynamics of extended deterrence, including the role of

[13] Drew Middleton, "The De Gaulle Nuclear Doctrine Is Alive in Paris," *The New York Times*, 6 May 1981.
[14] For a recent empirical critique of this argument, see Michael Beckley, "The Myth of Entangling Alliances: Reassessing the Security Risks of U.S. Defense Pacts," *International Security*, Vol. 39, No. 4 (Spring 2015), pp. 7-48.
[15] Brett V. Benson, Adam Meirowitz, and Kristopher W. Ramsay, "Inducing Deterrence through Moral Hazard in Alliance Contracts," *Journal of Conflict Resolution*, Vol. 58, No. 2 (2014), pp. 307-335; and Neil Narang and Rupal N. Mehta, "The Unforeseen Consequences of Extended Deterrence: Moral Hazard in a Nuclear Client State," *Journal of Conflict Resolution*, Vol. 63, No. 1 (2019), pp. 218-250.

signaling;[16] the impact of heuristics, biases, and other cognitive mechanisms;[17] the effects of alliance commitments; [18] and the particular consequences of nuclear weapons.[19]

Despite the literature's many advancements, however, there is yet no generalized model of when and *how* states practice extended deterrence. The literature on extended deterrence has largely suffered from five key, and at times interrelated, weaknesses by engaging in an implicit "existential bias," considering deterrent signals only in isolation, employing inappropriate operationalizations of extended deterrence signals, focusing on the experience of the United States, and emphasizing the effects of extended deterrence signals at the expense of examining their causes. These shortcomings are summarized in table 1-1 below.

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[16] James D. Fearon, "Signaling Foreign Policy Interests: Tying Hands Versus Sinking Costs," *Journal of Conflict Resolution*, Vol. 41, No. 1 (1997), pp. 68-90; Roseanne W. McManus, "Making It Personal: The Role of Leader-Specific Signals in Extended Deterrence," *The Journal of Politics*, Vol. 80, No. 3 (2018), pp. 982-995; Matthew Fuhrmann and Todd S. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science*, Vol. 58, No. 4 (October 2014), pp. 919-935; and Joshua D. Kertzer, Jonathan Renshon, and Keren Yarhi-Milo, "How Do Observers Assess Resolve?," *British Journal of Political Science*, forthcoming.

[17] Robert Jervis, Richard Ned Lebow, Janice Gross Stein, *Psychology and Deterrence* (Baltimore, MD: Johns Hopkins University Press, 1985); and Jeffrey D. Berejikian, "A Cognitive Theory of Deterrence," *Journal of Peace Research*, Vol. 39, No. 2 (2002), pp. 165-183.

[18] Douglas M. Gibler and John A. Vasquez, "Uncovering the Dangerous Alliances, 1495–1980," *International Studies Quarterly*, Vol. 42, No. 4 (1998), pp. 785-807; Brett Ashley Leeds, Andrew G. Long, and Sara McLaughlin Mitchell, "Reevaluating Alliance Reliability: Specific Threats, Specific Promises," *Journal of Conflict Resolution*, Vol. 44, No. 5 (2000), pp. 686-699; Brett V. Benson, "Unpacking Alliances: Deterrent and Compellent Alliances and Their Relationship with Conflict, 1816–2000," *Journal of Politics*, Vol. 74, No. 3 (2011), pp. 427-439; and Jesse C. Johnson and Brett Ashley Leeds, "Defense Pacts: A Prescription for Peace?" *Political Analysis*, Vol. 7, No. 1 (2011), pp. 45-65.

[19] Paul K. Huth, "The Extended Deterrent Value of Nuclear Weapons," *Journal of Conflict Resolution*, Vol. 34, No. 2 (1980), pp. 270-290; and Matthew Fuhrmann and Todd S. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science*, Vol. 58, No. 4 (October 2014), pp. 919-935.

Table 1-1: Shortcomings in the Extended Deterrence Literature

Shortcoming	Example
Existential Bias	• No disaggregation of individual signals or differentiation between senior-junior ally dyads (Huth 1990)
Isolated Signals	• Examines only presence of alliance (Huth 1990) • Examines only nuclear dimension (Bleek and Lorber 2014)
Inappropriate Operationalizations	• Ignores variation in conventional troops (Fuhrmann & Sechser 2014; Lanoszka 2017; McManus & Nieman 2019) • Ignores variation in nuclear weapons (Fuhrmann & Sechser 2014)
U.S.-Centric	• Insufficient attention to experiences of non-U.S. senior allies, such as the Soviet Union and United Kingdom (Lanoszka 2019)
Effect-Centric	• Insufficient attention to the drivers of different extended deterrence strategies

First, much of the work on extended deterrence has suffered from something of an "existential bias," treating the existence of all extended deterrence relationships as equivalent.[20] However, this approach elides the significant—and, often, *systematic*—variation among extended deterrence strategies and the ways in which senior allies differentially use different signals to signal their commitments to their junior partners.

[20] See, for example, Erich Weede, "Extended Deterrence by Superpower Alliance," *Journal of Conflict Resolution*, Vol. 27, No. 2 (June 1983), pp. 231-254; Paul Huth and Bruce Russett, "What Makes Deterrence Work? Cases from 1900 to 1980," *World Politics*, Vol. 36, No. 4 (July 1984), pp. 496-526; Jesse C. Johnson and Brett Ashley Leeds, "Defense Pacts: A Prescription for Peace?," *Foreign Policy Analysis*, Vol. 7, No. 1 (2011), pp. 45-65; and Matthew Fuhrmann and Todd S. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science*, Vol. 58, No. 4 (October 2014), pp. 919-935. Kenwick, Vasquez, and Powers provide an important analysis distinguishing between the effects of *defensive alliances* more generally and *conditional alliances*, in which the senior ally only commits to defend the junior ally if the junior ally is the *target* of the aggression. See Michael R. Kenwick, John A. Vasquez, and Matthew A. Powers, "Do Alliances *Really* Deter?" *The Journal of Politics*, Vol. 77, No. 4 (2015), pp. 943-954.

Second, the literature has too often considered extended deterrence signals only in isolation, without considering how states can strategically choose from among these signals.[21] States confront a menu of potential extended deterrence signals, signals which can substitute and complement one another. A senior ally almost never relies on a single type of signal nor do they deploy them uniformly across all their extended deterrence relations. Rather, states can, and often do, strategically bundle signals. Each signal features relative strengths and weaknesses and can be deployed in combinations which maximize the senior ally's likelihood of achieving its security goals, contingent on the resource and political constraints it confronts. When other states—whether adversary, ally, or observer—assess the credibility of a senior ally's commitments, they do not consider individual signals in isolation. Rather, they likely look to the overall bundle of signals the senior ally has selected.

Third, even the most sophisticated research on extended deterrence signals has employed inappropriate operationalizations of extended deterrence signals by lumping together functionally and conceptually distinct signal sub-types. For example, in ways which mirror the existential bias discussed earlier, some scholars have examined whether simply having an alliance with a senior ally or, more

[21] The few partial exceptions include Volker Krause, "Hazardous Weapons? Effects of Arms Transfers and Defense Pacts on Militarized Disputes, 1950-1995," *International Interactions*, Vol. 30, No. 4 (2004), pp. 349-371; Matthew Fuhrmann and Todd S. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science*, Vol. 58, No. 4 (October 2014), pp. 919-935; Roseanne W. McManus, "Making It Personal: The Role of Leader-Specific Signals in Extended Deterrence," *The Journal of Politics*, Vol. 80, No. 3 (2018), pp. 982-995; and Joshua D. Kertzer, Jonathan Renshon, and Keren Yarhi-Milo, "How Do Observers Assess Resolve?," *British Journal of Political Science*, forthcoming.

specifically, with a nuclear-armed senior ally, affects deterrence.[22] However, this approach ignores the significant variation in the depth of alliance commitments.[23] Similarly, work examining the forward deployment of troops to the junior ally's soil has either identified the forward-deployment of *any* conventional troops to the junior ally or simply counted the total number of those troops.[24] However, there are significant differences between the *types* of troops the senior ally may deploy. A force of 20,000 soldiers may consist of mechanized ground forces positioned near the border or it may be a collection of long-range naval and air strike assets safely garrisoned far from the future battlefield.[25] Differently configured conventional forces are driven

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[22] See, for example, Paul Huth and Bruce Russett, "What Makes Deterrence Work? Cases from 1900 to 1980," *World Politics*, Vol. 36, No. 4 (July 1984), pp. 496-526; Jesse C. Johnson and Brett Ashley Leeds, "Defense Pacts: A Prescription for Peace?," *Foreign Policy Analysis*, Vol. 7, No. 1 (2011), pp. 45-65; and Matthew Fuhrmann and Todd S. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science*, Vol. 58, No. 4 (October 2014), pp. 919-935. Kenwick, Vasquez, and Powers provide an important analysis distinguishing between the effects of *defensive alliances* more generally and *conditional alliances*, in which the senior ally only commits to defend the junior ally if the junior ally is the *target* of the aggression. See Michael R. Kenwick, John A. Vasquez, and Matthew A. Powers, "Do Alliances *Really* Deter?" *The Journal of Politics*, Vol. 77, No. 4 (2015), pp. 943-954. Similar approaches have been taken to examine the impact of senior ally commitment signals on the likelihood of junior partner nuclear proliferation. See, for example, Philipp C. Bleek and Eric B. Lorber, "Security Guarantees and Allied Nuclear Proliferation," *Journal of Conflict Resolution*, Vol. 58, No. 3 (2014), pp. 429-454; and Dan Reiter, "Security Commitments and Nuclear Proliferation," *Foreign Policy Analysis*, Vol. 10, No. 1 (2014), pp. 61-80.

[23] For one important distinction, see Mira Rapp-Hooper, Absolute Alliances: Extended Deterrence in International Politics, Ph.D. Dissertation (New York, N.Y.: Columbia University, 2015).

[24] Matthew Fuhrmann and Todd S. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science*, Vol. 58, No. 4 (October 2014); Roseanne W. McManus, "Making It Personal: The Role of Leader-Specific Signals in Extended Deterrence," *The Journal of Politics*, Vol. 80, No. 3 (2018), pp. 982-995; and Roseanne W. McManus and Mark David Nieman, "Identifying the Level of Major Power Support Signaled for Protégés: A Latent Measure Approach," *Journal of Peace Research*, Vol. 56, No. 3 (2019), pp. 364-378; and Alexander Lanoszka, *Protection States Trust?: Major Power Patronage, Nuclear Behavior, and Alliance Dynamics*, Ph.D. dissertation, Princeton University, 2014, pp. 308-328.

[25] For some of this logic and arguments about the value of ground forces to extended deterrence, see Michael Allen Hunzeker and Alexander Lanoszka, "Landpower and American Credibility," *Parameters*, Vol. 45, No. 4 (Winter 2015-2016), pp. 17-26; Alexander Lanoszka and Michael A. Hunzeker, *Conventional Deterrence and Landpower in Northeastern Europe*, (Carlisle, PA: Strategic Studies Institute, 2018), pp. 105-112; and Michael J. Mazarr, et al., *What Deters and Why: Exploring*

by different strategic logics and likely generate different strategic effects. Finally, work which has examined forward nuclear deployments has treated each of those deployments the same, ignoring distinctions between on the one hand, tactical ground-force nuclear weapons designed to offset the opponent's local conventional superiority and, on the other, long-range bombers and ballistic missiles designed to target the opponent's distant population or industrial centers. For example, Sechser and Fuhrmann employ a binary measure to code the presence of any forward deployed nuclear weapons at all, without an attempt to account for differences in the composition or configuration of those forces.[26] Similarly, they count the raw numbers of troops deployed by the senior ally to the territory of the junior ally, without considering differences in the composition, configuration, mission, readiness, and deployment patterns of those troops.

Fourth, most of the literature has focused on the experience of the United States as a senior ally, ignoring the experiences of other senior allies, such as the Soviet Union, the United Kingdom, and France.[27] This narrower focus ignores the extent to which strategies of extended deterrence might either follow a systematic logic across differently situated senior allies or, by contrast, emerge from the senior ally's particular historical, geographic, or cultural circumstances.

Requirements for Effective Deterrence of Interstate Aggression, (Santa Monica, CA: RAND Corporation, 2018), pp. 87-92.

[26] Matthew Fuhrmann and Todd S. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science*, Vol. 58, No. 4 (October 2014), pp. 919-935

[27] Rapp-Hooper (2015) identifies unconditional security guarantees extended by the Soviet Union and the United Kingdom. Fuhrmann and Sechser (2014) consider forward nuclear deployments by the Soviet Union and the United Kingdom. Several of the "existential extended deterrence" consider alliances with non-U.S. senior partners (typically with the Soviet Union).

Finally, the literature has spent much more time evaluating variation in the effects of extended deterrence signals at the expense of examining their causes.[28] Much work has examined whether individual signals are effective in deterring the adversary, assuring the ally, or stemming nonproliferation. [29] However, comparatively little work has been done on evaluating the different extended deterrence strategies available to senior allies or determining the conditions under which those allies resort to which strategies.[30]

This work addresses these issues in the literature and, in doing so, make three contributions to our understanding of extended deterrence and international security more broadly. First, it develops the first comprehensive typology of extended deterrence strategies. Previous work has identified many of the individual signals senior allies may use to signal commitment to their junior partners. However, those works have too often only examined individual signals in isolation or have employed problematic operationalizations of those signals. Here, drawing on both the empirical

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[28] This is particularly important to address given evidence that the signals may produce asymmetric effects which vary with the position of the recipient. See, for example, Kai Quek, "Are Costly Signals More Credible? Evidence of Sender-Receiver Gaps," *Journal of Politics*, Vol. 78, No. 3 (2016), pp. 925-940.

[29] See, for example, Paul Huth and Bruce Russett, "What Makes Deterrence Work? Cases from 1900 to 1980," *World Politics*, Vol. 36, No. 4 (July 1984), pp. 496-526; Jesse C. Johnson and Brett Ashley Leeds, "Defense Pacts: A Prescription for Peace?," *Foreign Policy Analysis*, Vol. 7, No. 1 (2011), pp. 45-65; Philipp C. Bleek and Eric B. Lorber, "Security Guarantees and Allied Nuclear Proliferation," *Journal of Conflict Resolution*, Vol. 58, No. 3 (2014), pp. 429-454; and Dan Reiter, "Security Commitments and Nuclear Proliferation," *Foreign Policy Analysis*, Vol. 10, No. 1 (2014), pp. 61-80; Nicholas L. Miller, "The Secret Success of Nonproliferation Sanctions," *International Organization,* Vol. 68, No. 4 (Fall 2014), pp. 913-944; Alexander Lanoszka, *Atomic Assurance: The Alliance Politics of Nuclear Proliferation* (Ithaca, N.Y.: Cornell University Press, 2018).

[30] Partial exceptions include Matthew Fuhrmann and Todd S. Sechser, "Nuclear Strategy, Nonproliferation, and the Causes of Foreign Nuclear Deployments," *Journal of Conflict Resolution*, Vol. 58, No. 3 (April 2014), pp. 455-480; and Mira Rapp-Hooper, *Absolute Alliances: Extended Deterrence in International Politics*, Ph.D. dissertation, Columbia University, 2015, though in both cases researchers focus on individual signals (either unconditional security guarantee in the case of Rapp-Hooper or forward nuclear weapons deployments in the case of Fuhrmann and Sechser).

record and international relations theory, I identify discrete bundles of signals which are deployed together in coherent strategies. Together, these strategies are both mutually exclusive and collectively exhaustive. Second, through extended deterrence selection theory, the project identifies the conditions under which states choose to deploy each strategy. Relations of extended deterrence are chiefly driven by security concerns. The senior ally will deploy a strategy which is most likely to satisfy its own security preferences, consistent with the resource and political constraints it confronts. Third, the project highlights variation in the ability of each strategy to accomplish strategic goals such as deterrence, assurance, and restraint.

In closing, it is important to emphasize that the theory I present here—extended deterrence selection theory—does *not* seek to explain alliance formation, overseas deployments, or uses of force more generally. Rather, it is a more focused explanation of the strategies major states use to signal their extended deterrence commitments to their junior allies. I move now to identify the tools available to senior allies for the practice of extended deterrence and then, drawing on those tools, construct a typology of extended deterrence strategies.

Identifying the Tools of Extended Deterrence: Treaties, Troops, and Nukes

The first step in constructing a typology of extended deterrence strategies is to identify the myriad tools with which senior allies can practice extended deterrence and then determine which of those tools are most salient. Based on international

relations literature and the empirical record, I identity 12 different tools states may use to practice extended deterrence. These tools can enhance the capability of the senior ally to defend the junior ally, the capability of the junior ally to defend itself, or the credibility of the senior ally's commitments. These indicators are listed in Table 1-2 below.

I also develop six principles for identifying signals most salient to the practice of extended deterrence. First, I classify extended deterrence strategies according to features which are reasonably stable in the short-term. Conditions of general deterrence generally exist between adversaries over the long-term, while conditions of immediate deterrence are much rarer and arise in the context of crises which, by their very existence, indicate that general deterrence has failed.[31] While some of the same logic may apply to both immediate and general deterrence, this study is concerned primarily with long-term general deterrence relationships. Therefore, the features of the extended deterrence strategies should be those which are not readily manipulable in the short-term and which, absent some fundamental policy change, exhibit reasonable consistency from year to year.[32] Some signals which exhibit significant year-to-year variation, such as arms transfers, leadership visits, leadership statements, or military exercises are, therefore, inappropriate for capturing the general level of the senior ally's commitment.

[31] Patrick Morgan, *Deterrence: A Conceptual Analysis* (Beverly Hills, CA: Sage Publications, 1983), p. 28.
[32] Which is why those identified in McManus (2019) may not be appropriate.

Second, costlier signals are more salient. Signals may be costly in financial (budget allocations), material (forward troop deployments), or political (interstate alliance). While all signals necessarily entail some costs, the magnitude of those costs can vary largely across signal type. Costly signals are more likely to reveal a state's true intentions and, due to their cost, are more likely to be strategically selected based on security-driven logics (as opposed to more parochial bureaucratic or organizational ones). Costlier signals are generally likely to be more visible to both the junior ally and, crucially, the adversary.

Third, salient signals should be visible. Signals intended to increase the perceived capability or intent of the senior ally to defend the junior ally will only be effective if they can be perceived and assessed by the adversary. Secret or less visible signals will have limited deterrent impact on the adversary. Similarly, senior allies are aware of this need to deploy more visible signals and, in their practice of extended deterrence, will have a strategic incentive to employ more visible signals. More visible signals include declared treaties, forward deployments, and explicit doctrinal decisions. Less visible signals include those which have secretive, delayed, or uncertain effects, including weapons development and training and support activities.

Fourth, indicators should be dyadic. Senior allies may attempt to enhance the credibility of their extended deterrence commitments by augmenting their overall national security strategy, conventional or nuclear force postures, or their military spending. However, while these policy changes may affect the ability of a senior ally to credibly defend or deter conflict with respect to its junior allies, those effects will

not generally vary across junior allies. In the language of social science, these policy changes capture monadic variation at the level of the senior ally, but do not capture dyadic variation at the level of the specific extended deterrence strategy extended by the senior ally to each of its junior allies.

Fifth, the indicators should be "independent" in the sense that their presence does not largely depend on or correlate with the presence of another indicator. For example, alliance institutionalization can generally only occur if there is an alliance to begin with. Similarly, the frequency of joint military exercises and the extent of training and support provided by the senior ally will largely be dependent on and correlated with the senior ally's forward deployed presence on the junior ally's territory.

Finally, indicators will be most salient if they enhance both the perceived *intention* and *capability* of the senior ally to defend the junior ally. All of the signals below, to varying degrees, imply a stronger intention by the senior ally to defend the junior ally. However, not all signals materially increase defensive *capability*. I argue that signals such as alliance institutionalization, foreign nuclear and conventional deployments, joint military exercises, and arms transfers all simultaneously signal the intention to defend the junior ally and the capability to follow through on that intention.

Table 1-2: Comparative Assessment of Extended Deterrence Tools

Indicator	Steady	Costly	Visible	Dyadic	Independent	Defensive
Interstate Alliance	■	■	■	■	■	
Alliance Institutionalized	■			■		■
Foreign Nuclear Deployments	■	■	■	■	■	■
Foreign Conventional Deployments	■	■	■	■	■	■
Leader Visits			■	■	■	
Leader Statements			■	■	■	
Strategic Nuclear Forces	■	■	■		■	
Budget Allocations		■	■		■	
Weapons Development	■	■			■	
Military Exercises			■	■		■
Arms Transfers				■	■	■
Training, Support	■			■		■

Note: Shaded cells indicate that a given signal possesses that characteristic. For example, I identify *Leader Visits* as being visible, dyadic, and independent, but not steady, costly, or contributing to defense. By contrast, *Strategic Nuclear Forces* are steady, costly, visible, and independent but are not dyadic and do not contribute to defense.

Based on these principles, I identify three indicators as most salient for analyzing the practice of extended deterrence: the type of *security commitment*, the

type of *forward conventional troop deployment*, and the type of *forward nuclear troop deployment*. The first is the presence and depth of an interstate alliance between the junior and senior allies. By the nature of extended deterrence, the presence of some kind of alliance relationship acts as a scope condition. However, as discussed below, alliance commitments may vary in their form. Second is the forward deployment of conventional troops by the senior ally to the territory of the junior ally. Forward deployed conventional forces may vary in their size, composition, and configuration. These choices are largely driven by strategic logics. Third, is the forward deployment of nuclear forces by the senior ally to the territory of the junior ally which may similarly vary in composition and configuration. This does not imply that these signals will always be the most effective in achieving a senior ally's extended deterrence goals. These signals may entail significant costs, they may be difficult to implement, or they may generate adverse effects, such as creating a security dilemma between the allies and the adversary or raising the senior ally's risks of entrapment. Nor do I claim that these are the *only* signals which matter. Rather, I argue that, based on the six principles identified above, they are likely to be the most consistent, salient, and foundational tools for practicing and observing general extended deterrence. That is, focusing on these signals will meaningfully simplify our understanding of extended deterrence without sacrificing crucial substance.

First, senior allies have choice in the type of security commitment they make; they may decide whether or not to provide a junior ally with an unconditional security

guarantee.[33] Recent work has identified the important distinction between more traditional conditional defensive alliances and unconditional security guarantees, which differ from one another in several important respects.[34] First, there is typically much greater capability asymmetry in a security guarantee alliances than in conditional defensive alliances. In security guarantee alliances, typically a much stronger senior ally is providing a commitment to defend a much weaker junior ally against an adversary. In conditional defensive alliances, by contrast, the alliance is intended to help two allies of relatively similar capability deter or defend against an adversary which threatens them both. Second, the purposes of the alliances differ. Traditional conditional alliances are typically aimed at deterring or defeating a specific adversary through aggregating the capabilities of the allies to help them deter or defend against a perceived threat which neither ally could face on its own. A security guarantee, on the other hand, is not aimed at capability aggregation but instead aimed at the protection of one ally by another. Third, obligations of the alliances vary in their specificity and scope. Traditional defensive alliances are typically narrower and more specific with the allies often explicitly committing to mobilize military forces in response to pre-specified acts of aggression from an identified adversary. The obligations of security guarantees, by comparison, are

[33] For empirical codings, I do not require a formal instrument of alliance if state leaders in both allies shared a common understanding about the senior ally's extension of a security commitment to the junior ally. However, I conduct robustness tests that exclude codings without a formal instrument of alliance.

[34] Mira Rapp-Hooper, *Absolute Alliances: Extended Deterrence in International Politics*, Ph.D. dissertation, Columbia University 2015, pp. 27-32. See also See Michael R. Kenwick, John A. Vasquez, and Matthew A. Powers, "Do Alliances *Really* Deter?" *The Journal of Politics*, Vol. 77, No. 4 (2015), pp. 943-954.

typically both more wide-ranging and more ambiguous, with the senior ally extending a more ambiguous commitment to protect the security and the sovereignty of the junior ally, though not necessarily specifying the when or how that protection would be provided.[35]

Second, the senior ally can decide whether or not to forward deploy conventional forces to the territory of the junior ally. I identify three choices for conventional deployments: no forward conventional deployment, a minor tripwire conventional deployment, and a major defensive conventional deployment. Here, I exclude token deployments of military advisers which are not meant to serve a meaningful defense or deterrence role. In 2005, the last year for which full data is available, the U.S. deployed military forces in 149 out of 185 countries, or over 80 percent of the total countries listed in the dataset. However, most of these deployments consisted of small detachments of soldiers often serving in advisory capacities. In the same year, the U.S. deployed more than 100 soldiers to only 30 countries, more than 1,000 soldiers to only 14 countries, and more than 10,000 soldiers to only eight countries, two of which the U.S. was occupying (Afghanistan and Iraq) and one of which was hosting U.S. troops primarily in support of those occupations and not for the purpose of deterrence (Kuwait).

The distinction between a minor tripwire conventional deployment and a major defensive conventional deployment is seen in both the deployment's size and its purpose. A *tripwire* deployment is not meant to meaningfully alter the local balance

[35] Mira Rapp-Hooper, *Absolute Alliances: Extended Deterrence in International Politics*, Ph.D. dissertation, Columbia University, 2015, pp. 27-32.

of forces but rather to serve as a political commitment device for the senior ally. As Schelling observed about allied troops in Berlin during the Cold War: "What can 7,000 American troops do, or 12,000 Allied troops? Bluntly, they can die. They can die heroically, dramatically, and in a manner that guarantees that the action cannot stop there."[36] A *defensive* deployment need not be sufficient to completely defeat a potential adversary offensive. Rather, it must only be sufficient to alter the local balance of forces to either impose significantly more costs on the adversary or reduce the likelihood of the adversary accomplishing a fait accompli. For example, the U.S. force of 30,000 troops deployed to South Korea today would not be sufficient to defeat a potential invasion by the North Korean military but it would meaningfully affect the initial course of fighting, if only to provide the United States and South Korea time to mobilize reinforcements.[37] On the other hand, the battalions forward deployed to the Baltics and Eastern Europe as part of NATO's Enhanced Forward Presence do not meaningfully alter the local balance of forces but are intended to be a political symbol of NATO's commitment to its members on the alliance's periphery. The forces have been explicitly identified by scholars and government officials as tripwire forces.[38]

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[36] Thomas C. Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966), p. 47.
[37] For a discussion of tripwire deterrence and the conditions under which it succeeds and fails, see Matthew C. Slack, Conventional Tripwire Deterrence, Ph.D. Dissertation (Chicago, IL: University of Chicago, 2018),
[38] See, for example, Joseph A. Day, "Reinforcing NATO's Deterrence in the East," NATO Parliamentary Assembly, Defence and Security Committee, 168 DSC 18 E fin, 17 November 2018, pp. 4-6; Michael R. Kristek, Sr., "The Nature of Russia's Threat to NATO's Enhanced Forward Presence in the Baltic States," *Naval Postgraduate School*, December 2017; and John R. Deni, "NATO's Presence in the East: Necessary But Still Not Sufficient," *War On The Rocks*, 27 June 2018, https://warontherocks.com/2018/06/natos-presence-in-the-east-necessary-but-still-not-sufficient/.

Third, the senior ally can decide whether or not to forward deploy nuclear forces to the territory of the junior ally. I identify three choices for forward nuclear deployments: no nuclear deployment, tactical nuclear weapons, and strategic nuclear weapons. Senior allies may choose to deploy no nuclear weapons to the territory of the junior ally. Senior allies may also choose to deploy tactical nuclear weapons to the territory of a junior ally. These tactical nuclear weapons are typically shorter-range, lower-yield weapons intended for battlefield use against the adversary's military forces. Finally, the senior ally may choose to forward deploy strategic nuclear forces.[39] These nuclear forces are not intended to be used on the battlefield against adversary military forces but instead are meant to threaten the adversary's population centers. They are typically longer-range and higher yield. A senior ally may choose to forward deploy either tactical or strategic nuclear weapons, both, or neither.

Finally, in identifying the universe of cases of extended deterrence strategies, I exclude several instances of troop deployments abroad which are driven by fundamentally different logics than those related to deterrence, defense, and alliance management. First, as mentioned above, I exclude instances in which a senior state deploys troops to the territory of a junior state for training, advising, or foreign internal defense. Most of these training, advisory deployments are relatively small, consisting of no more than a few hundred troops. However, there are occasionally

[39] Here, I use "strategic" to refer to higher-yield, longer-range nuclear forces intended for use against targets other than troop concentrations, including industrial facilities, population centers, or military installations. This does not imply equivalence between nuclear forces typically seen as "conventional" such as ICBMs deployed on the country's home territory and smaller forward deployed nuclear forces consisting of IRBMs or long-range bombers.

instances of large numbers of troops being deployed abroad for these purposes, such as the U.S. troop presence in Morocco in the 1960s. Second, I exclude wartime deployments, such as those consisting of U.S. forces to Vietnam in the middle of the 20th century or to Afghanistan and Iraq in the early 21st century. While these troops may produce deterrent effects, their primary purpose is to fight. The outbreak of war means, by definition, that both general and immediate deterrence have failed. Troop deployments to a warzone are driven by a very different logic than those for the purposes of deterrence or alliance management. Third, I exclude troops deployed as part of peacekeeping operations, such as the 1982 U.S. deployment of troops for peacekeeping on the Sinai Peninsula or the U.K. deployment of troops to the Balkans in the 1990s. Fourth, I exclude troops deployed as part of an invasion, occupation, or coup. Finally, and in perhaps the starkest departure from previous work, I do not code signals based on strict, and at times, coarse rules. Instead, I look to the overall operational posture and context. For example, the United States today maintains a small number of nuclear weapons in five NATO states. However, the mere presence of these weapons does not indicate an escalatory, full-spectrum, or nuclear power projection strategy. These weapons are not meaningfully integrated into planning and are not assigned any targets.[40] They are stored at central locations and their readiness is measured in *months*.[41] Senior NATO officials themselves admit that

[40] "NATO's Nuclear Forces in the New Security Environment," *NATO*, pp. 1-3, https://www.nato.int/nato_static/assets/pdf/pdf_topics/20091022_Nuclear_Forces_in_the_New_Security_Environment-eng.pdf.
[41] "NATO's Nuclear Forces in the New Security Environment," *NATO*, pp. 3-4, https://www.nato.int/nato_static/assets/pdf/pdf_topics/20091022_Nuclear_Forces_in_the_New_Security_Environment-eng.pdf.

these weapons no longer serve military purpose.[42] These weapons are more appropriately considered historical vestiges than strategic tools.

Constructing a Typology of Extended Deterrence Strategies

I distinguish five core strategies: *conditional alliance*, *unconditional guarantee*, *conventional barrier*, *nuclear tripwire*, and *nuclear barrier*. In addition, I identify a sixth auxiliary strategy, *power projection*, which may or may not be present alongside one of the five core strategies. These strategies are distinguished by variation along the following dimensions: the type of legal commitment offered by the senior ally to the junior ally, the type of conventional force deployments, the type of nuclear force deployments, the deterrent purpose of the forward deployed forces, and the operational goals of the strategy. I review them here, proceeding from the least to the most intensive strategies.[43] Together, the five core strategies are both mutually exclusive and collectively exhaustive. The six strategies and their features are summarized in table 1-3 below. I provide detailed coding rules and data sources for these strategies in the appendix.

Table 1-3: Typology of Extended Deterrence Strategies

	Core Strategies					**Auxiliary Strategy**
	Conditional Alliance	**Unconditional Guarantee**	**Conventional Barrier**	**Nuclear Tripwire**	**Nuclear Barrier**	**Power Projection**

[42] "Phase II: Review of the DoD Nuclear Mission," in *Report of the Secretary of Defense Task Force on DoD Nuclear Weapons Management* (Washington, D.C.: U.S. Department of Defense, December 2008), p. 59, http://www.cdi.org/pdfs/PhaseIIReport.pdf.

[43] Strategy "intensity" is not a measure of the objective or perceived commitment of the senior ally to the junior ally. Rather, it is merely a reference to the total costs (financial, material, political) involved in providing that strategy.

Treaty Commitment	Conditional, Specific	Unconditional, Ambiguous	Unconditional, Ambiguous	Unconditional, Ambiguous	Unconditional, Ambiguous	Unconditional, Ambiguous
Conventional Force	---	---	Significant defensive land force; air force geared for close air support; limited naval assets	Tripwire land force; limited air and naval assets	Significant defensive land force; air force geared for close air support; limited naval assets	Limited land force; significant long-range air force and naval platforms
Conventional Posture	---	---	Tactically defensive, high readiness	Tactically offensive, high readiness	Tactically offensive, high readiness	Tactically defensive, support elements
Nuclear Force	---	---	---	SRBMs, artillery, demolition charges	SRBMs, artillery, demolition charges	IRBMs, gravity bombs, depth charges
Nuclear Posture	---	---	---	Embedded, higher readiness	Embedded, higher readiness	Separated, lower readiness
Deterrent Purpose	Signal political commitment while avoiding entrapment	Signal political commitment without concern of entrapment	Deter and defend by buying time and raising costs until arrival of reinforcements	Deter and defend by nuclear offset and escalation risks	Deter and defend by buying time and raising costs until arrival of reinforcements; escalation risks	Extend ability to strike adversary cities, industry, and military facilities; reinforce own troops
Empirical Examples	China to DPRK 1961-today France to Chad 1960-1978	U.K. to Pakistan 1954-1972 U.S. to Thailand 1954-1977	U.S. to ROK 1991-today U.K. to Belize 1982-1993	U.S. to Greece 1956-1991 U.S. to Italy 1957-1991	U.S. to Germany 1956-1991 USSR to GDR 1958-1991	U.S. to Phil. 1951-1991 USSR to Cuba 1962-1993

Conditional Alliance. The conditional alliance strategy is the least intensive and consists only of a limited, specific legal guarantee between the senior and junior allies to cooperate in certain instances. The commitment provided by the senior ally under a conditional alliance is more explicit and more limited in scope than those provided under other strategies, often committing the senior ally to military action on behalf of the junior ally in specific situations against pre-identified adversaries.

As Rapp-Hooper describes these types of commitments, they "tend to express obligations in a detailed manner. Alliance treaties identify a *casus foederis* that explains when the treaty will be brought into force. They often specify the opponent that the treaty is aimed against, the theater in which the treaty commitment applies, and the nature of the military response that may be forthcoming if aid is needed."[44] The conditional alliance does not feature any forward deployment of either conventional or nuclear troops by the senior ally to the territory of the junior ally.

For example, For example, China and the Soviet Union are coded as having a conditional alliance from 1950 to 1960. Article I of that treaty clearly identified the defense pact as aimed at countering Japanese aggression: "The two (parties) undertake to carry out jointly all necessary measures within their power to prevent a repetition of aggression and breach of the peace by Japan or any other State which might directly or indirectly join with Japan in acts of aggression. Should either of the (parties) be attacked by Japan or by States allied with Japan and thus find itself in a state of war, the other (party) shall immediately extend military and other assistance with all the means at its disposal" [italics added]. By specifying a particular adversary, the treaty made the mutual defense provisions conditional. Similarly, the United Kingdom and South Africa are coded as having a conditional alliance from 1955 to 1975. The treaty was a defense pact but one that limited its obligations to the maritime domains around South Africa. Letter 3, 1 of the treaty stated that, "Recognising the importance of sea communications to the well-being of their

[44] Rapp-Hooper, *Absolute Alliances*, pp. 18-19.

respective countries in peace and to their common security in the event of aggression, the (parties) enter into the following Agreement *to ensure the safety, by the joint operations of their respective maritime forces, of the sea routes round Southern Africa*" [italics added].

Unconditional Guarantee. An unconditional guarantee involves a more expansive legal commitment. Scholars have distinguished between more limited defensive alliances and more expansive security guarantees.[45] Conditional defensive alliances will often explicitly limit the circumstances under which the senior ally will intervene on behalf of the junior partner. As Rapp-Hooper writes, "security guarantees look nothing like traditional defense pacts. They are rarely tied to a specific adversary, theater, or contingency. They enter into force for long periods of time or indefinitely. Most importantly, at the highest levels of potential escalation they do not aggregate military capabilities: One state, the patron, possesses the most crucial instruments of deterrence, while the other, the client, does not." [46] Unconditional guarantees are less specific in their conditions, instead broadly committing the senior ally to the defense of the junior one. As with the conditional alliance, the unconditional guarantee does not feature any forward deployment of conventional or nuclear troops by the senior ally to the territory of the junior ally.

Conventional Barrier. This strategy increases the visible commitment of the senior ally by featuring the forward deployment of troops to the junior ally's territory.

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[45] Brett V. Benson, *Constructing International Security Alliances, Deterrence, and Moral Hazard* (Cambridge, U.K.: Cambridge University Press, 2012).
[46] *Absolute Alliances*, p. 19.

There is a very strong empirical connection between, on the one hand, the type of legal commitment provided by the senior to the junior ally, and, on the other, the forward deployment of military assets to the junior ally's territory. There are almost no instances of a senior ally forward deploying troops for the purposes of deterrence, defense, or power projection to the territory of a junior ally to which it does not provide an unconditional guarantee. The conventional barrier strategy is characterized by a significant forward deployment of defensive conventional forces by the senior ally to the territory of the junior ally. These forces are composed largely of army units and are garrisoned or deployed in areas near borders with the adversary. As with other strategies featuring the forward deployment of senior ally troops, this strategy may feature some navy and air force troops. However, these sea and air assets are oriented toward supporting army forces in the defense of the junior ally's territory.

Nuclear Tripwire. The nuclear tripwire strategy is designed to defend and deter against a perceived conventionally superior adversary primarily through the (threatened) use of tactical nuclear weapons. Like the unconditional guarantee and conventional barrier strategies, the nuclear tripwire strategy also features a vaguer and more expansive unconditional guarantee. The nuclear tripwire strategy also features nuclear weapons designed for battlefield use to offset the perceived conventional superiority of the adversary. These include nuclear-armed short-range ballistic missiles, nuclear artillery, surface-to-surface rockets, and atomic demolition charges. The forward deployed nuclear weapons under the nuclear tripwire strategy differ from other forms of nuclear weapons in that their envisioned use is against

adversary troop concentrations and military installations. The nuclear weapons are embedded within frontline military units, oriented against enemy troops, at a relatively high state of readiness, and sometimes even integrated into the military structures of the host nation. The nuclear tripwire strategy typically features a relatively light land-based tripwire deployment and the troops deployed as part of the nuclear tripwire strategy may simply be those necessary to operate or shield the forward deployed tactical nuclear weapons. These forces are comprised mostly of army units and are located near possible points of adversary attack.

Nuclear Barrier.[47] The nuclear barrier strategy represents the most intensive of the core strategies. Its legal commitment consists of a more expansive unconditional guarantee. Like the nuclear tripwire strategy, the nuclear barrier strategy involves the forward deployment of battlefield tactical nuclear weapons, such as artillery, short-range ballistic missiles, and atomic demolition charges. In addition, the nuclear barrier strategy also features the significant deployment of conventional land forces to deter and defend against adversary aggression. These forces typically consist of army infantry and mechanized units garrisoned and deployed close to the adversary's anticipated avenues of attack. The distinction between the "significant" conventional deployment of the nuclear barrier strategy and the "light" tripwire conventional deployment of the nuclear tripwire strategy is not always clear cut and may depend on the strategic context. For example, the U.S.

[47] The features of the nuclear tripwire and nuclear barrier strategies may appear superficially similar. However, as I demonstrate in the figures shown in the appendix, an examination of the forward deployments of these respective strategies illustrates the ways in which their features are consistently internal and clearly differentiable between one another.

extended deterrence strategies to both Germany and South Korea during the Cold War represent examples of nuclear barrier commitments, despite the significant difference in troop levels (roughly 200,000 U.S. army troops in West Germany compared to 30,000 to 50,000 in South Korea). In each case, the forward deployment of troops was intended to slow and complicate a potential adversary offensive and were sized relative to the anticipated offensive strength of the adversary.

In addition to these five core extended deterrence strategies, I also identify a sixth auxiliary strategy that may be affixed to most of the core strategies described above: the *Power Projection*.[48] The power projection strategy consists of significant forward deployment of naval and air assets. These forces are intended primarily to secure control of the commons, to launch offensive operations against adversaries, and to launch offensive strikes against the adversary. They are not configured to deter or defeat potential aggression against the host nation (though they may sometimes still generate deterrent effects). Naval and air assets might include aircraft carrier strike groups, strategic long-range bombers, airborne forces, amphibious assault forces, and strategic airlift. The power projection strategy may also feature forward deployed nuclear forces, which are configured for use not primarily against enemy forces on the battlefield but rather against enemy industrial facilities, population centers, or military installations.

[48] Other types of military force, including ground forces deployed as part of one of the core extended deterrence strategies identified above may also provide some power projection capabilities. Those forces, however, suffer a comparative disadvantage in providing power projection capabilities and instead, are primarily deployed according to deterrent and defensive logics.

A comparison of two cases illustrates how the differences between strategies go beyond surface elements such as forward deployment size or presence of nuclear weapons. In 1961, both Italy and the Philippines enjoyed defense treaties with the United States and hosted roughly 10,000 U.S. soldiers on their territories, including American nuclear weapons. According to recent coding conventions, these two states would be identified as having identical extended deterrence signals.[49] However, these surface similarities hide significant differences in the composition of those troops, the weapons systems with which they were equipped, the missions to which they were assigned, and the rules of engagement under which they operated. Just over 7 percent of American troops based in the Philippines that year were assigned to the Army, with over 90 percent of U.S. forces coming from the Air Force and the Navy.[50] The nuclear weapons assigned to U.S. forces in the Philippines consisted of gravity bombs to be delivered by the B-57B bombers based at Clark Base.[51] These bombs were given non-strategic roles under the Single Integrated Operational Plan (SIOP), the U.S. nuclear war plan, and were assigned urban-industrial targets on the Chinese mainland.[52] These target assignments were specified in advance at the highest levels of political and military leadership, and nuclear weapons were exclusively available to the U.S. military, not to its Filipino counterparts.

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[49] Data on nuclear deployments from Fuhrmann and Sechser (2014). Data on conventional deployments from Kane (2006), McManus and Nieman (2019), and U.S. Defense Department data.
[50] "Worldwide Manpower Distribution by Geographical Area (M05)," *U.S. Department of Defense, Defense Manpower Data Center*, https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp.
[51] Jacob Van Staaveren, "Air Operations in the Taiwan Crisis of 1958," Air Force Historical Division Liaison Office, November 1962, Secret, p. 16.
[52] Hans M. Kristensen, Robert S. Norris, and Matthew G. McKenzie, *Chinese Nuclear Forces and U.S. Nuclear War Planning,* (Washington, D.C.: Natural Resources Defense Council, 2006), p. 134.

In the same year in Italy, by contrast, over half of the U.S. forces were drawn from the Army, with significantly smaller contributions from the Navy and the Air Force. Similarly, while the bulk of nuclear weapons emplaced in the Philippines were longer-range systems intended for use against targets in mainland China, the nuclear weapons deployed to Italy consisted of nuclear-armed artillery, ground-launched cruise missiles, short-range ballistic missiles, and atomic demolitions, all intended for battlefield use against Soviet troops.[53] Further, unlike U.S. nuclear weapons in the Philippines, the command and control arrangements applied to the tactical nuclear weapons based in Italy were more flexible. For one, the United States implemented a "program of cooperation" with Italy, through which Italian forces were certified for the operation of nuclear-armed systems. The plans governing the envisioned use of tactical nuclear forces in Italy were "…not a target list, rather it [was] the number of nuclear weapons deemed necessary for a specific purpose, e.g. halt an attack by a division-size force over hilly terrain, by a tactical commander."[54] Finally, the alert levels of the nuclear forces in Italy were generally much higher than those in the Philippines, with nuclear-capable aircraft readiness levels, for instance, measured in hours and even minutes.[55]

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[53] Italy also briefly hosted some power projection nuclear capabilities, including medium-range Jupiter missiles operated by Italian Air Force crews, though these forces were deployed for fewer than five years.
[54] Thomas B. Cochran, William M. Arkin, and Milton M. Hoenig, *Nuclear Weapons Databook, Volume 1: U.S. Nuclear Forces and Capabilities* (Cambridge, MA: Natural Resources Defense Council, 1984), p. 87.
[55] *Ibid*.

The Sources of Extended Deterrence Strategies: Extended Deterrence Selection Theory

I argue that the choice of extended deterrence strategy is driven by a strategic-choice process. This process is dominated by the considerations of the senior ally, which selects the extended deterrence strategy it believes will most satisfy its security goals, conditional upon the external and internal constraints the senior ally confronts. In constructing the theory, I identify several underlying assumptions.

First, I assume that extended deterrence strategies are fundamentally driven by security interests. In the construction of the theory, I privilege and prioritize security variables in explaining state selection of extended deterrence strategy. While the formation of alliances more broadly may be driven by a wide range of political, cultural, and economic interests, relationships of extended deterrence are more narrowly concerned with security interests. My theory is not about alliance formation, but rather a narrower explanation of which political and military tools that senior allies deploy differentially across alliances.

Second, I assume that the interests of the senior ally dominate the selection process. As I explain below, the junior ally has agency and can sometimes extract a stronger commitment from the senior ally. However, by definition, relationships of extended deterrence are asymmetrical, with the senior ally commanding greater resources and power than the junior ally. Given these asymmetries, I assume that the interests of the senior ally will, all things equal, more strongly influence the choice of extended deterrence strategy.

Third, I assume that the choice of strategy is driven by a strategic choice process in which the senior ally selects a strategy which it believes will best accomplish its goals while minimizing the senior ally's costs and risks. Senior allies will attempt to deter and defend against attacks on the junior ally but to do so in ways that minimize the senior ally's own political and material costs, and which reduce their likelihood of being dragged into an undesired conflict.

Fourth, I assume that, contrary to the senior ally's preferences, junior allies will prefer a stronger security commitment from their senior ally. Junior allies may perceive several benefits to a stronger senior ally commitment, including greater security against external threats, reduced military spending, or enhanced prestige.

Finally, I also assume that, while senior allies attempt to achieve these strategic goals, they also must do so while confronting constraints. Even the most powerful senior allies will not have infinite resources. Senior allies likely have many other strategic goals which demand resources and attention, including providing for the immediate security of the senior ally itself and tending to multiple extended deterrence commitments. Senior allies may also face technological or organizational constraints on the deployment of military forces abroad. Senior allies may vary in their ability to navigate these constraints in the practicing extended deterrence.

Based on these assumptions, I identify six variables affecting a senior ally's selection of an extended deterrence strategy under what I call extended deterrence selection theory. Together, these variables incorporate political, geographic, security, and technological factors. Given the assumption of a strategic selection process driven

by the senior ally, I illustrate the theory as a decision tree available to the senior ally. This selection process is illustrated in figure 1-1 below.

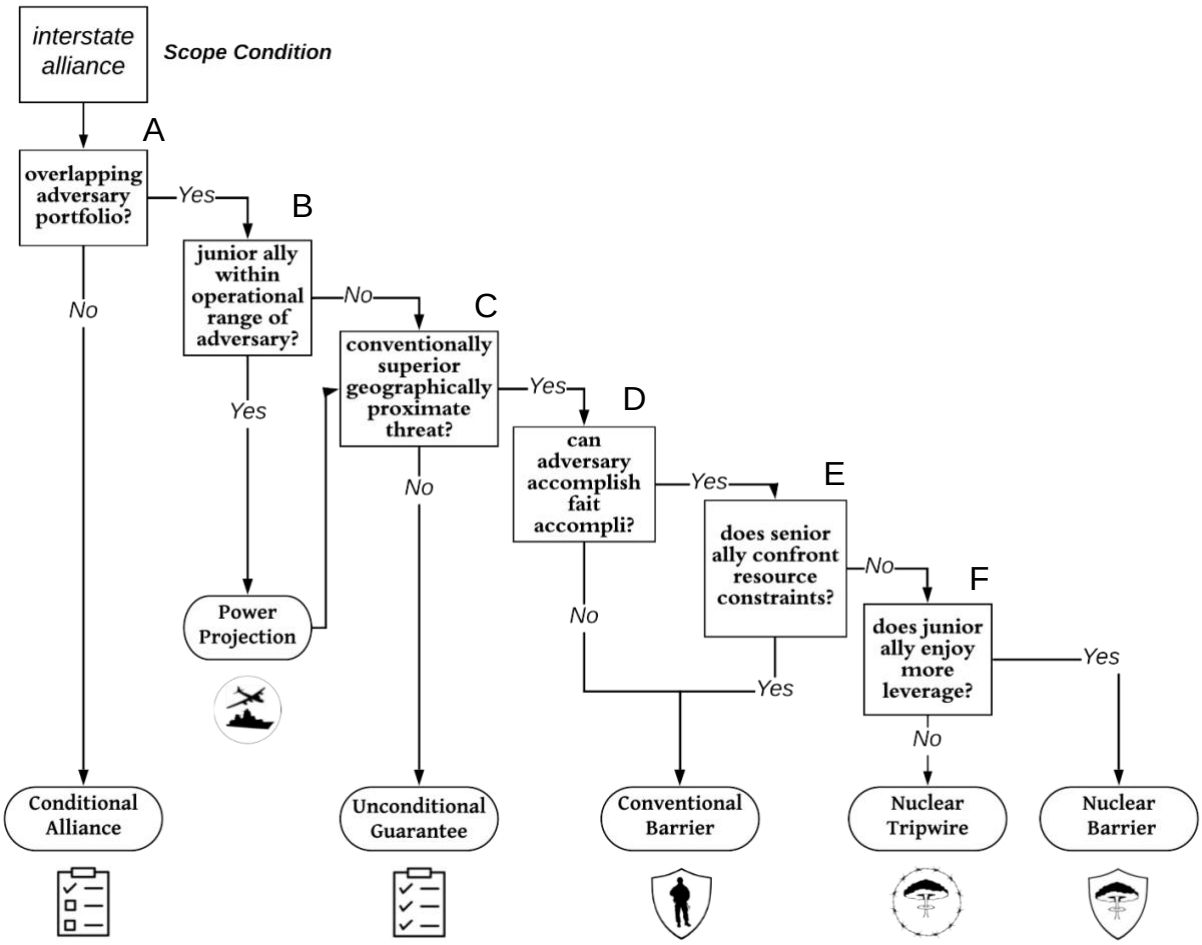

Figure 1-1: Extended Deterrence Selection Theory

Overlapping Adversary Portfolio. The first variable (node A) is the degree of overlap between the adversary portfolios of the junior and the senior ally. If the two allies share identically overlapping adversary portfolios, then the senior ally is more likely to provide a more expansive security commitment to the junior ally. If, on the other hand, the junior ally confronts an adversary that the senior ally does not, then the senior ally will be reluctant to extend a more expansive and unconditional

guarantee and will, instead, provide a more limited conditional defensive alliance to the junior ally. This stems from the heightened fears of entrapment on the part of the senior ally. In order to avoid fighting a war in which it has limited interests, the senior ally may place a number of conditions on its support to the junior ally.

Operational Range. The second variable (node B) is the geographic location of the junior ally relative to both the senior ally and to the shared adversary. Is the junior ally sufficiently close to the shared adversary that bombers or missiles stationed on the junior ally's territory could strike that of the adversary? If this condition is met, then the senior ally is likely to deploy power projection forces to the territory of the junior ally. Deploying these forces can provide a number of benefits to the senior ally. It can increase its potential for strategic and tactical surprise against the adversary by moving offensive forces closer to their targets. By deploying power projection forces to the territory of junior ally, the senior ally can also increase the redundancy of its offensive forces, dispersing them among multiple locations. This dispersal not only increases force survivability but also facilitates the senior ally's military planning, by allowing it to strike multiple different regions from different bases. Finally, the placement of power projection forces on the territory of a junior ally can increase the potential political costs of an adversary's strikes because any attack on the senior ally's regional power projection forces also entails attacks on the territory of the junior ally.

Local Conventional Balance. Assuming sufficient overlap in the security interests of the senior and the junior allies, the next consideration in determining the

selection of an extended deterrence strategy is the relative local conventional balance between the junior ally and a potential adversary (node C). If the junior ally does not confront a geographically proximate, conventionally superior adversary, then the security threat is muted and the senior ally will extend only an unconditional guarantee, consisting of minimal to no forward deployed troops to the territory of the junior ally.[56] If, on the other hand, the junior ally does confront a geographically proximate, conventionally superior adversary, then the senior ally will be compelled to resort to a more robust extended deterrence strategy in order to achieve its deterrence and defense goals. This is accomplished by forward deploying troops to the junior ally. However, the specific nature of the forward deployment will be determined by both the nature of the threat confronting the junior ally and by the bargaining between the senior and junior allies.

Fait Accompli Threat. Assuming that the junior ally confronts a geographically proximate, conventionally superior adversary, the senior ally will be compelled to provide some forward deployment. The nature of this forward deployment will depend on the type of threat presented by the adversary—specifically, whether the adversary is perceived as so powerful that it could a quick victory over the junior ally, even with forward deployed conventional forces from the senior ally (node D). It is unlikely that the senior ally will be able to permanently forward deploy a conventional force robust

[56] The set of states that confront a geographically proximate, conventionally superior adversary will necessarily be a proper subset of states that are within operational range of a shared adversary. I borrow the phrase and concept of a geographically proximate conventionally superior adversary from Vipin Narang, *Nuclear Strategy in the Modern Era* (Princeton, N.J.: Princeton University Press, 2014).

enough to defend against a full-scale attack in all cases. Even superpowers confront resource constraints, especially when trying to safeguard interests in multiple regions. Instead, forward deployments are aimed at accomplishing the more limited goals of signaling commitments, buying time, or raising costs.

Not all conventionally superior adversaries may be able to accomplish a fait accompli. Technology, strategy, geography and the overall balance of forces all can constrain a state's ability to accomplish a fait accompli. States with advanced technology, highly mobile forces, offensive doctrines, permissive terrain, and significant military superiority will be more likely to accomplish a fait accompli. One other key variable is the perceived balance of power between the senior ally and the adversary. Even very strong senior allies may face challenges projecting military power over great distances which can provide a local military advantage to an otherwise weaker adversary.[57]

The type of forward military deployment by the senior ally depends on beliefs about the ability of the adversary to accomplish a fait accompli and about the senior ally's ability to project power. In instances in which the adversary is believed to be able to accomplish a fait accompli, the senior ally will opt for forward deployment of nuclear weapons both to offset the conventional advantages of the adversary on the battlefield and to raise the costs of a conflict by increasing the risk that it spirals to the strategic nuclear level. In cases in which a fait accompli is viewed as unlikely, the

[57] See, for example, Thomas J. Christensen, "Posing Problems without Catching Up: China's Rise and Challenges for U.S. Security Policy," *International Security*, Vol. 25, No. 4 (2001), pp. 5-40.

senior ally will be confident in the deployment of only conventional forces to deter and defend, with the aim of further reinforcing later, if necessary.[58]

Technological Constraints. The nature of the extended deterrence strategy selected also depends on whether or not the senior ally confronts constraints on the deployment of tactical nuclear weapons (node E). The senior ally can confront either material or organizational constraints. All senior allies, by definition, are able to field some forward deployed military presence. However, not all senior allies are able to forward deploy tactical battlefield nuclear weapons in all years. They may not possess the requisite technology or have invested in developing and deploying these kinds of weapons. Even if the senior ally possesses the necessary weapons, it may not have developed the organizational capacities necessary to deploy them abroad. States may attempt to overcome these organizational constraints by investing in the development of new military technologies or by reforming their military organizations. However, both these processes take time and effort. The ability to field forward deployed battlefield nuclear weapons is neither inherent in a state's status as a senior ally, nor is it easily manipulated in the short-term.

Intra-Alliance Bargaining. Finally, for states facing relatively acute security threats, the senior ally may select between either the nuclear tripwire strategy, and the nuclear barrier strategy. The selection will be determined by the relative balance of leverage between the senior and the junior allies (node F). The junior ally will generally prefer a stronger commitment than the senior ally. Stronger commitments,

[58] Slack, *Conventional Tripwire Deterrence*, Ph.D. dissertation, University of Chicago, 2018.

in the form of more expansive and binding commitments or a more robust forward deployed troop presence, may be seen as enhancing the deterrence and defense effects. If the signaled commitment is sufficiently strong, the junior ally may even be able to reduce its own spending on security and enjoy a peace dividend. However, these commitments inevitably generate political and material costs for the senior ally. The stronger the political commitment, the less room for diplomatic maneuver by the senior ally and the greater the risk of entrapment. A stronger forward deployed force is more expensive and reduces resources available for contingencies elsewhere. In addition, the junior ally will prefer that deterrence and defense is maintained through conventional and not nuclear forces, given that nuclear weapons would be exploded on and above its territory. Therefore, the junior ally will have a preference for a nuclear barrier strategy consisting of both tactical nuclear weapons and robust conventional land forces, while the senior ally will have a preference for a nuclear tripwire strategy consisting of a much smaller conventional force coupled with tactical nuclear weapons.

The selection of either a nuclear tripwire strategy or a nuclear barrier strategy will depend on the relative balance of leverage between the junior and the senior allies. If the junior ally enjoys more leverage in the alliance relationship, then it will be able to compel the senior ally to provide a more expansive (and expensive) nuclear barrier strategy. If, however, the senior ally enjoys more leverage, then it will provide the less expansive nuclear tripwire strategy. I identify three key factors that affect the relative balance of leverage between the senior and the junior ally: the junior

ally's strategic significance to the senior ally, the presence of an alternative senior ally, and the junior ally's ability to develop an independent nuclear capability.[59] The greater the strategic significance of the junior ally to the senior ally, the greater the junior ally's leverage. Strategic significance can depend on the political, geographic, or economic importance of the junior ally. The junior ally may enjoy powerful domestic sources of support in the senior ally, be located at strategic chokepoints, serve as a strategic buffer for the senior ally's own territory, or act as a key trading partner for the senior ally. In cases in which the junior ally enjoys a potential outside option in the form of an alternative senior ally, its leverage relative to the senior ally will increase. While both the senior and the junior allies may depend on one another, the presence of an outside option for the junior ally decreases its costs of breaking with the senior partner and increases its leverage. Finally, junior allies that can more credibly threaten to develop an independent nuclear capability will enjoy relatively greater leverage. An independent nuclear capability, while potentially costly to the junior ally, can increase its strategic autonomy. Superpowers will be reluctant to both sacrifice their influence on the junior ally and see further horizontal proliferation of nuclear weapons.[60]

The order in which each strategy emerges from the decision tree helps to illustrate some of the underlying intuition of extended deterrence selection theory.

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[59] For a similar formulation (but slightly different independent variables), see Brian Blakenship, *Promises Under Pressure: Reassurance and Burden-Sharing in Asymmetric Alliances*, Ph.D. dissertation, Columbia University, 2018.

[60] Francis J. Gavin, "Strategies of Inhibition: U.S. Grand Strategy, the Nuclear Revolution, and Nonproliferation," *International Security*, Vol. 40, No. 1 (Summer 2015), pp. 9-46; and Andrew J. Coe and Jane Vaynman, "Collusion and the Nuclear Nonproliferation Regime," *Journal of Politics*, Vol. 77, No. 4 (2015), pp. 983-997.

Within the decision tree, the strategies are arrayed in order of increasing intensity. It begins with the least intensive strategy, the conditional alliance, which features only a limited and conditional political commitment by the senior ally, and ends with the most intensive strategy, the nuclear barrier, which consists of an open-ended, unconditional political commitment, significant forward conventional deployments, and forward-deployed ground-based tactical nuclear weapons.

The theory not only explains the drivers of extended deterrence strategies within a given observation, but also predicts when and how those strategies will change. In fact, as illustrated in the empirical codings, observations do often shift between different strategies over time in response to shifts in the independent variables identified by the theory. However, these shifts should be in response to relatively significant changes. Many of the distinguishing features between strategies—the presence of a security guarantee or the forward deployment of either conventional troops or tactical nuclear weapons—constitute costly choices. They can be financially expensive, politically costly, and strategically risky. For this reason, strategies are likely to be somewhat "sticky."

Testing the Theory: Empirical Codings, Case Studies, and Alternative Explanations

I test extended deterrence selection theory in two ways. First, I conduct a pattern-matching exercise against the universe of cases. This allows me to test how well the features of each case matches the predictions generated by the theory. By testing the universe of cases, I can maximize external validity and mitigate risks of

selection bias. This also allows us to see broader patterns in the distribution of extended deterrence practices and whether the theory's explanatory power varies systematically with certain kinds of case attributes. Second, I conduct a series of more intensive investigations on a subset of cases by decision-making that guided state and leadership behavior. These more intensive case studies allow me to better identify the causal mechanisms driving variation in extended deterrence practices. I select cases to maximize the external validity and representativeness of the subset. In each case study, I evaluate whether the case confirms or disconfirms extended deterrence selection theory and also evaluate how well the theory performs alongside four alternative explanations derived from the literature.

Defining the Universe of Cases

In order to test theory, I first define the universe of cases. I begin by identifying four criteria that, together, define the universe of relevant extended deterrence strategies: 1) post-WWII relations (post-1950), 2) at the state-state dyad level, 3) excluding colonies and occupied territories, 4) excluding war postures, and 5) with a formal interstate defensive alliance involving a great power.

First, I limit the analysis to the period following World War II. The extended deterrence strategies analyzed here are distinctly post-World War II phenomena.

Advancements in transportation and logistics and the development and maturation of nuclear weapons technology provided senior allies with new tools of extended deterrence. Prior to WWII, standing forward military deployments for the purpose of extending deterrence to a junior ally were less common. States forged alliances with one another, but these alliances were often conditional, established for mutual defensive, and not buttressed by foreign deployments. The years following WWII, however, saw the proliferation of extended deterrence commitments by a range of states, many of which reinforced these commitments with costly signals such as foreign deployments.[61]

Second, the unit of observation is the state dyad featuring both a senior ally and a junior ally. In observing strategies across dyads, I reject alternative units of analysis, for example, senior ally monad, or at the level of the multilateral alliance (thereby consolidating all state members of a multilateral alliance, such as NATO, under a single observation). Empirically, there has been significant variation in extended deterrence strategies enjoyed by state members of the same multilateral alliance. Further, the "harder" features of extended deterrence strategies, such as forward deployed conventional and nuclear weapons, are negotiated bilaterally between the senior and the junior ally.[62]

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[61] For some discussion, see Rapp-Hooper, *Absolute Alliances*.

[62] A brief glance at the history of NATO, the world's largest and most institutionalized multilateral alliance, reinforces this choice. Though, historically, NATO has held multilateral consultations and negotiations about how to develop its defense and deterrence forces, the deployments of NATO-member military forces to the territory of other countries was ultimately negotiated bilaterally by those countries, with the host countries ultimately enjoying veto over any deployment decisions to their territory. For example, during the Cold War, forward-positioned NATO forces in Europe operated according to principles of national-control. NATO command structures over Central Region land forces "had only limited peacetime authorities, and issues such as training, doctrine, logistics,

Third, I exclude dyads that do not feature nominally independent states, such as colonies. These dyads do not feature independent actors as their relations are characterized by strong dependency. That dependency is likely to obscure or warp whatever general extended deterrence dynamics may be at play.

Fourth, I exclude relationships defined by interstate war or in which the threat to the junior ally is primarily internal. The outbreak of war is a strong signal that general extended deterrence, the object of study here, has failed. For this reason, I do not consider, for instance, the U.S.-South Korea relationship before 1953 or the U.S.-Vietnam relationship during the war in Southeast Asia.

Finally, I only include observations involving a formal interstate alliance with a great power. The theory's scope condition requires the existence of a formal alliance based on defensive goals (this excludes offensive alliances or those which commit to lower levels of cooperation, such as non-aggression pacts or ententes). The observations further must include a great power, which I define as one of the five permanent members of the United Nations Security Council. These states are distinguished by their strong political power, global interests, nuclear capabilities, and ability to project military force abroad.

Pattern-Matching Exercise

rules of engagement (ROE), etc., were largely a national, [not] Alliance, responsibility." Thomas-Durell Young, *Multinational Land Formations and NATO: Reforming Practices and Structures* (Carlisle, PA: U.S. Army War College, 1997), p. 7.

I first test the theory by conducting a pattern-matching exercise on the universe of cases. For each case, I begin by identifying extended deterrence strategy selected by the senior ally. I do this by examining features of the legal commitment made by the senior ally to the junior client, as well as the types of conventional and forward nuclear deployments to the territory of the junior ally. In observations where the legal commitment of the senior ally is conditional or circumscribed, the junior ally is coded as having a conditional alliance. In cases in which the senior ally's commitment is essentially unconditional but the legal commitment is not matched by forward ground deployments, the case is coded as an unconditional guarantee. If the junior ally hosts long-range naval and air assets, it is coded as featuring the auxiliary power projection strategy. If the junior ally hosts significant ground troops but no ground-based tactical nuclear weapons, it is coded as featuring a conventional barrier. For conventional barriers, I require the deployment of roughly a brigade (at least 2,000 troops) or that the ratio between the adversary's relevant ground forces and forward deployed senior ally forces is less than 8:1.[63] Finally, if the junior ally hosts ground-based tactical nuclear weapons and a light ground presence, it is coded as a nuclear tripwire and, if hosting ground-based tactical nuclear weapons and a significant ground presence, it is coded as a nuclear barrier. The coding rules and data sources for this process are described in more detail in the appendix.

Next, in order to test the predictions generated by the theory, I also examine the values of each observation along the independent variables specified in the theory.

[63] For more on this coding rule, see the appendix and Matthew C. Slack, *Conventional Tripwire Deterrence*, Ph.D. Dissertation (Chicago, IL: University of Chicago, 2018), pp. 39-42.

The first variable asks whether or not the junior and senior allies have overlapping adversary portfolios—specifically, it asks whether the junior ally confronts an adversary that the senior ally does not. I operationalize this by examining whether the junior ally confronted a rival that the senior ally did not.[64]

The next variable examines whether or not the junior ally is within "operational range" of the adversary. This variable is a function of both geography and technology. For the early parts of the Cold War, I code a junior ally as being within operational range if it is within 2,000 miles of an adversary. After 1970, to account for changes in technology, I use 3,000 miles.

The next two variables consider the junior ally's security environment. The first asks whether there is a geographically proximate conventionally superior offensive threat. I operationalize geographically proximity with the Correlates of War measure of contiguity: either a shared land border of within 150 miles of water. I operationalize the conventional balance of power using the Correlates of War Composite Index of National Capability (CINC) score.[65] If the junior ally confronts an adversary that is contiguous and has a higher CINC score, then it confronts an acute security threat. The next variable asks whether the adversary can accomplish a fait accompli against the junior ally. Not all conventionally superior adversaries are able to accomplish a fait accompli, especially against the combined forces of both the junior

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[64] William R. Thompson and David Dreyer, *Handbook of International Rivalries* (Washington, D.C.: CQ Press, 2011).

[65] J. David Singer, Stuart Bremer, and John Stuckey, "Capability Distribution, Uncertainty, and Major Power War, 1820-1965," in Bruce Russett (ed.) *Peace, War, and Numbers* (Beverly Hills, CA: Sage, 1972), pp. 19-48.

and senior allies. To approximate the ability of the senior ally to prevent a fait accompli with only conventional forces, I examine the ratio between the adversary's CINC score and the senior ally's distance-adjusted CINC score developed by Bueno de Mesquita.[66] If the adversary's score is higher, it is coded as capable of accomplishing a fait accompli.

The theory then considers the senior ally's ability to deploy ground-based tactical nuclear weapons. If the senior ally has already deployed such systems, either within its own territory or abroad, it is coded as not confronting resource constraints.

Finally, to measure the intra-alliance bargaining leverage, I develop a composite index of junior ally leverage. This index, drawing on work by Blankenship, examines whether the junior ally serves as a strategic buffer for the senior ally, is a proliferation risk, is economically significant, enjoys alternative senior patron options, or is astride a strategic maritime chokepoint.[67] Junior allies with more of these attributes are coded as having high leverage over the senior ally.

Based on this coding scheme, I develop empirical codings for each observation, which are presented in table 1-4 below.[68] Each observation consists of a senior-junior ally dyad and a time period designating the start and end of the strategy. The observations are coded from 1950 until 2012 due to data availability.[69] I code each observation as one of the five core strategies—conditional alliance, unconditional

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[66] Bruce Bueno de Mesquita, *The War Trap* (New Haven, CT: Yale University Press, 1981), pp. 101-108.
[67] Brian Dylan Blankenship, Promises Under Pressure: Reassurance and Burden-Sharing in Asymmetric Alliances, Ph.D. Dissertation (New York, N.Y.: Columbia University, 2018).
[68] I provide detailed coding rules and data sources in the appendix.
[69] Observations may be coded as lasting until "today" based on data through 2012, though in most instances, there has been no to minimal change in the features of the strategy.

guarantee, conventional barrier, nuclear tripwire, nuclear barrier—and also identify whether or not the observation features the auxiliary power projection strategy. I also identify whether or not the empirical coding was correctly predicted by the theory.

Table 1-4: Empirical Codings of Extended Deterrence Strategies

Unconditional Guarantee			**Power Projection**	
US: Italy 1949-1957	US: Slovenia 2004-today	FRN: Gabon 1960-today	US: Italy 1949-today	UK: Jordan 1948-1957
US: Italy 1991-today	US: Romania 2004-today	FRN: CAR 1960-today	US: (West) Germany 1955-today	UK: Belize 1981-1993
US: Germany 1991-today	US: Estonia 2004-today	FRN: Chad 1960-1976*	US: Turkey 1952-today	UK: Malaysia 1957-1971
US: Turkey 1952-1956	US: Slovakia 2004-today	FRN: Congo 1960-1974	US: Netherlands 1950-today	UK: Sri Lanka 1948-1962
US: Turkey 1991-today	US: Latvia 2004-today	FRN: Madagascar 1960-1973	US: Belgium 1950-today	UK: Cyprus 1960-1974
US: Netherlands 1950-1957	US: Bulgaria 2004-today	FRN: Senegal 1974-today*	US: South Korea 1991-today	France: Gabon 1960-today
US: Netherlands 1990-today	US: Lithuania 2004-today	SOV: Romania 1958-1989	US: Greece 1952-today	France: CAR 1960-today
US: Belgium 195-today	US: Croatia 2009-today	SOV: Cuba 1962-1991	US: Denmark 1950-today	France: Congo 1960-1974
US: Greece 1952-1959*	US: Albania 2009-today	SOV: Albania 1955-1968	US: New Zealand 1951-1986	FRN: Madagascar 1960-1973
US: Greece 1991-today	US: UK 1949-today	SOV: Bulgaria 1955-1991*	US: Australia 1951-today	FRN: Senegal 1974-today
US: Denmark 1950-today	US: Iceland 1949-today	CHN: North Korea 1961-1991*	US: France 1950-1966	FRN: Djibouti 1977-today
US: Norway 1950-today	US: Portugal 1950-today	RUS: Belarus 1994-today	US: Canada 1950-today	SOV: Poland 1949-1990
US: Luxembourg 1950-today	US: Japan 1958-today	RUS: Kazakhstan 1994-today	US: Philippines 1951-1992	SOV: East Germany 1955-1991
US: New Zealand 1951-1986	US: Spain 1981-today	RUS: Kyrgyzstan 1994-today	US: UK 1949-today	SOV: Romania 1958-1989
US: Australia 1951-today	UK: Libya 1953-1969	RUS: Tajikistan 1994-today	US: Iceland 1949-today	SOV: Hungary 1949-1989
US: France 1966-today	UK: Iraq 1955-1959*	RUS: Azerbaijan 1994-1999	US: Portugal 1950-today	SOV: Czechoslovakia 1955-1968
US: Canada 1950-today	UK: Jordan 1948-1957*	RUS: Georgia 1994-1999	US: Taiwan 1954-1979	SOV: Vietnam 1979-1991
US: Philippines 1951-today	UK: Belize 1993-today	RUS: Uzbekistan 1994-1999	US: Japan 1952-today	SOV: Cuba 1962-1991
US: Poland 1999-today	UK: Malaysia 1957-1971*	RUS: Uzbekistan 2006-2012	US: Spain 1981-today	
US: Hungary 1999-today	UK: Sri Lanka 19478-1962		UK: Libya 1953-1969	
US: Czech Republic 1999-today	UK: Cyprus 1960-1974		UK: Iraq 1955-1959	
Conditional Alliance	**Conventional Barrier**		**Nuclear Tripwire**	**Nuclear Barrier**
US: Pakistan 1954-1972	US: South Korea 1953-1958	SOV: Poland 1949-1966	US: Greece 1960-1991	US: West Germany 1955-1990
US: Thailand 1954-1977	US: South Korea 1991-today	SOV: East Germany 1955-1957	US: Turkey 1957-1991	US: South Korea 1958-1991
US: Taiwan 1979-today	US: France 1950-1966*	SOV: Hungary 1949-1973	US: Taiwan 1954-1979	SOV: Poland 1967-1990*
US: Israel 1981-1991	US: Japan 1952-1957	SOV: Czechoslovakia 1955-1968*	US: Netherlands 1958-1990*	SOV: East Germany 1958-1991
UK: South Africa 1955-1975	UK: Belize 1981-1993	RUS: Armenia 1994-today	US: Belgium 1967-1991	SOV: Mongolia 1967-1992
SOV: Mongolia 1946-1966	France: Djibouti 1977-2011		US: Italy 1957-1991	SOV: Hungary 1974-1989*
SOV: Vietnam 1979-1991				SOV: Cuba 1962
SOV: Finland 1948-1992				
SOV: China 1950-1960				

Note:
- Each cell represents a separate observation consisting of a senior-junior ally dyad and a time period
- * indicates observations that are incorrectly predicted by the theory

I identify 93 total observations across the five core strategies, of which 57 also feature the auxiliary power projection strategy. Nine observations featured the conditional alliance strategy, including U.S. commitments in South and East Asia and U.K. commitments in the Middle East and Sub-Saharan Africa. By far the most common strategy is unconditional guarantee, with 60 observations, just over half of which of which feature the United States as the senior ally. Of these, eight are the European states added to NATO in the most recent two waves of expansion. There are 12 instances of the conventional barrier strategy, including U.S. strategy in South Korea, British strategy in Belize, and French strategy in Gabon. The most intensive strategies are also the least common. There are six instances of the nuclear tripwire strategy and seven of the nuclear barrier strategy.

Although observations involving the United States as senior ally dominate the dataset, we also see, summarized in table 1-5 below, that nearly half of observations involve other senior allies such as the United Kingdom, the Soviet Union, France, and China. In general, we see meaningful variation across time period, extended deterrence strategy, geographic region, and senior and junior allies. The initial empirical codings suggest strong explanatory power for extended deterrence selection theory, predicting 80 of 93 observations, for a success rate of more than 85 percent. For auxiliary power projection strategies, the theory correctly predicts 65 out of 93 observations for a success rate of 70 percent.

Table 1-5: Distribution of Extended Deterrence Strategies

	Conditional Alliance	Unconditional Guarantee	Conventional Barrier	Nuclear Tripwire	Nuclear Barrier		Power Projection
Total Observations	9	60	12	6	7		57
United States	4	35	4	6	2		31
Soviet Union	4	3	5	0	5		11
Russia	0	8	1	0	0		3
United Kingdom	1	7	1	0	0		5
France	0	6	1	0	0		7
China	0	1	0	0	0		0

Although the pattern-matching exercise demonstrates the strong explanatory power of the theory, it cannot establish that the correspondence between theoretical prediction and empirical observations is due to the mechanisms specified by the variable. Therefore, I supplement this analysis of the universe of cases with a more intensive investigation of a subset of cases. These series of case studies permit a deeper examination of whether and how the senior ally's choice of strategy was, in fact, guided by the variables identified in the theory. This approach also allows me to better evaluate extended deterrence selection theory alongside prominent alternative explanations.

These cases are selected for the purpose of theory testing and I identify several principles guiding case selection.[70] First, to reduce selection bias and maximize external validity, the subset of cases should feature meaningful variation across both

[70] For more see, Jack S. Levy, "Case Studies: Types, Designs, and Logics of Inference," *Conflict Management and Peace Science*, Vol. 25, No. 1 (Spring 2008), pp. 1-18; and Barbara Geddes, "How the Cases You Choose Affect the Answers You Get: Selection. Bias in Comparative Politics," *Political Analysis*, Vol. 2 (1990), pp. 131-150.

independent and dependent variables, including senior ally, junior ally, time period, extended deterrence strategy. Second, I test cases which are most representative of the predictions of extended deterrence selection theory. Third, I select cases for which primary source data is sufficiently accessible or there is a sufficiently deep treatment in the secondary sources. Fourth, I attempt to select cases with particularly high substantive or historical significance. Finally, I select some cases for which the historical record is comparatively thin so that this project can make an empirical contribution.

Table 1-6 below lists the subset of cases selected based on these principles. This subset consists of six senior-junior ally dyads and 11 separate extended deterrence strategy observations. Together, the subset includes examples of each of the six strategies identified in the typology described above. The subset also features variation in strategies across both time and space, including several ally dyads which moved between different strategies. The subset includes dyads featuring four major senior allies (United States, Soviet Union, United Kingdom, and France) and, collectively, covers the years 1950 until today. The subset includes junior allies featuring different security, political, and geographic characteristics. I begin by examining the experience of the Cold War superpowers by conducting case studies of the U.S. strategies in both South Korea and Italy from 1950 until today and the South Union strategy in Mongolia throughout the Cold War. These cases are substantively significant, representing extended deterrence strategies in major historical flashpoints: the Korean Peninsula, the NATO-Warsaw Pact divide, and the Sino-

Soviet border. In a series of mini-cases, I also examine the strategies of the United States in Israel, the United Kingdom in Belize, and France in Djibouti. These cases expand the scope of the empirical investigation by examining less intensive extended deterrence strategies selected by traditionally overlooked senior allies in more under-studied cases. Together, these cases cover four different senior allies, every extended deterrence strategy in the typology, the entire period from 1950 until today, and junior allies in the Central America, Central Asia East Africa, East Asia, the Middle East, and Western Europe.

Table 1-6: Subset of Cases for Intensive Case Studies

Senior Ally	Junior Ally	Time Period	Strategy
United States	South Korea	1953-1958	Conventional Barrier
United States	South Korea	1958-1991	Nuclear Barrier
United States	South Korea	1991-today	Conventional Barrier+
United States	Italy	1952-1957	Unconditional Guarantee+
United States	Italy	1957-1991	Nuclear Tripwire+
United States	Italy	1991-today	Unconditional Guarantee+
United States	Israel	1981-1991	Conditional Alliance
Soviet Union	Mongolia	1946-1966	Unconditional Guarantee
Soviet Union	Mongolia	1967-1991	Nuclear Barrier+
United Kingdom	Belize	1981-1993	Conventional Barrier+
France	Djibouti	1977-2011	Conventional Barrier+

Note:
- "+" indicates presence of Power Projection auxiliary strategy

For each case study, I evaluate how well extended deterrence selection theory performs alongside several alternative explanations. There is no work that provides a clear alternative explanation to the general question of how states practice extended deterrence. Instead, I derive several alternative explanations from the

literature on alliance formation, deterrence, and proliferation. Here I briefly describe four competing alternatives and the theoretical predictions they generate: structural realism, political alignment, extractive posturing, and nonproliferation.

Structural Realism

Structural realist theories imply that a state's practice of extended deterrence varies with the intensity of the perceived security threat to the senior or the junior ally. Theories in this tradition predict that states will largely balance against perceived power and threats.[71] This logic would suggest that the intensity of the extended deterrence framework should vary monotonically with the perceived military threat from the adversary.

A recent important contribution by Lee reflects the structural realist approach.[72] Lee argues that, in a relationship of extended deterrence, the senior ally's selection of extended deterrence strategy will depend on two factors: the likelihood of the adversary being able to accomplish a fait accompli against the junior ally and whether the adversary presents an existential or non-existential threat to the junior ally. Junior allies which confront adversaries which are more powerful and which present an existential threat are more likely to feature more intensive strategies featuring forward conventional and nuclear deployments. By contrast, junior allies

[71] Kenneth N. Waltz, *Theory of International Politics*, (Reading, MA: Addison-Wesley, 1979); Stephen M. Walt, *The Origins of Alliances*, (Ithaca, N.Y.: Cornell University Press, 1987); and John J. Mearsheimer, "Back to the Future: Instability in Europe after the Cold War," *International Security,* Vol. 15, No. 1, pp. 5–56.
[72] Do Young Lee, "Strategies of Extended Deterrence: How States Provide a Security Umbrella," *Security Studies*, Vol. 30, No. 5 (2021), pp. 761-796.

which confront relatively weaker and less threatening adversaries are more likely to feature less intensive strategies without forward military deployments.

Because extended deterrence selection theory specifies several security variables in many cases, the predictions of structural realist theories, including that developed by Lee, overlap with those generated by extended deterrence theory. However, there are important distinctions between extended deterrence selection theory and strictly structural realist approaches. For instance, structural realist theories do not provide agency to junior allies and imagine little role for intra-alliance dynamics. In short, structural realist theories predict that observations facing similar security conditions should feature similar extended deterrence strategies. In this way, the structural realist approach cannot explain why, during the Cold War, the United States deployed tens to hundreds of thousands of troops to South Korea and West Germany, but opted to deploy only a few thousand troops to Italy, Turkey, and Taiwan, despite each of these states confronting roughly equivalent security threats.

Domestic Politics

Second, domestic politics may drive the selection of extended deterrence strategies. Scholars have long recognized how domestic politics can influence the formation and institutionalization of interstate alliances. Special interests within either ally may promote or inhibit stronger commitments. Similarity or divergence along state-level variables such as regime type, political ideology, or historical

experience may drive selection of extended deterrence strategies.[73] For example, Lai and Reiter provide evidence that states with similar regime types and common cultures are more likely to form alliances.[74] Similarly, Rapoport and Rathbun argue that "the ideology of the parties governing countries negotiating the terms of security relationships will affect their preferences over the degree and kind of institutionalization seen in alliances."[75] In particular, they show that rightist parties are more likely to enter into alliances with hierarchical forms of institutionalization, whereas leftist parties are more likely to form alliances with more consultative mechanisms.

We see some evidence of this in specific extended deterrence relationships, including those involving the United States. Heo and Lee focus on how domestic political shifts in the United States and South Korea affected the state of the alliance, including the relative degree of burden-sharing between the two allies.[76] Moller similarly shows how in the case of the U.S.-South Korea alliance, "South Korean leaders' partisan interpretations of the threat environment affected intra-alliance bargaining in the coordination of military affairs" and that "partisan differences do a better job explaining alliance dynamics over the past quarter century than systemic

[73] Stephen M. Walt, *The Origins of Alliances*, (Ithaca, N.Y.: Cornell University Press, 1987), pp. 33-40.
[74] Brian Lai and Dan Reiter, "Democracy, Political Similarity, and International Alliances, 1816-1992," *Journal of Conflict Resolution*, Vol. 44, No. 2 (2000), pp. 203-227.
[75] Aaron Rapoport and Brian Rathbun, "Parties to an alliance: Ideology and the domestic politics of international institutionalization," *Journal of Peace Research*, Vol. 58, No. 2 (2021), pp. 279-293.
[76] Jong-Sup Lee and Uk Heo, *The U.S.-South Korean Alliance, 1961-1988: Free-Riding or Bargaining?* (Lewiston, N.Y.: Edwin Mellen Press, 2002).

factors alone."[77] Focusing on the senior ally, Stein argues that domestic political constraints on military spending and overseas involvement delayed the United States' ability to fully implement many of its extended deterrence commitments.[78]

One potential weakness of domestic political explanations is the lack of generalizability, particularly in explaining patterns of extended deterrence practices, though we may derive some hypotheses. One prediction might be that alliances featuring states with similar regime types or political ideologies are more likely to feature more intensive extended deterrence strategies, particularly those featuring forward troop deployments. Alternatively, the findings of Rapoport and Rathbun perhaps suggest that alliances which feature an authoritarian or ideologically conservative senior ally should be more hierarchical, which might suggest the selection of either the conditional alliance, which would permit greater flexibility and autonomy on the part of the senior ally, or of the conventional and nuclear barrier strategies, which might permit the senior ally to dominate the junior client through a strong military presence. Stein's observations about domestic political constraints within the senior ally suggests that when more interventionist parties control the senior ally, it should be more likely to select more intensive strategies. By contrast, when a senior ally is controlled by more isolationist elements, it should select less intensive strategies. Domestic political explanations may also idiosyncratic case-

[77] Sara Bjerg Moller, "Domestic politics, threat perceptions, and the alliance security dilemma: the case of South Korea, 1993-2020," *Asian Security* (2021).
[78] Arthur A. Stein, "Domestic Constraints, Extended Deterrence, and the Incoherence of Grand Strategy: The United States, 1938-1950," in Richard Rosecrance and Arthur Stein (eds.), *Domestic Bases of Grand Strategy* (Ithaca, N.Y.: Cornell University Press, 1993), pp. 96-123.

specific explanations which, while not amenable to ex ante deductive generation, may still be powerful on a case-by-case basis.

Extractive Posturing

Extended deterrence strategies may be the result of extractive posturing on the part of the junior ally. Junior allies will often prefer stronger security commitments from their senior allies. Stronger commitments can enhance the ability to deter and defeat aggression against the junior ally, permit the junior ally to reduce its own military expenditures and redirect resources to internal development, and bolster the junior ally's prestige by hosting or participating in the deployment of advanced military capabilities. This logic is even one of the underlying assumptions of extended deterrence selection theory.

