

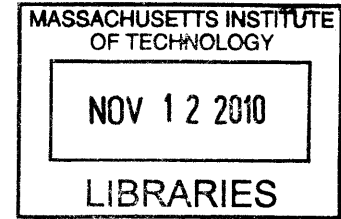
Nuclear Bargaining: Using Carrots and Sticks in Nuclear Counter-Proliferation

by

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ARCHIVES

SUBMITTED TO THE DEPARTMENT OF POLITICAL SCIENCE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF


DOCTOR OF PHILOSOPHY IN POLITICAL SCIENCE
AT THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SEPTEMBER 2010

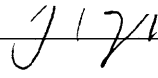
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Submitted to the Department of Political Science
on July 21, 2010 in Partial Fulfillment of the
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ABSTRACT

This dissertation explores how states can use positive inducements and negative sanctions to successfully bargain with nuclear proliferators and prevent the spread of nuclear weapons. It seeks to answer the following question:

How effective are offers of inducements and threats of sanctions - i.e., 'sticks' and 'carrots' - in efforts to prevent or to roll back the proliferation of nuclear weapons?

I pay particular attention to the use of positive inducements, asking:

How effective and efficient is the use of inducements relative to negative sanctions? Under what circumstances is each most likely to be useful?

I propose an issue-linkage theory with which the use of negative sanctions and positive inducements might be understood. In the theory, negative sanctions and positive inducements are conceptualized as bargaining proposals that link punishments or rewards to particular demands made to the target state. Negative sanctions and positive inducements are effective when they enhance the power and interests of domestic political factions in the target state that support compliance with the sender's nuclear demands.

I argue that positive inducements are typically a more effective tool of foreign policy than negative sanctions. Also, the difference in the effectiveness between the two is more pronounced when dealing with adversaries than it is with allies. With allies, both sanctions and inducements can be effective, but inducements are more likely to secure long-term cooperation. With adversaries, negative sanctions are not only much less effective than inducements, but run the risk of triggering escalation.

The theory is tested against three counter-proliferation cases: North Korea, South Korea, and Libya. I find that negative sanctions were successful only in the South Korean case, while threats and sanctions triggered escalation in both cases involving US adversaries. On the other hand, positive inducements were used successfully in all three cases. A detailed reading of the three cases lends support to the theory, and suggests that a broader test is warranted.

Thesis Supervisor: Stephen Van Evera
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Acknowledgments

This dissertation is the product of a long journey that I would not have been able to make without the help and support of the friends, family, and colleagues (and dog) that have believed in me. They have helped me reach one of the most important milestones in my life, and I am grateful. As a new journey begins, I count myself privileged to have such people by my side.

I am deeply indebted to the three faculty members who served on my dissertation committee: Steve Van Evera, Ken Oye, and Matt Bunn. I consider myself very fortunate to have such formidable scholars review my work. All three of these men have shown a rare level of integrity and fairness, and have earned my deepest respect.

I am grateful to Steve Van Evera, my advisor, for his patience, his confidence in my abilities, and the high professional ethics he has taught me through word and deed. Steve has taught me to never put convenience ahead of our obligation to the truth, or our duty to tackle the important problems. He also gave what is probably the best advice I ever received: the best dissertations are the ones that are finished. He is a mensch.

I am grateful to Ken Oye for his many years of support and keen advice. I have always respected Ken for his curiosity, broad interests, and skill as a teacher. Most of all, I admire him because he is – far more often than not – right. Ken is the first person I'd want on my side of the debate. His ideas have shaped my own, and his work has inspired much of the reasoning in this dissertation. I hope I have done him justice.

I am grateful to Matt Bunn for his example of professionalism and dedication. Matt went far above and beyond his duties as a committee member, and provided a more careful and thoughtful review of this dissertation than could possibly be expected. His feedback has been invaluable.

I am forever in debt to Susan Twarog. Her help has made graduate school immeasurably easier. I continue to be amazed by her ability to facilitate the seemingly impossible.

Several other members of the MIT Political Science community deserve specific mention for their guidance, feedback, and support. Jessica Wattman and John Payne got me across the finish line. Mike Glosny and Josh Rovner have been supportive friends and helpful colleagues.

Most of all, I am forever grateful to my wife, Elke. I will never be able to repay her superhuman patience and endless support. She has shown more faith in me than I have ever had in myself, and has stood by me through the most difficult of times. I am glad she has also been there for the best, and I am truly lucky to share my life with her.

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1. Nuclear Counter-Proliferation

I. The Research Agenda

What policies should the United States adopt toward states trying to develop nuclear weapons? When should sanctions be used to pressure states to give up nuclear programs? When is it more appropriate to offer rewards for nuclear compliance? These questions are among the most important and relevant to American policy makers in the early 21st century. They bear directly on contemporary debates over how the United States should deal with Iran, North Korea, and other nuclear weapons proliferators.

These questions also lead to broader theoretical problems in the study of international relations. How do coercive instruments of foreign policy – military coercion, threats, economic sanctions – influence the behavior of states? How can positive inducements, which can also take a variety of forms, be used to promote cooperation? Under what circumstances are negative sanctions and positive inducements appropriate foreign policy tools?

Threats of punishment and promises of rewards are the central tools that states have available, short of simply imposing their will on another state through brute military force, to try to change one another's behavior. In many – if not most – situations, they are the preferred policy options, and are typically more effective and efficient than resorting to war, or relying on mere talk and persuasion. This has especially been the case with nuclear counter-proliferation. In recent decades, the United States has sought to influence the nuclear choices of North Korea, Iran, Pakistan, and India through negative sanctions and positive inducements. Yet, in spite of frequent calls from hawks for the 'Osirak option' against several 'rogue' proliferators, the US has resorted to preventive military force for the stated purpose of eliminating nuclear (and other WMD) programs only once: against Iraq in 2003.¹ On only three other occasions – in the Gulf War in 1991, and in World War II with Germany and Japan – did the US put an end to another state's nuclear program by means of force. In a number of other cases of nuclear proliferation, including China, North Korea, and Iran, the United States gave serious consideration to

¹ Even the normally dovish *New York Times* columnist Nicholas Kristof touted the Israeli bombing of the Iraqi Osirak nuclear facility in 1981 as supporting evidence for preventive war in a column written months before the 2003 US invasion of Iraq. Kristof, November 15, 2002.

preventive force but ultimately decided that the costs, as well as the chances of failure, were too high to justify its use.²

Given the centrality of negative sanctions and positive inducements in foreign policy, the prominent place that nuclear weapons proliferation occupies on the US foreign policy agenda, and the frequency with which sanctions and inducements have been used in US counter-proliferation efforts – sometimes with notable success – one would expect these issues to likewise be prominently featured in the scholarly literature on international relations. Yet this is not so. To be sure, there is a substantial literature on economic sanctions. There is also an impressive literature on nuclear weapons proliferation. The literature on sanctions, however, tends to look exclusively at economic sanctions, and almost as exclusively in the context of international economic issues and “low politics.” Only a minority of studies has focused on the use of sanctions in international security. Even fewer have considered the use of positive incentives toward national security goals.

The lack of attention these issues receive is most certainly not explained by a lack of demand from policy makers for advice. In spite of a wide consensus among American foreign policy makers about the importance of nonproliferation efforts, there is little agreement about which forms of statecraft are most appropriate to the task. Some argue that threats of sanctions or military force can convince a proliferator to forgo a nuclear weapons program; others favor the use of incentives. Still others maintain that nothing is likely to be effective with ‘rogue’ proliferators short of preventive military attack or regime change. Advocates of sanctions or threats argue that positive inducements only encourage further transgressions.³ Those who favor inducements often argue that threats convince the target state that it is insecure and needs nuclear weapons more than ever.⁴ Yet despite these strong and varying opinions on this issue, there are few rigorous analyses offered by scholars to try to settle the debate.

The purpose of this dissertation is to take a small step toward filling this gap. I have two principal goals. First, I seek to create a common framework in which both negative sanctions and positive inducements can be understood. I consider it especially important to include positive inducements here, as they are both under-studied relative to their frequent use and importance in foreign policy, and they are conceptually related to negative sanctions – and yet also differ from them – in significant and generalizable ways that have not been sufficiently explored. My second

² As of this writing, a vocal minority of influential US policy makers and experts continue to support preventive military strikes against Iran.

³ For a representative sample, see Bolton, May 19, 2008; Safire, December 22, 2003; Blank, February 14, 2003; and Sokolski and Gilinsky, February 11, 2002.

⁴ For example, Walsh *et al.*, 2009; Leverett and Leverett, September 29, 2009; Perry, July 23, 2003; and Sigal, “Averting a Train Wreck in North Korea,” 1998.

goal is to more specifically examine these tools in the context of nuclear weapons proliferation. Given that both sanctions and inducements have been used in past US counter-proliferation efforts with varying degrees of success and failure – and have often been used in concert – I try to uncover the mechanisms through which they affect states’ nuclear decisions, and discern the contexts in which their use is most appropriate.

The remainder of this chapter, as well as the following one, provide the context for my research. First, in the sections below, I provide a summary of my argument, the methodological tools I use to test the theory as well as the types of evidence I bring to bear, and finally provide a brief preview of my findings from the three case studies. Next, I give an overview of US nuclear nonproliferation policies in order to put the policy problem into the appropriate context, and to provide some basic definitions of terms. Then I consider the current state of the art in the scholarly literature on nuclear proliferation. Chapter 2 continues the review of the literature by focusing on the body of scholarly work on negative sanctions and positive inducements. Two distinct literatures are identified and treated separately: one on military coercion, another on economic sanctions. I outline the general issues as well as the most relevant and significant contributions and findings, and identify areas in which there are theoretical problems, or where greater focus is warranted. The goal is to appropriately set the stage for the theory that I develop in Chapter 3, which frames both negative sanctions and positive inducements in terms of issue-linkage.

II. The Argument: Sticks With Allies, Carrots With Adversaries

This dissertation argues that positive inducements are typically a more effective tool of foreign policy than negative sanctions. Also, the difference in the effectiveness between the two is more pronounced when dealing with adversaries than it is with allies. With allies, both sanctions and inducements can be effective, but inducements are more likely to secure long-term cooperation. With adversaries, negative sanctions are not only much less effective than inducements, but run the risk of triggering escalation.

I am particularly concerned in this study with the relative effectiveness of sanctions and inducements in nuclear counter-proliferation. Specifically, I look at how effective and efficient sanctions and inducements can be in convincing another state to give up or accept restrictions on its nuclear program. I argue that the general conclusions stated above about sanctions and inducements hold true when matters of “high politics” and international security are under

dispute, and more specifically are appropriate to understanding when and how the United States can use these techniques to convince proliferators to reverse their nuclear decisions.⁵

This dissertation proposes an *issue-linkage theory* with which the use of negative sanctions and positive inducements might be understood. In this theory, negative sanctions and positive inducements are conceptualized as bargaining proposals that link punishments or rewards to particular demands made to the target state. For example, the United States may offer civilian nuclear aid in return for another state's ratification of the Nuclear Nonproliferation Treaty (NPT), or threaten economic sanctions unless a proliferator agrees to IAEA inspection protocols. The target state may either accept the proposal and enjoy the linked reward (or avoid the threatened sanction), or reject it and forgo any reward (or incur the penalty).

There are several strengths to the issue-linkage approach. First, it allows for both inducements and sanctions to be treated within a common framework. This is especially important considering they are frequently used together in counter-proliferation strategies – a “carrot-and-stick” approach. Second, framing sanctions and inducements in terms of bargaining draws attention to the significance of information problems, signaling, and reputation. These are important aspects of coercive diplomacy that are frequently overlooked in the literature. Third, the issue-linkage framework captures the strategic interaction between the sender and the target state that takes place when either sanctions or inducements are used. The two states' decisions are shaped not only by the immediate payoffs from any given proposal, but are heavily influenced by the way in which they anticipate how these decisions will affect one another's future choices. Because states anticipate one another's responses to their actions, they may change their behaviors to avoid sanctions or receive inducements before they are implemented or even formally offered or threatened. Also, because states anticipate how their choices in the present will affect the choices of others in the future, the outcome of any given bargaining event is influenced by the way that state decision makers appraise potential reputation costs, as well as the way that the distribution of gains may effect the future strategic environment. Finally, the issue-linkage theory highlights the significance of state preferences. The effects of sanctions and inducements cannot be understood without taking into account both the preferences of the sender

⁵ By this I do not mean to challenge any distinctions between high and low politics, nor do I offer an expanded definition of national security beyond those traditionally used in the international relations literature. I simply claim that various forms of statecraft – military, economic, and diplomatic – can all be used by states to influence one another's behaviors across many different issue areas, including ones that have important consequences for regime or state survival. I also maintain that because these tools are more often than not used in concert, and because there is substantial evidence that they work according to similar mechanisms and vary in their effectiveness according to similar conditions, there is a need to approach these tools through a common analytical framework.

and the target states, as well as the way in which these preferences are changed in the bargaining process. State preferences cannot be assumed *a priori*, and are not static. Sanctions and inducements, in fact, work by changing the preferences of the two states. An issue-linkage model can capture this in ways that other approaches have not.

The theory makes two important assumptions about international politics. One is that states interact in an information-poor environment that is characterized by information asymmetries – in which states have private information about their own preferences and capabilities – and uncertainty. States typically invest substantial resources in their efforts to discover other states' preferences, intentions, capabilities, and motives. In spite of these efforts, decision makers still must make numerous assumptions, guesses, and suppositions that are frequently based on incomplete or questionable evidence. Likewise, the outcomes of different policy choices are often highly uncertain. This is especially the case with state policies such as the development of a nuclear program that are risky, can provoke a variety of reactions from other states, and have implications for a number of the state's international and domestic interests. As a result, while state preferences may be sharply limited by objectively observable conditions such as the balance of military power, they cannot always be accurately deduced according to systemic factors. Instead, we must rely on more direct – and necessarily imprecise – ways to try to measure the preferences of decision makers. Also, because states often misjudge each other's preferences, we should expect their judgments to change over time in response to the ways in which another state's behavior confirms or challenges expectations. Because of this process of Bayesian inference-making that takes place as states interact over time, it is necessary to consider the ways in which different actions, statements, threats, and promises play the role of signals that provide each state with new information. It is also, of course, necessary to keep in mind that states take advantage of information asymmetries and uncertainties by strategically distorting these signals – such as when they dissemble, bluff, or use brinkmanship – or by strategically increasing the risk of war.

The second assumption is that state preferences are constituted by the aggregation of the preferences of domestic political actors. By itself, this is not controversial, as foreign policy is obviously determined through domestic political processes. The assumption here, however, is that domestic political factors can be included in the theory in a way that offers generalizable predictions about outcomes, and leads to different and more accurate predictions than if the theory treated states as unitary actors. Specifically, I assume that negative sanctions and positive

inducements can influence state preferences by changing both the preferences of domestic actors as well as their relative influence over the policy-making process.⁶

A caveat is in order on this point. I do not seek to establish a theory of state preference formation or a theory of foreign policy. In fact, I do not make any assumptions about the nature of domestic actors, the domestic institutions that define their interactions with one another, or the ideologies and biases that shape their beliefs. These may vary significantly across states and also across issue areas. Foreign policy is determined quite differently in France than it is in North Korea. Likewise, foreign policy choices are made in Washington very differently when the issue is nuclear weapons than it is when the issue is cheese imports. I remain agnostic in the theoretical fights over the relationships between international and domestic politics.⁷ My only assumption is that in nearly every case, the policy preferences of domestic actors who do have influence over the policy-making process on any given issue, and the value that they put on different outcomes, is not homogeneous. There are almost always different policy preferences among the decision makers that matter, whatever those preferences are based on, be it their conceptions of the national interest or more particular self-interests. Additionally, both the preferences of these actors as well as the aggregation of these preferences are not etched in stone. They can be changed depending on the information that is available, the demands that are made, and the threats or promises that are issued.

The theory is not capable of predicting outcomes in specific counter-proliferation cases. It cannot tell policy makers what the outcome would be if they were to use a particular mix of sanctions and inducements in a given case. This will inevitably depend on the specific issue under contention, the values that different actors put on it, the international context, and the characteristics of the states involved. What I do hope this theory can do is provide some direction as to where to look to make these judgments.

III. Methods

This dissertation uses a comparative case-study methodology to test the above four hypotheses against the historical record of three important cases of US counter-proliferation diplomacy in which issue linkage was used. The three cases – North Korea’s nuclear weapons program and the negotiation of the 1994 Agreed Framework, South Korea’s pursuit of nuclear

⁶ As Allison puts it, “Men share power. Men differ about what must be done. The differences matter. This milieu necessitates that government decisions and actions result from a political process. In this process, sometimes one group committed to a course of action triumphs over other groups.” Allison, 1971, p.145.

⁷ As I will discuss in much greater detail in Chapter 2, the domestic political effects of coercion are typically complex and highly context-dependent. See, for example, Kirshner, 1997.

weapons and the closed nuclear fuel cycle in the 1970s, and Libya's nuclear weapons program – are presented in Chapters 4, 5, and 6, respectively. In each of the three cases, the United States used both negative sanctions and positive inducements on a number of occasions, meeting with variable results that depended on the relationship between the US and the target state, and the choice of issue linkage. In this sense, US counter-proliferation efforts in these cases constitute a set of *natural experiments* that can be used to empirically test the issue-linkage theory I present in Chapter 3.⁸ I use process tracing to illustrate the mechanisms through which US policy choices produced specific outcomes.

The three case studies presented are intended as a plausibility probe for the theory, not a definitive test. Given the relatively small number of states that have pursued a nuclear weapons capability, and the even smaller number of cases in which US diplomacy played a major role, it should be possible to apply the theory outlined in this chapter to the full set of these cases. The purpose of this dissertation is to first determine whether such an effort is worthwhile, and to identify ways in which the theory can be modified or qualified in order to better capture the effects of counter-proliferation diplomacy. A careful analysis of three major cases is appropriate to this task.

I have chosen to use a comparative case-study methodology in this study for six reasons.⁹ First, the sample size of states with which the United States has used negative sanctions and positive inducements to change a state's nuclear weapons behavior is small. In fact, the number of states that have ever pursued a nuclear weapons capability is itself small, making the case-study approach an appropriate one not just for an analysis of counter-proliferation but for any study about nuclear proliferation in general.

Second, a case-study methodology better avoids selection effects than a quantitative analysis by allowing us to consider instances in which both negative sanctions and positive inducements are threatened but never implemented, either because the target acceded to the threat, or the offer of inducements was refused. This has been a problem that has long plagued large-*n* statistical analyses of economic sanctions. By looking only at cases in which sanctions

⁸ By “natural experiment” (or, alternatively, “quasi-experiment”) I mean that these three cases have some of the same key characteristics as true experiments in which the independent variables can be manipulated while controlling for background conditions. US counter-proliferation strategies – negative sanctions and positive inducements – vary within and across these cases. Background conditions are, of course, best controlled for when outcomes are compared within cases. Many conditions are still controlled for across these cases, however, because of the similar nature of these episodes of nuclear proliferation. Process tracing can further mitigate bias that is introduced by variations in background conditions.

⁹ This is what George and Bennett refer to as “structured, focused comparison.” For discussions on the appropriate use of case-study methods, as well as their strengths and weaknesses relative to other empirical methodologies, see George and Bennett, 2005; and Van Evera, 1997.

were implemented, the study design omits those cases in which sanctions were threatened and the target state yielded before the threat could be carried out. The case-study approach cannot only include these cases, but also ones in which the sender threatens sanctions but – after its bluff is called – fails to carry them out.

Third, the case-study methodology allows for a careful analysis of the causal mechanisms that determine whether and how negative sanctions and positive inducements affect nuclear decision making. This is particularly important for an empirical test of the theory presented in this chapter, because the theory depends heavily on the preferences of domestic actors, and the way in which economic sanctions and positive inducements affect both the preferences and the influence of domestic coalitions. These intermediate variables are not conducive to the coding that would be necessary in a quantitative study.

Fourth, the use of case studies makes it easier to deal with the problem of specifying the independent variable. In many cases, the distinction between a negative sanction and a positive inducement is not at all clear. For example, if trade restrictions were imposed with one set of demands, and then the sender later offers to lift those sanctions if another unrelated set of demands are filled, is this the offer of a new positive inducement, or a change in the demands linked to an existing sanction? How can we tell when negative sanctions are genuinely meant as a bargaining strategy from when they are designed to simply inflict military or economic damage on the target as a means to weaken it? What if the sender seeks both coercion and the weakening of the target? Can the sender's demands be implicit, or do they have to be stated with some degree of clarity? There is no satisfactory way of resolving these issues with a single, precise set of definitions of the terms, as the difference typically depends upon how actions are subjectively viewed by the states involved. These problems are best handled by case studies, which are better capable of taking the perceptions of state decision makers into consideration.

Fifth, the case-study approach allows for a more nuanced treatment of the dependent variable. A full analysis of individual cases allows us to avoid many of the pitfalls of having to provide a narrow and restrictive definition of successful outcomes. In the past, statistical studies of economic sanctions – on which most of the literature has concentrated – became bogged down in debates over how specific cases should be coded. The conclusions of these studies heavily depended upon the definition of success that the author adopted, with pessimists offering narrow definitions and optimists offering broader ones. By using case studies, we can more effectively capture outcomes of varying degrees of, or partial, success, in which the target complies with some but not all of the sender's demands. We can also better deal with situations in which the sender's demands are implicit or unclear, or in which they change over time.

Finally, I have chosen to use case studies because the histories of the three cases chosen for this dissertation are interesting, significant, and controversial enough to warrant individual analysis, independent of testing the theory presented in this chapter. The North Korean case has been studied in detail by many others. South Korea's nuclear efforts have received far less attention, however, and recently declassified documents shed new light on what is a surprisingly under-studied proliferation case. In the South Korea chapter in this study, I hope to convey that there was, in fact, a serious risk in the 1970s that South Korea would go nuclear – a turn of events that could have had greatly destabilizing consequences in Northeast Asia. Because the Libyan case is much more recent, it, too, has not received the attention that it deserves. This is particularly surprising given the contentious claims that are made about the effectiveness of US policies used in the case. In the chapter on Libya in this dissertation, I particularly seek to dispel notions that the Libyans surrendered their program in response to the Bush administration's aggressive policies in the Middle East – an argument that is frequently made by American conservatives without sufficient refutation.

A. Case-Study Methods Used

This dissertation uses three distinct case-study methods to test the theory against the record of the three historical cases. First, I use a comparative case-study approach to contrast the different outcomes across the three cases.¹⁰ Because the three cases vary on one of the independent variables – two are US adversaries, while the other is a US ally – while sharing many of the values for antecedent conditions, it is possible to compare how different values for the independent variable produce different outcomes. All three cases involve US counter-proliferation efforts with much weaker states. All three involve autocratic regimes, all are economically under-developed, and all three were ruled by charismatic leaders that remained in power throughout most of the periods presented. The North and South Korean case allow for an even greater control of other variables, given their geographical, strategic, and cultural similarities.

Second, I compare the effects of different US policies within the three cases.¹¹ In each case, the United States tried a variety of policies in its efforts to rollback nuclear weapons

¹⁰ Van Evera refers to this method as “controlled comparison.” This method is built on John Stuart Mill’s “method of difference,” and is the weakest of the three case-study methods used in this dissertation. Van Evera, 1997, pp.56-8; Mill, 1874.

¹¹ “Within-case comparison” is a much stronger empirical method than cross-case comparison, because a much larger set of background conditions are held constant. Also, because the United States used a number of counter-proliferation strategies over the course of each of the three cases, within-case comparison can

development. Both negative sanctions and positive inducements were used on a number of occasions in each case. This provides a much richer data set than a comparison across the three cases does, and allows for even greater control of exogenous variables.

Finally, I use process tracing to trace the causal chains that connect the uses of negative sanctions and positive inducements to compliance and discord in each of the cases.¹² Process tracing greatly strengthens the test of the theory, as it allows for a careful examination of not only the correlation of independent and dependent variables, but the intermediate steps connecting them that are predicted by the theory.¹³ It is not enough that sanctions and inducements produce the anticipated outcomes. There must also be evidence that they do so according to the specific mechanisms that are outlined.

Process tracing in particular raises the bar for the quality and quantity of data that must be gleaned from these three cases. In particular, because the issue-linkage theory explains the outcomes of sanctions and inducements in terms of domestic politics in the target state, it is necessary to pry open the “black box” of the three countries’ domestic political systems and gather evidence about the way in which nuclear policies were set in what were, in fact, three closed and authoritarian political systems. This greatly complicates the task of gathering data. However, the greater specificity of the theory’s predictions also means that most evidence of this kind that can be gathered will be stronger than most other methodological approaches would allow for. Process tracing also has the additional benefit of requiring the construction of careful and detailed histories of the three cases, something that is important in its own right.

B. Types of Evidence Used

Several types of evidence are brought to bear. First, I rely heavily on journalistic sources and on the work of journalists and scholars who have interviewed the key decision makers involved in the three cases, and who are experts in the relevant countries, languages, and cultures. This is particularly useful in cases such as North Korea’s nuclear program, which has been studied by numerous authors in detail. Some of these authors, such as Don Oberdorfer, David Sanger, Selig Harrison, Mike Chinoy, and Leon Sigal, have interviewed hundreds of the direct

draw on a larger set of observations. Van Evera, 1997, pp.61-3; George and Bennett, 2005, pp.181-184. George and Bennett, as well as Van Evera, refer to within-case comparison as a “congruence method.”

¹² Process tracing is the strongest of the three methods because it involves a direct test of the theory’s posited causal mechanisms. However, as is discussed below, this method also raises the hairiest data problems, as it is necessary to trace the decision-making processes within states in order to properly use process-tracing methods. George and Bennett, 2005, pp.205-17.

¹³ Process tracing should be understood as more than simply increasing the number of observations made by including a greater number of intervening variables. Process tracing posits numerous intervening variables, and also a coherent explanation for how these variables are all connected with one another.

participants in these events, and managed to do so in many cases while the events were still unfolding.

Second, I use primary source materials such as telegrams, memos, and other government documents to piece together events. These sources were particularly valuable in the South Korean case, which has received insufficient attention from scholars and journalists. Also number of documents from sources such as the National Archives, the CIA, and the Gerald Ford Library that shed light on this case have only been released recently. While significant evidence can be gleaned from these documents and from other materials, the South Korean case is still partially shrouded in mystery, and a fuller picture will emerge only as more documents are released into the public domain, particularly on the South Korean side.

Third, I rely on memoirs and articles written by diplomats and decision makers who directly participated in these cases. This is particularly the case with the North Korean and Libyan cases, as the contentious nature of these cases in American politics, as well as the popular attention they have received, has produced a treasure trove of careful memoirs. While memoirs, of course, tend to be notoriously self-serving, the availability of such a large number of detailed narratives as is found on the North Korean case make it possible to compare them to one another to look for important points of agreement and dispute.

Finally, I rely on the words of decision makers, their public statements, and formal and informal communications by governments. This evidence must, of course, be heavily discounted unless it is independently supported by other credible sources. Nonetheless, because this study examines the diplomacy between states, it is imperative to examine these substantive communications between governments. Throughout, I am careful to draw a distinction between what governments want their internal and external audiences to hear, and what truly motivates their decisions.

C. Case Selection

The three cases were selected according to four criteria. First, they provide a variety of values for both the independent and the dependent variables, while keeping the cases to a small-enough number to allow for very detailed readings. Allies (South Korea) and adversaries (North Korea and Libya) are both represented. There are instances of sanctions successes (South Korea) and failures (Libya and North Korea), as well as the successes (all three cases) and failures (North Korea) of positive inducements.¹⁴ Sanctions and inducements were used in all three cases, and all

¹⁴ In the case of North Korea, positive inducements succeeded in creating an agreement that froze the country's nuclear program for nearly a decade, but ultimately collapsed. The two sides also never

three cases unfolded over the course of years, providing numerous observations of individual instances of negative sanctions and positive inducements. Finally, the three cases include instances of both the threat (or promise) and implementation of sanctions and inducements.

Second, in each of these cases, the United States used a variety of different types of sanctions and inducements. Sanctions include military coercion, military threats, the threat of withdrawing positive security assurances, threats of economic sanctions, the implementation of both bilateral and multilateral economic sanctions, and diplomatic sanctions such as severing diplomatic ties. Positive inducements include security assurances (both positive and negative), military aid, enhanced trade and economic aid, restoration of diplomatic ties, and regime acceptance. By including this variety of issue linkages in the study, we can see whether there are important differences in the effects of military, economic, and diplomatic issue linkages, and whether a larger test of the theory ought to take these differences into consideration.

Third, the three cases are set in different time periods, different regions, and involve different sets of related issues. The North Korean case unfolds at the end of the Cold War, and is tied to the profound realignments and changes to the international system of that period. The Libyan case unfolds over a number of decades, beginning in the Cold War and coming to a successful conclusion in the years immediately after the September 11, 2001 attacks. Negotiations with the Libyans are tightly linked to the issues of terrorism and oil. The South Korean case is set during the Cold War and is linked to changes and setbacks to US strategy in Asia at the end of the Vietnam War. All three cases are strongly related to issues of economic development and economic integration into the international system. In terms of regions, the three cases are drawn from the Middle East and East Asia, two critical regions of the world for US counter-proliferation policy. In the case of East Asia, North Korea's nuclear weapons program remains one of the US's most pressing foreign policy concerns, and the possibility of nuclear arms racing in the region - while certainly less than it appeared twenty years ago - is real, and US policies have a strong influence on whether or not regional allies will seek their own nuclear stockpiles to balance against the DPRK.

Finally, these three cases are both interesting and contested. Libya and North Korea are important because they are two countries that have historically had very poor relations with the United States. Yet North Korea, while ultimately a failure for US counter-proliferation policies, nonetheless agreed to the 1994 Agreed Framework, and froze its plutonium-reprocessing activities for the better part of a decade. Even more intriguing is Libya, which decided to give up

progressed beyond the initial phase of the agreement, and never fulfilled its more meaningful terms. See Chapter 4.

its entire nuclear weapons program to the United States and Britain in 2004. If there are to be lessons found for US counter-proliferation policy, it is in these two cases. The two cases, however, have been heatedly debated in the literature, and there is strong disagreement over the causes and consequences of events. Therefore my goal is to not only test theory but to also engage in these more particular debates, and try to shed light on these important events, as their interpretation holds important implications for future US counter-proliferation policy choices.

IV. Summary of Evidence and Findings

The three case studies examined in this dissertation – North Korea, South Korea, and Libya – support the four hypotheses that are tested, and provide strong evidence for the issue-linkage theory. While these cases do not, by themselves, provide sufficient evidence to be conclusive, they strongly suggest that the theory has merit, and that further empirical tests are warranted. Additionally, these findings cast substantial doubt on the argument that firm and credible threats are the most appropriate way to deal with adversaries that seek nuclear weapons; and that positive inducements are a form of “appeasement” that not only fail to promote compliance, but invite greater challenges to the *status quo*. Instead, I find that positive inducements are in fact the most appropriate way to deal with adversaries pursuing nuclear weapons, and that threats are likely to create a spiral of hostility and escalation.

The strongest evidence supporting the theory comes from within-case comparison. In all three cases, US negative sanctions and positive inducements produce responses from the target states that are remarkably consistent with the predictions of the theory. US threats of military and economic sanctions not only failed to positively North Korea’s behavior, but repeatedly triggered escalatory threats, and nearly set off a war. Contrary to the common wisdom, the threat of sanctions was not necessary to achieve the Agreed Framework. North Korea’s bargaining position changed little over the course of the 1992-1994 nuclear crisis, and the final agreement in October 1994 conformed closely to the DPRK’s long-standing demands. Moreover, there is no evidence that Chinese diplomatic pressure shifted North Korea’s stance on these issues, and, in fact, at times when the Chinese did seek to apply mild pressure, the North Koreans simply pushed back. At no point did Chinese acquiescence to UN sanctions appear to be forthcoming.

A similar conclusion is reached from the Libyan case. US military threats and the Reagan-era attack on Libya not only failed to moderate Gaddafi’s policies, but triggered a backlash. US and UN economic sanctions had a marginal effect on Libyan economic and political fortunes, and simply contributed to long-standing and growing problems. There is no reason to believe that they were necessary to achieve denuclearization. Overall, the pattern of us

sanctions and inducements over the course of three decades is inconsistent with the argument that threats drove Libya's willingness to bargain over the nuclear issue. Overall, Gaddafi's nuclear decisions appear to be largely unrelated to the external security environment of Libya, and more closely affected by domestic politics.

Libya's nuclear behavior is, however, consistent with the argument that positive inducements were effective. Denuclearization was the final piece of a long series of cooperative moves and negotiations between Libya and the United States, and grew out of an increasingly valuable series of exchanges. A careful reading of this history exposes a pattern of tit-for-tat exchanges over years, and a gradual opening between the two states, building from US and UK concessions on the issue of the Lockerbie trial, and culminating in denuclearization and general rapprochement. Most importantly, the United States was willing to abandon its long-standing support for regime change in Tripoli and accept the Gaddafi regime.

The history of the South Korean case supports the prediction that both negative sanctions and positive inducements are effective with allies, but only inducements can bring about long-term agreement. In this case, US government documents and newly available intelligence reports indicate that the United States used increasingly serious threats with South Korea to convince the country to abandon its nuclear efforts, eventually calling into question the full panoply of US-ROK cooperation. These threats had a powerful effect, and pushed Seoul to abandon deals for fuel-cycle related technologies. They did not, however, bring the South's nuclear efforts to a close. Instead, the nuclear program was pushed further underground, and work slowed, while the ambition to achieve a nuclear weapons capability remained. There is evidence to suggest that these nuclear efforts were, in fact, revived during the Carter administration, and did not come to an ultimate end until the Reagan administration traded regime acceptance and security guarantees for the Chun regime for nuclear restraint.

The weakest evidence in all three cases comes from efforts to trace the nuclear decision-making process. As is typically the case with historical accounts of nuclear weapons programs, much of these decision-making processes is obscured, and firm conclusions about what drove domestic actors may never be possible. This is particularly so with the three cases examined in this dissertation, as all three involve autocratic regimes tightly controlled by single charismatic leaders, who likely kept the nuclear decision-making process restricted to small circle of trusted advisers and confidantes.

Nonetheless, the earlier work of journalists, scholars, diplomats, and intelligence analysts has allowed for some understanding of domestic political processes and factional fights within these three states. This has provided evidence on the identity, interests, and shifting fortunes of

the most important actors within these regimes, and the ways in which their preferences across a variety of issues have affected the country's nuclear weapons policies. In all three, for example, nuclear policy choices and bargaining behavior correlate with the vicissitudes of elite debates over inward-looking and outward-looking economic policies as ways to increase regime security. This evidence is particularly strong in the South Korean case, where it is most easily observed, but is also compelling in the Libyan case as well. The North Korean case offers the weakest evidence on domestic politics, but even here it is suggestive.

Finally, while it has not been possible to fully – or even mostly – pull back the curtain on domestic policy deliberations on nuclear weapons, I present substantial evidence from these countries' negotiating behaviors and policy positions. Ironically, evidence is greatest on this front in the North Korean case. US diplomats and journalists have meticulously recorded the events of the early 1990s and their interactions with North Korean diplomats and elites. Likewise, the perspectives of Russian diplomats who have had experience with DPRK elites were enlightening.¹⁵ The evidence from these sources corroborate the overall findings from the case. Similarly, I draw from the testimony of direct participants in negotiations with Libya, as well as journalistic sources that have based their reports on the accounts of first-person participants. These accounts all consistently describe a long and gradual process of reconciliation between the United States and Libya, and one based on mutual exchange and the establishment of trust and shared interest. Also ironic is that these first-person accounts are most lacking in the South Korean case. The US-ROK alliance allowed for communications to be conducted in secret, and the need to signal the strength of that alliance, as well as the desire to avoid inflaming a fragile security situation on the Korean Peninsula, has provided a strong incentive for both sides to remain reticent about diplomatic exchanges that took place during the 1970s. Nonetheless, in this case as well, sufficient evidence exists to support the argument that both negative sanctions and positive inducements were used to positive effect with South Korea. The weakest evidence concerns US-ROK relations during the Carter and early Reagan presidencies. While I attempt to present what is available in as fair-minded a way as possible, the full story on US counter-proliferation with the ROK during these years must wait until more is released from US archives, and particularly when more data is available from within South Korea itself.

¹⁵ It is worth singling out the edited volume by Moltz and Mansourov (2000) as a particularly useful source.

V. Defining Nuclear Proliferation and Reversal

A. Proliferation

Before discussing the policies designed to address the problem of nuclear weapons proliferation, it is first necessary to define the term. Unfortunately, the definition of proliferation is both unclear and subject to interpretation.¹⁶ In general terms, of course, we are talking about non-nuclear weapons states (NNWS) that are developing nuclear weapons (*i.e.*, “horizontal” proliferation). However, this may involve varying levels of technological capability as well as different degrees of commitment to the eventual acquisition of a weapon.

Meyer identifies two key decision points in the development of nuclear weapons: the “capability decision” and the “proliferation decision.”¹⁷ The first one, the capability decision, may or may not be made. A state may purposely seek to acquire a “latent capability” to make nuclear weapons, or may achieve the same technical capacity without any such intent. The second decision point, the decision to build an actual weapon, is a necessary one. As Meyer put it, “Nuclear weapons do not generate spontaneously form stockpiles of fissile material.”¹⁸ A simple comparison between the number of states with advanced nuclear technology that have never developed weapons to the much smaller number of states that have (the former figure has grown significantly since the time of Meyer’s writing, while the latter has seen a net increase of one) illustrates the importance of this distinction.

There are several important implications of the distinction between developing a latent capacity (I use this term interchangeably with “nuclear capability,” being on the “nuclear threshold,” and being a “turn of a screwdriver” away from nuclear weapons) and developing weapons.¹⁹ One is that the question of whether or not a state has a nuclear weapons program is often one of intent rather than technology. The fact is that much of the technology and expertise that is used in making a bomb can also be used for a legitimate civilian nuclear energy program.

¹⁶ For discussions of the problem and efforts to account for it in both qualitative and quantitative studies, see Meyer, 1984; Cohen and Frankel, 1991; Ogilvie-White, 1996; Singh and Way, 2004; Hymans, “Theories of Nuclear Proliferation,” 2006; Jo and Gartzke, 2007; and Montgomery and Sagan, 2009.

¹⁷ Meyer, 1984, pp.5-6. This can be compared to the four proliferation stages used by Singh and Way (2004), the two by Jo and Gartzke (2007) that are relatively similar to Meyer’s, as well as the exclusive attention that Hymans (2010) gives to the nuclear test or acquisition of actual weapons.

¹⁸ Meyer, 1984, p.6.

¹⁹ Other terms that can be used include “standby capability” and “threshold status.” As with the other key terms presented in this section, there are definitional problems with “latent capacity” as well. In particular, three central questions defy consensus. First, how close must state be to the ability to build a weapon before they can be said to have a latent capability to do so? Second, what exactly are the requisite technologies and expertise? Third, to what degree must the technology and expertise be indigenous? One of the more detailed attempts to specify answers to these questions is found in Meyer, 1984.

In fact, the technologies that are “dual-use” include the most difficult hurdles to making a bomb: those related to the production of plutonium and enriched uranium. The problem is highlighted by the fact that uranium enrichment and plutonium reprocessing have been the basis of proliferation concerns with states like Iran and North Korea, yet both activities are perfectly acceptable and legitimate civilian activities under the NPT, and are used in civilian programs in non-nuclear weapons states such as Japan and Germany – both of which have had a latent nuclear capacity for many decades.

The second implication is that a state’s nuclear technology can not only be a misleading indicator of the state’s nuclear weapons intentions, but can introduce substantial selection effects if used as a proxy for nuclear proliferation in any research design. If, for example, states that decide to make weapons (the proliferation decision) have typically first decided to develop a latent capacity with proliferation in mind (the capability decision), then a study of nuclear proliferation that begins with a sample of states with a latent capability may very well be starting off with a sample biased in favor of states that have already made the decision to acquire the latent capability to make weapons *for the explicit purpose of making the proliferation decision available*.

The situation is complicated by the fact that states may decide to acquire a latent capability for more than one reason. South Korea’s pursuit of a reprocessing capability was based on both economic as well as military considerations. Reprocessing could reduce the country’s dependence on imported nuclear fuel and lower the costs of energy production, while at the same time making it easier to produce bombs should the state decide to do so. Making matters more complicated was the fact that different domestic actors in South Korea varied significantly in the weight that they gave to these two purposes.

States may also make the capability decision but defer the proliferation decision to a later time. In other words, they may, for strategic reasons, decide to develop the ability to make weapons in a short period of time, but only to have that option available should their existing security situation change for the worse. It is, in other words, a way to hedge one’s bets, by setting out to acquire the technical capacity and expertise to develop nuclear weapons – and potentially even gaining many of the same benefits of having actual weapons - while avoiding the costs and the risks of a formal weapons program.²⁰ This may be Iran’s present intention: to move to the nuclear threshold without crossing it.

That the difference between a nuclear weapons program and a civilian energy program is dependent upon the state’s intentions raises serious measurement problems for any study. The

²⁰ Levite describes this as “nuclear hedging.” See Levite, 2003.

nuclear weapons decisions of states are typically made in secret. Decision makers have a strong incentive to misrepresent their nuclear intentions.²¹ The problem is worse when the capability decision is thrown into the mix. At least with the proliferation decision, there is often an unambiguous decision to produce a bomb, which necessarily involves a set of activities, such as designing and testing a warhead, that are unquestionably military in nature.²² The capability decision is murkier. For one thing, it need not be made at all – states can undertake the same requisite activities to acquire a latent capacity to build weapons without having made a capability decision.²³ For another, such a decision could involve significant ambiguity, as decision makers could represent activities such as acquiring a reprocessing facility differently to different audiences. In practice, there often is no way to determine with certainty whether or not such activities are military.

In this study I therefore draw two distinctions: one based on state decision making, the other based on more observable indicators that have to do with the state's nuclear behavior. On the one hand, there are the two crucial decision points identified by Meyer: the capability decision (which a state may or may not make before deciding to develop nuclear weapons), and the proliferation decision (which a state must make before developing a nuclear weapon). On the other hand, there are two commonly used behavioral indicators of proliferation: the development of a significant quantity (SQ) of fissile material that can be used to make bombs, and the actual construction and/or test of weapons. States' progress toward a bomb must be weighed along both of these dimensions. Thus a state may have decided to acquire a latent weapons capability yet not be very far along the route toward SQ (*e.g.*, South Korea). It may possess SQ with no intent to develop a bomb (Japan, Germany). It may have decided to acquire weapons yet still be very far away from even SQ (Libya).²⁴ Both technological status and intent are important. Intent is the driving factor, but the technological development is often the only observable indicator. In every case, however, it is important to be mindful of the misleading nature of technological indicators, and the difficulty of observing state intentions – factors which have repeatedly led to substantial over- and under-estimates of nuclear proliferation.

²¹ Cohen and Frankel, 1991; Frankel, 1993; Levite, 2003.

²² Even this decision point can be quite difficult to observe. Consider the case of Israel, which successfully kept its nuclear program secret for many years, and never tested a bomb. See Frankel, 1993. Levite even argues that proliferators rarely make an explicit decision to do so. Levite, 2003.

²³ Meyer, 1984; Hymans, 2010.

²⁴ I draw a distinction here between fissile material that is produced indigenously, and material imported into the country as fuel for a reactor. While the latter is certainly significant, it is the former that is the better indicator of how far a state has progressed on the path toward a nuclear weapon. Libya was quite far from an indigenous capacity to produce plutonium or HEU. It was, however, supplied with HEU reactor fuel by the USSR. See Chapter 6 for more details.

B. Freeze and Reversal

The question of what, exactly, constitutes nuclear reversal is no more straightforward. Levite defines nuclear reversal as “a government decision to slow or stop altogether an officially sanctioned nuclear weapons program.”²⁵ Such a definition, however, creates even more problems than the capability and proliferation decisions do. The requirement that it be an “officially sanctioned” weapons program is suitable for studies that seek to determine the causes or the prevalence of nuclear reversal, as it gives preference to state decisions rather than specific nuclear activities that can have different purposes. It is less suitable for studies like this one, however, in which the issue is state compliance with specific US demands, which are necessarily focused more on actions rather than intentions. It also makes it doubly hard to measure, as it requires that two separate decisions be observed: the proliferation decision, which establishes a “formal” weapons program; and the decision to slow or stop that program. Levite tries to work around this problem simply by shifting the burden of proof – he includes “cases in which a governmental decision to acquire the bomb could not be ascertained (*e.g.*, Argentina).” Yet this runs the risk of simply exacerbating selection effects.

Any definition of nuclear reversal must accomplish several things. First, it must draw a distinction between behavior and intention. This is particularly important when looking at counter-proliferation policies, as the target state may comply with specific demands about its nuclear program without reconsidering its decision to produce weapons or acquire a latent capability. In this study, both actions and decisions are taken into consideration. Counter-proliferation policies are weighed both by their ability to effect specific changes in state behavior as well as their ability to convince states to forgo nuclear weapons entirely. To maintain this distinction, I consider immediate compliance with US demands – the cancelation of a contract for nuclear equipment or facilities from another state, the dismantlement of existing facilities, a freeze, or acquiescence to inspections – as well as long-term compliance with international nonproliferation norms. The latter is dependent on the target state’s decision to give up its nuclear ambitions, not just select activities.

Second, it must distinguish between “rollback” and a “freeze.”²⁶ In the case of the former, the state takes steps that reduce its capacity to make weapons, such as the permanent dismantlement of facilities or the cancelation of programs. It can also refer to decisions made by

²⁵ Levite, 2003.

²⁶ Levite uses the terms “rollback” and “restraint,” however, “restraint” is misleading, as this typically refers to any state with a latent nuclear capability that does not develop nuclear weapons, for whatever reason. Levite, 2003.

the state's leaders to give up the country's nuclear ambitions. A "freeze," on the other hand, refers to steps that stop current progress in the state's nuclear weapons effort but keep the facilities and institutions in place to continue with the effort should such a decision be made. No decision is made in the case of nuclear restraint to permanently forgo weapons. A program's freeze is a way for states to back down from further proliferation efforts while maintaining their latent capability. Importantly, both involve changes in the state's behavior: the state either actively takes steps to roll back its nuclear weapons progress, or it stops activities that were in progress.

The distinction between reversal and freeze is important, as it is easier to convince a state to stop an activity than it is to more permanently surrender capabilities. Thus in the case of the 1994 Agreed Framework, the North Koreans agreed, in the initial stages of the Framework, to freeze but not dismantle their existing facilities, and the spent fuel rods that were removed from their reactor would be put into storage but remain in the country. Only if the Framework progressed to later phases of its implementation would North Korea undergo nuclear reversal. In fact, these phases were never reached, and the North Koreans picked up where they left off with their nuclear efforts in 2003.

These ontological and epistemological problems are more relevant in studies seeking to explain states' decisions about whether or not to "go nuclear" than they are here, where the question is how sanctions and inducements can compel states to comply with particular demands. Because I am focusing on the target state's compliance with whatever demands the United States has chosen to make, the issue of how the target state's behaviors fit into its proliferation goals can be more or less side-stepped. However, my explanation of how sanctions and inducements work is necessarily premised upon the value that the target state places on compliance with these demands. This can only be done satisfactorily if we have some *a priori* notion of what motivates states' nuclear behaviors. To the extent possible, I try to glean these motivations from the facts that are known about the decision making process in the target states examined in the three case studies. Particularly with cases such as North Korea, however, in which the state decision-making processes is opaque – it is still unknown, for example, when Kim Il-sung first made the decision to produce a bomb – these values must be inferred to some degree from what is known about other states' nuclear motivations.

Therefore, while I do not try to parse these definitional and methodological questions definitively or provide a strict definition of proliferation – I focus instead on the particular demands and goals of the United States in each specific counter-proliferation effort - I do maintain an awareness of these problems. I recognize, however, that by including cases in which

the state has either not yet made the decision to acquire nuclear weapons, and may or may not have made an explicit decision to acquire the latent capability to do so, I am stretching the term “proliferation” quite a bit beyond what most scholars are comfortable with.²⁷ Mindful of this, in each instance I take care to balance on the one hand the United States’s demands with respect to the target state’s nuclear program, and on the other the target state’s commitment to nuclear weapons – *i.e.*, whether there has been either (or both) a decision to acquire a latent capability or weapons themselves. This does not resolve the question of how to best define proliferation, but it does provide a more nuanced context in which the effects of counter-proliferation policies can be studied.

Likewise, I do not engage in debates over distinctions between “opaque” or silent proliferation, hedging, or nuclear “ambiguity.” More than anything else, these debates revolve around the way in which a state’s physical and technological activities can serve as indicators of its nuclear decisions and intentions.²⁸ States may, of course, pursue a variety of ways to create ambiguity about their nuclear programs, and try to reap the deterrent and other benefits of “hedging” without the costs of testing a weapon. Here I am concerned primarily with intentions, however, and much less so with the actual physical form of the state’s nuclear program. Because my focus is on the specific conditions that the United States sets in its uses of sanctions and inducements, I am principally concerned with the value that the target state’s decision makers place on its nuclear program, and the costs that they perceive in complying with US demands. The degree to which this compliance moves the state, in technological terms, further away from being able to produce an actual bomb is secondary to the importance that both American and the target state’s decision makers place on these actions.