There is evidence of extractive posturing logics affecting extended deterrence commitments from both the scholarly literature and contemporary policy debates. Beginning in the Cold War, scholars used theories of collective action and public goods to explain how "free-riding" was likely to plague alliances.[79] Because the collective security provided by alliances is both non-rival and non-excludable, allies have strong incentives to shirk their defense commitments. These predictions found empirical support. For instance, Alley shows that in alliances with greater degrees of treaty

[79] See, for example, Olson Mancur and Richard Zeckhauser, "An Economic Theory of Alliances," *Review of Economic Statistics*, Vol. 48, No. 3 (1966), pp. 266-79; and Todd Sandler, "The Economic Theory of Alliances: A Survey," *Journal of Conflict Resolution*, Vol. 37, No. 3 (1993), pp. 446-483.

depth, junior allies are likely to reduce their military spending.[80] Similarly, empirical investigations have found that smaller states are more likely to free-ride in alliances.[81] Cooley demonstrates how Central Asian states sought to use the prospect of hosting American or Russian bases in order to extract financial, political, and diplomatic concessions.[82] Because these negotiations did not pertain to extended deterrence, they even how junior partners might stand to gain from hosting great power military forces, even when potential external security gains are excluded. These findings suggest that junior allies are likely to perceive benefits to stronger extended deterrence commitments beyond simply greater security. In recent years, American foreign policy discussions have increasingly focused on the costs of U.S. overseas commitments and whether or not American allies are contributing their "fair share."[83]

However, junior allies may vary in their ability to extract stronger commitments from their senior patrons. Blankenship, for instance, has demonstrated that the degree of burden-sharing within an asymmetric security alliance depends in part on the strategic significance of the junior ally to the senior. The more important

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[80] Joshua Alley, "Alliance Participation, Treaty Depth, and Military Spending," *International Studies Quarterly*, Vol. 65, No. 4 (2021), pp. 929-943.
[81] Paul F. Diehl, "Substitutes or complements?: The effects of alliances on military spending in major power rivalries," *International Interactions*, Vol. 19, No. 3 (1994), pp. 159-176; and Thomas Plümper and Eric Neumayer, "Free-riding in alliances: Testing an old theory with a new method," *Conflict Management and Peace Science*, Vol. 32, No. 3 (2015), pp. 247-268. Though Plümper and Neumayer find that the relationship between state size and free-riding is nuanced, writing that "Smaller allies free-ride, but the relatively larger of the smaller allies do not free-ride any less than the relatively even smaller alliance partners."
[82] Alexander Cooley, *Base Politics: Democratic Change and the U.S. Military Overseas* (Ithaca, N.Y.: Cornell University Press, 2008).
[83] Ben Jacobs, "Donald Trump Reiterates He Will Only Help NATO Countries that Pay 'Fair Share,'" *The Guardian*, 27 July 2016, https://www.theguardian.com/us-news/2016/jul/27/donald-trump-nato-isolationist.

the junior ally is to the senior, the more likely the former is able to extract resources and commitments from the latter.[84] Similarly, Gheorge argues that, in unbalanced nuclear alliances, the type of extended nuclear deterrence strategy the senior ally selects will depend on the intra-alliance balance of power.[85] Specifically, Gheorge argues that in "imperial alliances," which are strongly dominated by the senior ally and in which junior allies have little agency, the senior ally is unlikely to provide consultation or accommodation to its junior clients. By contrast, in "hegemonic alliances," in which junior allies have relatively greater agency, the senior ally is likely to provide greater consultation and cooperation with its junior partners.

In this way, extended deterrence strategies may be driven by the ability of the junior ally to extract stronger commitments from the senior partner. This approach does not fully conflict with extended deterrence selection strategy, which incorporates intra-alliance bargaining as a variable. However, while extended deterrence selection theory has intra-alliance bargaining intervene only once security threats are prominent, a pure extractive posturing explanation would foreground the intra-alliance balance of power. Extractive posturing would predict that junior allies which are more important to the senior ally and which enjoy greater negotiating leverage are likely to feature more intensive strategies such as the nuclear barrier. By contrast, extractive posturing would predict that junior allies which are less important to the

[84] Brian Dylan Blankenship, Promises Under Pressure: Reassurance and Burden-Sharing in Asymmetric Alliances, Ph.D. Dissertation (New York, N.Y.: Columbia University, 2018).
[85] Eliza Gheorge, "Balance of Power Redux: Nuclear Alliances and the Logic of Extended Deterrence," *The Chinese Journal of International Politics*, Vol. 15, No. 1 (2022), pp. 87-109.

senior ally and those which enjoy less leverage would be more likely to feature less intensive strategies such as the conditional alliance.

Nonproliferation Goals

Nonproliferation goals may determine the senior ally's selection of extended deterrence strategy. Senior allies have often sought to inhibit the spread of nuclear weapons, including through the extension of security commitments. In the post-WWII era, senior allies are all nuclear powers which have an interest in limiting the nuclear of nuclear-armed states in the system for several reasons. Nuclear-armed junior allies may pursue more independent foreign policies, potentially acting against the interests of the senior ally.[86] Nuclear-armed adversaries may similarly become emboldened, increasing the risks that the senior ally will be drawn into a conflict and, by introducing new nuclear actors, increasing the risks of that conflict going nuclear. Proliferation may also beget proliferation, compounding these problems.[87] These theoretical predictions have been borne out in the foreign policies of great powers. Gavin, for instance, identifies the central role of nonproliferation goals in U.S. grand strategy, noting the frequency with which the U.S. resorted to "assurance strategies" such as forming alliances, providing arms, or deploying troops.[88] Coe and Vaynman have shown how the Cold War superpowers at times colluded to prevent

[86] Mark S. Bell, "Beyond Emboldenment: How Acquiring Nuclear Weapons Can Change Foreign Policy," *International Security*, Vol. 40, No. 1 (Summer 2015), pp. 92-95.
[87] Nicholas L. Miller, "Nuclear Dominoes: A Self-Defeating Prophecy?" *Security Studies*, Vol. 23, No. 1 (2014), pp. 33-73.
[88] Francis J. Gavin, "Strategies of Inhibition: U.S. Grand Strategy, the Nuclear Revolution, and Nonproliferation," *International Security*, Vol. 40, No. 1 (Summer 2015), pp. 29-33.

proliferation.[89] More recent work has illustrated a strong relationship between perceived U.S. security commitments to a state and that state's likelihood of pursuing nuclear weapons.[90]

These works suggest that the degree of commitment from the senior ally should vary with the threat of proliferation from the junior ally. In particular, this explanation would predict that junior allies with greater ability or incentive to pursue nuclear weapons are more likely to feature more intensive extended deterrence strategies, while junior allies with less capability or incentive to pursue nuclear weapons will feature less intensive strategies.

Like the other alternative explanations, nonproliferation goals are not entirely at odds with the predictions of extended deterrence selection theory. In fact, extended deterrence selection theory incorporates a senior ally's nonproliferation aims through the intra-alliance bargaining variable. That is, junior allies which present greater proliferation concerns are more successful in extracting stronger security commitments from their senior ally. However, extended deterrence selection theory subordinates these concerns to security ones. In many cases, the theoretical predictions generated by nonproliferation goals differ markedly from those generated by extended deterrence selection theory. In particular, an explanation rooted in nonproliferation goals would predict that a junior ally which is a high proliferation

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[89] Andrew J. Coe and Jane Vaynman, "Collusion and the Nuclear Nonproliferation Regime," *Journal of Politics*, Vol. 77, No. 4 (2015), pp. 983-97.

[90] Nicholas L. Miller, *Stopping the Bomb: The Sources and Effectiveness of US Nonproliferation Policy*, (Ithaca, N.Y.: Cornell University Press, 2018); Alexander Lanoszka, *Atomic Assurance: The Alliance Politics of Nuclear Proliferation*, (Ithaca, N.Y.: Cornell University Press, 2018); and Yang Bonny Lin, *Arms, Alliances, and the Bomb: Using Conventional Arms Transfers to Prevent Nuclear Proliferation*, Ph.D. Dissertation (New Haven, CT: Yale University, 2012).

concern but does not confront an acute security threat is nonetheless likely to extract a strong commitment from its senior patron.[91] By contrast, it would predict that a junior ally which is unlikely to pursue a nuclear capability but which confronts an acute security threat would be unlikely to feature a strong extended deterrence commitment from the senior ally. Due to its privileging of security variables, extended deterrence selection theory would generate largely the opposite predictions in these cases.

Next Steps

In this chapter I have introduced a new typology of extended deterrence strategies and developed a theory explaining the conditions under which we should see a given strategy in the typology selected. This generalizable theory improves our ability to systematically understand and analyze patterns of extended deterrence. Previous work on extended deterrence has largely focused on the consequences of different tools, without giving adequate attention to the sources of those tools.[92] Further, previous studies have largely focused on only a subset of cases, often limiting analysis to the American or Soviet experience. This theory, extended deterrence

[91] It is true that there is likely some correlation between these factors given that security concerns are often a key driver of proliferation behavior. However, this correlation is likely to be imperfect given that states have often pursued nuclear weapons for non-security goals, including to satisfy important domestic constituencies or to bolster the state's status. See Scott D. Sagan, "Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb," *International Security*, Vol. 21, No. 3 (Winter 1996-1997), pp. 54-86.

[92] Notable recent exceptions include Rapp-Hooper, *Absolute Alliances*; Do Young Lee, "Strategies of Extended Deterrence: How States Provide the Security Umbrella," *Security Studies*, Vol. 30, No. 5 (2021), pp. 761-796; and Eliza Gheorge, "Balance of Power Redux: Nuclear Alliances and the Logic of Extended Deterrence," *Chinese Journal of International Politics*, Vol. 15, No. 1 (2022), pp. 87-109.

selection theory, helps us identify systematic variation across extended deterrence cases through both time and space.

In the neorealist tradition, the theory privileges security variables, though also incorporates variables pertaining to political, geographic, technological, and alliance bargaining dynamics. The theory predicts that, in instances where there is insufficient overlap in the adversary portfolios of the junior and senior ally, the senior ally will be concerned about entrapment concerns and extend only a conditional alliance to mitigate those concerns. If there is sufficient overlap in allies' adversary portfolios, the theory predicts entrapment concerns are more muted and the senior ally will provide at least an unconditional guarantee. Here, security variables intervene, determining whether the senior ally will deploy military forces to the territory of the junior partner. Here, the particular type of forward deployments is mediated by the local conventional balance, the ability of the senior ally to forestall a fait accompli, technological constraints, and intra-alliance negotiating. The theory is testable and falsifiable, generating determinative predictions about the types of extended deterrence strategies we should see under different conditions.

I test the theory in two ways. First, as presented earlier in this chapter, I conduct a pattern-matching exercise on the universe of cases. As shown, this exercise demonstrates the strong explanatory power of the theory, which correctly predicts more than 85 percent of observations involving core strategies and 70 percent of observations involving the auxiliary power projection strategy. In the following chapters, I present several case studies to further validate the explanatory power of

the theory. I begin with the U.S. experience, examining the American strategies to South Korea, Italy, and Israel. Next, I turn to the other side of the Cold War by examining the Soviet experience providing extended deterrence commitments to Mongolia in the face of possible Chinese aggression. Finally, I close by examining the commitments provided by the United Kingdom to Belize and France to Djibouti. In each case study, I first begin by summarizing the features of the extended deterrence strategy selected by the senior ally and coding which strategy in the typology it exemplifies. I examine the depth of legalized security commitment provided by the senior to the junior ally, as well as the type of forward conventional and nuclear deployments selected. Then, I determine how well the features of the case correspond with the variables identified in the theory. I do this by consulting the secondary literature and primary documents from archival repositories across several continents. In the end, I conclude with how well the theory presented here performs in comparison to the competing alternative explanations summarized above.

Chapter 2

U.S. Strategy in South Korea: To Nuclear Barrier and Back Again[93]

The first U.S. extended deterrence strategy provided to South Korea began following the armistice that ended fighting in the Korean War. With the end of combat, the United States moved from a warfighting posture to one of extended deterrence. The United States quickly drew down its military forces on the Korean Peninsula, reducing the U.S. military presence from several hundred thousand during the war to roughly 70,000 shortly after the signing of the Armistice agreement. From then on, the United States' primary security purpose in South Korea was no longer winning the fight but preventing one.

The U.S. extended deterrence strategy provided to South Korea passed through three major stages. First, in the years immediately following the Korean War, the United States extended a conventional barrier strategy consisting of an open-ended treaty-based security guarantee and a robust conventionally-armed ground-based forward deployment. After the 1953 armistice, the struggling South Korean economy could not support an independent deterrent and defense of the country. In order to safeguard South Korea, the United States continued to station several tens of thousands of conventional troops on its junior ally's territory, both to provide meaningful defensive capability in case deterrence failed and to act as a tripwire

[93] For valuable comments on earlier drafts of this chapter, I additionally thank Terence Roehrig and researchers at the office of the U.S. Forces Korea Command Historian, especially Mike Bosack.

committing the United States to involvement in any future conflict. At the time, based on the mutual disarmament terms of the Armistice, the United States was confident that it could deter and defend attacks against its South Korean ally with only a conventional presence.

In the late 1950s, several concurrent trends precipitated the shift from this conventional barrier strategy to a nuclear barrier strategy featuring the deployment of ground-based tactical nuclear weapons. First, U.S. military intelligence became increasingly concerned that North Korea and China were covertly altering the military balance in their favor by introducing new military capabilities in violation of the 1953 Armistice. Discussions among senior U.S. officials revealed an intense fear that Communist conventional superiority could be used to secure a *fait accompli* on the Korean Peninsula, potentially overrunning Seoul and the rest of the country before the United States had time to reinforce its positions. Second, the United States became increasingly concerned about the financial drain of significant overseas military deployments. The United States was searching for ways to more cheaply and sustainably secure those commitments. Nuclear weapons were seen as the answer.

Together, these trends motivated the shift in the late 1950s from a conventional barrier strategy to a nuclear barrier one. In 1958, the United States began to deploy ground-based tactical nuclear weapons to South Korea, including 8-inch howitzer guns, 280-mm guns, Honest John surface-to-surface missiles, and Atomic Demolition Munition nuclear land-mines. These tactical nuclear weapons were the centerpiece of a strategy which called for closing off avenues of attack from

the North in order to buy time for the United States to transport reinforcements to the theater. Alongside the introduction of these tactical nuclear weapons, the United States sought a significant reduction in both its direct military aid to South Korea and its own forward conventional presence deployment. However, the political and strategic leverage enjoyed by South Korea prevented Washington from securing a more significant troop drawdown and the United States would continue to forward deploy several tens of thousands of troops along with its new nuclear bombs.

This nuclear barrier strategy endured for three decades as the United States continued to station several tens of thousands of forces and tactical nuclear weapons in South Korea. Then, at the end of the Cold War, the strategy reverted from nuclear barrier to conventional barrier. The collapse of the Soviet Union, warmer U.S.-China relations, and a weakening North Korea all contributed to a more permissive security environment. U.S. intelligence assessments increasingly perceived a less threatening conventional military balance along the Demilitarized Zone and justified the removal of the forward deployed nuclear weapons. Motivated by both shifts in the local conventional military balance and by broader geostrategic goals, President George H. W. Bush removed the forward deployed nuclear weapons from South Korea, though the United States would continue to station tens of thousands of troops on Korean soil to act as both a deterrent and a defensive force. This conventional barrier strategy remains in place today, though ongoing trends may prompt yet another strategy shift in the future. These three phases of the U.S. experience in South Korea are illustrated below in figure 2-1.

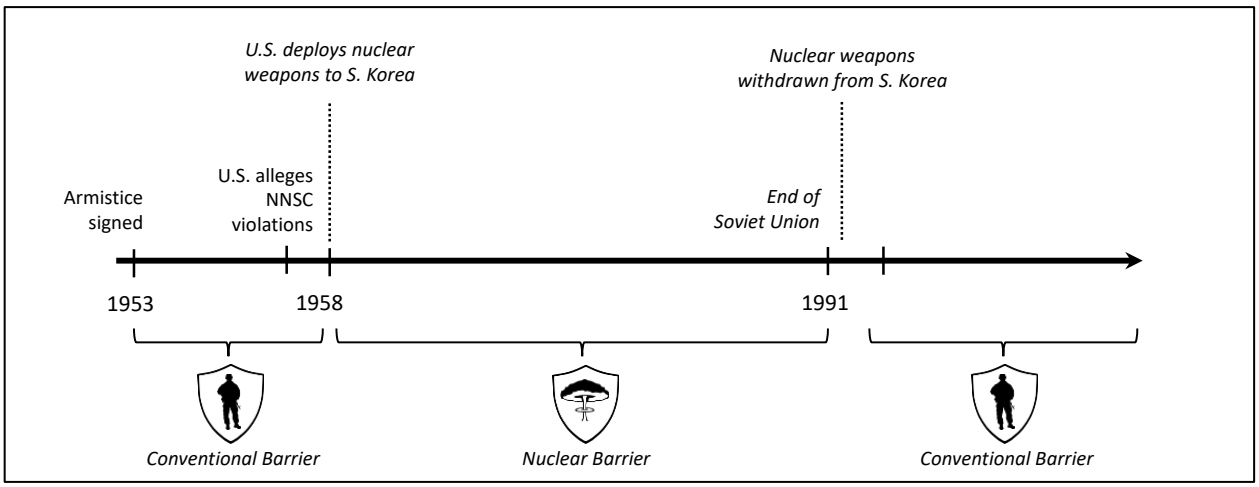

Figure 2-1: U.S. Extended Deterrence Strategies in South Korea, 1953-today

Extended Deterrence Selection Theory persuasively accounts for these shifts in the U.S. extended deterrence strategy provided to South Korea. The features of the U.S. presence in South Korea changed in conjunction with shifts in the variables identified by the theory. More significantly, multi-archival evidence and the secondary literature demonstrate that decision-makers couched their choices with reference to the very variables identified by the theory.

Here I review each of the three main eras of U.S. extended deterrence commitments: the initial conventional barrier provided immediately after the end of fighting in the Korean War, the nuclear barrier strategy which endured from the end of the 1950s until the end of the 1980s, and the second conventional barrier strategy which emerged at the end of the Cold War. For each strategy, I provide a summary of the core features, identifying where they do or do not match those presented in my typology of extended deterrence strategies introduced in the theory chapter. Then I proceed to evaluate how well the variables identified by my theory explain the shifts

within each strategy. I conclude the chapter by evaluating the performance of my theory alongside that of several competing explanations. In the end, I conclude that Extended Deterrence Selection Theory outperforms its competitors.

The Early Conventional Barrier Strategy, 1953-1958

Following the end of fighting in 1953, the United States shifted its presence in South Korea from one focused on fighting to one aimed at deterring. The United States and South Korea followed the Armistice agreement with the signing of a mutual defense treaty which provided an ambiguous and implicitly unconditional guarantee that the United States would come to the aid of South Korea in the event of a conflict. The shift from warfighting to deterrence also saw a significant reduction in the U.S. military presence in South Korea, with the removal of a quarter-million U.S. troops. However, several tens of thousands of U.S. soldiers would remain stationed in the country for the next seven decades. Given the nature of the perceived security threat from North Korea and the Communist bloc, these conventional forces were seen as both necessary and sufficient for deterring and defending on the Peninsula.

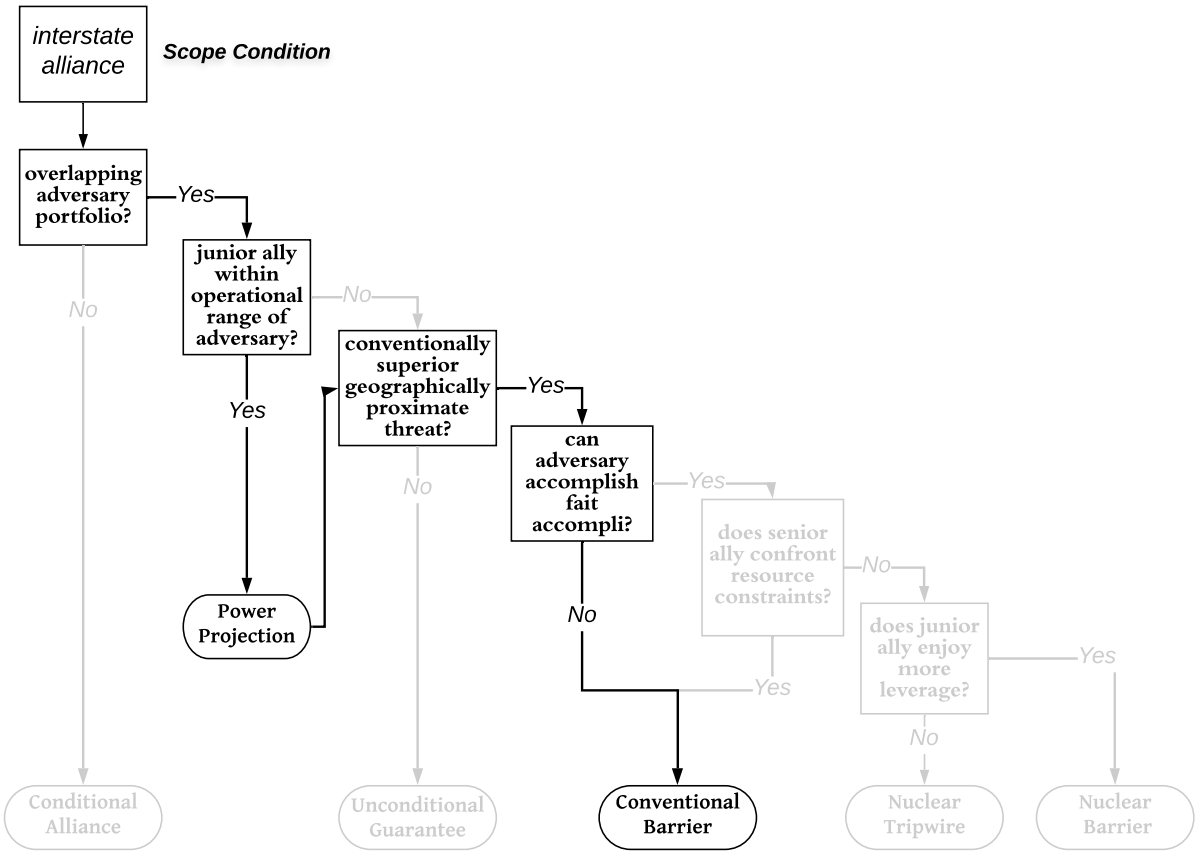

Figure 2-2: U.S. Extended Deterrence Strategy in South Korea, 1953-1958

Treaty Commitment: Open-Ended and Unconditional

Following the signing of the 1953 Armistice agreement which ended fighting in the Korean War, the United States and South Korea signed a mutual defense treaty. Unlike many other security treaties throughout history, this one did not impose explicit conditions on that mutual defense.[94] The mutual defense treaty

[94] Mira Rapp-Hooper, *Absolute Alliances: Extended Deterrence in International Politics*, Ph.D. dissertation, (New York, N.Y.: Columbia University, 2015). The treaty did impose restrictions aimed at reducing South Korean adventurism which might pull the United States into an undesired conflict. However, these conditions do not apply to the circumstances under which the United States would provide military assistance in the event of a North Korean-initiated conflict. I thank Mike Bosack for highlighting this.

between the United States and South Korea is widely interpreted as conferring a broad, unconditional security guarantee from Washington to Seoul.[95] It specifies that "Each Party recognizes that an armed attack in the Pacific area on either of the Parties … would be dangerous to its own peace and safety and declares that it would act to meet the common danger" and also provided for the stationing of U.S. military forces on South Korean territory.[96] The treaty, which was explicitly in force indefinitely, also committed the parties to consult with one another whenever "the political independence or security of either of the Parties is threatened by external armed attack" and to "maintain and develop appropriate means to deter armed attack."[97]

Some scholars have argued that the treaty's provision to act "in accordance with its constitutional processes" suggests a kind of scope condition on the provision

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[95] See, for example, see Mira Rapp-Hooper, *Absolute Alliances: Extended Deterrence in International Politics*, Ph.D. dissertation, (New York, N.Y.: Columbia University, 2015), p. 9; Brett Ashley Leeds, Jeffrey Ritter, Sara Mitchell, and Andrew Long, "Alliance Treaty Obligations and Provisions, 1815-1944," *International Interactions*, Vol. 28, No. 3 (2002), pp. 237-60; and Brett V. Benson, *Constructing International Security Alliances, Deterrence, and Moral Hazard* (Cambridge, U.K.: Cambridge University Press, 2012), chapter 7. Leeds et al., in the Alliance Treaty Obligations and Provisions (ATOP) Database, identify the treaty as containing only a condition on the location of the conflict: "Each Party recognizes that an armed attack in the Pacific area on either of the Parties in territories now under their respective administrative control, or hereafter recognized by one of the Parties as lawfully brought under the administrative control of the other" (Article III). However, ATOP codings identify no conditions relating to the type of adversary, type of conflict, number of adversaries, type of ally or adversary demands, or the junior ally not provoking the adversary. In this respect, it is identical to the coding of the NATO alliance. Similarly, Benson identifies the U.S.-South Korea alliance as "probabilistic," one which while providing some "wiggle room" for the senior ally, does not impose any explicit conditions on their provision of security assistance to the junior ally.

[96] Mutual Defense Treaty Between the United States and the Republic of Korea, 1 October 1953, Avalon Project, Yale Law School, https://avalon.law.yale.edu/20th_century/kor001.asp.

[97] Mutual Defense Treaty Between the United States and the Republic of Korea, 1 October 1953, Avalon Project, Yale Law School, https://avalon.law.yale.edu/20th_century/kor001.asp.

of U.S. military aid to South Korea in the event of a crisis or conflict.[98] However, such provisions are common to all U.S. treaty obligations and does not imply any conditionality to the American commitment.[99] This interpretation is supported by the U.S. government's own documents. For example, Senate Foreign Relations Committee report on U.S. treaty obligations observes that:

> No mutual security treaty to which the United States currently is a party authorizes the President to introduce the armed forces into hostilities or requires the United States to do so, automatically, if another party to any such treaty is attacked. Each of the treaties provides that it will be carried out by the United States in accordance with its "constitutional process" or contains other languages to make clear that the United States' commitment is a qualified one—that the distribution of power within the United States Government is precisely what it would have been in the absence of the treaty, and that the United States reserves the right to determine for itself what military action, if any, is appropriate.[100]

As one expert on the U.S.-South Korea alliance has noted, "this wording [about constitutional procedures] was not an indication of a weak commitment … but an accommodation to the US Constitution."[101]

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[98] For example, Tongfi Kim, "Why Alliances Entangle but Seldom Entrap States," *Security Studies*, Vol. 20, No. 3 (2011), pp. 350-377, pp. 361-362. For the relevant treaty language, see Mutual Defense Treaty Between the United States and the Republic of Korea, 1 October 1953, Avalon Project, Yale Law School, https://avalon.law.yale.edu/20th_century/kor001.asp.

[99] A similar provision is even contained within Article 11 of the North Atlantic Treaty: "This Treaty shall be ratified and its provisions carried out by the Parties in accordance with their respective constitutional processes." See The North Atlantic Treaty, 4 April 1949, North Atlantic Treaty Organization, https://www.nato.int/cps/en/natolive/official_texts_17120.htm.

[100] Senate Report No. 7, 96th Congress, 1st Session, 31, (1979), Taiwan Enabling Act. See also interpretation in Michael J. Glennon, *Constitutional Diplomacy* (Princeton, N.J.: Princeton University Press, 1991), pp. 209-214 and 216-217; and Mira Rapp-Hooper, *Absolute Alliances: Extended Deterrence in International Politics*, Ph.D. dissertation, (New York, N.Y.: Columbia University, 2015), pp. 27-32.

[101] Uk Heo and Terence Roehrig, *The Evolution of the South Korea–United States Alliance*, (Cambridge University Press, 2018), p. 67.

As predicted by the first node in the decision tree, the United States felt comfortable providing this kind of ambiguous open-ended commitment to South Korea because of the strong overlap in the two states' threat perceptions. The United States' security goals in South Korea consisted of deterring and defending against a potential Communist attack and preventing South Korea from initiating a conflict.

It's true that South Korean President Syngman Rhee was unflaggingly skeptical of Japan's ambitions in the region and of the United States' willingness to check them.[102] Twentieth century Japanese imperialism had thrown the region into an era of colonialism and war which many residents of the Korean Peninsula could remember all too vividly.[103] Japan had annexed Korea in 1910, at which time as many as 170,000 Japanese settlers had already migrated to the Peninsula, making it the largest Japanese community outside of Japan.[104] The Japanese colonial government transformed social and economic life, seizing agricultural land, mandating that Korean people adopt Japanese names, and abolishing the Korean caste system.[105]

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[102] See, for example, "The President of the Republic of Korea (Rhee) to President Eisenhower," 29 December 1954, *Foreign Relations of the United States,* 1952–1954, Korea, Volume XV, Part 2, pp. 1937-1941.

[103] For more on the sources of Japanese imperialism, see Jack L. Snyder, *Myths of Empire: Domestic Politics and International Ambition* (Ithaca, N.Y.: Cornell University Press, 1991), chapter 4; and Michael A. Barnhart, *Japan Prepares for Total War: The Search for Economic Security, 1919–1941* (Ithaca, N.Y.: Cornell University Press, 1987), chapter 1.

[104] Jun Uchida, *Brokers of Empire: Japanese Settler Colonialism in Korea, 1876–1945* (Cambridge, MA: Harvard East Asian Monographs, 2011), p. 9. Also see Peter Duus, The Abacus and the Sword: The Japanese Penetration of Korea, 1895-1910 (Berkeley, CA: University of California Press, 1995), chapter 9.

[105] For more on Japan's interventions into and colonizing of Korea, see W.G. Beasley, *Japanese Imperialism: 1894-1945* (Oxford, U.K.: Oxford University Press, 1987), chapters 4 and 10.

The historical enmity engendered by the colonial period became a persistent obstacle to improved relations between Tokyo and Seoul.[106]

Rhee himself embodied this animus. In 1941, mere months before the Japanese attack on Pearl Harbor, Rhee published *Japan: Inside Out: The Challenge of Today*, a book-length warning to the United States about the looming threat of Japanese totalitarianism.[107] In 1954, Rhee wrote acidly to American President Dwight D. Eisenhower that "We are caught, of course, between our fear of Japan on one side, and of the Communists on the other. Japan has nothing whatsoever to offer the peoples of Asia, either substantively or psychologically."[108] Secretary of State John Dulles once commented in a letter to Eisenhower that "[Rhee's] will is still powerful and he has three obsessions: (1) To continue in power; (2) To unite all of Korea under his leadership; (3) *To give vent to his life-long hatred of the Japanese*" [italics added].[109] In addition to Korea's suspicion of Japanese intentions, there were perhaps also reasons from recent history to doubt the American commitment to restrain Tokyo. For example, in a letter to a German diplomat, American President Theodore

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[106] For a review of works highlighting the historical and social challenges in the Japan-South Korea bilateral relationship, see Victor D. Cha, "Abandonment, Entrapment, and Neoclassical Realism in Asia: The United States, Japan, and Korea," *International Studies Quarterly*, Vol. 44, No. 2 (June 2000), pp. 262-263.
[107] Syngman Rhee, *Japan Inside Out: The Challenge of Today* (New York, N.Y.: Fleming H. Revell Company, 1941).
[108] "The President of the Republic of Korea (Rhee) to President Eisenhower," 29 December 1954, *Foreign Relations of the United States,* 1952–1954, Korea, Volume XV, Part 2, p. 1939.
[109] "Memorandum by John Foster Dulles to Dwight D. Eisenhower," 26 November 1952, *Foreign Relations of the United States*, 1952-1954, Volume XV, Part 1, p. 693.

Roosevelt wrote that "I should like to see Japan have Korea. She will be a check upon Russia, and she deserves it for what she has done."[110]

However, despite Korea's troubled history with Japan, the United States did not share these concerns. The United States occupied Japan until mid-1952 and thereafter continued to exercise significant influence on Japan's foreign and security policies.[111] Despite the antagonisms between Korea and Japan, the United States at times broached the possibility of more formal security arrangements between all three countries. In fact, just before leaving for a visit to Tokyo, Secretary of State John Dulles told journalists that he was exploring the possibility of "mutual security pact covering Japan, Korea and Nationalist China."[112]

Indeed, although many Japanese politicians were similarly distrustful of South Korea and of Rhee in particular,[113] they viewed Japan's security as inextricably tied to conditions on the Peninsula, even prior to the outbreak of the Korean War.[114] Prime Minister Shigeru Yoshida and Finance Minister Hayato Ikeda "anguished at rumors that Washington considered 'writing off' such areas as Taiwan, South Korea,

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[110] Theodore Roosevelt, "Theodore Roosevelt to Hermann Speck Von Sternberg," in Elting E. Morrison, John M. Blum, and John J. Buckley (Eds.), *The Letters of Theodore Roosevelt*, Volume II (Cambridge, MA: Harvard University Press, 1951), p. 1394.

[111] For more on the U.S. influence in the region, see Michael J. Green, *By More Than Providence: Grand Strategy and American Power in the Asia Pacific Since 1783* (New York, N.Y.: Columbia University Press, 2017).

[112] Michael Schaller, *Altered States: The United States and Japan since the Occupation* (Oxford, U.K.: Oxford University Press, 1997), p. 67.

[113] Schaller writes that "Yoshida, like many Japanese officials of his generation, disliked Koreans in general and despised South Korean president Syngman Rhee." Michael Schaller, *Altered States: The United States and Japan since the Occupation* (Oxford, U.K.: Oxford University Press, 1997), pp. 66-67.

[114] For more on the triangular relationship between Japan, South Korea, and the United States, particularly at this time, see Victor D. Cha, "Abandonment, Entrapment, and Neoclassical Realism in Asia: The United States, Japan, and Korea," *International Studies Quarterly*, Vol. 44, No. 2 (June 2000), pp. 261-291.

and Indochina. All, they argued, must be defended as Japan's outlying security zone."[115] Later, when Ikeda served as Prime Minister in 1950, he expressed concerns to American diplomats that South Korea "is not strong and could, perhaps, be easily abandoned."[116] These views tying Japan's security to that of South Korea were frequently reiterated by senior American officials.[117] Writing from Tokyo prior to the outbreak of the Korean War, Dulles, who then served as a consultant to the Secretary of State, argued that when it came to assuring Japan, "Also relevant is U.S. policy in relation to South Korea and Formosa and the impression given Japanese and Russians as to our will to stand fast in these environs of Japan."[118] These views about the importance of South Korea to Japan's security persisted throughout and following the Korean War. At the conflict's outset, Dulles made the connections explicit, saying ""communist offensive in Korea was probably aimed at getting control over Japan, for had Korea been conquered Japan would have fallen without an open struggle."[119] Japan permitted the American forces to use Japanese bases for military operations in the War and Japanese troops even helped clear mines around Korean harbors and

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[115] Michael Schaller, *Altered States: The United States and Japan since the Occupation* (Oxford, U.K.: Oxford University Press, 1997), p. 27.
[116] "The Special Assistant to the Under Secretary of the Army (Reid) to the Assistant Secretary of State (Butterworth)," 10 May 1950, *Foreign Relations of the United States*, 1950, East Asia and the Pacific (Washington, D.C.: Government Printing Office, 1976), p. 1196.
[117] "Memorandum by Mr. John Foster Dulles, Consultant to the Secretary of State," 18 May 1950, *Foreign Relations of the United States*, 1950, National Security Affairs; Economic Foreign Policy, Volume I (Washington, D.C.: Government Printing Office, 1977), pp. 315-316; and "The Special Assistant to the Under Secretary of the Army (Reid) to the Assistant Secretary of State (Butterworth)," 10 May 1950, *Foreign Relations of the United States*, 1950, East Asia and the Pacific (Washington, D.C.: Government Printing Office, 1976), pp. 1196-1197.
[118] "Memorandum by the Consultant to the Secretary (Dulles)," 15 June 1950, *Foreign Relations of the United States*, 1950, East Asia and the Pacific (Washington, D.C.: Government Printing Office, 1976), pp. 1222-1223.
[119] Michael Schaller, *Altered States: The United States and Japan since the Occupation* (Oxford, U.K.: Oxford University Press, 1997), p. 31.

United Nations Command employed Japanese experts in shipping and railroad infrastructure.[120] The theory predicts that senior allies should be reluctant to provide unconditional security guarantees when they believe there is a real risk of entrapment in a conflict involving a non-adversary. However, despite the intensity of Rhee's suspicions toward Tokyo, those views were not shared in Tokyo or, most significantly, Washington. In other words, the United States had little concern of being dragged into a conflict between South Korea and Japan.

Forward Deployments: Substantial Conventional Presence

Following the 1953 ceasefire, the United States continued to maintain a significant conventional military presence in South Korea. The Armistice and the pause in fighting led the United States to draw down its forces from a high of several hundred thousand down to tens of thousands. Army ground forces constituted the vast majority of these forward deployed troops, with the Air Force making up most of the remainder. Beginning in1953, the United States' presence in South Korea exemplified the conventional barrier strategy, with at least 40,000 forward deployed conventional troops but no forward deployed tactical nuclear weapons.

These troops served both political and military purposes. Their placement near the Demilitarized Zone ensured that any offensive actions from North Korea would implicate the United States and likely trigger a greater American involvement.

[120] Michael Schaller, *Altered States: The United States and Japan since the Occupation* (Oxford, U.K.: Oxford University Press, 1997), pp. 40 and 46.

However, they also were meant to blunt a North Korean offensive. Indeed, as a National Intelligence Estimate from the time noted, "Because of the greatly superior strength of available Communist forces in northeast Asia, the ROK's ultimate security will continue to rest on its Mutual Defense Treaty with the U.S."[121] As two prominent scholars of the Korean Peninsula described the U.S. military presence in South Korea, "Though a tripwire to trigger a larger US response, these units also provided serious combat power in their own right."[122]

These units, particularly Army ground units, were garrisoned along the Demilitarized Zone. Much of the 2nd Infantry Division, which, after the later withdrawal of the 7th Infantry Division in 1971, would become the only Army unit in South Korea armed with tactical nuclear weapons, was stationed at installations such as Camp Casey, Camp Red Cloud, and Camp Stanley, all located within only a few dozen miles of the Demilitarized Zone, acting as a both tripwire and a shield between North Korean forces and Seoul.

These troop withdrawals were forcefully resisted by South Korean President Rhee. According to a 1954 National Security Council briefing on U.S.-South Korean relations, "The next two to three months, because of the pending troop withdrawal program, may be the most critical to date in U.S.-South Korean relations. Rhee is resentful and emotionally disturbed over the failure of his Washington visit. He had hoped to provide him with greatly increased military forces. … He is angry over the

[121] "Probable Developments in the Republic of Korea through Mid-1957," National Intelligence Estimate, 42.1-56, 7 February 1956, p. 9.
[122] Uk Heo and Terence Roehrig, *The Evolution of the South Korea–United States Alliance*, (Cambridge University Press, 2018), p. 71.

withdrawal, which he characterizes as 'abandonment.'"[123] But American planners believed that the remaining conventional forces in the country were both necessary and sufficient for safeguarding South Korean security.

In summary, the United States extended deterrence strategy to South Korea following the 1953 Armistice consisted of a vague, open-ended security guarantee by the United States and a robust conventional forward deployment intended to buy time for additional reinforcements. These features are summarized in table 2-1 below, alongside the typical indicators of a conventional barrier strategy as laid out in the typology presented in the theoretical chapter. Above, I identify the lack of U.S. concerns about entrapment in a conflict with a non-adversary as permitting the extension of an open-ended security guarantee. In the next section, I review how the perceived security environment affected the U.S. choice of strategy.

[123] "Situation in South Korea," National Security Council Briefing, 8 September 1954, p. 1.

Table 2-1: Conventional Barrier Indicators in U.S.-Korea Dyad

Dimension	Conventional Barrier Strategy Indicators	U.S.-Korea Strategy Indicators
Treaty Commitment	Unconditional, Ambiguous	No explicit conditions except geographic; open-ended and ambiguous
Conventional Force	Significant defensive land force; air force geared for close air support; limited naval assets	30,000-50,000 troops; +80% ground forces; USAF geared toward CAS; negligible naval presence
Conventional Posture	Tactically defensive, high readiness	Explicitly defensive; deployed near border; high response time
Nuclear Force	---	No deployments
Nuclear Posture	---	No deployments
Deterrent Purpose	Deter and defend by buying time and raising costs until arrival of reinforcements	"Exploit such successes as may be gained by coordinated ground, air and naval action to destroy enemy forces in Korea. Immediately consider what further military buildup is then required to meet resulting contingencies in Korea or elsewhere"[124]

Threat Assessment: Significant but Manageable

In the years following the signing of the Armistice, the United States confronted an equivalent (if somewhat precarious) conventional military balance on the Korean Peninsula. The 1953 Armistice agreement included provisions intended to maintain the military balance on the Korean Peninsula. Under the agreement, the signatories committed to not introduce any new weapons systems to the Peninsula, save for those intended to directly replace damaged or obsolete equipment.[125] In order

[124] "Memorandum by the Joint Chiefs of Staff to the Secretary of Defense (Wilson)," 27 November 1953, *Foreign Relations of the United States*, *1952–1954*, *Korea*, Volume XV, Part 2, p. 1627; and "Memorandum of Discussion at the 156th Meeting of the National Security Council," 23 July 1953, *Foreign Relations of the United States*, *1952–1954*, *Korea*, Volume XV, Part 2, pp. 1421-1423.
[125] Korean War Armistice Agreement, July 27, 1953; Treaties and Other International Agreements Series #2782; General Records of the United States Government; Record Group 11; National Archives, Article II, A13(d).

to verify that the signatories abided by the provisions prohibiting new weapons systems, the Armistice also established the Neutral Nations Supervisory Commission. This Commission, comprised of representatives from the supposedly more neutral nations of Czechoslovakia, Poland, Sweden, and Switzerland. [126] These representatives were jointly tasked with monitoring military facilities and were charged with issuing reports to the Military Armistice Commission, which were to validate that neither side enjoyed the ability to execute a *fait accompli*.[127]

The work of the Supervisory Commission was supplemented by American intelligence operations which continued to report on the Peninsula's military balance. Immediately following the signing of the Armistice, U.S. military intelligence reported that Chinese Communist forces had begun withdrawing from North Korea, resulting in a gradual reduction of the fighting power north of the DMZ.[128] American officials repeatedly emphasized the goal of maintaining a military balance on the Peninsula as a central tenet of the Armistice and a strategic goal of American policy there.[129] As American representatives noted at a session of the Armistice Commission,

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[126] For an earlier U.S. government report on the organization and activities of the Neutral Nations Supervisory Commission, see *The Neutral Nations Supervisory Commission in Korea*, United States Arms Control and Disarmament Agency, 21 August 1970, ACDA/WEC/FO 69-65.
[127] Korean War Armistice Agreement, July 27, 1953; Treaties and Other International Agreements Series #2782; General Records of the United States Government; Record Group 11; National Archives, Article II, Section C, especially paragraphs 41 and 42.
[128] "Korean Order of Battle," NSC Briefing, 17 June 1954, pp. 1-2. However, the complete withdrawal of Chinese forces from North Korea would not occur until 1958.
[129] Central File: Decimal File 795.00, Internal Political and National Defense Affairs., Korea, Political Affairs and Conditions. Elections. Political Parties and Groups. Political Refugees. Defectors. Amnesty. Revolutions, Riots, Disturbances. Civil War., April 14, 1956 - August 2, 1956. April 14, 1956 - August 2, 1956. MS Korea: Records of the U.S. Department of State, 1930-1963: Records of the Department of State Relating to the Internal Affairs of Korea, 1955-1959. National Archives (United States). *Archives Unbound*, https://link.gale.com/apps/doc/SC5112404475/GDSC?u=prin77918&sid=GDSC&xid=5bd41785.

"A concept basic to the establishment and maintenance of the Armistice in Korea was that the balance which existed between the military forces in Korea on July 27, 1953, would not be altered thereafter by the opposing commanders through the introduction of reinforcing military personnel or combat materiel."[130]

However, although the troop reductions in North Korea reduced the threat of a surprise North Korean invasion, American officials still believed forward deployments were necessary to deter and defeat conflict against South Korea. U.S. intelligence still reported a substantial number of Chinese and North Korean army units deployed near the Demilitarized Zone and that "North Korean armed forces in concert with the Chinese Communist forces now in Korea are capable of launching a limited offensive with little warning. The Chinese Communists will continue to have the unopposed capability to reinforce units in contact along the demarcation line with a maximum of six armies in from 10 to 14 days after the initiation of movement from present assembly areas."[131] Against the continued military threat in the North, both the Secretary of Defense and the Joint Chiefs of Staff argued "that the security of the Republic of Korea depends on the deterrent effect of the military posture of the United States and on the immediate employment of U.S. forces in support of ROK forces in

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[130] "Sixtieth Meeting of the Military Armistice Commission," 5 July 1955, p. 1 in Central File: Decimal File 795.00, Internal Political and National Defense Affairs., Korea, Political Affairs and Conditions. Elections. Political Parties and Groups. Political Refugees. Defectors. Amnesty. Revolutions, Riots, Disturbances. Civil War., May 6, 1955 - January 13, 1956. May 6, 1955 - January 13, 1956. MS Korea: Records of the U.S. Department of State, 1930-1963: Records of the Department of State Relating to the Internal Affairs of Korea, 1955-1959. National Archives (United States). *Archives Unbound*, https://link.gale.com/apps/doc/SC5112410839/GDSC?u=prin77918&sid=GDSC&xid=5b7890a6.

[131] "Probable Developments in North Korea over the Next Few Years," National Intelligence Estimate, 42.2-56, 3 July 1956, p. 10-12.

the event of Communist aggression in Korea."[132] U.S. intelligence assessments directly tied the U.S. military presence in South Korea to the deterrence of Communist aggression, with one post-Armistice National Intelligence Estimate reporting that "We believe [the Communists] will not resort to force … at least so long as the U.S. remains committed to the defense of the ROK."[133]

In arguing for continued forward deployments, American officials frequently referenced the relative inferiority of the South Korean military. U.S. leaders were already concerned about the costs of overseas deployments and often entertained plans to withdraw U.S. troops from the Peninsula as a cost-saving measure.[134] However, the desire to redeploy troops from South Korea was limited by perceived gaps in South Korean effectiveness.[135] In these early years, the United States encouraged the buildup of South Korean conventional military capabilities in the hopes that a more capable South Korean military would permit the removal of American troops.[136] In the near-term, however, South Korean weakness demanded a continued U.S. presence.

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[132] "Memorandum by the Secretary of Defense (Wilson) to the Executive Secretary of the National Security Council (Lay)," 2 April 1954, *Foreign Relations of the United States*, *1952–1954*, *Korea*, Volume XV, Part 2, pp. 1779-1781.
[133] "Probable Developments in North Korea over the Next Few Years," National Intelligence Estimate, 42.2-56, 3 July 1956, p. 1.
[134] "The Chief of the Mission to the Far East (Van Fleet) to the Secretary of Defense (Wilson)," 3 July 1954, *Foreign Relations of the United States*, *1952–1954*, *Korea*, Volume XV, Part 2, pp. 1819-1821.
[135] "Memorandum by the Joint Chiefs of Staff to the Secretary of Defense (Wilson)," 17 November 1953, *Foreign Relations of the United States*, *1952–1954*, *Korea*, Volume XV, Part 2, pp. 1611-1612.
[136] See, for example, "Memorandum by the Secretary of Defense (Wilson) to the Executive Secretary of the National Security Council (Lay)," 2 April 1954, *Foreign Relations of the United States*, *1952–1954*, *Korea*, Volume XV, Part 2, p. 1778; and "Report by the National Security Council Planning Board to the National Security Council," 17 July 1953, *Foreign Relations of the United States*, *1952–1954*, *Korea*, Volume XV, Part 2, pp. 1384-1387.

Military planning explicitly recognized the tripwire and time-buying role of these forces. The Joint Chiefs of Staff recognized the deterrent benefits of tripwire but also some of its strategic downsides, noting that "In the event of a renewal of hostilities in Korea, the two divisions in that country might become involved to the extent that they could not be disengaged and withdrawn."[137] Documents from the Joint Chiefs of Staff about deployments in South Korea explicitly mentioned the ability to quickly reinforce those troops with additional forces stationed in Okinawa and Japan in case of the outbreak of hostilities.[138] Indeed, the strategy of using the United States' immediate presence to deter and buy time for subsequent reinforcements was outlined in discussions by members of the Joint Chiefs of Staff and the National Security Council.[139] The need for some forward presence was recognized as particularly acute given that "[I]f the Communists suddenly initiated a renewal of hostilities [t]here would be no time for an advance build-up, and the U.S. and UN forces would be compelled to strike back immediately with whatever forces they had available."[140]

Throughout this time, the U.S. Navy and Air Force presence in South Korea was minor by comparison to that of the Army and maritime and air units were clearly

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[137] "Deployments and Strength of US/UN Forces in the Far East," Joint Chiefs of Staff Memorandum for the Secretary of Defense, 6 May 1955, p. 2.
[138] "Deployments and Strength of US/UN Forces in the Far East," Joint Chiefs of Staff Memorandum for the Secretary of Defense, 6 May 1955, pp. 3-4.
[139] "Memorandum by the Joint Chiefs of Staff to the Secretary of Defense (Wilson)," 27 November 1953, *Foreign Relations of the United States*, *1952–1954*, *Korea*, Volume XV, Part 2, p. 1627; and "Memorandum of Discussion at the 156th Meeting of the National Security Council," 23 July 1953, *Foreign Relations of the United States*, *1952–1954*, *Korea*, Volume XV, Part 2, pp. 1421-1423.
[140] "Memorandum of Discussion at the 173d Meeting of the National Security Council," 3 December 1953, *Foreign Relations of the United States*, *1952–1954*, *Korea*, Volume XV, Part 2, p. 1637.

oriented toward supporting the ground defense mission. From shortly after the signing of the Armistice, the United States had only one permanently assigned tactical fighter wing in South Korea until that unit was deactivated in 1958.[141] For the next decade, until the late 1960s, the U.S. Air Force presence in South Korea was described as "dormant." Even after the Air Force regained a permanent presence in South Korea in 1968, its units were geared primarily toward supporting the Army in its defensive and deterrent missions.[142] The U.S. Navy permanent presence in the country was nearly non-existent with forward deployed Navy personnel never reaching 700 sailors in two consecutive years.[143]

Summary: The Sources of the U.S. Conventional Barrier Strategy

The United States' extended deterrence strategy provided to South Korea exemplified the features of the conventional barrier. Not only did the aspects of the strategy match the indicators provided by the typology, but the evidence shows that those aspects emerged for precisely the reasons predicted by Extended Deterrence Selection Theory. Despite the animosity displayed by President Rhee, the United

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[141] See, for example, "Kunsan Air Base Factsheet," *Kunsan Air Base*, 3 April 2017, https://www.kunsan.af.mil/About-Us/Fact-Sheets/Article/412721/kunsan-air-base/; "Osan Air Base history," *Osan Air Base*, 9 April 2007, https://www.osan.af.mil/About-Us/Fact-Sheets/Display/Article/404707/osan-air-base-history/; and Charles A. Ravenstein, *Air Force Combat Wings: Lineage and Honors Histories, 1947-1977* (Washington, D.C.: Office of Air Force History, 1984).

[142] Throughout the Cold War, the only U.S. Air Force units stationed in South Korea for at least four years were the 8th Fighter-Bomber Wing, the 18th Fighter-Bomber Wing, and the 51st Fighter Wing, all of which operated aircraft such as the F-100, the F-4, and the F-16. As a U.S. Air Force publication notes, "The main Air Force platforms for CAS were jets, the F-100 and F-4" and that, as the Air Force evaluated options for CAS aircraft in the 1990s, "a variant of the F-16 fighter was the best choice." See John T. Correll, "The Ups and Downs of Close Air Support," *Air Force Magazine*, 1 December 2019.

[143] "Worldwide Manpower Distribution by Geographical Area (M05)," *U.S. Department of Defense, Defense Manpower Data Center*, https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp. From 1954 to 2005, the U.S. Navy averaged just over 400 sailors per year in South Korea.

States did not believe that a conflict between its two junior allies was likely and felt comfortable providing an unconditional security guarantee to its junior ally. Washington and Seoul still perceived a significant threat from the North Korean and Chinese forces stationed north of the Demilitarized Zone, prompting the forward deployment of American forces. But although the Communist threat was seen as significant enough to merit forward deployments, American decisionmakers did not perceive it as significant enough to warrant forward deployed nuclear weapons.

This decision to forego forward nuclear deployments in South Korea was not due to a lack of technical ability or political will. Indeed, within just over a year of the signing of the Armistice, the United States was deploying nuclear weapons in Okinawa, West Germany, the United Kingdom, and Morocco. By early 1954, the United States Army had fielded units equipped with nuclear-armed Honest John missiles, Corporal missiles, and atomic demolition munitions, including preparing some for deployment in West Germany.[144] Rather, due to its perceptions of the conventional military balance on the Peninsula, the United States believed that it was possible to deter and defeat aggression against its South Korean ally with only conventional forces. American leaders were confident enough that the military balance permitted a conventional-only presence aimed at deterring and forestalling a North Korean *fait accompli*, providing sufficient time for follow on reinforcements. This situation would not survive the decade, however as, by the end of the 1950s, the

[144] Matthew Fuhrmann and Todd S. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science*, Vol. 58, No. 4 (October 2014), pp. 919-935; and Matthew, D. Bird, "Nuclear History Note: U.S. Atomic Demolition Munitions, 1954-1989," *The RUSI Journal*, Vol. 153, No. 2 (2008), pp. 64-68.

United States would begin to deploy ground-based tactical nuclear weapons to the country in order to offset the perceived conventional superiority of the Communists. Despite these new deployments, the United States would continue to maintain a significant conventional presence in the country and adhere to its open-ended treaty commitments to South Korea.

The Move to Nuclear Barrier, 1958-1991

In the mid- to late-1950s, two pressures drove the shift from a conventional barrier to a nuclear barrier strategy. First, the United States became increasingly concerned that the North Korean rearmament program, in violation of the armistice agreement, had significantly tilted the local conventional balance in its favor. American concerns particularly focused on the possibility of a North Korean *fait accompli* given both South Korea's conventional inferiority and its unfavorable strategic geography. American and South Korean officials increasingly pushed for the introduction of ground-based tactical weapons to offset the perceived Communist advantages and prevent a run on Seoul.

Second, although U.S. officials were progressively more anxious about reducing the financial and material costs of overseas military deployments, including those on the Korean Peninsula, the South Korean government successfully negotiated for a more robust U.S. conventional presence on its territory. At the time, the United States was attempting to reduce its conventional military presence abroad and instead rely more on nuclear weapons for accomplishing its military goals abroad as

part of Eisenhower's New Look strategy.[145] The United States increasingly saw South Korea as central to its broader geopolitical ties, viewing its junior ally as a bellwether for U.S. commitments elsewhere. South Korean President Syngman Rhee played upon these American anxieties and leveraged his own negotiating skills to ensure that the introduction of ground-based tactical nuclear weapons into South Korea did not coincide with a reduction in South Korean and American conventional forces.

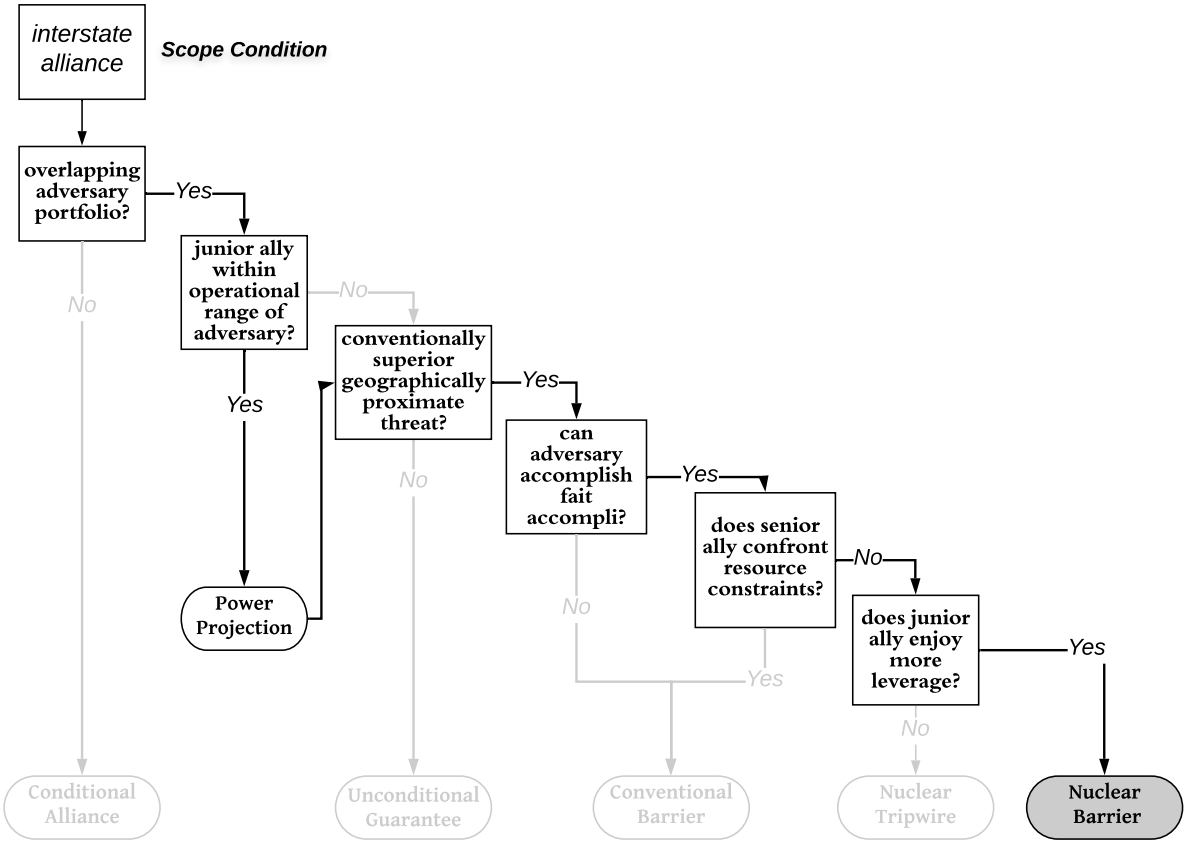

Figure 2-3: U.S. Extended Deterrence Strategy in South Korea, 1958-1991

[145] John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy During the Cold War* (Oxford, U.K.: Oxford University Press, 2005), chapter 5.

Treaty Commitment: Open-Ended and Unconditional

The alliance commitment provided by the United States to South Korea remained unchanged throughout this time period. The mutual defense treaty between the two countries remained in effect and unchanged. There were ongoing concerns about the Rhee government initiating hostilities against the North or continuing a cantankerous relationship with Japan but, for the most part, the U.S. security interests in Korea remained focused on deterring and defending against an attack from the North and there were few concerns of the United States being dragged into a conflict between Korea and Japan, or any other state not seen as an adversary in Washington. Although the United States and South Korea have at times altered the details of their bilateral security cooperation, the fundamental treaty obligations taken by the United States have not changed.

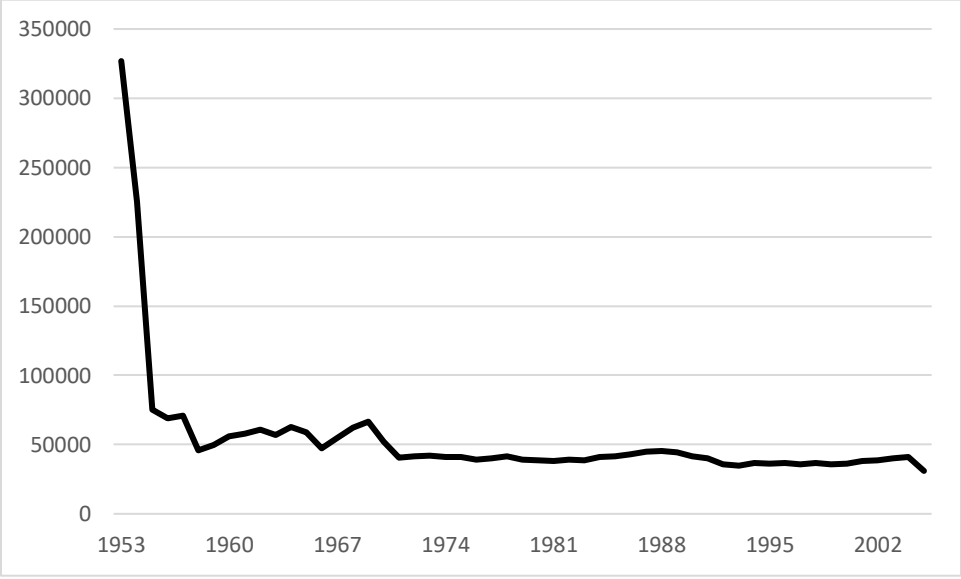

Figure 2-4: U.S. Military Personnel in South Korea, 1953-2005

Forward Deployments: Substantial Conventional Presence and Ground-Based Tactical Nukes

The composition and orientation of U.S. conventional deployments to South Korea also exhibited significant continuity during this period. Despite slight fluctuations and occasional reductions in the total size of the U.S. forward deployments, they remained largely composed of ground troops, exemplifying the characteristics of the nuclear barrier strategy. As illustrated in figure 2-5 below, from the end of fighting in the Korean War, the United States never deployed fewer than 30,000 Army personnel to the country. Further, these ground troops always comprised the vast majority of U.S. soldiers in the country, constituting an average of 80 percent of U.S. troops deployed in the country from 1950 to 2005. These forces remained positioned very near the anticipated area of conflict along the Demilitarized Zone.

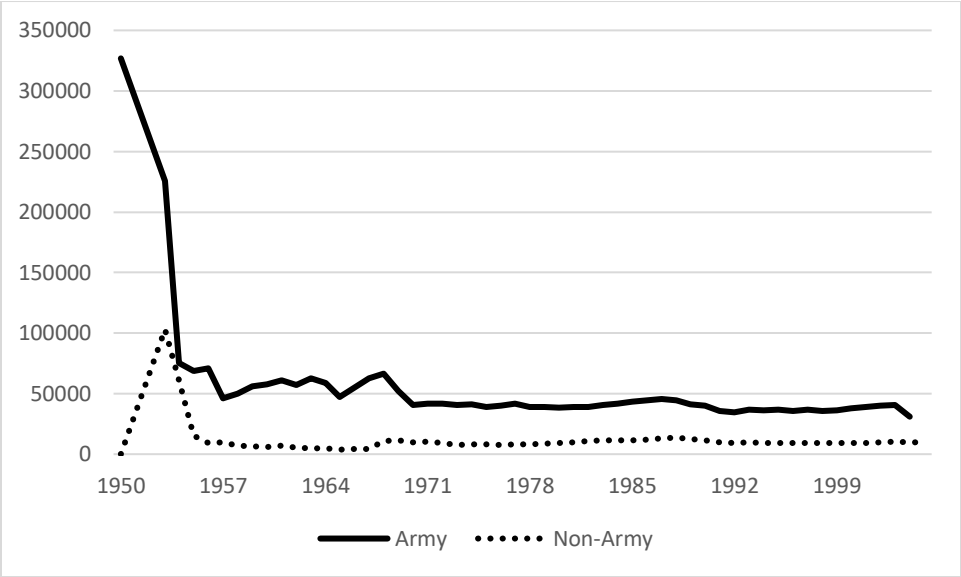

Figure 2-5: U.S. Army and Non-Army Personnel in South Korea, 1953-2005

Despite the continuity seen in the U.S. defense commitment to South Korea and its forward conventional deployments, one significant change in 1958 marked the shift from a conventional barrier to a nuclear barrier strategy: the introduction of ground-based tactical nuclear weapons. After a series of debates and discussions both within the U.S. government and between American and South Korean officials, the United States began equipping U.S. Army units with tactical nuclear systems in early 1958. The first nuclear deployments in January 1958 consisted of 8-inch howitzer guns, 280-mm guns, Honest John surface-to-surface missiles, and Atomic Demolition Munition nuclear land-mines.[146] U.S. Air Force units would later be provided tactical air-dropped bombs for delivery by fighter and bomber squadrons. But, except for these few air-based tactical systems, the tactical nuclear weapons stationed by the United States in South Korea consisted exclusively of ground-based tactical weapons. Older systems would periodically be replaced with newer ones and the United States would eventually also station 155-mm nuclear-capable howitzers; Sergeant, Davy Crockett, and Lacrosse short-range surface-to-surface nuclear-armed missiles, and nuclear-capable Nike Hercules surface-to-air missile systems.

The technical characteristics of these systems limited their utility to the battlefield. The longest-range ground-based nuclear system ever deployed in South Korea, the Sergeant short-range ballistic missile had an operational range of only 140

[146] Deployment dates based on the chronology available at "History of the Custody and Deployment of Nuclear Weapons (U): July 1945 through September 1977," Top Secret, Office of the Assistant Secretary of Defense (Atomic Energy), February 1978, Appendix B. Based on information provided in the chronology and implied alphabetization of the locations of deployments, it is possible to identify the final redacted location on page B-4 as South Korea.

kilometers.[147] Other missile systems, such as the Honest John and Lacrosse systems and the nuclear-capable artilleries, could fire only a few dozen kilometers, while the Davy Crockett's maximum range was so short it was measured in yards.[148] These systems were largely armed with warheads measured in the few dozen kilotons or, in the case of the Davy Crockett, even lower than a single kiloton.[149] Atomic demolition munitions were exclusively defensive and intended to be pre-positioned in ways that would halt or slow the enemy's advance.[150] According to a 1984 atomic demolition munitions field manual, "[D]esigned to be detonated on or below the ground surface or underwater as a demolition munition against material-type targets to block, deny, and/or canalize the enemy. ADM are used primarily to create obstacles but may also be used to deny enemy use of facilities or supplies."[151] Finally, these systems had relatively low mobility. Many of the larger artillery were so heavy that their forward emplacement required the reconstruction of roads.[152] Even the relatively more mobile

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[147] Robert Standish Norris, "United States Nuclear Weapons Developments Abroad, 1950-1977," presentation delivered at History of Nuclear Age Dinner Series, Carnegie Endowment for International Peace, Washington, D.C., 30 November 1999, slide 3.

[148] "Project Management of the Davy Crockett Weapons System, 1958-1962 (U)," U.S. Army Weapons Command, 1962, pp. 3-4.

[149] *Employment of Atomic Demolition Munitions* (Washington, DC, United States: Department of the Army, July 1984), FM5-106, p. 1-2. Some observers have suggested that the sub-kiloton yield generated by the Davy Crockett warhead represented the near practical minimum nuclear yield of a fission device.

[150] *Employment of Atomic Demolition Munitions* (Washington, DC, United States: Department of the Army, July 1984), FM5-106, p. 1-2.

[151] *Employment of Atomic Demolition Munitions* (Washington, DC, United States: Department of the Army, July 1984), FM5-106, p. 1-2.

[152] A U.S. Army memo on the possible deployment of the 280-mm guns to South Korea argued that "While the road net will impose some limitations on its movements, there is an ample area of maneuver for it on the critical west flank of the line of contact." See "Memorandum from the Secretary of the Army (Brucker) to the Secretary of Defense (Wilson)," U.S. Army, 27 June 1957.

second-generation Lance enjoyed a maximum road speed of only 30 miles per hour.[153] Together, these combinations of low yields, short ranges, and limited mobility meant that these systems were primarily defensive, intended for use against battlefield military targets, and in a first-use strategy.[154] Indeed, the target set of the nuclear weapons deployed to South Korea was described as "tactical targets, headquarters, command post, masses of armor, enemy short range nuclear weapons."[155]

These tactical nuclear systems were assigned to units garrisoned and deployed near the Demilitarized Zone and further subordinated to lower levels of command and placed on high readiness. These features were evident in the training and exercises involving nuclear-armed units. For example, a report on a series of training exercises designed to assess the ability of the 7th Infantry Division to rapidly conduct fires with nuclear artillery noted that the Division's primary mission was "maintaining a constantly high state of readiness."[156] Similarly, military planning envisioned assigning nuclear weapons to lower command echelons. A declassified report on a 1968 training exercise involving nuclear-armed American units stationed in Korea indicated that "nuclear weapons can be assigned as low as the brigade

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[153] Thomas B. Cochran, William M. Arkin, and Milton M. Hoenig, Nuclear Weapons Databook: Volume I - U.S. Nuclear Forces and Capabilities (Pensacola, FL: Ballinger Publishing Co., 1984), p. 282.

[154] Here, I refer to the first use of nuclear weapons in the conflict. But these strikes were to be defensive against North Korean and Communist aggression. For more on how technical characteristics of weapons systems can affect the offense-defense balance, see Charles L. Glaser and Chaim Kaufmann, "What Is the Offense-Defense Balance and Can We Measure It?," *International Security*, Vol. 22, No. 4 (Spring 1998), pp. 44-82.

[155] Thomas B. Cochran, William M. Arkin, and Milton M. Hoenig, Nuclear Weapons Databook: Volume I - U.S. Nuclear Forces and Capabilities (Pensacola, FL: Ballinger Publishing Co., 1984), p. 282.

[156] "Operational Report – Lessons Learned, Headquarters, 7th Infantry Division Artillery, Period Ending 30 April 1968 (U)," Secret, Department of the Army, 4 October 1968, p. 2.

level."[157] The report would later refer to the possibility of assigning the weapons even past the level of the brigade.[158]

The core features of the U.S. nuclear barrier strategy at this time consisted of a still effective open-ended security guarantee and a robust forward conventional presence. But it also saw the addition of ground-based tactical nuclear weapons. These features along with the key indicators of a nuclear barrier as identified in the typology are summarized below in table 2-2.

[157] "Operational Report – Lessons Learned, Headquarters, 7th Infantry Division Artillery, Period Ending 30 April 1968 (U)," Secret, Department of the Army, 4 October 1968, p. 3.
[158] "Operational Report – Lessons Learned, Headquarters, 7th Infantry Division Artillery, Period Ending 30 April 1968 (U)," Secret, Department of the Army, 4 October 1968, p. 3.

Table 2-2: Nuclear Barrier Indicators in U.S.-Korea Dyad

Dimension	Nuclear Barrier Strategy Indicators	U.S.-Korea Strategy Indicators
Treaty Commitment	Unconditional, Ambiguous	No explicit conditions except geographic; open-ended and ambiguous
Conventional Force	Significant defensive land force; air force geared for close air support; limited naval assets	30,000-40,000 troops; +80% ground forces; USAF geared toward CAS; negligible naval presence
Conventional Posture	Tactically offensive, high readiness	Explicitly defensive; deployed near border; high response time
Nuclear Force	SRBMs, artillery, demolition charges	8-inch howitzer guns, 280-mm guns, Honest John surface-to-surface missiles, Atomic Demolition Munition nuclear land-mines, Matador surface-to-surface cruise missiles, tactical air-dropped nuclear bombs
Nuclear Posture	Embedded, higher readiness	Deployed near border, high readiness training, low-level assignment
Deterrent Purpose	Deter and defend by buying time and raising costs until arrival of reinforcements; escalation risks	"[T]he deployment of the Honest John rockets and the 280 mm cannon was particularly designed to bar the invasion route from North Korea into South Korea" [159]

Security Environment: Growing Concerns of a North Korean Fait Accompli

The Armistice had aimed at maintaining an equivalent military balance across both sides of the DMZ, verified by inspectors with the Neutral Nations Supervisory Commission. Immediately following the ceasefire, the Supervisory Commission and U.S. intelligence confirmed both a decrease in overall Communist conventional power north of the DMZ and in the equivalence of military forces in both the North and the South. Within a few years, however, the United States and South Korea became concerned that North Korea and China were upending the military balance by

[159] "Discussion at the 334th Meeting of the National Security Council, Thursday, August 8, 1957," U.S. National Security Council, 9 August 1957, pp. 10-11.

secretly introducing new military units and equipment.[160] A National Security Council memo from mid-1955 raised concerns both that some North Korean ports of entry were unmonitored and that the activities of inspection teams were restricted at even monitored sites. The NSC noted the illicit introduction of armor ground forces, fighter aircraft, and submarines, among other military equipment.[161] U.S. intelligence assessed that, despite some withdrawals of Chinese troops from North Korea, the North Korean military had continued to increase in both size and effectiveness since the signing of the Armistice.[162]

In addition to intelligence about a possible military buildup in the North, U.S. decision-makers were increasingly concerned about North Korean refusal to allow the Neutral Nation Inspection Teams access to important military facilities.[163] Under the terms of the Armistice, each side had agreed to permit Neutral Nation Inspection Teams access to several specified ports in order to verify that each side was fulfilling its disarmament commitments under the Armistice. However, by 1956, North Korea was effectively refusing inspection team access to any of the agreed-upon ports of entry, including Sinjuiju, Chongjin, Hungnam, Manpo, and Sinanju.[164] American

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[160] Much of the alleged violations were concerned with North Korea's advancing air force capabilities. See, for example, "The Threat of the North Korean Air Buildup," *ONI Review*, Vol. 13, No. 4 (April 1958), pp. 157-164.
[161] Background – Communist violations of the Armistice in Korea," NSC Briefing, 9 March 1955, pp. 1-3. See also "New Proof of Communist Violation of Armistice Agreement," *Department of State Bulletin*, 14 March 1955, pp. 426-429.
[162] "Probable Developments in North Korea Over the Next Few Years," National Intelligence Estimate Number 42.2-56, 3 July 1956, p. 9.
[163] "Korea: The End of 13D," *Time*, 1 July 1957, https://web.archive.org/web/20111019193112/http://www.time.com/time/magazine/article/0,9171,809583,00.html.
[164] I thank Mike Bosack for this observation.

officials cited growing intelligence about North Korean rearmament and North Korean refusal of entry to the inspection teams when they declared that "the United Nations Command considers that it is entitled to be relieved of corresponding obligations [of the Armistice]."[165]

In response to American intelligence about a supposed Communist military buildup in North Korea, the U.S. Army began exploring the option of forward deploying tactical nuclear weapons in January 1956.[166] In a meeting that month between representatives of the Department of State and the Department of Defense, Army Chief of Staff General Maxwell Taylor said that he wished to place weapons such as the 280-mm atomic cannon into Korea but complained about prohibitions in the Armistice agreement.[167] Just weeks later, Commander in Chief of United Nations Command General Lyman Lemnitzer sent a telegram to the Department of the Army further advocating for the introduction of nuclear weapons to redress the perceived conventional imbalance, writing "In order to alleviate partially the imbalance of potential strength existing between the opposing forces in Korea, it is highly desirable that Army weapons possessing an atomic delivery capability be introduced into Korea

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[165] Unified Command report on the United Nations Command statement in the Military Armistice Commission on 21June 1957 : communication dated 9 August 1957 from the representative of the United States of America to the United Nations, addressed to the Secretary-General, 13 August 1957, p. 6.

[166] Lee Jae-Bong, "US Deployment of Nuclear Weapons in 1950s South Korea & North Korea's Nuclear Development: Toward Denuclearization of the Korean Peninsula," *The Asia-Pacific Journal*, Vol. 7, Issue 8. No. 3 (February 2009).

[167] "Memorandum of a Conversation, Department of State, Washington, January 6, 1956," 6 January 1956, *Foreign Relations of the United States,* 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 109.

by United States forces." [168] South Korean military officials raised similar warnings. [169] President Rhee himself had raised the alarm about how alleged Communist violations of the Armistice agreement had upended the conventional military balance that the Armistice was meant to maintain. Rhee had pressed upon the United States the importance of "modernizing" American and South Korean forces through the introduction of atomic weapons.[170]

The discussions about introducing nuclear weapons to the Korean Peninsula quickly reached the highest levels of the U.S. government and, within a year, senior American officials began arguing forcefully for deploying the weapons to rectify the perceived conventional imbalance. At a meeting between representatives of the Department of State and the Department of Defense, Chairman of the Joint Chiefs of Staff Admiral Radford stated that "the Communists have repeatedly violated the

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[168] "Telegram from the Commander in Chief, United Nations Command (Lemnitzer) to the Department of the Army," 30 January 1956, *Foreign Relations of the United States,* 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 113.
[169] "Message from U.S. Ambassador Seoul, Korea to DEPTAR Washington, D.C. for ACOFS G2, Department of State Washington, D.C., Department of Navy, Washington, D.C., CSUSAF Washington, D.C., July 1955, p. 5, in Central File: Decimal File 795B.00, Internal Political and National Defense Affairs., South Korea, Political Affairs and Conditions. Elections. Political Parties and Groups. Political Refugees. Defectors. Amnesty. Revolutions, Riots, Disturbances. Civil War., July 13, 1956 - June 16, 1958. July 13, 1956 - June 16, 1958. MS Korea: Records of the U.S. Department of State, 1930-1963: Records of the Department of State Relating to the Internal Affairs of Korea, 1955-1959. National Archives (United States). *Archives Unbound*, https://link.gale.com/apps/doc/SC5112412835/GDSC?u=prin77918&sid=GDSC&xid=7c462154.
[170] "Letter From President Rhee to President Eisenhower," 24 June 1957, *Foreign Relations of the United States*, 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 227; and "Letter From President Eisenhower to President Rhee," 19 July 1957, *Foreign Relations of the United States*, 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 231. Later, upon learning of the U.S. decision to introduce atomic weapons, Rhee replied that "Now an important step has been taken to counterbalance the unfair buildup of Communist military strength in the northern part of our country which has been taking place since the day the Armistice Agreement was signed." See "Letter from President Rhee to President Eisenhower," 24 June 1957, Foreign Relations of the United States, 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 227.

terms of the Armistice Agreement, and by such action had thrown the comparative effectiveness of the forces in north and south Korea out of balance. To correct this situation, Admiral Radford indicated that it was necessary to introduce for the use of United States military personnel in Korea modern weapons such as the Nike, the Honest John, 280 mm. guns and the Corporal and Redstone missiles."[171]

The decision to deploy ground-based tactical nuclear weapons was particularly influenced by concerns that a surprise North Korean offensive could overrun South Korea before U.S. reinforcements could arrive. Here, North Korean conventional superiority interacted with the strategic geography of both the Peninsula and South Korea. South Korea's capital, Seoul, is located a mere 50 kilometers from the Demilitarized Zone. As the United States was weighing tactical nuclear deployments to its junior ally, the population of the greater Seoul area, comprised of Seoul, Incheon and Gyeonggi province totaled nearly 5 million people, accounting for almost 20 percent of the population of the country.[172] Military assessments of South Korea's vulnerability frequently invoked Seoul's proximity to the North Korean border and its possibility of being overrun. At an April 4th session of the National Security Council addressing U.S. policy toward Korea, Chairman of the Joint Chiefs of Staff Admiral Arthur W. Radford lobbied vigorously for the deployment of U.S. tactical nuclear weapons to along the Demilitarized Zone, saying that "anything short of the

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[171] Record of Meeting held on January 18, 1957 in the Office of the Secretary of State, 3:00 p.m., "Introduction of Atomic Weapons into Korea," prepared by Director of Northeast Asia Affairs, Howard Parsons, 23 January 1957, Secret, p. 1.

[172] *Seoul Statistical Series: Population, Economy, Transportation, Housing* (Seoul, South Korea: The Seoul Institute, 2015), p. 16. Today, the Seoul metropolitan area accounts for over half of the national population of 50 million. "Greater Seoul population exceeds 50% of S. Korea for first time," *Hankyoreh*, 7 January 2020, http://english.hani.co.kr/arti/english_edition/e_national/923529.html.

total proposal submitted by the Joint Chiefs of Staff for the package deal [including nuclear weapon deployments] in South Korea, would be inadequate to meet a surprise attack by the Communists on South Korea" and that "weapons like the [nuclear-capable] 280 mm guns would be vital to the defense of cities like Seoul which were close to the North Korean border."[173]

Senior military and civilian leaders were increasingly concerned that North Korean conventional superiority, coupled with South Korea's unfavorable strategic geography, made possible a North Korean *fait accompli*. In a May 1957 meeting between U.S. national security officials and representatives from the French Embassy, Chairman of the Joint Chiefs of Staff Admiral Arthur W. Radford highlighted concerns that North Korean violations of the Armistice agreement had made a sudden North Korean invasion disturbingly more likely. According to a memo of the discussion, he "explained that the situation regarding the deterioration of our position in Korea as explained to the Sixteen two years ago has accelerated during the last two years. It has now reached the point where *the possibility exists that a sudden breakthrough by the Communists could not be adequately handled*. This position is one which invites aggression through weakness" [italics added].[174]

The concerns of a North Korean *fait accompli* were singled out as a chief motivator for the deployment of ground-based tactical nuclear weapons. In a

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[173] "Memorandum of Discussion at the 318th Meeting of the National Security Council," 4 April 1957, *Foreign Relations of the United States, 1955-1957, Korea* Volume XXII (Washington, D.C.: Government Printing Office, 1989), p. 425.

[174] Department of State, Memorandum of Conversation, "Introduction of Atomic Weapons into Korea," 20 May 1957, Top Secret, p. 2, from *National Security Archive*, https://nsarchive2.gwu.edu//dc.html?doc=6549596-National-Security-Archive-Doc-11-Memorandum-of.

somewhat contentious June 1957 session of the National Security Council, as the debate on introducing U.S. nuclear weapons to South Korea drew toward its conclusion, U.S. military advisors pressed concerns of being overrun, saying that "While, as the Secretary of State had pointed out, a U.S. nuclear offensive … would eventually stop any Communist invasion of South Korea, *the Communists could not be stopped before they had overrun the 60,000 U.S. troops*. Hence, the Joint Chiefs of Staff felt that defensive … should actually be in place in South Korea to protect the security of our own U.S. troops and to prevent them from being overrun in the initial phases of a Communist offensive" [italics added].[175] According to a top secret assessment issued in 1957, U.S. and South Korean forces would only be able to conduct a successful holding operation against Communist forces stationed in North Korea if they were equipped with nuclear weapons, including the Honest John rockets and 280-mm guns.[176] South Korean officials expressed similar concerns. As the Chairman of the Joint Chiefs of Staff emphasized in a National Security Council discussion of South Korea's defense, "[F]rom the point of view of the ROKs themselves,

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[175] Here, the reference to a nuclear offensive likely illustrates debates between the merits of strategic versus tactical nuclear weapons. The redacted portion of the statement suggests an argument in favor of forward deployed tactical nuclear weapons. I thank Aaron Friedberg for highlighting this. "Discussion at the 326th Meeting of the National Security Council," U.S. National Security Council, 13 June 1957; and "Memorandum of Discussion at the 326th Meeting of the National Security Council, Washington, June 13, 1957, Top Secret, Excised Copy," *Foreign Relations of the United States*, 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 221.

[176] NSC 5702; Memo for NSC from Executive Secretary, subject: "Evaluation of Alternative Military Programs for Korea", dated January 30, 1957; NSC 5702/1. The document provides an evaluation of four alternative courses for the U.S. military in South Korea. Only one, Alternative D, provided for the extensive equipping of U.S. forces with nuclear-capable systems including the Honest John and 280-mm weapons. The report would later assess that Alternative D, U.S. and South Korean forces "would be able with limited U.S. air, naval and logistic support to conduct a successful holding operation against attack by those North Korean and Chinese Communist forces now estimated to be in North Korea."

their capital, Seoul, was only 25 miles distant from the front lines; and since this capital had already been overrun three times, the ROKs were only too well aware that it could be overrun once again."[177]

As U.S. officials highlighted in their internal debates, the recent military history of the Korean Peninsula provided easy evidence for the ease with which the South could be overrun.[178] In late June 1950, North Korean troops stormed across the 38th parallel separating the two Koreas.[179] In less than 72 hours after crossing the border, North Korean troops had essentially taken Seoul.[180] Within less than two months, they had overtaken not only Seoul but almost all of South Korea, forcing South Korean and United Nations Command (UNC) troops into a small southeastern corner of the Peninsula which would become known as the Pusan Perimeter.[181] In the final hours of August, North Korean troops who had marched to the southwestern tip

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[177] "Discussion at the 326th Meeting of the National Security Council," U.S. National Security Council, 13 June 1957; and "Memorandum of Discussion at the 326th Meeting of the National Security Council, Washington, June 13, 1957, Top Secret, Excised Copy," *Foreign Relations of the United States*, 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 221.

[178] On the use of historical analogies in foreign policy decision-making, see Yuen Foong Khong, *Analogies at War: Korea, Munich, Dien Bien Phu, and the Vietnam Decisions of 1965* (Princeton, N.J.: Princeton University Press, 1992).

[179] Less than a week before the North Korean invasion, a C.I.A. report estimated that "Although the northern and southern forces are nearly equal in terms of combat effectives, training, and leadership, the northern Koreans possess a superiority in armor, heavy artillery, and aircraft. Thus, northern Korea's armed forces, even as presently constituted and supported, have a capability for attaining limited objectives in short-term military operations against southern Korea, including the capture of Seoul." See "Current Capabilities of the Northern Korean Regime," June 19, 1950, History and Public Policy Program Digital Archive, p. 1, Record Group 263: Records of the Central Intelligence Agency, 1894 – 2002, NAID 6924376, https://catalog.archives.gov/id/6924376.

[180] William Stueck, *Rethinking the Korean War: A New Diplomatic and Strategic History* (Princeton, N.J.: Princeton University Press, 2004), pp. 61-62.