The specific demands in counter-proliferation cases may include – but are not limited to – membership in relevant international organizations and treaties, adherence to international agreements, freezing nuclear activities or facilities, inspections and transparency, dismantlement or the surrender of equipment or materials, agreements to forgo reprocessing or enrichment (or weapons), and the cancelation of nuclear agreements or contracts with other parties. They are not

²⁷ Paul, in fact, argues that the term “proliferation” has acquired such biased connotations that it ought to be avoided altogether. He offers “nuclear acquisition” in its place. I use the two more or less interchangeably, again because my dependent variable is compliance with US demands, not strictly the prevention of weapons acquisition. However, because the two issues are so closely related here – I am interested, after all, in US demands that are aimed at stopping the spread of nuclear weapons – I keep both factors in mind throughout. Paul, 2000, p.12.

²⁸ For a detailed discussion of these distinctions and their implications for theories of nuclear proliferation, see Cohen and Frankel, 1991. I do share Cohen and Frankel’s distinction between ambiguity and ambivalence. Ambiguity has to do with the way the state wants others to perceive its nuclear weapons program, and is independent of how firm their resolve may actually be to develop weapons. Ambivalence refers specifically to a lack of resolve among state decision makers. Also see Levite, 2003.

dependent upon whether or not the target state has made any particular decision regarding nuclear weapons – the US may issue demands or have suspicions about another state’s behavior whether or not that state has actually decided to produce nuclear weapons. However, because this study’s findings can only be generalized to other counter-proliferation cases if the behaviors under dispute are actually related to nuclear weapons efforts - and because the theory offered in this dissertation holds water only if it accurately captures the decision-making processes within the target state - I pay close attention to the nature and course of the states’ nuclear decisions, as well as the different motivations for these decisions.

VI. US Nonproliferation Policies

To provide the appropriate context for a discussion on counter-proliferation policies, this section outlines the spectrum of nonproliferation policies, and provides categories and definitions to give structure to theoretical treatment of their use.²⁹ By nonproliferation policies I mean the entire set of foreign policy options available to prevent the spread of nuclear weapons to more countries. I divide these into four categories: denial, deterrence, counter-proliferation, and preventive war. The first category, denial, is supply oriented. Denial policies aim to restrict the availability of technologies, knowledge, and expertise that are necessary for the development of nuclear weapons. The middle two categories, deterrence and counter-proliferation (the category

²⁹ The nomenclature and definitions offered in this section often depart radically from the traditional terminology used by both policy makers and academics to refer to nuclear nonproliferation policies. Admittedly, this risks some confusion. I have chosen to depart from tradition in this regard in order to better align the terms that are used to describe policy with the way that theory is described in the field of international relations. Although the terms are defined in the text, for clarity, I reiterate here several key definitions, and highlight how my use of these terms differs from the way they are commonly used. I define “nonproliferation” as the entire universe of policies aimed at controlling, limiting, preventing, or reducing the spread of nuclear weapons. These range from the establishment and maintenance of norms and regimes to the use of military force. The term is typically more narrowly defined, and rarely is used to include force. More controversial is my use of the term “deterrence” to refer to the set of policies that create incentives for non-nuclear weapons states to refrain from initiating weapons programs. Within this category I include everything from norms and international institutions to civilian nuclear cooperation. Deterrence typically refers to the use of threats of force to convince another actor not to take some specified action. I include this in my usage of the term, however, this only represents a small portion of the phenomena I wish to capture. In most cases, such as with the NPT, the threat of losing economic and diplomatic benefits by pulling out of the treaty are what deters nuclear weapons efforts. In general, I use the term to mean the *entire* set of policies that create incentives for non-nuclear weapons states to refrain from nuclear weapons efforts. I have chosen the term to distinguish these policies from those aimed at states which have already started down the nuclear road (“counter-proliferation”), and those that seek to deny necessary technology and equipment without directly altering the target state’s core preferences (“denial”). This use of “counter-proliferation” also differs from the way it is typically used. The term is more commonly used to refer to both denial strategies and the use of sanctions and force to against nuclear proliferators. I have chosen to use the terms in a different way in order to highlight the distinction between “deterrence” strategies and “compellence,” as found in the international relations literature.

of policies with which this dissertation is concerned), are demand-oriented. They are aimed at, in the first case, convincing states not to initiate a nuclear weapons program, and in the second case, discontinuing an existing program. The final category, preventive war, is the use of military force to either destroy nuclear facilities or weapons directly, or to carry out a change of regime and the installation of a new government that is more conducive to compliance with the international nonproliferation regime. Each of these categories involves its own set of policy options and a unique mix of costs, benefits, and chances for success.

Policies from all three categories are important, and the success of the overall US nonproliferation effort depends in large part on how well it can use tools from the three categories in concert. However, no matter how effectively the US and its partners exercise denial and deterrence efforts, there will always be some states that nonetheless initiate weapons programs. These may not be formal programs – as pointed out earlier, the distinction between a civilian nuclear energy program and a nuclear weapons program can simply be one of intent – but rather a set of nuclear activities that raise sufficient concern for the US and other states to have a strong interest in stopping or reversing them. When, inevitably, this is the case, the use of inducements and sanctions are the two most potent tools of statecraft in the US arsenal.

A. Denial: Restricting Access To Sensitive Nuclear Technologies and Expertise

“Denial” policies seek to limit and control the availability to non-nuclear weapons states and non-state actors of the requisite technologies, equipment, and expertise for a nuclear weapon. Today, this consists principally of export controls and internationally agreed restrictions on the types of technologies that the nuclear suppliers can provide to NNWS, as well as efforts to reduce existing stockpiles of fissile materials and phase out civilian facilities that use them. The Nuclear Suppliers Group (NSG), for example, has sought to institute strict, internationally agreed-upon controls over which nuclear technologies can be exported, which states they can be exported to, and what safeguards agreements and treaties must be signed by recipient states before they can receive these exports.³⁰ US efforts in this area have consisted not only of controlling its own exports – through the use of lists of banned items, requirements for licenses and government approval, *etc.* – but of expanding and deepening international controls. The United States has often encountered resistance in these efforts, however, as export controls harm the commercial interests of nuclear exporters, as well as states seeking to expand their civilian nuclear energy

³⁰ The Nuclear Suppliers Group and the Zangger Committee are the two principal international groups that serve as a forum in which members can negotiate common export restrictions and safeguard requirements. For detailed histories of the international nuclear export control regime, see Anthony *et al.*, 2007.

production. The most important point of contention has to do with plutonium reprocessing. While the US banned the closed fuel cycle in the 1970s, a number of allied countries such as France and Japan are heavily reliant on this technology. The United States itself has recently begun to rethink its own ban on reprocessing in light of its inability to build a long-term storage facility for spent fuel.³¹ Another issue has been the reprocessing of US-origin fuel by other states – a sticking point in the US-India bilateral nuclear agreement.³²

The collapse of the Soviet Union at the beginning of the 1990s led to a new set of concerns about the spread of nuclear technology and expertise to new states. It was feared that the dissolution of the USSR would allow NNWS to acquire nuclear materials and equipment on the black market from former Soviet sources, and to hire mercenary Soviet scientists to assist with a nuclear weapons program. Thankfully, the worst fears in this regard have not been realized, and there is little evidence that diverted technology and expertise from the former USSR has led to greater nuclear proliferation. US denial policies that were designed to specifically address this problem were likely in no small part responsible for this outcome. The United States used technical and financial assistance through a variety of cooperative programs with the Russian government and with other states of the former Soviet Union that have helped secure and to reduce stockpiles of weapons and fissile material, increase security at international borders, and provide Russian nuclear experts with finances and employment to discourage mercenary nuclear activities in other states.³³ Over time, these programs have been expanded to include more states, both as the recipients of assistance as well as donors and coalition partners. The current goal for the United States is a global cleanout of fissile material – both weapons-related and civilian - and the redesign of HEU-fueled reactors.³⁴

While these programs can be credited with substantial success, however, a vast amount of weapons-grade fissile material remains either unsecured, insufficiently secured, or unaccounted for – not just in the former Soviet Union but around the world.³⁵ Likewise, recurring discoveries

³¹ Lindemyer, 2009; and Von Hippel, 2007.

³² Levi and Ferguson 2006.

³³ For overviews of the history and progress of Cooperative Threat Reduction, see Squassoni and Woolf, 2006; and Bunn, 2010.

³⁴ There are roughly 1,600 tons of HEU globally. The US has made substantial progress cooperating with Russia to eliminate HEU stockpiles. Pakistan continues to produce HEU for its nuclear weapons. The Global Threat Reduction Initiative (GTRI) is charged with consolidating HEU stockpiles worldwide and converting the more than 100 research reactors (mostly in the US and Russia) that are fueled by HEU to being LEU fuel-capable. HEU-fueled research reactors are remarkably poorly secured, and are some of the weakest links in the fissile materials security chain. See Bunn, 2010; and Reistad and Hustveit, 2008. Also, the International Panel on Fissile Materials (IPFM) has a comprehensive website at fissilematerials.org.

³⁵ Bunn, 2010.

of black-market sales of nuclear materials – usually but not always in trivial amounts or unsuitable for the purposes of a bomb – are reminders of the very real danger of nuclear terrorism.³⁶

The United States also pursued arms reduction treaties with the Russians that – while primarily aimed at reducing the risk of nuclear war – also have the goal of lowering the risk of nuclear diversion or theft by reducing the overall number of warheads.³⁷ Some arms control measures, such as the US redeployment of ground-launched tactical nuclear weapons in Europe in 1991, were in fact undertaken with the goal of weapons security as one of the principal considerations.³⁸

More recently, with the revelation of the A.Q. Khan network’s operation of a global nuclear black market in 2004, a set of new denial policies have been adopted to address the spread of nuclear weapons technologies through illicit channels, including tighter export controls and arrangements for intelligence-sharing.³⁹ A more controversial measure has been the creation of the Proliferation Security Initiative, in which a number of international partners cooperate to interdict shipments of nuclear weapons-related cargo, either in cases when their own territories serve as transshipment points or, when consistent with international law, on the high seas. Questions of legality and effectiveness have, however, limited the scope of the program and the willingness of other states to participate.⁴⁰

The evolution of Cooperative Threat Reduction (CTR) programs and the PSI both reflect another important change in all forms of US nonproliferation policies. The emphasis has been increasingly put on “weapons of mass destruction” (WMD), which, in addition to nuclear weapons, encompasses chemical and biological weapons as well. CTR efforts, for example, have become increasingly focused on non-nuclear WMD, and the PSI is specifically charged with preventing the spread of both WMD and missile technology. As the mandates of these program

³⁶ There are a number of excellent works on nuclear terrorism. See Bunn and Newman, 2008; Ferguson *et al.*, 2005; and Allison, 2005. The most detailed and up-to-date account of US policies related to preventing nuclear diversion and their progress is Bunn, 2010.

³⁷ Extensive information about US-Russian arms control agreements and ongoing efforts can be found at the Arms Control Association’s website: armscontrol.org.

³⁸ After the August 1991 Soviet coup attempt, the United States announced that it would eliminate all of its ground-launched tactical nuclear weapons as well as all surface ship and submarine-launched tactical warheads. In response, the Soviets withdrew all of their tactical warheads from Europe. The US move was motivated by fears that political instability in Moscow could result in either the diversion of warheads or an accidental launch. See Potter, 1997. US tactical nuclear weapons are still deployed on a number of bases in four (soon to be three) European countries and in Turkey. The issue became particularly prominent in the wake of an incident in Belgium in 2010 in which peace activists managed to penetrate without detection deep into a NATO base where tactical weapons are stored. Podvig, 2010; Kristensen, 2010.

³⁹ Montgomery, 2005; Braun and Chyba, 2004; Corera, 2006; Levy and Scott-Clark, 2007; and Albright and Hinderstein, 2005.

⁴⁰ Nikitin, 2008, provides a detailed overview as well as an even-handed critique of the PSI.

broaden to include more – and less lethal – weapons, as well as delivery systems, an overall effect is to divert resources from nuclear nonproliferation efforts to steps aimed at less pressing threats.

B. Deterrence: Reducing the Incentives to Develop Nuclear Weapons

The second category of nonproliferation policies – deterrence – involves the use of international regimes and norms, verification mechanisms and monitoring, threats, and rewards, to create incentives for states to refrain from the pursuit of nuclear weapons. The centerpiece of these policies is the Nuclear Nonproliferation Treaty (NPT), as well as the IAEA safeguards that the treaty requires. Importantly, the cornerstone of the NPT, and in turn the entire international nonproliferation regime in broad terms, is the offer of rewards – or positive inducements – to NNWS for membership and compliance. One component of this is the pledge by the member nuclear-weapons states (NWS) to work toward disarmament and to forswear the use of nuclear weapons against non-nuclear states. These benefits are not exclusive to compliant states, however; they accrue to all states without nuclear weapons, and in the case of disarmament, they accrue independent of whether the state is actively developing its own program, as obviously no state can be excluded from the benefits of nuclear disarmament. The principal positive inducement that is given exclusively to non-nuclear member states is the provision of civilian nuclear technology, training, and assistance. The bargain, in essence, is that non-nuclear members of the NPT promise not to develop nuclear weapons of their own in return for expanded access to civilian nuclear assistance from the main nuclear suppliers.⁴¹

As with denial policies that depend on international cooperation for their effectiveness, the NPT regime is weakened by the reluctance of many of its members to commit to more than a minimum of restrictions on nuclear-related activities.⁴² Most notable is the NPT's failure to restrict uranium enrichment and plutonium reprocessing, the two routes to producing the fissile material necessary to fuel a nuclear bomb. Both activities are protected under the NPT as civilian nuclear activities all member states have a right to undertake (and to receive assistance with). Many of the member states have also resisted provisions for stricter safeguards requirements, IAEA inspections, and enforcement mechanisms. The NPT in fact has no formal enforcement mechanism. Safeguards violations can be referred by the IAEA to the UN Security Council for consideration of punitive actions, but UN sanctions for safeguards violations have been notoriously difficult to organize.

⁴¹ Bunn, 2006.

⁴² Chyba *et al.*, 2006; also see the Arms Control Association's resource guide for the 2010 NPT Review Conference, available online at armscontrol.org/system/files/Proposals%20to%20Strengthen%20NPT.pdf.

While the US uses the NPT as the central element of its deterrence policies, it nonetheless relies on an array of unilateral mechanisms to encourage compliance with the NPT as well as with other US demands that go deeper than NPT requirements, such as forgoing uranium enrichment and plutonium reprocessing. One element of this is the US provision of defense guarantees to allies that have the capacity to produce nuclear weapons, and are faced with security threats that could lead them to do so. This was a key consideration of Germany's membership in NATO, as well as the extension of the nuclear umbrella to both Japan and South Korea. As covered in greater detail in Chapter 5 of this dissertation, the presence of US conventional forces in Korea was also an important element of US nonproliferation efforts, as they served not only to directly defend ROK territory but also to signal the credibility of the US nuclear commitment, which Seoul believed was more likely to be honored if US troops were in the balance.

The United States has also used civilian nuclear cooperation as a way to reduce incentives for nuclear proliferation. In some ways, in fact, this approach has been at the center of US nonproliferation efforts. It was part of the Baruch Plan proposal, it was the central logic behind the Eisenhower administration's Atoms for Peace initiative, and it is at the core of the NPT regime.⁴³ Yet, it is also in tension with US efforts to restrict access to sensitive nuclear technologies. As a result, US nuclear cooperation has typically been reserved for allies and other friendly states. This has, however, backfired – most notably with Iran – and US-supplied nuclear technology and expertise have been used to further nuclear weapons ambitions. As a result, there continues to be significant controversy over whether civilian nuclear assistance makes proliferation more or less likely. Proponents argue that the provision of civilian assistance reduces some of the incentives to develop weapons as well as the economic incentives to develop the closed nuclear fuel cycle, reduces bureaucratic incentives to support proliferation, and provides the sponsoring state with added leverage over the recipient. Others have argued, however, that it not only makes it easier for the recipient to develop weapons, but may even give them an incentive to do so.⁴⁴

Norm-setting and norm-strengthening have also been an element of US policies aimed at discouraging horizontal nuclear proliferation. Treaties and organizations such as the NPT have frequently been held up as important mechanisms for building stronger international norms against proliferation. Whether they have actually had any such normative influence is debatable, however, and some see these organizations more in terms of providing verification and

⁴³ Tape and Pilat, 2008.

⁴⁴ These debates are discussed in greater detail in the literature review later in this chapter. For representative works on this issue, see Fuhrmann, 2009; Kroenig, 2010; and Montgomery and Sagan, 2009.

enforcement mechanisms rather than their normative value.⁴⁵ Others have argued that the United States's own nuclear weapons posture can influence the way that norms effect future proliferation. Thus treaties such as the Comprehensive Test Ban Treaty (CTBT), or arms reduction treaties such as START – and perhaps most importantly the continued non-use of nuclear weapons – are seen as significant in this regard.⁴⁶

Finally, the United States has viewed its coercive counter-proliferation measures as having a deterrent effect as well. Sanctions that are applied to proliferators have also had the secondary purpose of deterring others by demonstrating to future nuclear aspirants what will happen to them should they follow a similar path.⁴⁷ As a result, sanctions against proliferators are frequently seen in the context of signaling credibility. Taking a strict approach with proliferators in the present, so the thinking goes, will deter others in the future – *even if sanctions fail to produce the desired change in the present case*. This has been used as an argument in favor of multilateral economic sanctions even in cases in which policy makers doubt that they will work. As I discuss later in greater detail, there are reasons, however, to question this logic. Likewise, the counterfactual – that if these measures were not taken, there would be significantly more states pursuing nuclear weapons – is not entirely convincing.

C. Counter-Proliferation: Reversing Nuclear Decisions

Both denial and deterrence policies are preventative: they are aimed at reducing the chances that a state will begin to pursue nuclear weapons-related activities. Counter-proliferation refers to the set of policies that seek to stop or reverse nuclear activities that the state has already begun. The categories are not mutually exclusive. For example, if a state is in the early stages of a nuclear weapons program, denial policies can cause it to fail, and convince the state to give up its effort. In this case, these policies could be considered as both denial and counter-proliferation. The central element to counter-proliferation is that they are policies that seek to change the existing behaviors of states. They are therefore a form of what Schelling referred to as compellence: they are designed to “make an adversary do something,” not to “keep him from starting something.”⁴⁸

⁴⁵ For example, Paul (2000) argues that the states that join the NPT are the ones which have already committed themselves to forgoing nuclear weapons, and that the main value of the treaty is verification and enforcement.

⁴⁶ Bunn, 2003.

⁴⁷ As will be discussed in Chapter 2, the dual nature of coercion and deterrence is a recurring theme in the international relations literature.

⁴⁸ Schelling 1966, p.69.

There are, in fact, only three policy choices available once a state has already begun to pursue a nuclear program: do nothing (containment); use negative sanctions and positive inducements – sticks and carrots – to convince the state to change its behavior (counter-proliferation); or eliminate the weapons program, or the regime, directly through the use of force (preventive war). The last policy choice, preventive war, I put in a separate category from the others, given its unique properties. The first – containment – is an acceptable policy, and sometimes the most appropriate choice. Proliferation is, of course, rarely the preferred outcome, however it is sometimes unavoidable, or can only be avoided at an unacceptable cost. The security risks from proliferation can be significant: accidental nuclear war, or the diversion – by theft or sale - of nuclear weapons or materials to other states or even terrorist groups. But they are finite, and may not be worth the cost of other available policies.

The remaining policy choices – the set of policy options that lie between doing nothing to stop the nuclear program and destroying it by force – I term counter-proliferation.⁴⁹ These are the tools that states have available to convince a nuclear aspirant to reverse course. They fall into two categories: negative sanctions and positive inducements. Negative sanctions refer to the use of threats or punitive actions short of war to coerce states to change their behavior. They are a form of issue-linkage, in that the threat or the punitive action is linked – either explicitly or implicitly – to some conditional demand related to the target state’s nuclear program. If the target fails to comply with the demand, then the sender may carry out the threat, or continue with or repeat the punishment. Examples include trade embargoes, military threats, the limited use of force, blockades, arms embargoes, or the withdrawal of assistance or of defense guarantees. Anything that has a negative effect on the target state’s welfare, security, or status can be used as negative sanctions. They can be military, economic, or diplomatic. They can also come in the form of threats, displays, or the actual imposition of harm – anything that raises the costs of the target of noncompliance. It does not include war: the brute-force imposition of one’s will on another. It is limited to words and actions whose main purpose, however directly harmful to the target they may be in the present, is to hold out the possibility of even greater harm in the future. The message from negative sanctions is: change what you’re doing, or else.

In practice, the United States has drawn on a number of different resources to impose or threaten negative sanctions in counter-proliferation. Trade and financial sanctions, both unilateral and multilateral, have been used or threatened against a number of proliferators, including Iraq,

⁴⁹ It is important to note that my choice of terminology here, as well as how I define these terms, is unusual in the literature. My intention is to categorize US nonproliferation policies in a manner that is more congruent with the literature on coercive diplomacy and sanctions. I am mindful, however, that doing so risks creating some confusion.

North Korea, and Iran. They are the most commonly used form of negative sanctions in counter-proliferation. Military threats and displays of military force were used with both Iraq and North Korea. With allies such as South Korea and Taiwan, the US has used the threat of withdrawing military and civilian nuclear cooperation.

The alternative to negative sanctions in counter-proliferation is the use of positive inducements. Positive inducements are likewise a form of issue-linkage, and are the flipside of sanctions: the offer or delivery of benefits that are conditional upon the target state changing its behavior in a particular way. Again, the demand may be explicit or implicit. Likewise, they may take many forms: security assurances and defense commitments, the normalization of relations, increased aid and assistance, technology transfers, or improved opportunities for trade. They do not include unconditional rewards or benefits aimed at improving relations with the target state over the long term.⁵⁰ Positive inducements always have strings attached. The message with inducements is: you can have this, but only if you do what we want.

Although it is rarely described in these terms, the United States has used positive inducements many times in its counter-proliferation efforts. The most commonly cited example is the Agreed Framework with North Korea, in which the US exchanged heavy fuel oil and light water reactors for nuclear compliance. This case, however, is notable mostly because it is unusual. Rarely has the US exchanged such visible material rewards in return for the satisfaction of nuclear demands. The more typical case is the promise of security assurances or civilian nuclear assistance to allies or other friendly states in return for steps toward nuclear reversal or restraint. US assistance and security guarantees to countries like Sweden, Taiwan, and South Korea fall in this category.

D. Preventive War: The “Osirak Option”

The final category of nonproliferation policies is preventive war. This refers to the use of military force to destroy a country’s nuclear weapons program, either by direct strikes against nuclear targets, removing the existing regime from power, or invading and occupying the country. Unlike counter-proliferation, which depends upon changing the target state’s preferences,

⁵⁰ It is the conditional aspect of inducements that is important. The conditions may be made implicitly or explicitly, but there must be conditions. This may include cases in which the US provides material benefits or security guarantees to others with the implicit understanding that the other state reverse course on some issue. Thus this category would include US assistance to Sweden in return for nuclear compliance. There was no explicit demand made to the Swedes, but it was understood nonetheless that continued US assistance as well as the implicit extension of the American nuclear umbrella were conditional upon Swedish nuclear restraint. Excluded from the category would be cases that fall under George and Smoke’s definition of “pure inducements,” which have no strings attached. George and Smoke, 1974, pp.608-9.

preventive war involves simply imposing one's will on the target. The target's preferences are irrelevant.

Two considerations about preventive war are important. First, in almost all cases, it is likely that if the United States chose to go this route, it would in the end succeed. The United States may not be able to reliably destroy other countries' nuclear weapons programs with air strikes alone, but so long as the US is prepared to pay the cost of invading a proliferating state, it will almost certainly be able to remove any capacity the state possess for making nuclear weapons.

The second consideration is that preventive war is extremely costly. Even air strikes, which are likely to be the least expensive option, can involve substantial cost and risk, including the risk that it will touch off a wider conflict. Moreover, air strikes are unlikely to succeed. The physical elements of a nuclear weapons program are too easily moved and hidden, and accurate intelligence on their whereabouts too difficult to obtain. Even more importantly, you cannot bomb expertise, or the resolve to build a nuclear bomb.