[181] Uk Heo and Terence Roehrig, *The Evolution of the South Korea–United States Alliance*, (Cambridge University Press, 2018), chapter 2; and William Stueck, *Rethinking the Korean War: A New Diplomatic and Strategic History*, (Princeton, N.J.: Princeton University Press, 2002), chapter 3.

of the Peninsula would launch an offensive against UNC and South Korean forces hunkered within the Perimeter and over a two week period of intense fighting beginning, U.S. troops would suffer more casualties than during any other comparable period of the conflict.[182]

With the military setbacks of 1950 and the financial drain of large overseas deployments looming, U.S. strategists turned to nuclear deployments as a means of providing cheap security. The strategy envisioned using the tactical nuclear weapons early in a conflict to bar the avenues of approach from the Demilitarized Zone to Seoul and the rest of South Korea. Secretary of Defense Charles Wilson was explicit in the role these nuclear systems were to play in the defense of Korea, saying that "the deployment of the Honest John rockets and the 280 mm cannon was particularly designed to bar the invasion route from North Korea into South Korea."[183]

With the tactical nuclear weapons slowing the North Korean advance, the United States planned to reinforce its units with additional forces from elsewhere in Asia and even from the continental United States. The ground-based nuclear weapons introduced in South Korea were intended precisely to buy time for U.S. reinforcements by closing off the avenues of approach from the North to the South, especially those leading towards Seoul. In a memo to Secretary of Defense Charles E. Wilson, then Secretary of the Army Wilber M. Brucker spelled out the military's view

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[182] William Stueck, *The Korean War: An International History* (Princeton, N.J.: Princeton University Press, 1995), p. 48.
[183] "Discussion at the 334th Meeting of the National Security Council, Thursday, August 8, 1957," U.S. National Security Council, 9 August 1957, pp. 10-11.

of the utility of weapons like the Honest John and the nuclear-capable 280-millimeter gun, as well as the strategy they would soon support:

> Both weapons are needed for military purposes. The Honest John rocket is an effective area weapon well adapted for use in Korea. It is a major part of the firepower of the new type division (1 battery of 2 launchers for the infantry division) and should be introduced into the 7th and 24th Infantry Divisions when they are reorganized under the Pentomic concept. A military need exists also for the 280mm gun, a precision weapon to cover the critical avenues of approach to Seoul. This weapon provides the commander with a pinpoint means of delivering atomic munitions under all conditions of weather, and it is also an excellent conventional artillery piece. While the road net will impose some limitations on its movements, there is an ample area of maneuver for it on the critical west flank of the line of contact.[184]

The strategy envisioned using the nuclear weapons early in a conflict to impede the North Korean offensive and buy time for South Korean and American reinforcements to arrive.

Despite strong support within the senior leaders of the U.S. government, not every senior leader initially supported the deployment of the ground-based tactical nuclear weapons to South Korea. Secretary of State John Foster Dulles, in particular, opposed introducing the weapons chiefly because of the anticipated political backlash. Objections from Dulles and the State Department focused on two concerns. First, Dulles was skeptical that the United States could satisfactorily convince the international community that the Communists had substantially violated the Armistice, thereby motivating U.S. introduction of nuclear weapons.[185] If the United

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[184] "Memorandum from the Secretary of the Army (Brucker) to the Secretary of Defense (Wilson)," 27 June 1957, Washington National Records Center, OASD/ISA Files FRC 61 B 1672, 471 6 Korea.
[185] James S. Lay, Jr., "NOTE BY THE EXECUTIVE SECRETARY TO THE NATIONAL SECURITY COUNCIL ON U.S. OBJECTIVES AND COURSES OF ACTION IN KOREA," National Security

States could not at least demonstrate that the introduction of nuclear weapons to South Korea had been preceded by substantial violations by the North, Dulles contended, the United States would be "regarded by our friends and allies as violators of a solemn international agreement simply in order to get these two weapons in the hands of our forces in Korea."[186] Without a concerted public diplomacy effort, the United States would be portrayed as first violating the agreement.[187] In light of the seriousness with which this factor weighed on discussions, President Eisenhower even asked "whether at any time in the history of the United States this country had deliberately broken the terms of an international agreement."[188]

Second, some officials worried that the introduction of nuclear weapons would be viewed negatively by several Asian states, particularly some U.S. allies. At a June 1957 meeting of the National Security Council, Dulles argued that the size and nature of the Honest John and 280-millimeter gun made them both too prominent to hide.[189] Once discovered, Dulles predicted a strong international opposition given the devastating power of nuclear weapons. U.S. senior leaders had lamented "that public

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Council Report, 25 February 1955; and "Discussion at the 318th Meeting of the National Security Council, Thursday, April 4, 1957," National Security Council, 5 April 1957, p. 14.

[186] Byron R. Fairchild and Walter S. Poole, *The Joint Chiefs of Staff and National Policy, 1957-1960*, Vol. VII (Washington, D.C.: Office of Joint History, Office of the Joint Chiefs of Staff, 2000), p. 200. See also "Discussion at the 318th Meeting of the National Security Council, Thursday, April 4, 1957," National Security Council, 5 April 1957, p. 20; and *Foreign Relations of the United States*: 1955-1957, vol. 22, pt. 2, pp. 420-427. Memo, ExecSecy NSC to NSC, "US Policy Toward Korea," 10 Jun 1957, TS; Memo, JCS to SecDef, same subj., 12 Jun 57, JCS 1776/574, U, CCS 383.21 Korea (3-19-45) (2) sec. 12. 13. Foreign Relations: 2955-1957.

[187] " Probable Sino-Soviet Reactions to US Deployment of Nuclear Weapons Systems," Special National Intelligence Estimate, No. 100-7-57, 11 June 1957, pp. 3-4.

[188] "Discussion at the 318th Meeting of the National Security Council, Thursday, April 4, 1957," National Security Council, 5 April 1957, p. 18.

[189] "Discussion at the 326th Meeting of the National Security Council," U.S. National Security Council, 13 June 1957, p. 6.

opinion in the world today mostly considers nuclear weapons to be indiscriminate in character and capacity for destruction, and that therefore their use is likely to induce general nuclear war."[190] For some U.S. leaders, the stigma against nuclear weapons made them more difficult to use, potentially undermining their value as a deterrent and defensive weapon.[191] In addition to the taboo generally attached to nuclear weapons, Dulles was also concerned that deploying U.S. nuclear weapons to Asia, in particular, would prompt criticisms of racism. The United States was and is the only country to use nuclear weapons in war and, in dropping them on two Japanese cities, made a country in Asia the only one to be victimized in war by the bomb. Many observers claimed that the U.S. decision to drop nuclear weapons on Japan was influenced by racism.[192] Civil rights activists in the United States had begun to draw connections between nuclear weapons and the colonialism, while others highlighted the role that racist thinking guided U.S. nonproliferation and atomic assistance policies.[193] Dulles implicitly channeling this criticism, argued that "to advertise the existence of such huge weapons as these would be bound to cause very serious repercussions for the United States throughout Asia. Sending such weapons to Korea

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[190] "Discussion at the 326th Meeting of the National Security Council," U.S. National Security Council, 13 June 1957, p. 2.
[191] For more on the nuclear taboo, see Nina Tannenwald, "The Nuclear Taboo: The United States and the Normative Basis of Nuclear Non-Use," *International Organization*, Vol. 53, No. 3 (Summer 1999), pp. 433-468; and Nina Tannenwald, *The Nuclear Taboo The United States and the Non-Use of Nuclear Weapons Since 1945* (Cambridge, U.K.: Cambridge University Press, 2009).
[192] Matthew Jones, *After Hiroshima: The United States, Race and Nuclear Weapons in Asia, 1945-1965* (Cambridge, U.K.: Cambridge University Press, 2010).
[193] Vincent J. Intondi, *African Americans Against the Bomb: Nuclear Weapons, Colonialism, and the Black Freedom Movement* (Redwood City, CA: Stanford University Press, 2015), pp. 45-61; and Shane J. Maddock, *Nuclear Apartheid: The Quest for American Atomic Supremacy from World War II to the Present* (Chapel Hill, N.C.: 2010), pp. 81-144.

would be resented throughout Asia because such [redacted] were identified with the West and with the hated doctrine of white supremacy, quite apart from the weapons effects themselves."[194]

In the end, however, military concerns dominated. Even while highlighting the potential political costs of their deployment, these skeptics, including Dulles and the State Department, ultimately conceded that the weapons would provide necessary military power to deter and defend in South Korea.[195] Memos and comments from Dulles and other State Department officials indicate the gradual alignment with the views of the Defense Department about the military necessity of introducing the weapons.[196] Throughout, Dulles's concerns about their introduction was focused on the political costs. In debates with other officials, Dulles "repeated that he did not doubt that these [Communist] violations had been on a very large scale, even if the United States was not in a position to demonstrate this fact to the world."[197] In fact, Dulles would later even caution against a "too rapid redeployment of U.S. forces from overseas, and expressed the thought that, with the development of new tactical

[194] "Discussion at the 326th Meeting of the National Security Council," U.S. National Security Council, 13 June 1957, p. 6.
[195] See, for example, "Discussion at the 318th Meeting of the National Security Council, Thursday, April 4, 1957," National Security Council, 5 April 1957, p. 14.
[196] "Memorandum for the Record," 11 September 1956 in Central File: Decimal File 795.00, Internal Political and National Defense Affairs., Korea, Political Affairs and Conditions. Elections. Political Parties and Groups. Political Refugees. Defectors. Amnesty. Revolutions, Riots, Disturbances. Civil War., April 14, 1956 - August 2, 1956. April 14, 1956 - August 2, 1956. MS Korea: Records of the U.S. Department of State, 1930-1963: Records of the Department of State Relating to the Internal Affairs of Korea, 1955-1959. National Archives (United States). *Archives Unbound*, https://link.gale.com/apps/doc/SC5112404475/GDSC?u=prin77918&sid=GDSC&xid=5bd41785.
[197] "Discussion at the 318th Meeting of the National Security Council, Thursday, April 4, 1957," National Security Council, 5 April 1957.

nuclear weapons, as outlined by Admiral Strauss earlier, the United States might be able to maintain defenses in foreign areas at minimal cost."[198]

The final decision to introduce nuclear weapons to South Korea was made in the summer of 1957. President Rhee greeted the decision enthusiastically.[199] On June 21, 1957, United Nations Command in Korea informed the Military Armistice Commission that "it is entitled to be relieved of obligations under subparagraph 13(d) of the Korean Armistice Agreement" and that the decision was "necessitated by the flagrant and long-continued disregard by the Communist side of its obligations."[200] The statement would go on to argue that "the only purpose of the United Nations Command action is to restore the relative balance of military strength that the Armistice was intended to preserve."[201] In January 1958, the first set of 8-inch howitzer guns, 280-mm guns, Honest John surface-to-surface missiles, and Atomic Demolition Munition nuclear land-mines began to arrive.[202] In March, the United States also began stationing tactical air-dropped bombs. The introduction of these

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[198] "Discussion at the 326th Meeting of the National Security Council," U.S. National Security Council, 13 June 1957; and "Memorandum of Discussion at the 326th Meeting of the National Security Council, Washington, June 13, 1957, Top Secret, Excised Copy," *Foreign Relations of the United States*, 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 221.

[199] "Letter from President Rhee to President Eisenhower," 24 June 1957, *Foreign Relations of the United States*, 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 227.

[200] "U.N. Command Announces Intention to Replace Old Weapons," 21 June 1957, The Department of State Bulletin, Vol. 37, Part 1, p. 58.

[201] "U.N. Command Announces Intention to Replace Old Weapons," 21 June 1957, The Department of State Bulletin, Vol. 37, Part 1, p. 58.

[202] Deployment dates based on the chronology available at "History of the Custody and Deployment of Nuclear Weapons (U): July 1945 through September 1977," Top Secret, Office of the Assistant Secretary of Defense (Atomic Energy), February 1978, Appendix B. Based on information provided in the chronology and implied alphabetization of the locations of deployments, it is possible to identify the final redacted location on page B-4 as South Korea.

weapons for both the purpose of redressing the conventional imbalance and for reducing the U.S. military resources committed to the Peninsula marked a shift in extended deterrence strategies from conventional barrier to nuclear barrier.

Throughout the Cold War, concerns about possible North Korean aggression was centered on the possibility of China and the Soviet Union supporting that aggression. Nearly a quarter-million Chinese troops fought alongside North Korean soldiers in the Korean War, while Soviet pilots would secretly participate in dogfights against American aircraft.[203] Following the War, China provided extensive economic and military support to North Korea; this support was so successful that it even permitted North Korea's economy to outperform South Korea's.[204] In 1961, Beijing and Pyongyang would sign the Treaty of Friendship, Co-operation and Mutual Assistance committing each to the military defense of the other. North Korea similarly came to rely on economic and military aid from the Soviet Union throughout the Cold War.[205] For U.S. decision-makers eyeing the threat from the North, Chinese and Soviet support were always seen as crucial enabling factors.

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[203] Xiaobing Li, Allan R. Millett, and Bin Yu, Eds., Mao's Generals Remember Korea (Lawrence, KS: University of Kansas Press, 2001), pp. 5 and 62; and Mark O'Neill, "Soviet Involvement in the Korean War: A New View from the Soviet-Era Archives," *OAH Magazine of History*, Vol. 14, No. 3, (Spring 2000), pp. 20-24.

[204] Zhihua Shen and Yafeng Xia, *China and the Post-War Reconstruction of North Korea, 1953-1961* (Washington, D.C.: Woodrow Wilson Center for International Scholars, 2012).

[205] Erik van Ree, "The Limits of Juche: North Korea's Dependence on Soviet Industrial Aid, 1953-76," *Journal of Communist Studies*, Vol. 5, No. 1 (1989), pp. 50-73.

Intra-Alliance Bargaining

While the forward nuclear deployments were intended primarily to prevent a North Korean *fait accompli*, the United States sought to link the deployments to reductions in both U.S. conventional forces in South Korea and U.S. military aid to the Rhee government. American officials were increasingly concerned about the long-term sustainability of its overseas military commitments, particularly large forward conventional deployments. This was true not only on the Korean Peninsula but across the world as President Eisenhower sought to reduce the American military footprint abroad. But despite U.S. efforts to match new nuclear deployments with conventional force reductions, the United States ultimately maintained a significant conventional presence in South Korea.

The United States grew increasingly concerned that its overseas military deployments and aid commitments were financially unsustainable. During the Cold War, overall federal spending and military spending quickly exceeded pre-World War II levels by many times. While U.S. federal spending in the mid- and late-1930s was roughly 10 percent of GNP, it had reached more than 15 percent of GNP in 1950.[206] Similarly, military spending in the same periods had grown from little more than 1 percent of GNP to nearly 6 percent of GNP.[207] In the early years of the Cold War, the Truman administration confronted a public increasingly anxious about the costs of

[206] Thomas J. Christensen, *Useful Adversaries: Grand Strategy, Domestic Mobilization, and Sino-American Conflict, 1947-1958* (Princeton, N.J.: Princeton University Press, 1997), p. 45.
[207] Thomas J. Christensen, *Useful Adversaries: Grand Strategy, Domestic Mobilization, and Sino-American Conflict, 1947-1958* (Princeton, N.J.: Princeton University Press, 1997), p. 45.

American interventionism, high taxes, and rising inflation.[208] In 1955, the United States spent $461 million (equivalent to $4.4 billion in today's dollars) on military assistance to South Korea. Even by 1958, a half-decade after the Armistice Agreement, U.S. military assistance came to $356 million ($3.2 billion in today's dollars), a sum that was nearly three times larger than South Korea's entire defense spending for the year.

Despite the significant troop drawdown in South Korea following the 1953 armistice, U.S. officials grew increasingly concerned that the country's financial commitments on the Korean Peninsula were unsustainably large. The United States was spending significant sums of money providing for the defense of an economically devastated South Korea by both financing the forward deployment of U.S. troops in the junior ally and supporting the South Korean military through substantial outlays of military aid. In 1958, the year that U.S. tactical nuclear weapons were first deployed to South Korea, the United States stationed more than 46,000 troops in South Korea, making it the third-largest U.S. overseas military presence in the world, following only the U.S. deployments in Germany and Japan. That same year, U.S. military aid to the South totaled $356 million, a sum nearly two and a half times the entire size of the South Korean military budget and nearly 20 percent of the total South Korean gross national product.[209]

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[208] Thomas J. Christensen, *Useful Adversaries: Grand Strategy, Domestic Mobilization, and Sino-American Conflict, 1947-1958* (Princeton, N.J.: Princeton University Press, 1997), pp. 39-49.
[209] Author's calculations based on data in Table 5.1 at Taik-young Hamm, *Arming the Two Koreas: State, Capital and Military Power* (New York, N.Y.: Routledge, 1999), p. 99.

Forward nuclear deployments were presented as a way of both providing cheap sustainable security to South Korea but also a means of negotiating a reduction in U.S. conventional forces and aid to its junior ally. U.S. officials frequently strategized about using the nuclear deployments as leverage in its negotiations with the Rhee government. At a June 1957 session of the National Security Council, Secretary of State Dulles was particularly adamant on this point, arguing that the U.S. needed to reduce costly and unsustainable military commitments around the globe: "Secretary Dulles replied that the only answer was to keep working on our objective of convincing all our allies to depend more on the deterrent capacity of our nuclear retaliatory capability, and less on local defenses. There simply was not going to be enough money available to maintain both the U.S. deterrent capability and large military establishments in allied countries throughout the world."[210] Although much of the debate at the time about conventional-nuclear substitution focused on strategic forces and the strategy of massive retaliation, forward nuclear deployments were often seen as a way to link local conditions to those strategic nuclear forces. For Dulles, the link between nuclear deployments and reduced conventional presence was clear: "We must project in the future for South Korea something that is far less costly than the present area defense system in Korea. If we are going to deploy these particular

[210] "Memorandum of Discussion at the 326th Meeting of the National Security Council, Washington, June 13, 1957, Top Secret, Excised Copy," *Foreign Relations of the United States*, 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 221.

weapons—the Honest John rockets and the 280 mm. guns—we should insist that the reduction of active ROK forces be much more substantial."[211]

Despite U.S. lobbying for reductions, the Rhee government was steadfast in its desire to maintain a robust conventional presence. Rhee frequently attempted to secure stronger military commitments from the United States, including demands that U.S. forces continue to lead South Korean troops in battle and that the United States establish a permanent U.S. naval base in South Korea, something the Americans were reluctant to provide.[212] Rhee was "resentful" and "angry" at the reductions in U.S. forces that had already taken place, calling them an "abandonment" by the United States.[213] Rhee paid lip service to the possibility of reducing conventional forces in South Korea, but he concluded that, given the security threats facing his country, such a reduction was imprudent at the time:

> With regard to the reduction of manpower in our Army which was considered in connection with the decision to send newly developed weapons to Korea, I assure you, Mr. President, we will be more than willing to agree to such reduction if this can be accomplished without weakening our ability to achieve the establishment of a unified, independent and democratic government in Korea which is the essential objective reaffirmed by the General Assembly of the United Nations in its resolution of October 7, 1950, and the goal for which we have all made great sacrifice. Until this objective is achieved we feel compelled to bear the tremendous burden of maintaining the present level of our defense forces. If the maintenance of the present military strength can be accomplished through the introduction of modern weapons, certainly we will give serious consideration to a reduction of manpower. However,

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[211] "Memorandum of Discussion at the 326th Meeting of the National Security Council, Washington, June 13, 1957, Top Secret, Excised Copy," *Foreign Relations of the United States*, 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 221.
[212] "RHEE Syngman's Defense Plans for Korea," Secret, Central Intelligence Agency, 13 December 1948, p. 1.
[213] "Situation in South Korea," NSC Briefing, 8 September 1954, p. 1; and "Situation in South Korea," NSC Briefing, 4 October 1954, pp. 1-3.

> until information is made available to us concerning the modernization program contemplated and plans are made for the delivery to our forces, the present level of forces must be maintained in the face of the enemy threat that confronts us. We feel this is essential not only for our own sake but for the sake of your great Nation as well.[214]

Ultimately, the decision to resort to a nuclear barrier strategy (which involved a significant ground force presence) and not a cheaper nuclear tripwire one (which would have consisted almost entirely of ground-based tactical nuclear weapons and only a token ground force deployment) resulted from both the relative importance of South Korea to the United States' security interests and South Korea's negotiating leverage.

First, the United States increasingly viewed South Korea as central to its broader geostrategic goals, not only in East Asia but in other parts of the world as well. At the outset of the Cold War, South Korea was considered insignificant to U.S. national security aims.[215] It had even famously been excluded from Secretary of State Dean Acheson's 1950 defense perimeter speech. [216] Analysts would later interpret the omission as a possible motivating factor in the North Korean invasion.[217]

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[214] "Letter from President Rhee to President Eisenhower," 24 June 1957, *Foreign Relations of the United States*, 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 227.
[215] John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy During the Cold War* (Oxford, U.K.: Oxford University Press, 2005), pp. 57-59.
[216] Dean Acheson, "Speech on the Far East," speech delivered at the National Press Club, 12 January 1950, https://www.cia.gov/library/readingroom/docs/1950-01-12.pdf.
[217] Thomas J. Christensen, *Worse Than a Monolith: Alliance Politics and Problems of Coercive Diplomacy in Asia* (Princeton, N.J.: Princeton University Press, 2011), pp. 87-88. Indeed, within a week of Acheson delivering the speech, Soviet diplomats Vyacheslav Molotov and Andrey Vyshinsky met with Mao Zedong, and read out excerpts from Acheson's speech. Molotov would note that he had further "advised Mao Zedong to familiarize himself with Acheson's entire speech and left him a full text of this speech." See "Conversation, V.M. Molotov and A.Y Vyshinsky with Mao Zedong, Moscow, 17 January 1950," January 17, 1950, History and Public Policy Program Digital Archive, AVP RF, f. 07, op. 23a, d. 234, pap. 18, ll. 1-7. Obtained by Odd Arne Westad and translated by Daniel Rozas. http://digitalarchive.wilsoncenter.org/document/112671.

However, despite their initial reluctance to commit the country to a stronger defense of Korea, U.S. officials soon viewed the defense of their junior ally as a key component of broader Cold War strategy. Although Korea itself was considered a peripheral interest, it came to be a symbol of U.S. security commitments elsewhere. In April 1950, just months before the outbreak of the Korean War, the National Security Council presented to President Truman a policy paper drafted by the Departments of State and Defense entitled "United States Objectives and Programs for National Security."[218] The paper, which would become better known as NSC 68, rejected the policies of détente and containment toward the Soviet Union and instead called for an aggressive policy of resisting Communism across the globe.[219] The Korean War solidified this view.[220] At the outbreak of hostilities in the Korean War, John Foster Dulles, then serving as a political advisor in Tokyo, telegraphed back to the State Department, "To sit by while Korea is overrun by unprovoked armed attack would start disastrous chain of events leading most probably to world war."[221] Even George Kennan, architect of the strongpoint defense strategy which advocated for excluding from containment the mainland of Asia, warned that inaction in Korea could invite aggression elsewhere, writing in a draft memo to Dean Acheson that ""if these developments proceed in a way favorable to Soviet purposes and prestige and

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[218] "National Security Council Report, NSC 68, 'United States Objectives and Programs for National Security'," April 14, 1950, History and Public Policy Program Digital Archive, US National Archives. http://digitalarchive.wilsoncenter.org/document/116191.
[219] John Lewis Gaddis and Paul Nitze, "NSC 68 and the Soviet Threat Reconsidered," *International Security*, Vol. 4, No. 4 (Spring 1980), pp. 164-176.
[220] John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy During the Cold War* (Oxford, U.K.: Oxford University Press, 2005), pp. 106-112.
[221] "Dulles and John M. Allison to Acheson and Rusk," *Foreign Relations of the United States*, 1950, Korea, Volume VII, (Washington, D.C.: Government Printing Office, 1976), Document 73.

unfavorable to our own, there will scarcely be any theater of the east-west conflict which will not be adversely affected thereby."[222]

In addition to the perceived strategic significance of maintaining its overseas security commitments, U.S. foreign policymakers also faced domestic pressures to commit to the defense of South Korea. In a bid to drum up domestic support for U.S. security commitments in Europe, U.S. officials had deployed strong anti-Communist rhetoric.[223] In doing so, they rhetorically linked anti-Communist resistance in Europe with anti-Communist resistance in Korea, painting themselves into a corner, and forcing them to commit to South Korea's defense.[224]

These views about the broader significance of U.S. commitments to Korea endured beyond the end of hostilities in 1953 and U.S. officials frequently cited the geostrategic significance of South Korea in lobbying for a fuller commitment to the junior ally and specifically for the forward deployment of nuclear weapons on its territory. In a 1957 National Security Council discussion centered around the U.S. presence in South Korea and whether to deploy nuclear weapons, Admiral Radford argued to Treasury Secretary George Humphrey that "if the United States lost South Korea it would presently lose its entire position in the Far East."[225] These sentiments were shared at the highest levels of the U.S. government. At a National Security

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[222] "Memorandum for Secretary of State Concerning Possible Further Communist Initiatives in Korea," 26 June 1950, Kennan Papers, Box 164, Folder 17, p. 1.
[223] Thomas J. Christensen, *Useful Adversaries: Grand Strategy, Domestic Mobilization, and Sino-American Conflict, 1947-1958* (Princeton, N.J.: Princeton University Press, 1997).
[224] Thomas J. Christensen, *Useful Adversaries: Grand Strategy, Domestic Mobilization, and Sino-American Conflict, 1947-1958* (Princeton, N.J.: Princeton University Press, 1997).
[225] "Memorandum of Discussion at the 326th Meeting of the National Security Council, Washington, June 13, 1957, Top Secret, Excised Copy," *Foreign Relations of the United States*, 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 221.

Council session on the issue of introducing nuclear weapons to the country, President Eisenhower emphasized the broader geopolitical significance of the United States' alliance with South Korea, saying that "[W]hile Korea is of no military importance to us in general war, it is psychologically and politically of such importance that to lose it would run the risk of the loss of our entire position in the Far East. Accordingly, we have got to carry on in South Korea."[226]

The second reason for the United States' difficulties in successfully negotiating a larger reduction in conventional forces was the negotiating approach of South Korean President Syngman Rhee. From the outset, American officials predicted that it would be difficult to convince Rhee to reduce South Korean and American conventional forces. The Defense Department's Korea Desk Officer Howard Parsons wrote to Deputy Secretary of Defense Reuben Robertson that "[I]t will be extremely difficult to convince the Korean Government, particularly President Rhee, that the modernization of United States forces should be accompanied by the reduction of the ROK Army by four divisions."[227]

Rhee was a challenging negotiator for the United States. He had spent the better part of four decades cultivating influential ties in the United States and honing his political skills.[228] In an early sign of his boldness, Rhee penned a letter to the dean

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[226] "Discussion at the 334th Meeting of the National Security Council, Thursday, August 8, 1957," U.S. National Security Council, 9 August 1957, p. 19.
[227] Mr. Parsons to Mr. Robertson, "ROK Reaction and Expectations Should U.S. Forces in Korea be Given Nuclear Weapons," United States Department of Defense, 23 May 1957, Secret, National Security Archive, https://nsarchive2.gwu.edu//dc.html?doc=6549598-National-Security-Archive-Doc-13-Mr-Parsons-to.
[228] David P. Fields, *Foreign Friends: Syngman Rhee, American Exceptionalism, and the Division of Korea* (Lexington, KY: University Press of Kentucky, 2019), pp. 182-183.

of Harvard University requesting that the institution admit him and grant him a doctorate degree within two years.[229] Though Harvard would deny his request for a two-year doctoral program, Rhee would go on to obtain a master's from Harvard within a year and go on to finish a doctorate in politics at Princeton, becoming the first Korean to receive a Ph.D. from an American university and, in the span of three years, earning a bachelor's, master's, and doctorate.

Rhee had developed a reputation as an independent and tough political actor. American media and U.S. officials frequently described Rhee as "stubborn," "recalcitrant," and "intractable."[230] Eisenhower's Press Secretary, James C. Hagerty recorded in his diary in 1954 that the American president "told me that he was having considerable difficulty with Rhee: 'I feel sorry for the old man. He wants to get his country unified, but we cannot permit him to start a war to do it. The consequences would be too awful. But he is a stubborn old fellow, and I don't know whether we'll be able to hold him in line indefinitely.'"[231]

Rhee frequently brought this strong style to negotiations. In April 1953, as the participants to the conflict in Korea negotiated a potential ceasefire, a furious Rhee

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[229] Soojin Chung, "Rhee Syngman, First President of the Republic of Korea," *Boston Korean Diaspora Project* (blog), Boston University, 16 January 2019, http://sites.bu.edu/koreandiaspora/individuals/1910s/rhee-syngman-first-president-of-the-republic-of-korea/.

[230] For just a few examples, see "South Korea: Old Men Forget," *Time*, 2 May 1960, http://content.time.com/time/magazine/article/0,9171,826355,00.html; "A Stubborn Korean: Syngman Rhee," *The New York Times*, 17 January 1957, p. 4; Tillman Durdin, "The Response Is Generally Favorable Despite Concern in Authoritarian Regimes," *The New York Times*, 1 May 1960, Section E, p. 3; and Telegram "The Secretary of State to Lieutenant General John R. Hodge, at Seoul," 21 May 1947, *Foreign Relations of the United States, 1947*, The Far East, Volume VI (Washington, D.C.: Government Printing Office, 1972), Document 495.

[231] Excerpt from James C. Hagerty diary, 27 July 1954, *Foreign Relations of the United States*, 1952-1954, Korea, Volume XV, Part 2 (Washington, D.C.: Government Printing Office, 1984), Document 923.

warned that if the United States agreed to a truce which left the Korean Peninsula divided, he would refuse to join. According to a CIA memo from the time on the Rhee government's reaction the impending Armistice negotiations, "[an] angry President Rhee said if truce without unification of Korea is effected according to State Department plans, he will order ROK Army to march alone to Yalu."[232] Rhee reportedly even met with his Army leadership and directed them to draw up plans for continuing the war alone, something of which American intelligence became aware.[233] In June of that year, *The New York Times* published a letter from Rhee to Eisenhower forcefully rejecting the American president's negotiating plans.[234]

American officials were often concerned about Rhee potentially undermining U.S. interests.[235] In fact, scholars have argued that the fear of unilateral action by Rhee was one of the driving forces behind the United States' choice to forgo a multilateral alliance network in Asia and, instead, resort to a series of bilateral arrangements which would afford the United States greater influence over its allies.[236] As one CIA report cautioned, "We believe that President Rhee will continue to threaten unilateral renewal of hostilities to strengthen his general bargaining position with regard to international discussions of the Korean problem. Moreover,

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[232] "Memorandum for the Under Secretary of State, Reaction of Syngman Rhee to Truce Talks," Central Intelligence Agency, Secret, 30 April 1953, p. 1.
[233] "Memorandum for the Under Secretary of State, Reaction of Syngman Rhee to Truce Talks," Central Intelligence Agency, Secret, 30 April 1953, p. 1.
[234] "Text of Rhee Letter Rejecting Eisenhower Plan," *The New York Times*, 19 June 1953, p. 4.
[235] See, for example, "United States-South Korea Relations Entering Critical Period," NSC Briefing, 15 June 1954.
[236] Victor D. Cha, "Powerplay: Origins of the U.S. Alliance System in Asia," *International Security*, Vol. 34, No. 3 (Winter, 2009/2010), pp. 158-196; and Victor Cha, *Powerplay: The Origins of the American Alliance System in Asia* (Princeton, N.J.: Princeton University Press, 2016).

the possibility exists that President Rhee might initiate military action against the Communists at any time."[237] The U.S. government was so concerned about unilateral action from Rhee that it even prepared a secret contingency plan known as Operation Everready by which to hobble and even remove the South Korean government if Rhee moved too far against U.S. interests.[238] United States concerns were also reflected in the fact that the United Nations Command maintained operational control over South Korean military forces until 1994, placing South Korean units under American military leadership.[239]

American officials predicted that they would be unsuccessful in negotiating a broader troop drawdown and they were right. In an August 1957 National Security Council discussion of introducing tactical nuclear weapons to Korea in exchange for conventional force reductions, Secretary Dulles argued that "[T]here was so far no evidence whatsoever that we were going to succeed in getting South Korea to agree to a cut in ROK force levels. President Rhee was, as usual, being stubborn and tough in these negotiations."[240] In 1958, the United States began to deploy nuclear weapons to South Korea without any corresponding agreement for a conventional reduction.

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[237] "Validity Study of SE-48: Capabilities and Probable Courses of Action of the Republic of Korea with Respect to the Armistice in Korea, published 13 October 1953," Central Intelligence Agency, Secret, IAC-D-100/5, 7 February 1956. See also "Confidential Memorandum, Before Agreeing to the Armistice Agreement ," August 03, 1953, History and Public Policy Program Digital Archive, B-380-013, Papers Related to the Korean American Mutual Defense Treaty, Papers Related to Treaty-Making and International Conferences, Syngman Rhee Institute, Yonsei University https://digitalarchive.wilsoncenter.org/document/119405.

[238] "Memorandum by the Director of the Executive Secretariat to the Secretary of State," October 28, 1953, *Foreign Relations of the United States*, 1952–1954, Vol. XV, Part 2, Document 781.

[239] Shawn P. Creamer, "The United Nations Command and the Sending States," *International Journal of Korean Studies*, Vol. 21, No. 2 (2017).

[240] "Discussion at the 334th Meeting of the National Security Council, Thursday, August 8, 1957," U.S. National Security Council, 9 August 1957, p. 9.

Upon learning that Eisenhower had agreed to deploy tactical nuclear weapons to South Korea, Rhee wrote to his American counterpart with his "deepest appreciation for the wise influence which you have given to this decision."[241] Though the United States would "modernize" its equipment in South Korea with the deployment of ground-based tactical nuclear weapons, it would continue to deploy at least 30,000 troops to the territory of its junior ally, including ground-based tactical nuclear weapons. Though the total number of American troops in South Korea would exhibit minor fluctuations, the main features of its unconditional security commitment, substantial forward conventional deployments, and forward tactical nuclear deployments would remain constant for more than three decades until the strategic environment began to shift in the late Cold War.

Although the features of U.S.-South Korean negotiations over the U.S. military presence broadly matched the predictions of extended deterrence selection theory, the negotiating outcomes did not reflect structural features in the relationship. As explained in the theory chapter, extended deterrence selection theory assesses the relative leverage of the junior ally by examining structural features in the relationship including whether the junior ally serves as an important buffer state for the senior ally, sits astride strategic geographic chokepoints, enjoys potential outside ally options, is an important economic partner for the senior ally, or might pursue its own independent nuclear weapons capability. In this case, South Korea only enjoyed

[241] "Letter from President Rhee to President Eisenhower," 24 June 1957, *Foreign Relations of the United States*, 1955-1957, Korea, Volume XXIII, Part 2 (Washington, D.C.: Government Printing Office, 1993), Document 227.

a strategically valuable location given its ability to control access through the Sea of Okhostsk and the Sea of Japan.[242] At the time, however, South Korea's economy was small, agrarian, and dependent on the United States, Seoul had no plausible alternative allies, and although the Rhee government had indicated interest in a nuclear weapons program, it had made no serious progress toward the bomb. It is true that shortly after the introduction of nuclear weapons to the country, there were growing concerns about South Korea possibly going nuclear. South Korea joined the International Atomic Energy Agency in 1957.[243] In 1962, the country's first nuclear reactor began operation and a classified American intelligence report in 1960 predicted that South Korea would likely pursue its own bomb in response to Chinese nuclear acquisition.[244] However, these developments followed the introduction of the American nuclear weapons and while American decision-makers may have anticipated them, we have no documentary evidence of this. Given the lack of structural leverage, the theory predicts that, in the South Korea case, the United States would still deployed ground-based tactical nuclear weapons, but would have coupled those deployments with a substantial reduction in forward conventional deployments. In other words, while the theory predicted a nuclear tripwire, the United States selected a nuclear barrier.

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[242] Brian Dylan Blankenship, *Promises under Pressure: Reassurance and Burden-Sharing in Asymmetric Alliances*, Ph.D. Dissertation (New York, N.Y.: Columbia University, 2018), p. 87.
[243] "Nuclear Power in South Korea," World Nuclear Association, March 2022, https://world-nuclear.org/information-library/country-profiles/countries-o-s/south-korea.aspx.
[244] "Communist China's Nuclear Weapons Program," Central Intelligence Agency Memorandum, 12 October 1960, p. 5.

Three factors not captured in the theory may help explain South Korea's leverage in negotiating with the United States. The first is that South Korea was viewed as strategically significant for U.S. containment efforts in East Asia. As demonstrated earlier in the chapter, American and Japanese officials viewed South Korea's security as inextricably tied to Japan's and the Korean Peninsula was viewed as a key point for American containment strategy.[245] The second is that South Korea suffered such a tremendous military inferiority vis-à-vis the North and its Communist backers, that the United States may have felt it had no choice but to provide conventional forces to offset this inferiority. Ground-based tactical nuclear weapons were not, themselves, sufficient for deterrence and defense. Rather, they were meant to complement conventional forces and offset the perceived conventional superiority of adversaries. Perhaps South Korea's military was seen as so inferior that even a nuclear offset was considered insufficient by the United States. However, these two features, broader geostrategic significance and insurmountable conventional inferiority, are not specified in the theory, making this case a partially correct prediction.

Finally, and perhaps most compellingly, was the desire to control Rhee and prevent South Korean adventurism.[246] As illustrated in detail by Victor Cha, "Rhee's desires to defeat the communists and retake territory were pursued with a single-

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[245] John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy During the Cold War* (Oxford, U.K.: Oxford University Press, 2005), chapter 4; and William Stueck and Boram Yi, "'An Alliance Forged in Blood': The American Occupation of Korea, the Korean War, and the US–South Korean Alliance," *Journal of Strategic Studies*, Vol. 33, No. 2 (2010), pp. 177-209.

[246] I thank Mike Bosack, Tom Christensen, and Aaron Friedberg for this observation.

minded fervor. His actions and statements were often unpredictable, provocative, and, at times, completely unreasonable."[247] Following the 1953 Armistice, Rhee often threatened to resume fighting in an attempt to take the North. American decision-makers sought ways to prevent being dragged into another war on the peninsula and the evidence confirms that a strong American legal and military commitment was a reliable tool for monitoring and restraining Rhee. This logic was illustrated as early as 1950 when Dean Acheson remarked that "US troops are there to block a North Korean invasion, but also to restrain the South. ... because of the revolutionary challenge presented by the new North Korean government, and the volatility of the [South Korean] government with its frequent threats to march north."[248] The domino theory and U.S. investment in South Korea meant that it could not simply abandon the country. The United States viewed South Korea as an important symbol and hub for anti-Communism. This was especially true after the shared toll of Korean War.[249] According to U.S. General Mark Clark, who in 1952 would assume command of all United Nations forces in Korea, "[Rhee] knew that no matter what happened we could not, after three years of war, after all the blood and treasure we lost, let Korea go to the Reds by default because of a quarrel 'in the family.'"[250] This logic of using U.S. forces to restrain South Korea can be seen in the fact that the U.S. military enjoyed

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[247] Victor Cha, *Powerplay: The Origins of the American Alliance System in Asia* (Princeton, N.J.: Princeton University Press, 2016), pp. 95-96.
[248] Victor Cha, *Powerplay: The Origins of the American Alliance System in Asia* (Princeton, N.J.: Princeton University Press, 2016), p. 105.
[249] William Stueck and Boram Yi, "'An Alliance Forged in Blood': The American Occupation of Korea, the Korean War, and the US–South Korean Alliance," *Journal of Strategic Studies*, Vol. 33, No. 2 (2010), pp. 177-209.
[250] Mark Clark, *From the Danube to the Yalu* (New York, N.Y.: Harper, 1954), p. 272.

operational control over South Korean forces until 1994, preventing South Korean troops from marching North.[251]

Return to a Conventional Barrier, 1991-today

The strategic environment on the Korean Peninsula began to change dramatically in the late 1980s and early 1990s as captured in figure 2-6 below. Domestic political and economic changes within the Soviet Union led to a warming of relations between Moscow and Seoul. Within a few years, the Soviet Union would cease to exist, depriving North Korea of a vital source of economic and military aid. China and South Korea similarly improved bilateral relations. In the end, these combined shifts would reduce U.S. concerns about South Korean security, permitting the removal of ground-based tactical nuclear weapons and the return to a conventional barrier in South Korea.

[251] Victor Cha, *Powerplay: The Origins of the American Alliance System in Asia* (Princeton, N.J.: Princeton University Press, 2016), pp. 117-120.

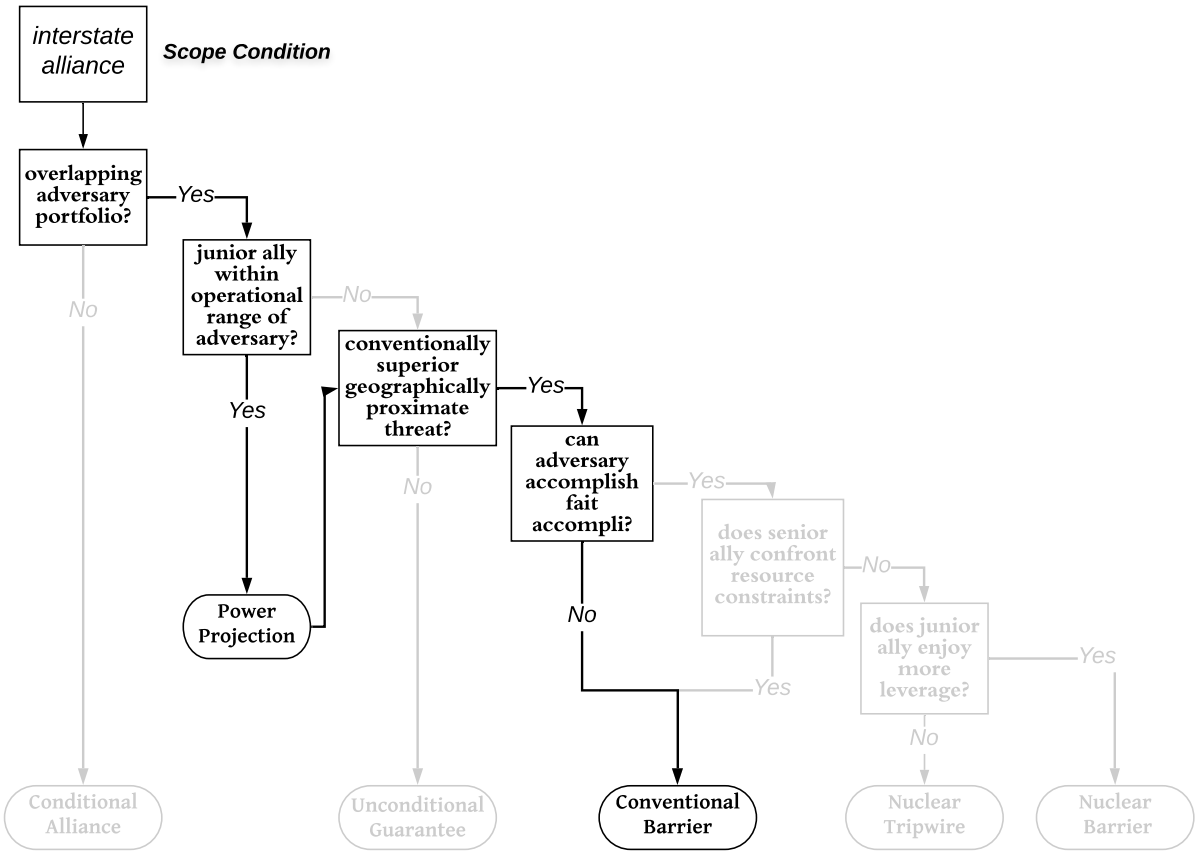

Figure 2-6: U.S. Extended Deterrence Strategy in South Korea, 1991-today

Relations between South Korea and the Soviet Union improved significantly in the late 1980s. Domestic economic changes in both countries prompted a reexamination of their relationship, with economic deterioration in the Soviet Union prompting a search for more economic opportunities abroad and economic growth in South Korea making it a regional economic power and a ready source of investment.[252] The 1988 Seoul Olympics served as a catalyst for deeper relations, by contributing to exchanges between the two countries and fostering a sense of

[252] Kim Hakjoon, "The Process Leading to the Establishment of Diplomatic Relations between South Korea and the Soviet Union," *Asian Survey*, Vol. 37, No. 7 (1997), pp. 637-651.

cooperation.[253] South Korean President Roh Tae-woo's *nordpolitik* policy was an effort to capitalize on these developments by building better relations with Communist countries. In announcing the new policy of reconciliation, Roh declared that "the world is entering an age of reconciliation and cooperation transcending ideologies and political systems." He further committed to "continue to seek improved relations with the Soviet Union, China and other socialist countries."[254] Gorbachev and Roh met in San Francisco in June 1990, providing a vivid symbol of warmer ties. Shortly thereafter, the two countries established formal diplomatic relations for the first time in decades.[255] Between 1988 and 1991, trade between the two increased sixfold.[256]

At the same time that relations were improving between Moscow and Seoul, the Soviet Union reduced its support for North Korea. The Soviet provision of food, energy, and other aid to North Korea dropped precipitously in the late 1980s and early 1990s.[257] Soviet military aid to North Korea fell by half from the first half of the 1980s to the latter half.[258] Notably, when Gorbachev made the first ever visit by a

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[253] Victor Cha, *Beyond the Final Score: The Politics of Sport in Asia* (New York, N.Y.: Columbia University Press, 2008), pp. 88-90.
[254] Don Oberdorfer, *The Two Koreas: A Contemporary History* (Boston, MA: Addison-Wesley, 1997), p. 188.
[255] Kim Hakjoon, "The Process Leading to the Establishment of Diplomatic Relations between South Korea and the Soviet Union," *Asian Survey*, Vol. 37, No. 7 (1997), pp. 637-651. The author served as the South Korean president's chief assistant for policy research during the period leading up to the reestablishment of Soviet-South Korean diplomatic relations.
[256] Choongbae Lee and Michael J. Bradshaw, "South Korean Economic Relations with Russia," *Post-Soviet Geography and Economics*, Vol. 38, No. 8 (1997), p. 466.
[257] Nicholas Eberstadt, "North Korea's Interlocked Economic Crises: Some Indications from 'Mirror Statistics,'" *Asian Survey*, Vol. 38, No. 3 (March 1998), pp. 203-230.
[258] Memorandum from Konstantin Katushev to Anatolii Chernyaev, July 15, 1991, Gorbachev Fond, Fond 2, Opis 1, Dokument 8997, cited in Sergey Radchenko, "Russia's Policy in the Run-Up to the First North Korean Nuclear Crisis, 1991-1993," Nuclear Proliferation International History Project, Woodrow Wilson International Center for Scholars, NPIHP Working Paper #4, February 2015, p. 3.

Soviet leader to the Korean Peninsula, his destination was not the Soviet's long-time ally in the North, but rather its historic adversary in the South.[259] The Soviet decision to recognize South Korea's government was viewed as a betrayal in North Korea, causing "a grave deterioration in Moscow's relations with Pyongyang."[260]

South Korea also began to enjoy improved relations with China, North Korea's only other major patron. In another boon to Seoul and blow to Pyongyang, China and South Korea would reestablish diplomatic ties in 1992. In a sign of the extent to which the North's former patrons had shifted, Russian and Chinese diplomats discussed further pressuring Pyongyang to conclude a safeguards agreement with the International Atomic Energy Agency, even without linking such a move to the question of American nuclear deployments in the South.[261]

Against the backdrop of these broader geopolitical and local shifts, the military balance on the Korean Peninsula began to move in favor of the United States and South Korea. North Korea's loss of its Soviet patron was a major blow to its economic and security conditions. The disruptions were so great that, within two years, North Korea would begin to experience a famine that would eventually claim hundreds of thousands and, by some estimates, millions of lives.[262] A CIA assessment concluded

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[259] "A Knock on The Nuclear Door?" *Newsweek*, 28 April 1991, https://www.newsweek.com/knock-nuclear-door-202290.
[260] Sergey Radchenko, "Russia's Policy in the Run-Up to the First North Korean Nuclear Crisis, 1991-1993," Nuclear Proliferation International History Project, Woodrow Wilson International Center for Scholars, NPIHP Working Paper #4, February 2015, p. 2.
[261] "Record of Conversation between G.F. Kunadze and Yu Hongliang," October 08, 1991, History and Public Policy Program Digital Archive, State Archive of the Russian Federation (GARF) fond 10026, Opis 1, Delo 2290, Listy 36-38. Obtained and translated by Sergey Radchenko. https://digitalarchive.wilsoncenter.org/document/119252.
[262] Daniel Goodkind, Loraine West, and Peter Johnson, "A Reassessment of Mortality in North Korea, 1993–2008," *U.S. Census Bureau, Population Division*: 3. Retrieved 8 November 2014;

that the military balance had shifted in the favor of the South and the United States: "[D]espite its edge in military capabilities, the North cannot achieve early and substantial gains during an invasion of the South even under surprise conditions…."[263] The assessment warned that ongoing trends could tip the future balance in favor of North Korea, but that these trends largely depended on both the continued health of the North Korean economy and maintenance of Soviet aid. Following the end of the Cold War and the collapse of the Soviet Union, North Korea's conventional threat diminished. These trends were bolstered by the modernization of South Korean military capabilities. A National Intelligence Estimate from the same year concluded that given ongoing trends on the Peninsula, by the mid-1990s, South Korea might even be able to mount its own defense without U.S. assistance: "Although we cannot be certain how the many variables that can effect [sic] the military balance will develop in the next decade, we feel cautiously optimistic. From our vantage point at this time, overall trends appear favorable to the South. To the extent that these trends continue, Seoul could be strong enough to withstand successfully an unaided North Korean attack as early as the mid-1990s."[264]

With the reduced threat from North Korea, military and civilian leaders throughout the United States began to argue that South Korea could be sufficiently

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Marcus Noland, Sherman Robinson and Tao Wang, "Famine in North Korea: Causes and Cures," *Economic Development and Cultural Change*, Vol. 49, No. 4 (July 2001), pp. 741-767; and Marcus Noland, "Between Collapse And Revival: A Reinterpretation of the North Korean Economy," *Peterson Institute for International Economics*, 15 March 2001.

[263] "Korea: A Different Perspective on the North-South Military Balance," Central Intelligence Agency, October 1987, p. v.

[264] "The Korean Military Balance and Prospects for Hostilities on the Peninsula," National Intelligence Estimate NIE 42/14.2-87, Director of Central Intelligence, March 1987, p. 4.

defended only with conventional forces forward deployed, along with American strategic nuclear forces. In a December 1987 interview, the commander of U.S. Forces Korea, General Louis Menetry, who had earlier served as an Army nuclear weapons test and evaluation officer, declared "I do not envision any circumstance which ... would require the use of nuclear weapons."[265] The next year, Lt. General John Cushman, the former commander of the I Corps stationed in the Western sector of the Demilitarized Zone, noted simply that "nuclear weapons are no longer necessary for the defense of Korea."[266] Indeed, confidence in the security of South Korea had grown to the point that in 1989 the commander of U.S. Forces Korea predicted that even U.S. conventional forward deployments might no longer be needed, saying "If those trends [South Korea's military modernization and Soviet and Chinese restraint of North Korea] continue, there should be stability on the peninsula without the United States being part of the equation in the mid-1990's."[267]

Military assessments that the United States could deter and defend attacks against South Korea without nuclear weapons were subsequently echoed by key civilian leaders. Donald Gregg, U.S. Ambassador to South Korea from 1989 to 1993 recounted how the changing security calculus drove the U.S. decision to remove the tactical nuclear weapons:

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[265] Fred Hiatt, "US: No Use of A-Arms Envisioned in S. Korea," *Washington Post*, 3 December 1987, A54.
[266] John McBeth, "Withdrawal Symptoms: Americans Ponder the Removal of Nuclear Weapons," *Far Eastern Economic Review*, (1988), p. 35.
[267] Richard Halloran, "General Sees End to U.S. Troops in Korea in 90's," *The New York Times*, 13 August 1989, Section 1, p. 4.

> I went to USFK (U.S. Forces Korea) and asked, "Why are these [nuclear weapons] here?" "Well they have always been here." I said, "Are they of any utility to you?" They said, "No." So I went to President Roh Tae Woo's national security advisor, a man to whom I was very close, and I said, "I think we ought to get them out of here." So it took some doing because it was part of the security blanket, but I was able to send in October of 1990, a message with the full support of the Blue House and USFK, I recommend we remove our nuclear weapons from South Korea. I had one brief message back from Dick Solomon who was assistant secretary at State. He said, "You will never know how helpful your message was." About a year later President Bush announced that we were pulling nuclear weapons back from all over the world.[268]

By December of 1991, the United States had withdrawn all nuclear weapons from South Korea.[269] This was part of a broader effort to remove all ground-based tactical nuclear weapons from abroad in an effort to the reciprocal withdrawal of Soviet tactical nuclear weapons.[270] Despite the broader geostrategic goals of the Presidential Nuclear Initiatives, the decision to remove ground-based nuclear weapons was also guided by an understanding of local conditions.[271] "US forces obviously will continue to play a major role on the peninsula for the near term, particularly as the tripwire for the US security commitment and therefore, a major deterrent against a North Korean attack. The number of US troops and weapons in the South is small compared with the large forces of the two Koreas." Despite the removal of the nuclear weapons, the United States continued to station tens of thousands of troops in South Korea for both deterrent and defensive purposes.

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[268] Donald P. Gregg, "Interview with Ambassador Donald P. Gregg," Library of Congress, 3 March 2004, p. 23.
[269] Uk Heo and Terence Roehrig, *The Evolution of the South Korea–United States Alliance*, (Cambridge University Press, 2018), p. 77.
[270] For more on the Presidential Nuclear Initiatives, see Susan J. Koch, *The Presidential Nuclear Initiatives of 1991-1992* (Washington, D.C.: National Defense University Press, 2012).
[271] Amy F. Woolf and Emma Chanlett-Avery, "Redeploying U.S. Nuclear Weapons to South Korea: Background and Implications in Brief," *Congressional Research Service*, 14 September 2017, pp. 3-4.

In the years since, the conventional military balance has shifted decidedly in favor of South Korea, although U.S. troops have remained in the country. With these changes in the conventional balance, extended deterrence selection theory predicts that the United States should withdraw its conventional forces and shift from a conventional barrier to an unconditional guarantee strategy. Given the tremendous disparity in the economies of North and South Korea, high military spending by Seoul, and the loss of Chinese support for North Korea's military, experts argued as early as the late-1990s that South Korea could defend itself without American troops.[272] The United States and South Korean militaries did not share these assessments, though parochial bureaucratic interests and organizational pathologies may have led these military establishments to exaggerate or overestimate the North Korean threat.[273] There is some evidence of American and South Korean recognition of a decrease in the perceived threat from North Korea and the reduced need for American troops. Starting in the early 2000s, American forces have gradually withdrawn from the demilitarized zone (DMZ), first shifting positions from the DMZ to the norther outskirts of Seoul and, since 2014, have been largely consolidated into two military

[272] Michael O'Hanlon, "Stopping a North Korean Invasion: Why Defending South Korea Is Easier than the Pentagon Thinks," *International Security*, Vol. 22, No. 4 (Spring 1998), pp. 135-170.
[273] Chung-in Moon and Sangkeun Lee, "Military Spending and the Arms Race on the Korean Peninsula," *The Asia-Pacific Journal*, Vol. 8, No. 13 (2010), pp. 6-7.

installations *behind* Seoul.[274] These moves were reportedly made at the behest of the South Korean government.[275]

There are several factors explaining why U.S. troops have remained in South Korea despite the more favorable conventional balance on the peninsula. First, since the early 2000s, just as observers were beginning to argue that South Korea could mount a sufficient independent deterrent and defense, North Korea began making substantial progress in asymmetric military capabilities, including nuclear, cyber, and chemical warfare options.[276] Second, South Korea still suffers from very poor strategic geography with its political and industrial center on the footsteps of the DMZ. Third, despite the South Korea's significant qualitative military advantages, the North enjoys quantitative superiority in a range of areas.[277] Finally, despite cracks in the relationships, some observers still raise uncertainty about the level of military support North Korea might receive from China or Russia in a future conflict, which could upend calculations of the military balance.[278] Together, these reasons help to explain why many military analysts still believe that there is at least sufficient uncertainty about the outcome of a conflict to warrant continued U.S.

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[274] Chang-hee Nam, Relocating the U.S. Forces in South Korea: Strained Alliance, Emerging Partnership in the Changing Defense Posture," *Asian Survey*, Vol. 46, No. 4 (2006), pp. 615-631; and *Strategic Digest 2015*, United States Forces Korea, 2015, pp. 39-42.
[275] David Welna, "U.S. Army Relocates Its Korean Military Base South Of Seoul," *National Public Radio*, 6 November 2017, https://www.npr.org/2017/11/06/562270899/u-s-army-relocates-military-base-south-of-seoul.
[276] Cristina Varriale, "North Korea's Other Weapons of Mass Destruction," *Arms Control Today*, Vol. 48 (September 2018); and *Military and Security Developments Involving the Democratic People's Republic of Korea* (Washington, D.C.: Office of the Secretary of Defense, 2017), p. 1.
[277] *The Conventional Military Balance on the Korean Peninsula* (London: International Institute for Strategic Studies, 2018).
[278] Kim Min-Seok, "The State of the North Korean Military," in Chung Min Lee and Kathryn Botto, Eds., *Korea Net Assessment 2020: Politicized Security and Unchanging Strategic Realities* (Washington, D.C.: Carnegie Endowment for International Peace, 2020).

military presence.[279] However, extended deterrence selection theory looks primarily to the local conventional balance which appears to increasingly favor South Korea, making this observation perhaps a partially correct prediction of the theory.

Alternative Explanations

Extended deterrence selection theory largely outperforms the alternative explanations in accounting for the movement in South Korea from a conventional barrier to a nuclear barrier and back again. The structural realist explanation performs equally well. The domestic politics, extractive posturing, and nonproliferation explanations each at times account for characteristics of the U.S. strategy in South Korea. But none of them satisfactorily explain the overall shifts as well as extended deterrence selection theory. These results are summarized in table 2-3 below.

Table 2-3: Competing Explanations in the U.S.-South Korea Case

	Selection Theory	***Structural Realism***	***Domestic Politics***	***Extractive Posturing***	***Nonprolif. Goals***
1953-1958: Conventional Barrier	✓	?	?	?	✗
1958-1991: Nuclear Barrier	?	?	✗	?	?
1991-today: Conventional Barrier	?	?	✗	?	?

✓= successful prediction; ?= partial prediction; ✗= unsuccessful prediction

[279] See, for example, Par Dylan Motin, *Conventional Balance and Deterrence on the Korean Peninsula* (Paris: Les Jeunes IHEDN, 2020), pp. 24-27, in addition to the studies cited above.

Extended deterrence selection theory correctly explains the first phase of the U.S. strategy toward South Korea. Although there were concerns that South Korea could not, by itself, deter and defeat Communist aggression in the years immediately following the 1953 Armistice, the balance of power was sufficiently close that U.S. decision-makers felt comfortable providing only a conventional forward deployment and planning for a reinforcement. The second phase, in which U.S. and South Korean decision-makers opted for the deployment of ground-based tactical nuclear weapons and the selection of the nuclear barrier strategy is partially explained. The case matches every node in the theory except for the final one in which the United States selected a nuclear barrier strategy, rather than a nuclear tripwire strategy as predicted by the theory. Here, the theory underpredicts the degree of U.S. commitment, perhaps, as discussed above, because the coding features of intra-alliance bargaining do not fully capture of the features of this particular case. The third and most phase of U.S. strategy, seeing the implementation a conventional barrier, is also likely best coded as a partially correct prediction. A narrower focus on the local conventional balance suggests that theory should predict a withdrawal of U.S. forces and shift to an unconditional guarantee strategy. However, due to South Korea's quantitative conventional inferiority, North Korean asymmetric (especially nuclear) military capabilities, South Korea's poor strategic geography, and uncertainty about the role of other major powers, there is sufficient doubt among experts about whether South Korea could mount a robust independent deterrent and defense.

A structural realist explanation, rooted in variation in the relative military balance between the adversary and the junior ally, performs moderately well in accounting for the variation over time in the U.S.-South Korea case, though its predictions are somewhat indeterminate. Both the decision to introduce and withdraw ground-based tactical nuclear weapons were heavily influenced by the perceived conventional military balance between North and South Korea. In the mid- to late-1950s, fears that the illegal introduction of new weapons systems in the North had dramatically shifted the military balance provided the impetus for the initial U.S. deployment of tactical nuclear weapons. Enduring concerns about the South's conventional inferiority undergirded the continued U.S. stationing of those weapons in South Korea for the next three decades. Similarly, at the end of the Cold War, a more favorable military balance, coupled with North Korea's loss of material support from the Soviet Union provided the permissive security environment for the U.S. withdrawal of the ground-based tactical nukes. Both American and South Korean officials frequently couched their perceptions and decisions within the language of realism, referencing changes in the local conventional military balance.

However, while accounting for the introduction and removal of nuclear weapons, the structural realist account does not explain why the U.S. did not fundamentally alter its conventional presence, particularly given the substantial costs of both forward deploying several tens of thousands of U.S. troops to South Korea and supporting the ongoing maintenance and modernization of South Korea's own armed forces. In the terms of the extended deterrence strategy typology,

structural realist explanations do not satisfactorily explain why the United States opted for a nuclear barrier strategy over a cheaper nuclear tripwire one. In this respect, structural realism may be considered as partially predicting the U.S. strategy in South Korea. Similarly, structural realism does not adequately account for why, following the signing of the Armistice, the United States only opted for a conventional barrier strategy as opposed to a nuclear barrier. The United States would forward deploy nuclear weapons to Germany within just a year, but would wait until almost the end of the decade to deploy similar weapons to South Korea.

Domestic political explanations account for some of the internal debates within the U.S. government, but do not explain the outcomes of those debates. The one major intra-governmental division within the United States occurred when the State Department criticized the forward nuclear deployments due to their perceived political costs. However, based on the distribution of political power within the U.S. government, we should not have seen a move in the late 1950s from a conventional barrier to a nuclear barrier strategy. Secretary of State Dulles enjoyed outsized influence in the Eisenhower administration. According to one Cold War historian, "The overwhelming consensus among analysts of United States foreign policy during the Eisenhower administration is that it was dominated by Secretary of State John Foster Dulles. Regardless of their often differing assessments of the policies, these writers agree that Dulles' forceful personality, lengthy preparation, and keen intellect enabled him to control and even manipulate the congenial but bland and

passive President Eisenhower."[280] The State Department's own biography of Dulles observes that "During the 1950s, Dulles and Eisenhower forged a strong friendship that granted the Secretary of State direct and unprecedented access to the President."[281] Given Dulles' early and vocal opposition to the nuclear deployments, a domestic political explanation would have expected the United States to have gone through with them.

Similarly, the record shows no evidence that domestic political changes in either the United States or South Korea directly affected extended deterrence decisions. Over the time period studied, South Korea did exhibit significant domestic political shifts, moving between several periods of authoritarianism, factionalism, democracy, and regime transitions as recorded by the Polity IV data (see figure 2-7 below). From 1959 to 1990, South Korea's Polity score experienced five one-year shifts of at least 10 points, remarkably large for a measure with a total spread of only 20 points. However, there is no evidence from deliberations either in Seoul or

[280] Richard H. Immerman, "Eisenhower and Dulles: Who Made the Decisions?" *Political Psychology*, Vol. 1, No. 2 (Autumn, 1979), p. 21. Immerman, it should be noted, adopts a contrarian view.
[281] "Biographies of the Secretaries of State: John Foster Dulles (1888–1959)," *Office of the Historian, U.S. State Department*.

Washington, D.C. that these changes had any impact on extended deterrence decisions or intra-alliance negotiations.

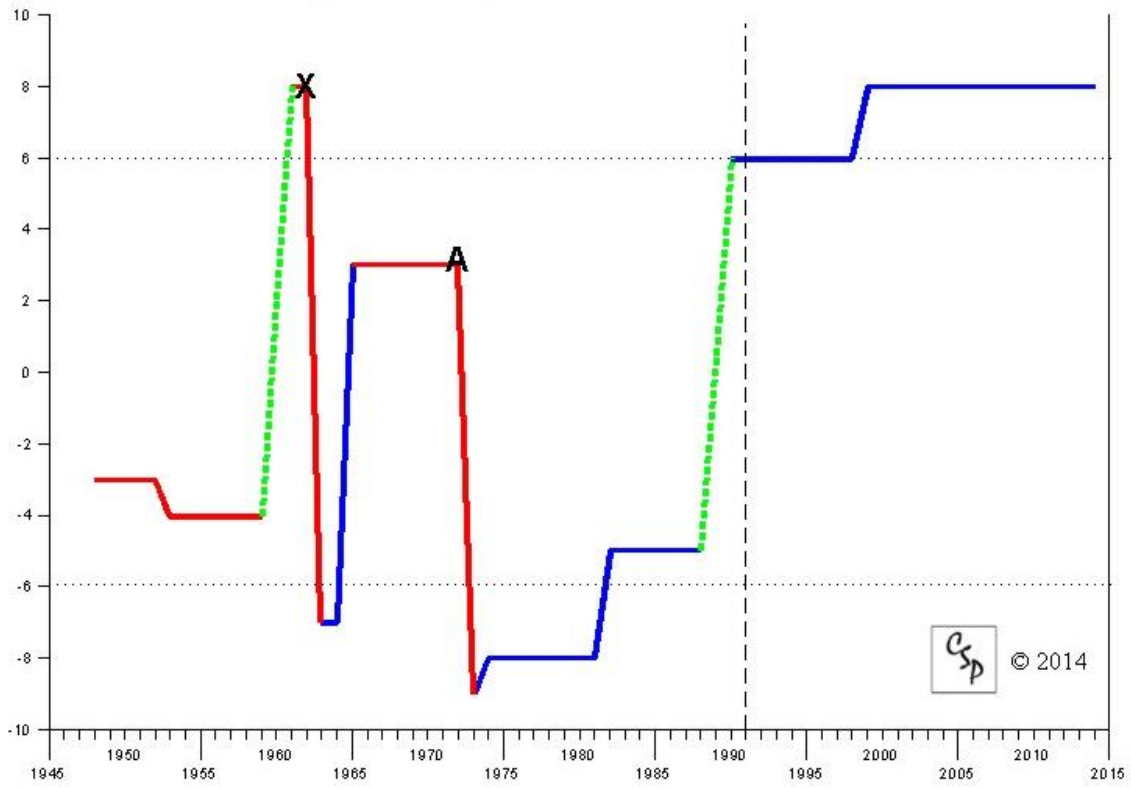

Figure 2-7: South Korea Polity IV Score, 1945 – 2015

Indeed, it is notable that, despite the dramatic shifts in South Korea's domestic political situation, the extended deterrence strategy remained highly stable, not changing from nuclear barrier for three decades. There is some evidence that democratization within South Korea in the late 1980s contributed to a warming of relations with the Soviet Union which, in turn, helped improve Seoul's security

environment.[282] But, here, the connections between domestic politics and extended deterrence strategy are highly indirect at best and would not explain the persistence of strategies despite domestic political shifts.

Extractive posturing helps explain some of the dynamics seen in the intra-alliance bargaining between South Korea and the United States but do not explain the ultimate strategies chosen or the shifts between them. Specifically, it helps account for persistence of the significant U.S. conventional deployments in South Korea even after the introduction of ground-based tactical nuclear weapons. The broader strategic significance of South Korea coupled with the country's negotiating prowess helps account for the U.S. failure to couple forward nuclear deployments with more dramatic conventional reductions. But the fundamental shifts in strategy seen in both the late 1950s and the late Cold War better tracked changes in the local conventional military balance. One way of seeing the failure of extractive posturing to explain strategy changes is to note that the strategy shifted twice, despite the fundamental features of the U.S.-South Korea relationship remaining largely unchanged. We can see this by using a measure of state dependence developed by Miller for investigating the efficacy of U.S. nonproliferation sanctions. That measure is based on four indicators: "(1) whether the state received economic aid from the United States, (2) whether the state received military aid from the United States, (3) whether the state stationed any US troops, and (4) whether the United States was a

[282] Sergey Radchenko, "Russia's Policy in the Run-Up to the First North Korean Nuclear Crisis, 1991-1993," Nuclear Proliferation International History Project, Woodrow Wilson International Center for Scholars, NPIHP Working Paper #4, February 2015.

major trade partner for the state."[283] South Korea featured all four of these indicators for the entire post-War period. In the language of social science, an invariant independent variable (intra-alliance leverage) cannot account for shifts in the dependent variable (extended deterrence strategy). The ability of extractive posturing dynamics to explain the selection of a nuclear barrier over a nuclear tripwire strategy, however, does warrant its coding as a partial success in the U.S.-South Korea case.

Finally, nonproliferation concerns appeared to have played little role in explaining the strategy shifts in South Korea. Although later concerns about the South Korean nuclear weapons program would strengthen U.S. anxieties about South Korea's threat perceptions, proliferation concerns did not influence the U.S. decision to deploy tactical nuclear weapons to the Peninsula. South Korea did not formally begin exploring a potential nuclear weapons program until 1969 and did not begin pursuing nuclear weapons until 1970, more than a full decade after the U.S. move to a nuclear barrier strategy.[284] Similarly, a nonproliferation-based explanation might have predicted the United States to provide a *more* intensive strategy in the late Cold War period when, in fact, the United States withdrew its nuclear weapons. North Korea is typically identified as initiating its pursuit of nuclear weapons in the early 1980s, when American spy satellites discovered construction of the Yongbyon

[283] Nicholas L. Miller, "The Secret Success of Nonproliferation Sanctions," *International Organization*, Vol. 68. No. 4 (Fall 2014), pp. 922-923.

[284] Here, I rely on Bleek's coding of proliferation behavior. Philipp C. Bleek, "When Did (and Didn't) States Proliferate? Chronicling the Spread of Nuclear Weapons," Discussion Paper (Cambridge, MA: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School and the James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies, Monterey, CA., June 2017). For more on U.S.-South Korean relations over the nuclear weapons program, see Alexander Lanoszka, *Atomic Assurance: The Alliance Politics of Nuclear Proliferation* (Ithaca, N.Y.: Cornell University Press, 2018), pp. 110-131.

reactor.[285] Over the next two decades, North Korea would continue progress on the bomb until its first successful detonation in 2006. Given the increasing nuclear threat from the North, a nonproliferation explanation would likely have expected greater concerns about potential proliferation in South Korea and the maintenance of a U.S. nuclear presence in South Korea.[286] Instead, the opposite occurred, with the United States withdrawing its nuclear weapons.

Conclusion

Throughout the Korea case, extended deterrence selection theory performs moderately well in explaining shifts in the U.S. strategy. The theory successfully predicts both the timing and the content of the broad shifts in U.S. strategy, though it sometimes fails to identify the specific drivers explaining why, for instance, the United States did not couple the 1958 nuclear deployments with a more extensive conventional drawdown or why American forces continue to remain on the peninsula today. The South Korea case does hint, however, at factors which might be incorporated into a revised version of the theory, such as examination of non-

[285] Both Bleek and Singh and Way code North Korean pursuit as beginning in 1980. Jo and Gartzke code pursuit in 1982. Sonali Singh and Christopher R. Way, "The Correlates of Nuclear Proliferation: A Quantitative Test," *Journal of Conflict Resolution*, Vol. 48, No. 6 (2004), pp. 859-885; and Dong-Joon Jo and Erik Gartzke, "Determinants of Nuclear Weapon Proliferation," *Journal of Conflict Resolution*, Vol. 51, No. 1 (2007), pp. 167-194. For primary source evidence on U.S. intelligence, see Central Information Agency, "North Korea: Nuclear Reactor" (July 9, 1982) declassified document http://www2.gwu.edu/~nsarchiv/NSAEBB/NSAEBB87/nk01.pdf.

[286] For some of the logic of proliferation dominoes and U.S. attempts to forestall them through security measures, see Nicholas L. Miller, "Nuclear Dominoes: A Self-Defeating Prophecy?" *Security Studies*, Vol. 23, No. 1 (2014), pp. 33-73; and Francis J. Gavin, "Strategies of Inhibition: U.S. Grand Strategy, the Nuclear Revolution, and Nonproliferation," *International Security*, Vol. 40, No. 1 (Summer 2015), pp. 9–46.

conventional military options or the role of uncertainty and path dependency in making extended deterrence strategies "sticky."

The theory also sheds light on the factors which are likely to lead to affect U.S. extended deterrence strategy going forward. If the conventional balance on the peninsula continues to shift in South Korea's favor and there are no significant and new military advancements in the North, then the theory predicts that the United States should continue its process of reducing the role of forward deployed American troops to deter and defeat aggression against South Korea. This is particularly true if there is a successful denuclearization of the peninsula, which would reduce one significant source of asymmetric military advantage in the form of North Korea's nuclear weapons. On the other hand, if North Korea were to gain significant military support from other powers such as China or Russia or if South Korea were to experience some exogenous shock that significantly undermined its conventional military capability, the theory predicts that the United States would maintain and perhaps upgrade its forward military presence in the country. However, given North Korea's growing isolation, its increasingly rocky relationship with China, and steadily improving relations between China and South Korea, these shifts are unlikely.

Chapter 3

U.S. Strategy in Italy: Atomic Defense on the Cheap[287]

The U.S. extended deterrence strategy to Italy begins with the signing of the North Atlantic Treaty and its establishment of NATO in April 1949.[288] The United States had occupied the country following the end of World War II. Following the ending of the allied occupation of Italy and the reestablishment of Italian home rule in 1946, the United States removed most of its occupation forces. However, the United States would continue to maintain a military presence in the country, though the size and composition of that presence would shift over the years as the United States maintained an extended deterrence commitment to Rome.

From the start of the Cold War until today, the United States extended deterrence posture in Italy has transitioned through three different phases, as illustrated in figure 3-1 below. In the early years of the Cold War, the United States extended a security guarantee strategy to Italy, along with an auxiliary power projection strategy. Together, this consisted of an open-ended, unconditional security guarantee to the country along with the forward deployment of Naval and Air Force units intended to extend the long-range strike capabilities of the United States in the region. At the time, Italy was sheltered behind a line of neutral states separating it from the Soviet threat.

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[287] For valuable comments on earlier versions of this chapter, I additionally thank Leopoldo Nuti.
[288] For more on the early years of the alliance, see E. Timothy Smith, *The United States, Italy, and NATO, 1947-52* (New York, N.Y.: St. Martin's Press, 1991).

However, in the mid-1950s, Italy's security situation began to shift, largely with the 1955 signing of the Austrian State Treaty and the removal of NATO and Soviet occupation forces from a militarily weak Austria, which created a strategic vacuum, a corridor along which Soviet troops could quickly march to the Italian Peninsula.[289] These changes prompted a shift in the U.S. extended deterrence strategy with both American and Italian leaders recognizing the need for a more strategy U.S. forward presence to deter and defeat aggression against Rome. However, while Italy lobbied for a strong American conventional ground presence in the country, the United States only offered a forward deployment of a few thousand Army troops, preferring instead to entrust the security of its junior ally to forward deployed ground-based tactical nuclear weapons.

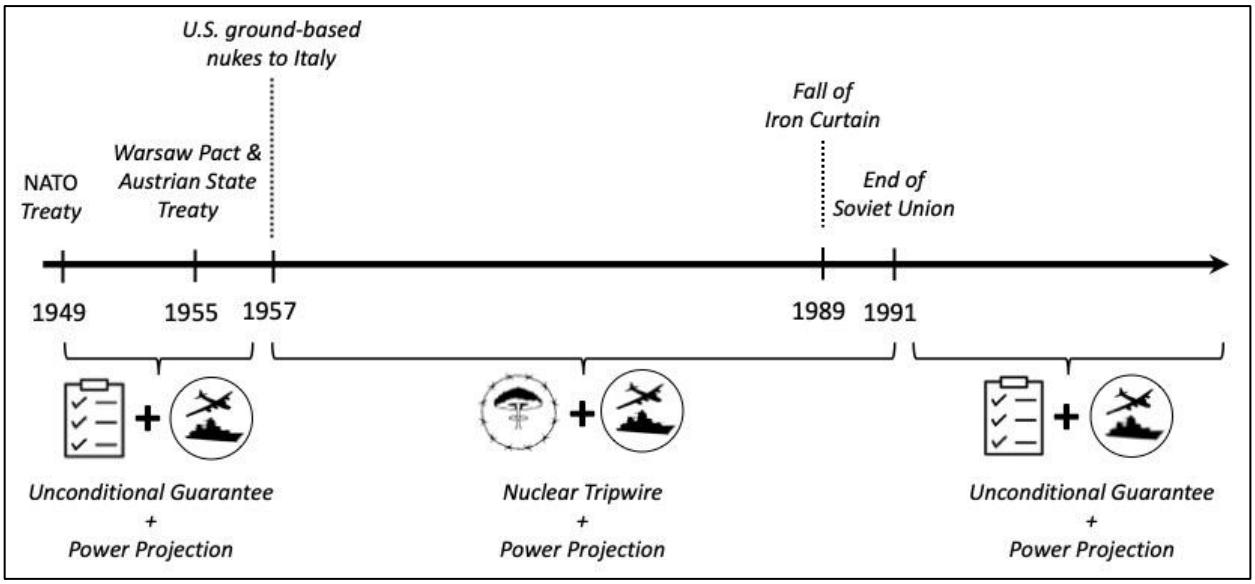

Figure 3-1: U.S. Extended Deterrence Strategies in Italy, 1949-today

[289] Andrew Earl Harrod, *Felix Austria?: Cold War Security Policy between NATO, Neutrality, and the Warsaw Pact, 1945-1989* (Ann Arbor, MI: ProQuest, 2007).

This forward presence, constituting a nuclear tripwire strategy, remained in place for several decades until the end of the Cold War, when the United States shifted back to its security guarantee position on the Italian Peninsula. The end of the Cold War and the removal of the Soviet threat to Italian security created a permissive security environment in which the United States was able to remove its forward deployed nuclear weapons, though the United States continued to provide an open-ended unconditional treaty commitment to the junior ally and continued to station power projection capabilities with an eye largely to augmenting American military operations in the region. The major contours of that strategy continue today.

Early Security Guarantee and Power Projection, 1949-1956

The early years of the U.S. extended deterrence commitment to Italy exhibited the features of both a security guarantee strategy, along with the auxiliary power projection strategy. The treaty which established NATO bound the United States to a largely unconditional security guarantee for its Italian junior ally. However, in the early years, this commitment was not matched by any militarily significant U.S. ground force presence in Italy. Rather, in the beginning, the American military presence in the country consisted largely of naval and air assets designed to support U.S. military operations elsewhere and, if necessary, to strike the adversary from afar.

With the establishment of NATO, the United States assumed an open-ended, largely unconditional obligation to defend Italy. Rapp-Hooper identifies the United

States as providing a nuclear security guarantee to each other member of the NATO alliance. According to Rapp-Hooper, security guarantees like NATO are distinct from conditional defensive alliances in that security guarantees "provide defense promises that are much broader than the typical defense pact. Most security guarantees are activated if the ally is the victim of an "unprovoked attack," but the details of a casus foederis are not given. Security guarantees do not specify the threat against which they are intended to defend. Unlike other defense pacts, they do not identify adversaries, specific regions, specific states acting in specific regions, ongoing conflicts, or other alliances as threats." [290] Indeed, ATOP codings identify no conditions relating to the type of adversary, type of conflict, number of adversaries, type of ally or adversary demands, or the junior ally not provoking the adversary.[291] The only condition placed on the provision of security assistance under the NATO treaty is a geographical delimitation noting that the treaty covers "…an armed attack against one or more of them *in Europe or North America*…" [italics added].[292]

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[290] Mira Rapp-Hooper, *Absolute Alliances: Extended Deterrence in International Politics*, Ph.D. dissertation, (New York, N.Y.: Columbia University, 2015), p. 21. Benson, in a departure from other coding conventions, identifies the NATO alliance as a conditional deterrent one, although he does not specify the reasons for this coding decision. It may be because of the geographic conditions imposed on the provision of military assistance. Otherwise, based on Benson's own typology, which explains "Unconditional deterrent alliances do not specify a trigger condition and therefore permit protégés to use preemptive force against a threatening adversary while conditional deterrent alliances obligate alliance partners to wait until an adversary takes an overt violent action," it appears that NATO should be classified as an unconditional deterrent alliance. For quote, see Brett V. Benson, "Unpacking Alliances: Deterrent and Compellent Alliances and Their Relationship with Conflict, 1816-2000," *Journal of Politics*, Vol. 73, No. 4 (September 2011), p. 1117. For more on Benson's typology of alliance commitments, see Brett V. Benson, *Constructing International Security Alliances, Deterrence, and Moral Hazard* (Cambridge, U.K.: Cambridge University Press, 2012), replication data for chapter 2.

[291] Brett Ashley Leeds, Jeffrey Ritter, Sara Mitchell, and Andrew Long, "Alliance Treaty Obligations and Provisions, 1815-1944," *International Interactions*, Vol. 28, No. 3 (2002), pp. 237-60.

[292] The North Atlantic Treaty, 4 April 1949, North Atlantic Treaty Organization, Article 5, https://www.nato.int/cps/en/natolive/official_texts_17120.htm.

The United States also saw the formation of a power projection strategy in Italy during these early years. In the early years, the U.S. military presence in Italy was dominated by naval and air force units. In 1951, just over a year after the establishment of NATO, the United States completed construction of Naval Support Activity Naples, a naval ashore headquarters which would directly support the U.S. Sixth Fleet.[293] In 1954, the United States and Italy completed negotiations over several basing agreements which would provide for the introduction of the first U.S. Air Force units into the country since World War II.[294] Those units arrived that same year. These forces were intended to provide long-range strike capabilities against adversaries in the region, including both Eastern Europe and the Middle East.[295]

From the start of Italian membership in NATO in 1949 until the introduction of ground-based nuclear weapons to Italy in 1956 and the concurrent shift toward a nuclear tripwire strategy, air and naval personnel always made up more than half of all American troops stationed in Italy. Similarly, while the United States consistently deployed only a few thousand ground troops in Italy during this period, U.S. Navy and Air Force personnel quickly increased to more than 10,000 in 1956, as illustrated

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[293] "The U.S.S. Little Rock and the U.S. Navy's Sixth Fleet," *USS Little Rock Association*, 7 December 2012, https://web.archive.org/web/20130323034624/http://www.usslittlerock.org/Sixth%20Fleet.html.

[294] Niklaas A. Walker, *Fifty Years of Friendship and Cooperation: A History of Aviana Air Base, 1955-2005* (Aviano Air Base, Italy: United States Air Forces in Europe Office of History, 2005), p. 4; and Francesco Coletta, Le Basi Militari Alleate in Italia Aspetti di Rilevanza Per l'Attività di Polizia Militare [The Allied Military Bases in Italy: Aspects of Relevance for the Military Police Activity]," Ministero della Difesa [Ministry of Defence], *Rassegna dell'Arma dei Carabinieri* [Review of the Carabinieri], No. 3 (2011).