Proponents of preventive air strikes against nuclear proliferators often hold up the 1981 Israeli bombing of Iraq's Osirak reactor as evidence that such an approach can be successful. It is, however, a curious claim. Osirak was a particularly unusual case: the Iraqis had a very limited ability to retaliate, and the nuclear program had such a form and was at such an early stage that it presented a highly visible target conducive to air strikes.⁵¹ Most importantly, it did not work. Ten years later, as a result of the Gulf War, it was discovered that Iraq had simply doubled down on its nuclear efforts and switched to a more easily concealed route to the bomb. By 1991, the program had become significantly more advanced than Western analysts had presumed, and it was stopped, in the end, only through a major war and an inspections regime that was facilitated by the constant threat of renewed military force.⁵²

In fact, because of the high costs and the unlikelihood that anything short of full-scale war will succeed, the use of military force to directly impede a country's nuclear program has been historically very rare. The United States has only adopted such a policy in four cases: against Nazi Germany and Japan during World War II, Iraq in 1990-1 during the Gulf War, and

⁵¹ For a fuller elaboration of this argument, see Reiter, 2005.

⁵² Waltz sums up the problem of preventive strikes succinctly: "But would one country strike so hard as to destroy another country's potential for future development? If it did not, the country struck could resume its nuclear career. If the blow struck is less than devastating, one must be prepared either to repeat it or to occupy and control the country. To do either would be forbiddingly difficult." (Waltz, 2003, p.19). Waltz also says of the Osirak case in particular: "Israel's action only increased the determination of Arabs to produce nuclear weapons. Israel's strike, far from foreclosing Iraq's nuclear career, gained Iraq support from some other Arab states to pursue it. Despite Israeli prime minister Menachem Begin's vow to strike as often as need be, the risks in doing so would have risen with each occasion." (p.19).

Iraq once again in 2003. In the first three cases, nuclear weapons proliferation was only a peripheral concern in much broader conflicts. The Allies' efforts to stop the German and Japanese nuclear programs were incidental to much larger strategic operations. In the case of Iraq, while the country's nuclear program was more of a factor, it was still secondary to rolling back the invasion of Kuwait. The 2003 invasion of Iraq was the only time the United States initiated a military campaign with the elimination of a country's nuclear weapons program as one of its principal stated goals. In this case, however, after incurring enormous costs to overthrow Saddam Hussein and occupy Iraq, the US discovered that an Iraqi nuclear weapons program did not, in fact, exist.

While preventive war cannot be ruled out as a way to eliminate nuclear weapons programs, we should expect, because of its costs, that it be rarely used. The crux of US nonproliferation policies, therefore, will continue to be the panoply of denial, deterrence, and counter-proliferation policies described above. Policies from these three categories can, in fact, be used in concert, and complement one another. When denial and deterrence fail – which is not a common situation – the United States can draw on counter-proliferation policies. In the event that counter-proliferation efforts fail, or there are no counter-proliferation policy choices whose costs and risks are low enough to justify their use, the standby option is typically containment, not preventive war.

The remainder of this chapter is dedicated to reviewing the current state of the scholarly literature on nuclear weapons proliferation. I specifically focus on how the literature addresses two key questions: what makes states develop nuclear weapons?; and, under what circumstances will states rollback or restrain their nuclear efforts? Chapter 2 reviews the literature on negative sanctions and positive inducements. The goal of these two chapters is to lay the conceptual groundwork for the issue-linkage theory that is presented in Chapter 3, as well as provide a framework that contextualizes the theory within the large and varied literature in the field that has developed over the past several decades.

VII. The Causes of Proliferation and Nuclear Reversal

The effects of negative sanctions and positive inducements on states' nuclear decisions cannot be understood unless we have some insight on what drives those decisions in the first place, and what value states place on their nuclear programs. Therefore, an evaluation of the effectiveness of counter-proliferation policies must begin by reviewing exactly what we know about what makes nuclear proliferators tick. Why do states pursue nuclear weapons? Why do

states pursue a latent capability to produce nuclear weapons? Under which circumstances do they decide to stop or reverse their nuclear weapons efforts?

As described above, the literature on these questions has been plagued by definitional and methodological problems. There is no consensus on what exactly constitutes proliferation, a nuclear weapons program, a latent nuclear capability, or nuclear reversal – the dependent variables of any relevant study. Likewise, there is no agreed-upon way to measure these variables.⁵³ In spite of these challenges, a formidable literature exists on nuclear proliferation, from which four general conclusions emerge: (1) there is no single sufficient causal explanation for either proliferation or reversal, and each case may have its own unique mix of causal factors; (2) while there does not appear to be any single necessary or sufficient cause of proliferation, the state's security environment is of great importance, and a benign security environment does appear to be a necessary condition for nuclear reversal; (3) systemic causes alone are insufficient to explain nuclear decisions, and domestic-level factors are highly relevant to a state's nuclear choices; and (4) active efforts by the United States and others to stem the spread of nuclear weapons can have a significant influence on proliferation outcomes.

A. The Early Literature and Neorealism

Until recently, most scholars answered the question of why states pursue nuclear weapons with a simple answer: it's security, stupid.⁵⁴ Following the neorealist tradition, and in particular the writings of Waltz on the subject, the dominant view among scholars of international relations was that states initiate nuclear weapons programs in an effort to balance against external threats. States seek the essentially absolute deterrent capabilities of nuclear weapons, which offered a way to secure their territories from attack with certainty, and without the need to gain additional territory or develop large conventional military capabilities.⁵⁵ In particular, scholars tended to focus on four conditions under which states would be most likely to turn to nuclear weapons to increase their security: if they have a regional nuclear adversary or a regional adversary allied with a nuclear superpower, if they have a regional adversary with greatly

⁵³ For some of the more thoughtful efforts to address the ontological and epistemological problems in the study of nuclear weapons proliferation, see Hymans, "Theories of Nuclear Proliferation," 2006; as well as Ogilvie-White, 1996.

⁵⁴ See, for example, Thayer, 1995; Frankel, 1993; Davis, 1993; Measheimer, 1990; and Waltz, 2003. For a review of this literature see Ogilvie-White, 1996.

⁵⁵ Waltz, 2003. Waltz argued that however quickly or slowly nuclear weapons would spread, they would inevitably spread. His goal, however, was not to explain the rate at which nuclear proliferation would take place – although he did offer several ideas on the matter that are discussed later in this section – but to argue that the spread of nuclear weapons would provide increased global stability and security, and would reduce the incidence of war. The work cited here is part of a landmark debate between Waltz and Sagan (2003, updated version), that is in turn based on earlier works by Waltz (1990, 1981, 1979).

superior conventional military capabilities, if they are not themselves allied with a nuclear superpower or protected by one through extended deterrence, or if they aspire to be a regional or global power.⁵⁶

Based on the significant security benefits that nuclear weapons offer to states, many of these early studies adopted very “pessimistic” expectations about the course of future nuclear proliferation. Some of these accounts – reflecting the assumptions of many of the scientists and political actors involved in the early stages of nuclear weapons development in the United States - held that any state with the technological wherewithal to develop nuclear weapons was likely to eventually do so. According to this “technological imperative” argument, many states desired nuclear weapons, but only a small number as yet could make them. As technology increased and diffused to more and more states, according to this thinking, the number of NWS would increase exponentially.⁵⁷ In terms of policy, the best hope for the US would be to restrict the availability

⁵⁶ For the argument that states adopt nuclear weapons when they face rivals that enjoy large conventional military superiorities, see Quester, 1973; and Potter, 1982. For the argument that alliances with nuclear power and extended deterrence reduce states’ interests in nuclear weapons, see Davis, 1993; Mearsheimer, 1990; Frankel, 1993; Betts, 1993 and 1977; and Thayer, 1995. For the argument that states develop nuclear weapons to balance against other nuclear weapons states – that nuclear weapons beget nuclear weapons – see Foran and Spector, 1997. For the prestige argument, see Beaton and Maddox, 1962; and Quester, 1977.

⁵⁷ This description of the technological imperative - or technological determinism - necessarily oversimplifies a category of arguments that in fact includes a variety of different claims about how access to technology and expertise can affect a state’s decision to develop nuclear weapons. These range from the argument that the availability of technology by itself is sufficient to lead to proliferation, to much more qualified arguments that recognize the importance of state decision-making but argue that technological capacity is more than simply a permissive factor, and is actually a causal factor of proliferation. See, for example, Schroerer, 1984; York, 1979; Lapp, 1970; Bethe, 1985; and Potter, 1982 for different takes on these arguments. Also see Meyer (1984), as well as Lavoy (1993), for a clearer specification of the different “technological imperative” arguments, including ones that emphasize the probabilistic nature of the causal effect, and Buzan, (1987), for a broader and more theoretical treatment of the technological imperative and war. This issue has been given renewed attention in recent years, and several scholars have broken from the conventional wisdom to argue that civilian nuclear cooperation does play a causal role in nuclear weapons proliferation. Singh and Way (2004), for example, using a quantitative analysis, find that a state’s “industrial capacity,” measured largely in terms of its capacity to produce electricity and steel, correlates with nuclear weapons proliferation. While the indicators they use avoid many of the endogeneity problems involved in such a study, their finding demonstrates only a correlation between a state’s level of industrial development and the probability that it will develop nuclear weapons or initiate a nuclear program. It does not demonstrate causality, nor does it distinguish between a true technological imperative argument and the more pedestrian conclusion that industrial capacity is a permissive factor in nuclear proliferation. Jo and Gartzke (2007), also using a quantitative approach, find similar results to Singh and Way. Jo and Gartzke, however, use their findings to make the more dubious claim that the technology transfers promoted by the NPT have had a negative effect on nuclear nonproliferation. This study, unlike Singh and Way, fails to address endogeneity problems. Other recent studies along these lines include Kroenig (2010), who argues that transfers of “sensitive” nuclear technologies increase the chances that a state will go nuclear. The latter finding, however, is an expected one, and a far cry from previous decades’ technological determinism arguments. An interesting review of these quantitative studies is Montgomery and Sagan, 2009. As this debate is peripheral to the purposes of this dissertation, I cannot give it sufficient space to do it justice. I will, however, point out four important considerations regarding the supply-side issue. First, it is a policy-relevant debate. If civilian nuclear assistance does increase the chances of a state

of nuclear technology and expertise, and to promote strict export controls among the nuclear suppliers.

And yet the pessimistic predictions of these arguments have consistently turned out to be wrong. Instead, the most serious challenge to explaining nuclear proliferation has been the fact that it is so rare. Predictions from the 1960s and 1970s of dozens of nuclear weapons states in the near future now sound odd, and those who made them would undoubtedly have been astounded to learn that by 2010, only nine states possessed nuclear weapons. Moreover, six of these states had developed their nuclear weapons before 1970, and only three of the current nuclear weapons states joined the nuclear club within the past 40 years.⁵⁸ This stands in stark contrast to what most studies that focused on the distribution of military capabilities – or used a supply-side argument about the technological imperative – would predict.⁵⁹

Mindful of this problem, and aware of the flaws in the technological imperative argument, many realist scholars noted that not all of the elements of the nuclear strategic calculus were on the positive side of the ledger, and that there existed a number of costs and security risks inherent to nuclear weapons development. Waltz himself explained the slow rate of proliferation in terms of four factors: an active role by the United States in stemming the spread of nuclear weapons, technological limitations, relatively high levels of security under bipolar and unipolar systems, and the administrative weakness or instability of many states.⁶⁰ Other authors focused on disincentives to developing nuclear weapons that range from the exacerbation of regional arms

developing nuclear weapons, then a central element of the nonproliferation regime needs to be rethought. Second, it should be recognized that whatever the supply side of the proliferation equation is, judging by the large number of states with latent capabilities that nonetheless do not develop weapons, it cannot be very large (Sagan, 2000; Lavoy, 1993). Third, as the more recent authors admit, the supply-side argument does not deny the important role of states' motivations. They argue instead that technology transfers are only one of many influences on these decisions. As a result, the issue should not be cast as a supply-side vs. demand-side debate, but rather as a research puzzle: what effect, if any, does civilian nuclear cooperation have on states' nuclear weapons decisions? Under what circumstances is nuclear cooperation more or less likely to promote nuclear proliferation? Fourth, quantitative studies of this nature all must necessarily grapple with an endogeneity problem – the need to choose indicators for technology and proliferation that are independent from one another – and they must also demonstrate that there is causality rather than simply correlation.

⁵⁸ Eight states have tested nuclear weapons: USA (1945), USSR (1949), UK (1952), France (1960), China (1964), India (1974), Pakistan (1998), and North Korea (2006). Another two – South Africa and Israel – developed nuclear weapons but never tested them (although there are claims to the contrary). South Africa likely had a viable weapon by 1979. Israel likely had weapons by the end of 1967.

⁵⁹ Sagan, 2000.

⁶⁰ Waltz, 2003. The last cause – state weakness and instability – is perhaps the most interesting here, because it looks to unit-level factors to explain the slow spread of nuclear weapons. As Waltz explains it: “Nuclear weapons require administrative and technical teams able to formulate and sustain programs of considerable cost that pay off only in the long run. The more unstable a government, the shorter the attention span of its leader...a potential nuclear country must have a certain social-political equilibrium.” Waltz specifically states that these unstable states are unlikely to “initiate” a nuclear program (pp.10-11).

ances to becoming the nuclear target of a superpower. Many of these scholars turned to the role of the two superpowers as security guarantors to explain why so few states had developed nuclear weapons. So long as the United States and the Soviet Union extended their nuclear umbrella to these “nth states” and included them in alliances, the disincentives to nuclear weapons development would outweigh the benefits.⁶¹

One appeal of this approach was that it offered very clear policy prescriptions for the United States: use security guarantees, alliances, and extended deterrence to prevent the spread of nuclear weapons to more states. It also led to a rather counterintuitive prescription for the US’s own nuclear weapons policy: be cautious about arms control. If nonproliferation depended upon the US nuclear umbrella, then sharp reductions in the US nuclear arsenal or the redeployment of forward-based nuclear weapons could be destabilizing.⁶² States like South Korea, which began to pursue nuclear weapons largely in response to doubts raised about the US security commitment in the wake of the Nixon Doctrine, seemed to confirm this.

This view also led to a number of dire predictions about the fate of the nuclear nonproliferation regime after the end of the Cold War. Frankel and Mearsheimer, for example, argued that the end of bipolarity would lead to a new wave of proliferation, as the security guarantees of the superpowers were inevitably withdrawn.⁶³ Others, however, were more sanguine, arguing that only certain classes of states (such as “pariah” states or states in particular acute regional security threats) had enough of an incentive to develop nuclear weapons, or that US security guarantees could persist after the Cold War ended and continue to stem proliferation.⁶⁴ Similar divisions took place over the role of international regimes and the NPT. Davis took an optimistic approach to the international nonproliferation regime, arguing that it was the manifestation of great-power cooperation to prevent the spread of nuclear weapons – the result of great-power security interests being in harmony on the issue.⁶⁵ Cohen and Frankel, on the other hand, argued that the NPT would force nuclear weapons aspirants underground, leading to “opaque proliferation.”⁶⁶ The fact that what were essentially the same basic underlying arguments could lead to such divergent expectations and policy prescriptions signaled that there were deeper problems with the neorealist theoretical understanding of nuclear proliferation. This was underscored by the fact that in spite of significant changes in systemic conditions and the distribution of military power, and despite the ever-increasing number of states that had the

⁶¹ Quester, 1973 and 1977. Davis, 1993; Betts, 1977 and 1993; Thayer, 1995.

⁶² Davis, 1993.

⁶³ Frankel, 1993; Mearsheimer, 1990.

⁶⁴ Betts, 1993; Davis, 1993.

⁶⁵ *Ibid.*

⁶⁶ Cohen and Frankel, 1991.

technological base necessary to do so, still very few states developed nuclear weapons. Also, as Sagan pointed out, realist approaches suffered from under-determination and selection effects. Many states are insecure, yet few go nuclear. And by preferentially examining the cases of states that did go nuclear, without similar attention given to the ones that could but did not, many studies were biased, as it is always possible to identify *ex ante* security threats.⁶⁷

B. Challenging the Realist Consensus

While the realist approach to proliferation dominated the field until the last decade, there were nonetheless a number of important works that used a variety of other approaches to the problem, often offering key insights into states' nuclear decision making processes.⁶⁸ Chafetz, for example, argued that states in the “core” – the community of liberal democracies that dominated the international system – did not pursue nuclear weapons because of their shared democratic values and deep patterns of cooperation.⁶⁹ Perkovich, on the other hand – building off of Mansfield and Snyder's arguments about democratization and war – argued that democratizing states like India were actually more likely to pursue nuclear weapons.⁷⁰ Lavoy, Flank, and Goldstein, drawing on organization theory and theories of bureaucratic politics, all pointed out that state decision makers often had different interpretations of the national interest, and could view the costs and benefits of nuclear weapons development differently depending on their conceptions of the national interest.⁷¹ Lavoy, in fact, claimed that scientific and bureaucratic elites could strategically manipulate the arguments about nuclear weapons and security that they made to national leaders to further their own parochial interests in nuclear weapons development. Chellaney argued that nationalism could play an important role, and – pointing to the Indian case – argued that states may develop nuclear weapons to win support from their domestic constituencies.⁷² Nina Tannenwald argued that international norms of non-use and nonproliferation played an important role.⁷³ While these arguments were typically not fully developed as falsifiable theories or subjected to rigorous empirical tests, they offered key insights into the nuclear decisions of individual states at a time when most of the literature was focused only on the security dimension.

⁶⁷ Sagan, 2000.

⁶⁸ Good reviews of the literature on nuclear proliferation include Potter, 1982; Ogilvie-White, 1996; Sagan, 2000; and Hymans, “Theories of Nuclear Proliferation,” 2006.

⁶⁹ Chafetz, 1993.

⁷⁰ Perkovich, 2002; Mansfield and Snyder, 1995.

⁷¹ Lavoy, 1993; Flank, 1994; Goldstein, 1993.

⁷² Chellaney, 1993.

⁷³ Tannenwald, 2007.

An important step forward came from Paul, who accurately noted several empirical discrepancies that challenged the traditional neorealist explanation.⁷⁴ Pointing to the small number of proliferation cases, he argued that any explanatory framework needed to treat them as anomalies, not as the norm. He also noted that, contrary to what “hard” realism would predict, international cooperation on the nuclear issue was actually quite high. Paul took particular aim at the realist argument that it was principally great-power alliances and security guarantees that stemmed the spread of nuclear weapons.⁷⁵ First, he noted that these alliances did not have a similar effect on conventional forces, and in some cases allies acquired quite significant conventional capabilities while continuing to forgo nuclear weapons. Second, most state decisions to forgo nuclear weapons were made before the 1974 Indian nuclear test, and therefore *before* US nonproliferation efforts kicked into high gear. Third, most of the pre-1974 cases of proliferation involved states that were, in fact, allied with existing nuclear powers.

Paul was likewise critical of the dominant neoliberal interpretations of nuclear restraint. Explanations based on the NPT, IAEA safeguards, and the nuclear taboo had the same problem with indeterminacy as realist ones. A number of states, such as North Korea and Iraq, joined the NPT only to continue to pursue nuclear weapons. Likewise, however slow the rate of proliferation was, states continued to develop nuclear weapons after the NPT was created just as they had before. If realist explanations over-predicted proliferation, neoliberalism under-predicted it. Any theory of nuclear proliferation would have to take all of these considerations into account.

To explain these discrepancies, Paul relied on elements of both the realist and neoliberal paradigms. First, in perhaps the weakest part of his argument, he drew a distinction between major powers and peripheral states, arguing that major powers respond to systemic factors differently than weaker states. Then, in a more elaborate specification of the security disincentives to nuclear weapons development offered by Waltz, Paul pointed to the “negative security externalities” of nuclear weapons development – the costs that one state’s nuclear program puts on others and, in turn, the risk of provoking a reaction that leaves the proliferator itself less secure. Nuclear weapons development could trigger security dilemmas and, because they could anticipate this, potential proliferators would have strong security-based incentives to forgo them. Nuclear weapons development could – as realists had argued – invite targeting by existing nuclear powers, trigger a rival’s proliferation or arms racing, or provoke the withdrawal of existing security guarantees or alliances. Drawing on neoliberalism, Paul also argued that

⁷⁴ Paul, 2000.

⁷⁵ *Ibid.*, p.8.

states refrained from nuclear weapons development because they were sensitive to how such behavior could negatively affect their “political-economic relations” with other states. Thus state security was still the principal consideration, however states were also greatly concerned with their political and economic relations with other states – thereby giving economic interdependence explanatory power in states’ nuclear decisions.

Paul’s theory is based on the regional security context of states. Depending on whether states found themselves in regions characterized by high or low levels of conflict, they would be more or less sensitive to the negative security externalities of nuclear proliferation. In high-conflict regions, states typically had little history of cooperation with their neighbors, and were often locked in enduring rivalries. Relative gains concerns were high in these environments, and the zero-sum relationship of states with their neighbors made cooperation to avoid security dilemmas difficult if not impossible. In low-conflict areas, however, states enjoyed “security interdependence,” as well as deep political and economic cooperation. States in these environments would be loath to jeopardize these benefits and trigger security dilemmas.

Finally, Paul gave explanatory power to the NPT as well as international nonproliferation norms and the nuclear taboo. While the NPT did not lead states to forgo nuclear weapons, it could help keep them that way. States typically joined the NPT after they had already decided to forgo nuclear weapons. After joining, knowing that violating the treaty or withdrawing from it would invite costs even greater than had they never joined in the first place, they would have a stronger incentive to maintain their nonproliferation commitments. Likewise, IAEA inspections provided an element of transparency that allowed states to be more certain that their neighbors were not developing nuclear weapons. In other words, the NPT was a mechanism that strengthened the existing security interdependence that raised the costs of proliferation. Paul used fourteen in-depth case studies to support these claims.

While a significant step forward, Paul’s theory had several important weaknesses. His distinction between great powers and peripheral powers was more of an assumption than an argument. Also, neither the realist nor the neoliberal elements of his argument could adequately capture some of the proliferation cases. Paul argued, for example, that South Africa’s nuclear decisions were primarily driven by security concerns. Yet a more convincing explanation would give at least some consideration to domestic-level factors, most notably the country’s democratization and the approaching end of apartheid.⁷⁶ Another outlier was Libya. Gaddafi’s decision to pursue nuclear weapons does not fit well with security-based arguments, and also appears to best fit a domestic-level explanation. Finally, Paul failed to fully flesh out the

⁷⁶ See, for example, Liberman, 2001 and Sagan, 2000.

mechanisms through which the political and economic interdependence aspect of his argument worked. Domestic-level explanations would appear to be useful here as well.

C. Domestic-Level Causes of Proliferation

Studies in the past decade have lent support to Paul's thesis that economic and political interdependence is an important explanatory variable for proliferation. Singh and Way, for example, using a quantitative methodology, found that economic openness was negatively correlated with nuclear proliferation, while security threats and "enduring rivalries" had a strongly positive correlation.⁷⁷ One of the more compelling recent studies, by Solingen, also looked to economic openness and liberalization, incorporating them into a domestic-level theory based on coalitions that can be either "outward-looking" or "inward-looking."⁷⁸ Solingen's research design used several novel approaches. First, rather than focusing exclusively on the state's existential security, she looked instead at regime security. Second, for her dependent variable, rather than using a dichotomous nuclear/not-nuclear distinction or identifying several distinct stages of the proliferation process as most other scholars have done, she looked instead at "nuclearization" and "denuclearization," which reflected the direction that the state's nuclear policy was moving in rather than its nuclear status. Proliferation, in other words, was put on a continuum, and the regime could decide to move toward or away from the development of nuclear weapons.

Solingen argued that domestic coalitions have different preferences for the state's nuclear policies based upon their interpretation of how a nuclear weapons program can increase or detract from regime security. Outward-looking elites, because they tend to place a higher value on economic openness and international cooperation as a way to improve the security of the regime, and see nuclear weapons as less of a security guarantee and more of a source of friction with other states, prefer to forgo them. Inward-looking elites and nationalists, on the other hand, tend to be domestic allies in their shared preference for nuclear weapons, which they see as a way to promote national security, prestige, and self-sufficiency.

Solingen's theory is notable for several reasons. First, it conceives of proliferation (or, to use her term, "nuclearization") as a much more volatile and reversible process than previous studies. In many of her nine case studies, changes both externally and domestically produced significant movement in state nuclear preferences. In fact, despite the fact that Solingen presents her theory as one that explains nuclear choices as something internal to the state rather than

⁷⁷ Singh and Way, 2004.

⁷⁸ Solingen, 1994, 1998, and 2007.

strategic, her focus on inward- and outward-looking models of regime security, and her argument that state nuclear preferences are quite malleable, suggests that proliferating states should actually be rather susceptible to US influence. However, because her dependent variable is poorly specified, the gains from treating nuclearization as a process rather than a ladder of events are often lost because of the failure to create any typology that distinguishes a state like Libya, whose nuclear program was primitive and did not have a very large chance for success, from one like Israel, whose technological base was quite advanced.

Another notable aspect of the theory is that it focuses on domestic actors' conceptions of regime security and, in the case of acute security threats, national security, rather than more particular interests. Such particular interests are not excluded, and may determine why different actors join particular coalitions, but they are not the most significant factor in domestic preferences on the nuclear question. Solingen's theory, in this respect, does not depart from the assumptions of realism and neoliberalism to the degree that she implies.

One particularly glaring gap in the literature is the absence of robust neoliberal institutionalist approaches to nuclear proliferation. This is especially odd considering the prominence of the NPT, of which nearly every state in the international system is a member – almost all in good standing. Potter and Sagan both give explanatory power to the NPT, however, neither presents a fully specified theory or a rigorous empirical test. Both are also more concerned with the normative element of the NPT regime than they are with the actual costs and benefits it offers to its members.⁷⁹ Paul's is perhaps the most well-specified theory that contains neoliberal elements, however he is more concerned with regional cooperation and security interdependence than he is specifically with the NPT.⁸⁰ Others, like Solingen and Hymans, take care to refute neoliberal arguments, even though – particularly in the case of Solingen – one could see how an institutionalist argument could fit well with her own.⁸¹ She does, after all, take care to draw a distinction between pre-NPT and post-NPT cases.

D. The Multicausality of Proliferation

One point that stands out in the proliferation literature is that whatever explanatory power the above models offer for the pattern of nuclear proliferation, an understanding of any particular case must rely on multiple explanatory factors, and examine all of the relevant levels of analysis. Despite efforts – particularly in the past decade – to refute neorealists, security explanations have

⁷⁹ Potter, 1982; Sagan, 2000.

⁸⁰ Paul, 2000.

⁸¹ Solingen, 2007; Hymans, *The Psychology of Nuclear Proliferation*, 2006.

well stood the test of time, critics have confused their weaknesses - problems with underdetermination and over-predicting proliferation cases – with fatal flaws.

Sagan argues that single-case explanations must consider three different “models” or proliferation, which may be more or less appropriate depending on the case: the “security model,” the “domestic politics model,” and the “norms model.” One might include an “institutional” or “cooperational” model here as well. In fact, while explicitly denying it, many of the authors that have sought to refute neorealist and other paradigms have nonetheless, in some of their cases, implicitly acknowledged their merit. Thus Solingen not only acknowledges the role of the NPT while at the same time rejecting it, but also recognizes in several of her case studies the importance of security factors based on the objective distribution of military power, and also the role that US security assurances – or their withdrawal – have played in cases like South Korea.

Liberman’s study of the South African case demonstrates one way in which these system-level and domestic-level explanations can productively be applied together to single-case studies.⁸² The South African case is unique – it is the only state that developed nuclear weapons to then give them up. Liberman - echoing Sagan’s argument that single theoretical paradigms are typically unable to adequately explain any single case of nuclear weapons proliferation - draws on the ideas of Paul, Lavoy, Flank, and Solingen, among others, to capture the multicausal nature of Pretoria’s nuclear decision-making process. The security context, he argues, was important both in the decision to arm and to disarm, but was not sufficient to explain the country’s decisions. Bureaucratic politics, according to Liberman, best explains the initiation of the nuclear program – which likely predated the growing security threats of the mid-1970s. The decision to acquire bombs, however, was made by a “nationalist-statist” prime minister and a small circle of advisers, and was influenced not only by security issues but also the country’s growing diplomatic and economic isolation.⁸³ The decision to give up nuclear weapons was facilitated by the improving security context of the late 1980s, but this did not explain the timing of the decision, and was likely a necessary but not sufficient cause. The reversal decision was again made by the country’s leader and his closest advisers, but in this case the group was dominated by outward-looking politicians who preferred to take advantage of the increased opportunities of closer diplomatic and economic ties with the West that were opening up as South Africa democratized and abandoned apartheid.

Liberman’s study is also interesting because it illustrates the ways in which US policy could be used to influence proliferation cases. In the South African case, not only was the

⁸² Liberman, 2001.

⁸³ *Ibid.*, p.50.

security environment important, but the diplomatic and economic tradeoffs of a nuclear weapons program were relevant as well. Once the security context improved – which likely was a necessary condition for nuclear reversal – denuclearization was possible but not assured. The sudden rise of de Klerk to power put a much more outward-looking government in place, while at the same time both international and domestic changes meant that compliance with the international nonproliferation regime could lead to real improvements in the political and economic relationship that South Africa had with the major Western economies. This suggests that, to the extent that the United States can manipulate these security, political, and economic factors, it could exert a non-trivial influence over other countries' nuclear decisions, and could do so without the use of preventive force. As Liberman points out, the United States in fact did play such a role in this case by negotiating peace settlements in southwest Africa and by holding out political and economic rewards. Given that South Africa actually had produced nuclear weapons, we should also expect diplomacy to be even more effective in cases where the stakes are not so high, such as with countries whose nuclear programs are less developed or less likely to succeed.

Another notable aspect of Liberman's study is that it looks at the initiation of a nuclear program, the development of a latent nuclear capability, and the decision to develop weapons as distinct states of nuclear proliferation. Importantly, he finds that a different mix of causal factors was at work in each stage – and a different mix yet in the decision to disarm. This highlights the fact that both theorists and policy makers need to consider both the multicausal nature of proliferation as well as the different dynamics that could be at work in different stages of a nuclear program.

In this chapter, by considering the various causal factors that influence states' nuclear decisions – both in terms of proliferation as well as reversal – I have set the stage for a more general discussion about the use of negative sanctions and positive inducements as ways to influence the behavior of other states. Through a synthesis of the different literatures on coercion, I seek to create a framework in which the issue-linkage theory I outline in Chapter 3 can be set, and in the following chapters, applied to historical cases of US counter-proliferation efforts. The goal here has been to understand the factors that shape the preferences of states pursuing nuclear weapons, and the conditions under which they may prefer nuclear restraint. In the following chapter, I explore counter-proliferation from the sender's perspective: how negative sanctions and positive inducements, in general terms, influence state behavior.

2. Sanctions and Inducements

I. Sanctions and Inducements in Counter-Proliferation

Most attempts to understand how US policies can be used to convince states to freeze or reverse their nuclear programs have done so by identifying states' incentives to develop nuclear weapons as well as the disincentives, and then looking for ways that the United States could craft policies that minimized these incentives while maximizing disincentives. Thus, if an asymmetrical conventional military balance with a regional adversary is a powerful incentive to develop nuclear weapons, the United States could mitigate this through extended deterrence or military aid. Likewise, if membership in international nonproliferation regimes such as the NPT is an effective disincentive, then the US should focus its efforts on increasing the membership of these organizations as well as strengthening their mechanisms for compliance.

This approach has obvious value – it has identified many good nonproliferation policies and has sparked needed debate over the implications of available theories for US policy choices. However, it is also based on an overly simplified understanding of how negative sanctions and positive inducements - the crux of counter-proliferation policies - work. Security assurances, military aid, civilian nuclear assistance, and multilateral trade sanctions may all provide direct and indirect disincentives to nuclear weapons development, but they also have important implications for other interests of the target state and for the interests of actors *within* the target state as well. In fact, part of the value of the work of scholars such as Solingen and Paul is that they have identified some of these natural linkages between the nuclear weapons issue and other issues that states and domestic groups value.⁸⁴ States do not consider the question of nuclear weapons in a vacuum. Nuclear decisions are instead made in the context of a variety of international and domestic conditions. The most effective counter-proliferation policies take advantage of this context by *linking* the nuclear issue to other issues to which decision makers in the target state assign value.

Under most circumstances, the US may indeed have to resolve outstanding security issues in order to achieve its counter-proliferation goals. This will depend in part on a number of factors, such as whether the US is demanding changes from a state that has already decided to

⁸⁴ Paul, 2000; Solingen, 2007.

develop weapons, or whether the state is pursuing elements of a latent capability. It will also depend on the specific demands, as the demand to dismantle a program is necessarily going to have greater implications for the target's security than the demand that it freeze its program – a move that extends the time it would take to develop a weapon but nonetheless one that can be reversed with relative ease. Therefore an understanding of the different motivational factors involved in the nuclear decisions of states will always be important.

However, because most of the available policy choices to the United States that can be used for counter-proliferation involve more than just the nuclear issue – and, in fact, it would be unwise, if not impossible, to always limit counter-proliferation policies to those that only impact the nuclear issue – an adequate understanding of how these policies work can only be achieved through a broader treatment of issue linkage. Issue linkage is defined as “a state's policy of making its course of action concerning a given issue contingent upon another state's behavior in a different issue area.”⁸⁵ Specifically, we are in need of theories that can explain how coercive threats and inducements in different issue areas can influence a target state's nuclear decisions – and more generally, their decisions regarding any issue of state interest. As a result, it is necessary to turn to the broader academic literature on negative sanctions and positive inducements.

Negative sanctions and positive inducements refer to the various ‘sticks’ and ‘carrots’ that the United States may employ to influence the behavior of other states. As defined here, both sanctions and inducements must be conditional, *i.e.*, they must be either explicitly or implicitly made contingent upon the target state's behavior.⁸⁶ Whether or not the sender will deliver the promised inducements or follow through on its threat are therefore linked to a set of demands with which the target may or may not comply.

Sanctions and inducements, of course, cannot always produce the desired level of compliance. It is, therefore, important to define two terms used frequently in this dissertation to describe the outcome of sanctions and inducements episodes: compliance and cooperation. *Compliance* refers to the degree to which the target state fulfills the sender's demands. It is not a strictly dichotomous variable. States may fully comply with demands, utterly reject them, or – more likely – try to avoid threatened sanctions or reap inducements by partially complying with demands, in the hope that the sender will judge this outcome sufficient. It is based solely on the fit between the target state's behavior and the sender's preferences. *Cooperation* refers to

⁸⁵ Stein, 1980, p.62. Also see Keohane and Nye, 1977; Tollison and Willett, 1979; and Oye, 1992.

⁸⁶ As will be discussed further below, specific focus on the coercive goals of sanctions has been criticized by many scholars as an overly narrow view of how statecraft is used. See, for example, Baldwin, 1985.

whether or not the two states consciously coordinate their policies.⁸⁷ It differs from compliance in that it more fully captures the strategic nature of the two states' behaviors. Whereas compliance is weighed according to what the sender would prefer, cooperation is weighed according to how well the two states can both improve their situation by changing their own behavior *in anticipation of* how the other will change theirs.

What may at first cut appear to be a distinction of semantics is important in that it reflects differences in how scholars have approached the study of sanctions and inducements. At the risk of oversimplifying a rich and complex literature, some scholars have approached coercion as a game of 'chicken': a zero-sum test of wills in which the side that demonstrates superior capabilities and resolve can force the other to comply. Others have viewed coercion as a 'coordination' game, in which the two sides seek to achieve Pareto-optimal outcomes through the coordination of policies. A central contention of this dissertation is that coercion may take either of these forms, and that the specific form of the game depends upon the nature of the issue linkage.⁸⁸

The literature on negative sanctions and positive inducements has developed along two parallel and similar tracks. This chapter surveys both. The first, focused on military and security affairs, has addressed the use of threats and assurances through the lens of compellence and coercive diplomacy.⁸⁹ A largely separate literature has focused on economic statecraft, especially economic sanctions.⁹⁰ The division reflects the widely held conviction that military and economic forms of coercion are conceptually distinct forms of international influence. There is, of course, some obvious merit to this division. Military coercion and trade sanctions, for example, are clearly different from one another in many ways, and there are both strong theoretical as well as empirical reasons to believe that states behave differently when prestige or wealth are on the line ("low politics") than when existential security is ("high politics").

⁸⁷ Oye, 1986.

⁸⁸ This is by no means a novel concept. It is a fundamental tenet of the literature on international cooperation that different international interactions can have different payoff structures. Likewise, there are a wide variety of strategies that states may use to alter the payoff structure of any given interaction so that it more closely resembles on type of 'game' than another. In this dissertation, I draw heavily on these foundational game-theoretic concepts, but do not develop formal models, preferring instead to try to capture the richness and diversity of causal factors across counter-proliferation cases. For a discussion of how game-theoretic techniques can be best applied to international relations, and how different international interactions can be captured by different payoff structures, see Oye, 1986; and Snidal, 1986.

⁸⁹ The seminal works on compellence and military coercion are Schelling, 1966 and George, Hall, and Simons, 1971. Key works that deal specifically with coercive diplomacy and compellence are Pape, 1996; Byman and Waxman, 2002; and Art and Cronin, 2003.

⁹⁰ Seminal works include Hirschman, 1945; Galtung, 1967; Keohane and Nye, 1977; Knorr, 1977; and Baldwin, 1985.

Neorealism in particular is premised on the assumption that these realms are qualitatively different, and demand different theoretical lenses to explain states' behavior in each.⁹¹

For several reasons, however, I adopt a single analytical framework for all of these phenomena. First, the issue area under consideration in this dissertation – nuclear weapons proliferation – is unquestionably an area of “high politics” that is integrally related to questions of state security and survival. Yet US counter-proliferation policies have often incorporated both military coercion as well as economic and diplomatic sanctions. It would therefore make better sense to begin with a common framework for all of these forms of sanctions and inducements in order to identify any differences among them that may warrant a more particular treatment later.

Second, economic and military sanctions are often causally related to one another, used or threatened simultaneously in pursuit of the same coercive goals, or in some cases even hard to separate out from one another conceptually. Trade embargoes may involve naval blockades. When the United States was pursuing UN sanctions against North Korea, it simultaneously ramped up its military capabilities on the Korean Peninsula, both as a defensive measure should the North Koreans respond to sanctions with a military attack as they had threatened, or to impose a naval embargo. Arms embargoes are simultaneously military and economic sanctions. Many sanctioned goods and services also have direct civilian and military uses. Airplane parts can be used for civilian jetliners or for a country's air force. Nuclear technology can be used for civilian reactors or to produce bombs.

Third, the separate treatment of different types of sanctions and inducements – which are often used at the same time, in the same cases, toward the same goals – can introduce unwarranted assumptions and biases. On the one hand, economic sanctions and inducements have often been dismissed as ineffective in security issues. These claims, however, are typically based solely on assumptions. They also fly in the face of the empirical record, as both economic sanctions and inducements have been used successfully to convince states to change their behaviors on security issues, including nuclear weapons. On the other hand, scholars who focus on economic sources of international influence often tout economic sanctions and inducements as “less-destructive...alternatives to the use of force.” This has led many to view economic sanctions as a low-cost or relatively risk-free “default” choice. However, economic sanctions can have devastating effects on a country's population – a particularly inhumane outcome if they otherwise fail to change the target state's behavior. They can also provoke escalation or trigger a war. At the same time, military threats under some circumstances can bring about significant change in a state's behavior at less cost. However, if these different forms of state influence are

⁹¹ Waltz, 1979.

not analyzed in a common context, these tradeoffs can be easily overlooked. Given that policy makers often have all of these different options at their disposal, the question ought to be which is appropriate in a given context. This may be military coercion, or economic coercion, or inducements, or even war depending on the context. The most appropriate option is often to use some mixture of these instruments in concert.

Finally, as the research on military coercion on the one hand and economic and diplomatic coercion and inducements on the other have evolved separately, they have adopted different analytical tools, methodologies, and terminologies that in some ways have obscured commonalities. This has, on occasion, led to different methodological and paradigmatic fights between scholars of international security and those of international political economy that may have done more to slow progress in the field than to advance it.

In this dissertation, I look at the various forms of statecraft that states may use to influence one another's behavior under a common analytical framework based on bargaining and issue linkage. I am concerned specifically with US counter-proliferation policies, but seek to develop a theory of positive inducements and negative sanctions that is generalizable across issue areas. Mindful of the limitations that such a broad theoretical framework can impose, I intend this work to be an exploration of whether such an effort holds promise, and to be a plausibility probe of how well such a framework can capture the effects of various forms of sanctions and inducements in international politics.

In this chapter I review the literature on negative sanctions and positive inducements. Because this literature is so vast and so quickly evolving, my review will necessarily be limited to the work in these fields that are most relevant to the theory I develop in the following chapter. Also, because this literature has traditionally been divided into parallel research agendas, I will address them separately, while at the same time seeking to identify commonalities in these literatures that can be applied to a synthetic framework. The structure of this section reflects the two principal divisions in the literature: the one between military and economic forms of statecraft; and the one between sanctions and coercion on the one hand, and inducements on the other.

From this review, the following important points emerge: (1) the different forms of sanctions and inducements are forms of bargaining, in which states' choices and preferences are interdependent; (2) bargaining outcomes depend heavily upon the states' particular interests in the issue area under dispute; (3) states bargain under conditions of substantial information asymmetries about one another's preferences; (4) states' bargaining choices and preferences are shaped by the "shadow of the future," *i.e.*, how they believe their choices in the present will affect

future outcomes; and (5) states' preferences are constituted from the preferences of domestic political actors, which not only influence but are also influenced by bargaining outcomes. Despite different emphasis, methods, and terminology, a common set of assumptions about how these five factors influence bargaining outcomes can be made. These assumptions form the basis of the issue-linkage theory presented in the following chapter.

II. Military Coercion

A. Compellance and Coercive Diplomacy

It is ironic in light of their largely separate development that much of the literature on both military coercion and economic sanctions has built upon the pioneering work of Thomas Schelling, who was himself trained as an economist. Schelling's work drew on game-theoretic models to capture the strategic interactions between states. Central to this approach was the notion that states chose their behaviors not simply according to the prevailing distribution of capabilities but also according to how they anticipate others would react to their policies.⁹² Schelling drew a distinction between the brute-force use of violence to subdue an enemy and to impose one's will through sheer strength, and "coercion" or "coercive diplomacy," in which the limited use or threat of violence that could cause an adversary "pain" or "hurt" is used to intimidate it into either refraining from some action ("deterrence") or changing in behavior in a particular way ("compellance"). In the former case – war – the use of violence can directly achieve the desired ends. In the latter case – coercive diplomacy – violence is used or threatened instrumentally. Its use may by itself achieve nothing of value directly. But a state may threaten military force - or use limited force as a demonstration with the *implicit or explicit* threat of more or greater force – in order to convince another state to behave in a particular way.⁹³ War, according to Schelling, is "undiplomatic" and a simple contest of strength. Coercion, on the other hand, is "diplomatic," and like other forms of diplomacy, it is an exercise in bargaining that depends not only on each side's strength but also their interests. And like other forms of bargaining, success requires "collaboration" between the two parties.⁹⁴

⁹² Schelling describes the "common interest and mutual dependence that can exist between participants in a conflict." He further states that "to study the strategy of conflict is to take the view that most conflict situations are essentially *bargaining* games." (emphasis in the original). Schelling, 1960, p.5.

⁹³ Or, in the language of game theory, threats can be used to change an adversary's payoff structure.

⁹⁴ Schelling, 1966, pp.1-34. I use the term "war" to refer to brute-force imposition of will, however, it is important to note that Schelling did not use the terms this way. War, to Schelling, could involve both forms of violence, and war – as Calusewitz argued – could itself be viewed in many ways as an extension of the bargaining process, not just the imposition of will by brute force. Some scholars have argued that

Schelling went on to make several points that are relevant to the discussion on negative sanctions. One is that coercive threats must be conditional: the target state must understand what will be done if it does not comply, and also understand that the threat will not be carried out if it does comply (“assurance”).⁹⁵ Another is that successful coercion depends upon how one deals with the effects of information asymmetries. As Schelling puts it, “The hardest part [of coercion] is communicating our own intentions...A persuasive threat of war may deter an aggressor; the problem is to make it persuasive, to keep it from sounding like a bluff.”⁹⁶ He also notes, “If he cannot hear you, or cannot understand you, or cannot control himself, the threat cannot work,” providing the example of the US failure to understand the Chinese threat to intervene in the Korea War.⁹⁷ Finally, although Schelling does recognize the importance of one’s own interests in successful bargaining (“Some threats are inherently persuasive,” he notes, “some have to be made persuasive, and some are bound to look like bluffs.”), his focus was on the ways in which states can influence an adversary’s perceptions of its resolve.⁹⁸

Most of Schelling’s work addressed the issue of credibility - specifically, what strategies can be used to convince an adversary that a threat will indeed be carried out (or, alternatively, if the state complies, that it will not be carried out). Writing in the context of the Cold War, he was primarily concerned with the problem of deterrence, especially nuclear deterrence, which he saw principally as a credibility problem. However, he does make a number of points specifically about compellance – which he argued was more difficult than deterrence - that are worth noting. One is that the target state is confronted with substantial reputation costs in compellance. In deterrence, if a state refrains from the forbidden action, it can argue that it never had any intention to do it in the first place (in fact, this would be the source of a long and heated debate in the deterrence literature about how to code deterrence outcomes if success cannot be directly observed).⁹⁹ Compellance outcomes, on the other hand, are more observable, as the target state

war can result from information asymmetries over capabilities, and that information gleaned from the conflict itself determines the course and duration of conflict. See, for example, Wagner, 2000, and Filson and Werner, 2002.

⁹⁵ Throughout, I use the terms “sender” and “target” – the terminology typically adopted in the economic sanctions literature – simply because there is no similarly consistent terminology in the literature on military coercion (Schelling uses “victim,” among other terms), and because they are more or less self-explanatory terms. The literature on deterrence typically uses the terms “attacker” and “defender.” These terms are clearly inadequate, however, for all cases of coercive diplomacy, such as counter-proliferation policies.

⁹⁶ Schelling, 1966, p.35, 54.

⁹⁷ *Ibid.*, p.38.

⁹⁸ *Ibid.*, p.36.

⁹⁹ For a review of these debates over rational deterrence theory, see Downs, 1989.

must undertake some new action in order to comply. As a result, it must worry whether compliance will demonstrate a lack of resolve and thus invite new demands.

A second point about compellance is what Schelling referred to as the problem of “connectedness.” In deterrence, threats typically can be presented as a natural consequence of an adversary’s actions. For example, a threat to retaliate against an attack on one’s ally is quite obviously connected to the target’s behavior, as one has an interest in defending one’s allies (and this interest is clearly contingent upon whether it is attacked). Compellance does not naturally lend itself to such connections. In fact, compellance always runs the risk of appearing as what Stein refers to as “coercive linkage,” and what Oye calls “extortion”: gratuitous threats to do something that one would otherwise prefer not to do, made only to compel the target into complying with some demand. In other words, it is difficult to phrase compellant threats in a way that does not take the form of blackmail.¹⁰⁰

Another significant contribution in the early literature on coercive diplomacy was made by George, who took a different approach to the problem of military coercion. George adopted a definition of coercive diplomacy that differed from Schelling’s. He drew a distinction between deterrence and coercive diplomacy, which he defined similarly to Schelling’s compellance, but with several key distinctions.¹⁰¹ George did not limit his discussion to military force as the only coercive instrument of state power – although he did give it priority. George also sought to draw a distinction between coercive diplomacy and “blackmail strategy,” defining the former as “defensive” and the latter as “offensive.” George defined offensive uses of coercion as “threats...employed aggressively to persuade a victim to give up something of value without putting up resistance,” and defensive coercion as something “employed to deal with the efforts of an adversary to change a *status quo* situation in his own favor.”¹⁰² Finally, George saw coercive diplomacy as a “component of a more complex political-diplomatic strategy for resolving a conflict of interests” that can be used to produce either compliance with demands or “to work out an acceptable compromise.”

Whereas Schelling sought to use the relatively new theoretical tools of game theory to create abstract, parsimonious, and generalizable models to understand strategy, George put emphasis on the importance of the specific context of any given dispute, the interests of the different actors in the particular issue area under contention, and the need to build theory through inductive reasoning based on careful historical analyses, rather than deductive theory-building

¹⁰⁰ Stein, 1980; Oye, 1992.

¹⁰¹ George, “Coercive Diplomacy: Definition and Characteristics,” 1994, pp.7-11.

¹⁰² *Ibid.*, p.8.

based on *a priori* assumptions about actors' rationality. These different approaches shaped the way that the field would develop, and framed a number of important debates. However, these later fights also obscured some of the commonalities between the two approaches. Both, in fact, recognized the strategic nature of coercive diplomacy, and framed it as a bargaining exercise. Both also appreciated the significance of incomplete information, and focused much of their attention on how information asymmetries shaped outcomes.

B. Rational Choice and Domestic-Level Factors

There are, however, a number of important differences between Schelling's and George's approaches to coercion that are of relevance. First, George – as well as a number of other contemporary scholars such as Jervis and Allison – questioned the utility of rationalist assumptions about states.¹⁰³ These scholars argued that a number of unit-level factors such as cognitive biases and other psychological factors, bureaucratic politics, domestic politics, and organizational procedures confounded rationalist assumptions about state behavior, and they questioned the applicability of formal abstract theories of state behavior to the task of making foreign policy in specific and highly particularized cases.