[295] Ciro Paoletti, *A Military History of Italy* (Westport, CT: Praeger Security International, 2008), chapter 27; and Presentation by Adm. Arthur [Defense] Strategic Mobility, Department Of Defense, 25 March 1957, *U.S. Declassified Documents Online*, link.gale.com/apps/doc/CK2349427879/USDD?u=prin77918&sid=USDD&xid=f5e17669&pg=1.

in figure 3-2 below. Further, American ground troops consisted almost entirely of logistical and support elements, and not combat troops. U.S. planning documents explicitly recognized the importance of Italy to American power projection capabilities. A top-secret National Security Council document outlining U.S. policy toward Italy argued that "the Italian peninsula and Sicily constitute an area of great strategic importance as a base area for the air and naval forces of other NATO nations."[296]

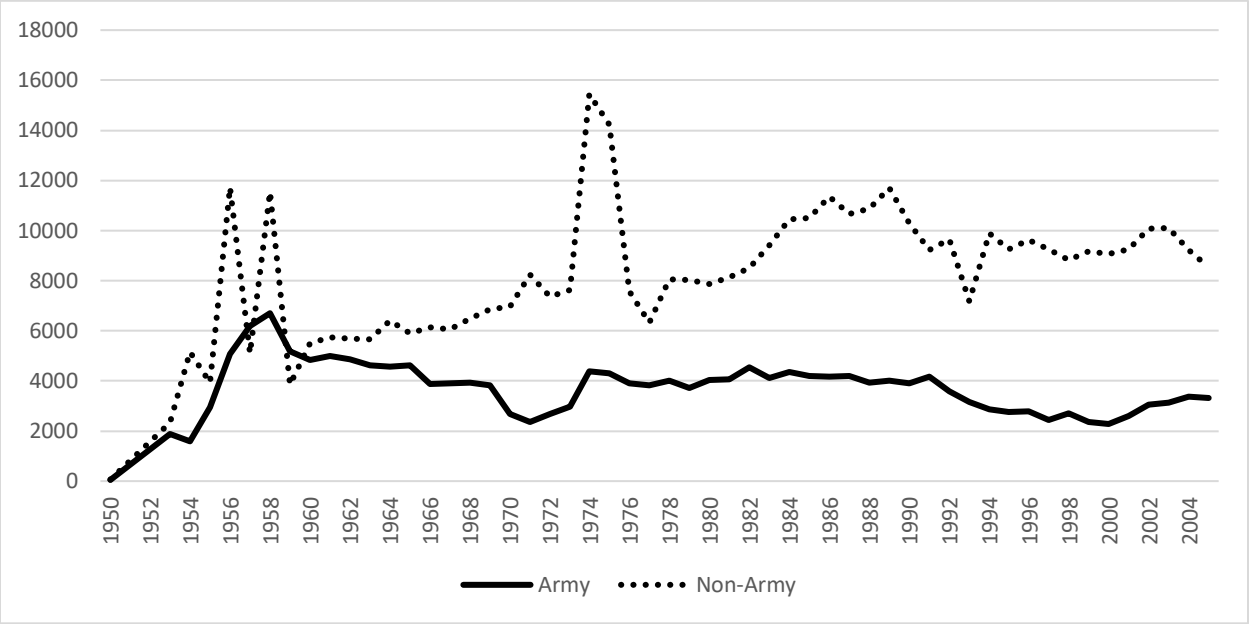

Figure 3-2: U.S. Army and Non-Army Military Personnel in Italy, 1950-2005

The few U.S. Army personnel stationed in Italy were oriented not toward combat operations, but toward logistics and support. This focus was evidenced not only by their numbers, but also by their location, their composition, and their primary

[296] "Statement of Policy by the National Security Council: U.S. Policy Toward Italy," 15 April 1954, *Foreign Relations of the United States, 1952-1954, Western Europe and Cinda*, Volume VI, Part 2 (Washington, D.C.: Government Printing Office, 1986), Document 776.

mission set. In 1951, the United States and Italy concluded negotiations for the establishment of a U.S. line of communication and supply through the country. Shortly thereafter, the United States constructed Camp Darby, located on Italy's western coast between the cities of Livorno and Pisa. Although this base provided the U.S. Army an official presence in the country, its primary function was not housing combat elements but, rather, "to logistically support combat deployments that include war reserve storage and maintenance, maintenance of weapons and vehicles and their movement for rapid reaction and crises response operations spanning the globe."[297] The installation's location on the western coast, roughly 250 miles (400 kilometers) from the border with Austria would have made it incapable of quickly responding to aggression along Italy's northeast frontier. Indeed, as Nuti notes, "In the following years [after the outbreak of the Korean War], western planning for an integrated defense of the region bordering with the northeastern border of Italy was, at best, little more than tentative."[298]

These features of the U.S. strategy in Italy are well explained by extended deterrence selection theory, as illustrated in figure 3-3 below. The United States did not express any serious concerns about entrapment in Italy, freeing it to provide a more open-ended unconditional security guarantee to its junior ally. Despite the growing tensions of the Cold War, the security threats to Italy in the early 1950s were

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[297] "About Camp Darby," United States Army Garrison Italy, 1 September 2019, https://home.army.mil/italy/index.php/my-garrison-Italy/pcsguidedarby/living-darby/about-darby.
[298] Leopoldo Nuti, "U.S. Forces in Italy, 1945-1963," in Simon W. Duke and Wolfgang Krieger, Eds. *U.S. Military Forces In Europe: The Early Years, 1945-1970* (Boulder, CO: Westview Press, 1993), p. 258.

muted thanks to the country's favorable strategic geography, mitigating the need to forward deploy any U.S. ground forces to deter or defeat conflict against its junior partner. Although the United States did not deploy Army combat units to Italy during this period, it did establish and enlarge its naval and air force presence in the country.[299] Given its location, relatively sheltered from the adversary but still within striking distance, Italy was an ideal location for American power projection capabilities. Since 1946, the United States has based the Sixth Fleet flagship, or its institutional predecessor, in Naples, Italy.[300] A Vice Admiral has commanded the Sixth Fleet since its formation and the Fleet has operated a large number of power projection forces, including destroyers, cruisers, aircraft carriers, and amphibious ships. Air Force units based at Aviano, Comiso, Ghedi, and San Vito del Normanni included fighter wings, bomber wings, support elements, and intelligence components.

[299] Data from Garret Jones and Timothy Kane, "US Troops and Foreign Economic Growth," *Defence and Peace Economics*, Vol. 23, No. 3 (2012), pp. 225-249.

[300] From 1946 to 1948, U.S. Naval forces in Naples were designated Naval Forces, Mediterranean. From 1948 to 1950, they were designated Sixth Task Fleet. Beginning in 1950, they were designated Sixth Fleet. See "Commander Sixth Fleet," Naval History and Heritage Command, 8 June 2021, https://www.history.navy.mil/research/library/research-guides/lists-of-senior-officers-and-civilian-officials-of-the-us-navy/commander-sixth-fleet.html.

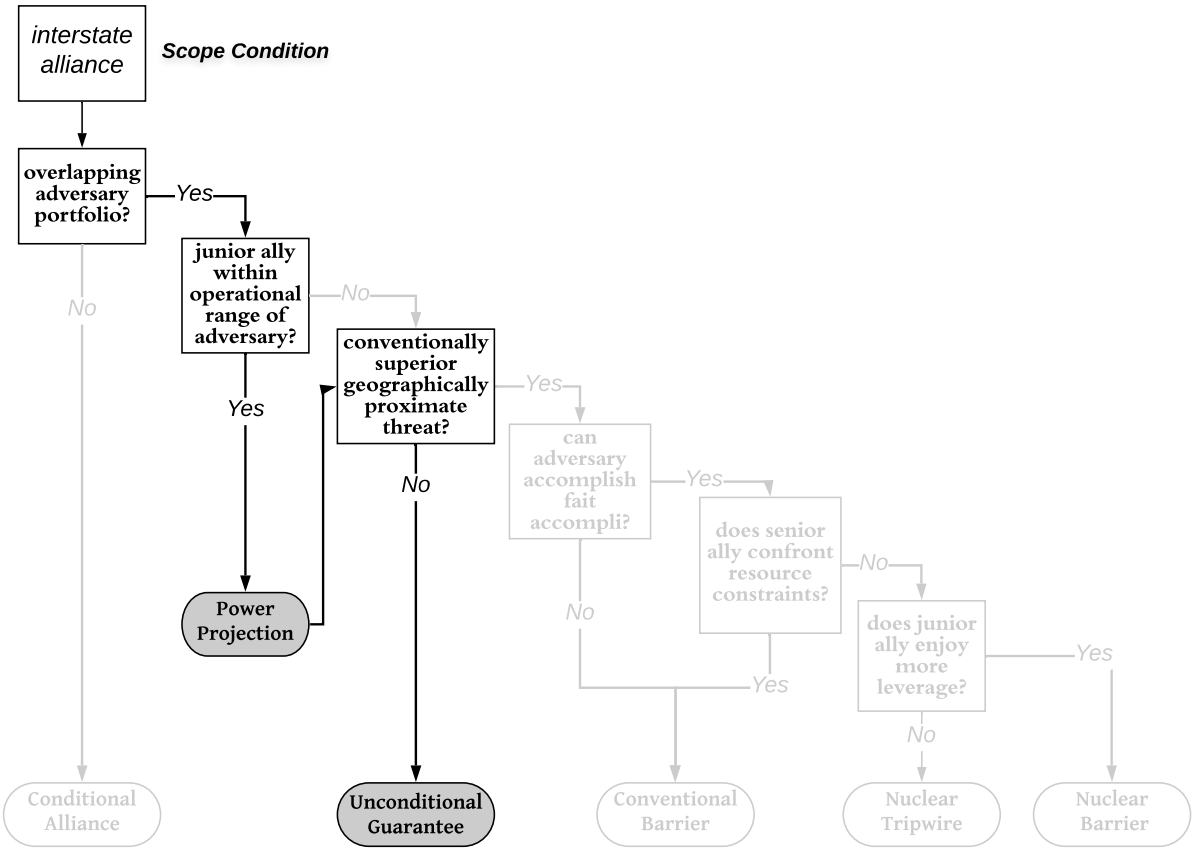

Figure 3-3: U.S. Extended Deterrence Strategy in Italy, 1950-1957

The United States did not fear entrapment in Italy. Rome did not confront any adversaries not also confronted by the United States. For both states, the greatest security threat emanated from the Soviet Union. Italy did have somewhat rocky relations with Yugoslavia over the status of the territory of Trieste.[301] But while this lingering dispute caused distrust on the Italian side, it never rose to the level of a serious threat to the country's security. In the first three decades of the Cold War, Italy experienced only four militarized interstate disputes, two with Albania and two

[301] Karlo Ruzicic-Kessler, "Italy and Yugoslavia: from Distrust to Friendship in Cold War Europe," *Journal of Modern Italian Studies*, Vol. 19, No. 5 (2014), pp. 642-644.

with Yugoslavia, though these were very minor by the standards of entrapment fears.[302] Indeed, American and NATO planners were so sanguine about Italy's external security environment that they even assumed that Italy and Yugoslavia could cooperate in a military defense against the Soviets. As one historian of the era notes, "[A]lready in late 1949 Allied military planning looked at the security issues of the region from a broad, global perspective, basically discarding the risk of an Italian-Yugoslav confrontation, and hoping to bring about some degree of co-operation between the two countries."[303] That Italian strategists may have adopted a more skeptical view toward their eastern neighbor did not affect NATO's muted fears of entanglement in southern Europe. In fact, so great was Western optimism in their relations with Yugoslavia that NATO and American officials even debated the possibility of dispatching ground forces to Yugoslavia if the Balkan state was attacked by its Soviet satellites. In 1948, Yugoslav leader Josef Tito and Soviet leader Joseph Stalin experienced a very public break, leading to a deterioration in relations between their two countries.[304] American and Western decision-makers sought to encourage this break and viewed Yugoslavia as a potential partner against Soviet aggression.[305] As Heuser notes, "Yugoslavia came to be regarded [by Western defense planners] as a shield protecting Italy, and a pillar of support for a part of Austria,

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[302] Douglas M. Gibler, *International Conflicts, 1816-2010: Militarized Interstate Dispute Narratives* (United States: Rowman & Littlefield Publishers, 2018), pp. 315-319.
[303] Leopoldo Nuti, "Security and Perceptions of Threat in Italy in the Early Cold War Years, 1945-53," in Francesca Gori and Silvio Pons, (Ed.), *The Soviet Union and Europe in the Cold War, 1943-53* (London, U.K.: MacMillan Press, Ltd., 1996), p. 421.
[304] Jeronim Perović, "The Tito-Stalin Split," *Journal of Cold War Studies*, Vol. 9, No. 2 (Spring 2007), pp. 32-63.
[305] Lorraine M. Lees, "The American Decision to Assist Tito, 1948-1949," *Diplomatic History*, Vol. 2, No. 4 (October 1978), pp. 407-422.

and a holding strategy could be adopted in the defence plans for these two Western countries. Yugoslavia's value for the defence of this NATO area was such that France, the United Kingdom and above all, the United States were willing to give Yugoslavia vast amounts of financial, economic and military aid."[306] Indeed, according to an official history of Supreme Headquarters Allied Powers Europe (SHAPE) produced by NATO, Western military planning for the defense of Italy stated that "Maximum advantage was to be taken of the possible cooperation of Yugoslav forces" and that Field Marshall Montgomery, who served as Deputy Supreme Allied Commander Europe, "considered the Yugoslavian army as an ally which, in the event of Soviet attack, would hold the approaches from the east into Italy."[307]

Despite the potential threats posed by the Soviet Union to all members of the NATO alliance, its threat to Italy was not immediate. Unlike many other U.S. junior allies in the early Cold War which directly bordered an adversary, such as South Korea, Greece, Turkey, or West Germany, all the countries on Italy's land borders were either friendly or neutral. In fact, Austria, which served as the main strategic buffer between Italy and the Soviet Union, was occupied by the victorious powers, including the forward deployment of tens of thousands of American, British, and French occupation forces.[308] These forces were a necessary barrier given Austria's low

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[306] Beatrice Heuser, "Yugoslavia in Western Military Planning, 1948-53," in Marko Milivojević, John B. Allcock, and Pierre Maurer, (Ed.), *Yugoslavia's Security Dilemmas: Armed Forces, National Defence, and Foreign Policy* (New York: Berg Publishers Limited, 1988), pp. 162-163.
[307] *History: The New Approach, 1953-1956*, Supreme Headquarters Allied Powers Europe, 3340/11-3, 7 September 1976, pp. 37 and 54.
[308] Based on the chronology available at "History of the Custody and Deployment of Nuclear Weapons (U): July 1945 through September 1977," Top Secret, Office of the Assistant Secretary of Defense (Atomic Energy), February 1978, Appendix B, p. B-6. Italy is the fourth country as deduced by the alphabetical listing and the timing of the first introduction of nuclear weapons to the country.

military capacity and inability to defend or stymie a Soviet or Warsaw Pact invasion. In fact, the distance between Italy and the nearest member of the Warsaw Pact, Czechoslovakia, was greater than the distance between France and either Czechoslovakia or East Germany. This muted threat perception from the Soviet Union was reflected in NATO military planning. As Nuti observes, "the Italian military, and the Allied occupation authorities before them, focused their attention on the domestic dimension of the Cold War rather than on the strategic problems posed by a Soviet military menace."[309] During this time, American and Western planners believed that the greatest threat to Italy and its role in NATO was the possibility of the Italian Communist Party coming to power.[310] The Italian Communist Party was widely viewed as the most powerful Communist Party in Western Europe and was strongly opposed to stronger political or security integration with the United States and NATO.[311] Against these possible domestic threats, the possibility of external aggression paled by comparison.

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[309] Leopoldo Nuti, "Security and Perceptions of Threat in Italy in the Early Cold War Years, 1945-53," in Francesca Gori and Silvio Pons, (Ed.), *The Soviet Union and Europe in the Cold War, 1943-53* (London, U.K.: MacMillan Press, Ltd., 1996), p. 412.
[310] Giacomo Sani, "Mass-Level Response to Party Strategy: The Italian Electorate and the Communist Party," in Donald L.M. Blackmer and Sidney Tarrow (Eds.), *Communism in Italy and France* (Princeton, N.J.: Princeton University Press, 1976), pp. 456-503; and James E. Miller, "Taking Off the Gloves: The United States and the Italian Elections of 1948," *Diplomatic History*, Vol. 7, No. 1 (1983), pp. 35-56.
[311] Alessandro Brogi, *Confronting America: The Cold War between the United States and the Communists in France and Italy* (Chapel Hill, N.C.: University of North Carolina Press, 2011).

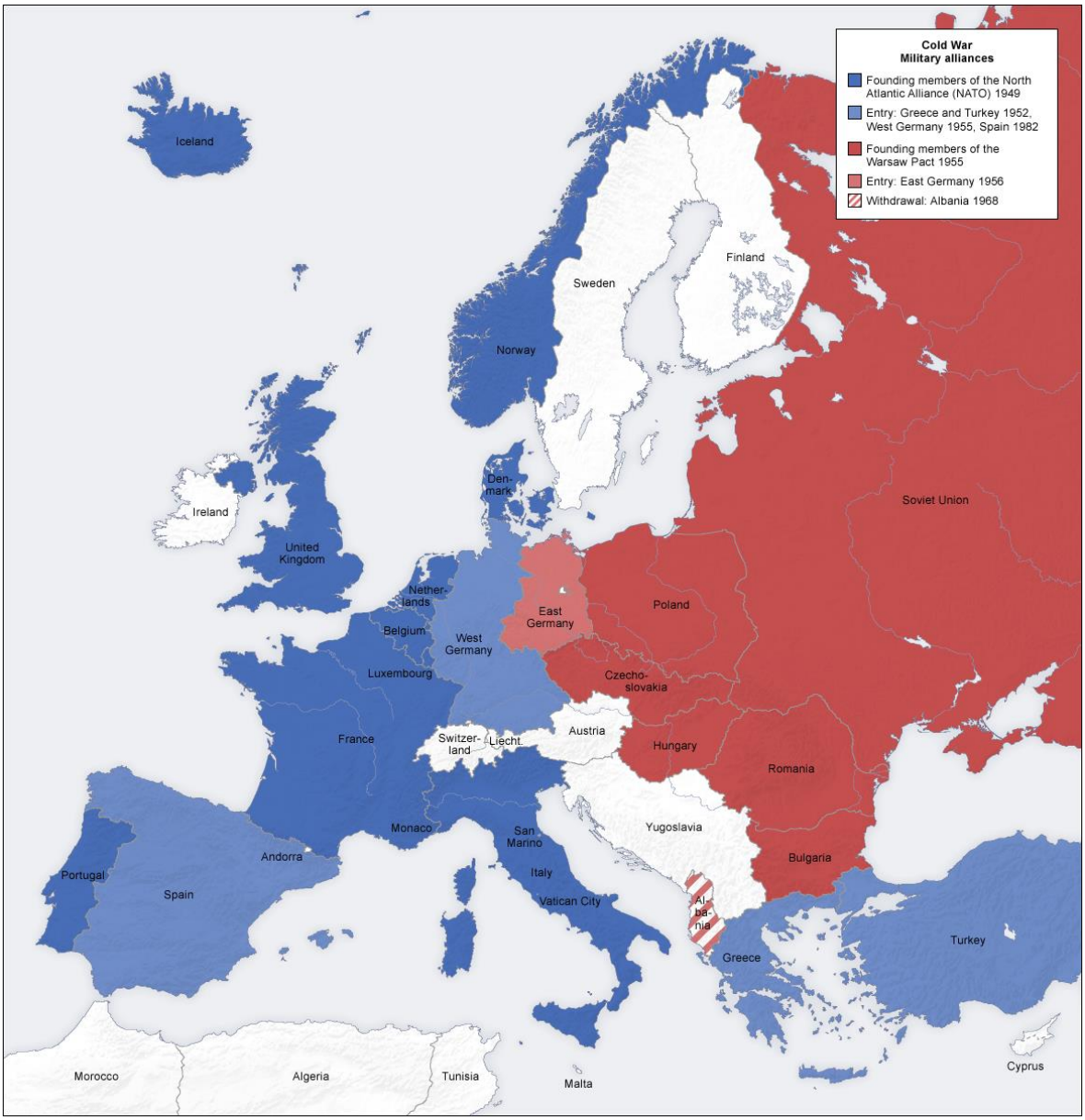

Figure 3-4: Cold War European Military Alliances

The Move to a Nuclear Tripwire Strategy, 1957-1991

In the mid- to late-1950s, the United States presence in Italy continued but took on a new nuclear dimension, marking the shift from the security guarantee and power projection strategy of the early years of the Cold War toward a nuclear tripwire strategy marked by the presence of ground-based tactical nuclear weapons.

Throughout most of the Cold War, the U.S. strategy for Italy was characterized by a token ground combat presence armed with tactical nuclear weapons arrayed near the newly threatened northern border, along with a larger contingent of Navy and Air Force personnel stationed in the rear of the country. These features are summarized in table 3-1 below, alongside the typical indicators of nuclear tripwire and power projection strategies as laid out in the typology presented in the theoretical chapter. This shift to nuclear tripwire strategy began in the late-1950s thanks to the removal of allied forces from a newly independent (and militarily weak) Austria and the strategic opening that created for a potential Soviet invasion of northeast Italy, and growing allied fears that neighboring Yugoslavia, rather than block a Soviet invasion of Italy, might support one.

Table 3-1: Illustration of Nuclear Tripwire Indicators in U.S.-Italy Case

Dimension	Nuclear Tripwire Strategy Indicators	U.S.-Italy Strategy
Treaty Commitment	Unconditional, Ambiguous	No explicit conditions except geographic; open-ended and ambiguous
Conventional Force	Tripwire land force; significant naval and air force presence	~4,000 ground troops; 60%+ Navy and Air Force units (10,000+ personnel)
Conventional Posture	Tactically offensive, high readiness	Explicitly defensive strategically; deployed near border; tactically offensive with short response time
Nuclear Force	SRBMs, artillery, demolition charges	SRBMs (Honest John, Corporal, Sergeant, Lance missiles), artillery (8-inch howitzers), demolition charges (land-based and nuclear depth bombs), Nike Hercules (air defense)
Nuclear Posture	Embedded, higher readiness	Deployed near border alongside conventional ground forces; high readiness
Deterrent Purpose	Deter and defend by nuclear offset and escalation risks	"With a view to arresting, if possible, and otherwise retarding the Soviet advance in the direction of Northern Italy, a defence position would be established and defended in northeast Italy to channel the Soviet attack and create concentrations of attacking forces"[312]

Historical analysis of nuclear weapons in Italy has often focused on the Jupiter medium-range ballistic missiles which the United States briefly deployed in Italy before removing them as part of the agreement which helped end the Cuban Missile Crisis.[313] However, despite their prominence in the historiography, these missiles represent only a brief and tiny component of the U.S. nuclear presence in Italy, having been removed a mere three years after their introduction. The United States

[312] *History: The New Approach, 1953-1956*, Supreme Headquarters Allied Powers Europe, 3340/11-3, 7 September 1976, p. 37.
[313] See, for example, Philip Nash, "Jumping Jupiters: The US search for IRBM host countries in NATO, 1957–59," *Diplomacy and Statecraft*, Vol. 6, No. 3 (1995), pp. 753-786; and Philip Nash, *The Other Missiles of October Eisenhower, Kennedy, and the Jupiters, 1957-1963* (Chapel Hill, N.C.: The University of North Carolina Press, 1997).

also deployed long-range strike nuclear options in the form of gravity bombs and nuclear depth charges. The U.S. nuclear presence in Italy also consisted of several ground-based tactical nuclear weapons aimed at deterring and defeating aggression characteristic of the nuclear tripwire strategy. In August 1956, just a year after the signing of the Austrian State Treaty, the United States for the first time deployed nuclear weapons to Italian soil. It began with the forward stationing of Honest John and Corporal short-range missiles. Eventually, however, the United States would deploy ten different types of nuclear weapons to Italy, including atomic demolition munitions, Nike Hercules surface-to-air missiles, 8-inch nuclear howitzers, nuclear depth bombs, and Sergeant and Lance short-range missiles.[314] These troops, redeployed from Austria, would largely be placed in Camp (Caserma) Ederle, located in Italy's north and less than 100 miles from the mountainous borders with Austria and Yugoslavia.[315]

Despite the introduction of these new nuclear weapons, the other core features of the United States extended deterrence strategy in Italy remained unchanged. The North Atlantic Treaty which bound the two countries together remained unchanged and the United States continued to deploy a significant naval and air presence in the country. The United States conventional ground presence in the country did not increase with the introduction of the new American ground-based nuclear systems.

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[314] Based on the chronology available at "History of the Custody and Deployment of Nuclear Weapons (U): July 1945 through September 1977," Top Secret, Office of the Assistant Secretary of Defense (Atomic Energy), February 1978, Appendix B, p. B-6. Italy is the fourth country as deduced by the alphabetical listing and the timing of the first introduction of nuclear weapons to the country.
[315] Appunto in data 9 settembre 1955, AUSSME, DS SMD, cited in Leopoldo Nuti, *La Sfida Nucleare: La Politica Estera Italiana e le Arme Atomiche, 1945-1991* (Bologna, Italy: Il Mulino, 2007), pp. 100-101.

In fact, the U.S. Army presence in Italy, already meager to begin with, withered further following the introduction of the ground-based tactical nuclear weapons, falling from a high of more than 6,000 in 1958 to an average of just 4,000 from 1959 to 1991. As illustrated in figure 3-2 above, U.S. ground forces in Italy never constituted more than a few thousand since the end of World War II, while the bulk of the U.S. military presence in the country consisted of Navy and Air Force personnel.

The introduction of ground-based tactical nuclear weapons also saw a change in the strategy for defending Italy. The defense of Italy was now explicitly planned around the principles of slowing the enemy advance in time for a broader mobilization of Italian and NATO armed forces. The forward deployed American tactical nuclear weapons were to be used early in a conflict in order to close off strategic routes of approach into northeast Italy. These nuclear-armed forces were to particularly exploit the geography of northern Italy which both limited the attacker's avenues of approach and forced offensive forces to concentrate, making them more vulnerable to nuclear explosions.[316] The addition of American ground-based nuclear weapons led Italy to alter its military plans to defend the north.[317] As one Italian expert on the period has noted, "In 1956, the great summer maneuvers of the army revolved around

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[316] According to Nuti, "Nuclear weapons were to be used only in the initial phase of the hostilities, due to their limited availability, but the impact was expected to be very disrupting. The use of such weapons would also offer the necessary breathing space which may be required for the Italian armed forces to complete their mobilization." Nuti, "U.S. Forces in Italy, 1945-1963," in Simon W. Duke and Wolfgang Krieger, Eds. *U.S. Military Forces In Europe: The Early Years, 1945-1970* (Boulder, CO: Westview Press, 1993), p. 267.

[317] See, for example, Leopoldo Nuti, "The Role Model? Italy and US Armed Forces 1945-1963," in S. Duke and W. Krieger (eds.), *US Military Forces in Europe: The Early Years, 1945-1970* (Boulder: Westview, 1993), pp. 266-267; and Leopoldo Nuti, *La Sfida Nucleare: La Politica Estera Italiana e le Armi Atomiche 1945-1991* (Bologna, Italy: Il Mulino, 2007), pp. 105-106.

the experimentation and the verification of a few new key concepts and the principal exercises (in particular the Monte Bianco 1 and 2 [exercises]) included the simulated use of nuclear weapons. The new chief of staff of the army, General Liuzzi, believed that these maneuvers had demonstrated first of all the absolute necessity of preventing an eventual aggressor from penetrating into the Po Valley, and therefore both 'the need to arrest him to beat him, albeit at greater depths than in the past.'"[318]

These strategic principles were also mirrored in the military plans of NATO and the United States. A top-secret NATO internal history described the alliance as designing the strategy for defending Italy, "With a view to arresting, if possible, and otherwise retarding the Soviet advance in the direction of Northern Italy, a defence position would be established and defended in northeast Italy to channel the Soviet attack and create concentrations of attacking forces. These concentrations then would be attacked with air, ground and missile delivered nuclear weapons."[319] As one Italian expert has described the alliance's strategy, "SETAF's nuclear forces were intended for use in the initial phase of hostilities; their purpose was to repel a possible advance by Warsaw Pact troops, slow down the hostile offensive, and allow full mobilization of Italy's armed forces."[320] It was considered necessary for frontline NATO allies to be able to endure an initial Soviet offensive as American military

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[318] Leopoldo Nuti, *La Sfida Nucleare: La Politica Estera Italiana e le Armi Atomiche 1945-1991* (Bologna, Italy: Il Mulino, 2007), p. 105.
[319] *History: The New Approach, 1953-1956*, Supreme Headquarters Allied Powers Europe, 3340/11-3, 7 September 1976, p. 37.
[320] Paolo Foradori, "Tactical Nuclear Weapons in Italy: Striking a Balance between Disarmament Aspirations and Alliance Obligations," *The Nonproliferation Review*, Vol. 19, No. 1 (March 2012), p. 14.

plans envisioned providing reinforcements at least a month after the outbreak of hostilities.[321]

Eventually, as highlighted above, the U.S. nuclear presence in Italy would encompass atomic demolition munitions, Nike Hercules surface-to-air missiles, 8-inch nuclear howitzers, nuclear depth bombs, and Sergeant and Lance short-range missiles, all with an eye to forestalling a possible Soviet invasion.

U.S. decision-makers frequently discussed these forward deployed nuclear weapons as valuable not only for defeating a possible Soviet attack but also for deterring one. In discussing the military and strategic value of newly deployed nuclear forces, Italian defense officials argued that "This provision will undoubtedly serve to strengthen the *deterrent power* and the ceaseless defense of NATO shield forces and to partially heal the aforementioned imbalance" [italics added].[322] Similarly, a U.S. Congressional delegation to Italy the same year as the nuclear deployments argued that:

> Two requirements must be met by NATO to fulfill its mission to act as a deterrent of war and to defend its respective members from aggression if it occurs: a. A sufficient number of combat-ready divisions, infantry and armored, equipped with tactical atomic arms, to defeat any enemy attack. b. British and American troops stationed on the European continent to convince the enemy that all NATO countries will defend any NATO member attacked.[323]

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[321] "Outline of a concept for the conduct of joint U.S. military operations for general hostilities, which will cover contingency ground, air, and naval plans in the event of a nuclear war with the U.S.S.R.," Department Of Defense, 1958. U.S. Declassified Documents Online, https://link.gale.com/apps/doc/RELGCB777568985/USDD?u=prin77918&sid=USDD&xid=e78aa94f.

[322] "Ten-Year Strategy Report by the General Staff of Defense (SMD) on Military problems of NATO to Minister of Defense Andreotti [Problemi militari della NATO. Piano decennale]," 29 October 1960, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 010. https://digitalarchive.wilsoncenter.org/document/122092.

[323] Strom Thurmond reports on trip with Rep. Leroy Anderson to visit military installations and embassies, countries visited: France; Denmark; Germany; Italy. Department Of Defense, 1 Jan.

Some discussions of NATO strategy between Italian, British, and American officials even explicitly identified atomic weapons as being for deterring Soviet aggression, not for actual use on the battlefield except as a last resort.[324] For defense officials at the time, the combat power of nuclear weapons, combined with their escalatory potential, helped to not only improve NATO fighting strength but to also deter Soviet aggression in the first place.

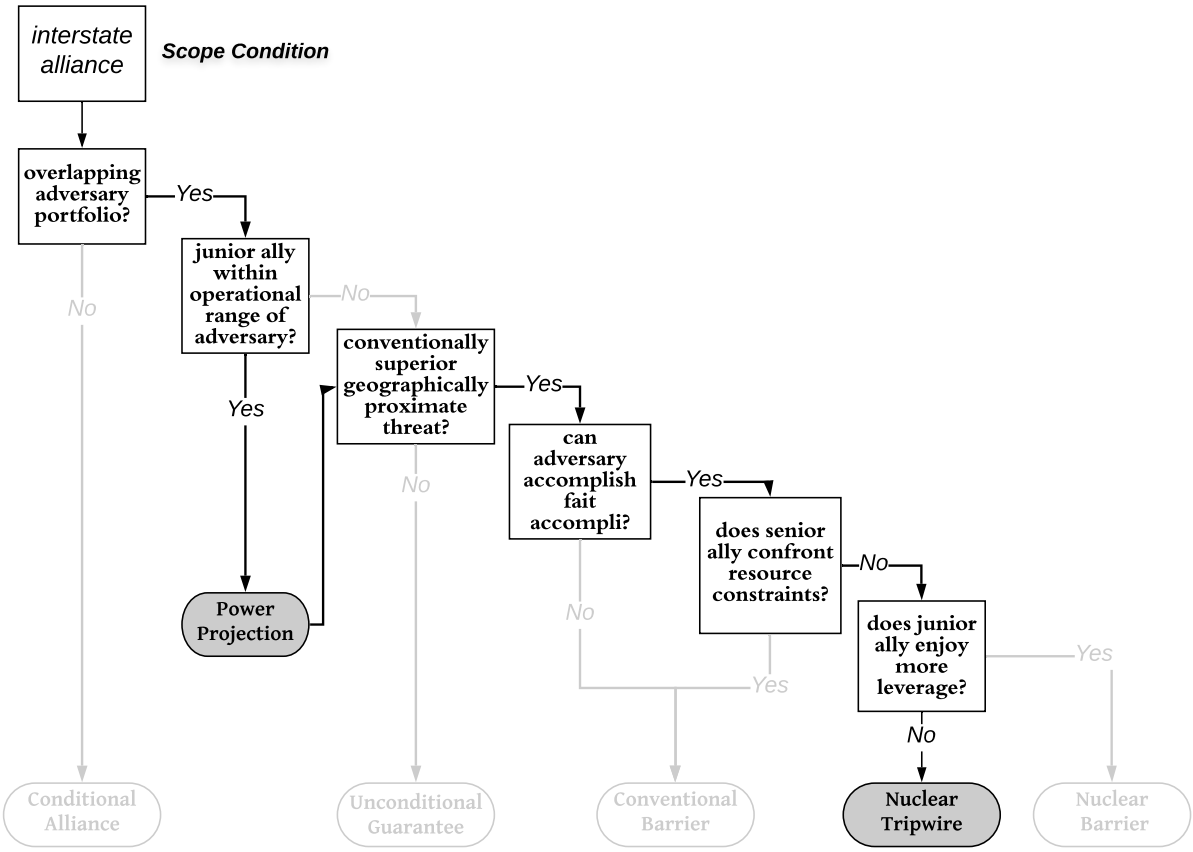

Figure 3-5: U.S. Extended Deterrence Strategy in Italy, 1957-1991

1957. U.S. Declassified Documents Online, https://link.gale.com/apps/doc/CK2349178771/USDD?u=prin77918&sid=USDD&xid=1a799853.

[324] "Message by Ministry of Foreign Affairs, Directorate General for Political Affairs and Security (DGAP), 'NATO strategy. Conversation between our Ambassador in London and Lord Home [Strategia NATO – Colloquio nostro Ambasciatore a Londra con Lord Home'," April 27, 1961, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 013, https://digitalarchive.wilsoncenter.org/document/155282.

This shift from a security guarantee to nuclear tripwire strategy is accounted for by extended deterrence selection theory, as illustrated in figure 3-5 above. Changes in the local security environment wrought by the signing of the Austrian State Treaty and by Yugoslavia's strategic turn away from NATO increased American and Italian fears that the Soviet Union could accomplish a quick military victory over Italy. The United States, having already developed and deployed ground-based tactical nuclear weapons in Germany in 1955, faced no technological or operational constraints on deploying similar systems to Italy. While both American and Italian officials endorsed a strengthened American presence in the country to ward off a possible Soviet fait accompli, the United States did not accede to Italian requests for a robust conventional presence and instead, only provided a new American nuclear deployment. In the next section, I trace these movements along the decision tree and highlight how senior American and Italian leaders often couched their decisions within the language of the variables identified by extended deterrence selection theory.

Although the United States would rely on forward tactical nuclear deployments for many of its extended deterrence commitments during this period, each deployment decision, including the decision to deploy the weapons in Italy, was made with reference to local conditions. Decision-makers were explicit in tying the forward deployment in Italy of ground-based tactical nuclear weapons to both the neutralization of Austria and growing concerns about Yugoslavia. The primacy of

local conditions in driving deployment decisions can be seen in the timing of forward nuclear deployments. For example, although the United States would begin to forward deploy ground-based tactical nuclear weapons to West Germany in early 1955, similar deployments would not occur until 1960 in Greece, Turkey, and the Netherlands.[325]

Security Environment: The Austrian State Treaty and Growing Concerns of a Soviet Fait Accompli

New concerns about the security of Italy and NATO's southern flank were driven primarily by the Austrian State Treaty, signed by the superpowers in 1955. The Treaty, which mandated the neutralization of Austria and the removal of all occupying military forces, removed an important strategic buffer between Italy and Communist forces.[326] Since the end of World War II, the United States and its NATO allies had stationed tens of thousands of troops in Austria, including more than 14,000 American soldiers. Although the Soviet Union had also deployed its own military forces in the country, the presence of allied troops provided an important strategic buffer between Italy and the Warsaw Pact.[327] Italian security concerns were

[325] "History of the Custody and Deployment of Nuclear Weapons (U): July 1945 through September 1977," Top Secret, Office of the Assistant Secretary of Defense (Atomic Energy), February 1978, Appendix B, pp. B-5 and B-6.
[326] American officials early on recognized the potential strategic impact of the Austrian Treaty on the defense of NATO's southern flank. See, for example, "Memorandum for Mr. James S. Lay, Jr., Executive Secretary, National Security Council, Subject: Progress Report on NSC 164/1 (Austria)," Operations Coordinating Board, 11 April 1955, Eisenhower Presidential Library, Declassified Documents, FY2011, https://www.eisenhowerlibrary.gov/sites/default/files/research/online-documents/declassified/fy-2011/1955-04-11.pdf.
[327] Robert L. Ferring, "The Austrian State Treaty of 1955 and the Cold War," *The Western Political Quarterly*, Vol. 21, No. 4 (1968), pp. 654-656.

amplified by the relative weakness of the Austrian armed forces, which left the country likely unable to defend itself. According to a U.S. National Security Council estimate approved shortly after the Austrian State Treaty entered into force, "The new [Austrian] Army … has a current strength of 7,200. It is possible that an effective Austrian defense force will require additional military assistance in view of the lack of manpower and particularly the anticipated lack of budgetary resources. The Austrian Army, as it is now constituted and envisaged for the future, will be capable of maintaining internal security and protecting the Austrian borders in minor border incidents; however, it will not be able to offer more than token resistance in the face of a Soviet and/or Satellite military invasion of any magnitude."[328]

Both American and Italian decisionmakers had recognized the strategic significance of Austria to Italian security. One 1950 National Security Council report focusing on U.S. policy toward Austria warned that "Soviet domination of Austria … would result in penetration of the East-West 'frontier' by a salient extending westward to the Swiss border and permit Soviet control of the principal North-South lines of communication in Central Europe." It specifically cautioned that "Withdrawal of Western forces in the face of a Soviet threat would mark a major advance of Soviet military control in Europe and would endanger our security interest in Central Europe as well as in Italy and Yugoslavia."[329] A top secret 1953 National Security

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[328] "Progress Report on United States Policy toward Austria (164/1)," Report Prepared by the Operations Coordinating Board, 14 December 1955, *Foreign Relations of the United States, 1955-1957, Central and Southeastern Europe*, Volume XXVI (Washington, D.C.: Government Printing Office, 1992), Document 13.

[329] "Report to the National Security Council by the Executive Secretary of the National Security Council (Lay)," NSC 38/5, National Security Council, 27 April 1950.

Council report on U.S. policies toward Austria further emphasized the strategic significance of Austria's location in Europe, noting that it "lies in the path of important military approaches from the USSR to Yugoslavia, Trieste, Italy, Switzerland, and Germany, as well as across a main route between Germany and Italy."[330] Given the strategic significance of Austria and the allied forces deployed there, the Joint Chiefs of Staff and the Defense Department opposed the Treaty on military grounds and the Operations Coordinating Board had expressed opposition to the neutralization policy.[331]

Italian observers expressed similar concerns about the Treaty's impact on Italian security. Just two months before the signing of the Austrian State Treaty, Italian Foreign Minister of Foreign Affairs Gaetano Martino announced to his counterparts on the North Atlantic Council that "A neutral Austria also raises military problems for the defense of Italy's eastern frontier which may have an effect on Italy's force contribution to NATO."[332] A frontpage article in the Turin-based *La Stampa*, one of Italy's highest-circulation newspapers, urged calm upon readers, acknowledging that, in response to the Austrian State Treaty, many Italian observers

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[330] NSC Staff Study, "U.S. Objectives and Policies with Respect to Austria, October 14, 1953," NSC 164/1, White House Office, Office of the Special Assistant for National Security Affairs (SANSA): Records, 1952-61, NSC Series, Policy Papers Subseries, DDEL, cited in Deborah Welch Larson, "Crisis Prevention and the Austrian State Treaty," *International Organization*, Vol. 41, No. 1 (Winter 1987), p. 29.

[331] Deborah Welch Larson, "Crisis Prevention and the Austrian State Treaty," *International Organization*, Vol. 41, No. 1 (Winter 1987), pp. 28-29; and "Progress Report on 164/1 (Austria), Operations Coordinating Board, 15 September 1954, p. 6.

[332] "Telegram From the United States Delegation at the North Atlantic Council Ministerial Meeting to the Department of State," 10 May 1955, *Foreign Relations of the United States, 1955-1957, Western European Security and Integration,* Volume IV (Washington, D.C.: Government Printing Office, 1988), Document 4.

were "abandoning ourselves to manifestations of alarm" over the potential security ramifications.[333] As Nuti describes the view from Rome at the time, "For Italian military planners, this meant that all of NATO's ties to the Central European region, no matter how flimsy or hypothetical, were severed at once. For the first time since the end of the war, no Allied troops could be conveniently deployed near the Italian territory, ready to cooperate in the event of aggression."[334]

At the highest level, Italian strategic planning connected the need for forward nuclear deployments to the country's relative conventional inferiority in the face of Soviet military power. As the ten-year strategy report produced by Italy's General Staff of Defense noted, "The NATO Europe Command, sensitive to that kind of danger, and in recognition of the enormous difference existing between the conventional forces of the Soviet bloc and those of NATO in Europe, has already put in place measures to address it, at least in part, that shortcoming with those measure which appear easier and more immediate to implement."[335]

The difficulties created by the neutralization of Austria and the subsequent withdrawal of NATO occupation forces were further compounded by the growing geopolitical divisions between Italy and Yugoslavia. As discussed above, Italy and its

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[333] Ferdinando Vegas, "Politics and Strategy on Our Border [Politica e strategia sul nostro confine]," *La Stampa*, 21 May 1955, p. 1.
[334] Programma Off-Shore per l'esercizio 1955, October 1955, in AUSSME, I/5, Carteggio Classificato Ufficio Operazioni in Leopoldo Nuti, "U.S. Forces in Italy, 1945-1963," in Simon W. Duke and Wolfgang Krieger, Eds. *U.S. Military Forces In Europe: The Early Years, 1945-1970* (Boulder, CO: Westview Press, 1993), p. 263.
[335] "Ten-Year Strategy Report by the General Staff of Defense (SMD) on Military problems of NATO to Minister of Defense Andreotti [Problemi militari della NATO. Piano decennale]," 29 October 1960, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 010.
https://digitalarchive.wilsoncenter.org/document/122092.

NATO allies had initially counted on cooperation with the Balkan country in order to counter a possible Soviet invasion. However, in the mid-1950s, the prospects for Yugoslav cooperation were progressively dimming.[336] Belgrade had rejected Western entreaties, not only jeopardizing some of NATO's military plans but also introducing the new fear that Yugoslavia might assist in a Soviet offensive against Italy. As was written in the *Corriere della Serra*, the largest and most influential newspaper in northern Italy, "It is very evident, however, that we must nonetheless take all the necessary defence measures that are also imposed by the existence of the other potential invasion route that could be used: an aggressor could, for example, respect Austrian independence but sweep through Hungary into Yugoslavian territory, and from there continue the offensive march with the Po Valley as its objective."[337]

As a result of these broader geostrategic shifts, the local security environment began to appear more menacing for Rome. The vacuum created by a neutralized Austria and the growing fears of a rapid Yugoslavian invasion beside Soviet forces not only increased Italy's threat perceptions, but even raised the possibility that Italy could be quickly knocked out of any potential conflict. The Po Valley has been described as one of the most significant industrial and agricultural centers in all of Europe.[338] One Cold War observer described the area as "the Italian core area,"

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[336] See, for example, discussion in Memorandum of Meeting: OCB Working Group on NSC 5406/1 (Yugoslavia), 21 July 1955, Eisenhower Presidential Library, NSC Staff Papers, OCB Central Files Series, Box 57, OCB 091 Yugoslavia (File #1) (9), p. 1.

[337] Camillo Caleffi, "Austria neutrale [Neutral Austria]," *Corriere della Sera*, 16 May 1955), p. 1. The article does argue that geography should assist Italy in defending itself against a possible Communist aggression.

[338] Leopoldo Nuti, "The Role Model? Italy and US Armed Forces 1945-1963," in S. Duke and W. Krieger (eds.), *US Military Forces in Europe: The Early Years, 1945-1970* (Boulder: Westview, 1993), pp. 266.

noting that "The northern pain covers only 15 per cent of the land area of Italy, but it embraces by far the heaviest concentrations of population, agriculture, and industry. Milan is effectively the business capital of Italy, just as Turin is the heavy industrial powerhouse. In strategic terms northern Italy belongs to Central Europe, not to the world of the Mediterranean."[339] Indeed, northeastern Italy's combination of strategic significance and geographic vulnerability conspired to force a revision of NATO military plans.[340] In a 1954 Capabilities Study, SHAPE had proposed the adoption of a strategy whereby NATO would intentionally abandon large parts of allied territory with the purpose of "allow[ing] the mobilization and deployment of NATO potential for later use through a strategic counter-offensive against the Soviet territory."[341] However, the idea of abandoning northeastern Italy was rejected since military leaders believed it would have potentially sacrificed the entire Italian Peninsula given the country's lack of strategic depth.[342] This logic was summarized forcefully in a memo by Italian General Andrea Cucino calling for a forward defense of Italian soil:

> [States like Italy, therefore, were] not very apt to "take" a severe initial blow, which would be the loss of a vast territory, especially if densely

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[339] Hugh Faringdon, *Strategic Geography: NATO, The Warsaw Pact, and the Superpowers* (New York, N.Y.: Routledge, 1989), pp. 237-238.
[340] "Note Assessing Italian Strategic Vulnerability," March 08, 1961, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 013, pp. 2-3. https://digitalarchive.wilsoncenter.org/document/155277.
[341] Sintesi degli argomenti trattati nella riunione dei capi di Stato Maggiore con il maresciallo Montgomery, 30 gennaio 1954, AUSSME, fondo I5, Carteggio ufficio operazioni SME, cited in Leopoldo Nuti, *La Sfida Nucleare: La Politica Estera Italiana e le Arme Atomiche, 1945-1991* (Bologna, Italy: Il Mulino, 2007), p. 82.
[342] "Note Assessing Italian Strategic Vulnerability," March 08, 1961, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 013, p. 3. https://digitalarchive.wilsoncenter.org/document/155277.

> populated. The strategy of the *Capabilities study*, applicable perhaps in Turkey, is not so applicable [in] the Italian case because, precisely in the nation that is experiencing one of the strongest social tensions in Europe, the vital area of the chessboard set by the plan does not include the Po valley, which locates the heart of the nation. *There is no doubt: the abandonment of northern Italy, due to its moral, political, economic and military reflexes, would compromise any possibility of stabilizing the situation in the peninsular part, especially since in the initial phase of the campaign the allies could not intervene with consistent forces* [italics added].[343]

In fact, Italian concerns about the inability to withstand a quick Soviet invasion were so great that the government developed Operation Gladius, a secret plan for guerilla warfare after Italy was overrun by Warsaw Pact forces.[344] The plan envisioned an Italy overrun by Soviet forces, in which case the fight for Italian sovereignty would have to be continued underground.[345]

Italy's increasingly troublesome strategic geography was compounded by perceived domestic threats to national security stemming from a strong Italian Communist movement. Since the end of World War II, Italian Communist parties enjoyed strong support.[346] American officials were acutely concerned that the Popular Democratic Front, the chief Communist political party in Italy, would win the 1948

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[343] Uff. Op. Sez. 2, maggiore A. Cucino, Memoria sul Capabilities Study di SHAPE/385/54, 11 novembre 1954, AUSSME, I-5, carteggio Ufficio operazioni, cited in Leopoldo Nuti, *La Sfida Nucleare: La Politica Estera Italiana e le Arme Atomiche, 1945-1991* (Bologna, Italy: Il Mulino, 2007), p. 83.

[344] Ciro Paoletti, *A Military History of Italy* (Westport, CT: Praeger Security International, 2008), p. 200.

[345] Le "Forze Speciali" Del SIFAR e l'Operazione "Gladio [The Special Forces of SIFAR and Operation Gladius]," Stato Maggiore della Difesa [The Chief of Staff of Defense], 1 June 1959, http://www.php.isn.ethz.ch/kms2.isn.ethz.ch/serviceengine/Files/PHP/20213/ipublicationdocument_singledocument/8a92b89a-40bc-4933-a3aa-4c5dd449514d/it/590601_report_gladio.pdf.

[346] For a contemporary examination of the Italian Communist Party in the Cold War, see Giacomo Sani, "Mass-Level Response to Party Strategy: The Italian Electorate and the Communist Party," in Donald L.M. Blackmer and Sidney Tarrow (Eds.), *Communism in Italy and France* (Princeton, N.J.: Princeton University Press, 1976), pp. 456-503.

elections, displacing the pro-Western government in Rome.[347] The United States intervened heavily in the election to secure the Communist defeat and many of the tactics it used would form the basis of future "political warfare" strategies.[348] Although the Italian Communists would eventually win only a second-place share in the elections, the Italian military continued to fear a possible "communist uprising," especially in conjunction with offensive actions by either the Soviet Union or Yugoslavia.[349] Communism in Italy remained strong throughout the Cold War; the Italian Communist Party remained the country's second largest political party following the War and, throughout the Cold War, boasted the largest membership of any Communist party outside the Soviet Union.[350] U.S. officials even worried about whether the provision of aid to Italy would commit the United States to supporting the government in the event of a civil war between domestic Communist and Democratic forces.[351] Military planning documents made reference to the possibility of a domestic Communist insurrection supported by and in conjunction with external aggression.[352]

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[347] James E. Miller, "Taking Off the Gloves: The United States and the Italian Elections of 1948," *Diplomatic History*, Vol. 7, No. 1 (1983), pp. 35-56.
[348] Kaeten Mistry, "The Case for Political Warfare: Strategy, Organization and US Involvement in the 1948 Italian Election, *Cold War History*, Vol. 6, No. 3 (2006), pp. 301-329.
[349] Thomas Boghardt, "By All Feasible Means," *Sources and Methods* (blog), *The Wilson Center*, 1 May 2017, https://www.wilsoncenter.org/blog-post/all-feasible-means.
[350] Effie G. H. Pedaliu, "The 18 April 1948 Italian election: Seventy Years On," *Europe Blog* (blog), *The London School of Economics and Political Science*, 18 April 2018, https://blogs.lse.ac.uk/europpblog/2018/04/18/the-18-april-1948-italian-election-seventy-years-on/.
[351] "Memorandum, Subject: Discussion at the 237th Meeting of the National Security Council," 18 February 1955, Eisenhower Presidential Library, Ann Whitman File, pp. 4-5.
[352] See, for example, "Memorandum to Secretary of Defense Charles Wilson in reference to Joint Chiefs of Staff comments and recommendations concerning NSC 5411 entitled: 'U.S. Policy Toward Italy'," Department Of Defense, 23 March 1954, *U.S. Declassified Documents Online*, link.gale.com/apps/doc/CK2349488277/USDD?u=prin77918&sid=USDD&xid=14157b07&pg=1; and National Security Council (NSC) report entitled: "U.S. Policy Toward Italy," National Security

American officials were explicit in both the security challenges created by the Austrian Treaty and the neutral turn in Yugoslavian policy and in the need to forestall a quick Soviet military victory in northeast Italy through the forward deployment of ground-based nuclear weapons. This logic, spelled out in several high-level documents from the time, is neatly summarized in a memo from the Chairman of the Joint Chiefs of Staff to the Secretary of Defense on how U.S. military planning might need to be adjusted in light of the Austrian Treaty:

> The defense of the southern flank of NATO and the intelligence surveillance of Soviet Bloc areas adjacent thereto have been partially met in the past by the US-UK-French forces deployed in Austria, as well as by Italian and Yugoslavian forces deployed in their respective countries in accordance with their national capabilities. The capability of holding that flank by the forces named has been considered to be extremely marginal. This overall weakness was magnified by Yugoslav reluctance to make even covert commitments to the West or coordinate any effective planning with the Allies. Therefore, from a military point of view, the neutralization of Austria and the withdrawal of occupation forces, coupled with the general Yugoslav tendency toward neutrality and possible rapprochement with the Soviet Bloc, increase the weakness in the southern flank of NATO and close a primary source of extremely important intelligence on the adjacent areas. Under the eventuating circumstances, the Villach–Ljubljana Gap area can become an undefended avenue of approach to Northeast Italy. The Soviet penetration of Italy could result in: (1) Turning of the NATO southern flank. (2) Splitting Greece and Turkey and the Middle Fast from Western Europe. (3) Facilitating Soviet access to the Mediterranean.[353]

Council, 15 April 1954, pp. 22-33 *U.S. Declassified Documents Online*, link.gale.com/apps/doc/CK2349522482/USDD?u=prin77918&sid=USDD&xid=4d85dfcd&pg=3.

[353] "Memorandum From the Chairman of the Joint Chiefs of Staff (Radford) to the Secretary of Defense (Wilson)," 25 May 1955, *Foreign Relations of the United States, 1955-1957, Central and Southeastern Europe*, Volume XXVI, (Washington, D.C.: Government Printing Office, 1992), Document 2.

The United States agreed that a nuclear presence was necessary.[354] A portion of the occupation troops in Austria were redeployed to northeast Italy and equipped with Honest John and Corporal short-range missiles. Eventually, as highlighted above, the U.S. nuclear presence in Italy would encompass atomic demolition munitions, Nike Hercules surface-to-air missiles, 8-inch nuclear howitzers, nuclear depth bombs, and Sergeant and Lance short-range missiles, all with an eye to forestalling a possible Soviet invasion.

Intra-Alliance Negotiations

While both American and Italian officials agreed that Italy confronted a more challenging security environment requiring a greater American presence, they disagreed about the form that forward presence should take. While Italian leaders preferred and often lobbied for a greater American presence on the Italian peninsula, American officials ultimately only offered a forward deployed ground force of a few thousand whose key contribution to Italy's defense was the operation of ground-based tactical nuclear weapons.

Italian officials enthusiastically welcomed the American redeployments from Austria, especially with their inclusion of tactical nuclear weapons. American nuclear weapons were, in fact, deployed on Italian territory even without a formal agreement between the two countries.[355] As the American Embassy in Rome telegraphed the

[354] Andrew Earl Harrod, *Felix Austria?: Cold War Security Policy between NATO, Neutrality, and the Warsaw Pact, 1945-1989* (Ann Arbor, MI: ProQuest, 2007), pp. 179-181.
[355] Telegram from Rome to the Secretary of State, 27 September 1961, p. 2, *National Security Archive*, https://nsarchive.gwu.edu/documents/us-nuclear-presence-western-europe-1954-1962-part-

State Department about the deployments, "The Italian Minister of Defense has assured the Ambassador that the United States has full authority to proceed with the proposed deployment Ambassador Luce recommends that we proceed without further discussion with the Italian Government." [356] American officials, in fact, felt so empowered regarding the introduction of nuclear weapons to Italy that they left open the possibility of not even informing the Italian government of the locations, numbers, or types of the weapons. [357] Italian officials had even requested that any future decision to remove tactical nuclear weapons from the country be made only after agreement from the Italian government, a suggestion which was ultimately rejected.[358]

However, while Italian defense officials welcomed the American ground-based tactical nuclear deployments, they also preferred a more robust NATO conventional presence along the southern flank. [359] Italian officials frequently remarked on the

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ii/15.pdf?pdf=722-15; and Secretary of State Dulles to Secretary of Defense Wilson, 12 April 1956, Top Secret, *National Security Archive*, https://nsarchive.gwu.edu/dc.html?doc=6990042-National-Security-Archive-Doc-06-Secretary-of.

[356] Secretary of State Dulles to Secretary of Defense Wilson, 12 April 1956, Top Secret, *National Security Archive*, https://nsarchive.gwu.edu/dc.html?doc=6990042-National-Security-Archive-Doc-06-Secretary-of.

[357] Telegram from Rome to the Secretary of State, 27 September 1961, p. 2, *National Security Archive*, https://nsarchive.gwu.edu/documents/us-nuclear-presence-western-europe-1954-1962-part-ii/15.pdf?pdf=722-15; and Secretary of State Dulles to Secretary of Defense Wilson, 12 April 1956, Top Secret, *National Security Archive*, https://nsarchive.gwu.edu/dc.html?doc=6990042-National-Security-Archive-Doc-06-Secretary-of.

[358] Memo from Amembassy ROME to Secretary of State, Paris for USRO, Stoessel and Finn. Naples for ROOD, 27 June 1961, https://nsarchive.gwu.edu/documents/us-nuclear-presence-western-europe-1954-1962-part-ii/12.pdf?pdf=722-12.

[359] See, for instance, "Note Assessing Italian Strategic Vulnerability," March 08, 1961, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 013, p. 6.
https://digitalarchive.wilsoncenter.org/document/155277; and "Report by Permanent Representative to NATO Alessandrini to Minister of Foreign Affairs Segni," June 14, 1961, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 013. https://digitalarchive.wilsoncenter.org/document/122261.

dangers of only relying on nuclear weapons for the defense of the alliance and made regular entreaties for a strengthened military presence in Italy.[360] Within a few years of the nuclear deployments, Italian officials were expressing alarm at the apparent willingness of the Americans to resort to nuclear use and Italian diplomatic positions expressed a desire to use nuclear weapons only in response to either Soviet nuclear use or an overwhelming Soviet conventional attack.[361] Shortly after the deployment of American ground-based tactical nuclear weapons to Italian soil, a report from the Italian General Staff of Defense to Minister of Defense Giulio Andreotti outlining military problems and strategy for the next ten years highlighted the many drawbacks of an exclusively nuclear defense strategy.[362] Italian diplomats shared these concerns with their NATO counterparts, as evidenced by the Italian Ambassador's warnings to British Foreign Secretary Alec Douglas-Home:

> A first drawback [of relying on nuclear weapons at the expense of conventional ones] would have been to give the Soviets the feeling that they could carry out acts of aggression with impunity, at least within

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[360] "Message by Ministry of Foreign Affairs, Directorate General for Political Affairs and Security (DGAP), 'Conversation Brosio-Acheson. NATO's nuclear weapons'," May 15, 1961, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 013, p. 2. https://digitalarchive.wilsoncenter.org/document/155272.

[361] See "Telegram by Ministry of Foreign Affairs, Directorate General for Political Affairs and Security (DGAP) to Minister of Defense, 'Opinion sharing between Brosio-Acheson on NATO nuclear weaponry '," May 15, 1961, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 013. https://digitalarchive.wilsoncenter.org/document/122102; and "Message by Ministry of Foreign Affairs, Directorate General for Political Affairs and Security (DGAP), 'Conversation Brosio-Acheson. NATO's nuclear weapons'," May 15, 1961, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 013, p. 2. https://digitalarchive.wilsoncenter.org/document/155272.

[362] "Ten-Year Strategy Report by the General Staff of Defense (SMD) on Military problems of NATO to Minister of Defense Andreotti [Problemi militari della NATO. Piano decennale]," 29 October 1960, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 010. https://digitalarchive.wilsoncenter.org/document/122092.

> certain limits and dimensions. A second drawback was that the Western conventional forces, notoriously outnumbered by the Soviet ones, would have felt less protected, which would have affected their morale. A third drawback was that the strengthening of the conventional forces, in order to bring them to a level that would compete successfully with the Soviet ones, would have been of such importance that no European democratic government would be able to support conscription, and would not even have reached the number of volunteers that had been budgeted. … [A] possible war on the European continent would be fought with conventional weapons, the Russians not daring to provoke American atomic retaliation on their territory[363]

Similarly, the Italian General Staff Department, the highest military planning group, lobbied for a strengthening of the conventional presence in Italy by arguing that "The defense of such countries would remain therefore essentially entrusted to the so-called 'shield' force, which is constituted, apart from tactical atomic weapons, essentially of conventional forces" and that "it seems clear that for the next ten years, the conventional "shield" forces of the European countries, and in particular of those bordering the communist world, will be a very important measure for preserving peace or, in the case that is impossible, of avoiding what the Germans have defined as 'the choice between everything and nothing.'"[364] Italian officials shared these concerns with other European NATO members in the hope of encouraging greater French and American contributions to the conventional defense of the alliance's

[363] "Message by Ministry of Foreign Affairs, Directorate General for Political Affairs and Security (DGAP), 'NATO strategy. Conversation between our Ambassador in London and Lord Home [Strategia NATO – Colloquio nostro Ambasciatore a Londra con Lord Home'," April 27, 1961, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 013, https://digitalarchive.wilsoncenter.org/document/155282.
[364] "Ten-Year Strategy Report by the General Staff of Defense (SMD) on Military problems of NATO to Minister of Defense Andreotti," October 29, 1960, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 010. https://digitalarchive.wilsoncenter.org/document/122092.

border members.[365] Some of the Italian reluctance to rely solely on a nuclear defense likely stemmed from Italy's domestic politics. Shortly after the arrival of the new nuclear weapons, *l'Unita*, the official mouthpiece of the Italian Communist Party began publishing articles critical of the deployments, while public opinion polls testified to the Italian public's aversion to nuclear weapons.[366]

These concerns translated into direct pleas to the American government to both avoid reducing the U.S. military presence in Italy and, in fact, to further strengthen it. The year following the decision to redeploy some American troops from Austria to Italy, U.S. Ambassador to Italy Clare Boothe Luce wrote to Secretary of State John Foster Dulles about the Italian desire to increase American conventional deployments, advising that the Italian government had enthusiastically received the redeployment of American troops from Austria and that "the [Italian] government today would be in favor of our stationing even more troops in Italy."[367] These sentiments were shared directly by Italian diplomats. For example, at one session of the NATO Council of Ministers convened in December 1956, Italian Minister of Defense Paolo Emilio Taviani endorsed the need to both strengthen conventional forces and to arm them with tactical nuclear weapons and even called for more

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[365] See, for instance, "Message by Ministry of Foreign Affairs, Directorate General for Political Affairs and Security (DGAP), 'NATO strategy. Conversation between our Ambassador in London and Lord Home'," April 27, 1961, History and Public Policy Program Digital Archive, Istituto Luigi Sturzo, Archivio Giulio Andreotti, NATO Series, Box 160, Subseries 1, Folder 013. https://digitalarchive.wilsoncenter.org/document/155282.

[366] Leopoldo Nuti, *La Sfida Nucleare: La Politica Estera Italiana e le Arme Atomiche, 1945-1991* (Bologna, Italy: Il Mulino, 2007), pp. 102-103.

[367] "Letter From the Ambassador in Italy (Luce) to the Secretary of State," 10 October 1956, *Foreign Relations of the United States, 1955-1957, Western Europe and Canada*, Volume XXVII (Washington, D.C.: Government Printing Office, 1992), Document 122.

deployments to defend Italian soil, saying that "SETAF [Southern European Task Force] is excellent evidence of integration, and Italy hopes there will be more such units in central south sectors."[368] As Ernest V. Siracusa, who served as Advisor on Mutual Defense Affairs for NATO in the U.S. State Department, later recounted "There was never any question however that Italy wanted and welcomed our presence and this went for the people in general as well, most of whom had at least one relative in the United States."[369] Prime Minister Taviani, in 1957 meeting with American officials, had explicitly requested an additional American infantry division and air units be stationed in Italy.[370]

Italy's preference for a stronger U.S. presence can be seen in its response to American proposals to "indigenize" the forward deployed ground-based tactical nuclear weapons. In late 1957, U.S. military planners begin formulating proposals to "indigenize" the nuclear-armed American forces located in northeastern Italy by transferring control of the nuclear-capable missiles to Italian forces and maintaining an even further reduced American ground force solely to safeguard the nuclear warheads.[371] Though the proposal would have maintained the nuclear component of

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[368] "Telegram From the United States Delegation at the North Atlantic Council Ministerial Meeting to the Department of State," 14 December 1956, *Foreign Relations of the United States, 1955-1957, Western European Security and Integration*, Volume IV (Washington, D.C.: Government Printing Office, 1988), p. 151.

[369] Interview with Ernest V. Siracusa, conducted June 1989 by Hank Zivetz, Association for Diplomatic Studies and Training Foreign Affairs Oral History Project, p. 23.

[370] "USNMR Paris, Message No. ALO 211, to OSD, for ISA from Gen. Schuyler," 1 Feb 1957, SECRET. NO FORN. Declassified July 6, 1978. Department Of Defense, 1 Feb. 1957. U.S. Declassified Documents Online, https://link.gale.com/apps/doc/CK2349436865/USDD?u=prin77918&sid=USDD&xid=fecf70bd.

[371] "Report by the Joint Strategic Plans Committee to the Joint Chiefs of Staff on Proposal to the Italian Government Regarding Indigenization of the Southern European Task Force (SETAF) (S)," J.C.S. 1808/48, 4 October 1957, pp. 274-277, U.S. Declassified Documents Online, https://link.gale.com/apps/doc/CK2349435072/USDD?u=prin77918&sid=USDD&xid=63ec448a.

the American presence and have even provided Italy more control over the forces, Italian leadership balked at the prospect of further reducing the U.S. presence.[372]

In the end, American officials rejected Italy's entreaties.[373] In a clear indication of the strategic priorities of American planners, Supreme Allied Command Europe (SACEUR) endorsed the plan to deploy more conventional ground forces to Italy but only on the condition that it would not weaken the American presence in West Germany which was viewed as more strategically significant than Italy.[374] Italy was notably not, according to George Kennan's strongpoint strategy, among the five "strongpoints," regions of the world "where the sinews of modern military strength could be produced in quantity."[375] Germany was one such strongpoint. Also unlike its northern neighbor, Italy, despite its favorable location for projecting power into both Europe, the Middle East, and North Africa, nonetheless did not sit astride a strategic maritime chokepoint.[376] The North German Plain not only allowed unimpeded access

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[372] Leopoldo Nuti, "U.S. Forces in Italy, 1945-1963," in Simon W. Duke and Wolfgang Krieger, Eds. *U.S. Military Forces In Europe: The Early Years, 1945-1970* (Boulder, CO: Westview Press, 1993), pp. 267-268,

[373] "USNMR Paris, Message No. ALO 211, to OSD, for ISA from Gen. Schuyler," 1 Feb 1957, SECRET. NO FORN. Declassified July 6, 1978. Department Of Defense, 1 Feb. 1957. U.S. Declassified Documents Online, https://link.gale.com/apps/doc/CK2349436865/USDD?u=prin77918&sid=USDD&xid=fecf70bd.

[374] "USNMR Paris, Message No. ALO 211, to OSD, for ISA from Gen. Schuyler," 1 Feb 1957, SECRET. NO FORN. Declassified July 6, 1978. Department Of Defense, 1 Feb. 1957. U.S. Declassified Documents Online, https://link.gale.com/apps/doc/CK2349436865/USDD?u=prin77918&sid=USDD&xid=fecf70bd.

[375] Kennan identified the five strongpoints as "the United States, the United Kingdom, the Rhine valley with adjacent industrial areas, the Soviet Union, and Japan." George F. Kennan, *Memoirs, 1925-1950* (Boston, MA: Little & Brown, 1967), p. 359. For more discussion, see John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of Postwar American National Security Policy* (New York, N.Y.: Oxford University Press, 1982), pp. 25-88.

[376] Brian Blankenship, "The Price of Protection: Success and Failure in Coercive Alliance Burden-Sharing," working paper, p. 23, http://www.bblankenship.com/uploads/6/6/2/1/66215933/blankenship_priceofprotection.pdf. Blankenship shows statistically how the proximity of a junior ally to a strategic maritime chokepoint

across German territory but provided a ready avenue to much of the rest of Western Europe.[377] Although now geographically exposed to Warsaw Pact forces, Rome did not enjoy the strategic value necessary to compel a stronger American commitment.

Security Guarantee and Power Projection, 1991 - today

At the end of the Cold War, the U.S. strategy in Italy reverted from nuclear tripwire back to security guarantee. This shift saw the maintenance of both the American treaty commitments to and conventional presence in Italy but was marked by the removal of the ground-based tactical nuclear weapons. This shift was driven largely by changes in the local security environment brought on by the end of the Cold War which reduced the perceived security threats to Italy and permitted the removal of the tactical nuclear weapons.

From the end of the Cold War until today, the North Atlantic Treaty continues to formalize the U.S. legal commitment to Italy. The United States has also continued to deploy a substantial conventional presence in the air and naval domains with nearly 10,000 total Naval and Air Force personnel in each year since the early 1990s, even slightly higher than the average presence during the Cold War.[378] At the same time, the U.S. Army presence in the country, already minimal, fell further from an

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assists the ally in reducing its own expected defense contributions and increasing its negotiating leverage with the senior ally.

[377] Hugh Faringdon, *Strategic Geography: NATO, The Warsaw Pact, and the Superpowers* (New York, N.Y.: Routledge, 1989), pp. 258-262.

[378] Data from Data from Garret Jones and Timothy Kane, "US Troops and Foreign Economic Growth," *Defence and Peace Economics*, Vol. 23, No. 3 (2012), pp. 225-249; and "Worldwide Manpower Distribution by Geographical Area (M05)," *U.S. Department of Defense, Defense Manpower Data Center*, https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp.

average of just over 4,000 personnel during the Cold War to less than 3,000 following it.[379] The drawdown in ground troops was largely related to the removal of the ground-based tactical nuclear weapons. In the early 1990s, in conjunction with the Presidential Nuclear Initiatives, all ground-based nuclear weapons were removed from Italian soil, leaving only the American power projection forces and a token ground presence in the junior ally.[380]

Today, the United States continues to deploy several dozen air-launched tactical nuclear weapons at Aviano and Ghedi airbases in Italy.[381] However, this token nuclear presence differs significantly in size, composition, readiness, and purpose from the one which marked the presence of the nuclear tripwire strategy during the Cold War. During the Cold War, the United States deployed several hundred nuclear bombs to Italian territory; today it is several dozen.[382] The American nuclear deployments in Italy today, consisting of a single weapon type under central storage, are also simpler than during the Cold War when the United States deployed ten different nuclear systems to Italian territory.[383] Finally, and perhaps most significantly, the purpose of the deployments has changed dramatically. These

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[379] Data from Data from Garret Jones and Timothy Kane, "US Troops and Foreign Economic Growth," *Defence and Peace Economics*, Vol. 23, No. 3 (2012), pp. 225-249; and "Worldwide Manpower Distribution by Geographical Area (M05)," *U.S. Department of Defense, Defense Manpower Data Center*, https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp.
[380] Susan J. Koch, *The Presidential Nuclear Initiatives of 1991-1992* (Washington, D.C.: National Defense University Press, 2012).
[381] "The Alliance's Strategic Concept," *North Atlantic Treaty Organization*, 24 April 1999, paragraph 64.
[382] Cesare Merlini, "A Concise History of Nuclear Italy," *The International Spectator*, Vol. 23, No. 3 (1988), p. 150; and Laura Spagnuolo, "Italy's Tactical Nuclear Weapons," *British American Security Information Council*, May 2011.
[383] "History of the Custody and Deployment of Nuclear Weapons (U): July 1945 through September 1977," Top Secret, Office of the Assistant Secretary of Defense (Atomic Energy), February 1978, Appendix B, p. B-6.

weapons are not meaningfully integrated into planning and are not assigned any targets.[384] They are stored at central locations and their readiness is measured in *months*, as opposed to the standard of days and hours used during the Cold War.[385] The weapons are no longer targeted at any state and are not reportedly incorporated into nuclear contingency planning. Senior NATO officials themselves admit that these weapons no longer serve military purpose.[386] In interviews and writings, Italian leaders emphasize the lack of a military rationale for these weapons.[387] Rather, as one observer notes, "In the case of Italy, the main reasons [for the continued deployment of tactical nuclear weapons] may be found in domestic politics and what internal critics call a national inferiority complex, although government officials characterize the reticence as foreign policy realism."[388] These weapons are more appropriately considered historical vestiges and political symbols than strategic military tools.

As with other junior allies of the United States, the end of the Cold War was the initiator of the process to withdraw forward deployed nuclear weapons from abroad. However, those force decisions were always made with an eye to how these

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[384] "NATO's Nuclear Forces in the New Security Environment," *NATO*, pp. 1-3, https://www.nato.int/nato_static/assets/pdf/pdf_topics/20091022_Nuclear_Forces_in_the_New_Security_Environment-eng.pdf.
[385] "NATO's Nuclear Forces in the New Security Environment," *NATO*, pp. 3-4, https://www.nato.int/nato_static/assets/pdf/pdf_topics/20091022_Nuclear_Forces_in_the_New_Security_Environment-eng.pdf.
[386] "Phase II: Review of the DoD Nuclear Mission," in *Report of the Secretary of Defense Task Force on DoD Nuclear Weapons Management* (Washington, D.C.: U.S. Department of Defense, December 2008), p. 59, http://www.cdi.org/pdfs/PhaseIIReport.pdf.
[387] See, for example, interviews cited in Paolo Foradori, "Tactical Nuclear Weapons in Italy: Striking a Balance between Disarmament Aspirations and Alliance Obligations," *The Nonproliferation Review*, Vol. 19, No. 1 (2012), pp. 15-16.
[388] Mark Fitzpatrick, "How Europeans View Tactical Nuclear Weapons on Their Continent," *Bulletin of the Atomic Scientists*, Vol. 67, No. 2 (2011), p. 60.

broader geopolitical shifts affected local conditions around junior allies. Statements by government officials discussing the decision to remove forward deployed ground-based nuclear weapons highlight the independent, if mutually compatible, local incentives that jointly contributed to the decision.[389] For European members of NATO, the end of the Cold War, the demise of the Warsaw Pact, and the breakup of the Soviet Union brought forth a dramatically changed security landscape. The 1991 NATO Strategic Concept was explicit in linking the changing security environment to the removal of the weapons, reading:

> The Allies concerned consider that, with the radical changes in the security situation, including conventional force levels in Europe maintained in relative balance and increased reaction times, NATO's ability to defuse a crisis through diplomatic and other means or, should it be necessary, to mount a successful conventional defence will significantly improve. The circumstances in which any use of nuclear weapons might have to be contemplated by them are therefore even more remote.[390]

NATO allies had also begun lobbying for the removal of the weapons and a revision to the alliance's operating concepts.[391] President George H. W. Bush, in announcing the removal of the ground-based weapons, similarly explained the decision with reference to the end of the Cold War and the more benign security environment it ushered in.[392] The alliance attached little practical military utility to nuclear

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[389] George Bush and Brent Scowcroft, *A World Transformed* (New York, N.Y.: Alfred A. Knopf, 1998), p. 545.
[390] The Alliance's Strategic Concept (1991), *North Atlantic Treaty Organization*, 1991, paragraph 56.
[391] Interview with Franklin C. Miller, 18 August 2011, cited in Susan J. Koch, *The Presidential Nuclear Initiatives of 1991-1992* (Washington, D.C.: National Defense University Press, 2012), p. 6.
[392] George H. W. Bush, "Address to the Nation on Reducing United States and Soviet Nuclear Weapons," 27 September 1991, George H. W. Bush Presidential Library & Museum, Public Papers, https://bush41library.tamu.edu/archives/public-papers/3438.

weapons generally as NATO acknowledged in its first post-Cold War Strategic Concept that "The fundamental purpose of the nuclear forces of the Allies is political."[393] Senior Italian leaders have repeatedly reiterated the view that forward deployed nuclear weapons were no longer militarily necessary due to the end of the Cold War.[394] As one senior Italian foreign affairs official noted, "I cannot think of any mission that cannot be accomplished with other means. The value of these weapons is today essentially political."[395]

Alternative Explanations

Extended deterrence selection theory performs well in accounting for both the timing and the direction of extended deterrence strategy shifts in Italy. In doing so, it outperforms the key alternative explanations. Both structural realism and extractive posturing offer partial explanations, with structural realism accounting for the timing of shifts and extractive posturing accounting for the content of them. By comparison, neither domestic politics nor nonproliferation goals appear to convincingly account for U.S. strategy shifts in Italy. These results are summarized in table 3-2 below.

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[393] The Alliance's Strategic Concept (1991), *North Atlantic Treaty Organization*, 1991, paragraph 56.
[394] Paolo Foradori, "Tactical Nuclear Weapons in Italy: Striking a Balance between Disarmament Aspirations and Alliance Obligations," *The Nonproliferation Review*, Vol. 19, No. 1 (2012), p. 16.
[395] Interview with anonymous senior official in Italian Ministry of Foreign Affairs, 10 September 2010, cited in Paolo Foradori, "European Perspectives," in Tom Nichols, Douglas Stuart, and Jeffrey D. McCausland, (Eds.), *Tactical Nuclear Weapons and NATO* (Carlisle, PA: U.S. Army War College Press, 2012), p. 283.

Table 3-2: Competing Explanations in the U.S.-Italy Case

	Selection Theory	*Structural Realism*	*Domestic Politics*	*Extractive Posturing*	*Nonprolif. Goals*
1949-1956: Security Guarantee + Power Projection	✓	?	?	?	✗
1957-1991: Nuclear Tripwire + Power Projection	✓	?	✗	?	?
1991-today: Security Guarantee + Power Projection	✓	✓	✗	?	✗

✓= successful prediction; ?= partial prediction; ✗= unsuccessful prediction

Structural realism partially predicts the U.S. strategies to Italy. In particular, it helps to explain the initial presence of both the security guarantee and power projection strategies in Italy and the shifts in strategy that would come in the mid-1950s and early-1990s. In the early years of the Cold War, both American and Italian leadership confronted a relatively muted immediate security environment. There were modest fears in Rome about relations with Yugoslavia, particularly over the Trieste issue. But these fears never materialized in the form of a significant military threat and, significantly, were not shared by the United States. Concerns about the threat posed by the Soviet Union were substantially ameliorated by the NATO occupation forces in Austria which provided a significant strategic buffer. Threat perceptions increased substantially following the neutralization of Austria and the shift eastward by Yugoslavia. This change in the local security environment prompted the shift from the early security guarantee strategy by demanding a more robust American forward presence.

However, structural realism does not help to explain, for instance, why the United States did not accompany these forward nuclear deployments with a strong

conventional presence like it did in West Germany or in South Korea.[396] As detailed above, Italian leadership was significantly concerned about the possibilities of a quick Soviet invasion conducted through the vacuum of a now independent Austria. U.S. officials also voiced concerns about the new threat posed by a neutral Austria and an increasingly distant Yugoslavia. However, in the end, the United States did not provide Italy with the kind of conventional presence that Rome desired.

Domestic politics may help explain some contours of the shifting American extended deterrence strategy in Italy, though is insufficient as a stand-alone explanation. As discussed, American economic and military support to Italy was sometimes justified with reference to the strong domestic Communist forces in the country. However, these domestic political factors were viewed through the security lens, as exemplified by the tendency of military planners to link possible Communist unrest to offensive military action by the Warsaw Pact. There is little evidence that these perceived domestic factors, themselves, motivated a stronger American presence, particularly the nuclear component. If anything, fears about domestic unrest in the country would likely have made American officials more circumspect about forward nuclear deployments since such forces would have no value in quelling a domestic insurgency and the smaller tactical versions might have been vulnerable to theft by domestic actors.[397] Communist members of the Italian Parliament at times sought to block American deployments in the country and regularly opposed nuclear

[396] For more on the South Korea case, see chapter 2.
[397] For a general discussion about the potential vulnerability of tactical nuclear weapons, see Alistair Millar, "The Pressing Need for Tactical Nuclear Weapons Control," *Arms Control Today*, May 2002, https://www.armscontrol.org/act/2002-05/features/pressing-need-tactical-nuclear-weapons-control.

weapons.[398] Though, according to some accounts, Communist opposition to nuclear deployments may have, ironically, made them more likely.[399] There is also evidence that the Italian embrace of an American presence in Italy generally and of the nuclear deployments especially stemmed from prestige concerns, which may be interpreted as a kind of domestic political factor. As Paolo Foradori notes, "in the highly ideological context of the Cold War, the forward deployment of TNW served important domestic political objectives in Italy. Hosting the US weapons for NATO reaffirmed how solid and unequivocal Italy's pro-Western stance was in the face of all political parties – especially the Italian Communist Party, the strongest communist party in Europe."[400] Nuti has written extensively about the role that status concerns played in Italy's welcoming of the nuclear deployments.[401] Sometimes the way status concerns manifested, such as a desire for greater Italian involvement in decisions to use nuclear weapons, intersected with security interests. Demands for consultation in nuclear decision emerged from a yearning to sit at the "high table" of international politics. But it also grew from a desire, as detailed earlier, to avoid yielding decisions about nuclear use on or above Italian territory, particularly when use of tactical

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[398] Matthew Evangelista, "Atomic Ambivalence: Italy's Evolving Attitude to Nuclear Weapons," in Giampiero Giacomello and Bertjan Verbeek (eds.), *Italy's Foreign Policy in the Twenty-first Century: The New Assertiveness of an Aspiring Middle Power* (Lanham, MD: Lexington Books, 2011), pp. 115-134.

[399] As Nuti writes, "even when many among the Christian Democrats doubted the wisdom of installing yet another nuclear delivery system in Italy, the fact that the Communists opposed it forced the government to stress its pro-Western orientation and support what ultimately came to be regarded as a choice between East and West." See Leopoldo Nuti, "Italy's Nuclear Choices," UNISCI Discussion Papers, No. 25 (January 2011), pp. 178-179.

[400] Paolo Foradori, "Tactical Nuclear Weapons in Italy: Striking a Balance between Disarmament Aspirations and Alliance Obligations," *The Nonproliferation Review*, Vol. 19, No. 1 (2012), p. 15.

[401] See, for example, Leopoldo Nuti, "'Me Too, Please': Italy and the Politics of Nuclear Weapons, 1945-1975," *Diplomacy and Statecraft*, Vol. 4, No. 1 (1993), pp. 114-148; and Leopoldo Nuti, *La Sfida Nucleare: La Politica Estera Italiana e le Arme Atomiche, 1945-1991* (Bologna, Italy: Il Mulino, 2007).

nuclear weapons threatened to potentially destroy what they were supposed to defend.[402] Further, initial Italian desires for status do not account for either the decades-long continuity of the American extended deterrence strategy or the American decisions regarding that strategy. In the end, domestic political factors, in the way they interacted with security interests and in how they motivated a desire for status, acted as auxiliary factors. However, they do not independently account for either the timing or content of strategy shifts, making this explanation partially successful in the Italian case.

Extractive posturing can account for some of the features of the extended deterrence strategies in the Italy case, but not for the continuity or change in those strategies. Italy did attempt to extract a stronger forward deployed conventional presence from the United States but failed to do so. The available records are not sufficient to definitively establish why the United States, however the available evidence indicates that U.S. leadership was unable to commit more support to Italy as it would draw resources away from more strategically significant locations such as Germany.[403]

Nonproliferation goals appeared to play no role in determining the timing or content of shifts in the U.S. extended deterrence strategy provided to Rome. The deployment of American nuclear weapons to Italian soil crudely coincided with Italy's

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[402] For more a short account of the challenges of using tactical nuclear weapons, see Matthew Evangelista, *Innovation and the Arms Race: How the United States and the Soviet Union Develop New Military Technologies* (Ithaca, N.Y.: Cornell University Press, 1988), pp. 83-85.

[403] "USNMR Paris, Message No. ALO 211, to OSD, for ISA from Gen. Schuyler," 1 Feb 1957, SECRET. NO FORN. Declassified July 6, 1978. Department Of Defense, 1 Feb. 1957. U.S. Declassified Documents Online, https://link.gale.com/apps/doc/CK2349436865/USDD?u=prin77918&sid=USDD&xid=fecf70bd.

initial explorations of a nuclear weapons option.[404] In 1955, the Ministry of Defence established the Centre for the Military Applications of Nuclear Energy which was tasked with conducting research "in all possible fields of application of nuclear energy, from propulsion to atomic bombs."[405] In 1957, Rome entered into a secret agreement with France and Germany to develop indigenous nuclear capabilities.[406] However, there is little indication from American documents that U.S. forward deployments, conventional or nuclear, were motivated by a desire to forestall a possible Italian nuclear program. Indeed, Italy's dalliances with nuclear weapons technology was largely secret at the time, limiting the ability to influence U.S. decision-making. In fact, the United States had relatively little information about possible proliferation activities in Italy in the late 1950s and early 1960s.[407] Estimates of the probability of Italian proliferation varied widely and never reported specific information about Italy's nuclear program. Rather, they reported general political assessments of likely Italian reactions to French or German proliferation. Some during this period even explicitly predicted that Italy would not pursue the bomb, with one 1963 report predicting that "Without a radical change in national sentiment, however, it is highly

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[404] Bleek identifies Italy as "exploring" nuclear weapons from 1955 to 1958, while Narang codes Italy as undertaking "insurance hedging" from 1955 to 1959. See Philipp C. Bleek, "When Did (and Didn't) States Proliferate? Chronicling the Spread of Nuclear Weapons," Discussion Paper (Cambridge, MA: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School and the James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies, Monterey, CA., June 2017), p. 36; and Vipin Narang, "Strategies of Nuclear Proliferation: How States Pursue the Bomb," *International Security*, Vol. 41, No. 3 (Winter 2016/17), p. 134.

[405] Leopoldo Nuti, "'Me Too, Please': Italy and the Politics of Nuclear Weapons, 1945-1975," *Diplomacy and Statecraft*, Vol. 4, No. 1 (1993), p. 118.

[406] For more, see Leopoldo Nuti, "'Me Too, Please': Italy and the Politics of Nuclear Weapons, 1945-1975," *Diplomacy and Statecraft*, Vol. 4, No. 1 (1993), pp. 114-148.

[407] See language in the online appendix of Nicholas L. Miller, "Learning to Predict Proliferation," *International Organization* (2021).

unlikely that Italy will do more than continue with its present nonmilitary program. The swing to the left of the Italian electorate during the 1963 national elections will almost certainly reinforce this decision for some time."[408] Further, nonproliferation dynamics played no role in accounting for the shift in strategy that came at the end of the Cold War. Italy has since ratified the Nonproliferation Treaty (NPT), has largely endorsed broader nonproliferation efforts, and has not rekindled interest in its own independent nuclear weapons capability.[409]

Conclusion

The United States continues to maintain a military presence in Italy consisting of power projection naval and air forces, including forward deployed roughly 40 B61 bombs for delivery by aircraft. Given Italy's strategic location and the ability to project military power into regions of U.S. interest, including Eastern Europe, North Africa, and the Middle East, the U.S. military presence here is likely to remain durable absent a significant shift in U.S. global engagement strategies.[410]

However, the U.S. military presence is unlikely to return to the type of strong forward deployed ground forces, including ground-based nuclear weapons, seen

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[408] See language in the online appendix of Nicholas L. Miller, "Learning to Predict Proliferation," *International Organization* (2021).

[409] Although Italy has not quite devalued nuclear weapons to the point of lobbying for their removal from its territory. For more on Italy's approach to nuclear policy issues, see Cesare Merlini, "A Concise History of Nuclear Italy," *The International Spectator*, Vol. 23, No. 3 (1988), pp. 135-152; and Paolo Foradori, "Reluctant Disarmer: Italy's Ambiguous Attitude Toward NATO's Nuclear Weapons Policy," Vol. 23, No. 1 (2014), pp. 31-44.

[410] For some prominent competing takes, see Stephen G. Brooks, G. John Ikenberry, and William C. Wohlforth, "Don't Come Home, America: The Case Against Retrenchment," *International Security*, Vol. 37, No. 3 (2012), pp. 7-51; and Barry R. Posen, *Restraint: A New Foundation for U.S. Grand Strategy* (Ithaca, N.Y.: Cornell University Press, 2014).

during the Cold War. Italy today is bordered entirely by friendly countries, including several NATO allies. During the Cold War, Warsaw Pact troops were stationed less than 150 miles from Italy's economic and industrial heartland. Today, however, Russian troops, which constitute the only plausible major conventional security threat to Italy, are 1,000 miles away, blocked off from Italian soil by NATO allies Croatia, Hungary, Slovakia, and Poland. Indeed, even as Russian troops invaded Ukraine, the response the prospect of war coming to Italy, though a bit closer than before, "still feels distant." [411] Italy's northern neighbors are part of NATO's Partnership for Peace, aimed at fostering greater trust between NATO members and Europe's non-NATO states. Italy is joined with its neighbors across the Mediterranean to the south through the Mediterranean Dialogue, a cooperative forum aimed at "promoting regional security and stability and explaining NATO's policies and goals."[412]

Extended deterrence selection theory predicts the selection of a more intensive strategy involving forward deployed ground troops only when the junior ally confronts a geographically proximate conventionally superior offensive threat. Despite Russia's expanding military adventurism along its borders, until those threats come to Italian soil, we are unlikely to see a dramatic shift in the U.S. extended deterrence strategy there.

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[411] Chico Harlan, Stefano Pitrelli, William Booth and Rick Noack, "While Russia Wages War in Ukraine, Life in Much of Europe Remains Normal, But Uneasy," *Washington Post*, 18 March 2022, https://www.washingtonpost.com/world/2022/03/18/europe-war-ukraine/.

[412] Paul Pryce, NATO's Istanbul Cooperation Initiative: Hit Or Miss?" *NATO Association of Canada*, 2 September 2015, https://natoassociation.ca/natos-istanbul-cooperation-initiative-hit-or-miss/.

Chapter 4

Soviet Strategy in Mongolia: Strategic Buffer and Nuclear Barrier[413]

The Soviet Union's practice of extended deterrence over Mongolia passed through two phases as summarized below in figure 4-1 below. The Soviet Union provided an extended deterrence commitment to Mongolia following the Second World War. At the start of the Cold War, the Soviet Union provided a its junior ally with an unconditional guarantee to come to the defense of Ulaanbaatar. Although China would occasionally raise the issue of Mongolia possibly returning to Chinese control, the Soviet Union was relatively sanguine about the possibility of Chinese aggression against Mongolia. This, along with the Soviet Union's strong leverage over China due to its ongoing economic and military aid programs, made Moscow confident in providing an unconditional security commitment to Mongolia, although this guarantee was not accompanied by forward military deployments to Mongolian soil. For the next roughly two decades, this unconditional guarantee remained in place.

In the mid- to late-1960s, the strategy began a shift to a nuclear barrier strategy which would eventually see the deployment of tens of thousands of Soviet troops to Mongolian territory, including forward-deployed tactical ground-based nuclear weapons for use on the battlefield. This shift was driven by broader geostrategic shifts and more localized concerns about Chinese intentions and

[413] For valuable research assistance, I thank Thomas Keenan and Joseph Torigian.

capabilities vis-à-vis Mongolia. Soviet and Mongolian officials were increasing wary of Chinese desires to annex Mongolian territory and increasingly concerned about China's overwhelming conventional superiority over Mongolia. In response to these growing threat perceptions, Moscow and Ulaanbaatar signed a mutual defense pact which committed the Soviet Union to the unconditional defense of Mongolia. This treaty was accompanied shortly thereafter by the forward deployment of tens of thousands of Soviet troops to Mongolian territory, along with ground-based tactical nuclear weapons.

Finally, at the end of the Cold War, the Soviet extended deterrence strategy shifted again. Relations between China and its two northern neighbors began to improve and both Mongolia and the Soviet Union confronted a more permissive security environment. This permitted the withdrawal of forward deployed forces, the termination of the defense treaty, and the shift away from a relationship of extended deterrence.

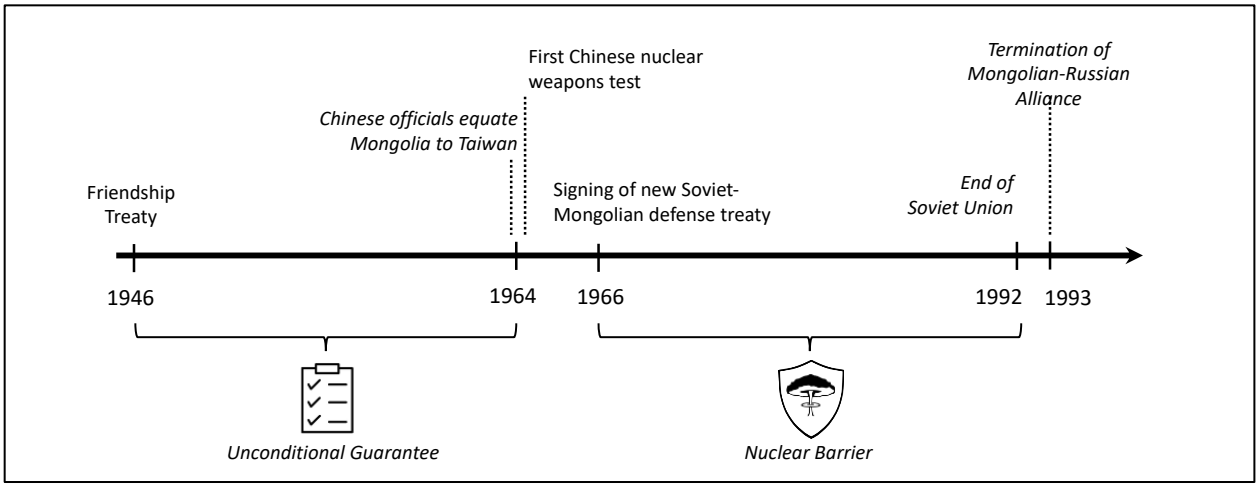

Figure 4-1: Soviet Extended Deterrence Strategies in Mongolia, 1946-1992

Early Unconditional Guarantee, 1946-1966

The Soviet Union's extended deterrence commitment to Mongolia began after World War II. That relationship, forged in 1946, had all the features of an unconditional guarantee, as summarized in table 4-1 below. First, it was characterized by a formal defense commitment without any meaningful conditions on when Soviet military assistance would be triggered. Second, this commitment was not accompanied by any forward troop deployments to Mongolian territory, making the Soviet commitment a legal one only.

Soviet involvement in Mongolian defense issues had existed for decades. Since the mid-17th century, Outer Mongolia had been ruled by the Chinese Qing dynasty. Then, in 1924, following the collapse of the Qing dynasty, and following a series of invasions and occupations by Russian and Chinese forces, the Mongolian People's Republic declared independence. Despite this declaration of autonomy, Mongolia increasingly found itself under the influence of the Soviet Union.[414] According to one expert, "Mongolia had no foreign relations because it was sealed off by Soviet domination. One rare foreign visitor reported finding the Mongolian 'foreign ministry' to be only an unmanned letter-drop for the Soviets."[415]

Military cooperation between the Soviet Union and Mongolia strengthened in the decade preceding World War II. In 1929, Khorloogiin Choibalsan became president of Mongolia and ushered in an era of communist rule. Choibalsan, who had

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[414] Sergey Radchenko, 'Choibalsan's Great Mongolia Dream,' Inner Asia 11, 2 (Fall 2009) pp. 305-332.
[415] Henry S. Bradsher, "The Sovietization of Mongolia," *Foreign Affairs*, Vol. 50, No. 3 (April 1972), p. 548.

founded what would become the Mongolian People's Party while studying in Russia, would become known as the "Stalin of Mongolia."[416] Japan's invasion of Manchuria brough Japanese forces to the doorstep of both Mongolia and the Soviet Union, and Mongolian and Soviet troop would fought alongside one another both to push back Japanese imperialism and to attempt to liberate Inner Mongolia from Chinese rule.[417] Following the end of World War II, thousands of Soviet troops were stationed in Mongolia and would remain there until the mid-1950s, largely to safeguard Soviet interests in the country and facilitate Mongolia's efforts to industrialize.

In 1946, Moscow and Ulaanbaatar signed a treaty of friendship and mutual assistance which created a formal defensive alliance between the two countries. The treaty committed each side to the defense of the other, without any meaningful conditions. According to the coding sheets of the ATOP dataset, the only condition placed on the defense obligations was that they were "contingent upon threat of attack on USSR or Mongolia."[418] This geographic limitation, for a landlocked country such as Mongolia, was effectively meaningless. The Correlates of War database, while not providing detailed information on conditionality, similarly identifies the alliance as defensive.[419]

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[416] William B. Ballis, "The Political Evolution of a Soviet Satellite: The Mongolian People's Republic," *The Western Political Quarterly*, Vol. 9, No. 2 (1956), pp. 293-328.
[417] B. Baabar, *History of Mongolia* (Ulaanbaatar: Monsudar Publishing 1999), pp. 386-387.
[418] Brett Ashley Leeds, Jeffrey M. Ritter, Sara McLaughlin Mitchell, and Andrew G. Long, "Alliance Treaty Obligations and Provisions, 1815-1944," *International Interactions*, Vol. 28, No. 3 (2002), pp. 237-260.
[419] Formal Alliances dataset, Gibler, Correlates of War, in Douglas M. Gibler, *International Military Alliances, 1648-2008* (Washington, D.C.: Congressional Quarterly Press, 2009).

Table 4-1: Unconditional Guarantee Indicators in Soviet-Mongolia Dyad

Dimension	Unconditional Guarantee Strategy Indicators	Soviet-Mongolia Strategy Indicators
Treaty Commitment	Unconditional	Unconditional defensive commitment
Conventional Force	---	---
Conventional Posture	---	---
Nuclear Force	---	---
Nuclear Posture	---	---
Deterrent Purpose	Signal political commitment without concern of entrapment	Provided defense commitment without fear of Sino-Soviet conflict

This treaty commitment was not accompanied by any substantial troop deployments. The post-World War II historiography of Mongolia features sporadic references to Soviet troops being garrisoned in the country.[420] But these references suggest the garrisons were small and consistently indicate that Soviet officers served primarily to train Mongolian counterparts, oversee military construction, and assist in quelling internal disturbances. They were not intended to serve an externally-oriented combat role.[421] According to one historian of the era, "Soviet instructors and advisers served with the Mongolian army, but more and more, the Mongolian People's Army was standing on its own, except in the production of arms and heavy

[420] See, for example, Ronald E. Dolan, "National Security," in Robert L. Worden and Andrea Matles Savada (eds.), *Mongolia: A Country Study* (Washington, D.C.: Federal Research Division, Library of Congress), p. 238; Henry S. Bradsher, "The Sovietization of Mongolia," *Foreign Affairs*, Vol. 50, No. 3 (April 1972), p. 550; and "Army History - 1940s-1950s," *Global Security*, https://www.globalsecurity.org/military/world/mongolia/army-history-6.htm.
[421] Henry S. Bradsher, "The Sovietization of Mongolia," *Foreign Affairs*, Vol. 50, No. 3 (April 1972), p. 550.

equipment."[422] Indeed, the treaty itself was against standing forward deployments. The 1946 treaty explicitly stated that the parties would forward deploy troops only in a crisis and not otherwise. According to Article 3, both parties recognized that it was "self-evident that the troops of one of the Parties which by mutual agreement are located on the territory of the other Party in execution of the obligations set forth in articles 1 or 2, will be withdrawn from such territory immediately [when] they are no longer needed, as was done in 1925 in regard to the withdrawal of Soviet troops from the territory of the Mongolian People's Republic."[423]

The Soviet choice of an unconditional guarantee is explained by Extended Deterrence Selection Theory, as illustrated in figure 4-2 below. Chinese-Mongolian relations improved significantly in the years after World War II, with Beijing formally recognizing Mongolia's independence in 1949 and the two countries establishing diplomatic relations. Indeed, Chinese recognition of Mongolia's independence had been a precondition for its treaty of friendship and cooperation with the Soviet Union, while, at the 1945 Yalta conference, the victorious powers had agreed that "The status quo in Outer-Mongolia (The Mongolian People's Republic) shall be preserved."[424]

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[422] Ronald E. Dolan, "National Security," in Robert L. Worden and Andrea Matles Savada (eds.), *Mongolia: A Country Study* (Washington, D.C.: Federal Research Division, Library of Congress), p. 238.

[423] Treaty of Friendship and Mutual Assistance between the Union of Soviet Socialist Republics and the Mongolian People's Republic, in *Treaty Series: Treaties and International Agreements Registered or Filed and Recorded with the Secretariat of the United Nations*, Vol. 48 (New York, N.Y.: United Nations, 1950), Article 3, p. 186.

[424] Eric Her, "The 'Great Game': Mongolia between Russia and China," *The Mongolian Journal of International Affairs*, No. 4 (1997), p. 66; and "Agreement Regarding Entry of the Soviet Union Into the War Against Japan," 11 February 1945, *Foreign Relations of the United States: Diplomatic Papers, Conferences at Malta and Yalta, 1945* (Washington, D.C.: Government Printing Office, 1955), Document 503.

As historians note, Mongolian leaders sometimes considered China a threat to the sovereignty of their newly established country. As Radchenko observes, during the 1940s and 1950s, Mongolian insecurities ran high and that "their friendly public statements barely obscured underlying mistrust on both sides."[425] These threat perceptions were rooted primarily in China's longstanding claims to Mongolian territory. Chinese desires to annex Mongolia had deep historical roots, even disturbing Sino-Soviet relations as early as the 1940s, when Stalin and Mao had clashed through intermediaries over the status of Mongolia and, specifically, whether it ought to be incorporated into China.[426] According to one history of Mongolia of the time, "There were residual fears of a renewed Chinese ascendancy" as "[m]emories of Chinese claims to "lost territories" … were strong in Mongolian consciousness."[427]

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[425] Sergey Radchenko, "New Documents on Mongolia and the Cold War," *Cold War International History Project Bulletin*, Vol. 16 (Fall 2007/Winter 2008), p. 342.

[426] See, for example, "Memorandum of Conversation between Anastas Mikoyan and Mao Zedong," February 04, 1949, History and Public Policy Program Digital Archive, APRF: F. 39, Op. 1, D. 39, Ll. 54-62. Reprinted in Andrei Ledovskii, Raisa Mirovitskaia and Vladimir Miasnikov, Sovetsko-Kitaiskie Otnosheniia, Vol. 5, Book 2, 1946-February 1950 (Moscow: Pamiatniki Istoricheskoi Mysli, 2005), pp. 66-72. Translated by Sergey Radchenko; and "Memorandum of Conversation between Anastas Mikoyan and Mao Zedong," February 06, 1949, History and Public Policy Program Digital Archive, APRF: F. 39, Op. 1, D. 39, Ll. 78-88. Reprinted in Andrei Ledovskii, Raisa Mirovitskaia and Vladimir Miasnikov, Sovetsko-Kitaiskie Otnosheniia, Vol. 5, Book 2, 1946-February 1950 (Moscow: Pamiatniki Istoricheskoi Mysli, 2005), pp. 81-87. Translated by Sergey Radchenko.

[427] Robert L. Worden, "Historical Setting," in Robert L. Worden and Andrea Matles Savada (eds.), *Mongolia: A Country Study* (Washington, D.C.: Federal Research Division, Library of Congress), p. 52.

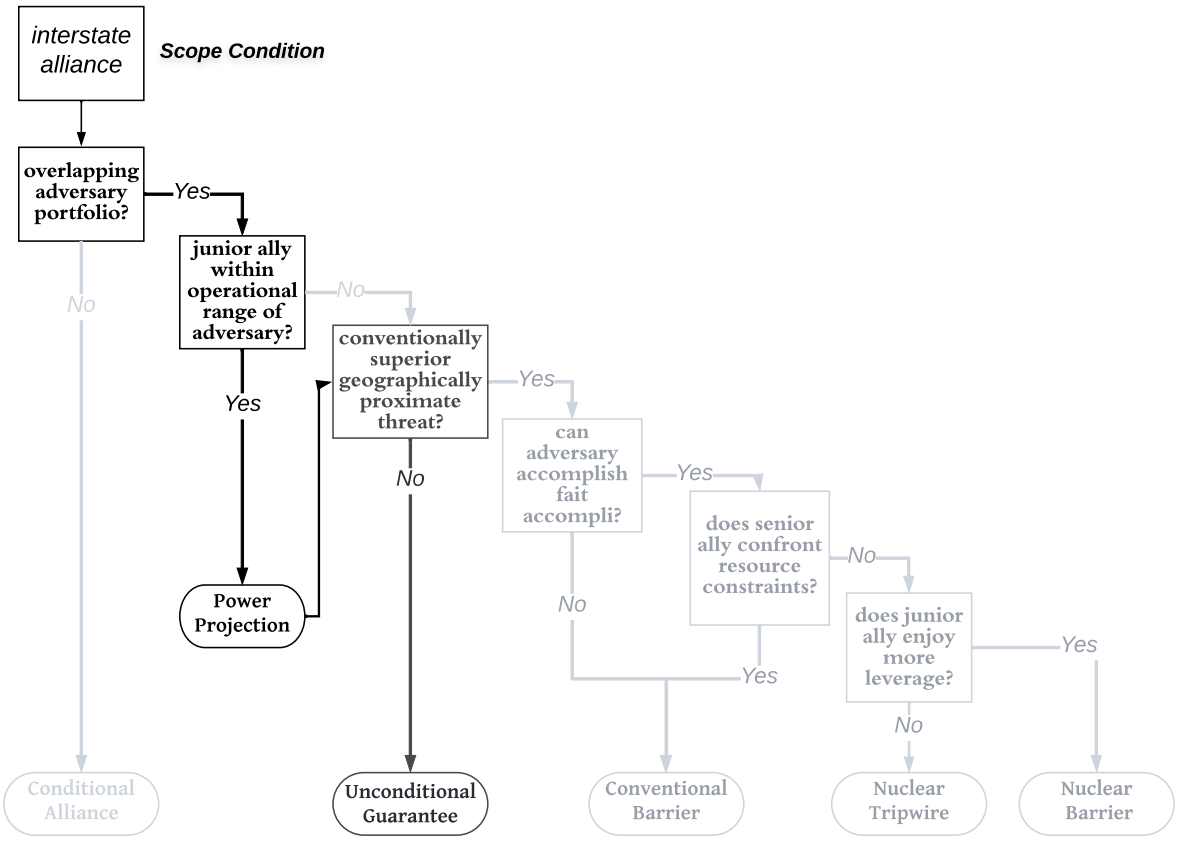

Figure 4-2: Soviet Extended Deterrence Strategy in Mongolia, 1946-1966

However, while Mongolia's status would remain a frequent point of content over the decades, though prior to the Sino-Soviet split, there were fear concerns about a possible Chinese annexation. In a 1956 meeting, for instance, senior Chinese officials Liu Shaoqi and Zhou Enlai questioned Soviet representative Anastas Mikoyan about Stalin's earlier refusal to accept a Chinese takeover of Mongolia.[428]

[428] Memorandum of Conversation between Anastas Mikoyan and Mao Zedong, 6 February 1949, APRF: F. 39, Op. 1, D. 39, Ll. 78-88. Reprinted in Andrei Ledovskii, Raisa Mirovitskaia and Vladimir Miasnikov, Sovetsko-Kitaiskie Otnosheniia, Vol. 5, Book 2, 1946-February 1950 (Moscow: Pamiatniki Istoricheskoi Mysli, 2005), pp. 81-87. Translated for CWIHP from Russian by Sergey Radchenko.

After Mikoyan confirmed that Stalin had given the correct answer as to Mongolia's status, the Chinese representatives continued pressing the issue and highlighting Beijing's strong historic interests in Mongolia.[429] According to notes from the meeting, "During the same conversation Liu Shaoqi added that the Chinese people allegedly are very deeply pained by the fact of Mongolia's secession from China. He noted that when the Soviet Union was celebrating the 300-year-anniversary of reunification of Ukraine with Russia, [some people] said in China that 300 years ago Mongolia already was a part of China and asked the question whether it could be re-united with China. The Chinese, Liu Shaoqi continued, consider Mongolia, like Taiwan, a part of their territory."[430] Given the history of Chinese-Mongolian relations and China's national strength, Beijing "posed a very real threat in the eyes of the Mongolian leadership."[431]

However, these concerns were neither reflected in the coding choices of prominent international relations datasets nor shared by Soviet leadership. During this period, Mongolia is not coded as having a rivalry of any kind, with China or with any other state, meaning that, according to the coding scheme for testing extended deterrence selection theory, Soviet concerns about entrapment should have been

[429] "Information Memorandum, 'About the Claims of the Chinese Leaders With Regard to the Mongolian People's Republic'," January 30, 1964, History and Public Policy Program Digital Archive, Obtained and translated for CWIHP by Sergey Radchenko.
[430] "Information Memorandum, 'About the Claims of the Chinese Leaders With Regard to the Mongolian People's Republic'," January 30, 1964, History and Public Policy Program Digital Archive, Obtained and translated for CWIHP by Sergey Radchenko.
[431] Sergey Radchenko, "New Documents on Mongolia and the Cold War," *Cold War International History Project Bulletin*, Vol. 16 (Fall 2007/Winter 2008), p. 342.

relatively muted during this period.[432] We see these perceptions reflected in the documentary record, to the extent that it is available. According to one historian of relations between the three countries, prior to the start of the Sino-Soviet split in the 1950s, "Soviet complacency over Chinese ambitions in Mongolia" was the dominant approach in Mongolia.[433]Although Moscow repeatedly rebuffed Chinese desires to annex Mongolia, Russian leaders showed no serious concern about a military breaking out over the issue. In the decade following the Second World War, Chinese officials would regularly disavow aggression against Mongolia. According to Radchenko, "during the visit of CPSU CC member Anastas Mikoyan to Xibaipo for secret consultations with the Chinese in February 1949, Mao asked for Soviet acceptance of Mongolia's return to China. Mikoyan replied that Mongolia had 'long grown accustomed to the taste of independence and was unlikely ever to surrender that independence voluntarily.' Mao hurried to say that he 'did not of course defend the Great Han chauvinistic line and would not raise the question of Mongolia's reunification.'"[434] Indeed, in the first decade after World War II, the Soviet Union provided tremendous military, economic, and technical assistance to China, providing the Soviet Union a sense of leverage in preventing Chinese aggression.[435] In the early

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[432] James P. Klein, Gary Goertz, and Paul F. Diehl, "The New Rivalry Dataset: Procedures and Patterns," *Journal of Peace Research*, Vol. 43, No. 3 (2006), pp. 331-348; and William R. Thompson and David Dreyer, *Handbook of International Rivalries* (Washington, D.C.: CQ Press, 2011).
[433] Eric Her, "The 'Great Game': Mongolia between Russia and China," *The Mongolian Journal of International Affairs*, No. 4 (1997), p. 67.
[434] Sergey Radchenko, "New Documents on Mongolia and the Cold War," *Cold War International History Project Bulletin*, Vol. 16 (Fall 2007/Winter 2008), p. 343.
[435] For more on the Sino-Soviet alliance, see Lorenz Lüthi, *The Sino-Soviet Split: Cold War in the Communist World* (Princeton, N.J.: Princeton University Press, 2008), chapter 1; Sergey Radchenko, The Rise and the Fall of the Sino-Soviet Alliance 1949–1989," in Norman Naimark, Silvio Pons, and Sophie Quinn-Judge, eds., (Oxford, U.K.: Oxford University Press, 2017), pp. 243-268; and Austin

years of the Sino-Soviet alliance, "the partnership between Moscow and Beijing was more than just a fact of geopolitics. It created space for an unprecedented transfer of technologies, for transplanting concepts and models from the Soviet Union to China. It interlinked the two countries' domestic politics."[436] As late as the early 1960s, border negotiations between China and Mongolia strengthened the sense that China was unlikely to pursue its claims to Mongolia through military action. China had initiated talks with Mongolia about resolving a lingering border dispute between the two countries and "Despite the tense atmosphere of the Zhou-Tsedenbal encounters, the Mongolian government enthusiastically welcomed the conclusion of the border talks, which served as an additional guarantee of Mongolian independence."[437] Soviet concerns about entrapment were muted, freeing up the senior ally to provide Mongolia with an unconditional guarantee.

The Shift to Nuclear Barrier, 1966-1992

In the mid- and late-1960s, the Soviet Union's extended deterrence strategy to Mongolia shifted from a conditional alliance to a nuclear barrier. This shift would see the manifestation of all three elements of the nuclear barrier strategy: an unconditional security guarantee, a large forward deployment of ground troops, and

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Jersild, *The Sino-Soviet Alliance: An International History* (Chapel Hill, N.C.: University of North Carolina Press, 2014).

[436] Sergey Radchenko, The Rise and the Fall of the Sino-Soviet Alliance 1949–1989," in Norman Naimark, Silvio Pons, and Sophie Quinn-Judge, eds., (Oxford, U.K.: Oxford University Press, 2017), p. 243.

[437] Sergey Radchenko, *The Soviet's Best Friend in Asia. The Mongolian Dimension of the Sino-Soviet Split* (Washington, D.C.: Woodrow Wilson International Center for Scholars, 2003), Working Paper No. 42, p. 7.

the forward deployment of tactical ground-based nuclear weapons. The shift at the time was driven by the shared Soviet and Mongolian perceptions of the threat emanating from China.

These heightened threat perceptions were the result of several drivers. First, the worsening rift between China and the Soviet Union increasingly placed Mongolia in the middle, politically and geographically, of a growing strategic rivalry. Second, Mongolian officials became increasingly concerned about China's lingering territorial claims to Mongolian territory. Third, the tremendous conventional military imbalance between Mongolia and China made it impossible for Ulaanbaatar to mount a successful independent defense against a possible Chinese invasion. Finally, Mongolia's strategic geography and lack of strategic early warning capabilities conspired to make it particularly vulnerable to Chinese forces.

Treaty Commitment: Open-Ended and Unconditional

Although Mongolia and the Soviet Union had enjoyed warm relations for decades, the move to a formal extended deterrence commitment was formalized in an unconditional security guarantee provided by the Soviet Union in a new treaty signed by the two states in 1966.[438] That treaty committed the parties to "render mutual assistance in ensuring the defence potential of both countries in accordance with the tasks of the constant strengthening of the defence might of the socialist community. The High Contracting Parties … will jointly take all the necessary measures,

[438] Text available in Stephen Heald and John W. Wheeler-Bennett, eds., *Documents on International Affairs, 1936* (London, U.K.: Oxford University Press, 1937), pp. 472-473.

including military ones, with the aims of ensuring the security, independence and territorial integrity of both countries."[439] These attributes are reflected in the coding decisions of prominent international relations alliance datasets. The Alliance Treaty Obligations and Provisions Project identifies the 1966 treaty as an unconditional defensive alliance without any conditions relating to location, adversary, or circumstance.[440] Similarly, Benson identifies the agreement as establishing an "unconditional deterrent" alliance, one in which "does not stipulate any specific actions that would trigger the alliance."[441]

Forward Deployments: Substantial Ground Presence and Ground-Based Tactical Nukes

Accompanying this unconditional security guarantee was the forward deployment of tens of thousands of Soviet troops onto Mongolian territory. Although it is unclear precisely how many troops the Soviet Union deployed to Mongolia, the available evidence suggests they numbered at least several tens of thousands and perhaps as many as 100,000. Several sources, including Soviet archival documents, reference the forward deployment of four Soviet divisions to Mongolia, which

[439] Article 5, "Mongolia-U.S.S.R Friendship Treaty," *International Legal Materials*, Vol. 5, No. 2 (1966), 341-343.
[440] Brett Ashley Leeds, Jeffrey M. Ritter, Sara McLaughlin Mitchell, and Andrew G. Long, "Alliance Treaty Obligations and Provisions, 1815-1944," *International Interactions*, Vol. 28, No. 3 (2002), pp. 237-260.
[441] Brett V. Benson, *Constructing International Security: Alliances, Deterrence, and Moral Hazard* (Cambridge, U.K.: Cambridge University Press, 2012), p. 38. Rapp-Hooper, surprisingly, does not include the alliance in her codings, though it would appear to meet her criteria for an unconditional security guarantee. The exclusion may have merely been an oversight.

collectively would number several ten thousand military personnel.[442] Some Chinese sources alleged that the Soviets may have deployed as many as seven divisions in Mongolia.[443]

These forward deployed conventional troops consisted almost entirely of ground forces with an auxiliary air component to support. Detailed data on the composition of forward deployed Soviet military personnel is not available but can be inferred from the composition of the military units stationed in the country. Of course, Mongolia's land-locked status precluded the forward deployment of naval assets. The prominence of the ground forces in the Soviet deployments to Mongolia could be seen in the command and control arrangements. A Soviet field army headquarters, the purview of the Army, was established in Mongolia, which was subordinate to the commander-in-chief of the Transbaikal Military District.[444] These troops consisted of several tank divisions and perhaps one motorized rifle division. The relative balance between land and air forces could be seen in the hardware deployed, with one Chinese source identifying Soviet deployments in Mongolia consisting of "more than 20,000 tanks, and more than 300 planes."[445] The forward deployed air assets consisted

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[442] V. Kuzmin, Responses in the USA to the border talks between the USSR and China," 17 December 1969, RGANI, fond 5, opis 61, delo 434, listy 174-76, 178 (1969); and CIA, Board of National Estimates, Special Memorandum, The Soviet Military Buildup Along the Chinese Border, March 25, 1968, pp. 10-14. Heaton references estimates as high as 500,000, though these are not supported. See William Heaton, "Mongolia: Troubled Satellite," *Asian Survey*, Vol. 13, No. 2 (February 1973), p. 249.

[443] Zhang claims that, by 1969, "in Outer Mongolia alone there are seven divisions." See Zhang Guanghua [张广华], *True Memory 1961 to 1981* [真实的回忆 (1961 至 1981)] (Self-Published: Beijing, 2009), p. 109.

[444] Viktor M. Gobarev, "Soviet Policy Toward China: Developing Nuclear Weapons 1949-1969," *The Journal of Slavic Military Studies*, Vol. 12, No. 4 (1999), p. 74.

[445] Viktor M. Gobarev, "Soviet Policy Toward China: Developing Nuclear Weapons 1949-1969," *The Journal of Slavic Military Studies*, Vol. 12, No. 4 (1999), p. 74.

largely of fighter and fighter-bomber regiments.[446] These aviation units were deployed to provide close air support for the ground troops.[447]

These forces were largely located to the south and east of Mongolia's population centers in the middle of the country, forming a barrier between the border with China and Mongolia's heartland. Soviet military installations went up outside cities like Baganuur, Choibalsan, Choyr, and Sainshand. Though these forces presented significant offensive capabilities, Soviet and Mongolian discussions of the deployments identified them as acting to deter and defend against possible Chinese aggression against Mongolia.

Finally, these forward deployed conventional troops were accompanied by ground-based tactical nuclear weapons. The Soviet Union deployed 9K52 Luna-M systems, short-range artillery rocket systems, which NATO designated the FROG.[448] This weapon exemplified the type of nuclear weapons characterized by the nuclear barrier strategy. The FROG had a short range of only 65 kilometers, restricting its use to the battlefield and not providing any long-range strike capability.[449] Complementing this short range was a low-yield warhead, with a variable yield estimated between only 3 and 20 kilotons.[450] These weapons were embedded with

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[446] Central Intelligence Agency, Office of Strategic Research, *Capabilities of Soviet General Purposes Forces*, CIA/SR SP 67-2, September 1967, pp. 62-64.
[447] В. И. Феськов [V. I. Feskov], et al., *Вооруженные Силы СССР после Второй мировой войны: от Красной Армии к Советской* [Armed Forces of the Soviet Union after the World Wars: From the Red Army to the Soviet], (Томск [Tomsk]: Изд-во НТЛ [NTL Publishing House], 2013), p. 574.
[448] Central Intelligence Agency, Directorate of Intelligence, *Intelligence Report: The Evolution of Soviet Policy in the Sino-Soviet Border Dispute*, April 28, 1970, p. 28.
[449] *Soviet/Russian Armor and Artillery Design Practices: 1945-1995* (Alexandria, VA: Institute for Defense Analysis, 1995), pp. V-58-V-59.
[450] *Soviet/Russian Armor and Artillery Design Practices: 1945-1995* (Alexandria, VA: Institute for Defense Analysis, 1995), p. V-58.

Soviet conventional units and deployed along the border between China and Mongolia.[451] According to CIA estimate from the time, "[The Soviets] deployed their forces near the extensive border, provided their field commanders with a new tactical nuclear capability to handle a big Chinese attack, and acted more aggressively against smaller probes."[452]

The combination of yield, range, and placement indicated the aim of using these weapons against military targets on the battlefield and near the border, rather than the longer-range Soviet nuclear weapons deployed farther from the border, which would have been used against strategic targets in China, including population and industrial centers. As American intelligence assessed at the time, "[T]he types of Soviet units involved in the reinforcement indicate that the Soviets are preparing their forces not just for containing local outbreaks of fighting, but even for the eventual possibility of major military operations – either conventional or nuclear – against the Chinese."[453] Intelligence assessments believed that the Soviet military strategy along the border envisioned relying on reinforcement to maintain an effective defense. According to a CIA report on the Soviet military buildup in the region, "[A] half dozen airfields have since been added to the corps' present area of responsibility. The airfields facilitate supply of the existing Soviet forces, and allow

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[451] Central Intelligence Agency, Directorate of Intelligence, *Intelligence Report: The Evolution of Soviet Policy in the Sino-Soviet Border Dispute*, April 28, 1970, pp. 24-29.
[452] Central Intelligence Agency, Directorate of Intelligence, *Intelligence Report: The Evolution of Soviet Policy in the Sino-Soviet Border Dispute*, April 28, 1970, p. 28.
[453] Central Intelligence Agency, Board of National Estimates, *Special Memorandum, The Soviet Military Buildup Along the Chinese Border*, March 25, 1968, pp. 1-2.

for rapid reinforcement, if necessary."[454] During this time, the features of the Soviet extended deterrence commitment to Mongolia match those of the nuclear barrier strategy, as illustrated in table 4-2.

Table 4-2: Nuclear Barrier Strategy Indicators in Soviet-Mongolia Dyad

Dimension	Nuclear Barrier Strategy Indicators	Soviet-Mongolia Strategy Indicators
Treaty Commitment	Unconditional, Ambiguous	No explicit conditions; open-ended and ambiguous
Conventional Force	Significant defensive land force; air force geared for close air support; limited naval assets	80,000 troops; mostly ground forces; air force geared toward CAS; no naval presence
Conventional Posture	Tactically offensive, high readiness	Defensive; deployed between border and population and industrial centers; high response time
Nuclear Force	SRBMs, artillery, demolition charges	Short-range ballistic FROG missiles with low-yield weapons
Nuclear Posture	Embedded, higher readiness	Deployed near border, low-level assignment, embedded with troops
Deterrent Purpose	Deter and defend by buying time and raising costs until arrival of reinforcements; escalation risks	"safeguard us from all sorts of incidents and possible sudden attacks"[455]

Security Environment: Anxieties of a Chinese Fait Accompli

The Soviet choice of extended deterrence strategy in Mongolia is explained well by Extended Deterrence Selection Theory, as illustrated in figure 4-3 below. The Soviet security guarantee and stationing of troops on Mongolian territory emerged

[454] CIA, Board of National Estimates, Special Memorandum, The Soviet Military Buildup Along the Chinese Border, March 25, 1968, pp. 10-11.
[455] "Mongolian Politburo Resolution and Letter to the Soviet leadership requesting Soviet troops be stationed on Mongolian soil to defend against possible attack.," December 01, 1965, History and Public Policy Program Digital Archive, Mongolian Revolutionary People's Party Archive (Mongol Ardyn Khuvsgalt Namyn Arkhiv): fond 4, tov'yog 28, kh/n 173b, khuu. 35-37. Obtained and translated for CWIHP by Sergey Radchenko. The resolution was written in Mongolian and the addendum in Russian.

from the shared concerns in both Moscow and Ulaanbaatar that China could launch a successful surprise attack against Mongolia and annex a significant amount of territory before Soviet reinforcements could arise. These concerns about the threat from China grew from several sources. First, against the backdrop of a deepening Sino-Soviet split, China's resorted to increasing diplomatic and economic pressure in order to press its claims to Mongolian territory. Second, the enormous imbalance between Mongolian and Chinese conventional forces made it impossible for Mongolia to mount a successful independent defense against a possible Chinese invasion. Finally, Mongolia's strategic geography and lack of strategic early warning capabilities conspired to make it particularly vulnerable to Chinese forces.

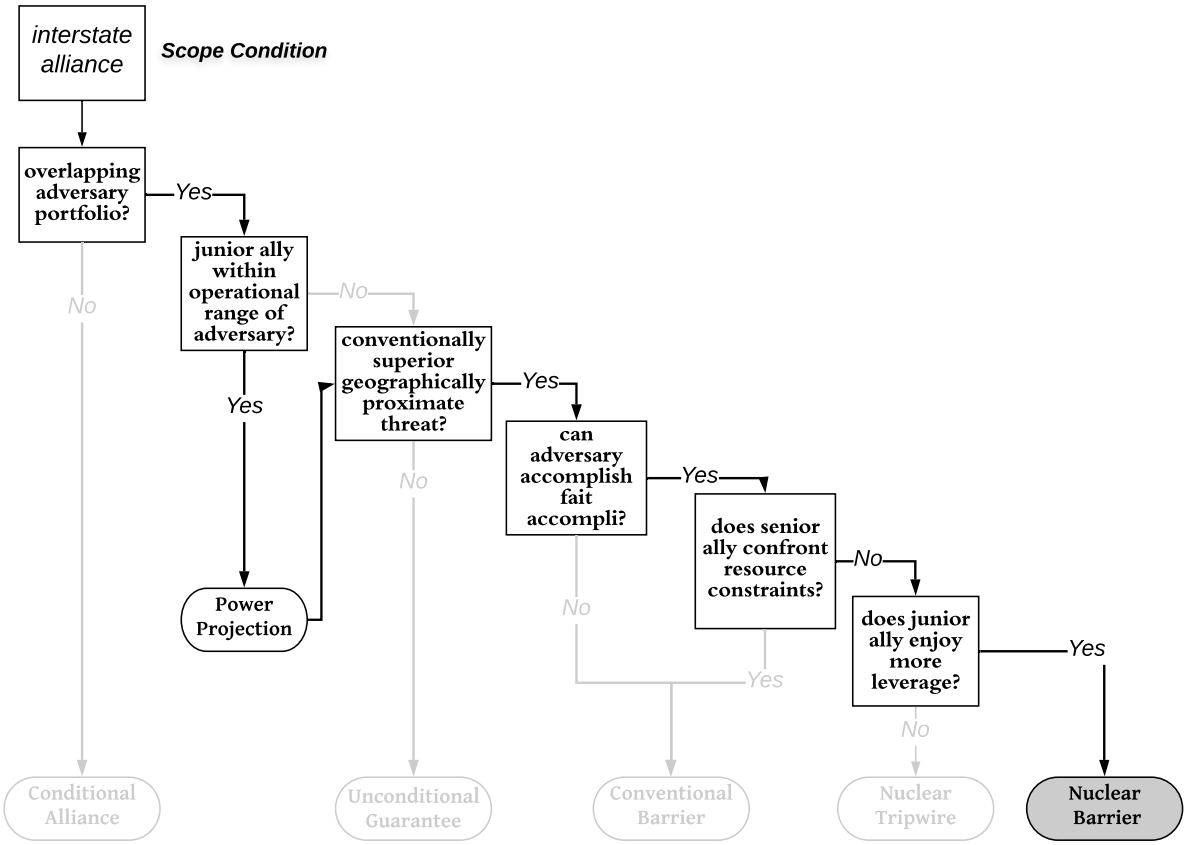

Figure 4-3: Soviet Extended Deterrence Strategy in Mongolia, 1966-1992

First, Mongolian officials became increasingly concerned about lingering Chinese claims to Mongolian territory as, alongside the growing split between Moscow and Beijing, parallel rifts began to appear in Sino-Mongolian relations in the early 1960s due to increasing concerns about China's designs on Mongolian territory. In late 1960, representatives from across the Communist world arrived in Moscow for the International Meeting of Communist and Workers Parties. Officials representing 81 different communist and workers parties from every continent met to hash out issues confronting the communist world and, hopefully, to resolve some of the

emerging conflicts between China and the Soviet Union.[456] However, far from repairing relations within the camp, the meeting served as a forum for airing and exacerbating grievances.[457] Hints of the growing rift between Mongolia and China could be seen in Mongolia's approach to Albania, which had become a strong Chinese ally. At the meeting, General Secretary of the Mongolian People's Revolutionary Party Yumjaagiin Tsedenbal warned Albanian representatives that "unless they seriously revise their incorrect position it is only logical that they may finally find themselves in the company of their former adversaries-the revisionists."[458] Chinese leaders were outraged by the Mongolian criticism. Liu Shaoqi complained to Polish counterparts that "Tsedenbal, despite [Chinese aid to Mongolia] this, twice reviled us at the Conference while calling our attitude wrong and accusing us for the fractional activity. He even dared say that when Zhou Enlai was in Mongolia he tried to get him into such a fractional activity. This is groundless. How are we to treat him? We want to talk to Tsedenbal and we want to carry out all our agreements; nevertheless, our comrades will continue to work in Mongolia as hitherto."[459]

In June 1964, China and Mongolia completed the implementation and demarcation processes of a border agreement resolving their outstanding territorial

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[456] William E. Griffith, "The November 1960 Moscow Meeting: A Preliminary Reconstruction," *The China Quarterly*, Vol. 11 (1962), pp. 38-57.
[457] For more on the role of the earlier 1957 Conference in the Sino-Soviet split, see Zhihua Shen and Yafeng Xia, "Hidden Currents during the Honeymoon," *Journal of Cold War Studies*, Vol. 11, No. 4 (Fall 2009), pp. 74-117.
[458] William E. Griffith, "The November 1960 Moscow Meeting: A Preliminary Reconstruction," *The China Quarterly*, Vol. 11 (1962), p. 51.
[459] "Record of Conversation between Polish Delegation (Gomułka et al.) and Chinese Communist Politburo Member Liu Shaoqi, Moscow," November 29, 1960, History and Public Policy Program Digital Archive, Sygnatura XI A15, AAN, KC PZPR, Warsaw. Obtained by Douglas Selvage and translated by Malgorzata Gnoinska.

disputes and in which China conceded relatively more.[460] However, Mongolia and the Soviet Union continued to see threats in Chinese statements. For example, in July 1964, just a month after finalizing the border demarcation Mao delivered an interview to representatives of the Japanese Socialists in which he accused the Soviet Union of dominating and subjugating Mongolia.[461] In response, Pravda accused China of wanting to "deprive Mongolia of its independence and make it a Chinese province."[462] The head of a Mongolian delegation to Beijing to celebrate the 15th anniversary of the People's Republic of China expressed dismay at the reports, saying "We agree with what you said that we have resolved our border questions. However, many overseas agencies published the story about Mao Zedong's talk with the Japanese socialists. It is regrettable that you and we understand these publications differently. When we looked at those things, we were truly amazed and felt regret. You, comrades, did not make clear whether this talk was true or false."[463]

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[460] M. Taylor Fravel, Strong Borders, Secure Nation: Cooperation and Conflict in China's Territorial Disputes (Princeton, N.J.: Princeton University Press, 2009), pp. 110-113.

[461] "Interview With The Japanese Socialists On The Theory Of The Intermediate Zone," *Sekat Shuho*, 11 August 1964, available at https://www.marxists.org/reference/archive/mao/selected-works/volume-9/mswv9_26.htm.

[462] "По Поводу Беседы Мао Цзэ-Дуна Группой Японских Социалистов [On Mao Zedong's Interview with a Group of Japanese Socialists," *Правда* [*Pravda*], 2 September 1964, No. 264, p. 2. The original Russian reads "Им хотелось бы лишить МНР самостоятельности, сделать ее китайской провинцией."

[463] "Record of Conversation between the Mongolian People's Republic Government Delegation and the Deputy Chairman of the People's Republic of China State Council, Foreign Minister Chen Yi," September 30, 1964, History and Public Policy Program Digital Archive, Mongolian Government Archive (Mongol Ulsyn Zasglin Gazryn Arkhiv), Fond 1, tov'yog 16, kh/n 299 (1965), pp. 92-98. Document obtained and translated by Sergey Radchenko. The delegation was specifically instructed by the Mongolian Politburo to "probe the position of the Chinese regarding their sincerity with regard to the MPR on a series of questions[, including] territorial claims of the Chinese[.]" See "From the Diary of S. V. Chervonenko, Memorandum of Conversation between Soviet Ambassador to China Stepan V. Chervonenko and Mongolian Ambassador to China Dondongiin Tsevegmid," October 07, 1964, History and Public Policy Program Digital Archive, Obtained and translated for CWIHP by Sergey Radchenko.

In fact, Chinese views on the status of Mongolia were such that high-level Chinese officials even claimed that the supposed "loss" of the Mongolian territory was viewed among the Chinese nation as comparable to the loss of Taiwan. A 1964 memo from the First Secretary of the Far Eastern Department of the Central Committee outlined the increasingly assertive Chinese claims against Mongolia.[464] The memo, describing an earlier conversation between Chinese officials Zhou Enlai and Liu Shaoqi and Anastas Mikoyan, who served as First Deputy Chairman of the Council of Ministers of the Soviet Union, noted the Chinese comparison of Mongolia's status with that of Taiwan: "During the same conversation Liu Shaoqi added that the Chinese people allegedly are very deeply pained by the fact of Mongolia's secession from China. He noted that when the Soviet Union was celebrating the 300-year-anniversary of reunification of Ukraine with Russia, [some people] said in China that 300 years ago Mongolia already was a part of China and asked the question whether it could be re-united with China. The Chinese, Liu Shaoqi continued, consider Mongolia, like Taiwan, a part of their territory."[465]

China's designs on Mongolia became so prominent that word of them spread across the globe throughout the Communist camp. In a 1968 meeting, Yugoslav President Josip Broz Tito shared with Egyptian President Gamal Abdel Nasser the persistent Mongolian anxieties about China's intentions. According to Tito,

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[464] "Information Memorandum, 'About the Claims of the Chinese Leaders With Regard to the Mongolian People's Republic'," January 30, 1964, History and Public Policy Program Digital Archive, Obtained and translated for CWIHP by Sergey Radchenko.

[465] "Information Memorandum, 'About the Claims of the Chinese Leaders With Regard to the Mongolian People's Republic'," January 30, 1964, History and Public Policy Program Digital Archive, Obtained and translated for CWIHP by Sergey Radchenko.

"Cedenbal told me about this in some detail. Since 1947, during the Stalin period, when Anastas Mikoian visited China, Mao Tse-tung told him that Mongolia should be part of China. Mao Tse-tung was not in power yet, but Chiang Kai-shek. Stalin firmly rejected this and it seems that he respected Chiang Kai-shek more than Mao Tse-tung, specifically because he could agree better with Chiang Kai-shek on the question of Mongolia."[466] Tito would subsequently go on to report that "the Chinese have not given up on that demand even today, and according to Cedenbal's account, on their geographic maps they are showing Mongolia within Chinese borders. In my opinion, that is one of the very important components of the conflict between China and the Soviet Union."[467] Tito even repeated sensitive Mongolian allegations that China had begun appropriating Soviet territories in the Far East.[468]

Third, Mongolia's conventional inferiority relative to China meant it was impossible for it to mount its own independent defense. Over the course of the 1960s, Mongolian and Soviet diplomats shared their concerns about the apparent growth of the military on the Chinese side of the border. In 1966, the year that Mongolia and the Soviet Union signed their mutual defense treaty, a Soviet delegation, headed by Brezhnev, arrived in Mongolia to discuss the threat from the two countries' shared neighbor. According to records from the meeting, "Recently the Chinese had been

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[466] "Minutes of Conversation between Yugoslav President Josip Broz Tito and UAR President Gamal Abdel Nasser in Brijuni, Croatia," July 11, 1968, History and Public Policy Program Digital Archive, Tito Presidential Archives, KPR I-3-a UAR, Belgrade, Serbia.
[467] "Minutes of Conversation between Yugoslav President Josip Broz Tito and UAR President Gamal Abdel Nasser in Brijuni, Croatia," July 11, 1968, History and Public Policy Program Digital Archive, Tito Presidential Archives, KPR I-3-a UAR, Belgrade, Serbia.
[468] "Minutes of Conversation between Yugoslav President Josip Broz Tito and UAR President Gamal Abdel Nasser in Brijuni, Croatia," July 11, 1968, History and Public Policy Program Digital Archive, Tito Presidential Archives, KPR I-3-a UAR, Belgrade, Serbia.

building up their forces at the Mongolian-Chinese border. Now there were 73 so called "stations" with military garrisons along the border with the MPR. There were 4 large Chinese garrisons on the western border; in the Xinjiang region, on the railroad at the Erlian border station, in the East, close to the meeting point of the three states (MPR, USSR and PRC) there were large Chinese garrisons, two of which arrived in the beginning of 1965."[469] According to notes on at a meeting of senior Soviet and Mongolian officials, "In the sphere of international politics, Comrade Tsedenbal stressed, our two countries had one line."[470]

The growing Chinese threat to Mongolia even gained the attention of national leaders on other continents. In 1968, just as Soviet troops were fortifying their positions in Mongolia, Yugoslav President Josip Broz Tito met with Egyptian President Gamal Abdel Nasser. Tito recounted his recent trip to Asia, including a stopover in Mongolia where he learned of Ulaanbaatar's heightened anxieties toward China: "Mongolia has a border with China that is a few thousand miles long, but it does not have enough soldiers to maintain its border patrols, so now they have Soviet troops present there but not directly on the border. Namely, China is constantly threatening to seize Mongolia and the Chinese are propagating that even today."[471]

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[469] "Information about the Visit of the Soviet Party and Government Delegation to Mongolia Headed by Brezhnev [Excerpt]," January 1966, History and Public Policy Program Digital Archive, AVPRF, fond 0111, opis 48, papka 287, delo 12, listy 21-38. Obtained and translated for CWIHP by Sergey Radchenko.

[470] "Information about the Visit of the Soviet Party and Government Delegation to Mongolia Headed by Brezhnev [Excerpt]," January 1966, History and Public Policy Program Digital Archive, AVPRF, fond 0111, opis 48, papka 287, delo 12, listy 21-38. Obtained and translated for CWIHP by Sergey Radchenko.

[471] "Minutes of Conversation between Yugoslav President Josip Broz Tito and UAR President Gamal Abdel Nasser in Brijuni, Croatia," July 11, 1968, History and Public Policy Program Digital Archive, Tito Presidential Archives, KPR I-3-a UAR, Belgrade, Serbia.

Mongolian and Soviet concerns about a potential fait accompli emerged from several sources. First, the sheer disparity in military power between Mongolia and China meant that in independent Mongolian defense against China would be impossible. At the time, Mongolia's population numbered only 1.1 million compared to more than 700 million in China.[472] While the entire Mongolian military was estimated at no more than 40,000,[473] People's Liberation Army personnel were believed to number 2.4 million, more than twice the size of the entire Mongolian population.[474] This sense of vulnerability was acutely felt by Mongolian leaders. In 1968, Mongolian leader Tsedenbal told a visiting Tito that Mongolian security depended on Soviet support. According to Tito's account of the discussion, "Mongolia has a border with China that is a few thousand miles long, but it does not have enough soldiers to maintain its border patrols, so now they have Soviet troops present there but not directly on the border. … Of course, Mongolians are completely relying on the Soviet Union because they would not like to fall under China. When one realizes how big the Mongolian area is and it shares a border with a power such as China, the possibilities are limited."[475] As the CIA noted at the time, "By 1965 the Soviets had

[472] Population figures taken from 1966, the year that Mongolia and the Soviet Union signed the mutual defense treaty.
[473] William Heaton, "Mongolia: Troubled Satellite," *Asian Survey*, Vol. 13, No. 2 (February 1973), p. 249; and CIA, Board of National Estimates, Special Memorandum, *The Soviet Military Buildup Along the Chinese Border*, March 25, 1968, p. 9.
[474] In 1965, the International Institute of Strategic Studies estimated the PLA at 2.445 million, while the U.S. Arms Control and Disarmament Agency estimated it at 2.4 million. Yitzhak Shichor, "Demobilization: The Dialectics of PLA Troop Reduction," *The China Quarterly*, No. 146 (June 1996), p. 340.
[475] "Minutes of Conversation between Yugoslav President Josip Broz Tito and UAR President Gamal Abdel Nasser in Brijuni, Croatia," July 11, 1968, History and Public Policy Program Digital Archive, Tito Presidential Archives, KPR I-3-a UAR, Belgrade, Serbia.

become concerned about the potential Chinese threat to the underpopulated (1.1 million) buffer state of Mongolia."[476]

Mongolia's domestic political conditions at both the grassroots and elite levels provided additional threats to the country's independence from China. Mongolia faced several demographic and economic vulnerabilities to Chinese influence. Until the Sino-Soviet split widened in the early 1960s, China had provided Mongolia with extensive economic aid, including financing the construction of factories, infrastructure, and housing.[477] That economic aid was also accompanied by an offer from Mao to relocate thousands of Chinese workers to Mongolia to support the infrastructure buildup.[478] These workers presented Ulaanbaatar with a dilemma. On the one hand, they were necessary for continued economic development, especially for a country with limited skilled labor and the world's single lowest population density.[479] On the other hand, the workers made Mongolia's economic development dependent on—and, therefore, vulnerable to—China's goodwill, while the concentration of several thousand able-bodied foreigners represented a latent domestic security concern for the sparsely populated country. At the time that Mao had offered the workers, Mongolia attempted to navigate this dilemma by requesting that the resettled workers from China be ethnic Mongolians, in the hopes that they

[476] CIA, Board of National Estimates, Special Memorandum, *The Soviet Military Buildup Along the Chinese Border*, March 25, 1968, pp. 9-10.
[477] Sergey S. Radchenko, "Mongolian Politics in the Shadow of the Cold War: The 1964 Coup Attempt and the Sino-Soviet Split," *Journal of Cold War Studies*, Vol. 8, No. 1 (Winter 2006), pp. 98-100.
[478] Sergey S. Radchenko, "Mongolian Politics in the Shadow of the Cold War: The 1964 Coup Attempt and the Sino-Soviet Split," *Journal of Cold War Studies*, Vol. 8, No. 1 (Winter 2006), pp. 98-100.
[479] United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, Online Edition. Rev. 1.

would better assimilate.[480] China rebuffed the entreaties and Mongolia instead accepted several thousand young Chinese workers onto its territory.[481] The risks became clear when conflicts between local Mongolians and visiting Chinese workers erupted in deadly street fights.[482] These internal vulnerabilities were so apparent they were noted as far away as Washington, D.C. In 1968, the Central Intelligence Agency noted that "There were about 20,000 Chinese in Mongolia at the time, most of them men of combat age, plus numerous Mongolian opponents of the Tsedenbal (pro-Soviet) wing of the Mongolian Communist Party. Mongolia was thus vulnerable, not just to a Chinese Communist invasion, but to a Peking inspired coup."[483]

In addition to these demographic and economic liabilities, Ulaanbaatar also confronted growing threats among the country's elite. As conditions with China worsened, so did Mongolia's economy. The collapse in trade between China and the Warsaw Pact decimated Mongolian rail revenues, a vital budgetary source for Ulaanbaatar.[484] With economic decline, discontent within Mongolia's political elites

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[480] Conversation between Vasily Pisarev and Yumjaagiin Tsedenbal (29 November 1954), AVPRF; fond 0111, opis 36, papka 235, delo 3, listy 57-58, cited in Sergey Radchenko, "New Documents on Mongolia and the Cold War," *Cold War International History Project Bulletin*, Vol. 16 (Fall 2007/Winter 2008), pp. 342-343.

[481] "From the Diary of S. V. Chervonenko, Memorandum of Conversation between Soviet Ambassador to China Stepan V. Chervonenko and Mongolian Ambassador to China Dondongiin Tsevegmid," October 07, 1964, History and Public Policy Program Digital Archive, Obtained and translated for CWIHP by Sergey Radchenko.

[482] Harrison E. Salisbury, "Chinese-Mongol Tension Rising; Ulan Bator Charges Subversion," *The New York Times*, 22 May 1964, pp. 1 and 12; and "From the Diary of S. V. Chervonenko, Memorandum of Conversation between Soviet Ambassador to China Stepan V. Chervonenko and Mongolian Ambassador to China Dondongiin Tsevegmid," October 07, 1964, History and Public Policy Program Digital Archive, Obtained and translated for CWIHP by Sergey Radchenko.

[483] CIA, Board of National Estimates, Special Memorandum, *The Soviet Military Buildup Along the Chinese Border*, March 25, 1968, pp. 9-10.

[484] "Record of Conversation between Soviet Ambassador to China Stepan V. Chervonenko and the Mongolian Ambassador to China Dondongiin Tsevegmid," January 15, 1963, History and Public Policy Program Digital Archive, Archive of the Foreign Policy of the Russian Federation (AVPRF). fond 0100, opis 56, papka 495, delo 7, listy 1-19. Obtained and translated for CWIHP by Sergey

grew, and members of the intelligentsia increasingly clamored for a more pro-Chinese foreign policy or, at the very least, a return to the strategic independence of the 1950s in which Mongolia could benefit by selling its natural resources to both of its neighbors. Mongolian nationalists grew disdainful of their homeland's increasing "Sovietization," which risked reducing it to little more than "a Soviet resource appendage."[485] These grievances, along with longstanding resentment of Tsedenbal's repression, corruption, and incompetence, manifested in a coup attempt against the Mongolian leader in late 1964.[486] Although, in retrospect, the coup plotters had little connection to China, Mongolian leaders were quick to blame Beijing and to share their allegations with their Soviet partners and the rest of the world.

Finally, the geography of the region, with its rolling plateaus and the Gobi Desert, further conspired against Mongolia's defense. While to the north and west, the Altai Mountains form a natural border with Russia, the southern and eastern reaches of the country are flat and arid desert and steppe, providing little resistance to potential invasion.[487] The military buildup on the Chinese side of the border only worked to accentuate these vulnerabilities.[488] When Soviet Premier Leonid Brezhnev

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Radchenko; and Sergey S. Radchenko, "Mongolian Politics in the Shadow of the Cold War: The 1964 Coup Attempt and the Sino-Soviet Split," *Journal of Cold War Studies*, Vol. 8, No. 1 (Winter 2006), p. 99.

[485] Sergey S. Radchenko, "Mongolian Politics in the Shadow of the Cold War: The 1964 Coup Attempt and the Sino-Soviet Split," *Journal of Cold War Studies*, Vol. 8, No. 1 (Winter 2006), p. 103.

[486] Harrison E. Salisbury, "Chinese-Mongol Tension Rising; Ulan Bator Charges Subversion," *The New York Times*, 22 May 1964, pp. 1 and 12; and Sergey S. Radchenko, "Mongolian Politics in the Shadow of the Cold War: The 1964 Coup Attempt and the Sino-Soviet Split," *Journal of Cold War Studies*, Vol. 8, No. 1 (Winter 2006), pp. 114-118.

[487] Donald R. DeGlopper, "The Society and Its Environment," in Robert L. Worden and Andrea Matles Savada (eds.), *Mongolia: A Country Study* (Washington, D.C.: Federal Research Division, Library of Congress), pp. 60-66.

[488] CIA, Board of National Estimates, Special Memorandum, *The Soviet Military Buildup Along the Chinese Border*, March 25, 1968, pp. 9-10.

visited his Mongolian counterparts in Ulaanbaatar in January 1966, Mongolian officials took full advantage of the opportunity to share their concerns about the shared neighbors to the south. Mongolian leader Tsedenbal pointed to the growth in Chinese military outposts along the Sino-Mongolian border, with 73 total military garrisons, including several very large ones at strategic locations. Emphasis was given to the large Chinese garrison at the Erlian (Erenhot) border station railway depot, just a few kilometers from Mongolian territory and a straight-shot 350 kilometers from Ulaanbaatar.[489] Chinese Type 59 tanks departing at sunrise from Erlian could have rolled into the Mongolian capital just after noon.

Together, Mongolia's significant conventional inferiority and the country's adverse strategic geography demanded external military assistance. These factors were both compounded by the country's lack of reconnaissance and strategic ISR capabilities.[490] Without adequate warning, there would be no hope of forestalling a Chinese invasion.[491] Mongolia's own request for Soviet assistance referenced these various drivers. In December 1965, the Mongolian Politburo drafted a resolution and letter to the Soviet leadership requesting the stationing of Soviet troops on Mongolian

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[489] "Information about the Visit of the Soviet Party and Government Delegation to Mongolia Headed by Brezhnev [Excerpt]," January 1966, History and Public Policy Program Digital Archive, AVPRF, fond 0111, opis 48, papka 287, delo 12, listy 21-38. Obtained and translated for CWIHP by Sergey Radchenko.

[490] "Mongolian Politburo Resolution and Letter to the Soviet leadership requesting Soviet troops be stationed on Mongolian soil to defend against possible attack.," December 01, 1965, History and Public Policy Program Digital Archive, Mongolian Revolutionary People's Party Archive (Mongol Ardyn Khuvsgalt Namyn Arkhiv): fond 4, tov'yog 28, kh/n 173b, khuu. 35-37. Obtained and translated for CWIHP by Sergey Radchenko. The resolution was written in Mongolian and the addendum in Russian.

[491] Sergey Radchenko, "New Documents on Mongolia and the Cold War," *Cold War International History Project Bulletin*, Vol. 16 (Fall 2007/Winter 2008), p. 345.

territory. That document explicitly noted the deteriorating relations with China, Mongolia's conventional inferiority, fears of fait accomplish in the form of "surprise attacks," and the need for Soviet forward deployed troops equipped with "modern weapons":

> Taking into consideration the deteriorating situation in the East, and the worsening international tensions, CC MPRP and the Government of MPR are taking measures to strengthen defence capabilities of the country. With the generous help from the Soviet Union we equip the Mongolian people's army with modern technology and arms, with the help of the Soviet specialists train the army personnel in new means of struggle. However, these measures are insufficient in order to safeguard us from all sorts of incidents and possible sudden attacks. Our army units do not possess the means of detection, which would allow us to learn about activities of the enemy at a considerable distance from our territory. Taking the aforementioned into consideration, and with the aim of further strengthening of defence capabilities of the MPR, CC MPRP and the Government of the MPR are turning to the CC CPSU and the Soviet Government with an insistent request to consider the question of providing a battle unit (formation) from the Armed forces of the USSR and maintaining it on the territory of the MPR at the cost of the Soviet Union, having supplied it with modern powerful military equipment and arms, housing, as well as cultural facilities, amenities and all other necessary items.[492]

In the end, the overwhelming Chinese conventional superiority, coupled with Mongolia's crucial role as a Soviet buffer, compelled Moscow to opt for forward military deployments to the territory of its junior ally, including the deployment of ground-based tactical nuclear weapons. What remained to be answered, in the theory,

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[492] "Mongolian Politburo Resolution and Letter to the Soviet leadership requesting Soviet troops be stationed on Mongolian soil to defend against possible attack.," December 01, 1965, History and Public Policy Program Digital Archive, Mongolian Revolutionary People's Party Archive (Mongol Ardyn Khuvsgalt Namyn Arkhiv): fond 4, tov'yog 28, kh/n 173b, khuu. 35-37. Obtained and translated for CWIHP by Sergey Radchenko. The resolution was written in Mongolian and the addendum in Russian.

is whether these nuclear deployments would be accompanied with a robust ground troop presence or act merely as a tripwire.

Intra-Alliance Negotiating

We have limited access to records documenting the discussions between the Soviet Union and Mongolia about Soviet forward deployments. This lack of documentary evidence limits our ability to definitively test the underlying mechanisms proposed by the theory. However, we can still use to approaches to test the theory against the case. First, the observable implications offered by the theory are evident in the Soviet-Mongolia case which offers indirect evidence by which to test the theory. Second, documents from other countries speculating about Soviet and Mongolian decision-making can further offer ancillary support in testing the theory against the case.

First, the features of the case match the predictions of the theory. As identified in the theory, junior allies which enjoy more leverage over the senior ally are more likely to secure a nuclear barrier strategy than a nuclear tripwire one. One of the sources of leverage for the junior ally can be if its location is astride strategic chokepoints or causes it to serve as an important buffer zone between the senior ally and the shared adversary. In the case of Mongolia, its position between an industrial, populated northeast China and a resource-rich yet population-sparse Soviet Far East made it an important defense buffer. Mongolia had long been recognized as a strategic "buffer zone" to the Soviet Union and its Russian forbearers, with Soviet security

inextricably bound to Mongolia's.[493] Indeed, according to one prominent Mongolian defense intellectual, "during much of the Sino-Soviet confrontation, the Mongol-Chinese border was, in fact, to all intents and purposes, the Sino-Soviet border."[494] An additional observable indicator of Mongolia's relative leverage vis-à-vis Moscow was the fact that the Soviet Union bore all of the costs associated with its forward military deployments.[495] Mongolia's geographic position between the Soviet Union and China suggests that we should see the presence of a nuclear barrier strategy, as we do.

These broader geostrategic drivers of a closer Mongolian-Soviet alignment may have been further reinforced at the personal levels, notably the strong personal connections between Mongolian leader Yumjaagiin Tsedenbal and Russia. As Radchenko observes, Tsedenbal "had graduated from a Russian university, visited Moscow several times a year, married a Russian, and spoke excellent Russian (indeed, his children never learned Mongolian). Tsedenbal enjoyed the personal friendship of both Nikita Khrushchev and Leonid Brezhnev. By contrast, Tsedenbal had no Chinese connections, and his infrequent encounters with Mao Zedong left him with

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[493] Eric Her, "The 'Great Game': Mongolia between Russia and China," *The Mongolian Journal of International Affairs*, No. 4 (1997), p. 62; Ravdan Bold, "Northeast Asian Security Perspectives: The View from Mongolia, in *Mongolia's Strategic View* (Ulaanbaatar, Mongolia: Institute for Strategic Studies, 1996), pp. 1-4; Bruce A. Elleman, "Secret Sino-Soviet Negotiations on Outer Mongolia, 1918-1925," *Pacific Affairs*, Vol. 66, No. 4 (Winter 1993-1994), pp. 539-563; Mendee Jargalsaikhan, "Mongolia's Dilemma: A Politically Linked, Economically Isolated Small Power," *Open Forum* (blog), *The Asan Forum*, 30 April 2015, http://www.theasanforum.org/mongolias-dilemma-a-politically-linked-economically-isolated-small-power/.

[494] Ravdangiin Bold, "Military Aspects of Mongolian Geopolitics," *The Mongolian Journal of International Affairs*, Vol. 2 (1995), p. 53. Bold has previously served as Director of the General Intelligence Agency of Mongolia and, at the time this article was published, served as Director of the Institute for Strategic Studies in the Mongolian Ministry of Defense.

[495] Harvey W. Nelsen, Power and Insecurity: Beijing, Moscow, and Washington, 1949-1988 (Boulder, CO: Lynne Rienner, 1989), p. 70.

the impression that the Chinese leader was trying to "buy" the trust of the Mongolian leadership with his "purely Chinese ceremoniousness."[496]

Second, in the absence of direct Soviet archival sources, U.S. intelligence reports provide some evidence as to the decision-making process leading to the Soviet forward deployments. American intelligence identified several drivers for the deployment, including the inability to resolve the conflicts with China, continued progress in China's nuclear weapons and strategic missile programs, and the heightening chaos of the Cultural Revolution, all of which indicated a greater likelihood of conflict with Beijing.[497] According to a report from the CIA prepared shortly after the Soviet deployments, "At a minimum, they apparently wish to dissuade the Chinese from undertaking organized military actions against the USSR or Mongolia. Beyond this, the Soviets may believe it desirable to develop the capability for conducting limited military operations across the Chinese border. In any case, it appears that the Soviet military buildup near China will continue, for the near term at least, at roughly the pace set in late 1965, and Moscow is evidently beginning to ponder the long-term implications for the entire Soviet defense establishment."[498]

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[496] Sergey Radchenko, "New Documents on Mongolia and the Cold War," *Cold War International History Project Bulletin*, Vol. 16 (Fall 2007/Winter 2008), p. 343.
[497] CIA, Board of National Estimates, Special Memorandum, *The Soviet Military Buildup Along the Chinese Border*, 25 March 1968, p. 2.
[498] CIA, Board of National Estimates, Special Memorandum, *The Soviet Military Buildup Along the Chinese Border*, 25 March 1968, p. 3.

Ending of the Alliance, 1992-today

In the early 1990s, the extended deterrence strategy provided to Mongolia shifted away from nuclear barrier and eventually saw the end of the alliance. This was highlighted by the complete withdrawal of conventional and nuclear Soviet troops from Mongolian territory. It also saw the negotiation of a new treaty between the allies, one which relaxed the defense commitments Moscow provided to Ulaanbaatar. The new treaty, signed in 1993, did not constitute a defense pact like those which bound the two countries during the Cold War. Rather, it consisted of a a shallower and more limited nonaggression pact.[499] For the purposes of the coding scheme laid out in this project, this marked the exit of the case from the universe of extended deterrence observations. The timing and nature of this shift is well accounted for by the theory. In the years preceding the shift, the Chinese threat to Mongolia subsided and Soviet troops were no longer seen as necessary for safeguarding Mongolian security.

Soviet discussions about withdrawing troops from Mongolia began as early as 1983; however, complete withdrawal would not occur until after the end of the Cold War, as both Mongolia and the Soviet Union improved and normalized relations with China. In the early 1980s, Soviet officials began discussing removing troops from Mongolia as part of broader efforts to improve relations with Beijing.[500] Scholars have

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[499] Brett Ashley Leeds, Jeffrey M. Ritter, Sara McLaughlin Mitchell, and Andrew G. Long, "Alliance Treaty Obligations and Provisions, 1815-1944," *International Interactions*, Vol. 28, No. 3 (2002), pp. 237-260.

[500] Sergey Radchenko, "Soviet Withdrawal from Mongolia, 1986–1992: A Reassessment," *The Journal of Slavic Military Studies*, Vol. 25, No. 2 (2012), pp. 187-191.

identified several drivers of improved Sino-Soviet relations in the 1980s, including domestic economic and political reforms in both countries and Soviet efforts to escape a sense of geopolitical isolation.[501] Although Mongolia was still wary of its neighbor to the south, the Soviet Union attempted to repair the relationship with Beijing. One of the earliest discussions about removing troops from Mongolia came at a 1983 meeting of the Soviet Politburo in which Foreign Minister Andrei Gromyko proposed a partial withdrawal of Soviet troops as a gesture of goodwill.[502] Although the Politburo ultimately decided against a troop drawdown, this marked the beginning of a reconsideration of the Soviet military presence in Mongolia.[503] In 1986, as part of his Vladivostok speech in which Gorbachev announced a series of initiatives to improve relations with China, he declared that "a question of withdrawing a substantial part of Soviet troops from Mongolia is being examined jointly with the Mongolian leadership."[504]

However, as Radchenko reports, it is not clear whether Gorbachev consulted with his Mongolian counterpart beforehand.[505] Following the Vladivostok speech, Jambyn Batmönkh, who had succeeded Tsedenbal as General Secretary, requested a meeting with the Soviet commander of the Transbaikal Military District, which

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[501] Vladislav Zubok, "The Soviet Union and China in the 1980s: reconciliation and divorce," *Cold War History*, Vol. 17, No. 2 (2017), pp. 121-141; Thomas W. Robinson, "The New Era in Sino-Soviet Relations," *Current History*, Vol. 86, No. 521 (September 1987), pp. 241-244, 303.
[502] Minutes of a Politburo meeting, 31 May 1983, *Cold War International History Project Bulletin*, No. 4 (Fall 1994), p. 78.
[503] Sergey Radchenko, "Soviet Withdrawal from Mongolia, 1986–1992: A Reassessment," *The Journal of Slavic Military Studies*, Vol. 25, No. 2 (2012), pp. 188-189.
[504] "Text Excerpts from Gorbachev Speech," *Associated Press*, 28 July 1986, available at https://apnews.com/article/e6cbe1bf882605e5de36071ec75cff1c.
[505] Sergey Radchenko, "Soviet Withdrawal from Mongolia, 1986–1992: A Reassessment," *The Journal of Slavic Military Studies*, Vol. 25, No. 2 (2012), p. 190.

oversaw the troops in Mongolia. According to the commander, Batmönkh "expressed serious concern about the possibility of withdrawal of our forces from Mongolia. He justified his concern by the fact that Mongolia would not be able to protect its sovereignty without the help of the USSR. Agreeing in my own mind with his conclusions I said that I have not yet received any instructions regarding a withdrawal. Batmönkh informed me that he intends to visit Moscow in the next few days and discuss this question with Gorbachev, to try to talk the latter out of the force withdrawal."[506] Mongolian officials strongly rejected any withdrawal of Soviet troops but were caught in a fait accompli and the Soviet Union began a partial withdrawal within a year, though it still retained a sizable military presence in the country.[507] In some ways, the divergent policy preferences of both Moscow and Ulaanbaatar illustrate dynamics predicted by the theory, which predicts that junior allies should generally favor stronger forward conventional deployments to enhance their security, decrease their own defense burden, and provide non-nuclear defense options.[508]

Despite initial resistance to the departure of Soviet troops, Mongolian officials became increasingly receptive to a Soviet withdrawal throughout the 1980s and ultimately embraced it. This process was the result of several drivers. Domestic political reforms in Mongolia led to a greater diversity of views and and ultimately fostered the resurgence of a Mongolian nationalism which opposed hosting the Soviet

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[506] Станислав Иванович Постников [Stanislav Postnikov], *В далеких гарнизонах* [*In Distant Garrisons*], (Moscow: Polygon Press, 2004), p. 407, as cited in Sergey Radchenko, "Soviet Withdrawal from Mongolia, 1986–1992: A Reassessment," *The Journal of Slavic Military Studies*, Vol. 25, No. 2 (2012).

[507] Sergey Radchenko, "Soviet Withdrawal from Mongolia, 1986–1992: A Reassessment," *The Journal of Slavic Military Studies*, Vol. 25, No. 2 (2012), pp. 190-192.

[508] See chapter 1 for a description of this logic.

military on Mongolian territory. Mongolian efforts to normalize relations with the United States and join the Non-Aligned Movement also pointed to the need for no longer accepting foreign troops.[509] Mongolia also saw improved relations with China as not only possible but desirable. In July 1984, Mongolia's deputy foreign minister led a delegation to Beijing which worked to conclude a border demarcation agreement.[510] In November 1986, Batmönkh observed that although Mongolia still perceived security threats from China, it accepted a partial Soviet withdrawal in the hopes of improving relations with Beijing: "The situation on the Asian continent is still very unsettling and it is still very important to protect countries' independence. I am talking here about the situation of all of Asia. However, we agreed to the withdrawal of Soviet troops from Mongolia in order to establish trust between countries and create a healthy atmosphere for all on the Asian continent." At the same time, however, Batmönkh expressed hope in an improvement of Sino-Mongolian relations, noting that "Recently there has been improvement in Mongolian-Chinese relations. … If the Chinese side follows straightforwardly the principle of mutual respect, we think that there could be a greater improvement than this."[511]

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[509] "Record of Conversation between Comrade J. Batmunkh and Kim Il Sung," November 20, 1986, History and Public Policy Program Digital Archive, Mongolian Foreign Ministry Archive, fond 3, dans 1, kh/n 173, khuu 123-164. Obtained and translated for NKIDP by Sergey Radchenko and Onon Perenlei.

[510] Michael Weisskopf, "China, Pro-Soviet Mongolia Settle Border Issue," *Washington Post*, 13 July 1984, https://www.washingtonpost.com/archive/politics/1984/07/13/china-pro-soviet-mongolia-settle-border-issue/33ec87e9-2d73-4a49-ad06-fb1b9e4ef1f4/.

[511] "Record of Conversation between Comrade J. Batmunkh and Kim Il Sung," November 20, 1986, History and Public Policy Program Digital Archive, Mongolian Foreign Ministry Archive, fond 3, dans 1, kh/n 173, khuu 123-164. Obtained and translated for NKIDP by Sergey Radchenko and Onon Perenlei.

Eventually, the end of the Cold War and the diminishing threat posed by China led to the withdrawal of Soviet forces. In 1989, the two allies exchanged notes negotiating the possible troop withdrawal.[512] The Mongolian government was explicit in connecting its request for the withdrawal of Soviet troops to broader geopolitical shifts and, in particular, to the fading threat from China. In late 1988, as Sino-Mongolian relations were in the midst of thawing, Mongolia's first deputy minister of foreign affairs remarked that "if relations with China continue to improve, all Soviet troops will be withdrawn." [513] Relations continued to improve and ultimately Mongolia pressed for a full Soviet withdrawal.[514] As noted in a report prepared for the Central Committee of the Communist Party of the Soviet Union, "The Mongolian side explains its request as the change of the overall military and political situation in the world, and the normalization of the USSR's and MNR's relations with China. The complete withdrawal of Soviet forces is also connected with the MNR's intention to join the Non- Aligned Movement." [515] The report also highlighted growing nationalistic opposition to foreign troops in Mongolia and the Mongolian government's desire to complete a total withdrawal by July 1991, which marked the

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[512] Sergey Radchenko, "Soviet Withdrawal from Mongolia, 1986–1992: A Reassessment," *The Journal of Slavic Military Studies*, Vol. 25, No. 2 (2012), p. 188.
[513] Ronald E. Dolan, "National Security," Robert L. Worden and Andrea Matles Savada, *Mongolia: A Country Study* (Washington, D.C.: Federal Research Division, Library of Congress, 1991), pp. 247-248.
[514] For a review of some of the major steps and milestones in the process of improving the bilateral relationship, see William R. Heaton, "Mongolia in 1986: New Plan, New Situation," *Asian Survey*, Vol. 27, No. 1 (1987), pp. 75-80; Kenneth Jarrett, "Mongolia in 1987: Out from the Cold?," *Asian Survey*, Vol. 28, No. 1 (1988), pp. 80-81; Alan J. K. Sanders, "Mongolia in 1989: Year of Adjustment," *Asian Survey*, Vol. 30, No. 1 (1990), pp. 59-66.
[515] "Report Concerning the Complete Withdrawal of Soviet Troops from Mongolia," December 21, 1989, History and Public Policy Program Digital Archive, Vitalii Leonidovich Kataev Papers, Box 13-16, Hoover Institution Archives. Translated by Gary Goldberg.

70th anniversary of the Mongolian People's Revolution and was a highly symbolic date.[516] The Central Committee subsequently prepared a draft decree affirming the withdrawal decision and ordering the Ministry of Defense and the Ministry of Foreign Affairs to begin working on a timeline for the complete removal of Soviet troops.[517] In March 1990, the Soviet Union announced that a full withdrawal would take place and this was completed by 1992.[518]

The removal of these troops was accompanied by the entry into force of a new treaty, replacing the prior unconditional guarantees provided by the Soviet Union. In January 1993, Russia and Mongolia concluded a new treaty which included no formal defense commitments. Instead, the new agreement constituted a non-aggression pact by which the parties pledged only to not engage in aggression against one another and, if necessary, to consult with each other on possible security threats.[519] These features are represented by the classification of the Alliance Treaty Obligations and Provisions Project, which identifies the treaty not as a defense pact but, rather, as a non-aggression pact, which "require nonaggression, but do not include any obligations for active military support, neutrality, or consultation in the face of

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[516] For some contemporary accounts of the role of Mongolian nationalism, also see Charlene L. Fu, "Mongolians Express Resentment of Decades of Soviet Domination," *Associated Press*, 5 March 1990, https://apnews.com/article/391fb5cb30a5a2fefd0754f735fa70f5; and Uli Schmetzer, "In Mongolia, Soviet Exit None Too Soon," *Chicago Tribune*, 9 February 1990, https://www.chicagotribune.com/news/ct-xpm-1990-02-09-9001120123-story.html.

[517] "Draft CPSU CC Decree Concerning the Complete Withdrawal of Soviet Troops from Mongolia," December 21, 1989, History and Public Policy Program Digital Archive, Vitalii Leonidovich Kataev Papers, Box 13-16, Hoover Institution Archives. Translated by Gary Goldberg.

[518] "Soviet Troops to Leave Mongolia in 2 Years," *Los Angeles Times*, 3 March 1990, https://www.latimes.com/archives/la-xpm-1990-03-03-mn-1543-story.html.

[519] "Treaty of Friendship and Cooperation between Mongolia and the Russian Federation," in *Treaty Series: Treaties and International Agreements Registered or Filed and Recorded with the Secretariat of the United Nations*, Vol. 1926 (New York, N.Y.: United Nations, 2001), pp. 108-111.

military threat."[520] The agreement marked the downgrading of relations between the two countries and the end to their formal alliance.

Alternative Explanations

Extended Deterrence Selection Theory offers one of the best explanations for the shifts in extended deterrence strategy provided by the Soviet Union to Mongolia in the second half of the twentieth century. There is similarly strong evidence that security dynamics, as predicted by structural realist accounts, explain these shifts. There is less evidence of domestic politics or extractive posturing dynamics and no evidence for the role of nonproliferation goals. The performance of these competing explanations is summarized below in table 4-3.

As illustrated throughout the chapter, the timing and nature of the extended deterrence strategy provided by the Soviet Union to Mongolia is well explained by Extended Deterrence Selection Theory. The strategy began as an unconditional guarantee in which the Soviet Union committed to defend Mongolia. At the time, Mongolia viewed China as a potential threat, but the Sino-Soviet alliance muted Soviet concerns about possible entrapment in Mongolia. China's designs on Mongolia were relatively subdued. In the mid-1960s, increasing threat perceptions toward China drove the signing of a new treaty which included an unconditional security commitment and was accompanied by significant conventional and nuclear

[520] Brett Ashley Leeds, Jeffrey M. Ritter, Sara McLaughlin Mitchell, and Andrew G. Long, "Alliance Treaty Obligations and Provisions, 1815-1944," *International Interactions*, Vol. 28, No. 3 (2002), pp. 237-260. Quote from page 14 of the ATOP codebook.

deployments. As predicted by the theory, these decisions were explicitly tied to beliefs that China posed a threat to Mongolia, Mongolia could not provide for its defense alone, the combination of Chinese conventional superiority and the area's geography presented the risk of a *fait accompli*, and the Soviet Union's security was closely linked to Mongolia's. All these features remained in place until the late 1980s, at which point the perceived security threat posed by China abated and there was no longer a perceived need for the Soviet security guarantee or forward deployments. Soviet troops went home, and the two countries negotiated a new treaty without any form of security commitment. Again, this change is well explained by the theory given the reduced security threat to Mongolia.

Table 4-3: Competing Explanations in the Soviet-Mongolia Case

	Selection Theory	***Structural Realism***	***Domestic Politics***	***Extractive Posturing***	***Nonprolif. Goals***
1946-1966: Unconditional Guarantee	✓	?	✗	?	✗
1966-1992: Nuclear Barrier	✓	✓	?	?	✗

✓= successful prediction; ?= partial prediction; ✗= unsuccessful prediction

Structural realism performs similarly well in accounting for both the timing and nature of strategy shifts. In the post-War era, Mongolia enjoyed a relatively muted threat environment and there was no need for external support to safeguard the country's security. However, as relations worsened between, on the one hand, the Soviet Union and Mongolia and, on the other, China, Mongolian and Soviet officials believed that the best way to provide for Mongolia's security (and the Soviet Union's) was the forward deployment of Soviet troops. What followed was the deployment of

tens of thousands of Soviet troops and ground-based tactical nuclear weapons to Mongolia. Decades later, the normalization of relations between the Far Eastern neighbors and the end of the Cold War removed the security threat to Mongolia and, with it, the need for Soviet forward deployments. In response, Soviet troops went home and Moscow and Ulaanbaatar negotiated a new treaty which, unlike its predecessor, included no mutual security clause.[521] In each instance, the nature of the perceived security threat and the ability of the junior ally to independently manage that threat, accounted for the extended deterrence strategy.