Jervis, for example, argued that state decision makers' perception of external security threats is largely subjective, and can diverge significantly from objective conditions. Decision makers may be predisposed to view certain states' behaviors more negatively than others, or may interpret another state's actions differently from one another even when the same evidence is available to them. They may also differ about how important particular issues or behaviors are to the state's security, and place different values on compliance. The difficulty of predicting *a priori* how a state will perceive its payoff matrix in any given interaction makes it more difficult for two states to coordinate their behaviors than rational deterrence theorists would predict. Therefore, coercion attempts are not only less likely to be effective, but they run substantial risks of misperceptions that can trigger war. Importantly, Jervis argued that threats could in fact lead to escalation. Coercive bargaining between states could take the form of a "spiral model," in which threats produced escalation, or a "deterrence model," in which threats could successfully deter an adversary, and one could not easily tell beforehand which model would prevail.¹⁰⁴

Later work in the field expanded on these ideas, identifying a number of domestic-level factors that could influence how states respond to military threats. One important line of research

¹⁰³ Jervis, 1976 and 1983; Allison, 1971. See also Janis, 1983.

¹⁰⁴ Jervis, 1976.

argued that leaders could actually reap domestic benefits from external threats because they can produce a wave of nationalism and patriotism that boosts support for the regime. This “rally-around-the-flag” effect could be particularly potent if leaders were faced with domestic problems or crises from which they wanted to shift the public’s attention.¹⁰⁵ Another track looked at the role of state bureaucracies such as the military and foreign policy establishments, which had both greater control over as well as a more concentrated interest in the state’s foreign policy decisions in matters of security. These groups may adopt different beliefs and assumptions that influence their strategic preferences and their willingness to comply with demands or stand firm against threats. They may also use their influence over state decision-making processes to pursue policies that favor their more particular interests.¹⁰⁶ Finally, the degree to which these effects are important may vary depending on the regime and its institutions, the intensity of the dispute, or the contested issue area.

C. The Information Problem: Credibility, Signaling, and “Inherent” Interests

Another central point of contention between Schelling and George had to do with their differing approaches to the problem of incomplete information. Schelling focused on the issue of credibility and resolve, and the different strategies that states could use to enhance the credibility of threats. While he acknowledged a relationship between states’ interests in particular issue areas and the credibility of their threats, he assumed that information asymmetries were high enough that states could greatly manipulate their credibility. George put much more emphasis on the state’s inherent interest in the dispute, and argued that this limited the utility of such strategies.¹⁰⁷ The difference was reflected in what Snyder and Diesing termed “inherent” and “actual” bargaining power, with the former reflecting what a state’s bargaining power would be under conditions of complete information about preferences, the latter reflecting the degree to which it could manipulate another state’s beliefs about its preferences under conditions of incomplete information.¹⁰⁸ To George, the problem was more one of overcoming distortions such as cognitive or ideological biases or domestic political factors to communicate one’s preferences to others than it was one of strategically exploiting information asymmetries, which states had

¹⁰⁵ For examples of the literature on diversionary war and “gambling for resurrection,” see Downs and Rocke, 1994; and Smith, 1996.

¹⁰⁶ For example, see Van Evera, 1984; and Snyder, 1991.

¹⁰⁷ George, “Theory and Practice,” 1994, p.16. As George describes it, “what is demanded of the opponent is of critical importance in determining the balance of interests and motivation that will create ease or difficulty in carrying out coercive diplomacy.”

¹⁰⁸ Snyder and Diesing, 1977.

limited abilities to do. The distinction between the two arguments was critical in that it had important implications for two policy issues: the utility of diplomacy and negotiations, and the costs of conceding on issues or “appeasing” an adversary.

The two approaches had distinct implications about the value of “cheap talk” diplomacy, as opposed to “costly signals” of intent. Schelling argued that states have strong incentives to misrepresent their actual level of resolve, and therefore any statements or “signals” about one’s resolve would be discounted unless they were costly to make. Schelling focused on “hand-tying” strategies, which he likened to removing one’s steering wheel in a game of chicken, but later authors expanded the concept to include “sunk costs,” such as costly military mobilizations as a demonstration of resolve. Diplomacy and negotiations (“cheap talk”), according to this view, had little value. Later authors that developed these ideas, such as Fearon, argued that by paying “audience costs,” democratic leaders could make more effective threats, as publicly issued threats – which incurred the risk of electoral defeat should the leader be called in a bluff – were more likely to be convincing.¹⁰⁹ The fact that democratic leaders could rely on audience costs to make credible threats much more effectively than autocratic leaders led to pessimistic expectations about the peaceful resolution of crises with non-democracies.

There were, however, important flaws with this reasoning. For one thing, the microfoundations of audience costs are not clear, and in fact were debated among scholars that studied the issue. Fearon, for example, argued that leaders who made public bluffs risked electoral defeat because they hurt the country’s reputation, while Schultz focused on domestic political opponents’ ability to exploit a leader’s retreat from threats.¹¹⁰ As Sartori points out, however, it is unclear that leaders would necessarily pay any costs for bluffing if in fact that is what states must always do to demonstrate resolve, and if the issue under dispute was not important enough to justify following through on a threat.¹¹¹

More importantly, it is not clear that states’ reputations for resolve are as important in crisis bargaining as authors such as Schelling and Fearon claim them to be. Jervis, for one, noted a paradox to the credibility argument: if states always have a strong interest in making costly bluffs to demonstrate resolve, then why should other states ever believe these signals? In fact, weak and irresolute states could have a stronger incentive to bluff, as inherently strong and resolute states have less need to worry about their reputations.¹¹² Furthermore, costly signals, depending on the context, may not be so costly in relative terms. States would gladly pay the

¹⁰⁹ Fearon, 1994.

¹¹⁰ *Ibid.*; Schultz, 2001.

¹¹¹ Sartori, 2002.

¹¹² Jervis, 1983.

costs of military mobilizations, for example, if they thought it could influence an adversary's behavior on a highly valuable issue.¹¹³ Mercer drew on empirical evidence to argue that states tended to greatly overestimate the importance of their reputation for resolve, and that states were more likely to evaluate one another according to the issue at stake as well as biased beliefs about each other's dispositional attributes. According to Mercer, the weight that states assigned to bargaining signals depended heavily upon the nature of the relationship, particularly whether they are allies or adversaries.¹¹⁴

Sartori takes the point a step further, and argues that states are concerned more with their reputation for honesty than for resolve. Bluffing, she notes, is most likely to work when the state that resorts to it has already established a reputation for honesty. Thus states have a strong incentive to use bluffs only sparingly. This way, they may reap the dual benefits of being able to employ effective "cheap talk" diplomacy, as their communications will be trusted, while reserving the ability to bluff successfully when necessary. Additionally, rather than simply assuming a particular type of reputation is important to states, as many previous authors had done, she uses a repeated-game model to better capture how states draw inferences about one another's preferences through a Bayesian process of sequential bargaining. Using this model, she concludes that states should greatly value their reputation for honesty, and bluff only when the temptation to do so is very strong. It is far easier to establish a reputation for lying than for honesty, and as a result, states are, under most circumstances, likely to represent their positions more or less accurately. Guisinger and Smith, use a similar approach, and reach the same conclusion. Both articles conclude that ordinary diplomacy and negotiation, even between adversaries, can be effective even in the absence of costly signaling.¹¹⁵

D. "Appeasement"

Schelling's and George's different interpretations of the information problem also have implications for whether or not states could make concessions or adopt "appeasement" strategies. The value that Schelling put on credibility fit well with post-WWII policy makers' dim views of accommodationist strategies, which equated "appeasement" with the Munich Pact. If one's reputation for resolve were paramount, then any concession, on any issue, could invite further challenges. George, on the other hand, saw positive inducements as an integral part of successful coercive diplomacy strategies, and believed that coercive diplomacy could result in a compromise

¹¹³ Guisinger and Smith, 2002.

¹¹⁴ Mercer, 1996.

¹¹⁵ Guisinger and Smith, 2002.

settlement.¹¹⁶ George and Smoke also argued that threats that effectively deter or coerce, but do not address the underlying interests of the actors, only leave the issue under dispute to simmer and eventually to boil over into even greater crisis at a later time.¹¹⁷ Thus cooperation and coercion went hand-in-hand.

Schelling's assumptions about credibility, however, were challenged on both theoretical and empirical grounds. Snyder and Diesing, for example, failed to find many historical cases of such efforts to manipulate perceptions of resolve such as hands-tying or irrevocable commitments.¹¹⁸ Huth, after reviewing the empirical literature on deterrence, came to a similar conclusion.¹¹⁹ Others, such as Leng and Jervis, while not challenging the central logic of credibility, identified the weaknesses of such a strategy, and highlighted the instability and risk of escalation from such strategies.¹²⁰

The findings of Sartori, and Guisinger and Smith, also lend theoretical support to George's view. If bluffing is rarely the best strategy – as both analyses found – and if inherent interests are important, then states should adopt more cooperative strategies, yielding on issues that are of less value while standing more firmly on those that it highly values. Such a strategy would reinforce the state's reputation for honesty and strengthen its ability to use diplomacy effectively. These findings are also consistent with Axelrod's conclusion that tit-for-tat strategies of mutual concessions were the most effective way to build cooperation.¹²¹

In fact, there is reason to be even more optimistic about the potential for positive inducements than George was. George's definition of coercive diplomacy was biased by its distinction between "offensive" and "defensive" coercion. Whether one was using coercion offensively or defensively hinged upon one's interpretation of the *status quo*. Yet it is often the case that both parties view themselves as defending the *status quo* – the Cuban Missile Crisis, which George himself examined in detail, is a case in point. A more useful prism may be the subjective gains and losses that states face from different bargaining outcomes.¹²² Such a view makes positive inducements appear more reasonable, as they can be offered as a way to offset the losses of compliance. They also do not run the risk of an escalatory spiral.¹²³

¹¹⁶ George, "The Development of Doctrine and Strategy," 1971, pp.25-6.

¹¹⁷ George and Smoke, 1974.

¹¹⁸ Snyder and Diesing, 1977.

¹¹⁹ Huth, 1988.

¹²⁰ Leng, 1993; Jervis, 1979.

¹²¹ Axelrod, 1976.

¹²² See Davis, 2000; and Levy, 1997.

¹²³ Davis, 2000.

Davis, in one of the few systematic treatments of positive inducements in the security realm, argues that threats and offers of rewards are more or less appropriate depending on the intentions of the target state. Strikingly, Davis argues that positive inducements are appropriate with states that challenge the *status quo* if their motivation for doing so is a feeling of vulnerability. They are inappropriate however, if states challenge the *status quo* because they seek opportunity. In these cases, he argues, states are more likely to be encouraged to seek greater demands – the “Munich” problem typically of appeasement. Davis’s distinction is problematic, however, as it is far from clear what the distinction is between opportunity and vulnerability in this regard. States may, for example, take advantages of opportunities to seize territory in the belief that it will increase their security. Would this be opportunity, vulnerability, or both? Nonetheless, Davis did identify several important distinctions between negative sanctions and positive inducements. Most importantly, he argued that positive inducements can have a transformative effect with adversaries by establishing a basis for future cooperation. Inducements can build trust and enhance the possibilities for successfully resolving future disputes, while threats are likely to have the opposite effect. He also notes that inducements avoid the problems of rally-around-the-flag effects that threats and coercion can provoke.

E. Lessons From the Literature on Military Coercion

The literature on military coercion and crisis bargaining, therefore, has generated a number of findings that can be used to form the basis of a general theory of negative sanctions and positive inducements. The use of both are best captured by bargaining models that account for the strategic interrelationships between states’ choices and preferences. State preferences are important, as well as the values that states attach to the issue area in question. Thus a theory of counter-proliferation must account for the value that the target state places on its nuclear weapons program and its motivations, as well as the value the sender places on compliance. Bargaining, moreover, has a cooperative element as much as a coercive one. The goal is not to demonstrate as much capability and resolve as possible. Accommodation is a better strategy, and demands can be adjusted and inducements offered to improve the chances of agreement. Domestic politics matter, and the preferences and influence of domestic actors may differ across cases. Information asymmetries present barriers to effective bargaining, and are best overcome through forthright diplomacy rather than the strategic use of bluffs. Negative sanctions may not only fail to produce the desired results, but can trigger escalation. Inducements can avoid these risks and also transform adversarial relationships, improving the chances for future cooperation. As I demonstrate in the following section, a similar set of conclusions are found in the literature on

economic sanctions, strengthening the expectation that military and economic sanctions and inducements can be captured under a common analytical framework.

III. Economic Sanctions

Despite their separation, the study of economic sanctions has remarkably paralleled the development of the literature on military coercion and crisis bargaining, and many of the same debates and methodological fights in the latter are found in the former. Nonetheless, the same broad conclusions about negative sanctions and positive inducements can be gleaned from this literature as well: (1) states' choices and preferences are strategically interdependent; (2) the preferences and choices of outcomes are highly dependent on the value that states place on the particular issue area under dispute; (3) information asymmetries and the sequential nature of bargaining shape outcomes; and (4) state preferences are constituted from domestic actors' preferences, which are interdependent with the international-level bargaining process.

A. The Early Literature: Do Sanctions “Work?” And What Are They Good For?

Ironically, while much of the theoretical work on deterrence and crisis bargaining has been based on mathematical tools borrowed from economics, scholars who study economic coercion have been relatively slow to adopt these same tools. As a result, the strategic bargaining nature of economic sanctions (as well as positive inducements) was often overlooked by early scholars. Thus, where Schelling had focused on threats and credibility, the early work on economic coercion focused exclusively on the implementation of economic sanctions, and the question of whether and when sanctions work. These writings were almost exclusively pessimistic – if not outright dismissive – of a state's ability to use economic coercion to influence another's behavior.

Another characteristic of the early literature was its focus on means rather than ends. A number of authors noted – correctly – that sanctions could be, and often were, implemented for a variety of different reasons. In particular, sanctions could serve as a punishment or a symbol of disapproval of another state's actions, could be implemented to satisfy a domestic audience's desire to simply “do something,” could be imposed as the result of pressures from domestic constituencies in the sender state that stood to economically benefit from them, or could be taken as a first step toward harsher measures such as military coercion or war.¹²⁴ The consensus, however, was that they had little utility as an instrument of international coercion, and their use

¹²⁴ Galtung, 1967; Nossal, 1989; Lindsay, 1986.

had to be explained in other ways. Baldwin challenged this view, arguing that the broad set of purposes for which economic “statecraft” could be employed were in fact instrumental, and that “expressive” uses of sanctions were an important way that states could exert influence, such as by signaling their intentions or demonstrating resolve.¹²⁵ Baldwin’s argument has merit, but it only sidesteps the question of how economic sanctions can be used to influence a state’s behavior in desired ways.

A more optimistic note was struck by Hufbauer, Schott, and Elliott (HSE), who assembled the largest data set of sanctions cases, and, using a quantitative analysis that tested a large set of independent variables, determined that more than 1/3 of sanctions episodes could be classified as “successes” – not a sky-high success rate, but an estimate significantly cheerier than those of earlier pessimists to brand HSE “sanctions optimists.” Responding to this finding, Pape, in an article that triggered a well-known and heated set of exchanges about the effectiveness of economic sanctions, argued that 35 of the 40 successful sanctions cases in the HSE study were miscoded, and concluded that the actual success rate was 5%.¹²⁶

The resulting back-and-forth, however, obscured other important aspects of the HSE study. It was the first study to offer a rigorous empirical test of the degree to which sanctions could influence the behavior of a specific target state. Furthermore, it included a broad set of variables in its analysis that included economic, political, and other situational factors. Perhaps most importantly, while acknowledging that sanctions could be used for a variety of purposes, it focused strictly on its effectiveness as a tool of coercion, and recognized the centrality of this question. At the same time, the study at least tried to address the selection effects introduced by the fact that sanctions may well often be used for other purposes – even when the publicly stated reason for them is to coerce. HSE’s findings framed a number of research problems that later scholars would build on, and assembled a data set that would grow substantially over the years and would serve as the basis for numerous statistical analyses by other scholars.

However, by focusing only on cases in which sanctions had been *implemented*, the study – just like all previous studies of sanctions – had created a selection effect that, *contra* Pape, led to an *underestimation* of the effectiveness of sanctions. Because sanctions would be threatened before they would be implemented, any study of sanctions already imposed would naturally be selecting for cases in which the threat already failed.¹²⁷

¹²⁵ Baldwin, 1985 and 2000. See also Rowe, 2000.

¹²⁶ HSE, 2007; Pape, 1997 and 1998; Baldwin and Pape, 1998; Elliott, 1998.

¹²⁷ Smith, 1998; Morgan and Miers, 2001; and Lacy and Niou, 2004.

B. Sanctions as a Form of Bargaining

By focusing exclusively on sanctions that were implemented, and neglecting those that were only threatened, scholars failed to recognize that in fact economic coercion was similar to coercive diplomacy and strategic deterrence in that it could be effectively modeled as a strategic bargaining game. Likewise, it exposed the fact that quantitative empirical studies of economic sanctions would be subject to the same problems of non-observable events and selection effects as was the case in the study of deterrence and military coercion. Many scholars simply assumed that the target state's behavior would change as sanctions, once implemented, imposed costs on the population or the leadership, or degraded the state's capabilities, and thereby pressured the state into compliance. However, as Schelling argued, it was the anticipation of future costs that mattered. This was, in fact, what later empirical studies demonstrated: sanctions were indeed much more successful at the threat stage than at the implementation stage.¹²⁸ The 2007 edition of HSE, in fact, includes 11 threat cases, 9 of which are coded as successes.¹²⁹

However, the recognition of this also raised another question: why were sanctions implemented at all? If the sanctions would succeed, the target would comply once the threat was made – or perhaps even before, if it anticipated the threat. If they would not succeed, the sender would not have made the threat in the first place, never mind implement sanctions – costly to the sender itself – that were destined to fail. The problem is the same as deterrence failure under rational deterrence theory: why would rational actors ever go to war? Several scholars focused on information asymmetries to explain this. Because states lacked accurate information about one another's preferences and resolve, they were prone to misjudgment.

Some have used this observation to argue that the implementation of sanctions is a way to send “costly signals,” and to demonstrate that one has the resolve to stand firm.¹³⁰ According to this argument, sanctions could resemble a chicken game. Deadlock would result as each side sought to demonstrate its resolve, and feared the reputational costs of backing down. Also – echoing the arguments of Baldwin – the sanctions might have nothing to do with coercion, but simply serve as a way to send a costly signal when threatening military coercion.¹³¹ These conclusions, however, are contradicted by HSE's statistical findings, as well as other empirical findings about sanctions threats. Additionally, the issue parallels – in fact it is exactly the same

¹²⁸ Drezner, 2003.

¹²⁹ HSE, 2007.

¹³⁰ Morgan and Schwebach, 1997.

¹³¹ *Ibid.* This echoes Pape's (1997 and 1998) argument as well. Drezner (1999) notes the same issue and, similar to Sartori (2005), cites the indeterminacy of domestic-level theories to explain the microfoundations of costly signaling. However, he then uses this to simply dismiss the importance of domestic-level factors.

as – the way that many scholars approached the information problem in military coercion and deterrence.¹³² The same debates over the manipulability of credibility and the efficacy of “cheap talk” and private diplomacy apply here as well. Likewise, the arguments of George and others that outcomes depend on how the two states value the issue area under dispute is relevant. Finally, the concern over separating out the causal roles of economic sanctions and military threats, and determining whether one simply “signals” a threat of the other misses the point that *all* threats – including both the limited use of force and the implementation of sanctions – serve as signals. As Schelling pointed out, the entire point of coercion was to threaten *even greater harm* than what was being inflicted in the present. It also highlights another reason for all the elements of a coercion attempt to be studied as a whole – another point argued by George.¹³³

C. The Importance of Context and Interests

The failure to properly account for the political issue under dispute in a given sanctions episode is another flaw in the early literature. Building on the seminal work in the field by Hirschman, many sanctions scholars identified the relative market shares of the sender and the target as the defining variable in determining bargaining outcomes.¹³⁴ While some, such as Galtung, recognized that economic costs to the target did not translate directly into political costs for the regime, they nonetheless accepted – domestic political factors aside - that the sender’s bargaining power derived more or less exclusively from its ability to impose high costs on the target (that the target could not account for by shifting its trade patterns) while incurring only low costs on itself.¹³⁵ Thus – and again, similar to the literature on military coercion – successful influence was seen as a question of capabilities and resolve, with interests in the issue under dispute typically only relevant for the target state. If the sender could impose a high enough cost on the target while accepting greatly lower costs itself, if the target could not adapt to these costs, and if these costs outweighed those of compliance with the sender’s demands, then the target should be expected to comply.¹³⁶ Thus explanations for why sanctions did not “work” focused on international and domestic-level strategies that the target state could use to successfully adapt to sanctions.

¹³² In addition to the literature cited in the above section on this issue, also see Press, 2005, for a discussion on the value of signaling credibility.

¹³³ Kirshner (2002) makes a similar point, arguing that the question should not be whether sanctions “work” as an *alternative* to military coercion but whether they positively contribute to the overall foreign policy goal.

¹³⁴ Hirschman, 1945; also see Keohane and Nye, 1977.

¹³⁵ Galtung, 1967.

¹³⁶ For example, Knorr, 1977.

However, as Wagner points out, this is an example of Harsanyi's "Blackmailer's Fallacy."¹³⁷ If a blackmailer can cause \$1000 in damages to some victim, this does not necessarily mean that the threat of doing so can be used to extract any ransom up to \$1000. If the blackmailer gets nothing if she follows through on the threat, she ought to, by the same logic, be willing to settle for any ransom to avoid ending up with nothing. Economic sanctions are not cost-free to the sender, and can entail significant implementation costs. Not only can the costs imposed by the sanctions outweigh the target's costs of compliance, but the implementation costs to the sender may outweigh the value that the sender puts on the target's compliance. Thus we must consider not only the values that both states place on both ending the sanctions but even more importantly the values they place on the issue area under dispute. Additionally – and again, there are notable parallels to George's arguments about accommodation and compromise in coercive diplomacy – the situation is emphatically not one in which punishments will necessarily achieve the demands stipulated *ex ante*. The implementation of sanctions is the continuation of a bargaining process in which both sides weigh the preferences and resolve of one another, and it is likely to end in a compromise settlement that falls in between the sender's original demands and the *status quo ex ante*.¹³⁸

D. Shadow of the Future

The application of bargaining models to economic sanctions also highlights the way that anticipation of the future can shape choices in the present. Drezner, for example, argues that states will be concerned about their bargaining reputation, as "leaders will consider the history of prior bilateral negotiations in developing conjectures about the other state's behavior." However, Drezner's view of reputation costs is similar to Schelling's, in that the central issue is to demonstrate resolve in a game of chicken. Thus he portrays sanctions as zero-sum games that will necessarily harm the reputation of whichever state backs down, while enhancing the reputation of the state that does not. He further limits this effect to the dyadic relationship, and assumes that reputations do not carry over to conflicts with other states.

It is unclear, however, why reputation effects would be limited to the bilateral relationship. Interestingly, two of Drezner's case studies involved the US-North Korea and US-South Korea dyads. Both North and South Korea are long and bitter rivals – would reputation effects from US coercion efforts not carry over into this relationship? Would it not also influence

¹³⁷ Harsanyi, 1986; Wagner, 1988.

¹³⁸ Drezner (1999) and HSE (2007) both make this point, and refute Pape's (1997) argument that partial sanctions successes are hardly successes at all

the views of other states in the region such as Japan? One would expect that either the reputational effects would extend to these actors as well, or would not be relevant at all. Furthermore, the issues about states' reputations for resolve raised Sartori, and by Guisinger and Smith, can be applied here as well: states in fact have strong incentives *not* to bluff, and there are substantial limits on how states can use such techniques to enhance their bargaining position.¹³⁹

Drezner also argues that concerns about the distribution of gains and reputation costs can lead a target state to resist coercion even when the costs of doing so in the present far outweigh the costs of compliance.¹⁴⁰ The target must worry that any concessions that are made could serve as leverage in the future to extract greater gains, and therefore must take these future costs into account when bargaining in the present. According to Drezner, this applies not only to disproportionate (or relative) gains that could confer a strategic advantage to an adversary but to any future advantage that could be used to extract costs from the target state, whether military or economic.¹⁴¹ Importantly, he argues that these concerns will be more acute when the target state expects future conflict with the sender (adversaries) than if it does not (allies).

Drezner's argument that the relative gains problem is relevant to economic sanctions, and that it is more acute with adversaries than with allies, is illuminating, and is supported by the substantial empirical evidence he presents in his study. The argument is weakened, however, by its use of conflict expectations as an independent variable, as well as its exclusion of domestic political factors. A focus on conflict expectations mischaracterizes the relationship between allies. Allies do, in fact, have frequent disputes. The expectation between allies is not that conflicts will not arise, but that they will be settled through mutual accommodation and compromise. In other words, the difference between allies and adversaries is not the expectation of disputes, but the expectation of cooperation. Allies have a history of past cooperation which – reasonably – leads them to suspect cooperation in the future. Adversaries have a history of unsettled disputes and expect future disputes to spiral. The difference is significant. Drezner's focus on conflict expectations allows him to explain why reputation does not matter between allies – they simply do not expect to have further disputes. But allies do have disputes, and therefore should worry about reputation as well, according to this logic. A focus on allies' histories of cooperation, however, highlights the importance of states' reputations for honesty.