There is mixed evidence that extractive posturing explains the extended deterrence strategies in Mongolia. The Soviet Union certainly provided significant resources for Mongolia's defense. Mongolian elites requested a significant Soviet military presence in their country and received it, with the Soviet Union shouldering the financial burden it generated.[522] However, there is no evidence that Mongolian officials made a deliberate effort to extract a significant defense commitment from a reluctant Soviet patron. Rather, it appears that the Soviet Union's significant investment in the defense of Mongolia stemmed from Moscow's *own* views about the importance of Mongolia as a buffer to Soviet security. This may stem from a lack of extensive evidence from the Soviet and Mongolian archives. Similarly, near the end of the Cold War, Mongolia resisted the withdrawal of the Soviet troops, despite

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[521] *Ardyn Erkh*, 23 January 1993, cited in G. Tumurchuluun, "Mongolia's Foreign Policy Revisited: Relations with Russia and the PRC into the 1990s," in Stephen Kotkin and Bruce A. Elleman, eds., *Mongolia in the Twentieth Century: Landlocked Cosmopolitan* (Armonk, N.Y.: M. E. Sharpe, 1999), p. 280.

[522] Harvey W. Nelsen, Power and Insecurity: Beijing, Moscow, and Washington, 1949-1988 (Boulder, CO: Lynne Rienner, 1989), p. 70.

entreaties from Moscow. But the available evidence does not indicate any Mongolian attempt, let alone success, in manipulating its relationship with the Soviet Union to extract a greater defense commitment than Moscow was willing to provide.

There is little evidence for the role of domestic politics in driving extended deterrence strategies, though domestic factors do appear as secondary reinforcing elements to broader security dynamics. Perceived domestic threats to the Mongolian government encouraged the initial requests for Soviet military assistance in the 1960s but those threats were firmly grounded in the Mongolian threat perception of China.[523] Similarly, near the end of the Cold War, the political reforms and resurgent nationalism within Mongolia provided additional impetus for the removal of Soviet troops but government documents and official statements from both the Soviet and the Mongolian side clearly identified the threat from China as the primary driver of Soviet forward deployments. [524]

Finally, there is no evidence that nonproliferation goals drove the timing or direction of shifts in extended deterrence strategies to Mongolia. Mongolia is absent in the scholarship on nuclear proliferation. There is no evidence that the country ever

[523] Sergey S. Radchenko, "Mongolian Politics in the Shadow of the Cold War: The 1964 Coup Attempt and the Sino-Soviet Split," *Journal of Cold War Studies*, Vol. 8, No. 1 (Winter 2006), pp. 98-100.
[524] "Mongolian Politburo Resolution and Letter to the Soviet leadership requesting Soviet troops be stationed on Mongolian soil to defend against possible attack.," December 01, 1965, History and Public Policy Program Digital Archive, Mongolian Revolutionary People's Party Archive (Mongol Ardyn Khuvsgalt Namyn Arkhiv): fond 4, tov'yog 28, kh/n 173b, khuu. 35-37. Obtained and translated for CWIHP by Sergey Radchenko. The resolution was written in Mongolian and the addendum in Russian; and "Report Concerning the Complete Withdrawal of Soviet Troops from Mongolia," December 21, 1989, History and Public Policy Program Digital Archive, Vitalii Leonidovich Kataev Papers, Box 13-16, Hoover Institution Archives. Translated by Gary Goldberg.

seriously considered obtaining its own nuclear weapons.[525] Its relatively low industrial capacity, small population, and agrarian economy all would have presented significant obstacles to nuclearization in Mongolia.[526]

Conclusion

Given the domestic politics and geopolitical alignments of East Asia, it is unlikely for Russia to provide an extended deterrence commitment to Mongolia in the way that the Soviet Union did throughout the Cold War. Mongolia is unlikely to return a strong, exclusive alignment with either Russia or China. Since the end of the Cold War, Mongolia has established and deepened its relations with the United States. The two countries did not even establish diplomatic relations until 1987, but since then the United States has supplied Mongolia with hundreds of millions of dollars in aid and the U.S. military has provided training and equipment to the Mongolian armed forces.[527] Most Mongolians report strong approval of U.S.

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[525] See, for example, its absence from coding in Philipp C. Bleek, "When Did (and Didn't) States Proliferate? Chronicling the Spread of Nuclear Weapons," Discussion Paper (Cambridge, MA: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School and the James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies, Monterey, CA., June 2017); Sonali Singh and Christopher R. Way, "The Correlates of Nuclear Proliferation: A Quantitative Test," *Journal of Conflict Resolution*, Vol. 48, No. 6 (2004), pp. 859-885; and Dong- Joon Jo and Erik Gartzke, "Determinants of Nuclear Weapon Proliferation," *Journal of Conflict Resolution*, Vol. 51, No. 1 (2007), pp. 167-194.

[526] For more on the "supply side" of proliferation dynamics, see Dong- Joon Jo and Erik Gartzke, "Determinants of Nuclear Weapon Proliferation," *Journal of Conflict Resolution*, Vol. 51, No. 1 (2007), pp. 167-194; Matthew Kroenig, "Importing the Bomb: Sensitive Nuclear Assistance and Proliferation," *The Journal of Conflict Resolution*, Vol. 53, No. 2 (2009), pp. 161-180; and Matthew Fuhrmann, "Spreading Temptation: Proliferation and Peaceful Nuclear Cooperation Agreements," *International Security*, Vol. 34, No. 1 (2009), pp. 7-41.

[527] "U.S. Relations With Mongolia," Bureau of East Asian and Pacific Affairs, U.S. Department of State, 24 June 2021, https://www.state.gov/u-s-relations-with-mongolia/.

leadership with approval rates higher than those for China or India.[528] The transitions to a multi-party democracy and a market economy are likely to reinforce Mongolia's growing ties with the United States.[529] Over the last decade, Mongolia's two larger neighbors have established stronger relations with one another, in part to balance against the United States.[530]

However, despite growing Sino-Russian cooperation, there is no sign that threats to Mongolia's territorial integrity are returning. In 1994, China and Mongolia signed a treaty of friendship and cooperation, indicating the continued normalization and deepening of bilateral relations.[531] Russia and Mongolia have since signed their own treaties of friendship and cooperation.[532] Although Mongolia has struggled with balancing its need for trade and aid against the desire to safeguard its independence and autonomy, it has shown "creativity and flexibility" in its ability to balance between American, Chinese, and Russian influence.[533] Absent a significant realignment in the region's strategic ties and the emergence of a new motive for

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[528] Cynthia English, "U.S. Leadership More Popular in Asia Than China's, India's," *Gallup*, 5 November 2010, https://news.gallup.com/poll/144269/Leadership-Popular-Asia-China-India.aspx.
[529] Kerry Dumbaugh and Wayne M. Morrison, "Mongolia and U.S. Policy: Political and Economic Relations," *Congressional Research Service*, 18 June 2009.
[530] Andrew Kydd, "Switching Sides: Changing Power, Alliance Choices and U.S.-China-Russia Relations," *International Politics*, Vol. 57 (2020), pp. 855-884; Alexander Korolev, "On the Verge of an Alliance: Contemporary China-Russia Military Cooperation," *Asian Security*, Vol. 15, No. 3 (2019), pp. 233-252; and Alexander Korolev and Vladimir Portyakov, "China-Russia Relations in Times of Crisis: A Neoclassical Realist Explanation," *Asian Perspective*, Vol. 42, No. 3 (2018), pp. 411-437.
[531] "China and Mongolia Sign and Issue the Activity Plan Commemorating the 70th Anniversary of the Establishment of China-Mongolia Diplomatic Relations," People's Republic of China Ministry of Foreign Affairs, 28 April 2019, https://www.fmprc.gov.cn/mfa_eng/wjdt_665385/2649_665393/201905/t20190505_679566.html.
[532] "Russia To Sign Permanent Treaty Of Friendship With Mongolia; Counter Chinese Influence," *Eurasian Times*, 2 September 2019, https://eurasiantimes.com/russia-to-sign-permanent-treaty-of-friendship-with-mongolia-counter-chinese-influence/.
[533] Alicia Campi, "Mongolia's Response to Increasing U.S.-China-Russia Rivalry in Asia," *Asia Pacific Bulletin*, No. 521, 7 August 2020.

Mongolia's neighbors to dominate the smaller country, it is unlikely for Mongolia to return to the ranks of extended deterrence recipients.

Chapter 5

Extended Deterrence Across the Globe: Less Intensive Strategies

In previous chapters, I conducted case studies of more intensive extended deterrence strategies. These strategies featured the deployment of ground-based tactical nuclear weapons and involved conflict between major powers at some of the globe's major flashpoints on the Korean Peninsula, Western Europe, and the Sino-Soviet border. Here, I provide three mini-case studies of observations involving less intensive extended deterrence strategies. These cases, while each important in their own right, investigate senior allies who provided commitments to junior allies confronting relatively smaller-scale conflicts against regional threats. The first of the mini-cases examines the British extended deterrence strategy to Belize from 1981 to today. This case passes through two phases. In the first, from 1981 to 1993, the British selected a conventional barrier strategy in order to deter and defeat Guatemalan aggression against Belize. In 1993, following the resolution of the longstanding territorial dispute between Guatemala and Belize, the British withdrew their forward deployed conventional forces and shifted to a strategy of unconditional guarantee.

The second of the mini-cases examines the French extended deterrence strategy to Djibouti from 1977 to 2011. In this case, like the Belize one, the French senior ally selected a conventional barrier strategy in order to deter and defeat aggression against the junior ally, Djibouti. Throughout this period, Djibouti faced

acute security threats from, first, Somalia and Ethiopia and, later, from Eritrea. An unconditional legal commitment, coupled with forward conventional deployments, helped to deter and defeat aggression against France's former colony.

The third and final of the mini-cases examines the American extended deterrence strategy to Israel from 1981 to 1991. Both the United States and Israel had a shared adversary in the Soviet Union and Israel explicitly sought the protection of an unconditional guarantee from the United States. However, given the complicated political relations that prevailed in the Middle East, the United States was concerned about entrapment and, in order to mitigate those risks, instead only provided Israel with a conditional alliance.

I examine each case in turn, providing background to the case, identifying the features of the extended deterrence strategy selected, and evaluating how well extended deterrence selection theory performs in explaining each case. Examining these cases allows me to better test the explanatory power of the theory. These cases involve two other senior allies—the United Kingdom and France—not typically included in studies of extended deterrence. They also provide examples of the less intensive strategies in the typology. In each case, as with previous ones, I provide an overview of the case, assess the features of the extended deterrence strategy selected, examine how well the case supports extended deterrence selection theory, and then test the theory's performance alongside several prominent competing examples.

THE BRITISH STRATEGY IN BELIZE:

CONVENTIONAL BARRIER TO UNCONDITIONAL GUARANTEE

The history of relations between Belize and the United Kingdom began in 1862, when the British designated the territory that would become modern day Belize a British Crown Colony and named it British Honduras.[534] It would remain under British control until obtaining independence in 1981.

Since the 19th century, however, Guatemala has claimed Belize as part of its own territory, presenting a security challenge to the territory. Guatemala declared its independence from Spain in 1821 and claimed the territory of Belize as part of its own.[535] Under the Wyke-Aycinena Treaty, signed in 1859 by Guatemala and the United Kingdom, Guatemala agreed to recognize British sovereignty over Belie in return for economic development assistance, including the construction of a road connecting Guatemalan territory to the Caribbean coast. The road was never built and a future Guatemalan government would consider the agreement void.[536] The territorial dispute has periodically animated Guatemalan domestic politics, with

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[534] O. Nigel Bolland, "Belize: Historical Setting," in *Guyana and Belize: Country Studies* (Washington, D.C.: Library of Congress, 1992), pp. 169-186.
[535] Ash Rossiter, "Getting Out of Belize: Britain's Intractable Military Exit from Central America," *The Journal of Imperial and Commonwealth History*, Vol. 46, No. 4 (2018), pp. 785-787.
[536] R.A. Humphreys, "The Anglo-Guatemalan Dispute," *International Affairs*, Vol. 24, No. 3 (1948), pp. 387-404.

Guatemalan leaders occasionally promising to resolve the dispute in their favor, whether by negotiation or by force.[537]

Following World War II, domestic and international pressure mounted for the United Kingdom to grant independence to its colonies, including Belize. As part of the decolonization process, the United Kingdom granted self-rule to Belize in 1964, while still maintaining it as part of the British Empire, and initiated negotiations with Guatemala to resolve the dispute over Belizean territory.[538]

As the United Kingdom made preparations for Belize's independence in 1981, it saw itself become progressively more entwined in the defense of the soon-to-be independent state. British officials were initially reluctant to provide the former colony with a formal defense commitment. From 1966 to 1979, British governments under both Prime Minister James Wilson and Edward Heath maintained a policy of not extending security commitments to former colonies, including to Belize.[539] The British government had actively sought to scale back military commitments abroad, both to disentangle itself from its colonial legacy and to reduce military spending. The reluctance to offer Belize a security commitment postponed Belize's independence as the colony's leaders were wary of facing Guatemala without any external backing.[540] The United Kingdom's decolonization policy had forsworn the

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[537] Krista E. Wiegand, "Nationalist Discourse and Domestic Incentives to Prevent Settlement of the Territorial Dispute Between Guatemala and Belize," *Nationalism and Ethnic Politics*, Vol. 11, No. 3 (2005), pp. 349-383.
[538] Ash Rossiter, "Getting Out of Belize: Britain's Intractable Military Exit from Central America," *The Journal of Imperial and Commonwealth History*, Vol. 46, No. 4 (2018), pp. 784-813.
[539] Assad Shoman, *Belize's Independence and Decolonization in Latin America* (New York, N.Y.: Palgrave MacMillan, 2010), p. 11.
[540] Ash Rossiter, "Getting Out of Belize: Britain's Intractable Military Exit from Central America," *The Journal of Imperial and Commonwealth History*, Vol. 46, No. 4 (2018), pp. 801-802.

extension of any security commitments to its former colonies in an effort to reduce overseas entanglements.[541] However, domestic pressures, American urging, and the looming threat from Guatemala all conspired to make the British security commitment to Belize a more permanent one.

The United Kingdom would retain this conventional barrier strategy in Belize for a little over a decade in order to deter and defeat any aggression from Guatemala. In the early 1990s, however, the return of civilian rule to Guatemala, a softening of its foreign policy, and the normalization of relations between Guatemala and Belize substantially lessened the threat to Belize's security. In this more permissive security environment, the United Kingdom withdraw its military garrison and selected an unconditional guarantee.

Conventional Barrier Strategy, 1981-1993

The relationship between the United Kingdom and Belize became a relevant extended deterrence observation in 1981, as Belize became an independent state and the United Kingdom provided for its defense. The United Kingdom's commitment to Belize had all the features of a conventional barrier. First, the United Kingdom provided Belize with a legalized and open-ended security commitment. On January 12, 1981, the two governments exchanged notes formalizing the defense commitment, providing for both the maintenance of a British garrison in Belize and British defense

[541] Assad Shoman, *Belize's Independence and Decolonization in Latin America* (New York, N.Y.: Palgrave MacMillan, 2010), p. 189.

cooperation to safeguard Belize against external attack.[542] Though this commitment was not ultimately enshrined in an official treaty between the two states, it clearly and publicly bound the United Kingdom to the defense of its former colony. This understanding was reflected in media reporting, official statements, and government reports at the time. In March 1981, Minister of State at the Foreign and Commonwealth Office Nicholas Ridley, in response to questioning from members of Parliament, sought to emphasize the uncertainty of the territorial dispute's future, but nonetheless, when asked whether he was "prepared to guarantee the agreement in security terms?" replied that "we shall do whatever is necessary in the circumstances."[543] A report issued by the House of Commons in October 1982, shortly after Belize became independent, noted that "With regard to the Commonwealth Caribbean, the UK has responsibilities because of its historical links with the area and its current connections through immigrants from, the area now resident in Britain; it also has a particular responsibility for the security of the remaining dependencies, and has guaranteed the security of Belize."[544] The report raised "the unusual nature of the *apparently open-ended commitment the UK had undertaken to defend a country* over whose foreign and defence policy Britain no longer had any control. The arrangement made at independence was that British troops would

[542] House of Commons, Foreign Affairs Committee, Session 1981-1982, Caribbean and Central America, Minutes of Evidence, 14 December 1981, pp. 65-66; and Supplementary letter from Kim Howells, Foreign and Commonwealth Office, Select Committee on Constitution Minutes of Evidence, 22 March 2006, https://publications.parliament.uk/pa/ld200506/ldselect/ldconst/236/6032209.htm.
[543] HC Deb 17 March 1981 vol 1 cc200-6, https://api.parliament.uk/historic-hansard/commons/1981/mar/17/belize#S6CV0001P0_19810317_HOC_181.
[544] House of Commons, Fifth Report from the Foreign Affairs Committee, Session 1981-1982, Caribbean and Central America, 21 October 1982, p. 18.

remain in Belize for 'an appropriate period,' and *this was set out in an exchange of unpublished notes* between Britain and the Belize Government" [italics added].[545] The British government would subsequently identify the exchange of notes between the two countries as constituting a "treaty" generating "legal or quasi-legal obligations to provide military support."[546]

These commitments were also quickly and repeatedly made public, bolstering both the strength of the commitment itself and any possible deterrent effects it might generate. A 1981 article in *The Reporter* proclaimed the forthcoming defense cooperation and the benefits it would bring to Belize's security: "Lord Carrington has assured the Premier of Belize, Mr. Price, that Britain will help to guarantee Belize's territorial integrity for a 'limited period' if the dispute with Guatemala is not resolved this period is expected to be up to three years – a guarantee unprecedented since mutual defence treaties with newly independent Commonwealth territories were abandoned some 15 years ago."[547] The same year as independence, a *Washington Post* story on the British military presence noted that "The Guatemalans know the British are here. The British want them to know. The flag and the supply helicopters are constant reminders."[548]

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[545] House of Commons, Fifth Report from the Foreign Affairs Committee, Session 1981-1982, Caribbean and Central America, 21 October 1982, p. xlviii.
[546] Supplementary letter from Kim Howells, Foreign and Commonwealth Office, Select Committee on Constitution Minutes of Evidence, 22 March 2006, https://publications.parliament.uk/pa/ld200506/ldselect/ldconst/236/6032209.htm.
[547] "British Defence Cuts Will Not Affect Garrison in Belize," *The Reporter*, 15 February 1981, p. 6.
[548] Christopher Dickey, "British Troops Ward off Region's Strife in Tranquil Colony of Belize," *Washington Post*, 15 February 1981, https://www.washingtonpost.com/archive/politics/1981/02/15/british-troops-ward-off-regions-strife-in-tranquil-colony-of-belize/dbd792c0-08db-4985-9f4b-e785d0889c06/.

In addition to the unconditional security commitment, the United Kingdom selected forward conventional deployments to deter and, if necessary, defeat aggression against Belize. The British government permanently stationed a sizable contingent of combat troops to deter and defeat possible Guatemalan aggression against Belize, including ground, air, and naval forces. As late as 1993, even after the British had already reduced their military presence in the country, they still continued to deploy an armed reconnaissance troop, a field artillery battery, an engineer field squadron, one infantry battalion, one flight air army corps, and one logistics battalion. The Royal Air Force also maintained deployments of Harriers, Pumas, and Rapiers.[549] Together, these deployments consisted of two to three thousand military personnel consistently on the territory of Belize intended to deter or defeat a Guatemalan invasion. At the time, the British detachment of roughly 2,000 troops confronted a Guatemalan military of roughly 14,000 personnel, making for a ratio of below 1:8, the cutoff for identifying a forward conventional deployment as a conventional barrier.[550] As is discussed below, the British naval and air forces in Belize were intended to augment the British power projection capability to strike Guatemalan territory in case deterrence failed.

These troops were clearly positioned to interdict any possible Guatemalan advance. While command for the forward deployments was headquartered at Airport

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[549] *Defending Our Future: Statement of the Defence Estimates 1993*, U.K. Secretary of State for Defence, July 1993, p. 12.

[550] Chris J. Bain, *Cold War, Hot Wings: Memoirs of a Fighter Pilot, 1962-1994* (Barnsley, U.K.: Pen & Sword Aviation, 2007), chapter 27; and Christopher Dickey, "British Troops Ward off Region's Strife in Tranquil Colony of Belize," *Washington Post*, 15 February 1981, https://www.washingtonpost.com/archive/politics/1981/02/15/british-troops-ward-off-regions-strife-in-tranquil-colony-of-belize/dbd792c0-08db-4985-9f4b-e785d0889c06/.

Camp, located alongside the Belize, International Airport, the British Forces Belize also maintained several forward bases near Belize's borders. These forward bases included Holdfast Camp in Cayo District, in western Belize, Rideau Camp in the southern Toledo District, and Salamanca Camp near the Guatemalan border.[551] British troops regularly patrolled border areas and staffed observation posts positioned along the main avenues of approach from Guatemala into Belize.[552]

Joint Theater Plan 60 (Caribbean) summarized the operational planning for a military contingency in Belize for the duration of the British presence in the country. The plan clearly spelled out the power projection and close air support roles of forward deployed British air assets. According to the plan, the "deterrent value [of the Harriers] is such that it is most unlikely that the Guatemalans would consider mounting an invasion once the Harriers were deployed, since they provide us with the means of retaliation against airfields and land bases inside Guatemala, a factor which the Guatemalans are unlikely to ignore. … Their ability to threaten retaliation against Guatemalan bases is a greater deterrent than additional troops on the ground, while the close support they can give ground forces should the invasion take place, is considered to be superior to the support that could be given by the armed helicopters at present available."[553]

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[551] Ivelaw L. Griffith, *The Quest for Security in the Caribbean Problems and Promises in Subordinate States* (New York, N.Y.: Routledge, 1993), p. 69.
[552] "2nd Battalion The Royal Irish Rangers, Belize," *Royal Irish*, https://www.royal-irish.com/events/2nd-battalion-royal-irish-rangers-operational-tour-belize.
[553] "Enforcement of the Garrison in Belize – Joint Theatre Plan (Caribbean) No 60," Ministry of Defence, Director of Plans, 28 August 1973, ACDS (Ops) 7/5/2, p. 2.

The forward deployed Harrier jets were considered essential for two purposes: providing close air support to British and Belizean ground forces engaged in combat and providing the capacity to strike targets in Guatemalan territory. As summarized by one historian of the time, "If deterrence failed, planning centred on a rapid reinforcement of the garrison with troops and fighter/ground-attack aircraft from the British mainland. The success of failure of this plan—designated Joint Theatre Plan (JTP) 60 (Caribbean)—therefore rested on the secure use of Belize airport. Original plans assumed the garrison could prevent an overland Guatemalan advance on the airport…. In any conventional confrontation, British military experts considered the Harrier a battle-winning weapon on account of the *close air support it provided to ground forces*" [italics added].[554]

The British experience in Belize appeared to confirm the value of military reinforcements in deterring aggression. In June 1977, in the midst of negotiations intended to resolve the territorial dispute, British intelligence feared that Guatemala might exploit the diplomatic lull to launch an attack. Concerns of a possible invasion were palpable with British defense officials warning that "the risk of a severe military reverse at Guatemalan hands if the talks break down by 7 or 8 July."[555] In response, and despite opposition from officials within the Foreign Ministry, the United Kingdom deployed several additional troops to Belize in order to deter a potential Guatemalan invasion, including nearly 500 additional ground troops, cargo

[554] Ash Rossiter, "Getting Out of Belize: Britain's Intractable Military Exit from Central America," *The Journal of Imperial and Commonwealth History*, Vol. 46, No. 4 (2018), p. 787.
[555] Belize: Discussion of Joint Intelligence Committee (JIC) Assessments of Tensions with Guatemala, Perkins to CDS, June 29, 1977, DEFE 24/1300.

transports, additional Harrier jets, and the HMS Achilles, a frigate commissioned in the early part of the decade.[556] Ultimately, Guatemala took no military action, which many attributed to the British military deterrent. Ambassador Ivor Richard, who had served as the United Kingdom's permanent representative to the United Nations from 1974 to 1979 and was actively involved in negotiations over the Guatemala-Belize dispute, would later reflect on the importance of the British reinforcement, nothing that "looking back, if we had done nothing they may have invaded."[557]

These features of the United Kingdom's extended deterrence strategy to Belize are well explained by extended deterrence selection theory. Belize and the United Kingdom had overlapping adversary portfolios and while British officials were certainly concerned about a conflict involving both Guatemala and Belize, the United Kingdom viewed Guatemala as something of an adversary given the threat it posed to Belize. Thompson and Dreyer identify Guatemala and Belize as engaged in a rivalry from 1981 to 1993, while Mitchell and Thies as further identify as both an issue rivalry and a militarized one.[558] Although Belize and the United Kingdom did not engage in a direct rivalry, they certainly qualified as adversaries under the coding provisions of extended deterrence selection theory. Due to the conflict over Belize and the perceived threat from Guatemala, the United Kingdom and Guatemala had not

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[556] "British reinforcements arrive in Belize because of Guatemalan treat to invade Belize," *Belize Today*, 5 July 1977; and Jon Nordeimer, "Britain Reinforces Its Troops in Belize and Invasion Jitters Subside," *The New York Times*, 9 July 1977, p. 4.
[557] Assad Shoman, *Belize's Independence and Decolonization in Latin America* (New York, N.Y.: Palgrave MacMillan, 2010), p. 228.
[558] William R. Thompson and David Dreyer, *Handbook of International Rivalries* (Washington, D.C.: CQ Press, 2011); and Sara McLaughlin Mitchell and Cameron G. Thies, "Issue Rivalries," *Conflict Management and Peace Science*, Vol. 28, No. 3 (2011), pp. 230-260.

maintained diplomatic relations since 1963, when they were severed by Guatemala.[559] In the decade preceding Belizean independence, the United Kingdom and Guatemala experienced three militarized conflicts, according to MID data, all involving the show of force and alerting of troops. Each of these incidents, in 1972, 1975, and 1977, involved the territorial dispute over Belize. Besides its ongoing dispute with Guatemala, Belize is not recorded as having any other rival during the time period.

Guatemala presented a geographically proximate conventionally superior offensive threat to Belize. Officials in both Belize and the United Kingdom were acutely worried about the possibility of a Guatemalan attack. Guatemala had a history of threatening military action in the decades prior to Belize's independence and its claim on Belize was still in effect.[560] Neighboring Guatemala clearly represented a geographically proximate conventionally superior threat to Belize, the junior ally. The economic and military capabilities of Guatemala dwarfed those of Belize. At the time of independence, in 1981, Belize had, according to the World Bank, a GDP of only $196 million and a population of 147,000, while Guatemala's GDP and population totaled $8.6 billion and 7 million, respectively. The imbalance in state capabilities was so severe that, shortly after independence, the Guatemalan military

[559] "Britain and Guatemala Renew Diplomatic Ties," *The New York Times*, 30 December 1986. Payne also describes Guatemala as having severed diplomatic ties in September 1981. Anthony J. Payne, "The Belize Triangle: Relations with Britain, Guatemala and the United States," *Journal of Interamerican Studies and World Affairs*, Vol. 32, No. 1 (1990), p. 125.
[560] Ivelaw L. Griffith, *The Quest for Security in the Caribbean Problems and Promises in Subordinate States* (New York, N.Y.: Routledge, 1993), p. 69.

alone was nearly one-quarter the entire size of the Belizean population.[561] According to one military historian, "[T]he Guatemalan army, which is some 40,000 men strong [is] capable of overwhelming any defense force which Belize … could ever hope to put into the field."[562] At the time of independence, Belize's CINC score was roughly 2 percent of Guatemala's.[563]

Although Guatemalan military capabilities greatly surpassed those of Belize the United Kingdom was more than capable of providing for a conventional defense of Belize, even at a great distance—in other words, there were few fears of a Guatemalan fait accompli against combined Belize and British forces. In 1981, at the time of Belize's independence, the United Kingdom's CINC score was nearly 40 times larger than Guatemala's.[564] Over the next decade, this ratio would never fall below 30. Even adjusting for distance between the various countries, the United Kingdom's CINC score was still roughly equal to that of Guatemala's, indicating the ability of the British military to project power over distance. In addition to the raw relative power of the British military, the United Kingdom was increasingly able to dedicate resources to the defense of Belize. The United Kingdom was in the process of reducing its security commitments abroad, freeing up more resources for the commitments

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[561] Anthony J. Payne, "The Belize Triangle: Relations with Britain, Guatemala and the United States," *Journal of Interamerican Studies and World Affairs*, Vol. 32, No. 1 (1990), p. 123.
[562] Anthony J. Payne, "The Belize Triangle: Relations with Britain, Guatemala and the United States," *Journal of Interamerican Studies and World Affairs*, Vol. 32, No. 1 (1990), p. 123.
[563] J. David Singer, Stuart Bremer, and John Stuckey, "Capability Distribution, Uncertainty, and Major Power War, 1820-1965," in Bruce Russett (ed.) *Peace, War, and Numbers* (Beverly Hills, CA: Sage, 1972), pp. 19-48.
[564] J. David Singer, Stuart Bremer, and John Stuckey, "Capability Distribution, Uncertainty, and Major Power War, 1820-1965," in Bruce Russett (ed.) *Peace, War, and Numbers* (Beverly Hills, CA: Sage, 1972), pp. 19-48.

that remained, including the security guarantees provided to Belize. At the start of its commitment to Belize, the United Kingdom was a nuclear-armed permanent member of the U.N. Security Council, with a standing military of 334,000 troops, a GDP of $540 billion, and a population of over 56 million.[565] The British military commitment to Belize consisted of more than just the troops stationed in the country. In addition to those forward deployments, the British military also earmarked British troops deployed elsewhere in the world to serve as reinforcements in the event of Guatemalan aggression.[566]

In addition to the balance of power between Belize, Guatemala, and the United Kingdom, the local strategic geography limited Guatemala's ability to concentrate its resources against Belize. Most of Guatemala's population, industry, and economy was and remains concentrated near the country's southern coast, farther away from any approaches to Belize. Until 1996, Guatemala was mired in a bloody civil war which even saw a military coup in 1982. Although for many observers, the internal disruptions raised the possibility of Guatemala initiating a diversionary conflict against Belize, they also decreased the capacity of the Guatemalan military to do so successfully.[567] In addition to its ongoing dispute with Belize and domestic upheaval,

[565] "An Annual Time Series for the Size of the Armed Forces (Army, Navy and RAF) Since 1700," Defence Statistics, Ministry of Defence, 28 April 2017, FOI 2017/04440.
[566] Ash Rossiter, "Getting Out of Belize: Britain's Intractable Military Exit from Central America," *The Journal of Imperial and Commonwealth History*, Vol. 46, No. 4 (2018), p. 799.
[567] Ash Rossiter, "Getting Out of Belize: Britain's Intractable Military Exit from Central America," *The Journal of Imperial and Commonwealth History*, Vol. 46, No. 4 (2018), p. 797.

Guatemala's relations with its other neighbors were similarly troubled as Guatemalan refugees moved into Mexico and Nicaragua.[568]

Initially, the United Kingdom planned on only a temporary military presence in Belize, but the continuing Guatemalan threat and broader geopolitical considerations led to Britain maintaining the forward deployments for more than a decade. The initial British commitment was only for nine months following Belize's independence.[569] British troops were housed in makeshift camps and military planning was conducted on only a six-month basis.[570] The United States, which viewed Britain's military garrison as a stabilizing force in the region, pressed for the maintenance of the deployments. In a June 1982 memo, the U.S. Assistant Secretary of State-Designate for European Affairs advised Secretary of State Alexander Haig to press British officials to maintain the British garrison, writing that "Continuing to maintain a small force in Belize would have a significant deterrent value, for example, and promote regional stability. … We should capitalize on the change of mood produced by the Falklands crisis to take such steps as: encourage the British not to withdraw their forces from Belize."[571] American diplomats worried that an insecure Belize might turn to Communist Cuba for help and viewed the British troops as a

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[568] Deirdre Kelly, "Guatemala's Refugees: Victims and Shapers of Government Policies," *The Fletcher Forum*, Vol. 7, No. 2 (1983), pp. 323-354; and Fernando M. Olguin, "Guatemalan Refugees in Mexico: International Legal Standards," *The Fletcher Forum*, Vol. 13, No. 2 (1989), pp. 327-355.
[569] Ash Rossiter, "Getting Out of Belize: Britain's Intractable Military Exit from Central America," *The Journal of Imperial and Commonwealth History*, Vol. 46, No. 4 (2018), p. 797.
[570] Anthony J. Payne, "The Belize Triangle: Relations with Britain, Guatemala and the United States," *Journal of Interamerican Studies and World Affairs*, Vol. 32, No. 1 (1990), p. 120.
[571] Information Memorandum From the Assistant Secretary of State-Designate for European Affairs (Burt) to Secretary of State Haig, 22 June 1982, *Foreign Relations of the United States, 1981–1988, Volume XIII, Conflict in the South Atlantic, 1981–1984* (Washington, D.C.: Government Printing Office, 2015), Document 358.

helpful bulwark against Communism in the region.[572] British officials even began to believe that the United Kingdom's purchase of the trident missile system might be linked to the garrison in Belize.[573] Further, the inability to satisfactorily resolve the territorial dispute meant that the threat from Guatemala persisted.

Belize officials enthusiastically welcomed the British military presence. In fact, Belize repeatedly sought a strengthening of the British defense commitments to the country. In 1985, Belizean Prime Minister Manuel Esquivel assumed office and announced his government's intent to deepen security cooperation with the United Kingdom: "Belize welcomes the presence of British troops on our soil. Indeed, we seek to strengthen the British commitment for them to remain in Belize. Such a commitment could be contained in a formula which provides the clear understanding that the troops would not leave until either the Guatemalan claim is settled or other suitable defense and security arrangements have been put in place."[574] Esquivel would later travel to London where he would secure verbal commitments that the British would continue to maintain the military garrison in Belize. The British assurances were backed by a loan agreement to finance improvements to the Belize International Airport, including lengthening runways to make them suitable for new generation British military transports.[575]

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[572] Ash Rossiter, "Getting Out of Belize: Britain's Intractable Military Exit from Central America," *The Journal of Imperial and Commonwealth History*, Vol. 46, No. 4 (2018), pp. 799-801.
[573] Margaret Thatcher, *The Downing Street Years* (London, U.K.: Harper Collins, 1993), p. 248; and "Belize, Minute by John Nott" (Secretary of State for Defence), to Lord Carrington (Foreign Secretary), 26 March 1982, PREM 19/959.
[574] Anthony J. Payne, "The Belize Triangle: Relations with Britain, Guatemala and the United States," *Journal of Interamerican Studies and World Affairs*, Vol. 32, No. 1 (1990), p. 121.
[575] Anthony J. Payne, "The Belize Triangle: Relations with Britain, Guatemala and the United States," *Journal of Interamerican Studies and World Affairs*, Vol. 32, No. 1 (1990), p. 121.

Shift to Unconditional Guarantee, 1993-today

The United Kingdom maintained a conventional barrier strategy in Belize for more than a decade, withdrawing its forward combat forces in 1993 and shifting to an unconditional guarantee strategy. As evidenced by multiple official statements from both the British and the Belizean governments, the withdrawal of the garrison and shift to an unconditional guarantee was permitted by the decreasing threat posed by Guatemala. Over the previous decade, relations between the three countries had normalized and Guatemala had formally renounced the threat of force to settle the territorial dispute, making the British troops no longer necessary for safeguarding Belize's security.

Relations between Belize, Guatemala, and the United Kingdom had gradually improved since Belize's independence in 1981. In 1986, civilian rule was reestablished in Guatemala, which led to the softening of its foreign policy positions.[576] The United Kingdom and Guatemala restored consular relations in August 1986 and resumed full diplomatic relations in 1987. In 1988, with the United Kingdom acting as an observer, Belize and Guatemala resumed negotiations. After some progress, on September 1991, Guatemala recognized Belize's independence and the two countries officially established diplomatic relations. These developments are reflected in codings of prominent international relations databases, with Thompson and Dreyer identifying the Belize-Guatemala rivalry as terminated in 1991.[577]

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[576] John Woodliffe, "The Stationing of Foreign Armed Forces Abroad in Peacetime," *The International and Comparative Law Quarterly*, Vol. 43, No. 2 (1994), p. 449.
[577] William R. Thompson and David Dreyer, *Handbook of International Rivalries* (Washington, D.C.: CQ Press, 2011).

Given the improving security situation, the United Kingdom decided the forward deployed troops were no longer necessary, though Belizean leaders urged the British to maintain the garrison.[578] Ultimately, however, both British and Belizean officials agreed about the drivers of the troop withdrawal. In May 1993, both governments issued official statements about the withdrawal. Belize's position noted the country's improving relationship with Guatemala and the region, citing its entrance to the Organization of American States, the normalization of relations with Guatemala, and progressing negotiations over the territorial dispute:

> At the time of our Independence, it was agreed that British forces were to continue to assume responsibility for Belize's defense for an appropriate period. This was necessary because of the threat posed by Guatemala's belligerent attitude, and its refusal to recognize Belize. … The Guatemala of 1993 is not the same Guatemala of 1981. Clearly, the threat that was perceived in 1981 is no longer the same. Indeed, only recently at the Miami meeting the Guatemalan Government publicly committed itself to refrain from the threat or use of force against Belize, reaffirming a commitment it had long since proclaimed to Belize as well as to the U.K. and the U.S.A. The threat, real or perceived, has receded. Indeed, the British do not feel that they are "abandoning" us. They are confident, and so shall we be, that Belize will remain secure, will survive and prosper, under the new security arrangements. A garrison of the size, type and expense that has existed since 1981 is simply not necessary anymore for our security.[579]

Similarly, speaking before members of Parliament in October 1993, Minister of State for the Armed Forces Jeremy Hanley explained the troop withdrawal in light of the diminished threat from Guatemala, saying "our military presence [in Belize] is being

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[578] Colin Harding, "Plea for UK troops in Belize," *Independent*, 26 May 1993, https://www.independent.co.uk/news/world/plea-for-uk-troops-in-belize-2325410.html.
[579] Belize Government Statement in *The New Defence Cooperation Arrangements between Britain and Belize*, Belmopan 13 May 1993.

reduced gradually to take account of the changing security environment in the region. In particular, Guatemala's recognition of Belize as a sovereign state in 1991, which was endorsed by the Guatemalan congress in November last year, has greatly changed the situation."[580] The British completed their withdrawal of combat troops in 1994, leaving behind only a small training detachment and a group of advisers to the Belizean military.

Alternative Explanations

Extended deterrence selection theory performs well in explaining the United Kingdom's choice of strategy toward Belize. Structural realism also performs well, unsurprisingly, given extended deterrence selection theory's prioritization of security variables. By contrast, there is little to no evidence of domestic politics, extractive posturing, or nonproliferation goals significantly influencing the strategy in Belize. These findings are summarized below in table 5-1.

Table 5-1: Competing Explanations in the U.K.-Belize Case

	Selection Theory	***Structural Realism***	***Domestic Politics***	***Extractive Posturing***	***Nonprolif. Goals***
1981-1993: Conventional Barrier + Power Projection	✓	?	✗	?	✗
1993-today: Unconditional Guarantee	✓	✓	✗	✗	✗

✓= successful prediction; ?= partial prediction; ✗= unsuccessful prediction

[580] Commons Sitting of Monday 18 October 1993, 20th Century House of Commons Hansard Sessional Papers, Sixth Series, Volume 230, p. 115.

Extended deterrence selection theory performs fairly well in explaining the content and shifts in British strategy in Belize. In the first phase, overlapping adversary portfolios permitted the United Kingdom to provide a more robust security commitment by diminishing concerns about entrapment. The presence of a geographically proximate conventionally superior offensive threat in the form of a revisionist Guatemala provided the demand for forward conventional deployments, though the United Kingdom's ability to project power over great distances permitted the defense of Belize through only forward deployed conventional forces. Extended deterrence selection theory also explains the timing and nature of the second phase of the British strategy as the mitigation of the Guatemalan security threat permitted the withdrawal of British forces and shift to an unconditional security guarantee. Structural realism performs just as well, explaining the timing and nature of strategy shifts with reference to the security threat confronting the junior ally. However, structural realism does not offer an account for the specific mix of forward conventional deployments we see in the first phase of the British strategy to Belize and, specifically, why the United Kingdom selected the conventional barrier strategy. Indeed, the United Kingdom had deployed nuclear weapons to Cyprus, Malaysia, Singapore, and West Germany and these deployments included the low-yield WE.177 warheads regularly identified as tactical nuclear weapons.[581] Other norms-based explanations, such as the nuclear taboo or the challenges of deploying nuclear

[581] Matthew Fuhrmann and Todd D. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science*, Vol. 58, No. 4 (October 2014), pp. 919-935.

weapons in former colonies may well explain why we do not see forward nuclear deployments. Similarly, technological or organizational constraints on the forward deployment of nuclear weapons may explain the decision to resort to conventional deployments. However, these explanations do not emerge from structural realism, which focuses on the balance of power.

By contrast, domestic politics, extractive posturing, and nonproliferation goals do not provide much explanatory power in the Belize case. There is no indication of domestic politics in either Belize or the United Kingdom driving extended deterrence decisions, independent of the security environment. There is some indirect evidence of extractive posturing causing the British government to maintain its military garrison in Belize longer than it had initially anticipated. However, this pressure came from the American government, not from Belize. There is no discussion throughout the case of any nonproliferation goals. Neither Belize nor Guatemala possessed the industrial base or domestic political impetus for pursuing nuclear weapons. By 1985, both states had signed the Nuclear Non-Proliferation Treaty, both are signatories to the Treaty of Tlatelolco establishing a nuclear-weapon-free-zone in Latin America and the Caribbean, and neither are coded as having ever even explored nuclear weapons.[582]

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[582] "Nuclear Non-Proliferation Treaty (NPT)," Defense Treaty Inspection Readiness Program, U.S. Department of Defense; "OPANAL Member States," Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean, 2022, https://www.opanal.org/en/member-states/; and Philipp C. Bleek, "When Did (and Didn't) States Proliferate? Chronicling the Spread of Nuclear Weapons," Discussion Paper (Cambridge, MA: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School and the James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies, Monterey, CA., June 2017).

Conclusion

There has been progress in moving toward a final settlement of the issue. In 2008, the two countries agreed to hold national referenda in each state on the question of whether to refer the dispute to the International Court of Justice (ICJ).[583] Although the referenda were delayed, they were eventually conducted in 2018 in Guatemala and 2019 in Belize. Although turnout was relatively small, more than 95 percent of votes case in Guatemala and 55 percent of votes cast in Belize approved of referring the issue to the ICJ.[584]

Although the border dispute has remained relatively quiet since the normalization of relations, events have occasionally thrust it back into the headlines. In 2016, the two countries engaged in a border standoff after a 13-year-old Guatemalan boy was shot and killed by Belizean soldiers in the western territory of Belize.[585] In response to the shooting and domestic outcry within Guatemala, the Guatemalan government dispatched 3,000 troops to the shared border and recalled its ambassador to Belize.[586]

Alongside these diplomatic initiatives, the British military has yet to return to Belize in force, though it has resumed some training activities.[587] In 2010, as part of

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[583] "Guatemala and Belize Agree to Take Border Dispute to The Hague," 8 December 2008, https://archive.globalpolicy.org/intljustice/icj/2008/1208belize.htm.
[584] "Referenda," Organization of American States, https://www.oas.org/sap/peacefund/belizeandguatemala/content4.html.
[585] "Belize-Guatemala Border Tensions Rise Over Shooting," *BBC*, 22 April 2016, https://www.bbc.com/news/world-latin-america-36114383.
[586] "Guatemalan Troops Mass Near Belize Border After Shooting Incident," *The Guardian*, 22 April 2016, https://www.theguardian.com/world/2016/apr/22/guatemalan-troops-mass-belize-border-shooting-incident; and "Guatemalan Ambassador Remains a No-Show," *LoveFM*, 18 March 2017, https://lovefm.com/guatemalan-ambassador-remains-a-no-show/.
[587] Hannah King, "Are More British Troops Going To Belize?," *Forces*, 21 September 2021, https://www.forces.net/news/why-might-british-forces-increase-presence-belize.

its Strategic Defence and Security Review, the United Kingdom had initially decided to mothball the British Army Training Support Unit Belize.[588] However, just five years later, in 2015, the country decided to reestablish the Army's jungle training center in the country.[589] Since then, activity at the military facility as reportedly increased. Despite the slightly increased uptick in the British military presence, it is unlikely that British combat forces will return to the country absent a significant deterioration in Belize-Guatemala relations. Given the recent diplomatic progress on the territorial dispute issue, this is unlikely.

THE FRENCH STRATEGY IN DJIBOUTI:

CONVENTIONAL BARRIER TO UNCONDITIONAL GUARANTEE

French intervention in the territory today known as Djibouti was formalized in the late 1880s as the imperial power signed a series of agreements with local leaders designating the land as a French protectorate. France ruled the territory as a colony until 1977 when, following a national referendum and series of negotiations with the French, Djibouti became an independent and sovereign state.

At independence, the France-Djibouti case included an extended deterrence commitment consisting of an unconditional security guarantee and forward deployed

[588] "No Joke Jimmy, The Brits Are Back," *7 News Belize*, 28 October 2015, http://www.7newsbelize.com/sstory.php?nid=34133&frmsrch=1.
[589] National Security Strategy and Strategic Defence and Security Review 2015 A Secure and Prosperous United Kingdom, Office of the Prime Minister, November 2015, p. 59.

French forces. These forces served two purposes: to protect Djibouti against aggression from its neighbors and to project French military power into the region. Given Djibouti's conventional inferiority against prospective adversaries such as Somalia, ground forces were viewed as a necessary deterrent, while the junior ally's strategic location made it a prime place for the deployment of power projection naval and air forces.

These elements of the French commitment endured until 2011 when the two countries renegotiated the terms of their security cooperation. Under a new agreement which took effect that year, the relationship was downgraded from one governed by a defense pact to one governed by merely a consultation agreement. This marked the exit of the France-Djibouti case from the universe of extended deterrence commitments, though the French military presence would continue in the country.

Conventional Barrier, 1977-2011

The relationship between Djibouti and France during this time period had all the features of a conventional barrier. First, France provided a legalized unconditional security commitment to Djibouti. Djibouti and France signed a defense cooperation agreement which entered into force the day that Djibouti obtained independence. According to that agreement, "in the case of aggression by a foreign army, (France) shall extend to (Djibouti), under conditions established by mutual agreement, the participation of the French armed forces stationed on the latter's

territory."[590] The agreement, coded by the ATOP database as a defense agreement, imposed no restrictions on the provision of French military assistance, making it an essentially unconditional guarantee.[591]

In addition to this security commitment, France deployed significant conventional military forces to Djibouti's territory.[592] Since Djibouti's independence in 1977, France has consistently deployed several thousand troops to the country.[593] The composition of these troops indicates their role as both conventional barrier and power projection forces. Ground forces have historically constituted the largest contingent of French troops in the country, numbering at least 2,500 soldiers and accounting for the majority of French forward deployments.[594] Alongside these ground troops, France has also deployed substantial air and naval assets, including transport aircraft, combat aircraft, helicopters, maritime patrol aircraft, minesweepers, naval escort ships, frigates, and the aircraft carrier Clemenceau.[595]

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[590] Provisional Protocol Concerning the Conditions for the Stationing of French Forces on the Territory of the Republic of Djibouti After Independence and the Principles of Military Co-Operation, *Treaty Series*, Vol. 1430 (New York, N.Y.: United Nations, 1995), p. 103.
[591] Brett Ashley Leeds, Jeffrey M. Ritter, Sara McLaughlin Mitchell, and Andrew G. Long, "Alliance Treaty Obligations and Provisions, 1815-1944," *International Interactions*, Vol. 28, No. 3 (2002), pp. 237-260.
[592] Pierre Lellouche and Dominique Moisi, "French Policy in Africa: A Lonely Battle against Destabilization," *International Security*, Vol. 3, No. 4 (1979), p. 109.
[593] "A Tiny French Territory Becomes The Troubled Republic of Djibouti," *The New York Times*, 27 June 1977, p. 3; Degan Sun and Yahia Zoubir, "Sentry Box in the Backyard: Analysis of French Military Bases in Africa," *Journal of Middle Eastern and Islamic Studies (in Asia)*, Vol. 5, No. 3 (2011), p. 91; and Shaun Gregory, "The French Military in Africa: Past and Present," *African Affairs*, Vol. 99, No. 396 (2000), p. 444.
[594] Shaun Gregory, "The French Military in Africa: Past and Present," *African Affairs*, Vol. 99, No. 396 (2000), p. 444.
[595] Robert E. Harkavy, *Strategic Basing and the Great Powers*, 1200-2000 (New York, N.Y.: Routledge, 2007), p. 142; and Degan Sun and Yahia Zoubir, "Sentry Box in the Backyard: Analysis of French Military Bases in Africa," *Journal of Middle Eastern and Islamic Studies (in Asia)*, Vol. 5, No. 3 (2011), p. 84.

These deployments were not met with any forward deployed nuclear forces.[596] In fact, France's military base in Djibouti has been its largest overseas military installation.[597]

Government and independent analyses of the French forces in Djibouti regularly identify two roles for them. First, they were meant to deter and defeat aggression against Djibouti. From independence, there were fears that Djibouti's neighbors might attempt to annex the small country. French military presence was meant to be an important political signal, military deterrent, and defensive force.[598] Second, French forces in Djibouti helped project French military power to important parts of the globe. Analysts frequently highlight the geostrategic location of Djibouti. According to one recent assessment:

> Djibouti, the third-smallest African state with a population of less than a million, enjoys an enviable strategic location. The tiny nation sits at the crossroads of Africa, the Middle East, and the Indian Ocean. It is a member of the Arab League, the African Union, and La Francophonie and therefore is considered as within the Arab world, the broader African continent, and Francophone influences. Djibouti shares borders with Ethiopia, Eritrea, and Somaliland (Somalia) and is located just 18 miles across the sea from Yemen. It is positioned off the Strait of Bab-el-Mandeb, which connects the Red Sea with the Gulf of Aden. The Strait of Bab-el-Mandeb is critically important for global energy security, international shipping, and the world economy. Therefore, any power that has a foothold in Djibouti can monitor the maritime traffic and international trade passing through the strait. The port of Djibouti is a primary access point to sea for Ethiopia, the second most populous African state. Since independence in 1977, Djibouti has been a stable

[596] Matthew Fuhrmann and Todd D. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science*, Vol. 58, No. 4 (October 2014), pp. 919-935.
[597] Shaun Gregory, "The French Military in Africa: Past and Present," *African Affairs*, Vol. 99, No. 396 (2000), p. 442.
[598] Stephen Burgess, "Military Intervention in Africa: French and US Approaches Compared," *Journal of European, Middle Eastern, and African Affairs*, Vol. 1, No. 1 (2019), p. 74.

> state in an unstable neighborhood. Djibouti has assumed increasing strategic importance in the evolving geopolitics of the Indo-Pacific.[599]

The French Ministry of Foreign Affairs has explicitly identified the power projection benefits of stationing troops in Djibouti.[600] As one scholar of the region notes, "France explains its role in Djibouti in terms of its defence against Ethiopia, Eritrea and Somalia and against regional instability, but the base is of far greater geopolitical and geostrategic importance than that."[601] The troops in Djibouti are sometimes viewed as prepositioned forces that France can more quickly deploy to other parts of the continent, such as Côte d'Ivoire and the Democratic Republic of the Congo.[602]

From 1977 to 1996, the adversary portfolios of Djibouti and France were entirely compatible by the coding scheme of extended deterrence selection theory, though those rules may not fully capture the strategic relationships involving Djibouti, its senior ally, and its regional adversaries. Throughout this time period, Djibouti is identified as having no enduring rivalry with any other state, meaning that entrapment concerns should be mitigated for France.[603]

Djibouti also faced potential security challenges in the form of conventionally superior geographically proximate threats. At the time of independence, there were

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[599] Sankalp Gurjar, "Djibouti: The Organizing Principle of the Indo-Pacific," *Journal of Indo-Pacific Affairs*, 18 November 2021, https://www.airuniversity.af.edu/JIPA/Display/Article/2847095/djibouti-the-organizing-principle-of-the-indo-pacific.
[600] *France's Strategy in the Indo-Pacific*, Ministry of the Armed Forces, February 2020, p. 12.
[601] Shaun Gregory, "The French Military in Africa: Past and Present," *African Affairs*, Vol. 99, No. 396 (2000), p. 444.
[602] Stephen Burgess, "Military Intervention in Africa: French and US Approaches Compared," *Journal of European, Middle Eastern, and African Affairs*, Vol. 1, No. 1 (2019), pp. 76-77.
[603] James P. Klein, Gary Goertz, and Paul F. Diehl, "The New Rivalry Dataset: Procedures and Patterns," *Journal of Peace Research*, Vol. 43, No. 3 (2006), pp. 331-348; and William R. Thompson and David Dreyer, *Handbook of International Rivalries* (Washington, D.C.: CQ Press, 2011).

concerns that neighboring Somalia and Ethiopia might attempt to dominate and even annex Djibouti. According to a 1979 C.I.A. report, "Djibouti is a very fragile polity whose relative stability depends on continued French presence. There is no evidence that the French plan to leave soon. It also emphasizes that the Ethiopians, with Cuban and Soviet backing, possess the capability of a fairly high degree of harassment of Djibouti if they wish." [604] These concerns were also evident in diplomatic meetings as American officials pressed their French counterparts to maintain France's military presence in the country.[605] American diplomats came to believe that "Over the short term, the most effective deterrent to Somali or Ethiopian overt aggression in Djibouti will be a substantial French military presence."[606] On the eve of independence, one French official stationed in Djibouti remarked, with regard to the new country's shaky security environment, that "It will be six months to a year before we know for certain whether Djibouti can survive as an independent state."[607]

The capabilities of both Ethiopia and Somalia significantly outstripped those of newly independent Djibouti. The larger neighbors commanded populations of 33

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[604] Memorandum From Paul B. Henze of the National Security Council Staff to the President's Assistant for National Security Affairs (Brzezinski), 1 August 1979, *Foreign Relations, 1977–1980, Volume XVII, Horn of Africa*, Part 1 (Washington, D.C.: Government Printing Office, 2016), Document 95.

[605] Summary of Conclusions of a Policy Review Committee Meeting, 11 April 1977, *Foreign Relations, 1977–1980, Volume XVII, Horn of Africa*, Part 1 (Washington, D.C.: Government Printing Office, 2016), Document 11; and Memorandum of Conversation, 5 January 1978, *Foreign Relations, 1977–1980, Volume XVII, Horn of Africa*, Part 1 (Washington, D.C.: Government Printing Office, 2016), Document 39.

[606] Paper Prepared by the Policy Review Committee, undated [likely 1977], *Foreign Relations, 1977–1980, Volume XVII, Horn of Africa*, Part 1 (Washington, D.C.: Government Printing Office, 2016), Document 10.

[607] David B. Ottaway, "Djibouti Awaiting Independence With An Uneasy Calm," *Washington Post*, 7 May 1977, https://www.washingtonpost.com/archive/politics/1977/05/07/djibouti-awaiting-independence-with-an-uneasy-calm/cb2032f3-c202-4e21-b546-69f297b33d7f/.

million and 5 million, compared to only 300,000 for Djibouti. The economies of Ethiopia and Somalia were roughly ten and two times that of Djibouti's. This imbalance in local forces can be summarized in the CINC scores of the countries, with Ethiopia's 50 times and Somalia's 10 times larger than Djibouti's in the years following independence. Despite the precarious local conventional balance for Djibouti, it appears likely that French forces were seen as sufficient for stopping a fait accompli against the junior ally. Although we lack specific information about French views of the likelihood of a fait accompli against Djibouti and France's own ability to prevent it with only conventional deployments, we can infer it from the coding rules of extended deterrence strategy. The French military presence, especially shortly after Djibouti's independence, when security concerns were highest, clearly was substantial enough to impact the local balance of forces. In 1977, France deployed nearly 7,000 troops to the country, compared to the 50,000 military personnel of Ethiopia and 30,000 of Somalia, indicating a ratio below 8:1 required for a conventional barrier deployment, even without accounting for quality of forces.[608]

In the mid-1990s, the geostrategic relations between France, Djibouti, and other states along the Horn of Africa shifted with the creation of a newly independent Eritrea and the growing dispute between Eritrea and Djibouti over territory. This hostility would even erupt into open military conflict in 2008, when Eritrean soldiers

[608] Andreas Freund, "East African Colony Votes Independence," *The New York Times*, 9 May 1977, p. 5; "A Tiny French Territory Becomes The Troubled Republic of Djibouti," *The New York Times*, 27 June 1977, p. 3; "Sub-Saharan Africa," *The Military Balance*, International Institute for Strategic Studies, Vol. 76, No. 1 (1976), p. 44; and "Ethiopian Army," *Global Security*, Vol. .

reported crossed the border and dug trenches on the Djiboutian side.[609] The ensuing fighting would eventually claim nearly 150 lives.[610] Throughout the time period, France continued to maintain its legal security commitment to Djibouti and deploy military forces there for deterrence, defense, and power projection. Although France would support Djibouti in this conflict, it did not have an enduring rivalry with Eritrea and maintained diplomatic relations with the country.

In 2011, France and Djibouti replaced the defense agreement which had governed security relations between the two countries with a new, narrower agreement, marking the exit of the case from universe of extended deterrence commitments. This new agreement did not include explicit defense commitments and instead is coded only as a consultation pact by the ATOP database.[611] Although the two countries would continue their security cooperation, including the hosting of French forces in Djibouti, this marked, by the coding arrangements used here, the end of the alliance between the two states.

Alternative Explanations

Extended deterrence selection theory performs moderately well in explaining the France-Djibouti case, though there are some departures from what the theory might predict. First, as described earlier, by the coding rules established here, the

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[609] "France Backing Djibouti in 'War,'" *BBC*, 13 June 2008, http://news.bbc.co.uk/2/hi/africa/7453063.stm.
[610] "The Impact of the Djibouti-Eritrea Conflict on Citizens," *The Borgen Project*, 17 July 2021, https://borgenproject.org/the-djibouti-eritrea-conflict/.
[611] Brett Ashley Leeds, Jeffrey M. Ritter, Sara McLaughlin Mitchell, and Andrew G. Long, "Alliance Treaty Obligations and Provisions, 1815-1944," *International Interactions*, Vol. 28, No. 3 (2002), pp. 237-260.

case is correctly predicted. From independence until the mid- to late-1990s, Djibouti did not confront any rivals not also shared by France. It did, however, confront geographically proximate conventionally superior offensive threats in Somalia and Ethiopia. Finally, French military power was still sufficient, even over significant distances, to safeguard Djibouti's security with only a conventional forward deployment. However, two features of the case complicate this evaluation. First, although Djibouti did not have any formal rivalries for the first 20 years of existence, it clearly confronted adversaries not shared by France. Second, beginning in the mid- to late-1990s, Djibouti experienced a rivalry with Eritrea, a country that was not also a rival of and still maintained diplomatic relations with France.

Table 5-2: Competing Explanations in the France-Djibouti Case

	Selection Theory	*Structural Realism*	*Domestic Politics*	*Extractive Posturing*	*Nonprolif. Goals*
1977-2011: Conventional Barrier + Power Projection	?	?	✗	?	✗

✓= successful prediction; ?= partial prediction; ✗= unsuccessful prediction

Structural realism explains the French strategy in Djibouti moderately well. From independence until today, Djiboutian and French officials have been concerned that the country might be dominated by stronger neighbors, first by either Ethiopia or Somalia and then by Eritrea. The local military balance necessitated a forward deployment to safeguard Djiboutian security and the French obliged. France also took advantage of Djibouti's strategic location as a base for French power projection. However, as with other observations of the conventional barrier strategy, structural

realism does not offer an account for the specific mix of forward conventional deployments we see here and, specifically, why France resorted to a conventional barrier as opposed to a nuclear tripwire strategy. Other norms-based explanations, such as the nuclear taboo or the challenges of deploying nuclear weapons in former colonies may well explain why we do not see forward nuclear deployments. Similarly, technological or organizational constraints on the forward deployment of nuclear weapons may explain the decision to resort to conventional deployments. However, these explanations do not emerge from structural realism, which focuses on the balance of power.

Neither domestic politics nor extractive posturing appear to explain the French strategy in Djibouti very well. Djibouti domestic politics have certainly been amenable to hosting foreign militaries, including the French.[612] However, the French public has not always been so supportive of French military presence abroad. French and African elites have sometimes formed informal personal networks which have been viewed as mechanisms for corruption: "Such *réseaux* (networks) had periodically led French governments to turn a blind eye to the failings of favoured sub-Saharan friends, fostered questionable financial relationships and, allegedly, political funding. Sporadically exposed in the Paris media, these networks had tarnished the credibility of traditional ties with Africa in the eyes of a jaundiced French public, while many

[612] Ra Mason and Elizabeth Cobbett, "How Djibouti uses foreign military bases to its advantage," *International Affairs* (blog), 29 November 2021, https://medium.com/international-affairs-blog/how-djibouti-uses-foreign-military-bases-to-its-advantage-a8bf0a264dd9; and Abdi Latif Dahir, "How a tiny African country became the world's key military base," *Quartz Africa*, 18 August 2017, https://qz.com/africa/1056257/how-a-tiny-african-country-became-the-worlds-key-military-base/.

younger-generation Africans have become deeply mistrustful of the motives behind French involvement in their continent."[613] One U.S. government assessment issued just two years after Djibouti became independent noted the possibility of domestic opposition in France scuttling the military presence in Africa: "If France were confronted with a drastically deteriorating internal security situation and the prospect of heavy casualties, it would almost certainly face negative reactions at home and could well be forced to withdraw its forces."[614] However, despite this potential opposition, France continued to maintain a presence in Djibouti. An extractive posturing explanation would similarly underpredict the French presence in Djibouti, which enjoys little to no leverage over France, aside from its strategically significant location. It is not a major trading partner, proliferation threat, or buffer state and lacks meaningful constituencies in France.

Nonproliferation goals played no role in the French choice of extended deterrence strategy in Djibouti. Djibouti, like many other junior allies in the universe of cases, had neither the capacity nor the intention to develop nuclear weapons. Djibouti is a signatory to the Nuclear Non-Proliferation Treaty, the Comprehensive Test Ban Treaty, operates no nuclear reactors, and has never been documented as

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[613] Paul Melly and Vincent Darracq, *A New Way to Engage? French Policy in Africa from Sarkozy to Hollande* (London, U.K.: Chatham House, 2013), p. 6.
[614] Memorandum From Paul B. Henze of the National Security Council Staff to the President's Assistant for National Security Affairs (Brzezinski), 1 August 1979, *Foreign Relations, 1977–1980, Volume XVII, Horn of Africa*, Part 1 (Washington, D.C.: Government Printing Office, 2016), Document 95.

exploring nuclear weapons.[615] There is no discussion in sources about regional nonproliferation motives driving French policy decisions toward the country.

Conclusion

Since 2011, the French military commitment in Djibouti has steadily dwindled. The countries are no longer bound by the terms of a mutual defense pact and the number of French military personnel deployed in the country has fallen from nearly 7,000 at the time of independence to just over 1,400 today, the minimum presence required by the security cooperation agreement.[616] This reduction in France's footprint in Djibouti comes alongside military withdrawals from across Africa.[617] It also comes as Djibouti's security situation has improved. Relations with both Ethiopia and Somalia have significantly improved. In 2008, Djibouti and Eritrea agreed to normalize relations.[618] Djibouti today also hosts several foreign militaries, increasing

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[615] Djibouti, United Nations Office for Disarmament Affairs, 2021, https://treaties.unoda.org/s/djibouti; The Database on Nuclear Power Reactors, Power Reactor Information System, International Atomic Energy Agency, 6 April 2022; and Philipp C. Bleek, "When Did (and Didn't) States Proliferate? Chronicling the Spread of Nuclear Weapons," Discussion Paper (Cambridge, MA: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School and the James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies, Monterey, CA., June 2017).

[616] "French plan to reduce military force in Djibouti," *Economist Intelligence Unit*, 21 July 2014, http://country.eiu.com/article.aspx?articleid=1422039326&Country=Djibouti&topic=Politics&subtopic_5; and Neil Melvin, *The Foreign Military Presence in the Horn of Africa*, SIPRI Background Paper, April 2019, p. 6.

[617] "France to Pull More than 2,000 Troops from Africa's Sahel Region," *Al Jazeera*, 9 July 2021, https://www.aljazeera.com/news/2021/7/9/france-to-pull-more-than-2000-troops-from-africas-sahel; "Mali Conflict: Macron Announces Troops to Leave After Nine Years," *BBC*, 17 February 2022, https://www.bbc.com/news/world-africa-60414003; and "France Says It Will Withdraw Troops from Mali But Remain in West Africa," *National Public Radio*, 17 February 2022, https://www.npr.org/2022/02/17/1081388909/france-says-it-will-withdraw-troops-from-mali-but-remain-in-west-africa.

[618] Aaron Maasho, "Djibouti, Eritrea Agree to Normalize Ties Strained Since 2008," *Reuters*, 6 September 2018, https://www.reuters.com/article/us-eritrea-djibouti-politics/djibouti-eritrea-agree-to-normalize-ties-strained-since-2008-idUSKCN1LM2IM.

the major powers' interest in Djibouti's stability and security.[619] Absent significant changes in both France's perceived political interests in East Africa and Djibouti's security situation, the French military is unlikely to see significant redeployments to the country.

THE AMERICAN STRATEGY IN ISRAEL:

FEARS OF ENTRAPMENT AND THE CONDITIONAL ALLIANCE

Under the terms of extended deterrence selection theory, the United States extended deterrence commitment to Israel lasted from 1981 to 1991 thanks to the mutual defense agreement signed by the two countries. That agreement, however, provided for only a limited and conditional defense of Israel against Soviet aggression in the Middle East and did not provide the type of broader, unconditional security guarantee sought by Israel. Throughout this time period, the United States also did not provide any forward military deployments to Israeli territory. In 1991, the collapse of the Soviet Union led to the termination of the security agreement between the two states.

The features of this conditional alliance are well explained by extended deterrence selection theory. Since its existence, Israel has confronted adversaries that the United States did not. In fact, some of these states, such as Egypt and Jordan,

[619] Neil Melvin, *The Foreign Military Presence in the Horn of Africa*, SIPRI Background Paper, April 2019

have been viewed as important strategic partners by the United States. Given this incompatibility in the adversary portfolios of the United States and Israel, American officials were reluctant to provide Israel with a more intensive, unconditional security guarantee for fear of either alienating its other partners in the region or inviting risks of entrapment.

Conditional Alliance, 1981-1991

Throughout the Cold War, Israel repeatedly sought an unconditional guarantee from the United States. From 1954 to 1956, Israeli diplomats repeatedly pressed American counterparts for an unconditional security guarantee in order to offset their country's perceived military inferiority against regional adversaries. Then, in 1963, Israeli Prime Minister David Ben Gurion approached U.S. President John Kennedy with a proposal to extend the U.S. nuclear umbrella over Israel. Both times, U.S. officials rejected the requests, largely out of concern that an unconditional guarantee would risk other U.S. strategic relationships in the region. Finally, in 1981, the United States and Israel signed a memorandum of understanding on strategic cooperation, establishing a legal basis for mutual defense. However, as is detailed below, even this legalization of the two countries' longstanding security ties was limited and conditional.

In 1981, the United States and Israel signed the first and only legal defense cooperation agreement between the two countries. The treaty, identified by the ATOP database as a mutual defense pact, created the conditions for U.S.-Israeli security

cooperation. This security commitment had all the features of a conditional alliance. First, the treaty which established the security commitment between the two countries limited the mutual defense obligations to both a specific adversary (the Soviet Union) and a specific location ("the region").[620] These features are reflected in coding decisions of the ATOP database, which identify the treaty as imposing specific conditions on the triggering of its obligations.[621] In addition to the conditional and limited nature of the legal security commitment, the United States did not deploy any substantial military forces to Israel. From 1950 until 2005, the United States consistently deployed fewer than 100 military personnel to Israel and maintained no military installations in the country.[622]

According to the coding rules for extended deterrence selection theory, the U.S.-Israel relationship constituted a relevant extended deterrence observation only from 1981 to 1991.[623] Outside of this time period, the two states did not have a legally binding agreement constituting a defense guarantee. Prior to the 1981 agreement, the United States certainly provided significant diplomatic, economic, and military aid to Israel but it had shied away from providing any formal guarantee. In fact, as will be discussed later in the case, the United States rejected Israeli requests for an unconditional guarantee placing Israel under the U.S. nuclear umbrella. In 1987,

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[620] Israel-United States: Memorandum of Understanding on Strategic Cooperation, Signed 30 November 1981 in Washington, D.C. in *International Legal Materials*, Vol. 20, No. 6 (1981), pp. 1420-1423.
[621] Brett Ashley Leeds, Jeffrey M. Ritter, Sara McLaughlin Mitchell, and Andrew G. Long, "Alliance Treaty Obligations and Provisions, 1815-1944," *International Interactions*, Vol. 28, No. 3 (2002), pp. 237-260.
[622] "Worldwide Manpower Distribution by Geographical Area (M05)," *U.S. Department of Defense, Defense Manpower Data Center*, https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp.
[623] See the appendix for more detailed coding rules and data sources.

Israel was designated by the United States as a major non-NATO ally, a status it continued to hold even following the 1991 termination of the security agreement.[624] However, this designation, despite what its name implies, does not confer any security guarantee on the part of the United States but only provides for privileges in U.S. arms and economic assistance deals.[625] This is reflected in U.S. government documents and coding decisions by prominent international relations databases which do not list the United States and Israel as enjoying any defense agreement after 1991.[626]

Extended deterrence selection theory explains the United States' choice of a conditional alliance with Israel. Unlike most other alliance relationships examined in this work, the United States and Israel did not have overlapping adversary portfolios. Rather, Israel confronted several adversaries not shared by the United States, including Egypt (1948-today), Iran (1979-today), Iraq (1948-today), Jordan (1948-1994), and Syria (1948-today). Israel would even fight military conflicts against several of these states. While the United States shared some of these adversaries, as indicated by its lack of diplomatic relations with Iran after 1979 and Iraq from 1963

[624] Bureau of Political-Military Affairs, "Major Non-NATO Ally Status," fact sheet, U.S. Department of State, 20 January 2021.
[625] Miranda Priebe, Bryan Rooney, Caitlin McCulloch, and Zachary Burdette, *Do Alliances and Partnerships Entangle the United States in Conflict* (Santa Monica, CA: RAND Corporation, 2021), p. 5.
[626] Brett Ashley Leeds, Jeffrey M. Ritter, Sara McLaughlin Mitchell, and Andrew G. Long, "Alliance Treaty Obligations and Provisions, 1815-1944," *International Interactions*, Vol. 28, No. 3 (2002), pp. 237-260.

to 1984, it did not share all of them.[627] In fact, throughout the time period, the United States even provided substantial aid to countries like Egypt and Jordan.[628]

American officials were long concerned about the entrapment risks that a stronger security commitment to Israel might entail. At least twice prior to the signing of the 1981 agreement, Israeli officials had approached their American counterparts for an unconditional security guarantee. The first attempt occurred from 1954 to 1956, when Prime Minister David Ben Gurion asked the Eisenhower administration for a security guarantee.[629] In the early 1950s, Israeli leaders worried that regional adversaries were overtaking Israel in conventional military capability and sought an American security guarantee to offset their perceived conventional inferiority.[630] In an August 1955 meeting, Israeli Ambassador to the United States Abba Eban informed his American counterpart that the Israeli government intended to seek "formal agreement between Israel and US whereby US would give guaranteed use military forces if necessary to maintain Israel's border."[631] Eventually, Israel's Minister of Foreign Affairs Moshe Sharett would twice ask U.S. Secretary of State

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[627] "A Guide to the United States' History of Recognition, Diplomatic, and Consular Relations, by Country, since 1776: Iran," Office of the Historian, U.S. Department of State, https://history.state.gov/countries/iran; and "A Guide to the United States' History of Recognition, Diplomatic, and Consular Relations, by Country, since 1776: Iraq," Office of the Historian, U.S. Department of State, https://history.state.gov/countries/iraq.
[628] See, for example, Jeremy M. Sharp, "Jordan: Background and U.S. Relations," Congressional Research Service, 15 July 2021; Duncan L. Clarke, "U.S. Security Assistance to Egypt and Israel: Politically Untouchable?" *Middle East Journal*, Vol. 51, No. 2 (1997), pp. 200-214; and Soheir A. Morsy, "U.S. Aid to Egypt: An Illustration and Account of U.S. Foreign Assistance Policy," *Arab Studies Quarterly*, Vol. 8, No. 4 (1986), pp. 358-389.
[629] Zach Levey, "Israel's Quest for a Security Guarantee from the United States, 1954-1956," *British Journal of Middle East Studies*, Vol. 22, No. 1/2 (1995), pp. 43-63.
[630] Zach Levey, "Israel's Quest for a Security Guarantee from the United States, 1954-1956," *British Journal of Middle East Studies*, Vol. 22, No. 1/2 (1995), p. 45.
[631] The Chargé in Israel (Russell) to the Department of State, 22 August 1954, *Foreign Relations of the United States, 1952–1954, The Near and Middle East*, Volume IX, Part 1, Document 868.

John Dulles for an unconditional security guarantee and would twice be rebuffed. Israeli leaders would once again seek a security guarantee from the Kennedy administration.[632]

Both times that Israeli leaders sought an American security guarantee, in the 1950s and in the 1960s, they were rebuffed largely because of incompatibility between the adversary portfolios of Israel and the United States.[633] In 1955, as American officials mulled the first Israeli request, Egypt's Minister of Foreign Affairs Mahmud Fawzi warned Secretary of State Dulles that "If the United States signed a security pact with Israel under present circumstances, before boundaries had been agreed upon by the Arab States, the pact would be illegal and he would protest it as such. Moreover, the United States would do irreparable harm to its relations with every Arab State, without exception, if we gave Israel a security pact prior to a permanent boundary settlement."[634] In its security relationships in the region, the United States sought a delicate balance. Just days before receiving Prime Minister Ben-Gurion's letter requesting a security guarantee, President Kennedy announced that the United States "support[s] the security of both Israel and her neighbors."[635] The

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[632] This episode, and the role of entrapment concerns within it, is recounted well in Mira Rapp-Hooper, Absolute Alliances: Extended Deterrence in International Politics, Ph.D. Dissertation (New York, N.Y.: Columbia University, 2015), pp. 100-126.

[633] Mira Rapp-Hooper, Absolute Alliances: Extended Deterrence in International Politics, Ph.D. Dissertation (New York, N.Y.: Columbia University, 2015), pp. 100-126; Zach Levey, "Israel's Quest for a Security Guarantee from the United States, 1954-1956," *British Journal of Middle East Studies*, Vol. 22, No. 1/2 (1995), pp. 62-63; and Keren Yarhi-Milo, Alexander Lanoszka and Zack Cooper, "To Arm or to Ally? The Patron's Dilemma and the Strategic Logic of Arms Transfers and Alliances," *International Security*, Vol. 41, No. 2 (Fall 2016), pp. 119-136.

[634] Memorandum of a Conversation, San Francisco, 24 June 1955, *Foreign Relations of the United States, 1955–1957, Arab-Israeli Dispute, 1955*, Volume XIV (Washington, D.C.: Government Printing Office, 1989), Document 138.

[635] John F. Kennedy, Press Conference, 8 May 1963, *Public Papers of the Presidents of the United States: John F. Kennedy*, Vol. 3: 1963 (Washington, D.C.: Government Printing Office, 1964), p. 373.

Kennedy administration feared that a public and unconditional guarantee to Israel would jeopardize the "carefully built influence with the Arab states."[636] The United States had invested considerable energy in cultivating a relationship with Egyptian President Gamal Abdel Nasser and feared being drawn into a conflict between the two regional partners if Egypt launched a preventative strike against Israel's nascent nuclear program.[637] Israeli leaders themselves apparently recognized the challenges that U.S. entrapment fears would pose, believing that a U.S. security guarantee might only be possible if Israel were to relinquish the right of initiating military action in the region: "If Israel had to choose between retaining this right or relinquishing it in order to obtain a security guarantee, then freedom of action would prevail."[638]

The third episode culminated in the signing of a mutual defense pact in 1981 specifically targeting the Soviet Union, though this agreement imposed conditions on the mutual security commitments. At the time, American officials worried about the impact of the agreement on U.S. relations with other countries in the Middle East: "It was well known that Secretary of Defence Caspar Weinberger, Chairman of the Joint Chiefs of Staff, Gen. John Vessey Jr, and Director of the Central Intelligence Agency (CIA), William Casey believed that strategic alliance with Israel would lead

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[636] "Subject: Israel Security Guarantee, Reply to Ben-Gurion's May 12 Letter," Dean Rusk, September 26, 1963, PWR 9, JFKL, cited in Mira Rapp-Hooper, Absolute Alliances: Extended Deterrence in International Politics, Ph.D. Dissertation (New York, N.Y.: Columbia University, 2015), p. 111.
[637] Mira Rapp-Hooper, Absolute Alliances: Extended Deterrence in International Politics, Ph.D. Dissertation (New York, N.Y.: Columbia University, 2015), pp. 112-114.
[638] Zach Levey, "Israel's Quest for a Security Guarantee from the United States, 1954-1956," *British Journal of Middle East Studies*, Vol. 22, No. 1/2 (1995), p. 45.

to full radicalisation of the Arab world and would endanger the stability of Saudi Arabia and Jordan."[639] American officials took pains to indicate that the agreement did not represent an unconditional guarantee to Israel or that the United States had forsaken its other partnerships in the region. The text of the agreement even sought to preempt concerns that the United States' alignment with Israel was targeted against other states in the region, with the agreement reading that "the strategic cooperation is not directed at any state or group of states within the region. It is intended solely for defensive purposes against the above mentioned threat."[640] In fact, shortly after the agreement was signed, the United States temporarily suspended it in response to Israeli annexation of the Golan Heights.[641] At the time, Secretary of State Haig explained to the press that "The President felt very strongly that the US had an obligation not to create an atmosphere in which blank cheques are available for the leadership in Israel."[642]

Alternative Explanations

[639] Christopher S. Raj, "U.S.-Israel Strategic Cooperation," *Strategic Analysis*, Vol. 7, No. 9 (1983), p. 799.
[640] Israel-United States: Memorandum of Understanding on Strategic Cooperation, Signed 30 November 1981 in Washington, D.C. in *International Legal Materials*, Vol. 20, No. 6 (1981), p. 1421.
[641] Bernard Gwertzman, "U.S. Suspends Strategic Pact and Arms Deal with Israel Over Annexation of Golan," *The New York Times*, 19 December 1981, p. 1; and Christopher S. Raj, "U.S.-Israel Strategic Pact: Suspended or Abrogated?" *Strategic Analysis*, Vol. 5, No. 10 (1982), 544-550, pp. 544-550.
[642] Christopher S. Raj, "U.S.-Israel Strategic Pact: Suspended or Abrogated?" *Strategic Analysis*, Vol. 5, No. 10 (1982), 544-550, p. 549.

Extended deterrence selection theory very powerfully explains the U.S.-Israel case. Structural realism does not explain the case. There is limited evidence of domestic politics or extractive posturing driving U.S. extended deterrence strategy toward Israel. A nonproliferation-focused explanation also perform poorly. These findings are summarized below in table 5-3.

Table 5-3: Competing Explanations in the U.S.-Israel Case

	Selection Theory	*Structural Realism*	*Domestic Politics*	*Extractive Posturing*	*Nonprolif. Goals*
1981-1991: Conditional Alliance	✓	✗	?	?	✗

✓= successful prediction; ?= partial prediction; ✗= unsuccessful prediction

Throughout the entire period of Israel's existence, and certainly from 1981 to 1991, when the U.S.-Israel defense agreement was in force, Israel faced many adversaries that were not shared by the United States. Given this imperfect overlap in adversary portfolios, extended deterrence selection theory predicts that the senior ally should provide only a conditional alliance, as the United States did. Not only do the features of the case match the predictions generated by the theory, but American decision-makers repeatedly made reference to fears of entrapment, as predicted by the theory.

Structural realism performs quite poorly in explaining the U.S.-Israel case. Structural realism would predict the U.S. selection of a much more intensive strategy given Israel's acute security threats, particularly prior to Israel's acquisition of nuclear weapons in 1967. In the first 25 years of its existence, Israel experienced

several military conflicts, including the 1948 Arab-Israeli War, the 1950s Fedayeen Insurgency, the 1956 Suez Crisis, the 1967 Six-Day War, and the 1973 Yom Kippur War. This same time period saw Israel seek stronger security commitments from the United States in the form of an unconditional guarantee.[643] However, the United States consistently rejected these entreaties, offering instead only a conditional alliance.

Without a more in-depth treatment, it is unclear how well domestic politics or extractive posturing explains the case, though there is very little evidence of either explanation driving U.S. strategy selection. It's unclear what determinant prediction a domestic politics explanation would make in this case, though it likely would have over-predicted the U.S. strategy. Some scholars have identified an "Israel lobby" within the United States which should provide additional impetus for a stronger U.S. commitment.[644] Public attitudes toward Israel in the United States have been consistently strong, further buttressing efforts to provide a stronger security commitment to Israel.[645] According to one recent review of some of the drivers of U.S. security policy toward Israel from 1961 to 1973, part of the period examined here, "the evidence in support of [a domestic politics] explanation is weak during the period

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[643] Zach Levey, "Israel's Quest for a Security Guarantee from the United States, 1954-1956," *British Journal of Middle East Studies*, Vol. 22, No. 1/2 (1995), pp. 43-63; and Mira Rapp-Hooper, Absolute Alliances: Extended Deterrence in International Politics, Ph.D. Dissertation (New York, N.Y.: Columbia University, 2015), pp. 100-126.

[644] John J. Mearsheimer and Stephen M. Walt, *The Israel Lobby and U.S. Foreign Policy* (New York, N.Y.: Farrar, Straus and Giroux, 2007); and Dov Waxman, "The Pro-Israel Lobby in the United States," in Robert O. Freedman (ed.), Israel and the United States : Six Decades of US-Israeli Relations (Boulder, CO: Westview Press, 2012), pp. 79-99.

[645] Amnon Cavari, "Six Decades of Public Affection: Trends in American Public Attitudes Toward Israel," in Robert O. Freedman (ed.), Israel and the United States : Six Decades of US-Israeli Relations (Boulder, CO: Westview Press, 2012), pp. 100-123.

we examine."[646] Extractive posturing would also likely predict a stronger U.S. commitment to Israel given its importance to U.S. strategy in the region. For example, President Kennedy, despite refusing to grant an unconditional guarantee to Israel, commented that the United States "has a special relationship with Israel in the Middle East really comparable only to that which it has with Britain over a wide range of world affairs."[647] Since 1948, Israel has received more than $100 billion in military aid and the U.S. government describes "Israel's security [a]s a long-standing cornerstone of U.S. foreign policy."[648] However, despite the stated significance of Israel to U.S. strategy, the United States has not selected a more intensive extended deterrence strategy for the junior ally.

Nonproliferation goals do not explain the U.S.-Israel case. A nonproliferation-based explanation would predict that the United States would extend a more intensive security guarantee to Israel precisely when it learned about Israel's interest in nuclear weapons and, perhaps, that the United States would weaken its security commitments following Israeli nuclearization. If anything, this case saw the opposite dynamics. Although information on Israel's nuclear weapons program is limited, the country is believed to have initiated its nuclear weapons program in 1955 and to have

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[646] Keren Yarhi-Milo, Alexander Lanoszka and Zack Cooper, "To Arm or to Ally? The Patron's Dilemma and the Strategic Logic of Arms Transfers and Alliances," *International Security*, Vol. 41, No. 2 (Fall 2016), p. 134.
[647] President Kennedy, Memorandum of Conversation, 27 December 1962, *Foreign Relations of the United States, 1961-1963*, Vol. XVIII, Near East, 1962–1963, Document 121.
[648] Jeremy M. Sharp, "U.S. Foreign Aid to Israel," Congressional Research Service, 18 February 2022, p. 2; and "U.S. Relations with Israel," Bureau of Near Eastern Affairs, U.S. Department of State, 20 January 2021, https://www.state.gov/u-s-relations-with-israel/. From 1948 to 2011, Israel received more U.S. aid than any other country. Bruce Clingan, "Commentary: The U.S. Is Right to Restore Aid to Egypt," *Reuters*, 30 July 2018, https://www.reuters.com/article/us-clingan-egypt-commentary/commentary-the-u-s-is-right-to-restore-aid-to-egypt-idUSKBN1KK1YE.

successfully acquired the bomb in 1967.[649] By the 1960s, American officials were well aware of the military dimension of Israel's nuclear program.[650] Israeli officials even appeared to suggest that Israel's pursuit of nuclear weapons would be driven by the lack of a security guarantee and that providing one could halt the pursuit of the bomb.[651] Despite this knowledge, successive American presidents declined to offer a formal security guarantee in order to prevent Israeli proliferation. In fact, according to one recent account of the Israeli nuclear program, "Even Kennedy exerted limited coercive leverage and deliberately declined to offer Israel a formal security guarantee, knowing full well that such a guarantee was probably the only chance to keep Israel non-nuclear."[652] Far from distancing itself from Israel after it acquired nuclear weapons in 1967, the United States, if anything, offered somewhat greater formalization of its security commitments by signing the 1981 agreement with the country.