¹³⁹ Sartori, 2002; and Guisinger and Smith, 2002. Likewise, it is often in a state's interest to concede on many issues.

¹⁴⁰ Drezner, 1999.

¹⁴¹ *Ibid.*, pp.29-31.

Thus Drezner's empirical predictions are right, but for the wrong reasons.¹⁴² Allies have reputations for honesty with one another that mitigate concerns about bluffing and extortion. Allies have a lot to lose – extortion and bluffs can disrupt the alliance – while adversaries do not. Thus the alliance itself provides a “costly signal” of each side's credibility as well. The case is the same with relative gains. Relative gains is less of a concern between allies not because there are few disputes, or because there are never distributional concerns between allies, but because any given distributive issue diminishes in significance in the context of many expected cooperatively settled disputes in the future. Again, because Drezner is actually empirically testing allies and adversaries as the independent variable, the evidence appears to support the theory. The problem is that the ally/adversary distinction is a poor proxy for conflict expectations.¹⁴³

Also, by leaving out domestic political factors, it becomes unclear exactly what issues are most likely to exacerbate relative gains concerns with either allies or with adversaries. For example, Drezner argues that demands for greater liberalization could “permit the sender country to exploit domestic divisions in a later dispute,” and therefore lead the target to strongly resist.¹⁴⁴ However, there may be powerful factions within the regime that support liberalization. Also, some regimes may view liberalization as a greater future threat than others. Papayoanou and Kastner find that engagement policies may produce more cooperative relations if outward-looking internationalist factions are prominent in the target state's regime, but could produce a backlash if inward-looking factions are dominant, as they may feel threatened by greater economic links.¹⁴⁵ This suggests that states may view economic and political liberalization policies as more or less of a threat – and, in turn, may be more or less sensitive to relative gains problems – depending not only upon the relationship between the two states (adversaries or allies) but also upon the preferences of domestic actors. It is also not clear in Drezner's study *how much more* a state should defy coercion attempts if relative gains concerns are relevant. At some point, presumably, the cost of resistance would outweigh even the potential future losses from compliance. One would imagine, therefore, that there should be a substantial difference if demands are made that raise issues of state or regime survival than if they simply raise the possibility of future economic losses.

¹⁴² *Ibid.* Also, Drezner's empirical finding that sanctions are more effective with allies than with adversaries are supported by HSE, 2007 and van Bergeijk, 1994.

¹⁴³ Interestingly, Drezner defines allies and adversaries in terms of conflict expectations, but then, when conducting the empirical tests, operationalizes the independent variable in terms of historical cooperation. Drezner, 1999, pp.33-4.

¹⁴⁴ *Ibid.*, p.30.

¹⁴⁵ Papayoanou and Kastner, 2000.

E. Domestic Political Factors

Domestic political factors were given a great deal of attention in the early sanctions literature, but were increasingly replaced with unitary assumptions about the state as formal game-theoretic modeling became more prominent in the field. As demonstrated above, these approaches have contributed enormously to our understanding of economic coercion. However, by treating the domestic mechanisms through which sanctions necessarily had their effects as a black box, they also sometimes obscured as much as they illuminated, and more recent game-theoretic analyses have in fact sought to apply more advanced modeling techniques to try to pry open that black box. Galtung, in one of the most influential early studies of sanctions, focused on domestic factors, and drew a distinction between their economic effects and their political effects, which need not necessarily correlate with one another.¹⁴⁶ He argued that states could not only be more or less vulnerable to sanctions externally (as a result of market share of the sanctioned good, dependence on sender, *etc.*) but internally as well. Vulnerability depended on the degree to which the state could adapt to sanctions. Externally, a state could adapt by adjusting trade patterns or importing substitute goods. Internally, a state could restructure its domestic markets, or rally its citizens to sacrifice.

Most importantly, Galtung recognized that sanctions could have perverse domestic effects within the target state that made adaptation to the sanctions easier. While the goal of sanctions was to create sufficient “political disintegration” within the target state to force compliance, sanctions could, under some circumstances, promote “political integration” instead. Like in warfare, sanctions could trigger patriotic sentiment and a rally-around-the-flag effect that strengthened the state’s ability to resist. The state’s capacity to adapt to the economic effects of sanctions led Galtung to a very pessimistic conclusion about the effectiveness of economic coercion. Eland, Blanchard and Ripsman, and others have also emphasized the political costs of sanctions over their economic costs, and have noted that leaders can use their domestic powers to direct the costs of sanctions away from regime supporters and onto opponents or onto more politically ineffective groups.¹⁴⁷ Rowe argues that the target regime may even benefit from sanctions, as it may give the regime monopolistic control over certain goods, which it can then distribute preferentially to build regime support.¹⁴⁸

Blanchard and Ripsman also argue, however, that sanctions need not always produce perverse domestic effects, and can be combined with other foreign policy tools such as diplomatic

¹⁴⁶ Galtung, 1967.

¹⁴⁷ Eland, 1995; Blanchard and Ripsman, 2000. Also see Selden, 1999.

¹⁴⁸ Rowe, 2001.

sanctions or used multilaterally to “magnify” the political effects of sanctions.¹⁴⁹ For example, sanctions effectiveness may be greater if the state can be diplomatically isolated, and the target can be denied political support from third parties.¹⁵⁰ Blanchard and Ripsman, however, do not take into consideration how such measures could under some circumstances trigger escalation. Brooks, thinking along similar lines, argues that broad-based, comprehensive trade sanctions and financial sanctions will work best with democracies, because their distributional consequences can trigger protest and lobbying that can change the target state’s policies.¹⁵¹ However, because authoritarian regimes are much more insulated from public pressure, these types of sanctions are unlikely to work against them. In fact, they are likely to trigger perverse rally effects, as these states can protect their supporters, while the middle class – which is most likely to oppose the regime’s policies – will be weakened. As a result, sanctions against authoritarian regimes are both less likely to succeed and must be more narrowly targeted to regime elites. HSE’s data, in fact, supports the claim that sanctions are more likely to be effective with democracies.¹⁵²

Kirshner argues that sanctions may lead to perverse or magnifying political effects depending on the nature of the target regime, the preferences of core regime-supporting groups, and the domestic balance of power among these groups.¹⁵³ The effectiveness of sanctions therefore depends on both the nature of the sanctions as well as the characteristics of the target state. Different types of economic sanctions – financial sanctions, withdrawal of military or financial aid, trade sanctions, monetary sanctions – have disproportionate effects across domestic groups. Likewise, different regimes vary in their vulnerability to any given sanctions type. Kirshner identifies three domestic political mechanisms through which sanctions can avoid perverse ‘rally-round-the-flag’ or rent-seeking effects. They can weaken the regime or inflict damage on core regime interests. They can reward or punish core political groups on whose support the regime depends, and shift the balance of domestic political power in favor of groups that prefer compliance.¹⁵⁴ Finally, they can change the preferences of these core groups by altering the costs and benefits of different policy choices. All three mechanisms may be at work

¹⁴⁹ Blanchard and Ripsman, 2000.

¹⁵⁰ Alexander George (1994) also makes the point that coercive diplomacy is easier with isolated states.

¹⁵¹ Brooks, 2002.

¹⁵² HSE, 2007.

¹⁵³ Kirshner, 1997.

¹⁵⁴ Kirshner is careful to draw a distinction between his “microfoundations” model of economic sanctions and the public-choice models offered by authors such as Kaempfer and Lowenberg. In Kirshner’s model, the regime has distinct preferences that are not simply a function of the preferences and power of domestic interest groups. Likewise, state preferences are not wholly a function of endogenous factors but are heavily dependent upon the exogenous context as well. Also, the preferences of domestic actors are not fixed – they change over time and can be influenced by the international bargaining interaction itself. Kirshner, 1997; contrast with Kaempfer and Lowenberg, 1992.

in any given case. Because they need not all work in the same direction – sanctions may, for example, simultaneously weaken the regime in some ways while promoting cohesion among regime supporters – policy makers must possess detailed knowledge about the target state in order to craft effective sanctions packages.

A similar argument is made by Jentleson and Whytock in their evaluation of the successful counter-proliferation case of Libya. Like Galtung, Jentleson and Whytock put their focus on the political effects on the regime, and seek to identify the conditions under which coercion is “politically integrative” or “politically disintegrative.”¹⁵⁵ Importantly, they do not restrict their analysis to economic sanctions, and look at the broad spectrum of statecraft techniques that the US employed against Libya. They also draw heavily on the coercive diplomacy literature, and particularly on George’s writings. Jentleson and Whytock argue that the target regime is more susceptible to coercion both when the state’s ability to absorb the costs of coercion (both internally and externally) are low, and when the elite supporters of the regime feel most threatened by compliance with the sender’s demands. If the interests of powerful elites are served by compliance, they can serve as “transmission belts” that magnify the political effects of external coercion.¹⁵⁶ If elites’ interests are threatened by compliance, they can act as “circuit breakers” that insulate the regime from political pressure. The authors conclude that coercion is most effective when an accommodationist strategy is used that not only applies coercive pressure but also maintains sufficient flexibility to lower the cost of compliance for elites. Most importantly, Jentleson and Whytock argue that Libyan compliance was achieved only after US demands were moderated, and Washington dropped its pursuit of regime change, thus lowering the regime’s cost of compliance. While there are reasons to take issue with elements of the authors’ conclusions about the Libyan case – most particularly their argument that economic and military coercion contributed to a successful outcome – their overall model of domestic politics, as well as the importance they place on context, is convincing.¹⁵⁷ Also convincing is their argument that destabilizing the target regime can sometimes undermine coercion, and that it is not sufficient to simply apply economic *or* political pressure on the regime. Compliance must appear to be a better option as well.

¹⁵⁵ Jentleson and Whytock, 2006, p.54.

¹⁵⁶ Tostensen and Bull (2002) make a similar argument.

¹⁵⁷ I provide a detailed analysis of the Libyan case in Chapter 6 of this dissertation. While I differ with Jentleson and Whytock’s conclusion that economic and military coercion (specifically the demonstration effects of the 2003 US invasion of Iraq) were partly successful, in fact, in broad terms, I am in agreement with their overall analysis. Jentleson and Whytock give more explanatory power to negative sanctions in the Libyan case than my analysis does, however, both analyses find that sanctions played at best a minor role in the outcome.

While much of the recent literature has offered both a more optimistic and a more nuanced image of economic sanctions, it has also highlighted how difficult it can be to use economic sanctions effectively. A better understanding of the domestic political effects of sanctions – as well as concerns about human rights issues – has produced support for “smart” sanctions that are more precisely targeted to regime elites, and that seek to amplify the political effects of sanctions over the economic. However, as Tostensen and Bull point out in a review article on smart sanctions, an effective smart sanctions regime can be very difficult to design and implement.¹⁵⁸ They identify three types of sanctions most suited for targeting elites: financial sanctions, arms embargoes, and travel bans. All are difficult to enforce, and may create perverse consequences under certain conditions. For example, the US arms embargo against Libya helped push Tripoli further into the orbit of the Soviet Union. Arms embargoes can also exacerbate existing security problems – something particularly relevant to the issue of counter-proliferation. Likewise, financial sanctions can affect the wrong parties, or can be circumvented, particularly if the target state anticipates them in advance. In general, to target sanctions precisely, the sender must have good information about the target’s domestic politics and economy, an accurate understanding of how sanctions will affect them, and the ability to enforce sanctions both domestically and internationally. This is difficult to accomplish under the best conditions, and exceedingly so if the target state is a “pariah” or closed state.

F. Multilateral Sanctions

Another issue prominently addressed in the sanctions literature is when to use multilateral sanctions. Many scholars have argued that multilateral sanctions – typically organized through international institutions such as the United Nations – can be more effective than unilateral sanctions. They claim that multilateral sanctions enjoy broader legitimacy, they are more difficult to adjust to by shifting trade patterns or assets, and - because a larger number of sanctioning states means a larger portion of the target’s foreign markets are affected - they can in principle be more punishing.¹⁵⁹ Yet in spite of this optimism, the available empirical evidence is does not support these claims. HSE, for example, finds no evidence that multilateral sanctions are necessarily more effective than bilateral ones.¹⁶⁰ There is a tradeoff, in fact, between their strengths and important weaknesses: they are harder to maintain over a long period of time

¹⁵⁸ Tostensen and Bull, 2002.

¹⁵⁹ Examples are Haass, 1998; Doxey, 1987; Martin 1992; Mastanduno, 2000; and Cortright and Lopez, 1995.

¹⁶⁰ HSE, 2007. Also see Drezner, “Bargaining, Enforcement, and Multilateral Sanctions,” 2000. For a contrasting view, see O’Sullivan, 2003.

because a large number of states must be kept on board, and they are harder to organize in the first place. Also, despite their ability to affect a larger share of the target's trade markets, they tend not to be as strict or affect as many trade items as bilateral sanctions, as they must be watered down in order to win broad international support. Drezner finds that multilateral sanctions can indeed be superior to bilateral sanctions, but only if they are organized through international organizations. *Ad hoc* multilateral sanctions are bound to fail. Both Drezner and Martin argue that there are substantial costs to the primary sender in not only organizing but also enforcing multilateral sanctions. International institutions can substantially lower the transaction costs of enforcement and improve effectiveness. In fact, the sanctions literature has failed to address the conditions under which multilateral or unilateral sanctions are more or less likely to be effective, not least because so many scholars have simply assumed that multilateral sanctions are always superior – a conclusion that is intuitive but not well supported empirically.¹⁶¹ It may in fact be the case that in interactions between allies, bilateral sanctions are the better choice.¹⁶² Similarly, it is possible that existing empirical tests are biased, as states may be more likely to pursue multilateral sanctions with adversaries, with which they are less likely to be effective.

G. Economic Inducements

As was the case in literature on military coercion, far less attention has been paid to positive inducements in the literature on economic statecraft than to sanctions. Nonetheless, there have been a few important efforts to address the use of inducements, and to create a comparative framework that tries to capture the differences in the effects of sanctions and inducements on the target state. Baldwin's seminal work on this issue stands out as an exceptionally sophisticated early effort in this regard. In fact, it is striking how little has been added to our understanding of the international use of positive inducements over the four decades since it was written.

Baldwin begins by taking issue with Schelling's claim that there is little conceptual distinction between sanctions and inducements, and argues that abstract and generalizable hypotheses can be deduced about how states respond differently to them.¹⁶³ He distinguishes sanctions and inducements according to the expectations of the receiver, and draws mostly on psychologically based arguments to deduce their behavioral consequences. First, he argues that

¹⁶¹ In one of the more recent empirical analyses, Bapat and Morgan (2009) reach findings very similar to Drezner's ("Bargaining, Enforcement, and Multilateral Sanctions," 2000) – that multilateral sanctions tend to be more effective when organized through an international institution. Their evidence also disconfirms an important competing argument: that a selection effect is at work, because tougher disputes have a greater likelihood of being addressed multilaterally rather than bilaterally.

¹⁶² Kaempfer and Lowenberg (1999) reach this conclusion.

¹⁶³ Baldwin, 1971.

there should be a selection effect at work that makes threats more observable than offers of rewards. Because threats are observable if they fail, while promises are visible if they succeed – and because, according to Drezner, *both* are more than likely to fail at any rate – then we should see many more cases of threats than promises.

Second, he argues that positive inducements can create virtuous cycles of success (or “spillover effects”) while negative sanctions can lead to vicious cycles of failure (or “scar effects”).¹⁶⁴ This is because threats can poison relations, make it more difficult to cooperate on other issues, and provoke retaliation. Rewards do the opposite: they build trust. According to Baldwin, “Today’s choice by A between positive and negative sanctions affects not only today’s response by B, but tomorrow’s as well.”¹⁶⁵ They also provide a means of greater influence in the future, as today’s reward can be tomorrow’s threat.

Third, he argues that positive inducements are more likely to succeed than threats. They make demands appear more legitimate, and they make cooperative agreements easier to enforce.¹⁶⁶ Finally, Baldwin acknowledges the problem of moral hazard, and notes that habitual use of positive sanctions is more likely to encourage blackmail attempts.

There are weaknesses to Baldwin’s logic, however, his points do capture many of the relevant issues in using positive inducements. There is, for example, good reason to believe that inducements do create virtuous cycles while sanctions create perverse ones. Unfortunately, Baldwin does not stipulate a mechanism for this, and only implies that the effect results from psychological biases. Likewise, today’s inducements can serve as tomorrow’s threats, however the implications of this, and the fact that sanctions do not work the same way, are not fully fleshed out either. Baldwin’s claim that inducements should work better than sanctions is not only logically thin, but is stated universally. It is implausible that rewards will always be superior to threats. Finally, he assumes that moral hazard is a serious problem with inducements, but does not explain why this so, the conditions under which this is likely to be the case, or why blackmail is only a problem in the case of inducements. He also does not explain how much of a problem this is, or what should be done about it. Still, his brief paper manages to capture the general contours of the issue: virtuous and vicious cycles, relative effectiveness, and problems of extortion and moral hazard.

Another important cut at the issue of inducements came from Crumm, who – in an underappreciated paper – sought to apply lessons from the literature on economic sanctions to

¹⁶⁴ *Ibid.*, p.33.

¹⁶⁵ *Ibid.*

¹⁶⁶ *Ibid.*

identify conditions under which positive inducements could be used more or less effectively.¹⁶⁷ She argues that the impact of positive inducements, like sanctions, must be weighed in the context of a number of variables both internal and external to the target state: domestic political factors in both the target and the sender, world market conditions, and the characteristics of the positive inducements themselves. A number of interesting findings are gleaned from this approach. First, as is the case with sanctions, inducements are most likely to be effective when they are targeted in a way that exploits the domestic and international context. Inducements can be chosen that disproportionately reward key regime supporters. Private fungible goods are useful because they allow the target regime to preferentially distribute gains to supporters, or to offset the costs to domestic groups of compliance with the sender's demands.

Second, inducements – also like sanctions - are more valuable when the target state cannot receive equivalent goods from other states. However, while sanctions can be self-defeating in this regard, inducements can have a self-reinforcing effect: whereas sanctions can raise the price of the sanctioned good on world markets, encouraging new sellers and sanctions-busting, inducements lower the price of the good and discourage other sellers.¹⁶⁸ Also, under certain circumstances, inducements can even create dependency as the target's domestic markets adapt to the new goods. This is most likely to occur if the inducement is a highly differentiated good that the target state's domestic actors adapt to in particular ways. For example, technology transfers can create dependence by limiting the target's ability to acquire related spare parts, equipment, or expertise from other suppliers.¹⁶⁹ The insight that inducements can be tailored to promote self-reinforcing effects is not only important in its own right, but effectively refutes Wagner's argument that inducements necessarily lose value over time, as their marginal utility would necessarily decline as their supply increased.¹⁷⁰ In fact, inducements must be considered in terms of the effects that they have on the target's politics, and its political economy, which can lead to significantly different conclusions than those reached by only paying attention to system-level economic factors.

The two pieces by Baldwin and Crumm highlight most of the issues that have been addressed by – as well as many of the problems that have plagued – the literature on economic inducements. Perhaps the biggest problem – and one noted by Dorussen in his review of the

¹⁶⁷ Crumm, 1995.

¹⁶⁸ This is likely to be the case with goods and commodities. Although Crumm does not point out the difference, the opposite can be true with financial sanctions and inducements. Financial sanctions can be self-reinforcing by sending negative market signals and discouraging other lenders and investors. Financial inducements can have the opposite effect. See, for example, Carim *et al.*, 1999.

¹⁶⁹ This idea originated with Hirshman, 1945.

¹⁷⁰ Wagner, 1988.

literature – is the absence of any consensus on exactly what inducements *are*, what their relationship is to sanctions, and how sanctions and inducements fit into a common framework.¹⁷¹ Thus most scholars have adopted slightly different definitions from one another, have used different taxonomies, and have adopted different terms. Crumm talks about “economic incentives,” which includes economic sanctions and economic inducements (using my own terminology), but excludes military and diplomatic forms of coercion. Long and Cortright define inducements as the provision of any sort of benefit, whether conditional or not. Also, Long focuses on economic inducements and in particular technology transfers, while Cortright casts a much broader net.¹⁷² Bernauer and Ruloff define positive inducements as “*additional* measures” to promote cooperation – in other words, side-payments to address distributional barriers to cooperation, typically in the context of an existing set of costs and benefits provided by an international institution.¹⁷³ They also limit their analysis to purely economic side-payments, even though their focus is on nuclear arms control, an issue area in which national security is central. Foran and Spector, on the other hand – who also focus on the inducements in the context of nuclear weapons proliferation – put a heavy emphasis on the need to address security problems through assurances.¹⁷⁴ Martin makes a similar point. Drezner sets himself apart from the others by offering a clear and precise definition of positive inducements (which he calls “carrots”): they must be *conditional*; they must be linked to demands that require the target to change its behavior in the *near-term*; and they may involve the transmission of any type of benefit, whether military, economic, or diplomatic.¹⁷⁵ This is essentially the definition used in this dissertation, with the exception that I include vague and implicit demands, while Drezner requires demands be made explicit.

These same authors have also differed over what the most appropriate analytical framework is to study sanctions and inducements. All recognize that both are forms of bargaining, although they differ over how the bargaining relationship ought to be represented theoretically. Similar to Crumm, Long focuses on the domestic political and market aspects of inducements, which leads him to many of the same conclusions. Long follows Crumm in taking aim at Wagner’s argument about the declining marginal utility of inducements, and points to their potential self-reinforcing effects, as well as their ability to create dependence.¹⁷⁶ This is particularly relevant to his focus on technology transfers, which naturally lend themselves to such

¹⁷¹ Dorussen, 2001.

¹⁷² Long, 1996; Cortright, 1997.

¹⁷³ Bernauer and Ruloff, 1999, p.2. Italics are in the original.

¹⁷⁴ Foran and Spector, 1997.

¹⁷⁵ Drezner, “The Trouble with Carrots,” 2000.

¹⁷⁶ Also Cortright, 1997.

reinforcement. However, it also leads Long to overlook the fact that not all forms of inducements have this effect, and that the proper targeting of inducements to create these “magnifying effects” can be just as difficult as, and encounter similar information problems as, the similar targeting of sanctions.¹⁷⁷ It is logical that such barriers to cooperation would be lower with inducements, but Long doesn’t make a full case, and does not identify conditions under which these barriers would be higher or lower.

Long also argues that inducements can be self-reinforcing by predisposing both sender and target to future cooperation, while sanctions can ‘poison the waters’ and reinforce hostility. However, like Galtung, Baldwin, and Crumm all do, Long bases this argument on cognitive and psychological factors. These may indeed be at work, however, it is odd that none of these authors make references to the institutionalist literature that emphasizes the way that sequential bargaining can reinforce cooperation or defection – a particularly odd omission for Long, who situates his argument squarely within this literature in many other ways.¹⁷⁸ These authors all also recognize that inducements – like sanctions – not only reshape domestic markets and the domestic balance of power, but can positively shift the preferences of domestic actors as well.

Drezner again sets himself apart from the others by adopting a rational-choice approach, and he deduces a number of hypotheses about how inducements and sanctions differ both in terms of efficacy as well as likelihood of use. He argues that inducements are more likely to be used, and are more likely to succeed, when both sender and target are democracies. Sanctions are more likely to be used with adversaries, in which case they are likely to fail. They then may be substituted with inducements. A central element of his argument has to do with transaction costs – the barriers to the successful use of positive inducements are high, because compliance is typically neither easily observed nor enforced. Because these transaction costs are lower with democracies, inducements are more likely to work between democratic states.

However, Drezner does not address the issue of what barriers transaction costs present for the effective use of sanctions, or the conditions under which they would be higher or lower. Considering that sanctions are similarly a bargaining tool, and that their success is likewise dependent on the observability and enforceability of compliance, one would expect a similar effect. In fact, it is not clear whether there is any *a priori* reason to believe that either involves higher transaction costs than the other. Inducements may, in fact, have an advantage with respect

¹⁷⁷ The argument that sanctions can be designed in ways such that domestic and international factors “magnify” their political effect is made by Blanchard and Ripsman, 2000.