Conclusion

[649] Avner Cohen, *Israel and the Bomb* (New York, N.Y.: Columbia University Press, 1998); and Philipp C. Bleek, "When Did (and Didn't) States Proliferate? Chronicling the Spread of Nuclear Weapons," Discussion Paper (Cambridge, MA: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School and the James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies, Monterey, CA., June 2017).
[650] "The Outlook for Israel," National Intelligence Estimate, No. 35-61, 5 October 1961, p. 2
[651] Memorandum From the Department of State Executive Secretary (Brubeck) to the President's Special Assistant for National Security Affairs (Bundy), 14 May 1963, *Foreign Relations of the United States, 1961–1963, Volume XVIII, Near East, 1962-1963* (Washington, D.C.: Government Printing Office, 1995), Document 246; and Memorandum for the Record, 14 May 1963, *Foreign Relations of the United States, 1961–1963, Volume XVIII, Near East, 1962-1963* (Washington, D.C.: Government Printing Office, 1995), Document 248.
[652] Vipin Narang, Seeking the Bomb: Strategies of Nuclear Proliferation (Princeton, N.J.: Princeton University Press, 2022), p. 179.

Given the structure of strategic relations between Israel, the United States, and other states in the Middle East, it is unlikely that the United States will provide a more intensive commitment to Israel. Further, Israel's advanced conventional military capabilities and nuclear weapons program ameliorate the security threats confronting it, reducing the need for forward military deployments. Fundamental changes in the political relationships of the Middle East, such as a termination of the many ongoing rivalries between Israel and other regional states, or a deterioration in the relations between the United States and Israel's rivals, could create the conditions for a more intensive American extended deterrence strategy. However, given the national interests driving these rivalries, such shifts remain unlikely.

This chapter provided mini-case studies of three relatively understudied extended deterrence commitments, the United Kingdom's commitment to Belize from 1981 until today, France's commitment to Djibouti from 1977 to 2011, and the United States' commitment to Israel from 1981 to 1991. These cases expand the scope of this project's empirical tests in several ways. First, they expand work examining extended deterrence beyond the traditional focus on the United States and the Soviet Union. As detailed in this work, other states have served as senior allies, including the United Kingdom, France, and China have, at times, practice extended deterrence. Ignoring the experiences of these states limits the field's ability to either validate the generalizability of theories of extended deterrence or to highlight how different senior allies might systematically practice extended deterrence differently. In addition, the

cases expand the temporal and geographic scope of the tests and highlight the experiences of relatively understudied cases.

In the three cases studied in this chapter, we largely see the ability of extended deterrence selection theory to explain the choice of extended deterrence strategy. Not only do the features of each case match the theoretical prediction generated by the theory, but decision-makers regularly referenced the variables specified in the theory when explaining their choices. The theory's ability to explain cases across a wide variety of senior allies, time periods, geographic locations, and security contexts, strengthens its explanatory power.

Chapter 6

The Consequences of Extended Deterrence Practices

In the previous chapters I sought to describe and explain variation in how senior allies practice extended deterrence. Together, the typology and theory help us better understand how and when senior allies resort to which signals to communicate and substantiate their extended deterrence commitments. However, better conceptualizing and explaining practices of extended deterrence matters much more if those practices have differential effects. Here I examine how effective each of the strategies in the typology are at achieving strategic goals of the senior ally.

Senior allies often pursue several strategic goals in providing an extended deterrence commitment. First, the senior ally attempts to *deter* aggression against the junior ally. Second, the senior may hope to *assure* the junior ally that it will deter and defeat conflict directed against it. Third, the senior ally will typically seek to *restrain* the junior ally from acting against senior ally interest's, such as by pursuing nuclear weapons or entrapping the senior ally in an unwanted conflict. Fourth, the senior ally will want to *reassure* the adversary that neither the senior nor the junior ally will initiate conflicts against it provided the adversary refrains from aggression. Finally, the senior ally may attempt to *bolster* its forward deployed military capabilities in the event that deterrence fails and conflict erupts.

The relationship between these strategic goals and practices of extended deterrence is not always clear. While a relatively less intense extended deterrence

strategy might fail at deterring an overly revisionist or aggressive adversary, a more intense strategy might trigger security dilemma dynamics, in the end making conflict *more* likely. Senior allies may also confront inherent tradeoffs in realizing these three strategic goals. For example, a stronger extended deterrence strategy might be better at deterring a revisionist adversary but could also embolden the junior ally by inducing moral hazard.[653] Similarly, a junior ally which feels insufficiently protected may behave in a riskier manner in order to extract a stronger commitment from the junior ally. A stronger strategy could dampen the junior ally's threat perceptions, obviating its need to pursue an independent nuclear weapons program. Or a very public and large investment by the senior ally in the defense of the junior could undercut the senior ally's leverage, encumbering attempts to stem proliferation. Certain forward deployments which aim at bolstering the senior ally's military presence, such as power projection naval and air forces, or large forward deployed ground forces, may be viewed as threatening by the adversary.

Here, I investigate the consequences of extended deterrence practices. By moving the extended deterrence strategy from the dependent variable to the independent variable, we can examine how effectively strategy accomplishes the senior ally's various strategic goals. In this section, I focus my attention on three key dynamics related to extended deterrence: deterrence of the adversary, assurance of

[653] Brett V. Benson, Adam Meirowitz, and Kristopher W. Ramsay, "Inducing Deterrence through Moral Hazard in Alliance Contracts," *Journal of Conflict Resolution*, Vol. 58, No. 2 (2014), pp. 307-335; and Neil Narang and Rupal N. Mehta, "The Unforeseen Consequences of Extended Deterrence: Moral Hazard in a Nuclear Client State," *Journal of Conflict Resolution*, Vol. 63, No. 1 (2019), pp. 218-250.

the junior ally, and restraint of the junior ally. This component seeks to address one of the key shortcomings of the literature on extended deterrence, which is the failure to assess the differential impact of different extended deterrence practices across these three strategic goals. By only examining one aspect of extended deterrence (deterrence, assurance, restraint), the literature has implicitly assumed that what deters must automatically assure (and vice versa).

The chapter proceeds as follows. First, I motivate the empirical investigation by highlighting the theoretical reasons why extended deterrence practices may have differential effects across strategic goals. I also note the literature's inability to systematically test for heterogeneous effects across different extended deterrence practices and strategic goals. Second, I review the typology of extended deterrence strategies introduced in the second chapter and derive a set of competing hypotheses connecting extended deterrence strategies to different strategic goals. Third, I describe my empirical strategy, identifying prominent studies for replication and summarizing the underlying data and estimation approach. Third, I present results highlighting evidence that senior allies may face tradeoffs in pursuing their various extended deterrence goals. Finally, I conclude with a discussion of implications for both policy and scholarship and sketch possible research extensions.

Shortcomings in the Literature on Extended Deterrence

The literature on deterrence has distinguished between direct deterrence, in which a state attempts to deter adversary attacks against itself, and extended deterrence, in which a state attempts to deter adversary attacks against another

state. Scholars have long observed that extended deterrence is more difficult than direct deterrence, both because it may mean stationing or deploying military capabilities abroad but also, and more importantly, because commitments intended to deter attacks against third parties are inherently less credible than those intended to deter attacks against oneself. As Schelling noted, "The difference between the national homeland and everything 'abroad' is the difference between threats that are inherently credible, if unspoken, and the threats that have to be made credible."[654]

In light of this challenge, states have attempted to bolster the credibility of their extended deterrence commitments both by bolstering their capabilities for intervening militarily in a future conflict and by enhancing the perceived likelihood that they will use those capabilities. In general, for major powers, demonstrating the intent to fulfill one's commitments is considered to be more difficult than demonstrating the capabilities to do so. States often face incentives to misrepresent their resolve and to appear more willing to accept risk in order to deter an adversary. [655] Early on, Schelling emphasized that, between nuclear-armed adversaries, interstate conflicts had become "competition[s] in risk-taking" and that, in this new world, military forces were important not just for their value on the battlefield, but for the political signals they conveyed.[656] Fearon described two ways

[654] Thomas Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966), p. 36.
[655] Kristopher W. Ramsay, "Cheap Talk Diplomacy, Voluntary Negotiations, and Variable Bargaining Power," *International Studies Quarterly* Vol. 55, No. 4 (2011), pp. 1003-1023; James D. Fearon, "Rationalist Explanations for War," *International Organization*, Vol. 49, No. 3 (1995), pp. 379-414; and James D. Fearon, "Signaling Foreign Policy Interests: Tying Hands Versus Sinking Costs," *Journal of Conflict Resolution*, Vol. 41, No. 1 (February 1997), pp. 68-90.
[656] Thomas Schelling, *The Strategy of Conflict* (Cambridge, MA: Harvard University Press, 1960); and Thomas Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966).

in which states can increase the credibility of their deterrence commitments: by either tying hands or sinking costs.[657] Tying hands refers to the process of generating audience costs which will be suffered *ex post* if the state does not fulfill its commitments, while sinking costs refers to the process of generating *ex ante* costs, such as by mobilizing troops or deploying them abroad. Morrow showed that the peacetime formation of an alliance may enhance the ability of a patron to deter attacks against a client by both enhancing the ability of the patron and the client to fight together and by signaling, via the costs of constructing and maintaining the alliance itself, the sincerity of the patron in fulfilling its security commitments.[658]

However, despite significant contributions from this literature, the empirical work on the practices of extended deterrence faced several challenges. First, the empirical work, especially early generations, had an existential bias in its treatment of extended deterrence commitments. That is, the literature has often implicitly treated the existence of *any* extended deterrence commitment as sufficient and often failed to consider how senior allies use various signals, such as forward conventional and nuclear deployments, to communicate the credibility of their extended deterrence commitments. In addition, even works which considered other signals such as forward deployments, often considered those signals in isolation, thereby ignoring the ways in which senior allies often deploy signals together, as either complements or substitutes. These signals likely both covary with one another and with the extended

[657] James D. Fearon, "Signaling Foreign Policy Interests: Tying Hands Versus Sinking Costs," *Journal of Conflict Resolution*, Vol. 41, No. 1 (February 1997), pp. 68-90.
[658] James D. Morrow, "Alliances, Credibility, and Peacetime Costs," *Journal of Conflict Resolution*, Vol. 38, No. 2 (1994), pp. 270-297.

deterrence outcomes being studied. In the language of statistics, these studies therefore likely suffered from omitted variable bias.

Second, the empirical work has not systematically examined whether the same signal generates heterogeneous effects across different strategic goals. Much of the empirical work has investigated the ability of extended deterrence signals to accomplish only one goal–deterrence, assurance, restraint. However, there is ample evidence that junior allies and adversaries may perceive the credibility of a patron's extended deterrence commitments in systematically different ways. Theoretically, clients and adversaries should have symmetric perceptions of the credibility of extended deterrence commitments only under the strictest of conditions: symmetric information and identical beliefs about what drives state behavior. Historically, clients have often appeared to require systematically stronger signals to perceive the commitments of their patrons as credible, whereas adversaries appear to have been deterred by relatively weaker signals from the patron. Indeed, the Cold War experience of the United States was one of continuous efforts to reassure anxious allies, despite the fact that actual incidents of extended deterrence failures were relatively rare.[659] Former U.K. Defense Minister Denis Healey recognized this dynamic, saying "It takes only five percent credibility of American retaliation to deter the Russians but ninety-five percent credibility to reassure the Europeans."[660] More

[659] Clark A. Murdock, et al., *Exploring the Nuclear Posture Implications of Extended Deterrence and Assurance* (Washington, D.C.: Center for Strategic and International Studies, 2009), p. 11.
[660] Denis Healey, *Time of My Life* (London: Michael Joseph, 1989), p. 243, quoted in David Yost, "Assurance and U.S. Extended Deterrence in NATO," *International Affairs*, Vol. 85, No. 4 (2009), p. 768.

recently, the U.S. experience has further suggested an asymmetry in how clients and adversaries perceive extended deterrence commitments. For example, in the United States, some proponents of returning the nuclear-armed Tomahawk cruise missile to the country's arsenal have argued that, although the capability would have no deterrent value against adversaries, it would be an important means of assuring U.S. allies.[661] Today, NATO has begun shifting military strategy aimed at Russia from one focused on assuring allies to one focused on deterring Moscow.[662] In all of these, we see evidence that what deters may not always assure, and vice versa.[663] Similarly, senior allies often seek to restrain their junior partners in order to mitigate entrapment concerns or stem nuclear proliferation.[664] However, these goals may conflict with the senior ally's deterrent aims; stronger security commitments which aim at deterring conflict against a junior ally may also embolden revisionist junior allies to initiate conflicts of their own or pursue nuclear weapons while sheltered behind by the senior ally's security guarantee.

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[661] James M. Acton, "Extended Deterrence and Communicating Resolve," *Strategic Insights*, Vol. 8, No. 5 (December 2009).

[662] I thank Travis Frederick for this point. See Terri Moon Cronk, "European Reassurance Initiative Shifts to Deterrence," *U.S. Department of Defense*, 14 July 2016, https://dod.defense.gov/News/Article/Article/839028/european-reassurance-initiative-shifts-to-deterrence/; and "European Deterrence Initiative Department of Defense Budget Fiscal Year (FY) 2019," *U.S. Office of the Under Secretary of Defense Comptroller*, February 2018. This shift from assurance to deterrence has, interestingly, resulted in a significant increase in spending. See "The European Deterrence Initiative: A Budgetary Overview," *Congressional Research Service*, 8 August 2018, https://fas.org/sgp/crs/natsec/IF10946.pdf.

[663] For a good overview of how, for instance, forward conventional deployments may either increase or decrease conflict, see Angela O'Mahony, Miranda Priebe, Bryan Frederick, Jennifer Kavanagh, Matthew Lane, Trevor Johnston, Thomas S. Szayna, Jakub P. Hlávka, Stephen Watts, and Matthew Povlock, *U.S. Presence and the Incidence of Conflict* (Santa Monica, CA: RAND Corporation, 2018).

[664] See, for example, Victor D. Cha, "Powerplay: Origins of the U.S. Alliance System in Asia," *International Security*, Vol. 34, No. 3 (2010), pp. 158-196; and Brett V. Benson, Patrick R. Bentley, and James Lee Ray, "Ally Provocateur: Why Allies Do Not Always Behave," *Journal of Peace Research*, Vol. 50, No. 1 (2013), pp. 47-58.

Scholars have also noted that signals sent by states are not always clear or objective, acknowledging a role for (mis)perception on the part of recipient states and a recognition that the same signal may produce heterogeneous effects depending on the recipient. Wohlforth demonstrated how, during the Cold War, the United States and the Soviet Union often conceived of the relative strategic balance in fundamentally different ways, suggesting perceptions of state signals would also vary significantly.[665] Yarhi-Milo has demonstrated that different components of the state may rely on different indicators to evaluate the intentions of adversaries. Specifically, while intelligence agencies typically focus on changes in the size, composition, and deployment of an adversary's military forces, political leaders are more likely to rely on preexisting beliefs and vivid personal impressions.[666] Using experimental techniques, Quek has demonstrated that in a conflictual game, senders and receivers often conceive of deterrent signals in fundamentally different ways.[667] Yarhi-Milo, Kertzer, and Renshon demonstrate that individual leaders may perceive certain signals as more or less credible depending on their specific "foreign policy dispositions."[668] Similarly, the multiple audiences problem may cause states to resort to secret forms of signaling the credibility of their commitments.[669]

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[665] William Curti Wohlforth, *The Elusive Balance: Power and Perceptions during the Cold War* (Ithaca, N.Y.: Cornell University Press, 1993).
[666] Keren Yarhi-Milo, *Knowing the Adversary: Leaders, Intelligence, and Assessment of Intentions in International Relations* (Princeton, N.J.: Princeton University Press, 2014).
[667] Kai Quek, "Are Costly Signals More Credible? Evidence of Sender-Receiver Gaps," *Journal of Politics*, Vol. 78, No. 3 (2016), pp. 925-940.
[668] Keren Yarhi-Milo, Joshua D. Kertzer, and Jonathan Renshon, "Tying Hands, Sinking Costs, and Leader Attributes," *Journal of Conflict Resolution*, Vol. 62, No. 1 (2018), pp. 2150-2179.
[669] Keren Yarhi-Milo, "Tying Hands Behind Closed Doors: The Logic and Practice of Secret Reassurance," *Security Studies*, Vol. 22, No. 3 (2013), pp. 405-435.

Third, this work has yielded conflicting findings. Reiter finds that a patron's deployment of nuclear weapons to the territory of a client is associated with a significant reduction in the likelihood that the client will pursue nuclear weapons but at the same time, finds little evidence that alliances affect the likelihood of the client seeking nuclear weapons and no evidence that the level of conventional troops deployed by the patron to the client's territory affects the likelihood of the client seeking nuclear weapons.[670] Lanoszka, on the other hand, looking not at static numbers of conventional troops deployed by the patron to the territory of the client but, rather, changes in the levels of those conventional troop deployments, finds that a decrease in the number of conventional troops deployed is associated with a greater likelihood of the client pursuing nuclear weapons.[671] Bleek and Lorber, contrary to Reiter, find that states which enjoy formal defense pacts with nuclear-armed allies are less likely to pursue nuclear weapons.[672] Sechser and Fuhrmann find that alliances with a nuclear-armed patron can have significant deterrent benefits for a client, but that deployment of nuclear forces by the patron onto the territory of the client does not produce any additional deterrent effect.[673] Works by Benson; Johnson, Leeds, and Wu; Kenwick and Vasquez; and O'Mahony et al. have all produced

[670] Dan Reiter, "Security Commitments and Nuclear Proliferation," *Foreign Policy Analysis*, Vol. 10, No. 1 (2014), pp. 61-80.
[671] Alexander Lanoszka, *Protection States Trust?: Major Power Patronage, Nuclear Behavior, and Alliance Dynamics*, (Princeton, N.J.: Princeton University, 2014), unpublished dissertation.
[672] Philipp C. Bleek and Eric B. Lorber, "Security Guarantees and Allied Nuclear Proliferation," *Journal of Conflict Resolution*, Vol. 58, No. 3 (2014), pp. 429-454.
[673] Matthew Fuhrmann and Todd D. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science*, Vol. 58, No. 4 (October 2014), pp. 919-935.

different results about the ability of alliances (sometimes conceptualized and measure differently) to deter aggression against the junior ally.[674]

These three shortcomings are summarized in table 6-1. Here I list several recent prominent empirical works testing the ability of alliances, forward conventional deployments, or forward nuclear deployments to provide extended deterrence commitments. For each work, the table identifies whether or not it included a measure of an alliance, forward conventional deployment, or forward nuclear deployment. It further notes whether the work tested the ability of these signals to deter, assure, or restrain. And, finally, it indicates whether the work found evidence that the signal succeeded in achieving the strategic goal (as indicated by a check mark) failed (cross mark), or whether there was mixed evidence (question mark). Studies are organized both by the strategic goal they investigate (whether deterrence, restraint, or assurance) and chronologically.

[674] Brett V. Benson, "Unpacking Alliances: Deterrent and Compellent Alliances and Their Relationship with Conflict, 1816-2000," *The Journal of Politics*, Vol. 73, No. 4 (2011), pp. 1111-1127; Jesse C. Johnson, Brett Ashley Leeds, and Ahra Wu, "Capability, Credibility, and Extended General Deterrence," *International Interactions*, Vol. 41, No. 2 (2015), pp. 309-336; Michael R. Kenwick and John A. Vasquez, "Defense Pacts and Deterrence: Caveat Emptor," *The Journal of Politics*, Vol. 79, No. 1 (2017), pp. 329-334; and Angela O'Mahony, *U.S. Presence and the Incidence of Conflict* (Santa Monica, CA: RAND Corporation, 2018).

Table 6-1: Past Empirical Research on Extended Deterrence

	Interstate Alliance	Conventional Deployment	Nuclear Deployment
DETERRENCE STUDIES			
Benson 2011	?		
Fuhrmann & Sechser 2014	✓	✗	✗
Johnson, Leeds, Wu 2015	✓		
Kenwick and Vasquez 2017	✗		
O'Mahony et al. 2018	✗	✗	
Frederick et al. 2020		?	
RESTRAINT STUDIES			
Benson et al. 2013	?		
Fang, Johnson, Leeds 2014	✓		
Beckley 2015	✓		
O'Mahony et al. 2018		✓	
Narang and Mehta 2019	✗		
ASSURANCE STUDIES			
Bleek and Lorber 2014	✓		
Lanozska 2014		✓	
Reiter 2014	✗	✗	✓

✓ = strong evidence, ? = mixed or inconclusive evidence, ✗ = no or contrary evidence

Trends in past empirical research on the effects of extended deterrence practices. Three trends emerge. First, the literature has often focused on the effect of any alliance, without considering variation in the conditions of those alliances or the other tools used to bolster the alliance, such as conventional and nuclear deployments. Second, the empirical work has not systematically examined whether the same signal generate heterogeneous effects across different strategic goals (deterrence, restraint, assurance). Third, this work has yielded conflicting findings.

Table 6-1 neatly captures many of the shortcomings discussed above. We can see that only two of the works (Fuhrmann and Sechser 2014; and Reiter 2014) have simultaneously considered the effects of alliances, conventional deployments and nuclear deployments. By contrast, all other works only examined two or one of the three primary signals. Only a single work (O'Mahony et al. 2018) considered how the same signals (in that work, alliances and conventional deployments) affect different strategic goals (deterrence and restraint). All other works only examined the effect of

signals on a single strategic goal. Finally, the table illustrates the extent to which these works produce disparate findings. Nearly every instance in which more than one work tested the ability of a signal to achieve a strategic goal shows conflicting results. These disparate outcomes are not always incompatible as they may result from different conceptualizations and methodological approaches. However, they indicate the relative lack of consensus about the ability of certain signals to achieve certain extended deterrence goals. Together, these patterns indicate the need for a systematic evaluation of how practices of extended deterrence further or hamper a senior ally's strategic goals.

Theorizing the Effects of Extended Deterrence Practices

Before empirically investigating the effects of extended deterrence practices, I first derive a set of hypotheses relating the extended deterrence strategies to each of the three strategic goals of deterrence, assurance, and restraint. In developing the hypotheses, I draw on the international relations and security studies literature and focus on the distinguishing characteristics of each of the strategies.

A Typology of Extended Deterrence Strategies

As introduced in Chapter 2, I identify five core extended deterrence strategies: *conditional alliance*, *unconditional guarantee*, *conventional barrier*, *nuclear tripwire*, and *nuclear barrier*.[675] In addition, I identify a sixth auxiliary strategy which may or

[675] The language for this section comes from Chapter 2.

may not be present alongside one of the five core extended deterrence strategies: *power projection*. These strategies are distinguished by variation along the following aspects: the type of legal commitment offered by the senior ally to the junior ally, the type of conventional force deployments, the type of nuclear force deployments, the deterrent purpose of engagement of the forward-deployed forces, and the operational goals of the strategy. I review them here, proceeding from the least to the most intensive strategies.[676] Together, these five core strategies are both mutually exclusive and collectively exhaustive. Since 1950, each observation of a senior ally's commitment to a junior ally is coded as one of the five core strategies. In addition, each observation can be clearly coded as either featuring or not featuring the auxiliary power projection strategy. The six strategies and their features are summarized in table 6-2 below.

[676] Strategy "intensity" is not a measure of the objective or perceived commitment of the senior ally to the junior ally. Rather, it is merely a reference to the total costs (financial, material, political) involved in providing that strategy.

Table 6-2: Typology of Extended Deterrence Strategies

	Core Strategies					**Auxiliary Strategy**
	Conditional Alliance	**Unconditional Guarantee**	**Conventional Barrier**	**Nuclear Tripwire**	**Nuclear Barrier**	**Power Projection**
Treaty Commitment	Conditional, Specific	Unconditional, Ambiguous	Unconditional, Ambiguous	Unconditional, Ambiguous	Unconditional, Ambiguous	Unconditional, Ambiguous
Conventional Force	---	---	Significant defensive land force; air force geared for close air support; limited naval assets	Tripwire land force; limited air and naval assets	Significant defensive land force; air force geared for close air support; limited naval assets	Limited land force; significant long-range air force and naval platforms
Conventional Posture	---	---	Tactically defensive, high readiness	Tactically offensive, high readiness	Tactically offensive, high readiness	Tactically defensive, support elements
Nuclear Force	---	---	---	SRBMs, artillery, demolition charges	SRBMs, artillery, demolition charges	IRBMs, gravity bombs, depth charges
Nuclear Posture	---	---	---	Embedded, higher readiness	Embedded, higher readiness	Separated, lower readiness
Deterrent Purpose	Signal political commitment while avoiding entrapment	Signal political commitment without concern of entrapment	Deter and defend by buying time and raising costs until arrival of reinforcements	Deter and defend by nuclear offset and escalation risks	Deter and defend by buying time and raising costs until arrival of reinforcements; escalation risks	Extend ability to strike adversary cities, industry, and military facilities; reinforce own troops
Empirical Examples	China to DPRK 1961-today France to Chad 1960-1978	U.K. to Pakistan 1954-1972 U.S. to Thailand 1954-1977	U.S. to ROK 1991-today U.K. to Belize 1982-1993	U.S. to Greece 1956-1991 U.S. to Italy 1957-1991	U.S. to Germany 1956-1991 USSR to GDR 1958-1991	U.S. to Phil. 1951-1991 USSR to Cuba 1962-1993

Conditional Alliance. The conditional alliance strategy is the least intensive and consists only of a limited, specific legal guarantee between the senior and junior

allies to cooperate in certain instances. The guarantees provided by the senior ally under a conditional alliance are typically both more explicit and more limited in scope than those provided under other kinds of extended deterrence strategies, often committing the senior ally to military action on behalf of the junior ally in specific situations against pre-identified adversaries. As Rapp-Hooper describes them, "They also tend to express obligations in a detailed manner. Alliance treaties identify a *casus foederis* that explains when the treaty will be brought into force. They often specify the opponent that the treaty is aimed against, the theater in which it applies, and the nature of the military response that may be forthcoming if aid is needed."[677] The conditional alliance does not feature any forward deployment of either conventional or nuclear troops by the senior ally to the territory of the junior ally.

Unconditional Guarantee. An unconditional guarantee involves a somewhat deeper and more expansive legal commitment by the senior ally to the junior ally. Scholars have distinguished between more limited defensive alliances and more expansive unconditional security guarantees. Conditional defensive alliances will often explicitly limit the circumstances under which the senior ally will intervene on behalf of the junior partner. As Rapp-Hooper writes, "Nuclear security guarantees look nothing like traditional defense pacts. They are rarely tied to a specific adversary, theater, or contingency. They enter into force for long periods of time or indefinitely. Most importantly, at the highest levels of potential escalation they do not aggregate military capabilities: One state, the patron, possesses the most crucial instruments

[677] Absolute Alliances, 18-19.

of deterrence, while the other, the client does not."[678] By contrast, security guarantees are less specific in the circumstances under which they apply, instead broadly committing the senior ally to the defense of the junior one. As with the conditional alliance, the unconditional guarantee does not feature any forward deployment of conventional or nuclear troops by the senior ally to the territory of the junior ally.

Conventional Barrier. The conventional barrier increases the visible commitment of the senior ally by featuring the forward deployment of troops to the junior ally's territory. There is a very strong empirical connection between, on the one hand, the type of legal commitment provided by the senior to the junior ally, and, on the other, the forward deployment of military assets to the junior ally's territory. There are almost no instances of a senior ally forward deploying troops for the purposes of deterrence, defense, or power projection to the territory of a junior ally to which it does not provide a security guarantee. The *conventional barrier* strategy is characterized by a significant forward deployment of defensive conventional forces by the senior ally to the territory of the junior ally. These forces are composed largely of army units and are garrisoned or deployed in areas near borders with the adversary. As with other strategies featuring the forward deployment of senior ally troops, the *conventional barrier* strategy may feature some navy and air force troops. However, these sea and air assets are oriented toward supporting army forces in the defense of the junior ally's territory. Air assets, for instance, feature systems geared for missions such as close air support rather than long-range bombing. Similarly, naval assets, if

[678] Absolute Alliances, 19.

they are present, are more likely to be configured for suppression of enemy air defense or naval gunfire support to aid defense operations by land-based units.

Nuclear Tripwire. The nuclear tripwire strategy is designed to defend against and deter against a perceived conventionally superior adversary primarily through the (threatened) use of tactical nuclear weapons. Like the *unconditional guarantee* and *conventional barrier* strategies, the nuclear tripwire strategy also features a vaguer and more expansive security guarantee. The nuclear tripwire strategy also features nuclear weapons designed for battlefield use to offset the perceived conventional superiority of the adversary. These include nuclear-armed short-range ballistic missiles, nuclear artillery, surface-to-surface rockets, and atomic demolition charges. The forward deployed nuclear weapons under the nuclear tripwire strategy differ from other forms of nuclear weapons in that their envisioned use is against adversary troop concentrations and military installations. The nuclear weapons are embedded within frontline military units, are oriented against enemy troops, are at a relatively high state of readiness, and are sometimes even integrated into the military structures of the host nation. The nuclear tripwire strategy typically features a relatively light land-based tripwire deployment and the troops deployed as part of the nuclear tripwire strategy may simply be those necessary to operate or shield the forward-deployed tactical nuclear weapons. These forces are comprised mostly of army units and are located near possible points of adversary attack.

Nuclear Barrier.[679] The nuclear barrier strategy represents the most intensive of the core strategies. Its legal commitment consists of a more expansive security guarantee. Like the nuclear tripwire strategy, the nuclear barrier strategy involves the forward deployment of battlefield tactical nuclear weapons, such as artillery, short-range ballistic missiles, and atomic demolition charges. In addition, the nuclear barrier strategy also features the significant deployment of conventional land forces to deter and defend against adversary aggression. These forces typically consist of army infantry and mechanized units garrisoned and deployed close to the adversary's anticipated avenues of attack. The distinction between the "significant" conventional deployment of the nuclear barrier strategy and the "light" tripwire conventional deployment of the nuclear tripwire strategy is not always clear cut and may depend on the strategic context. For example, the U.S. extended deterrence strategies to both Germany and South Korea during the Cold War represent examples of nuclear barrier commitments, despite the significant difference in troop levels (roughly 200,000 U.S. army troops in West Germany compared to 30,000 to 50,000 in South Korea). In each case, the forward deployment of troops was intended to slow and complicate a potential adversary offensive and were sized relative to the anticipated offensive strength of the adversary. The differences between the nuclear barrier and the nuclear tripwire strategies may be further seen in comparing the strategies extended to junior allies confronting roughly the same security environment. Like

[679] The distinction in the typology between the *nuclear tripwire* and *nuclear barrier* strategies is admittedly the least obvious. However, as I demonstrate in the figures shown in the appendix, an examination of the forward deployments of these respective strategies illustrates the way in which their features are consistently internal and clearly differentiable between one another.

West Germany, Italy and Greece were formally NATO allies bordering the Soviet Union and bracing for a potential Soviet invasion. However, while the U.S. deployed nearly a quarter of a million troops to Germany, Italy and Greece each hosted only a few thousand U.S. troops at most (despite U.S. deployment of tactical nuclear weapons to their territories).

In addition to the five core extended deterrence strategies outlined above, I also identify a sixth auxiliary strategy which may be affixed to most of the core strategies described above: *Power Projection*.[680] The power projection strategy typically consists of some significant forward deployment of conventional naval and air assets. These forces are intended primarily to secure control of the commons, to launch offensive operations against adversaries. They are not configured to deter or defend against potential aggression against the host nation (though they may sometimes still generate deterrent effects). Naval and air assets might include aircraft carrier strike groups, strategic long-range bombers, airborne forces, amphibious assault forces, and strategic airlift. The power projection strategy may also feature forward deployed nuclear forces. These nuclear forces are configured for use not primarily against enemy forces on the battlefield but rather against enemy industrial facilities, population centers, or military installations. Power projection nuclear forces often consist of medium- or intermediate-range ballistic missiles,

[680] Other types of military force, including ground forces deployed as part of one of the core extended deterrence strategies identified above may also provide some power projection capabilities. However, those forces suffer a comparative disadvantage in providing power projection capabilities and are, instead, primarily deployed according to deterrent and defensive logics.

gravity bombs assigned to long-range bombers, anti-aircraft missiles, or depth charges for the prosecution of anti-submarine warfare campaigns.

The forward deployment of power projection nuclear forces is more likely when the senior ally lacks robust strategic nuclear forces capable of targeting the homeland of the adversary. The garrison and forward deployment of these forces is guided more by concerns of logistics, power projection, and regional deterrence, rather than the immediate defense of the host country. The forces are on comparatively lower alert levels. The presence of a power projection strategy may generate immediate deterrent or defensive effects for the hosting junior ally, but forces deployed as part of a power projection strategy typically constitute a more indirect regional deterrence capability. Naval forces may patrol away from the host country's shores and air forces can be deployed to defend distant skies. Ground forces may be characterized as power projection but only when the record clearly demonstrates that their forward deployment was intended not to defend the host country but, rather, to shore up the defense of other allies in the region.

A comparison of two cases helps to illustrate how the differences between strategies go beyond surface elements such as the size of forward deployments or the presence of nuclear weapons. In 1961, both Italy and the Philippines enjoyed defense treaties with the United States and hosted roughly 10,000 U.S. soldiers on their territories, including American nuclear weapons. According to recent coding conventions, these two states would be identified as having identical extended

deterrence signals.[681] However, these surface similarities hide significant differences in the composition of those troops, the weapons systems with which they were equipped, the missions they were assigned, and the rules of engagement under which they operated. Just over 7 percent of American troops based in the Philippines that year were assigned to the Army, with over 90 percent of U.S. forces coming from the Air Force and the Navy.[682] The nuclear weapons assigned to U.S. forces in the Philippines consisted of gravity bombs to be delivered by the B-57B bombers based at Clark Base.[683] Under the Single Integrated Operational Plan (SIOP), the U.S. nuclear war plan, these bombs were assigned urban-industrial targets on the Chinese mainland.[684] These target assignments were specified in advance at the highest levels of political and military leadership, and nuclear weapons were exclusively available to the U.S. military, not to its Filipino counterparts.

In the same year in Italy, by contrast, over half of the U.S. forces were drawn from the Army, with significantly smaller contributions from the Navy and the Air Force. Similarly, while the bulk of nuclear weapons emplaced in the Philippines were longer-range systems intended for use against targets in mainland China, the nuclear weapons deployed to Italy consisted of nuclear-armed artillery, ground-launched cruise missiles, short-range ballistic missiles, and atomic demolitions, all intended

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[681] Data on nuclear deployments from Fuhrmann and Sechser (2014). Data on conventional deployments from Kane (2006), McManus and Nieman (2019), and U.S. Defense Department data.
[682] "Worldwide Manpower Distribution by Geographical Area (M05)," *U.S. Department of Defense, Defense Manpower Data Center*, https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp.
[683] Jacob Van Staaveren, "Air Operations in the Taiwan Crisis of 1958," Air Force Historical Division Liaison Office, November 1962, Secret, p. 16.
[684] Hans M. Kristensen, Robert S. Norris, and Matthew G. McKenzie, *Chinese Nuclear Forces and U.S. Nuclear War Planning,* (Washington, D.C.: Natural Resources Defense Council, 2006), p. 134.

for battlefield use against Soviet troops.[685] Security concerns involving the Philippines did not consider overt Chinese aggression but, rather, Communist infiltration of Philippine domestic politics.[686] Further, unlike U.S. nuclear weapons in the Philippines, the command and control arrangements applied to the tactical nuclear weapons based in Italy were more flexible. For one, the United States implemented a "program of cooperation" with Italy, through which Italian forces were certified for the operation of nuclear-armed systems. The plans governing the envisioned use of tactical nuclear forces in Italy was "…not a target list, rather it [was] the number of nuclear weapons deemed necessary for a specific purpose, e.g. halt an attack by a division-size force over hilly terrain, by a tactical commander."[687] Finally, the alert levels of the nuclear forces in Italy were generally much higher than those in the Philippines, with nuclear-capable aircraft readiness levels, for instance, measured in hours and even minutes.

Having reviewed the features of the extended deterrence strategies in the typology, I now move to derive a set of competing hypotheses connecting elements of those strategies to the strategic goals of deterrence, assurance, and restraint.

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[685] Italy also briefly hosted some power projection nuclear capabilities, including medium-range Jupiter missiles operated by Italian Air Force crews, though these forces were deployed for fewer than five years.

[686] I thank Tom Christensen for this point.

[687] Thomas B. Cochran, William M. Arkin, and Milton M. Hoenig, *Nuclear Weapons Databook, Volume 1: U.S. Nuclear Forces and Capabilities* (Cambridge, MA: Natural Resources Defense Council, 1984), p. 87.

Deterrence

The first goal of any extended deterrence strategy is to deter the adversary from attacking the junior ally.[688] As noted earlier, if deterrence is hard, extended deterrence is harder.[689] States provide signals related to their extended deterrence commitments in order to enhance both the capability and credibility of their promises in the hopes of dissuading a potential aggressor from targeting the junior ally.

First, the deterrent power of extended deterrence strategies may vary with their intensity. In particular, strategies that involve stronger treaty commitments (all those except for the *conditional alliance*) and the forward deployment of more troops (such as the *conventional barrier*, *nuclear tripwire*, and *nuclear barrier* strategies) should generate greater deterrent power. The relationship between the resource intensity of the strategy and its deterrent effects can be understood in three ways. First, a more intensive strategy can enhance the ability to resist aggression against the junior ally by directly enhancing deterrence by denial and deterrence by punishment capabilities.[690] Second, more intense strategies, by virtue of their high costs, can communicate the interests of the senior ally in honoring its commitments.[691] Third, more intense strategies that feature forward deployments

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[688] For an overview of the general concept of deterrence, see Paul K. Huth, "Deterrence and International Conflict: Empirical Findings and Theoretical Debates," *Annual Review of Political Science*, Vol. 2, No. 1 (1999), pp. 25-48.

[689] Thomas C. Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966); Paul K. Huth, *Extended Deterrence and the Prevention of War* (New Haven, CT: Yale University Press, 1988); James D. Morrow, "Alliances, Credibility, and Peacetime Costs," *Journal of Conflict Resolution*, Vol. 38, No. 2 (1994), pp. 270-297; and

[690] Glenn H. Snyder, "Deterrence and Power," *Journal of Conflict Resolution*, Vol. 4, No. 2 (1960), pp. 163-178.

[691] James D. Fearon, "Signaling Foreign Policy Interests: Tying Hands versus Sinking Costs," *The Journal of Conflict Resolution*, Vol. 41, No. 1 (1997), pp. 68-90; and Kai Quek, "Four Costly Signaling Mechanisms," *American Political Science Review*, Vol. 115, No. 2 (2021), pp. 537-549.

increase the likelihood of the senior ally's troops becoming engaged if conflict were to erupt, enhancing the *ex post* likelihood of a senior ally participating in the conflict.[692] This motivates the first hypothesis:

> *H_{D1} Deterrence: Junior allies with more intensive strategies (such as the* nuclear barrier *strategy) will be targeted less in military disputes than states with no strategy or less intensive strategies (such as the* conditional alliance).

However, scholars have also recognized how attempts to reduce the probability of conflict through deterrence may inadvertently spur conflict by igniting security dilemma dynamics.[693] In this way, adversaries may view more intense strategies as more threatening. These higher adversary threat perceptions can, in turn, encourage the adversary to increase its own military capacity and to adopt preemptive strategies. The very forward stationing of troops can also increase the likelihood of accidental interaction between opposing forces in ways which create more opportunities for escalation to higher-intensity conflict.[694] The extension of more intensive strategies might also encourage junior allies to reduce their own military capabilities in ways that embolden the adversary.[695] This motivates the following hypothesis relating extended deterrence strategies to the junior ally being targeted in more military disputes.

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[692] Thomas Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 2008), p. 112.
[693] Robert Jervis, "Cooperation Under the Security Dilemma," *World Politics*, Vol. 30, No. 2 (1978), pp. 167-214.
[694] See, for example, Dale C. Copeland, *The Origins of Major War* (Ithaca, N.Y.: Cornell University Press, 2001), pp. 35-43.
[695] Carla Martinez Machain and T. Clifton Morgan, "The Effect of US Troop Deployment on Host States' Foreign Policy," *Armed Forces & Society*, Vol. 39, No. 1 (2013), pp. 102-123.

> *H_{D2} Security Dilemma: Junior allies with more intensive strategies (such as the* nuclear barrier *strategy) will be targeted* more *in military disputes than states with no strategy or less intensive strategies (such as the* conditional alliance).

Finally, the strategies may have differential effects based on the particular features of their forward deployments. Scholars have observed that not all forms of state power are equally threatening.[696] In particular, offensive military capability can be particularly menacing.[697] In this respect, the most potentially threatening forward deployments would be large ground forces, which can claim and hold territory, and long-range strike naval and air platforms, which can threaten targets deep in the adversary's homeland.[698] These types of forward deployments are present in the *conventional barrier*, *nuclear barrier*, and power *projection strategies*. By contrast, ground-based tactical nuclear weapons may be viewed as less threatening given their low mobility and inability to capture or hold territory.[699] Indeed, the kinds of forward deployed nuclear weapons featured in both the *nuclear tripwire* and *nuclear barrier* strategies, such as nuclear artillery, short-range ballistic missiles, and atomic demolition munitions, are notable for their lack of mobility and high firepower, features which scholars have typically associated with defensive armaments.[700] This

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[696] Stephen M. Walt, "Alliance Formation and the Balance of World Power," *International Security*, Vol. 9, No. 4 (Spring, 1985), pp. 3-43.
[697] Robert Jervis, "Cooperation Under the Security Dilemma," *World Politics*, Vol. 30, No. 2 (1978), pp. 167-214.
[698] Forward deploying long-range strike options might further enhance their promptness, survivability, and signaling effects.
[699] For relevant theory and empirical evidence, see Matthew Fuhrmann and Todd S. Sechser, *Nuclear Weapons and Coercive Diplomacy* (Cambridge, U.K.: Cambridge University Press, 2017).
[700] Charles L. Glaser and Chaim Kaufmann, "What is the Offense-Defense Balance and Can We Measure it?," *International Security*, Vol. 22, No. 4 (Spring 1998), pp. 44-82.

motivates a third hypothesis relating only specific kinds of military capabilities to an increase in the junior ally being targeted in military disputes:

> *H_{D3} Offensive Threat: Junior allies with strategies featuring forward deployments of large ground forces or long-range strike platforms will be targeted more in military disputes than states with no strategy or strategies without large ground forces or long-range strike platforms.*

Assurance

In addition to deterring the adversary, senior allies attempt to assure the junior ally of the credibility of their security guarantees.[701] Much of the literature has implicitly assumed a symmetry in the senior ally's ability to deter and its ability to assure. However, the adversary and the junior ally may have divergent perceptions. Assuring the junior ally does not automatically proceed for deterring the adversary.

I measure assurance by observing how extended deterrence strategies affect the junior ally's likelihood of pursuing nuclear weapons. We might expect that extended deterrence strategies should dampen the junior ally's incentives for acquiring nuclear weapons. Perceived security threats are often strong drivers of nuclear proliferation and scholars have found evidence relating interstate alliances and forward nuclear deployments to a reduced likelihood that a state will pursue nuclear weapons.[702] A senior ally which makes a stronger extended deterrence

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[701] Brian Blankenship, *Promises Under Pressure: Reassurance and Burden-Sharing in Asymmetric Alliances*, Ph.D. dissertation, Columbia University, 2018.
[702] Philipp C. Bleek and Eric B. Lorber, "Security Guarantees and Allied Nuclear Proliferation," *Journal of Conflict Resolution*, Vol. 58, No. 3 (2014), pp. 429-454; and Dan Reiter, "Security Commitments and Nuclear Proliferation," *Foreign Policy Analysis*, Vol. 10, No. 1 (2014), pp. 61-80.

commitment may also enjoy more leverage over the junior ally, helping it prevent junior ally proliferation.[703] The strength of the senior ally's extended deterrence commitment, as determined by the unconditional nature of its treaty obligations and the size of its forward military deployments, should affect the likelihood of the junior ally pursuing nuclear weapons. This motivates the first hypothesis relating extended deterrence practices to assurance:

> *H_{A1} Reassured Nonproliferation: Junior allies with extended deterrence strategies, especially those involving the forward deployment of senior ally troops, will be less likely to pursue nuclear weapons.*

The provision of an extended deterrence strategy could, however, also increase the likelihood of the junior ally pursuing nuclear weapons. Narang has shown how potential proliferators may pursue the bomb behind the protection of a major power.[704] Similarly, Monteiro and Debs demonstrate how weak and insecure states may be more likely to pursue the bomb if they are shielded from preventive strikes by a senior ally.[705] Lanoszka has demonstrated how the mere presence of an extended deterrence commitment is not always sufficient to quell a state's proliferation motives. Rather, it is the junior ally's beliefs about the future credibility of those commitments,

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[703] Nicholas L. Miller, "The Secret Success of Nonproliferation Sanctions," *International Organization*, Vol. 68, No. 4 (Fall 2014), pp. 913-944; and Or Rabinowitz and Nicholas L. Miller, "Keeping the Bombs in the Basement: U.S. Nonproliferation Policy toward Israel, South Africa, and Pakistan," *International Security*, Vol. 40, No. 1 (Summer 2015), pp. 47-86.
[704] Vipin Narang, "Strategies of Nuclear Proliferation: How States Pursue the Bomb," *International Security*, Vol. 41, No. 3 (January 2017), pp. 110-150.
[705] Nuno P. Monteiro and Alexandre Debs, "The Strategic Logic of Nuclear Proliferation," *International Security*, Vol. 39, No. 2 (Fall 2014), p. 10.

which is often inferred by observing changes in the intensity of the senior ally's commitment.[706] Together, these observations motivate the second hypothesis relating extended deterrence practices to assurance:

> *H_{A2} Sheltered Pursuit: Junior allies with extended deterrence strategies, especially those involving the forward deployment of senior ally troops, will be* more *likely to pursue nuclear weapons.*

Restraint

Finally, the senior ally may attempt to restrain the junior ally from going against the senior ally's preferences. The dependence of the junior ally on the senior ally's security commitments may increase the senior ally's leverage on the junior ally. In particular, the senior ally often attempts to prevent the junior ally from initiating conflict with an adversary.[707] The extended deterrence strategies examined here are typically defensive in nature and the senior ally would prefer to avoid a costly war with the adversary. However, a junior ally may initiate crises or conflicts against the senior ally's wishes.[708] This is particularly true for revisionist junior allies with

[706] Alexander Lanoszka, *Atomic Assurance: The Alliance Politics of Nuclear Proliferation* (Ithaca, N.Y.: Cornell University Press, 2018).
[707] Jeremy Pressman, *Warring Friends: Alliance Restraint in International Politics* (Ithaca, N.Y.: Cornell University Press, 2008). For more on assuring states generally, including non-allies, see Jeffrey W. Knopf, "Varieties of Assurance," *Journal of Strategic Studies*, Vol. 35, No. 3 (2012), pp. 375-399.
[708] For a review of some of these arguments and empirical tests of U.S. alliances, see Michael Beckley, "The Myth of Entangling Alliances: Reassessing the Security Risks of U.S. Defense Pacts," *International Security*, Vol. 39, No. 4 (2015), pp. 7-48.

ongoing territorial disputes.[709] Here I examine the likelihood of a junior ally initiating a crisis or conflict with the adversary under each of the strategies.

Differences in the treaty obligations encompassed by each of the extended deterrence strategies may drive different restraint dynamics. In particular, we might expect that the contingent nature of the *conditional alliance* would provide the senior ally with more control over the junior ally than other extended deterrence strategies, each of which comes with an unconditional guarantee.[710] This motivates the first restraint hypothesis:

> *H_{R1} Conditional Leverage: Junior allies with a* conditional alliance *will be less likely to initiate military disputes than states without a* conditional alliance.

Beyond the effects of the treaty commitment, we might expect that strategies which involve the forward deployment of significant military forces on the territory of the junior ally might make it easier to influence and restrain the junior ally. The forward stationing of troops can be a sign that the junior ally faces a larger security threat or that it is more dependent on the senior ally for its own security. The senior

[709] Victor Cha, *Powerplay: The Origins of the American Alliance System in Asia* (Princeton, N.J.: Princeton University Press, 2016).
[710] Brett V Benson, Patrick R Bentley, and James Lee Ray, "Ally provocateur: Why allies do not always behave," Journal of Peace Research, Vol. 50, No. 1 (2013), pp. 47-58; and Brett V. Benson, "Unpacking Alliances: Deterrent and Compellent Alliances and Their Relationship with Conflict, 1816-2000," *Journal of Politics*, Vol. 73, No. 4 (2011), pp. 1111-1127.

ally can use this dependence and the junior ally's fears of abandonment to restrain the junior ally.[711] This motivates the following second restraint hypothesis:

> *H_{R2} Forward Deployed Influence: Junior allies with strategies that involve greater forward deployed presence will initiate military disputes less frequently than states with no strategy or strategies with little forward deployed presence.*

Finally, a strong commitment by the senior ally may, perversely, encourage the junior ally to engage more recklessly and initiate conflicts. Recent research has shown how some alliance structures can encourage a kind of moral hazard in which the junior ally does not fully internalize the costs of conflict and is, therefore, more prone to initiate them.[712] According to this logic, the stronger the senior ally's commitment, the greater the risks of moral hazard. This motivates a final restraint hypothesis:

> *H_{R3} Moral Hazard: Junior allies with more intensive strategies will initiate more military disputes than states with no strategy or less intensive strategies.*

Research Design

Here, I investigate strategy effects on three strategic goals typically held by senior allies practicing extended deterrence: deterrence, assurance, and restraint.

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[711] Glenn H. Snyder, "The Security Dilemma in Alliance Politics," *World Politics*, Vol. 36, No. 4 (1984), pp. 461-495; and Brian Blankenship, *Promises Under Pressure: Reassurance and Burden-Sharing in Asymmetric Alliances*, Ph.D. dissertation, Columbia University, 2018.

[712] Brett V. Benson, Adam Meirowitz, and Kristopher W. Ramsay, "Inducing Deterrence through Moral Hazard in Alliance Contracts," *Journal of Conflict Resolution*, Vol. 58, No. 2 (2014), pp. 307-335; and Neil Narang and Rupal N. Mehta, "The Unforeseen Consequences of Extended Deterrence: Moral Hazard in a Nuclear Client State," *Journal of Conflict Resolution*, Vol. 63, No. 1 (2019), pp. 218-250.

For each strategic goal, I replicate a prominent recent piece of scholarly work but replacing the main independent variables of study with new data identifying the presence of the extended deterrence strategies described in the typology. For each state-year observation, I code, through a series of dummy variables, whether or not the state received one of the five core strategies (conditional alliance, unconditional guarantee, conventional barrier, nuclear tripwire, or nuclear barrier strategies) and the auxiliary *power projection* strategy.[713] Replicating recent prominent work brings several advantages. Here I review the selected works, summarize the data and methods, and discuss their findings and implications.

To study the effect of each strategy on deterrence dynamics, I examine the association of each strategy with patterns of conflict involving the junior ally. The core goal of extended deterrence is to deter and defeat aggression against the junior ally so success on this geostrategic goal means reducing the likelihood of the junior ally being targeted in a military dispute. To examine this, I begin with the empirical analysis of extended deterrence by Johnson, Leeds, and Wu.[714] Their investigation examines general extended deterrence by looking at the ability of formal defense pacts to affect the incidence of a state being targeted in a military dispute. Johnson, Leeds, and Wu examine the likelihood of a militarized interstate dispute being

[713] These replications were conducted using a subset of codings identified in the pattern-matching exercise from earlier in the work. Subsequent to the statistical analysis, the set of cases used for the pattern-matching was expanded. Future research will re-run the analyses presented in this chapter using the new, extended set of cases to ensure that the results are not specific to the subset of cases used here. For the set of cases used here, refer to the appendix.

[714] Jesse C. Johnson, Brett Ashley Leeds, and Ahra Wu, "Capability, Credibility, and Extended General Deterrence," *International Interactions*, Vol. 41, No. 2 (2015), pp. 309-336

initiated within all directed state dyads from 1816 to 2000.[715] They also include several important controls accounting for whether the challenger enjoys alliances relevant for attacking a potential target,[716] a measure of the geographic distance between challengers and targets, similarity in foreign policy between the challenger and target as measured by their shared S-score,[717] joint democracy according to the Polity2 variable,[718] and first- through third-order time measures to adjust for temporal dependence.[719]

To investigate the ability of strategies to assure junior allies, I determine their relationship with junior ally nuclear proliferation behavior. Though states may pursue nuclear weapons for domestic political or normative reasons, scholars have long recognized security factors as particularly strong drivers of the demand side of proliferation.[720] Indeed, past scholarship has shown both the relationship between

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[715] The authors note that "Instances in which the challenger threatened, displayed, or used force against the target are all coded as instances of dispute initiation, and in turn, failures of general deterrence" and, further, that "We do not code instances of dispute joining as instances of dispute initiation. Our main analysis includes ongoing dispute years with the dependent variable coded zero, but we perform a robustness check in which we drop ongoing dispute years. Dropping ongoing dispute years does not affect our interpretation of results" (318).

[716] Jesse C. Johnson and Brett Ashley Leeds, "Defense Pacts: A Prescription for Peace?" *Foreign Policy Analysis*, Vol. 7, No. 1 (2011), pp. 45-65.

[717] Curtis S. Signorino and Jeffrey M. Ritter, "Tau-b or Not Tau-b: Measuring the Similarity of Foreign Policy Positions," *International Studies Quarterly*, Vol. 43, No. 1 (1999), pp. 115-144.

[718] They draw from the Polity2 variable in Monty G. Marshall, Keith Jaggers, and Ted Robert Gurr, *Polity IV Project: Dataset Users' Manual* (College Park, MD: University of Maryland, 2010).

[719] David B. Carter and Curtis S. Signorino, "Back to the Future: Modeling Time Dependence in Binary Data," *Political Analysis*, Vol. 18, No. 3 (2010), pp. 271-292.

[720] For more on the drivers of nuclear proliferation, see Scott D. Sagan, "Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb," *International Security*, Vol. 21, No. 3 (Winter 1996-1997), pp. 54-86; and Scott D. Sagan, "The Causes of Nuclear Weapons Proliferation," *Annual Review of Political Science*, Vol. 14 (2011), pp. 225-244. For evidence of the strength of security drivers, in particular of security commitments from allies, see Avery Goldstein, *Deterrence and Security in the 21st Century: China, Britain, France, and the Enduring Legacy of the Nuclear Proliferation* (Stanford, CA: Stanford University Press, 2000), 17-26; Nuno P. Monteiro and Alexandre Debs, "The Strategic Logic of Nuclear Proliferation," *International Security*, Vol. 39, No. 2 (Fall 2014), pp. 7-51; Dan Reiter, "Security Commitments and Nuclear Proliferation," *Foreign Policy*

the security commitments offered to a junior ally and the junior ally's likelihood of pursuing nuclear weapons.[721] If junior allies feel confident in the extended deterrence commitments offered by their senior ally, they will be far less likely to pursue nuclear weapons. This is because a reassured junior ally will see both fewer benefits to an independent nuclear capability and higher potential costs to losing the senior ally's support if it seeks the bomb. By contrast, if an anxious junior ally comes to doubt the credibility of its senior ally's commitments, it will be more likely to pursue nuclear weapons both because it will more likely perceive the bomb as a means of assuring its own security and because the perceived costs of abandonment by an unreliable senior ally will appear lower.

To assess the relationship between each strategy and the likelihood of a junior ally pursuing nuclear weapons, I begin with Jo and Gartzke's investigation of the correlates of proliferation.[722] Jo and Gartzke model proliferation dynamics by identifying, in each year, whether a state explored, pursued, or acquired/possessed nuclear weapons. They include a suite of controls, including for nuclear weapons production capacity, economic capacity, time measures for global knowledge diffusion, local conventional threats, nuclear threats, nuclear defense pacts, diplomatic

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Analysis, Vol. 10, No. 1 (2014), pp. 61-80; Philipp C. Bleek and Eric B. Lorber, "Security Guarantees and Allied Nuclear Proliferation," *Journal of Conflict Resolution*, Vol. 58, No. 3 (2014), pp. 429-454; Nicholas L. Miller, *Stopping the Bomb: The Sources and Effectiveness of U.S. Nonproliferation Policy* (Ithaca, N.Y.: Cornell University Press, 2018); and Alexander Lanoszka, *Atomic Assurance: The Alliance Politics of Nuclear Proliferation* (Ithaca, N.Y.: Cornell University Press, 2018).

[721] Nicholas L. Miller, *Stopping the Bomb: The Sources and Effectiveness of U.S. Nonproliferation Policy* (Ithaca, N.Y.: Cornell University Press, 2018); and Alexander Lanoszka, *Atomic Assurance: The Alliance Politics of Nuclear Proliferation* (Ithaca, N.Y.: Cornell University Press, 2018).

[722] Dong-Joon Jo and Erik Gartzke, "Determinants of Nuclear Weapon Proliferation," Journal of Conflict Resolution, Vol. 51, No. 1 (2007), pp. 167-194.

isolation, domestic unrest, regime type, measures of the international nonproliferation regime, and regional and major power status.[723] As a robustness test, I replicate the main Jo and Gartzke specifications but instead use coding choices by Bleek and by Singh and Way.[724] I also examine the impact of extended deterrence strategies on the junior's ally defense burden. Narang analyzes how the degree of institutionalization in an alliance affects the likelihood of a client state to either pursue nuclear weapons or to adjust its overall military spending.[725]

Finally, I assess each strategy's ability to restrain junior allies by assessing the propensity of junior allies which enjoy extended deterrence commitments to initiate military conflicts with other states. Senior allies providing extended deterrence commitments are often concerned that they will be "entrapped" in an unwanted conflict between the junior ally and its adversary. The senior ally seeks to avoid this both by deterring the adversary from initiating conflict and by restraining the junior ally from doing so.[726] Here, I turn to the analysis by Johnson and Leeds which examines the relationship between a state's membership in defensive alliances and the state's likelihood of initiating military disputes. As with previous work,

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[723] These variables are discussed in detail at Dong-Joon Jo and Erik Gartzke, "Determinants of Nuclear Weapon Proliferation," Journal of Conflict Resolution, Vol. 51, No. 1 (2007), pp. 172-175.
[724] Philipp C. Bleek, *When Did (and Didn't) States Proliferate? Chronicling the Spread of Nuclear Weapons*, (Cambridge, MA: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School and the James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies, Monterey, CA., June 2017); Sonali Singh and Christopher R. Way, "The Correlates of Nuclear Proliferation: A Quantitative Test," *Journal of Conflict Resolution*, Vol. 48, No. 6 (2004), pp. 859-885.
[725] Neil Narang, "When Nuclear Umbrellas Work: Signaling Credibility in Security Commitments through Alliance Design," working paper.
[726] See, for example, Songying Fang, Jesse C. Johnson and Brett Ashley Leeds, "To Concede or to Resist? The Restraining Effect of Military Alliances," *International Organization*, Vol. 68, No. 4 (Fall 2014), pp. 775-809; and Brett V. Benson, *Constructing International Security Alliances, Deterrence, and Moral Hazard* (Cambridge, U.K.: Cambridge University Press, 2012).

Johnson and Leeds utilize a directed-dyad approach to identify the state responsible for initiating a dispute. They examine directed state dyads from 1816 to 2000 and use the initiation of a MID as the outcome variable. They further control for relative capacity between the two states in the dyad, the geographic distance between capitals, foreign policy similarity using the S-score, and joint democracy using the Polity2 measure.[727] Given the binary outcome measure, they utilize a probit model and further control for temporal dependence.

Table 6-3 summarizes this empirical strategy by identifying, for each senior ally strategic goal (deterrence, assurance, restraint), a description of the goal, the measure by which the goal is operationalized, and the replication study on which it builds.

Table 6-3: Research Design

	Deterrence	**Assurance**	**Restraint**
Description	Deter and defeat aggression against junior ally	Assure junior ally of credibility of commitments	Restrain junior ally from initiating unwanted conflict
Operationalization	Junior ally targeted in MID	Junior ally nuclear pursuit	Junior ally initiates MID
Replication Study	Johnson, Leeds & Wu 2015	Jo & Gartzke 2007	Johnson & Leeds 2011

Results: Tradeoffs in Strategy Selection

For both the deterrence tests replicating the Johnson, Leeds, and Wu analysis and the restraint tests replicating the Johnson and Leeds analysis, I run three separate models. The first model is a stripped-down test including only the binary

[727] See earlier notes for relevant citations for these control variables.

variables measuring the presence of extended deterrence strategies. The second model adds temporal controls. The third model is a full specification encompassing all relevant control variables. Estimates are reported as odds ratios. For the assurance tests, replicating the Jo and Gartzke analysis, the structure of the data prevents a specification with only dummy variables of the kind used to measure the presence of the extended deterrence strategies. However, for purposes of space, I only report the results from the full specifications.

First, I visually depict in figure 6-1 below the odds ratios derived from the coefficients of each of the full models testing deterrence, assurance, and restraint. The odds ratio reports the odds that a given outcome will occur relative to the reference group (in this case, no extended deterrence commitment).[728] For instance, an odds ratio of 0.5 indicates that a given outcome is half as likely, while an odds ratio of 2.0 indicates that an outcome is twice as likely. The figure shows the point estimates along with the 95% confidence intervals. The figure motivates several conclusions. First, there is a significant relationship between the presence of extended deterrence strategies and patterns of both interstate conflict and nuclear proliferation. However, not all the strategies are associated with the same effects in either magnitude or direction. I report the results from the main specifications of each replication.

[728] The Johnson, Leeds, and Wu analysis is restricted to states already enjoying an alliance. In this instance, the reference group is a state enjoying a non-superpower alliance.

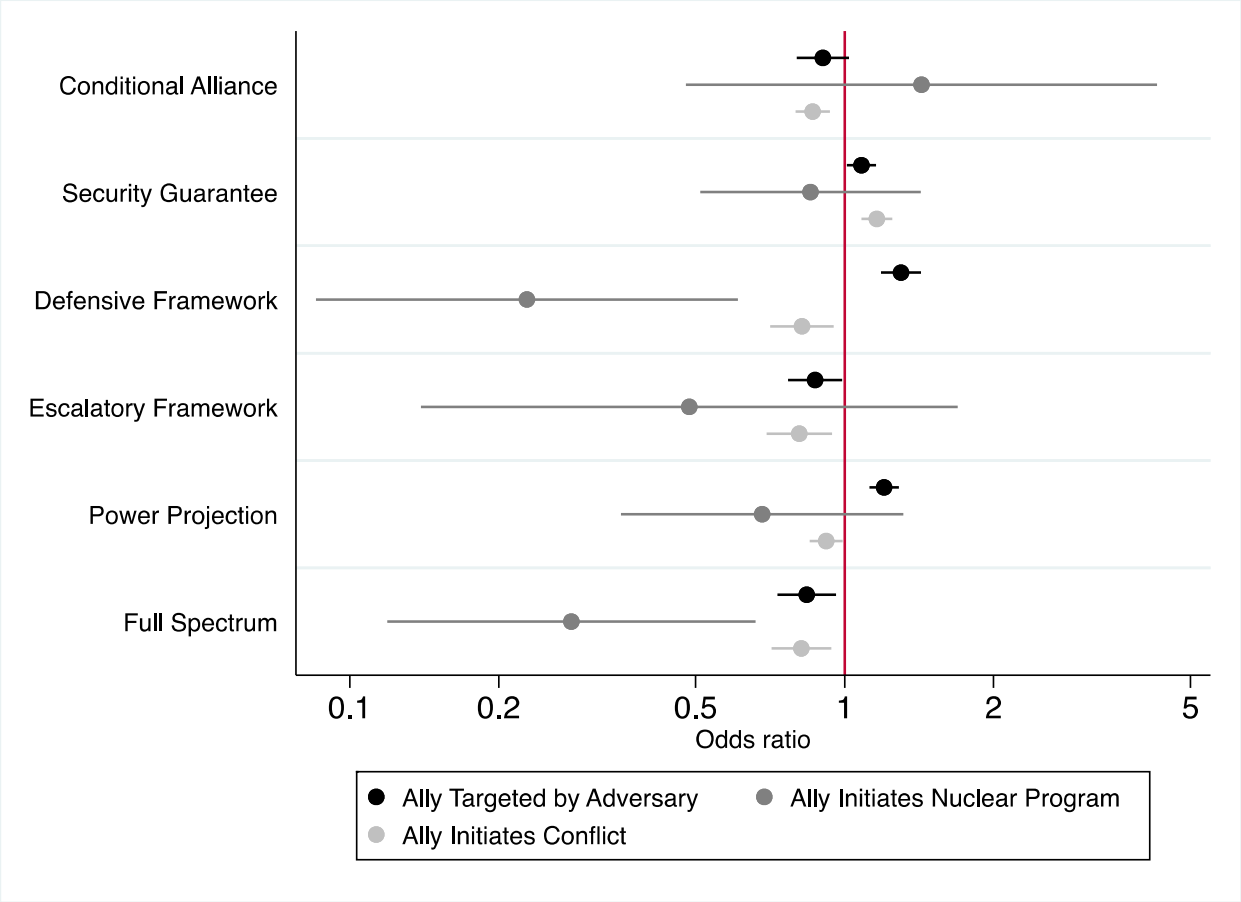

Figure 6-1: Association between Strategies and Strategic Goals

Estimated odds ratios and 95 percent confidence intervals relating each extended deterrence strategy to strategic outcomes. At least two key trends emerge. First, there is a significant relationship between the presence of extended deterrence strategies and patterns of both interstate conflict and nuclear proliferation. Second, however, not all of the strategies are associated with the same effects in either magnitude or direction. For instance, the results for the power projection strategy suggest that this strategy is associated with a greater likelihood of the junior ally being targeted by an adversary in a MID, but lower likelihoods of the junior ally either initiating a MID or an independent nuclear weapons program.

To better highlight the comparative advantages and disadvantages of each strategy, I summarize the findings in figure 6-2. For each extended deterrence strategy, I identify the odds ratio associated with the relevant operationalization in the replications. I also identify, based on the odds ratio, whether the strategy succeeds (green shading) or fails (orange shading) in achieving that goal, with the strength of success or failure indicated by the strength of the shading. Odds ratios greater than 1 indicate an increased likelihood while those less than 1 indicate a decreased likelihood.

	Deterrence (Odds Junior Ally Targeted in MID)	**Assurance** (Odds Junior Ally Initiates Nuke Pgm.)	**Restraint** (Odds Junior Ally Initiates MID)
Conditional Alliance	*0.90**	*1.43*	*0.86****
Unconditional Guarantee	*1.08***	*0.85*	*1.16****
Conventional Barrier	*1.30****	*0.23****	*0.82****
Nuclear Tripwire	*0.87***	*0.49*	*0.81****
Power Projection	*1.20****	*0.68*	*0.92***
Nuclear Barrier	*0.84***	*0.28****	*0.82****

Figure 6-2: Strategy Effects by Strategic Goal

*** p<0.01, ** p<0.05, * p<0.1

Estimated odds ratios between each extended deterrence strategy and senior ally strategic goals of deterrence, assurance, and restraint. Cells identify, based on the odds ratio, whether the strategy succeeds (green shading) or fails (orange shading) in achieving that goal, with the strength of success or failure indicated by the strength of the shading. Odds ratios greater than 1 indicate an increased likelihood while those less than 1 indicate a decreased likelihood.

Several trends emerge in the ability of each extended deterrence strategy to accomplish the three strategic goals of the senior ally. First, there appears to be a relatively strong relationship between the type of forward deployment and deterrence goals. The *conditional alliance* and *unconditional guarantee*, the two strategies which feature no forward deployment, appear to have a relatively weak relationship with the likelihood of the junior ally being targeted in a military dispute. However, the *conventional barrier* and *power projection* strategies, both of which feature the forward deployment of forces without ground-based tactical nuclear weapons, are associated with *higher* rates of military disputes targeting the junior ally. These findings comport with results from O'Mahony et al., who find that the forward deployment of U.S. troops is associated with higher rates of both low- and high-level conflict targeting the host country.[729] The deterrence results for the *power projection* strategy bolster recent findings about the risks of forward deployed naval and air assets.[730] For instance, recent work by Frederick et al. found that the forward deployment of more mobile naval and air assets was viewed as less credible signals than forward deployed ground forces and were associated with lower deterrent power or even *higher* rates of military dispute initiation.[731] Similarly, Gartzke and Lindsay

[729] Angela O'Mahony, Miranda Priebe, Bryan Frederick, Jennifer Kavanagh, Matthew Lane, Trevor Johnston, Thomas S. Szayna, Jakub P. Hlávka, Stephen Watts, and Matthew Povlock, *U.S. Presence and the Incidence of Conflict* (Santa Monica, CA: RAND Corporation, 2018). pp. 46-50.
[730] For a good theoretical discussion of the comparative advantages of different forms of military capabilities, see Jon R. Lindsay and Erik Gartzke, "Politics by many other means: The comparative strategic advantages of operational domains," *Journal of Strategic Studies* (2020).
[731] Bryan Frederick, Stephen Watts, Matthew Lane, Abby Doll, Ashley L. Rhoades, Meagan L. Smith, *Understanding the Deterrent Impact of U.S. Overseas Forces* (Santa Monica, CA: RAND Corporation, 2020), pp. 35-45.

find that "disproportionate investment in sea power is associated … with increased instability in the form of a higher risk of dispute initiation."[732]

By contrast, the *nuclear tripwire* and *nuclear barrier* strategies, each of which feature the forward deployment of ground-based tactical nuclear weapons, are associated with somewhat lower rates of military disputes targeting the junior ally (estimated odds ratios of 0.87 and 0.84, respectively, both statistically significant at the 0.05-level). In this respect, the findings echo those of Narang on the deterrent effects generated by different nuclear postures. Narang identifies three distinct nuclear postures adopted by regional nuclear powers: the catalytic, which features simply recessed nuclear capabilities, the assured retaliation posture, which features secure second-strike capabilities for use following significant damage, and the asymmetric escalation posture, in which states deploy first-use capabilities placed under delegative management structures and intended for use against conventional military targets.[733] Narang finds that only the asymmetric escalation posture is associated with a meaningful decrease in the likelihood of a state being targeted in a military dispute.[734] In many ways, the nuclear features of the *nuclear tripwire* and *nuclear barrier* extended deterrence strategies mirror those of Narang's asymmetric

[732] Erik Gartzke and Jon R. Lindsay, "The Influence of Sea Power on Politics: Domain- and Platform-Specific Attributes of Material Capabilities," *Security Studies*, Vol. 29, No. 4 (2020), pp. 601-636.
[733] Vipin Narang, *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict* (Princeton, N.J.: Princeton University Press, 2014), chapter 2.
[734] Vipin Narang, *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict* (Princeton, N.J.: Princeton University Press, 2014), chapters 9 and 10; and Vipin Narang, "What Does It Take to Deter? Regional Power Nuclear Postures and International Conflict," *The Journal of Conflict Resolution*, Vol. 57, No. 3 (June 2013), pp. 478-508.

escalation posture.[735] Echoing Narang's findings, the results here show that strategies featuring the forward deployment of ground-based tactical nuclear weapons, generate deterrent effects while the forward deployment of either only conventional ground forces appear to invite military disputes.

The results for all strategies are susceptible to selection effects given the strategic behavior that drives the selection of extended deterrence strategies.[736] However, two features of the analysis help to mitigate these concerns in some cases. First, the direction of some of the estimated effects, especially those of the nuclear tripwire and nuclear barrier strategies run counter to the direction predicted by selection effects. That is, the selection effects implied by extended deterrence selection theory imply that these more intensive strategies would appear only when the junior ally is more threatened by an adversary and the likelihood of conflict is high. However, results here indicate that the presence of these strategies is associated with *lower* levels of conflict, suggesting that, if anything, any selection effects are attenuating the deterrent power of these strategies. Similarly, the conventional barrier is shown to be associated with a significant reduction in the likelihood of the junior ally pursuing nuclear weapons. But this strategy is likely to be selected when the junior ally is facing an acute security threat and is, therefore, more likely to pursue nuclear weapons. Here, again, the estimated effect is likely smaller than the actual effect. Second, as discussed earlier in the chapter, different

[735] For more on the attributes of the various extended deterrence strategies, see the discussion in chapter 2.
[736] James Fearon, "Selection Effects and Deterrence," *International Interactions*, Vol. 28, No. 1 (2002), pp. 5-29.

strategies likely imply different tradeoffs. That is, a senior ally may perceive the same strategy as enhancing deterrence or assurance but not both and may select strategies depending on the specific goals associated with each junior ally. This helps to disrupt any uniform selection effects and potentially reduce their influence on the results.

We also see trends related to assurance which largely match theoretical predictions. The conditional alliance, which is the least resource-intensive and most contingent of the strategies, is associated with an increased likelihood of the junior ally exploring or pursuing nuclear weapons, while all other strategies provide estimates of a decreased likelihood of proliferation.[737] The *conventional barrier* and *nuclear barrier* strategies exhibit the strongest relationship with decreased proliferation dynamics. The odds ratios for both these strategies (0.23 for *conventional barrier* and 0.28 for *nuclear barrier*) indicate that states with these strategies are roughly one-quarter as likely to proliferate than states without these strategies.[738] These results appear to confirm recent findings by Lanoszka, who finds that the presence of senior ally conventional troops and the junior ally's beliefs about the future trajectory of that presence is strongly associated with proliferation dynamics in junior allies.[739] This also matches recent work by Blankenship and Lin-

[737] Despite the consistent direction and large magnitude of the point estimates on the odds ratios, the results for some strategies are not sufficiently large to overcome the small sample size associated with studies of proliferation behavior. For the importance of moving beyond mere statistical significance in interpreting results, see Justin H. Gross, "Testing What Matters (If You Must Test at All): A Context-Driven Approach to Substantive and Statistical Significance," *American Journal of Political Science*, Vol. 59, No. 3 (July 2015), pp. 775-788.
[738] Both of these estimates are statistically significant at the 0.01-level.
[739] Alexander Lanoszka, *Atomic Assurance: The Alliance Politics of Nuclear Proliferation* (Ithaca, N.Y.: Cornell University Press, 2018); and Alexander Lanoszka, "Nuclear Proliferation and Nonproliferation among Soviet Allies," *Journal of Global Security Studies*, Vol. 3, No. 2 (2018), pp. 217-233.

Greenberg who draw on elite surveys and interviews with Baltic elites to determine which kinds of signals from the United States are viewed as most assuring. They find that so-called "shield" strategies such as the forward deployment of a U.S. army brigade or a permanent U.S. base produce greater feelings of assurance than other, less intensive measures, such as bomber and fighter patrols, naval deployments off the shore of the junior ally, or the forward stockpiling of supplies.[740]

Finally, the results for restraint show some differential effects. The *unconditional guarantee* strategy is associated with an increased rate of military dispute initiation by the junior ally, while every other strategy is associated with a moderate decrease in junior ally dispute initiation, with estimated odds ratios of between roughly 0.80 and 0.90.[741] These results may be understood given the features of the various strategies. The contingent nature of the *conditional alliance* should provide the senior ally more leverage over the junior ally, which will fear the possibility of losing crucial support in a time of need. The unconditional nature of the *unconditional guarantee*, however, should provide the senior ally less influence over the junior ally. Moreover, all the remaining strategies (*conventional barrier, nuclear tripwire, power projection*, and *nuclear barrier*) involve some forward deployment by the senior ally, which can increase senior ally sway.[742]

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[740] Brian Blankenship and Erik Lin-Greenberg, "Trivial Tripwires?: Military Capabilities and Alliance Reassurance," *Security Studies*, Vol. 31, No. 1 (2022), pp. 92-117.
[741] These estimates are all statistically significant at the 0.01-level, except for the estimate for the *power projection* strategy, which is statistically significant at the 0.05-level.
[742] Nicholas L. Miller, *Stopping the Bomb: The Sources and Effectiveness of U.S. Nonproliferation Policy* (Ithaca, N.Y.: Cornell University Press, 2018), chapter 5.

Immediate Extended Deterrence

The results above analyze patterns of general deterrence. Here I examine patterns of success and failure in immediate extended deterrence. Investigating immediate extended deterrence separately is valuable for several reasons. Scholars have noted that the factors which contribute to general deterrence may not contribute to immediate deterrence. The literature has sometimes argued that the factors which contribute to general deterrence may not contribute to immediate deterrence.[743] Instances of immediate deterrence are also most likely to precede conflicts, making them substantively significant for understanding patterns of conflict onset and escalation.

I begin with two sets of cases of extended deterrence developed by Huth, Gelpi, and Bennett.[744] Because these cases only extend until 1984, I extend them to the present day. Using the MID database, and adapting the original coding rules of Huth, Gelpi, and Bennett, I identify instances of interstate disputes which satisfy the following rules:

1) The target state is the recipient of an extended deterrence commitment as defined within this study;
2) At least one participant in the dispute engages in actions classified as hostility level 3 or higher (e.g. show of force, alert, mobilization, attack, declaration of war, or participation in interstate war); and

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[743] James Fearon, "Selection Effects and Deterrence," *International Interactions*, Vol. 28, No. 1 (2002), pp. 5-29.

[744] Paul K. Huth, "Extended Deterrence and the Outbreak of War," *American Political Science Review* Vol. 82, No. 2 (1988), pp. 423-443; and Paul Huth, Christopher Gelpi, and D. Scott Benntt, "The Escalation of Great Power Militarized Disputes: Testing Rational Deterrence Theory and Structural Realism," *The American Political Science Review*, Vol. 87, No.3 (1993), pp. 609-623.

3) The senior ally of the targeted state participates in the dispute and engages in actions classified as hostility level 3 or higher.

For each observation, I further code whether the attempt at immediate deterrence succeeded or failed. I use the original Huth, Gelpi, and Bennett codings. For the newly added observations, I code the observation as a success of immediate extended deterrence if, according to the MID database, the conflict did not escalate to a hostility of level of 5.

I identify 43 total relevant instances of attempted immediate extended deterrence involving states with an extended deterrence commitment. These instances are listed below in table 6-4 below, which identifies, for each observation, the time period, the adversary, the junior ally, the senior ally, and the extended deterrence strategy in place at the time. By definition, each of these observations indicates a failure of general extended deterrence and an attempt at immediate extended deterrence. If general deterrence had held, the crisis would never have occurred in the first place. The pattern of observations themselves can shed light on the ability of different extended deterrence strategies to successfully practice extended general deterrence.

Table 6-4: Instances of Attempted Immediate Extended Deterrence

Year	Adversary	Junior Ally	Senior Ally	Strategy	Outcome
1946	Soviet Union	Iran	United States	Conditional Alliance	S
1946	Soviet Union	Turkey	United States	Conditional Alliance	S
1948	Soviet Union	West Berlin	United States	Conventional Barrier	S
1949-51	Soviet Union	Yugoslavia	United States	Unconditional Guarantee	S
1950	China	Taiwan	United States	Unconditional Guarantee	S
1950	United States	North Korea	China	Unconditional Guarantee	F
1954-55	China	Taiwan	United States	Nuclear Tripwire +	S

1957	United States	Syria	Soviet Union	Conditional Alliance	S
1957	Turkey	Syria	Soviet Union	Conditional Alliance	S
1960	Soviet Union	Congo	United States	Conditional Alliance	S
1961	United States	Cuba	Soviet Union	Unconditional Guarantee	S
1961	United States	Cuba	Soviet Union	Unconditional Guarantee	S
1962	United States	Cuba	Soviet Union	Nuclear Barrier	S
1961	Iraq	Kuwait	Britain	Conditional Alliance	S
1961	North Vietnam	Laos	United States	Conditional Alliance	S
1964-65	Indonesia	Malaysia	Britain	Unconditional Guarantee +	F
1964-65	North Vietnam	South Vietnam	United States	Conventional Barrier	F
1965	United States	North Vietnam	China	Conventional Barrier	F
1964-65	United States	North Vietnam	China	Conventional Barrier	S
1970	Syria	Jordan	Israel	Conditional Alliance	S
1970	United States	Syria	Soviet Union	Conditional Alliance	F
1971	India	Kashmir	China	Conditional Alliance	S
1973	Soviet Union	Israel	United States	Conditional Alliance	S
1974	China	Mongolia	Soviet Union	Nuclear Barrier	S
1975	Guatemala	Belize	Britain	Conventional Barrier	S
1977	Guatemala	Belize	Britain	Conventional Barrier	S
1978-79	United States	Iran	Soviet Union	Conditional Alliance	S
1978-79	China	Vietnam	Soviet Union	Unconditional Guarantee +	F
1979	China	Vietnam	Soviet Union	Unconditional Guarantee +	F
1979	United States	Cuba	Soviet Union	Unconditional Guarantee	S
1983	Libya	Chad	France	Unconditional Guarantee	S
1983	United States	Iran	Soviet Union	Conditional Alliance	S
1983-1984	United States	Syria	Soviet Union	Conditional Alliance	S
1984-1985	DPRK	ROK	USA	Nuclear Barrier	S
1986-1987	China	Vietnam	USSR	Unconditional Guarantee +	F
1993-1995	DPRK	Japan	USA	Unconditional Guarantee	S
1995-1996	China	Taiwan	USA	Conditional Alliance	S
1996	Syria	Turkey	USA	Unconditional Guarantee	S
1999-2000	China	Taiwan	USA	Conditional Alliance	S
2001	China	Taiwan	USA	Conditional Alliance	S
2004-2005	Sudan	Chad	France	Unconditional	S
2009-2010	ROK/USA	DPRK	China	Conditional Alliance	S
2014	DPRK	ROK	USA	Conventional Barrier	S

In order to evaluate trends in the success and failure of each extended deterrence strategy to deter conflict, I first report the number of general deterrence failures per 1000 total observations. This reports the likelihood that a given strategy-year observation will result in a failure of extended deterrence and the entry into a situation of immediate deterrence, adjusted by the total number of relevant strategy-year observations. Here, the patterns partially confirm the findings from the large-N analysis, with conventional barrier strategy being relatively likely to see failures of general deterrence, though the results here suggest the conditional alliance is more likely to fail at general extended deterrence. (However, unlike the large-N analysis, this does not control for other factors.)

Table 6-5: Relative Rates of Extended Deterrence Failure by Strategy

	General Deterrence Failures per 1000 Total Observations	**Immediate Deterrence Failures per 1000 General Deterrence Failures**	**Immediate Deterrence Failures per 1000 Total Observations**
Conditional Alliance	66.12	62.50	5.41
Unconditional Guarantee	1.94	333.33	2.62
Conventional Barrier	32.41	142.86	8.47
Power Projection	5.12	500.00	6.12
Nuclear Tripwire/ Barrier	9.04	0.00	0.00

We can also look at patterns of success and failure with immediate deterrence. The sample sizes here are very small and we should be cautious in drawing conclusions. Only eight of the 43 observations are coded as failures of immediate deterrence which escalated into a major conflict. Failures of general extended

deterrence are rare and further failures of immediate deterrence even rarer making it difficult to assemble robust samples. However, the patterns that we see in failures of immediate deterrence appear to largely confirm the results of the large-N general deterrence analysis. The second column in table 6-5 above presents the number of expected immediate deterrence failures per 1,000 instances of general deterrence failures. In other words, these are the relative rates, for each strategy, at which a crisis would escalate into a conflict. Here, I combine the nuclear tripwire and nuclear barrier strategies into a single category given the rarity of either of these strategies. As with the large-N results, we see that the strategies most likely to fail at immediate deterrence are the power projection, the unconditional guarantee, and the conventional barrier strategies. In the sample, half of all power projection, one-third of all unconditional guarantee, and one-seventh of all conventional barrier observations that ended up in a crisis escalated to a conflict. By contrast, only 62 out of 1,000 conditional alliance observations escalated and no nuclear tripwire or nuclear barrier observations escalated, suggesting again the strong deterrent power of these strategies.

Discussion and Conclusion

I now turn to evaluate the extent to which the findings produced above support or undermine the hypotheses derived earlier within the chapter. I find mixed or inconclusive support for both the *deterrence* and *security dilemma* hypotheses. While some strategies are associated with an increase in military disputes targeting the

junior ally, other strategies are associated with a decrease. These relationships do not appear directly tied to the intensity of the strategy. Rather, we find strong evidence that the *type* of forward deployment embedded in a strategy is associated with deterrence dynamics. That is, potentially more threatening forward deployments, such as large ground forces or long-range strike naval and air forces, are associated with an increase in an adversary initiating military disputes against the junior ally. However, the forward deployment of ground-based tactical nuclear weapons is associated with a decrease in the junior ally being targeted in military disputes.

Table 6-6: Evidence for Hypotheses

	Empirical Support
DETERRENCE HYPOTHESES	
H_{D1} Deterrence	?
H_{D2} Security Dilemma	?
H_{D3} Offensive Threat	✓
ASSURANCE HYPOTHESES	
H_{A1} Reassured Nonproliferation	✓
H_{A2} Sheltered Pursuit	✗
RESTRAINT HYPOTHESES	
H_{R1} Conditional Leverage	✓
H_{R2} Forward Deployed Influence	?
H_{R3} Moral Hazard	✗

✓ = strong evidence, ? = mixed or inconclusive evidence, ✗ = no or contrary evidence

Summary of support for competing hypotheses relating extended deterrence strategies to senior ally strategic goals. There is strong support for the *offensive threat* hypothesis relating the strategy's type of forward deployment to deterrence dynamics. We also find support for the ability of strategies to curb nuclear proliferation.

With regard to assurance, we find strong evidence of *reassured nonproliferation* and no evidence of *sheltered pursuit*. The only strategy associated

with an increase in the junior ally pursuing nuclear weapons is the *conditional alliance*. All other strategies, however, are associated with a decreased likelihood, in particular the *conventional barrier* and *nuclear barrier* strategies, which both feature large forward deployed ground forces. In general, we find that extended deterrence practices which feature at least an unconditional security guarantee will reduce the likelihood of proliferation. Together, these nuanced results appear to support recent findings that states with seemingly unreliable allies may be more likely to pursue nuclear weapons.[745]

Finally, in terms of restraint, we find good support for the *conditional leverage* hypothesis in which strategies in which the *conditional alliance* is associated with a lower initiation of military disputes by the junior ally than is the *unconditional guarantee*. There is mixed evidence supporting the *forward deployed influence* hypothesis. Although the strategies featuring forward deployments are associated with a lower rate of military dispute initiation than the *unconditional guarantee*, there is not clear trend relating the size or type of forward deployment to junior ally conflict initiation patterns. We find little to no evidence for the *moral hazard* hypothesis given that nearly all of the extended deterrence strategies are associated with a decrease in junior ally dispute initiation.

In general, the *nuclear barrier* strategy performs the best across all three strategic goals. It is associated with a somewhat lower incidence of military disputes

[745] Alexander Lanoszka, *Atomic Assurance: The Alliance Politics of Nuclear Proliferation* (Ithaca, N.Y.: Cornell University Press, 2018); and Nuno P. Monteiro and Alexandre Debs, "The Strategic Logic of Nuclear Proliferation," *International Security*, Vol. 39, No. 2 (Fall 2014), pp. 7-51.

targeting the junior ally, a significantly lower likelihood of the junior ally initiating a nuclear weapons program, and a somewhat lower likelihood of the junior ally initiating military disputes. Of course, these findings must be evaluated alongside the potential costs of these extended deterrence practices. For instance, although the *nuclear barrier* strategy performs well along the measures studied here, it is also the most resource-intensive strategy in the typology. It not only features the forward deployment of large numbers of conventional ground troops but also ground-based tactical nuclear weapons. The development and deployment of these types of nuclear weapons can present states with technological and organizational challenges. In addition to these demands associated with the forward deployment of ground-based tactical nuclear weapons, the *nuclear barrier* strategy also requires the senior ally to forward deploy a significant contingent of ground forces. The *nuclear tripwire* strategy produces similar results and is somewhat less intensive to the extent that it does not involve significant ground forces. Similarly, the forward deployment of nuclear weapons might bring other costs such as increasing adversary incentives for forward nuclear deployments or generally heightening political and military tensions.[746] Forward military deployments may increase the likelihood of entrapment and also the risks of escalation should a conflict occur. Similarly, the analysis here does not capture the potential for arms racing dynamics or further deterioration in

[746] Although Avey finds little evidence that forward deployed nuclear weapons result in interstate crises, Gavin has highlighted the way in which nuclear weapons can significantly impact international politics beyond traditional measures of deterrence and interstate conflict. Paul C. Avey, "The Historical Rarity of Foreign-Deployed Nuclear Weapon Crises," *Security Studies*, Vol. 27, No. 1 (2018), pp. 89-119; and Francis, J. Gavin, *Nuclear Weapons and American Grand Strategy* (Washington, D.C.: Brookings Institution Press, 2020).

the relations between the senior ally and the adversary which might occur due to forward military deployments. These costs must be balanced alongside any supposed benefits of stronger forward presences.

By disaggregating extended deterrence commitments according to their treaty commitments, conventional military deployments, and nuclear military deployments, we can better evaluate how different strategies are associated with different patterns of interstate conflict and proliferation. These findings match folk intuition and military expertise about the differential benefits of various military domains and weapons systems. Much of this variation is lost when simply considering whether a treaty commitment exists or counting the number of forward deployed troops.

The broad findings here also suggest principles that might inform policymaking, though the specific features of any policy context will matter tremendously. First, policymakers should be attuned to the possibility that forward military deployments could increase the likelihood of interactions between military forces, especially if forward deployments have offensive capabilities. The findings suggest that the conventional barrier and power projection strategies are strongly associated with an increase militarized conflicts. This might because larger military footprints simply increases the possibility of incidental military engagements which could escalate. Or it might be because large concentrations of ground forces and long-range strike platforms at the adversary's border might appear threatening. This perhaps provides support for theories of the offense-defense balance.

Second, the findings suggest that a strong way to tamp down on proliferation in junior allies is the forward deployment of ground forces to defend it. Although forward deployment of naval and air assets appears to provide some assurance to the junior ally, these effects are not as strong as with ground troop deployments. This is perhaps because the mobility of naval and air assets limits their credibility as both a tripwire and political symbol. They are less effective at stopping enemy ground advances and can be more easily withdrawn. Ground forces, by contrast, especially those that are deployed near the border like those in the conventional barrier, nuclear tripwire, and nuclear barrier strategies, are a more effective shield against ground invasions and are more difficult to withdraw on short notice.

One point of caution is that the results here simply report general associations and, while they can help highlight tradeoffs or tendencies associated with each of the strategies, they cannot predict the effects of applying any particular strategy in a specific context. For example, amid growing concerns about the possibility that China might attempt an invasion of Taiwan, several commentators have called for the deployment of American troops to the junior ally, including those equipped with nuclear weapons.[747] While these recommendations would align with the results presented here, they would likely be very dangerous in practice. Not only could this

[747] See, for example, Walker D. Mills, "Deterring the Dragon: Returning U.S. Forces to Taiwan," *Military Review*, September/October 2020, pp. 54-67; Jeff Jacoby, "To Avoid Ukraine's Fate, Taiwan Needs Nuclear Missiles—Now," *Boston Globe*, 2 March 2022, https://www.bostonglobe.com/2022/03/02/opinion/avoid-ukraines-fate-taiwan-needs-nuclear-missiles-now/; and Angelo M. Codevilla, "Put Nukes on Taiwan," *Strategika* (Hoover Institution), 30 June 2021, https://www.hoover.org/research/put-nukes-taiwan.

kind of forward military presence be insufficient to deter Chinese military action, it would likely trigger the very kind of crisis the deployments sought to avoid.[748]

Together, the findings suggest that policymakers may face tradeoffs in achieving the goals of deterrence, assurance, restraint, and cost-saving. While none of the strategies evaluated her presents a perfect choice in accomplishing all these goals, policymakers should consider which risks are most pressing in individual cases and best tailor extended deterrence commitments to meet those risks.

[748] See, for example, Gregory Kulacki, "Could US Nuclear Weapons Prevent an Attack on Taiwan?," *All Things Nuclear* (blog), Union of Concerned Scientists, 7 March 2022, https://allthingsnuclear.org/gkulacki/could-us-nuclear-weapons-prevent-an-attack-on-taiwan/; and Bradley Bowman and Andrea Stricker, "Arm Taiwan—but Skip the Nukes," *Foreign Policy*, 4 August 2020, https://foreignpolicy.com/2020/08/04/taiwan-military-aid-nuclear-weapons/.

Chapter 7 Conclusion

This work introduces a new theory of strategies of extended deterrence. It is a generalizable and testable theory about how states make commitments to deter and defeat aggression against junior partners. The theory identifies the ways in which states practice extended deterrence, the conditions under which they do so, and evaluates the relative success and failure of those practices. The theory helps to highlight systematic variation in these practices across very different senior allies, geographic locations, security environments, and time periods. The theory outperforms other prominent explanations and suggests important implications for both scholarship and policy.

Summary of Findings

In doing so, it makes three major contributions to the international relations and security studies literature. First, it develops a comprehensive typology of extended deterrence strategies, identifying how senior allies strategically bundle different forms of treaty commitments, forward conventional deployments, and forward nuclear deployments to achieve their extended deterrence aims. The typology of strategies helps highlight systematic variation in state practices of extended deterrence across both time and space. It also shows how different senior allies will select the similar strategies under similar conditions.

Second, the work introduces extended deterrence selection theory, which identifies the conditions under which a senior ally will select a given strategy within

the typology. This theory identifies how political, geographic, technological, and security variables interact to create both pressures and constraints on the senior ally's selection of extended deterrence strategies. The theory explains how the senior ally will choose an extended deterrence strategy in ways which minimize its entrapments risks, extend its power projection capabilities, and enhance the ability to deter and defeat aggression against the junior ally. The senior ally attempts to accomplish these goals while minimizing its own costs and while navigating the constraints it confronts.

Third, the work offers tentative evidence about the ability of each of the strategies in the theory to accomplish various strategic goals. This work, highlighting patterns in the association between each strategy and both patterns of interstate conflict and junior ally proliferation behavior, suggested that senior allies are likely to confront tradeoffs in their practice of extended deterrence and that different extended deterrence tools may have different costs and benefits. The findings further suggested that senior allies which seek to accomplish multiple goals simultaneously may have to select more costly extended deterrence strategies.

Evaluating the Theory

Extended deterrence selection theory outperforms prominent competing explanations for the practice of extended deterrence. In evaluating each of the alternative explanations, I see assess how well they generate determinative predictions, how well the features of the case match those predictions, and how well

the underlying decision-making processes reflect the mechanisms identified in the explanation. For each competing explanation, I summarize the explanatory power by examining the ability to explain the qualitative case studies. A correctly predicted case earns a theory one point, a partially predicted case earns half a point, and an incorrectly predicted case earns zero points. For each explanation, I add the total number of points to summarize its explanatory power across all the cases. These results are summarized in table 7-1 below.

Extended deterrence selection theory outperforms the alternative explanations in explaining state practices of extended deterrence. The results from the pattern-matching exercise indicated that extended deterrence selection theory accurately predicts core strategy selection in just over 85 percent of all cases and auxiliary power projection strategy selection in around 70 percent of cases. The theory's record is comparable in explaining the more intensive case studies conducted here. Out of 12 total observations, extended deterrence selection theory explains the equivalent of roughly 10.5. In addition to correctly explaining a higher number of cases, the theory also correctly identifies the mechanisms driving the strategy selection process within those cases. In most of the case studies, decision-makers regularly acted with reference to the variables specified in the theory, indicating that extended deterrence selection theory is not only frequently correct, but correct for the right reasons.

Table 7-1: Evaluating the Theory Alongside Competing Explanations

	Selection Theory	*Structural Realism*	*Domestic Politics*	*Extractive Posturing*	*Nonprolif. Goals*
U.S.S.R.: Mongolia					
1946-1966: Unconditional Guarantee	✓	?	?	?	✗
1966-1992: Nuclear Barrier	✓	✓	?	?	✗
U.S.: Israel					
1981-1991: Conditional Alliance	✓	✗	?	?	✗
U.K.: Belize					
1981-1993: Conventional Barrier + Power Projection	✓	?	✗	?	✗
1993-today: Unconditional Guarantee	✓	✓	✗	✗	✗
U.S.: South Korea					
1953-1958: Conventional Barrier	✓	?	?	?	✗
1958-1991: Nuclear Barrier	?	?	✗	✓	?
1991-today: Conventional Barrier	?	?	✗	?	?
U.S.: Italy					
1949-1956: Security Guarantee + Power Projection	✓	?	?	?	✗
1957-1991: Nuclear Tripwire + Power Projection	✓	?	✗	?	?
1991-today: Security Guarantee + Power Projection	✓	✓	✗	?	✗
France: Djibouti					
1977-2011: Conventional Barrier + Power Projection	?	?	✗	?	✗
CORRECT PREDICTIONS	10.5/12	7.0/12	2.5/12	6.0/12	1.5/12

Structural realism performs second best, explaining the equivalent of 7.5 out of 12 observations. Structural realist explanations correctly predict, in particular, when a senior ally is likely to shift from an unconditional guarantee strategy to one involving forward military deployments. Indeed, this is incorporated directly into extended deterrence selection theory. In many instances when the security threat to the junior ally is particularly high or low, structural realism generates accurate predictions. However, structural realism offer suffers weaknesses. While it may predict when and why a senior ally is likely to resort to forward military deployments, it does not offer determinative predictions about the composition of those deployments. Specifically, it does not explain when and why a senior ally would substitute nuclear for conventional forces or when it might resort to both. It similarly cannot explain the selection of a conditional alliance, particularly for junior allies which confront significant security threats, such as the U.S. commitment to Israel, the Soviet commitment to Vietnam in the latter half of the Cold War, or the U.K. commitment to South Africa. Finally, a structural realist explanation does not help account for variation we see between cases which face similar security environments.

Extractive posturing performs slightly less well than structural realism, correctly predicting the equivalent of 6 out of 12 observations. The explanatory power of extractive posturing may be limited in part due to the explanation's difficulty in generating determinative predictions. It is possible to establish a rough hierarchy of intensity among most of the extended deterrence strategies identified within the typology, with the conditional alliance being the least intensive and the nuclear

barrier being the most intensive. However, it's not clear how to directly map this hierarchy of intensity onto a comparable hierarchy of leverage, as would be necessary for an extractive posturing explanation to generate determinative predictions. What kind or what degree of leverage would these explanations link to which strategies? Previous work has shown how, within individual alliance cases, changes in the distribution of bargaining leverage can lead to shifts in burden sharing.[749] But it is difficult to see how this insight, while valuable, can lead to specific predictions about *qualitative* shifts in extended deterrence strategies. Perhaps when the variables identified by extractive posturing—junior ally leverage—are at extremely low or high values, these dynamics may generate determinative predictions. But for most cases in which the degree of leverage is intermediate, specific predictions remain elusive. Although both structural realism and extractive posturing do not perform as well as the theory introduced here, their moderate success validates the decision to incorporate variables drawing from these approaches into extended deterrence selection theory.

Both domestic politics and nonproliferation goals perform relatively poorly in explaining extended deterrence practices explaining the equivalent of 2.5 and 1.5 cases, respectively. These two explanations underperform for different reasons. For domestic politics, there is an inability to generate deterministic predictions. It is not clear how, a priori, how to link elements of domestic politics to discrete extended deterrence strategies, particularly in ways which are completely independent from

[749] Brian Dylan Blankenship, *Promises Under Pressure: Reassurance and Burden-Sharing in Asymmetric Alliances*, Ph.D. Dissertation (New York, N.Y.: Columbia University, 2018).

security concerns. Explanations rooted in nonproliferation goals perform poorly largely because of insufficient variability on the explanatory variable. The practice of extended deterrence appears far more frequently than proliferation behavior by junior allies. There are just over 70 distinct senior ally-junior ally dyads in the universe of extended deterrence cases. By contrast, Bleek identifies only 31 states as ever exploring the possibility of nuclear weapons and only 17 as ever actually initiating a nuclear weapons program.[750] Proliferation behavior in the real world is simply neither ubiquitous nor variable enough to explain the frequency or variation of extended deterrence practices.

In addition to evaluating extended deterrence selection theory alongside the alternative explanations of structural realism, extractive posturing, domestic politics, and nonproliferation goals, it is helpful to see how the theory compares to two other recent work explaining practices of extended deterrence. The first, by Gheorge, identifies two separate approaches to extended deterrence: the nuclear straitjacket, which features minimal consultation between the junior and senior allies, and the nuclear umbrella, which features significant consultation and cooperation. [751] According to Gheorge, the senior ally's choice between these two approaches is driven by the "intra-alliance balance of power." That is, "When the leading state provides the bulk of the alliance's conventional forces in the key theatre of operations, the

[750] Philipp C. Bleek, "When Did (and Didn't) States Proliferate? Chronicling the Spread of Nuclear Weapons," Discussion Paper (Cambridge, MA: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School and the James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies, Monterey, CA., June 2017).
[751] Eliza Gheorge, "Balance of Power Redux: Nuclear Alliances and the Logic of Extended Deterrence," *The Chinese Journal of International Politics*, Vol. 15, No. 1 (2022), pp. 87-109.

alliance is imperial and nuclear straitjacket prevails. When the junior allies provide an equal or greater share of the alliance's conventional forces on that battlefield, the alliance is hegemonic and the prevailing END strategy is nuclear umbrella."[752] Gheorge then shows how variation between and within the extended deterrence approaches of the United States and the Soviet Union are explained well by this lens.

The Second, by Lee, identifies four extended deterrence strategies and explains extended deterrence practices by examining the interaction between 1) the type of threat the adversary poses to the junior ally and 2) the conventional balance of power between adversary and the junior ally.[753] According to Lee's theory, if the senior ally believes the adversary presents an existential threat to the junior ally, then the senior ally will select an extended deterrence strategy featuring nuclear weapons while, if the senior ally believes the adversary is capable of accomplishing a quick victory, then the senior ally will select an extended deterrence strategy featuring forward military deployments.

These two works differ from extended deterrence selection theory in several ways. First, while extended deterrence selection theory takes the state dyad as the unit of analysis, both Lee and Gheorge treats multilateral alliances as a single observation. Second, they identify slightly different strategies of extended deterrence, though there are some similarities with those of the theory developed here. For instance, Lee's forward nuclear deployment is analogous to extended deterrence

[752] Eliza Gheorge, "Balance of Power Redux: Nuclear Alliances and the Logic of Extended Deterrence," *The Chinese Journal of International Politics*, Vol. 15, No. 1 (2022), p. 91.
[753] Do Young Lee, "Strategies of Extended Deterrence: How States Provide a Security Umbrella," *Security Studies*, Vol. 30, No. 5 (2021), pp. 761-796.

selection theory's nuclear barrier, while Lee's forward conventional deployment is analogous to the conventional barrier introduced here. Third, Lee does not disaggregate the types of forward conventional or nuclear deployments. This leads to some differences with extended deterrence selection theory. For example, Lee codes all of NATO as consisting of a forward nuclear deployment strategy through today, while extended deterrence selection theory identifies each NATO member as a separate observation, none of which today feature the nuclear barrier strategy due to the lack of forward deployed ground-based tactical nuclear weapons. Finally, while Gheorge and Lee both restrict their analysis to the experience of the United States, the Soviet Union, and Russia, extended deterrence selection theory expands the analysis to include China, France, and the United Kingdom.

Despite these differences, the works of both Gheorge and Lee and the findings of extended deterrence theory are compatible and, to an extent, mutually complementary. In many ways, Lee's findings about the role of security variables mirrors the role that security factors play in the heart of extended deterrence selection theory. In addition to being mutually complementary, extended deterrence selection theory builds on and extends these works in several ways. First, it identifies greater variation in practices of extended deterrence by identifying five core strategies and one auxiliary strategy, compared to Lee's four and Gheorge's two strategies. Second, it hints at stronger explanatory power, correctly identifying 85 percent of a total universe of 93 cases compared to Lee's theory correctly identifying

67 percent of a total universe of 30 cases. Finally, it broadens the political scope by examining the experience of senior allies like China, France, and the United Kingdom.

Implications for Scholarship and Policy

The findings presented here suggest implications for international relations and security studies scholarship and for the study and implementation of policy.

First, the typology of extended deterrence strategies suggests that true conventional tripwires are extremely rare. Scholars have recently begun to examine the concept of tripwires and their effectiveness.[754] However, my research suggests that true conventional tripwires are hard to find in the empirical record. Here, I define "conventional tripwire" as a forward military deployment which is exclusively conventional and is intended only to serve political purposes and not meaningfully effect battlefield outcomes. Readers may notice that a pure tripwire strategy is absent from the typology. This absence in the typology reflects the absence of tripwires in the world. There are some instances of token forward deployed ground forces, such as the U.S. Army in Greece, Turkey, the Netherlands, or Taiwan during the Cold War. However, in almost any instance in which a tripwire ground force has been deployed, they have been accompanied by ground-based tactical nuclear weapons. Interestingly, the United States appears to be the only senior ally that has adopted this nuclear

[754] See, for example, Dan Reiter and Paul Poast, "The Truth About Tripwires: Why Small Force Deployments Do Not Deter Aggression," *Texas National Security Review*, Vol. 4, No. 3 (2021), pp. 33-53; Brian Blankenship and Erik Lin-Greenberg, "Trivial Tripwires?: Military Capabilities and Alliance Reassurance," *Security Studies*, Vol. 31, No. 1 (2022), pp. 92-117; and Paul Musgrave and Steven Ward, "Testing Tripwire Theory Using Survey Experiments," September 2021, working paper.

tripwire strategy. The only times senior allies have resorted to truly light ground force presences are the conventional barrier strategies selected by the United Kingdom and France in their former colonies. Here, however, the smaller size of the forward conventional deployments in these cases does not reflect a true tripwire; rather, the lighter ground force reflects the relatively more limited capabilities of the adversaries confronting the junior ally. These ground forces still provide meaningful battlefield capability, they are just tailored to do so against relatively weaker adversaries. Other instances of tripwires appear to occur in very small host territories, such as the Berlin Brigade or the multinational battalion battle groups deployed in the Baltic NATO members. Besides these few, geographically limited, exceptions

Second, the typology and the theory help to make sense of the heterogeneity that exists in practices of extended deterrence. As illustrated in the universe of cases and the qualitative case studies, senior allies have often exhibited systematic variation in how they practice extended deterrence, despite those practices often being conducted in very different times, locations, and contexts. The theory helps to highlight similarity and dissimilarity in the core features of these practices despite changes in their settings.

Third, the results from chapter 6 tentatively examining the differential effects of extended deterrence strategies suggest that senior allies like the United States will face tradeoffs in practicing extended deterrence. The findings also suggest that the most costly strategies are the most effective at simultaneously achieving the multiple (and at times conflicting) goals of deterrence, assurance, and restraint. This suggests

that the United States should be cautious in attempting to practice extended deterrence through the use of trivial tripwires, which may not generate the desired deterrent effects. At the same time, policymakers should be aware that the forward deployment of large ground forces and power projection forces may be viewed as threatening by the adversary, potentially initiating security dilemma dynamics.

Fourth, extended deterrence selection theory may also help identify the conditions under which other great powers might resort to certain extended deterrence strategies. As China expands and deepens its political relationships around the world, some observers have suggested that China may extended to practice its own form of extended deterrence. The theory here can help identify the kinds of pressures and constraints that China might face if it were to develop these kinds of networks and help predict the conditions under which China is likely to resort to certain tools of extended deterrence, such as unconditional legal commitments or forward military deployments.

Finally, the theory suggests policy interventions to shape the use of extended deterrence strategies by other states. For instance, the typology of strategies and the empirical codings both demonstrate that the conditional alliance strategy does not feature forward military deployments. Extended deterrence selection theory further argues that states are unlikely to move beyond a conditional alliance when they fear entrapment due to insufficient overlap in adversary portfolios. This suggests that one way to reduce the likelihood of other great powers deploying military forces abroad is to increase their fears of entrapment by restructuring the political relationships of

potential host countries. Conversely, it may be possible to reduce the likelihood of forward military deployments of other major powers by working to reduce ongoing conflicts, thereby removing the security impetus for such deployments.

Research Extensions

The work suggests several potential avenues for further research.

First, future research can also better investigate the differential impact of these strategies on patterns of interstate conflict, nuclear proliferation, and alliance bargaining. The results presented in chapter 7 point suggestively toward some conclusions about how different strategies generate different effects. In particular, they suggest that senior allies may confront tradeoffs in the pursuit of their extended deterrence goals and that achieving some of these simultaneously may require senior allies to resort to more intensive and riskier extended deterrence strategies. However, the findings here are necessarily tentative and incomplete for reasons summarized in previous chapters. The findings draw on observational data of strategic interactions, which are notoriously prone to problems of selection effects. Further, the findings only highlight broad patterns but cannot illuminate the mechanisms which might be driving those patterns. Future research can better isolate these mechanisms by perhaps turning to survey experimental work to seeing how decision-makers view the deterrent power generated by different forms of treaties, troops, and nukes.[755]

[755] Brian Blankenship and Erik Lin-Greenberg, "Trivial Tripwires?: Military Capabilities and Alliance Reassurance," *Security Studies*, Vol. 31, No. 1 (2022), pp. 92-117.

Second, future extensions might investigate how well extended deterrence selection theory explains extended deterrence practices in other time periods. Huth, for instance, identifies instances of attempted immediate extended deterrence as early as 1885.[756] The theory developed here explains extended deterrence practices in the nuclear era. However, many of the same mechanisms may apply in the pre-nuclear era. Future research might investigate whether the same principles drive extended deterrence strategies in a purely conventional world or whether shifts in technology and geopolitics mean that extended deterrence before World War II was a distinctly different practice from extended deterrence today. Ongoing changes in technology could also affect some of the features of extended deterrence theory and its ability to explain the world. For example, while ground-based tactical nuclear weapons were historically the primary way that states would offset a perceived conventional inferiority against a presumed offensive threat, today most low-yield nuclear weapons are not of this type. The United States no longer assigns any nuclear weapons to the Army, while most of the tactical nuclear weapons operated by Russia are assigned to either the Air Force or the Navy.[757]

Third, research can examine whether there are interaction effects between any of these practices of extended deterrence. For instance, the theory developed here assesses the security threats to the junior ally by examining the presence of a geographically proximate conventionally superior offensive threat. However, there

[756] Paul K. Huth, "Extended Deterrence and the Outbreak of War," *American Political Science Review* Vol. 82, No. 2 (1988), pp. 423-443.
[757] Hans M. Kristensen and Matt Korda, "Tactical Nuclear Weapons, 2019," *Bulletin of the Atomic Scientists*, Vol. 75, No. 5 (2019), pp. 252-261.

may be other ways to conceptualize the security environment, including whether the prospective adversary is, itself, the recipient of some form of extended deterrence commitment. There are many instances of two states confronting one another in which both are junior allies receiving extended deterrence commitments from a senior ally, including in the Central Front and along the Korean Peninsula. Future work might examine how strategies of extended deterrence shift in these instances. Similarly, future work might examine the role that an adversary's possession of nuclear weapons might have in driving the perceived threat it poses to a junior ally. Or future work might examine the possibility of new military capabilities in different domains changing the extended deterrence strategies available to senior allies or alter the costs and benefits associated with those strategies.

Appendix

This appendix presents detailed information on concept validation for the typology of extended deterrence strategies, coding rules and data sources for coding both the extended deterrence strategy present in a case, and coding rules and data sources for coding the values of the independent variables identified in extended deterrence selection theory.

Extended Deterrence Indicators

US-Allies		Pact		Pact		Pact	
		0	1	1	1	1	1
Guarantee	0	*0.67*	*0.18*	Guarantee		Guarantee	
	1	*0.00*	*0.14*	0	1	1	1
Deployed Troops	0	*0.65*	*0.27*	*0.54*	*0.30*	Deployed Troops	
	1	*0.03*	*0.06*	*0.02*	*0.14*	0	1
Nuclear Weapons	0	*0.67*	*0.28*	*0.56*	*0.29*	*0.53*	*0.12*
	1	*0.00*	*0.05*	*0.00*	*0.15*	*0.16*	*0.19*

Table A1: Illustrative cross tabulations of key extended deterrence indicators for U.S.-junior ally[758] dyads. The unit of analysis is the dyad-year, featuring the U.S. (senior ally), a second state, and a year (e.g., United States-South Korea-1960). *Pact* indicates the presence of an alliance between the two states; *Guarantee* indicates the presence of a firmer security guarantee; *Deployed Troops* indicates the forward deployment of at least 5,000 senior ally troops to the territory of the junior ally; and *Nuclear Weapons* indicates the forward deployment of senior ally nuclear weapons to the territory of the junior ally. Each cell indicates the proportion of observations with the indicated features. For example, values in the upper-left most box indicate that 67 percent of observations featured neither an alliance nor a security guarantee, 18 percent featured an alliance without a security guarantee, 0 percent had a security guarantee without an alliance, and 14 percent had both an alliance and a security guarantee. Similarly, values in the bottom-right most box indicate that, of observations which featured both an alliance pact and a security guarantee, 53 percent featured less than 5,000 forward deployed troops and no forward deployed nuclear weapons, 12 percent had at least 5,000 forward deployed troops but no forward nuclear deployments, 16 percent featured fewer than 5,000 forward deployed troops and some forward deployed nuclear weapons, and 19 percent featured both at least 5,000 forward deployed troops and forward deployed nuclear weapons. Data from Gibler (2009) and McManus and Nieman (2019) on alliances, Rapp-Hooper (2015) on security guarantees, Braithwaite (2015) and Kane (2006) on forward conventional deployments, and Sechser and Fuhrmann (2014) on forward nuclear deployments. Observations consist of all state dyads from 1950 to 2000.

[758] Observations in the first column, which feature states unallied with the United States, include all states in the system for that year.

Extended Deterrence Typology Concept Validation

Here I present figures validating the typology of extended deterrence frameworks by showing consistency in the essential features of each of some of the major frameworks contained within the typology. The figures illustrate how these framework features are consistent within a given framework across time and junior ally. At the same time, they illustrate the clear division *between* frameworks based on these features.

Figure A1: Chart indicating the presence or absence of ground-based tactical nuclear weapons in U.S. and Soviet forward deployments. Country-year observations are indicated as coded with a *Security Guarantee (Power Projection)* (dotted yellow line), *Escalatory* (dashed blue line), or *Full Spectrum* (solid red line). Chart plots data for each five-year period from 1955 to 1985 for U.S. junior allies hosting non-trivial U.S. forces. The chart clearly shows that, in the coding scheme of the typology, the presence of ground-based tactical nuclear weapons is both a necessary and sufficient condition for an observation to be coded as having either a *Full Spectrum* or *Escalatory* framework. Observations without ground-based tactical nuclear weapons are coded as either *Power Projection* or *Defensive*. Observations with other frameworks (*Conditional Alliance* or *Defensive*) are censored from the chart, though the same hard dichotomy is seen in these coding choices.

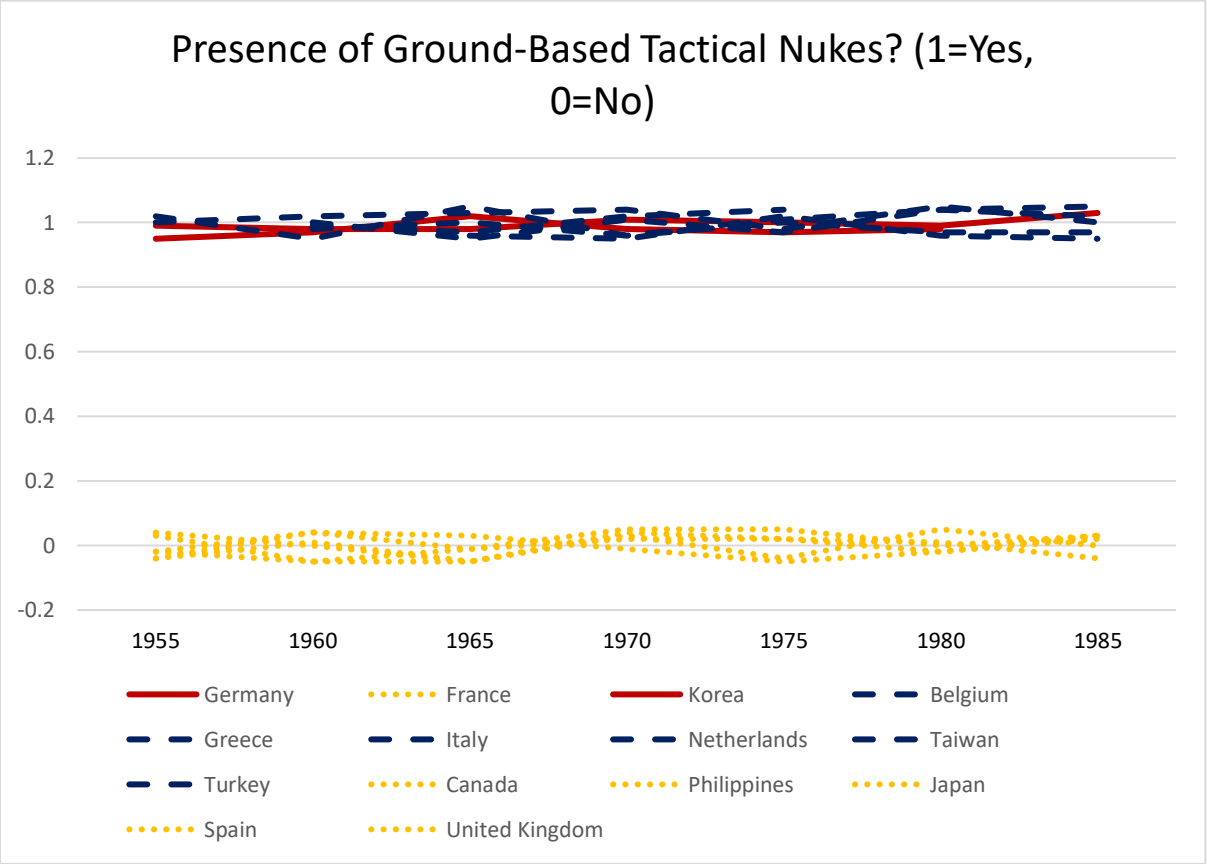


Figure A2: Chart indicating, for U.S. and Soviet junior allies, the total number of senior ally Army personnel forward deployed to the territory of the junior ally. The y-axis is logarithmic. Chart plots data for each five-year period from 1955 to 1985 for U.S. and Soviet junior allies hosting non-trivial U.S. or Soviet forces. Country-year observations are indicated as coded with a *Security Guarantee (Power Projection)* (dotted yellow line), *Escalatory* (dashed blue line), or either a *Full Spectrum* or *Defensive* framework (both represented with solid red line). Chart shows the clear division between frameworks based on the total forward deployed Army presence. States with only a *Security Guarantee* (or *Security Guarantee* and *Power Projection* framework) see a few dozen to a few hundred forward deployed senior ally Army personnel. States with an *Escalatory* framework see a several hundred to several thousand Army personnel. States with either a *Defensive* or *Full Spectrum* framework see several tens of thousands or hundreds of thousands of Army personnel. Though the chart does not indicate the differences between the *Defensive* and *Full Spectrum* observations, these cases are easily differentiated by the presence or absence of ground-based tactical nuclear weapons.

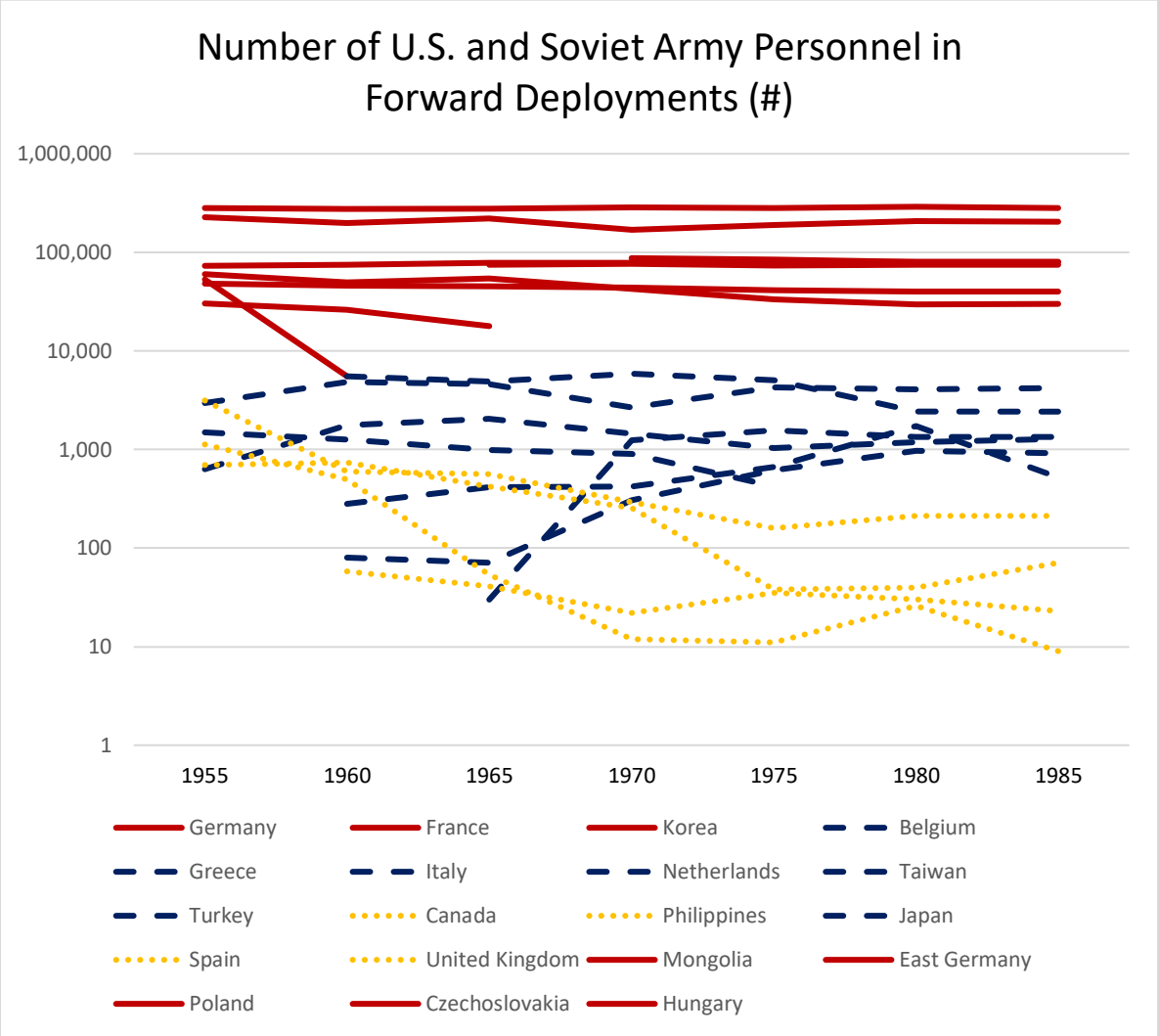
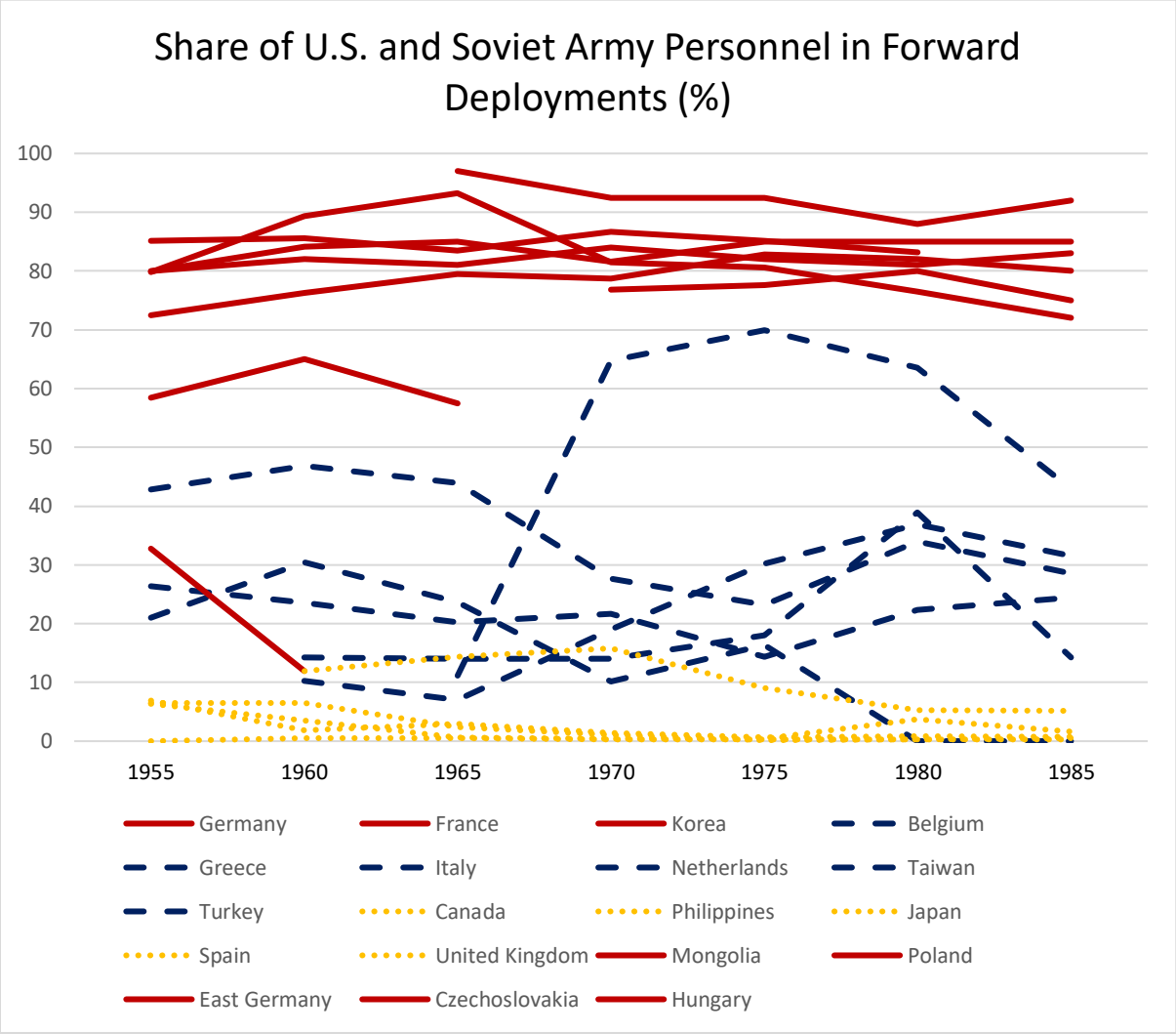


Figure A3: Chart indicating, for U.S. and Soviet junior allies, the percent of all senior ally forces forward deployed to the territory of the junior ally which are army personnel. A value of zero indicates none of the forward deployed troops are army personnel (and instead are of another service, such as the air force, navy, or marines). A value of 100 indicates that all forward deployed troops are Army personnel. Chart plots data for each five-year period from 1955 to 1985 for U.S. and Soviet junior allies hosting non-trivial U.S. or Soviet forces. Chart shows the clear division between frameworks based on the relative strength of the Army within the senior ally's total forward deployment. States with only a *Security Guarantee* (or *Security Guarantee* and *Power Projection* framework) Army personnel comprise only between 0 to 10 percent of the forward deployed personnel. States with an *Escalatory* framework generally see up to a half of the forward deployment comprised of Army personnel. States with either a *Defensive* or *Full Spectrum* framework see roughly 80 percent of the forward deployment comprised of Army personnel. Though the chart does not indicate the differences between the *Defensive* and *Full Spectrum* observations, these cases are easily differentiated by the presence or absence of ground-based tactical nuclear weapons.



Typology and Theory Coding Rules and Data Sources

Here I present the coding rules. First I present the rules for identifying, in a senior ally-junior ally dyad, what kind of extended deterrence strategy the senior ally selects. Second, I present the rules for identifying in the theory, which nodes on the decision tree a given observation should take.

In all coding decisions, I require that observations meet the specified coding criteria for at least three consecutive years and a majority of years during the observation period. This is due to the variability in certain indicators of extended deterrence strategies. For example, some legacy pre-World War II treaties were terminated shortly after the end of World War II but their termination took several years. The few intervening years between the end of the War and the termination of the treaty typically reflect the stickiness of institutional commitments rather than the strategic choice to maintain a given alliance. Similarly, troop deployment figures, especially those for mobile and afloat navy and air force personnel could be subject to high levels of noise from year to year, especially because, for the United States, they are typically captured on a single day.

TYPOLOGY

The typology identifies six extended deterrence strategies, five core strategies, one of which should be identifiable in each ally dyad observation, and one auxiliary strategy that may or may not be present alongside one of the five core strategies. Here I identify the coding and data sources for each strategy in the order they are presented within the typology summarized in the table below. To enter the universe of cases, the observations must have a defense pact as identified by either the Correlates of War or the ATOP dataset, though in rare cases I include which are not coded by COW or ATOP as featuring a defense pact when there is compelling evidence of such a commitment from the senior to the junior ally.

Table A2: Typology of Extended Deterrence Strategies

	Core Strategies					**Auxiliary Strategy**
	Conditional Alliance	**Unconditional Guarantee**	**Conventional Barrier**	**Nuclear Tripwire**	**Nuclear Barrier**	**Power Projection**
Treaty Commitment	Conditional, Specific	Unconditional, Ambiguous	Unconditional, Ambiguous	Unconditional, Ambiguous	Unconditional, Ambiguous	Unconditional, Ambiguous
Conventional Force	---	---	Significant defensive land force; air force geared for close air support; limited naval assets	Tripwire land force; limited air and naval assets	Significant defensive land force; air force geared for close air support; limited naval assets	Limited land force; significant long-range air force and naval platforms
Conventional Posture	---	---	Tactically defensive, high readiness	Tactically offensive, high readiness	Tactically offensive, high readiness	Tactically defensive, support elements
Nuclear Force	---	---	---	SRBMs, artillery, demolition charges	SRBMs, artillery, demolition charges	IRBMs, gravity bombs, depth charges
Nuclear Posture	---	---	---	Embedded, higher readiness	Embedded, higher readiness	Separated, lower readiness
Deterrent Purpose	Signal political commitment while avoiding entrapment	Signal political commitment without concern of entrapment	Deter and defend by buying time and raising costs until arrival of reinforcements	Deter and defend by nuclear offset and escalation risks	Deter and defend by buying time and raising costs until arrival of reinforcements; escalation risks	Extend ability to strike adversary cities, industry, and military facilities; reinforce own troops

Conditional Alliance
An observation is coded as featuring a conditional alliance if it fulfills the following criteria:

1. It features a formal defense pact alliance as indicated by the ATOP dataset (line 17 in ATOP coding sheets);
2. The treaty obligations are contingent (line 19 in ATOP coding sheets); and
3. There are no forward deployed troops clearly for the purposes of deterring or defeating external aggression against the junior ally.

For example, China and the Soviet Union are coded as having a conditional alliance from 1950 to 1960. Article I of that treaty clearly identified the defense pact as aimed at countering Japanese aggression: "The two (parties) undertake to carry out jointly all necessary measures within their power to prevent a repetition of aggression and breach of the peace by Japan or any other State which might directly or indirectly join with Japan in acts of aggression. Should either of the (parties) be attacked by Japan or by States allied with Japan and thus find itself in a state of war, the other (party) shall immediately extend military and other assistance with all the means at its disposal" [italics added]. By specifying a particular adversary, the treaty made the mutual defense provisions conditional. Similarly, the United Kingdom and South Africa are coded as having a conditional alliance from 1955 to 1975. The treaty was a defense pact but one that limited its obligations to the maritime domains around South Africa. Letter 3, 1 of the treaty stated that, "Recognising the importance of sea communications to the well-being of their respective countries in peace and to their common security in the event of aggression, the (parties) enter into the following Agreement *to ensure the safety, by the joint operations of their respective maritime forces, of the sea routes round Southern Africa*" [italics added].

Data for the first two criteria largely come from the ATOP dataset[759] though are sometimes supplemented with information from Benson 2012[760] and Rapp-Hooper 2015.[761] Data on military deployments comes from the ATOP dataset, the U.S. Defense Manpower Data Center,[762] and various observation-specific sources.

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[759] Brett Ashley Leeds, Jeffrey M. Ritter, Sara McLaughlin Mitchell, and Andrew G. Long, "Alliance Treaty Obligations and Provisions, 1815-1944," *International Interactions*, Vol. 28, No. 3 (2002), pp. 237-260.
[760] Brett V. Benson, *Constructing International Security Alliances, Deterrence, and Moral Hazard* (Cambridge, U.K.: Cambridge University Press, 2012).
[761] Mira Rapp-Hooper, *Absolute Alliances: Extended Deterrence in International Politics*, Ph.D. Dissertation (New York, N.Y.: Columbia University, 2015).
[762] "Worldwide Manpower Distribution by Geographical Area (M05)," *U.S. Department of Defense, Defense Manpower Data Center*, https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp.

Unconditional Guarantee
An observation is coded as featuring an unconditional guarantee if it fulfills the following requirements:

1. It features a formal defense pact alliance as indicated by the ATOP dataset (line 17 in ATOP coding sheets);
2. There are no limitations on the treaty obligations (line 19 in ATOP coding sheets); and
3. There are no forward deployed troops clearly for the purposes of deterring or defeating external aggression against the junior ally.

Occasionally, I identify an alliance as an unconditional guarantee even when the relevant treaty identifies some minor conditions to the obligations. For example, the ATOP database identifies the alliance between Taiwan and the United States from 1954 to 1979 (ATOP 3720) as including geographic limitations. Article VI of the treaty reads "For the purposes of Articles II and V, the terms 'territorial' and 'territories' shall mean in respect of the Republic of China, Taiwan and the Pescadores; and in respect of the United States of America, the island territories in the West Pacific under its jurisdiction." It is clear that this provision does not place any meaningful limitation on the provision of mutual defense assistance. The purpose of the treaty was to protect Taiwan, which is simply identified in the treaty. In this case, the treaty is identified as providing an open-ended unconditional commitment.

Data for the first two criteria largely come from the ATOP dataset though are sometimes supplemented with information from Benson 2012 and Rapp-Hooper 2015. Data on military deployments comes from the ATOP dataset, the U.S. Defense Manpower Data Center, and various observation-specific sources.

Conventional Barrier
In addition to satisfying the criteria for an unconditional alliance, an observation must fulfill the following criteria to be coded as a conventional barrier.

1. No forward-deployed ground-based tactical nuclear weapons (e.g. nuclear artillery, short-range ballistic missiles, atomic demolition munitions); and
2. At least one of the following:
    a. The forward deployment of at least a battalion of combat ground forces (at least 1,000 ground forces);[763] or

[763] Slack sets a lower level of 300 deployed forces of any service to the territory of the junior ally, or the equivalent of an army battalion. However, this threshold is likely too small, especially given that the smallest unit capable of independent combined arms operations is sometimes identified within the U.S. Army as a brigade. Further, other states, such as the Soviet Union and Russia typically formed the smallest independent combined arms units at higher echelons. To account for these differences, I keep the threshold at the deployment of a battalion but set the cutoff at 1,000 ground troops. See Matthew C. Slack, *Conventional Tripwire Deterrence*, Ph.D. Dissertation (Chicago, IL:

b. The forward deployment of ground forces whose size is such that the ratio of the adversary's relevant ground forces to forward deployed senior ally forces is less than 8:1;[764] or
c. The presence in the junior ally's territory of a senior ally military base specifically for ground forces.

Data on nuclear deployments comes from Fuhrmann and Sechser 2014.[765] Data on military deployments comes from the ATOP dataset, the U.S. Defense Manpower Data Center, Correlates of War National Material Capabilities dataset,[766] and various observation-specific sources.

Nuclear Tripwire

In addition to satisfying the criteria for an unconditional alliance, an observation must fulfill the following criteria to be coded as a nuclear tripwire.

1. There are forward-deployed ground-based tactical nuclear weapons (e.g. nuclear artillery, short-range ballistic missiles, atomic demolition munitions); and
2. At least one of the following:
    a. The forward deployment of less than a battalion of combat ground forces (fewer than 1,000 ground forces); or
    b. The forward deployment of ground forces whose size is such that the ratio of the adversary's relevant ground forces to forward deployed senior ally forces is greater than 8:1.

Data for the first two criteria largely come from the ATOP dataset though are sometimes supplemented with information from Benson 2012 and Rapp-Hooper 2015. Data on military deployments comes from the ATOP dataset, the U.S. Defense

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University of Chicago, 2018), pp. 40-42. For identification of the U.S. brigade as the smallest independent combined arms unit, see John J. McGrath, *The Brigade: Its Organization and Employment in the U.S. Army* (Fort Leavenworth, KS: Combat Studies Institute Press, 2004), pp. xi and 134. For description of Russian battalion tactical groups, see Ivo Daalder, et al., *Preserving Ukraine's Independence, Resisting Russian Aggression: What the United States and NATO Must Do* (Washington, D.C.: Atlantic Council, 2015), p. 12. For Soviet regiments, see *The Soviet Army: Operations and Tactics*, Headquarters Department of the Army, FM 100-2-2, 16 July 1984, p. 2-12.

[764] Slack argues that "An 8:1 or greater ratio should leave no reasonable chance for the tripwire to attack or defend, whether the opponent employs a modern or non-modern system and regardless of the strategies employed. This ratio is designed to identify a tripwire force irrespective of qualitative disparities between the attacker and defender." For more, see Matthew C. Slack, *Conventional Tripwire Deterrence*, Ph.D. Dissertation (Chicago, IL: University of Chicago, 2018), pp. 39-42.

[765] Matthew Fuhrmann and Todd S. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science*, Vol. 58, No. 4 (2014), pp. 919-935.

[766] J. David Singer, Stuart Bremer, and John Stuckey, "Capability Distribution, Uncertainty, and Major Power War, 1820-1965," in Bruce Russett (ed.) *Peace, War, and Numbers* (Beverly Hills, CA: Sage, 1972), pp. 19-48.

Manpower Data Center, Correlates of War National Material Capabilities dataset, and various observation-specific sources.

Nuclear Barrier

In addition to satisfying the criteria for an unconditional alliance, an observation must fulfill the following criteria to be coded as a nuclear barrier.

1. There are forward-deployed ground-based tactical nuclear weapons (e.g. nuclear artillery, short-range ballistic missiles, atomic demolition munitions); and
2. At least one of the following:
    a. The forward deployment of at least a battalion of combat ground forces (at least 1,000 ground forces); or
    b. The forward deployment of ground forces whose size is such that the ratio of the adversary's relevant ground forces to forward deployed senior ally forces is less than 8:1; or
    c. The presence in the junior ally's territory of a senior ally military base specifically for ground forces.

Data for the first two criteria largely come from the ATOP dataset though are sometimes supplemented with information from Benson 2012 and Rapp-Hooper 2015. Data on military deployments comes from the ATOP dataset, the U.S. Defense Manpower Data Center, Correlates of War National Material Capabilities dataset, and various observation-specific sources.

Power Projection

I code a senior ally as selecting a power projection strategy with a junior ally if it meets at least one of the following criteria:

1. It deployed power projection nuclear forces in the territory of the junior ally (e.g. intermediate range ballistic missiles, gravity bombs for delivery by bomber or fighter aircraft);
2. It deployed at least 1,000 total navy and air force personnel in the territory of the junior ally; and
3. It maintained a permanent navy, air force, or missile base in the territory of the junior ally (air force base should be focused on long-range platforms, not those intended for close air support).

I assume that a junior ally did not host a power projection force unless I find evidence that it did. This default coding scheme presents, for most of my cases, a hard test given that the theory predicts many junior allies should host power projection forces.

Data for these decisions come from the ATOP dataset, Harkavy 2007,[767] Fuhrmann and Sechsher 2014, Vine 2019,[768] the U.S. Defense Manpower Data Center, and various observation-specific sources.

[767] Robert E. Harkavy, *Strategic Basing and the Great Powers*, 1200-2000 (New York, N.Y.: Routledge, 2007).
[768] David Vine, "Lists of U.S. Military Bases Abroad, 1776-2021," American University Digital Research Archive, 2021, https://doi.org/10.17606/7em4-hb13.

THEORY

The theory is presented in the form of a decision tree with six nodes, collectively combining political, geographic, security, technological, and alliance variables. The tree identifies the conditions under which a senior ally will select a given strategy in the typology. Here I identify the coding and data sources for each node in the decision tree, in the order they are presented within the theory.

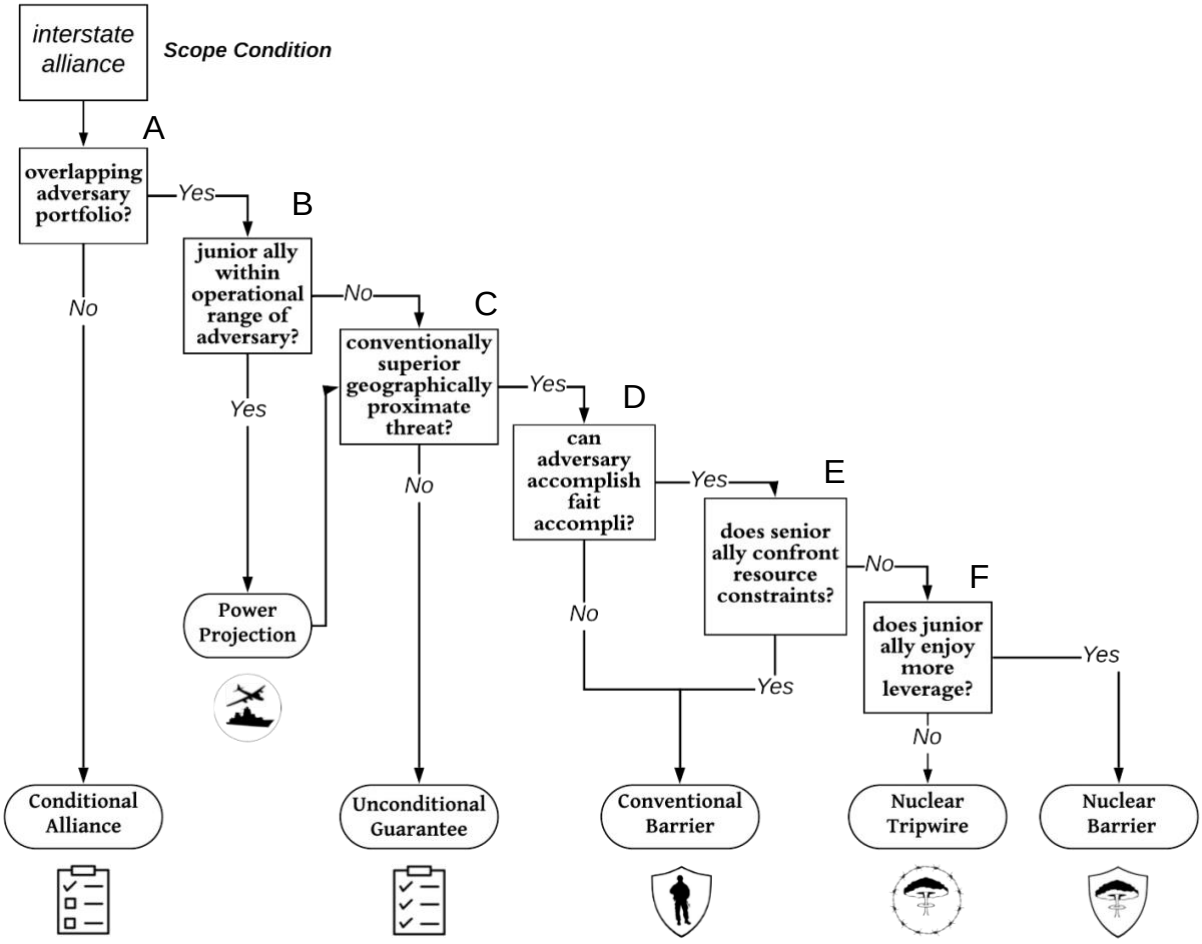

Figure A4: Extended Deterrence Selection Theory

Node A: Overlapping Adversary Portfolios

Overlapping adversary portfolios assesses whether the political relationships of the junior and senior allies present entrapment concerns for the senior ally. This node asks whether the junior ally confronts an adversary that the senior ally does not. To assess this, I use data on rivalries from Klein, Goertz, and Diehl 2006; and Thompson

and Dreyer 2011.[769] I exclude rivals that are allied. For example, Greece and Turkey, as members of NATO are excluded, even though they are identified as sharing an enduring rivalry. I also consider state dyads which have not established diplomatic relations as being rivals for coding purposes.

Node B: Operational Range

Operational range measures whether or not senior ally military forces stationed in the territory of the junior ally would be within range of an adversary. For a junior ally to be within operational range of the adversary, senior ally naval or air force assets stationed in the territory of the junior ally must be capable of striking the adversary. Since the end of World War II, all U.S. destroyers have had a range of at least 4,500 nautical miles (approximately 5,200 miles). Similarly, all strategic bombers operated by the major powers following World War II had a combat range of at least 2,000 miles.[770] Thus, I identify a junior ally as being within operational range of the adversary if, prior to 1970, it is within 2,000 miles of the adversary. From 1970 onward, I set the distance requirement at 3,000 miles to better reflect changes in technology and military operations.

Node C: Local Conventional Balance

The local conventional balance assesses whether the junior ally confronts a geographically proximate conventionally superior adversary. There are two components to this variable. First, the junior ally must confront a geographically proximate adversary. I define this by being an adversary that is contiguous to the junior ally according to the Correlates of War definition, meaning a shared land border or within 150 miles of water ("reflecting what was considered the average distance that a sailing ship could travel in one day").[771] According to these rules, a junior ally may have more than one geographically proximate threat, such as West Germany confronting both East Germany and Czechoslovakia during the Cold War.

Second, in addition to being geographically proximate, the adversary must also be conventionally superior. I measure this by comparing the Composite Index of National Capability (CINC) score for both the junior ally and the geographically proximate adversary. If the ratio of the adversary's CINC score to the junior ally's CINC score is greater than 1 (in other words, if the adversary's CINC score is larger), then the junior ally is coded as having a geographically proximate conventionally

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[769] James P. Klein, Gary Goertz, and Paul F. Diehl, "The New Rivalry Dataset: Procedures and Patterns," *Journal of Peace Research*, Vol. 43, No. 3 (2006), pp. 331-348; and William R. Thompson and David Dreyer, *Handbook of International Rivalries* (Washington, D.C.: CQ Press, 2011).

[770] *U.S. Air Force Long-Range Strike Aircraft White Paper*, United States Air Force, November 2001, p. 18.

[771] Douglas M. Stinnett, Jaroslav Tir, Philip Schafer, Paul F. Diehl, and Charles Gochman, "The Correlates of War Project Direct Contiguity Data, Version 3," *Conflict Management and Peace Science*, Vol. 19, No. 2 (2002), pp. 58-66.

superior threat. For larger countries which have their industrial capacity inconsistently distributed across territory, such as the Soviet Union, which had much of its industrial capacity concentrated in the west, I use Bueno de Mesquita's method of adjusting military capability for distance in order to better capture the challenges of projecting military capacity over long distances.[772] In calculating the adjusted military capabilities, I use the great arc distance between capitals to measure distance. I follow Lee and set the daily travel rate at 50 miles per day to better account for transit rates, especially in or near combat zones.[773] For most junior ally-adversary dyads which directly border one another, I do not adjust CINC scores for distance.

When calculating adversary capability, I use the CINC scores of all adversaries bordering the state as well as any other more capable adversary that borders the more proximate adversaries. For example, for West Germany, I use the capabilities of the two bordering adversaries East Germany and Czechoslovakia, as well as the capabilities of the Soviet Union which enjoyed unfettered access to the inner-German border through its Warsaw Pact allies.

Node D: Fait Accompli Threat

This node assesses the ability of the senior ally to defend the junior ally using only conventional forward deployments. Specifically, it assesses the ability of the adversary to accomplish a military victory before the junior or senior ally are able to reinforce their positions. Qualitatively, this is evaluated through an examination of the military planning and strategic perceptions of actors at the time, particularly

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[772] Bruce Bueno de Mesquita, *The War Trap* (New Haven, CT: Yale University Press, 1981), pp. 101-108.

[773] Bueno de Mesquita sets the transit rate at 500 miles per day but this has been challenged as far too high, while a rate of 50 miles per day better captures real world dynamics. For example, Soviet war plans envisioned marching the roughly 430 miles from the inner-German border to Lyon, France in nine days, equivalent to a speed of just under 50 miles per day. Similarly, military planning during the first Gulf War implied an expected transit rate of just over 70 miles per day for the United States, a highly advanced military. During World War II, mechanized divisions could reportedly travel "50 miles or more per day." Soviet advances against the Japanese in Manchuria averaged between 25 and 95 miles per day. For Lee's compelling discussion, see Do Young Lee, "Strategies of Extended Deterrence: How States Provide the Security Umbrella," *Security Studies*, Vol. 30, No. 5 (2021), Appendix, pp. 17-19. For critiques of Bueno de Mesquita's 500 miles per day rate, see Douglas Lemke, *Regions of War and Peace* (Cambridge, U.K.: Cambridge University Press, 2002), pp. 71-78. For Soviet war plans, see *Taking Lyon on the Ninth Day? The 1964 Warsaw Pact Plan for a Nuclear War in Europe and Related Documents* (Washington, D.C.: Parallel History Project, 2000), p. 11. For Gulf War estimates, see Douglas Lemke, *Regions of War and Peace* (Cambridge, U.K.: Cambridge University Press, 2002), p. 73. For estimates of the transit rates of World War II mechanized divisions, see "The Rise of the Panzer Division," *National WWII Museum*, 19 July 2018, https://www.nationalww2museum.org/war/articles/rise-panzer-division. For a comparative analysis of transit rates leading up to World War II, see Prentice G. Morgan, "Tacitcal Mobility," *Army*, December 1966, p. 35. For estimates of the Japanese advance in Manchuria, see Raymond L. Garthoff, "Marshal Malinovsky's Manchurian Campaign," *Military Review*, Vol. 46, No. 10 (October 1966), p. 52.

with reference to the local conventional balance, the local geography, and the location of politically and economically significant territories near anticipated combat zones. Quantitatively, in the universe of cases, I assess this measure by comparing the combined distance-adjusted CINC scores of the junior and senior ally against the combined distance-adjusted (if applicable) CINC scores of the adversaries. Senior allies will, by definition, enjoy significant power advantages against most states, including the adversaries of their allies. However, senior allies may be located far away from their junior ally, making it more costly and difficult to both pre-deploy troops to the territory of the junior ally and to reinforce the junior ally on short notice. In addition, the senior ally likely will have other security interests besides deterring and defeating aggression against any one given junior ally.

Node E: Nuclear Capabilities

This identifies whether or not the senior ally possesses the technical and organizational capacity to field ground-based tactical nuclear weapons that are required by the nuclear tripwire and nuclear barrier strategies. The senior ally scores a *Yes* on this measure if it has deployed ground-based tactical nuclear weapons either to another country or within its own military. Otherwise, the senior ally scores a *No*.

Node F: Intra-Alliance Bargaining

I assess intra-alliance bargaining by measuring the strategic significance of the junior ally to the senior. I identify five measures of the junior ally's significance to the senior ally:

- Whether the junior ally is a strategic buffer between the senior ally and an adversary (e.g. Mongolia serving as a buffer for the Soviet Union against China);
- Whether the junior ally enjoys alliances with other states *not* also allied with the senior ally;
- Whether the junior ally is a potential nuclear proliferation concern as indicated by the construction or operation of a nuclear reactor;
- Whether the junior ally is in a geographically significant location due to its position astride an important maritime chokepoint; and
- Whether the junior ally is economically significant to the senior ally as indicated by the junior ally is a top-10 trading partner for the senior ally.

Table A3: Coding Rules and Data Sources for Intra-Alliance Bargaining			
Indicator	**Points**	**Operationalization**	**Data Source**
Buffer State	3	Geographic Location	---
Outside Ally Options	1	Independent Allies > 0	Lake 2009[774]
Proliferation Risk	1	Nuclear Reactor / Program	Fuhrmann & Tkach 2015;[775] Bleek 2017[776]
Geographic Significance	1	Astride Maritime Chokepoint	U.S. EIA 2017;[777] Blankenship 2019[778]
Economic Significance	1	Top 10 Trading Partner	IHS Global Insight[779]

If the junior ally is a strategic buffer between the senior ally and the adversary, the theory predicts that the senior ally will provide a more intensive nuclear barrier to the junior ally given that the senior ally's security is so bound to that of the junior ally. Otherwise, the theory requires the junior ally to have three of the other four factors for the selection of the nuclear barrier strategy. This can be illustrated visually by assigning points to each of these factors: 3 points for buffer state status and 1 point for each other factor. If a junior ally scores at least 3 total points, then the theory predicts the selection of the nuclear barrier strategy given the junior ally's significance to the senior ally.

[774] David A. Lake, *Hierarchy in International Relations* (Ithaca, N.Y.: Cornell University Press, 2009), pp. 191-192.
[775] Matthew Fuhrmann and Benjamin Tkach, "Almost Nuclear: Introducing the Nuclear Latency Dataset," *Conflict Management and Peace Science*, Vol. 32, No. 4 (2015), pp. 443-461.
[776] Philipp C. Bleek, "When Did (and Didn't) States Proliferate? Chronicling the Spread of Nuclear Weapons," Discussion Paper (Cambridge, MA: Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School and the James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies, Monterey, CA., June 2017).
[777] "World Oil Transit Chokepoints," U.S. Energy Information Administration, 25 July 2017, https://www.eia.gov/international/content/analysis/special_topics/World_Oil_Transit_Chokepoints/wotc.pdf.
[778] Brian Dylan Blankenship, *Promises Under Pressure: Reassurance and Burden-Sharing in Asymmetric Alliances*, Ph.D. Dissertation (New York, N.Y.: Columbia University, 2018), p. 87.
[779] HIS Global Insight Trading and GDP Data.

Coding Decisions for Pattern-Matching Exercise

This appendix presents the coding decisions for the independent variables identified in extended deterrence selection theory for each of the cases in the pattern-matching exercise. For each case, I identify the senior-junior ally dyad and relevant time period. The first table presents codings of the five core strategies. Here, I code each case according to the coding rules detailed earlier in the appendix. The final column presents the theoretical prediction generated by extended deterrence selection theory for that case. In this column, shaded cells indicate predictions that were correct; unshaded cells are incorrect predictions. The second table presents codings for the auxiliary power projection strategy, presenting senior ally, junior ally, time period, and whether the case featured the auxiliary power projection strategy. Shaded cells again indicate predictions that were correct; unshaded cells are incorrect predictions

Senior Ally	Junior Ally	Years	Adversary Portfolio Overlap	Conv. Superior Geo. Proximate Off. Threat		Fait Accompli	Resource Constraints	Intra-Alliance Bargaining						Theoretical Prediction
				Proximate Adversary	Adjusted Local Power Ratio	Adjusted Extended Power Ratio	Senior Ally Developed Tactical Nuclear Weapons	Buffer State	Outside Ally	Potential Proliferator	Maritime Chokepoint	Econ. Significant	Leverage Score	
United States	Italy	1949-1957	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Italy	1957-1991	Yes	USSR + Budapest	3.34	0.73 (to 1.01 in 1960)	Yes	---	---	X	---	X	2	Nuclear Tripwire
United States	Italy	1991-today	Yes	USSR + Hungary	0.73	0.74 (from 1.06 in 1990)	Yes	---	---	---	---	---	---	Unconditional Guarantee
United States	West Germany	1955-1990	Yes	USSR + E. Germany + Czech.	2.49	0.85 (over 1 post-1958)	---	---	---	X	X	X	3	Nuclear Barrier
United States	Germany	1991-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Turkey	1952-1956	Yes	USSR + Bulgaria	22.72	1.77	No	---	---	---	---	---	---	Unconditional Guarantee
United States	Turkey	1957-1991	Yes	---	---	---	---	---	---	---	X	---	1	Nuclear Tripwire
United States	Turkey	1991-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Netherlands	1950-1957	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Netherlands	1958-1990	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Netherlands	1990-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Belgium	1950-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	South Korea	1953-1958	Yes	North Korea + China	6.96	0.60	---	---	---	---	---	---	---	Conventional Barrier
United States	South Korea	1958-1991	Yes	North Korea + China	7.12	1.25 (from 0.93 in 1957)	Yes	---	---	---	X	---	1	Nuclear Barrier
United States	South Korea	1991-today	Yes	North Korea	0.66	0.40 (from 2.26 in 1990)	---	---	---	---	---	---	---	Conventional Barrier
United States	Greece	1952-1959	Yes	USSR + Albania + Bulgaria	24.1	0.72	---	---	---	---	---	---	---	Conventional Barrier
United States	Greece	1960-1991	Yes	USSR + Albania + Bulgaria	28.45	1.02	Yes	---	---	---	---	---	0	Nuclear Tripwire
United States	Greece	1991-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Denmark	1950-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Norway	1950-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Luxembourg	1950-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	New Zealand	1951-1986	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Australia	1951-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Pakistan	1954-1972	No	---	---	---	---	---	---	---	---	---	---	Conditional Alliance
United States	Thailand	1954-1977	No	---	---	---	---	---	---	---	---	---	---	Conditional Alliance
United States	France	1950-1966	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	France	1966-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Canada	1950-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Philippines	1951-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Poland	1999-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Hungary	1999-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Czech Republic	1999-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee

Senior Ally	Junior Ally	Years	Adversary Portfolio Overlap	Conv. Superior Geo. Proximate Off. Threat: Proximate Adversary	Conv. Superior Geo. Proximate Off. Threat: Adjusted Local Power Ratio	Fait Accompli: Adjusted Extended Power Ratio	Resource Constraints: Senior Ally Developed Tactical Nuclear Weapons	Intra-Alliance Bargaining: Buffer State	Outside Ally	Potential Proliferator	Maritime Chokepoint	Econ. Significant	Leverage Score	Theoretical Prediction
United States	Slovenia	2004-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Romania	2004-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Estonia	2004-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Slovakia	2004-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Latvia	2004-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Bulgaria	2004-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Lithuania	2004-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Croatia	2009-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Albania	2009-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	United Kingdom	1949-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Iceland	1949-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Portugal	1950-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Taiwan	1954-1979	Yes	China	14.28	1.82	Yes	---	---	X	---	---	1	Nuclear Tripwire
United States	Taiwan	1979-today	No	---	---	---	---	---	---	---	---	---	---	Conditional Alliance
United States	Japan	1952-1957	Yes	USSR	0.96	0.26	---	---	---	---	---	---	---	Conventional Barrier
United States	Japan	1958-today	Yes	USSR	0.77	0.31	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Spain	1981-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United States	Israel	1981-1991	No	---	---	---	---	---	---	---	---	---	---	Conditional Alliance
United Kingdom	Libya	1953-1969	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United Kingdom	Iraq	1955-1959	No	---	---	---	---	---	---	---	---	---	---	Conditional Alliance
United Kingdom	Jordan	1948-1957	No	---	---	---	---	---	---	---	---	---	---	Conditional Alliance
United Kingdom	Belize	1981-1993	Yes	Guatemala	47.25	0.77	---	---	---	---	---	---	---	Conventional Barrier
United Kingdom	Belize	1993-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United Kingdom	Malaysia	1957-1971	No	---	---	---	---	---	---	---	---	---	---	Conditional Alliance
United Kingdom	Sri Lanka	1948-1962	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
United Kingdom	South Africa	1955-1975	No	---	---	---	---	---	---	---	---	---	---	Conditional Alliance
United Kingdom	Cyprus	1960-1974	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
France	Gabon	1960-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
France	Central African Republic	1960-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
France	Chad	1960-1976	No	---	---	---	---	---	---	---	---	---	---	Conditional Alliance
France	Congo	1960-1974	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
France	Madagascar	1960-1973	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee

Senior Ally	Junior Ally	Years	Adversary Portfolio Overlap	Conv. Superior Geo. Proximate Off. Threat: Proximate Adversary	Conv. Superior Geo. Proximate Off. Threat: Adjusted Local Power Ratio	Fait Accompli: Adjusted Extended Power Ratio	Resource Constraints: Senior Ally Developed Tactical Nuclear Weapons	Intra-Alliance Bargaining: Buffer State	Intra-Alliance Bargaining: Outside Ally	Intra-Alliance Bargaining: Potential Proliferator	Intra-Alliance Bargaining: Maritime Chokepoint	Intra-Alliance Bargaining: Econ. Significant	Intra-Alliance Bargaining: Leverage Score	Theoretical Prediction
France	Senegal	1974-today	No	---	---	---	---	---	---	---	---	---	---	Conditional Alliance
France	Djibouti	1977-2011	Yes	Somalia	20.86	0.77	---	---	---	---	---	---	---	Conventional Barrier
Soviet Union	Poland	1949-1966	Yes	Denmark + USA	2.33	0.62	---	---	---	---	---	---	---	Conventional Barrier
Soviet Union	Poland	1967-1990	Yes	---	---	---	---	---	---	---	---	---	---	Conventional Barrier
Soviet Union	East Germany	1955-1957	Yes	West Germany + USA	10.29	1.18	No	X	---	---	---	X	4	Conventional Barrier
Soviet Union	East Germany	1958-1991	Yes	West Germany + USA	9.73	1.06	Yes	X	---	---	---	X	4	Nuclear Barrier
Soviet Union	Bulgaria	1955-1991	Yes	Turkey + USA	24.7	0.90		X	---	---	---	---	3	Conventional Barrier
Soviet Union	Mongolia	1946-1966	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
Soviet Union	Mongolia	1967-1992	Yes	China	677.33	2.70	Yes	X	---	---	---	---	4	Nuclear Barrier
Soviet Union	Romania	1958-1989	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
Soviet Union	Hungary	1949-1973	Yes	Italy + USA	18.65	0.99	Yes	X	---	---	---	X	4	Conventional Barrier
Soviet Union	Hungary	1974-1989	Yes	Italy + USA	7.80	0.39	Yes	X	---	---	---	X	4	Nuclear Barrier
Soviet Union	Czechoslovakia	1955-1968	Yes	West Germany + USA	11.19	1.20	Yes	X	---	---	---	X	4	Nuclear Barrier
Soviet Union	Vietnam	1979-1991	No	---	---	---	---	---	---	---	---	---	---	Conditional Alliance
Soviet Union	Cuba	1962	Yes	United States	57.48	6.75	Yes	---	X	---	X	X	3	Nuclear Barrier
Soviet Union	Cuba	1962-1991	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
Soviet Union	Albania	1955-1968	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
Soviet Union	Finland	1948-1992	No	---	---	---	---	---	---	---	---	---	---	Conditional Alliance
Soviet Union	China	1950-1960	Yes	Taiwan + United States	0.60	0.56	---	---	---	---	---	---	---	Unconditional Guarantee
China	North Korea	1961-1991	Yes	South Korea + United States	8.17	0.39	---	---	---	---	---	---	---	Conventional Barrier
Russia	Armenia	1994-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
Russia	Belarus	1994-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
Russia	Kazakhstan	1994-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
Russia	Kyrgyzstan	1994-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
Russia	Tajikistan	1994-today	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
Russia	Azerbaijan	1994-1999	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
Russia	Georgia	1994-1999	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
Russia	Uzbekistan	1994-1999	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee
Russia	Uzbekistan	2006-2012	Yes	---	---	---	---	---	---	---	---	---	---	Unconditional Guarantee

Senior Ally	Junior Ally	Years	Power Projection
United States	Italy	1949-1957	Yes
United States	Italy	1957-1991	Yes
United States	Italy	1991-today	Yes
United States	West Germany	1955-1990	Yes
United States	Germany	1991-today	Yes
United States	Turkey	1952-1956	Yes
United States	Turkey	1957-1991	Yes
United States	Turkey	1991-today	Yes
United States	Netherlands	1950-1957	Yes
United States	Netherlands	1958-1990	Yes
United States	Netherlands	1990-today	Yes
United States	Belgium	1950-today	Yes
United States	South Korea	1953-1958	No
United States	South Korea	1958-1991	No
United States	South Korea	1991-today	Yes
United States	Greece	1952-1959	Yes
United States	Greece	1960-1991	Yes
United States	Greece	1991-today	Yes
United States	Denmark	1950-today	Yes
United States	Norway	1950-today	No
United States	Luxembourg	1950-today	No
United States	New Zealand	1951-1986	Yes
United States	Australia	1951-today	Yes
United States	Pakistan	1954-1972	No
United States	Thailand	1954-1977	No
United States	France	1950-1966	Yes
United States	France	1966-today	No
United States	Canada	1950-today	Yes
United States	Philippines	1951-today	Yes
United States	Poland	1999-today	No
United States	Hungary	1999-today	No
United States	Czech Republic	1999-today	No
United States	Slovenia	2004-today	No
United States	Romania	2004-today	No
United States	Estonia	2004-today	No
United States	Slovakia	2004-today	No

Senior Ally	Junior Ally	Years	Power Projection
United States	Latvia	2004-today	No
United States	Bulgaria	2004-today	No
United States	Lithuania	2004-today	No
United States	Croatia	2009-today	No
United States	Albania	2009-today	No
United States	United Kingdom	1949-today	Yes
United States	Iceland	1949-today	Yes
United States	Portugal	1950-today	Yes
United States	Taiwan	1954-1979	Yes
United States	Taiwan	1979-today	No
United States	Japan	1952-1957	Yes
United States	Japan	1958-today	Yes
United States	Spain	1981-today	Yes
United States	Israel	1981-1991	No
United Kingdom	Thailand	1954-1977	No
United Kingdom	Pakistan	1954-1972	No
United Kingdom	Libya	1953-1969	Yes
United Kingdom	Iraq	1955-1959	Yes
United Kingdom	Jordan	1948-1957	Yes
United Kingdom	Belize	1981-1993	Yes
United Kingdom	Belize	1993-today	No
United Kingdom	Malaysia	1957-1971	Yes
United Kingdom	Sri Lanka	1948-1962	Yes
United Kingdom	South Africa	1955-1975	No
United Kingdom	Cyprus	1960-1974	Yes
France	Gabon	1960-today	Yes
France	Central African Republic	1960-today	Yes
France	Chad	1960-1976	Yes
France	Congo	1960-1974	Yes
France	Madagascar	1960-1973	Yes
France	Senegal	1974-today	Yes
France	Djibouti	1977-2011	Yes
Soviet Union	Poland	1949-1966	Yes
Soviet Union	Poland	1967-1990	Yes
Soviet Union	East Germany	1955-1957	Yes
Soviet Union	East Germany	1958-1991	Yes

Senior Ally	Junior Ally	Years	Power Projection
Soviet Union	Bulgaria	1955-1991	No
Soviet Union	Mongolia	1946-1966	No
Soviet Union	Mongolia	1967-1992	No
Soviet Union	Romania	1958-1989	Yes
Soviet Union	Hungary	1949-1973	Yes
Soviet Union	Hungary	1974-1989	Yes
Soviet Union	Czechoslovakia	1955-1968	Yes
Soviet Union	Vietnam	1979-1991	Yes
Soviet Union	Cuba	1962	Yes
Soviet Union	Cuba	1962-1991	Yes
Soviet Union	Albania	1955-1968	No
Soviet Union	Finland	1948-1992	No
Soviet Union	China	1950-1960	No
China	North Korea	1961-1991	No
Russia	Armenia	1994-today	Yes
Russia	Belarus	1994-today	No
Russia	Kazakhstan	1994-today	No
Russia	Kyrgyzstan	1994-today	Yes
Russia	Tajikistan	1994-today	Yes
Russia	Azerbaijan	1994-1999	No
Russia	Georgia	1994-1999	No
Russia	Uzbekistan	1994-1999	No
Russia	Uzbekistan	2006-2012	No

Codings for Statistical Tests

As noted in chapter 6 (note 713 on page 339), the statistical tests use a subset of codings from the pattern-matching exercise as, subsequent to the statistical tests, the set of cases was expanded. Future work will reconduct the statistical tests using the new, more expansive set of cases to confirm that the results still hold. Here I report the subset of cases used for the statistical analyses.

Unconditional Guarantee		**Power Projection**	
US: Greece 1950-1956	US: Canada 1988-today	US: Taiwan 1958-1979	SOV: Cuba 1962-1993
US: Denmark 1950-1958	US: Netherlands 1990-today	US: Greece 1956-today	US: Saudi Arabia 1953-1961
US: Belgium 1950-1967	US: Philippines 1991-today	US: Canada 1950-1988	NA-US: Djibouti 2004-2012
US: Norway 1950-today	US: Poland 1997-today	US: Netherlands 1950-1958	NA-US: Morocco 1950-1973
US: Luxembourg 1950-today	US: Hungary 1997-today	UK: Malaysia 1957-1972	NA-US: Libya 1951-1969
US: Turkey 1951-1956	US: Czech Republic 1997-today	UK: Singapore 1957-1972	US: Spain 1954-today
US: New Zealand 1951-1986	US: Slovenia 2004-today	UK: Cyprus 1961-1975	US: Philippines 1951-1991
US: Australia 1951-today	US: Romania 2004-today	US: Denmark 1958-1965	US: Belgium 1962-today
US: Pakistan 1954-1972	US: Slovakia 2004-today	US: Iceland 1950-today	US: (West) Germany 1950-today
UK: Thailand 1954-1972	US: Latvia 2004-today	US: Portugal 1950-today	SOV: Vietnam 1982-1991
UK: Pakistan 1954-1972	US: Lithuania 2004-today	US: UK 1950-today	
UK: New Zealand 1954-1972	US: Croatia 2009-today		
US: Thailand 1954-1977	US: Albania 2009-today		
US: France 1964-today	US: Belgium 1991-today		
US: Denmark 1965-today	US: Greece 1991-today		
US: Turkey 1988-today	US: UK 1950-today		

Conditional Alliance	**Conventional Barrier**	**Nuclear Tripwire**	**Nuclear Barrier**
US: Taiwan 1979-today	US: Japan 1950-today	US: Greece 1956-1991	US: South Korea 1958-1991
US: Pakistan 1972-today	US: France 1950-1964	US: Turkey 1959-1988	US: West Germany 1950-1990
US: Thailand 1977-today	US: Italy 1950-1956	US: Taiwan 1958-1979	SOV: Czechoslovakia 1969-1990
UK: Libya 1953-1969	US: South Korea 1950-1958	US: Netherlands 1958-1990	SOV: Hungary 1974-1989
UK: Iraq 1950-1959	US: South Korea 1991-today	US: Belgium 1967-1991	SOV: East Germany 1958-1991
UK: Jordan 1950-1956	US: West Germany 1950-1956	US: Italy 1956-today	SOV: Mongolia 1966-1992
France: Gabon 1960-2012	UK: Belize 1982-1993		SOV: Poland 1967-1990
France: CAR 1960-1976	NA-France: Djibouti 1982-2012		
France: Chad 1960-1978	US: Germany 1991-today		
France: Congo 1960-1978	SOV: Poland 1950-1966		
China: DPRK 1961-today			