¹⁷⁸ An obvious starting point would be Axelrod, 1976. Also, much of the literature on economic interdependence builds on these same concepts. See, for example, Mastanduno, 1992 and 2000.

to enforcement, as they can always be withdrawn if the target defects from the agreement.¹⁷⁹ To enforce compliance with sanctions, one must continue to hold out an ever-present threat. More than a decade of enforcing no-fly zones in Iraq, the stationing of American troops in Saudi Arabia, and the repeated use of low-level military force in order to – quite imperfectly – compel Iraqi compliance after the Gulf War demonstrates that the transaction costs of enforcement can indeed be quite high. In fact, as Cortright points out, another reason the transaction costs of inducements might be lower than sanctions is that they need not be used multilaterally.¹⁸⁰ With multilateral sanctions, there are substantial costs to organizing secondary senders even if the intent is simply to make a credible threat.¹⁸¹ Likewise, if inducements are less likely to generate public hostility in the target state, they may also more easily overcome information problems by avoiding the perverse cognitive biases produced by sanctions.¹⁸²

All of the authors address the problems of extortion and moral hazard, although they specify these issues in different ways, and offer little besides cautioning that inducements can invite extortion, and lead to cries of ‘appeasement’ from domestic critics. For this reason, both Drezner and Haass and O’Sullivan emphasize that inducements should be mixed with sanctions as a way to discourage extortion.¹⁸³ What if left unexplained, however, is whether there is a particular set of scope conditions under which positive inducements invite extortion, and what such conditions could be. This is a general problem in the literature on positive inducements, and it reflects a widespread assumption among policy makers as well: it is typically assumed that inducements either will not work without being coupled to sanctions, or will invite future attempts at extortion unless the two strategies are used in combination with one another. There is not, however, any compelling explanation offered as to why should be so, and why inducements should – categorically – never be used unless negative sanctions are threatened as well. The mutual exchange of rewards is ubiquitous across most areas of human interaction, and frequently takes place among adversarial and self-interested actors. It is not clear why the same sort of exchange should be uniquely problematic in the security realm. Clearly the issue is that states ought to avoid advertising a willingness to succumb to extortion. The problem in the literature on inducements, however, is that they are often conflated with extortion, and little effort has been made to draw a careful theoretical distinction.

¹⁷⁹ Long (1996) and Cortright (1997), in fact, both make the argument that transactions costs are lower with inducements.

¹⁸⁰ Cortright, 1997.

¹⁸¹ Martin, 1992.

¹⁸² Crumm (1995), Long (1996), and Cortright (1997) all make this argument.

¹⁸³ Haass and O’Sullivan, 2000; Drezner, “The Trouble with Carrots,” 2000.

Bernauer and Ruloff offer a more theoretically grounded view of the extortion problem.¹⁸⁴ These authors look specifically at the issue of nuclear arms control, and frame it as an externality problem. The question for them is how economic inducements can be used as Coasian side-payments to mitigate the security externalities of nuclear weapons proliferation. Specifically, they look at how bilateral or multilateral side-payments can be used to bring holdouts into compliance with the international nonproliferation regime. To address this, they use Oye's three categories of issue linkage – extortion, explanation, and exchange - and his argument that different types of issue linkage create different payoff structures.¹⁸⁵ While Bernauer and Ruloff acknowledge that sanctions “smack of extortion,” they do little to expand on this, and instead focus on the moral hazard issue for the sender: that the use of incentives can invite future extortion. One would expect, however, that the problem would typically be the other way around, as it is unlikely that states will pursue nuclear weapons for the purpose of extracting extortionate rents from the United States. At least, it is far likelier that the target state will refuse to comply with sanctions because it fears it will gain a reputation for extortion. Yet the authors do not fully explore the conditions under which this is more or less likely to be true. If sanctions are a form of extortion, and if extortion attempts to alter the payoff structure in ways that makes the sanctions episode a test of wills or a chicken game, then one would expect sanctions to be ineffective unless they were backed up with very costly and highly credible threats – which is rarely the case.¹⁸⁶ Yet, empirically, in many circumstances they are effective.¹⁸⁷ Also, sanctions need not always appear extortionate. For example, withholding money from a gambling addict is a sanction, but is clearly not extortion. Similarly, a threat to withdraw military aid from an ally engaged in a conflict that is contrary to the sender's interests is not extortion. Nor would the threat of withdrawing military aid from a state developing nuclear weapons necessarily be viewed as extortion. As Bernauer and Ruloff point out, the difference depends on how well the sender can explain one action as the natural result of the other. They do not, however, identify the conditions under which this should be easier or harder to do.

These weaknesses aside, however, Bernauer and Ruloff's framework does have significant advantages. By using Oye's issue-linkage categories, the authors both identify a way

¹⁸⁴ Bernauer and Ruloff, 1999.

¹⁸⁵ Oye, 1992.

¹⁸⁶ The existence of the chicken game by itself, of course, does not mean that sanctions would almost always fail. Chicken games, after all, can have winners. The point is that the form of the chicken game provides a much stronger incentive for the target state to stand firm or escalate than would otherwise be the case. Given that the balance of resolve typically favors the proliferator, it is reasonable to expect sanctions to only rarely be effective were suspicions of extortion so widespread. I am grateful to Matthew Bunn for his help clarifying this point.

¹⁸⁷ HSE, 2007.

to compare sanctions and inducements within the same framework, while also clearly specifying the extortion problem and how it can relate to both. They also highlight the role of information asymmetries, as well as the subjective nature how states – and the domestic actors within states – view the payoff structure. Finally, they offer a way to link the literature on sanctions and inducements with the literature on nuclear proliferation by identifying, for example, how Solingen’s finding that there are natural linkages between the economic orientation of domestic groups and their preferences for nuclear weapons can be exploited through the offer of inducements.¹⁸⁸

IV. Bringing It All Together

From both the literature on military coercion and the literature on economic sanctions (and inducements), a common set of elements for an analytical framework can be gleaned. (1) the different forms of sanctions and inducements are forms of bargaining, in which states’ choices and preferences are interdependent. (2) Bargaining outcomes depend heavily upon the states’ particular interests in the issue area under dispute. (3) States bargain under conditions of substantial information asymmetries about one another’s preferences. (4) States’ bargaining choices and preferences are shaped by the “shadow of the future,” *i.e.*, how they believe their choices in the present will affect future outcomes. And, (5) states’ preferences are constituted from the preferences of domestic political actors, which not only influence but are also influenced by bargaining outcomes.

The effective use of sanctions and inducements is dependent upon how well tailored they are to both the international and domestic context of the dispute. The specific attributes of the issue area itself are of greatest significance. Thus an effective counter-proliferation strategy that relies upon sanctions and inducements to influence the decisions of states seeking nuclear weapons must also take the following factors into consideration. (1) The nuclear question is frequently tightly linked to the target state’s security context, and it is unlikely that sanctions or inducements can be effective unless they address this central issue. (2) Domestic actors within the target state typically have divergent preferences on the nuclear question, and these preferences tend to be linked with other economic and political issues that can be exploited by sanctions and inducements. (3) Counter-proliferation is best seen as a bargaining exercise in which various tools of statecraft are used to overcome the informational barriers to policy coordination that can achieve mutual gains. (4) Negotiation and diplomacy are not just “cheap talk,” but are an

¹⁸⁸ Solingen, 2007.

important part of successful cooperation. And, (5) reputation and distributional concerns can often be hidden - but significant - barriers to successful cooperation.

V. Organization of The Dissertation

In this dissertation I develop an issue-linkage theory of negative sanctions and positive inducements to explain how these tools can be used to change the behaviors of states. The theory considers the use of both sanctions and inducements in the context of bargaining between states. I argue that cooperative bargaining outcomes are more likely with positive inducements than with negative sanctions. This gap in effectiveness is more pronounced when issue linkage is used with adversaries than with allies. Negative sanctions are unlikely to be effective with adversaries, and run a significant risk of escalation.

The issue-linkage theory is outlined in detail in Chapter 3. The chapter is structured to provide emphasis to three elements of the theory: the strategic nature of bargaining, the nature and the effects of information asymmetries, and the role of domestic politics. The chapter then presents four empirically testable hypotheses that are deduced from the theory, and outlines the deductive logic for each. Chapter 3 concludes with a discussion of the methodology and research design that are used, and explains the logic behind the selection of the three case studies that are presented.

Chapters 4, 5, and 6 present the three case studies: North Korea, South Korea, and Libya. Chapter 4, on North Korea, is limited to US-DPRK nuclear bargaining that took place in the years leading up to the Agreed Framework in 1994. Chapter 5 covers the South Korean nuclear weapons program that was initiated in the 1970s by Park Chung-hee and continued in various forms until Chun Doo-hwan agreed to terminate these efforts in the early 1980s. Chapter 6 details the case of Libya's nuclear weapons program. This chapter examines not only the nuclear question but pays careful attention to the overall US-Libya relationship between Gaddafi's rise to power in 1969 and the 2004 decision to surrender the nuclear program. During these years, the central issue between the US and Libya was terrorism. The chapter provides an account of how US negative sanctions and positive inducements were used over six US presidential administrations. Because the US made a number of overlapping demands from Libya with respect to its nuclear efforts, chemical weapons, terrorism, and other aggressive activities, all of these measures are taken into account in the chapter.

Chapter 7 summarizes the study's findings and considers its relevance to US policy decisions. While the theory cannot predict how sanctions and inducements will affect outcomes in any given case, it does offer a number of policy prescriptions and considerations that are of

relevance to current US counter-proliferation efforts. The most important considerations are that positive inducements are an under-used and under-valued form of statecraft that can be used effectively to further US nonproliferation goals. They should be given greater – and earlier – consideration even when counter-proliferation efforts are aimed at adversaries. A second consideration is that policy makers should be more cautious in resorting to negative sanctions with adversaries. Making threats is not cost-free. They can be difficult to back down from, and can trigger escalation. Policy makers should more greatly consider the chances that sanctions – not just when they are implemented but when they are threatened – can lead to worse outcomes than doing nothing. Successful coercion requires much greater finesse than simply having the resolve to wave the biggest stick.

3. A Theory of Issue Linkage

I. Summary of the Argument

In this chapter I present a theory of issue linkage to explain how and under what conditions positive inducements and negative sanctions can successfully lead to cooperation between states and, more particularly, produce compliance with nuclear counter-proliferation demands. I address the following questions:

How effective are the offers of positive inducements and the threats of negative sanctions - 'sticks' and 'carrots' - in international cooperation, specifically, in efforts to prevent or to roll back the proliferation of nuclear weapons? Under what circumstances are their respective uses most likely to produce compliance?

Mindful of the relative poverty in the academic literature of analyses of positive inducements, this study especially seeks to address the following:

How effective are positive inducements relative to negative sanctions? Under what circumstances are positive inducements more or less successful than negative sanctions?

The issue-linkage theory developed in this chapter predicts that (a) positive inducements generally produce compliance more effectively than negative sanctions, and (b) both positive inducements and negative sanctions are more likely to be successful with allies than they are with adversaries. It also predicts that the magnitude of (a) – that inducements work better than sanctions – is much greater with adversaries, with which negative sanctions will rarely work and are likely to provoke escalation. These predictions are summarized in Table 1.¹⁸⁹

¹⁸⁹ The theory that is presented in this chapter is also illustrated graphically with arrow diagrams in the Appendix.

Table 1.: When Negative Sanctions and Positive Inducements Are Effective

	<u><i>Negative Sanctions</i></u>	<u><i>Positive Inducements</i></u>
<u><i>Adversaries</i></u>	<ul style="list-style-type: none"> • Unlikely to be effective • Can trigger escalation 	<ul style="list-style-type: none"> • Much more effective than sanctions • Less effective than when used with allies
<u><i>Allies</i></u>	<ul style="list-style-type: none"> • Effective, but less so than positive inducements • Less likely than positive inducements to produce long-term cooperation 	<ul style="list-style-type: none"> • Most effective • More likely than sanctions to produce long-term cooperation

The theory outlined in this chapter defines both negative sanctions and positive inducements in terms of issue linkage. In both cases, the sender links its demands to some action of its own in a separate issue area that is of value to the target state. In the case of negative sanctions, the sender threatens an action in the linked issue area that imposes a cost on the target if it does not comply with the sender's demands. With positive inducements, the sender offers to take some action that is beneficial to the target if it complies. Both forms of issue linkage can be viewed as bargaining offers, to which the target may respond by accepting it (compliance) or rejecting it (defection). The target may also propose a counter-offer.

The sequential exchange of offers and counter-offers provides information about each state's preferences to the other. Over the course of bargaining, states update their own preferences as more information is revealed. The interpretation of this information is far from straightforward. States may use bluffs and brinkmanship to gain a strategic advantage in the bargaining process. However, the larger the number of bargaining rounds, then overall, the

greater the likelihood will be that the two states will converge on accurate beliefs about each other's preferences.

The theory assumes that the target state weighs three factors in deciding whether or not to accept a bargaining offer (*i.e.*, whether to comply with the sender's demands). The first is a straightforward cost-benefit analysis: is the threatened punishment or promised reward worth more or less than the cost of compliance? The second factor is whether conceding to a demand risks giving a strategic advantage to an adversary that could threaten the future security of the target state (the relative gains problem). States will tend to reject offers that present such a security threat, even if rejection means otherwise paying a stiff penalty or forgoing a substantial reward. The third factor is whether the target state suspects that it is being extorted. States will frequently reject offers if they involve threats that target state believes are gratuitous (*i.e.*, threats that are made solely for the purpose of extracting concessions), even if they incur heavy costs in doing so. This is because they believe that to extort demands will harm their reputation and risk inviting future extortion from adversaries who may conclude from the state's past behavior that it is an easy mark.

Domestic politics is important. Each state's preferences, and its evaluation of any given bargaining proposal, is determined by the preferences of key domestic political coalitions and their relative influence over the policy-making process. Positive inducements and negative sanctions affect state behavior by changing the preferences of domestic actors and influencing the competition between these actors in the policy-making process. Positive inducements can lead to compliance by producing a virtuous rally effect that strengthens the domestic coalition in favor of cooperation. Negative sanctions, on the other hand, can – especially with adversaries – can create a perverse rally effect that rallies domestic opposition to compliance, and can trigger a backlash.

From this issue-linkage theory, I deduce the following four empirically testable hypotheses:

- (H1.a) Negative sanctions are effective with allies, but are very unlikely to be effective with adversaries.*
- (H1.b) Even when effective in the short term, negative sanctions are unlikely to produce long-term compliance.*
- (H1.b) Negative sanctions are likely to be counterproductive with adversaries, and lead to escalation and an aggressive spiral.*

(H2.a) Positive inducements are effective with both allies and adversaries alike, but are more likely to be effective with allies.

(H2.b) In general, positive inducements are more likely to be effective than negative sanctions, and are greatly more effective with adversaries than negative sanctions.

(H2.c) Unlike negative sanctions, positive inducements are likely to produce long-term compliance.

(H2.d) Whereas negative sanctions can produce escalation with adversaries, positive inducements do not.

(H3.a) Cooperation is most likely when mutual concessions are made sequentially, beginning with ones that are less costly and are reversible, and leading over time to ones that are costlier and more permanent.

(H3.b) All-at-once grand bargains are less likely to succeed.

(H3.c) Sequential and progressive exchanges of concessions are most necessary with adversaries.

(H4.a) Both positive inducements and negative sanctions are more likely to be effective when there exist thick and well-established lines of communication between target and sender.

(H4.b) The use of diplomatic contacts or negotiations themselves as a bargaining chip is counterproductive and likely to fail.

In the remainder of this chapter, I outline the logic of this theory in detail. Section II defines issue linkage and describes the different forms of military, economic, and diplomatic sanctions and inducements that states can link to demands in the main issue area of dispute. I also explain in this section how issues can be separable or non-separable, and how states can take advantage of the separability of issues areas to make issue linkage more effective. In section III, I describe three conditions for successful issue linkage: the sender state must possess sufficient leverage over the target, the target must be satisfied that compliance will not give an adversary a future strategic advantage, and the target must be satisfied that it is not being extorted. Sections IV and V explain how information asymmetries about each state's preferences affect the likelihood for success of inducements and sanctions, as well as the implications of sequential bargaining. Section VI outlines the role of domestic politics and its implications for successful

issue linkage. Section VII reviews the four hypotheses that will be tested in subsequent chapters, and outlines the logic according to which they are deduced from the theory. Section VIII explains the methodology used in this study, the logic behind the selection of the three case studies – North Korea and the Agreed Framework, South Korea, and Libya – that are analyzed in the next three chapters, and addresses some of the measurement problems for the variables.

II. Positive Inducements and Negative Sanctions as Forms of Issue Linkage

Positive inducements and negative sanctions are both forms of issue linkage, a bargaining strategy that ties the sender's punishments or rewards in one issue area to demands for concessions from the target in some other issue area.¹⁹⁰ The two issue areas that are linked may or may not be otherwise related to one another. Likewise, the sender's and the target's preferences in each of these issue areas may or may not otherwise be interdependent (*i.e.*, they may be *separable* or *non-separable*). For the sender, the objective of using issue linkage is to alter the target state's preferences by creating a causal relationship between its behaviors and the sender's – or, to make the target's preferences in the two issue areas non-separable. If the consequences of the sender's actions are more valuable than the target's action to which it is linked, then, once the linkage is established, the target's preference in the first issue area may change.¹⁹¹ Therefore, if the sender can find an appropriate issue area to link to its demands, it can move the target's preferences – and its behavior – in the desired direction.¹⁹²

¹⁹⁰ This is in contrast to two or more actors bargaining over how some resource ought to be shared among them (*e.g.*, see Rubinstein, 1982). In a single-issue model, the actors are concerned with allocating portions of a pie that can be divided any way they choose. The situation is analogous to a seller and a buyer haggling over the price of some good. The two may eventually arrive at a mutually agreed price without introducing side-payments or costs from some other issue area. Issue linkage is most useful when the central issue of concern involves some indivisible resource or some action about which the two parties are unable to compromise. It is also most useful when the two parties have substantially divergent preferences in a dispute.

¹⁹¹ This is the essence of every act of bargaining, from market-based trade to coercive threats: one party changes the other's incentives by making actions it has control over conditional upon the other party's behavior. This could be a monetary payment conditioned upon the provision of some good or service or fulfillment of a contract, arms reductions conditioned upon another's similar reductions, or the implementation of some tax or punishment if some actor engages in a proscribed behavior.

¹⁹² In all cases of issue linkage, whether they are negative sanctions or positive inducements, we are concerned with *changing* the target state's behavior, and leading the target to undertake some action that it would otherwise not do. In other words, we are concerned with what is frequently referred to in the international relations literature as "compellance," in which the goal is for the target to adopt a behavior that is different from the *status quo*. This is distinct from deterrence, in which threats or promises are used to convince the target *not* to adopt a particular behavior, and to continue with the *status quo*. The distinction is important, because it is easier for one state to deter another than it is to coerce or to compel it to adopt a new behavior that it would prefer not to undertake. We should not, therefore, expect the successful use of either negative sanctions or positive inducements to be an easy task.

For issue linkage – whether in the form of positive inducements or negative sanctions – to be effective, three conditions must be met:

- 1. The threatened sanction or the promised inducement must be more valuable to the target than the cost of compliance.*
- 2. The target must be convinced that compliance will not confer a strategic advantage onto an adversary that will weaken the target's future security (i.e., relative gains).*
- 3. The target must be convinced that it is not being extorted.*

These three conditions are more likely to be met if the target is an ally than if it is an adversary, and they are least likely to be met when using negative sanctions to coerce an adversary. The reason for this is that both the relative gains and the extortion problem are most salient both when the target is an adversary, and when negative sanctions are used. At the same time, the sender typically has much more leverage over an adversary when using positive inducements than with economic sanctions.

For any bargaining proposal, the direct costs and benefits of compliance, the relative distribution of gains, and the chances that it is being extorted are also typically far from clear to the target state. For one thing, issue linkage means that the target must weigh its preferences across more than one issue area in order to make such an appraisal. For another, both sender and target must bargain under conditions of incomplete information. Finally, state policy has to be hashed out through domestic political processes, and domestic actors in the target state will typically differ over which choice is the best. Domestic actors also may have their own particular interests on the line, or these interests may mean that some issue areas have greater salience for them than others. Therefore, the effectiveness of positive inducements and negative sanctions depends upon how well the two states can overcome information problems, as well as how they influence both the preferences of domestic groups in the target state as well as the influence these groups have over the target state's policies.

Because the sender can link the main issue under dispute to any other issue area in which it exercises control, both negative sanctions and positive inducements can involve threats or promises that are military, economic, or diplomatic in nature – the three central areas in which states exercise influence.¹⁹³

¹⁹³ These categories are consistent with what Baldwin refers to as the “techniques of statecraft” – the instruments that are available to states for the conduct of foreign policy (Baldwin, 1985, pp.10-4). Baldwin

A. Types of Positive Inducements

Issue linkage takes the form of *positive inducements* when the sender promises to provide some new benefit in one issue area if the target agrees to change its behavior in some specified way in another issue area. Positive benefits can also be provided over time, in which case the sender promises to continue to provide some benefit so long as the target maintains the desired behavior. The sender can offer benefits from any issue area in which it can act, drawing on any of its sources of power and influence. As a result, we can identify three classes of positive inducements:

Military or security-related positive inducements:

With allies, these include increased security guarantees or defense commitments, or an upgrading of the alliance; additional military assistance or aid, arms transfers, or the transfer of advanced military technology; increased troop or equipment deployments in support of the target's national defense, or as a contribution to a military endeavor to which the target is a party; or any threats or military action against a third party that is beneficial to the target's own security.

With adversaries, these include arms reductions, troop withdrawals or military demobilization, security assurances, or the denial of assistance or support for the target's adversaries.

Economic positive inducements:

These include transfers of aid or assistance, improved opportunities for trade and investment, loans or loan guarantees, or technology transfers.

Diplomatic positive inducements:

These include the establishment of stronger diplomatic ties or the normalization of relations; the exchange of high-level envoys; agreement to high-profile talks, summit meetings, or state visits; joint statements of cooperation or friendship; cultural or other symbolic exchanges; or support for membership in international treaties or forums that enhance prestige or confer legitimacy.

The three categories are not mutually exclusive. Inducements in one issue area can also affect those in others, bringing yet more issues into the linkage. Economic inducements can

offers four categories instead of three: military, economic, diplomatic, and propaganda. I exclude the latter simply because propaganda, by its very nature, cannot be used in issue linkage.

improve security, diplomatic inducements can allay security concerns, and military inducements can provide new economic opportunities. For example, improved diplomatic relations between the US and Libya improved the Tripoli's economic fortunes because it led other states and international investors to believe that the Libyan market was more stable and that investments in the country would be more secure. For all three cases presented in this dissertation, the provision of economic incentives led to improvements in the security of each state as well.

The target's preferences in the issue area of the positive inducement may also be naturally linked to (or non-separable from) its preferences on the nuclear issue. Security assurances, for example, that successfully mitigate the target's strategic concerns can lead the state's decision makers to conclude that a nuclear program is no longer worth its cost. Likewise, because much of the technology required to make a nuclear bomb can also be used in the production of civilian nuclear energy, economic inducements can often lead the target to reconsider the benefits of a nuclear program as well.

B. Types of Negative Sanctions

Issue linkage takes the form of *negative sanctions* when the sender threatens to impose some new costs or punishment in one issue area if the target refuses to change its behavior in some specified way in another issue area.¹⁹⁴ Like positive inducements, negative sanctions can be provided over time as well. In that case, the sender threatens to continue to implement some punishment until the target complies with the sender's demands. The sender can threaten punishment in any issue area in which it can act, drawing on any of its source of power and influence. As a result, we can identify three classes of negative sanctions:

Military or security-related sanctions:

With allies, these include the withdrawal of security assurances, military aid, or assistance; the withholding of arms sales or the transfer of military technologies; the downgrading of an alliance, or the withdrawal of troops or equipment that were deployed to protect the target's territory or to assist the target in some military action; or the cancelation of joint exercises or denial of access to training facilities.

¹⁹⁴ The key here is that negative sanctions are used to change the target state's behavior. Military force, trade embargoes, and the severing of diplomatic ties can be used for many other reasons: to weaken the target state, to signal disapproval to the target and to others, or to appease domestic constituencies. I exclude these here, except when they are also aimed at changing the states behavior.

With adversaries, these include shows of force (deployments, exercises, the call-up of reservists), or the limited use of coercive military force; increased security guarantees, assistance, or arms transfers to one of the target's adversaries; and arms embargoes.¹⁹⁵

Economic sanctions:

These can include trade embargoes; withholding loans, financing, technology transfers, or economic aid or assistance; or freezing assets.

Diplomatic sanctions:

These can include downgrading or severing diplomatic ties, or the cancelation of summits, high-level talks, or other high-profile meetings; visa and travel restrictions; or sponsoring the exclusion of the target from international organizations, committees, or conferences.

As was the case with inducements, the three categories of negative sanctions are not mutually exclusive. Negative sanctions in one issue area can also affect those in others, bringing new issues into the linkage. Negative sanctions can undermine the target's security, diplomatic sanctions can lead to economic costs, and military sanctions can impose economic costs as well. For example, fears in Washington that the US push for economic sanctions against the DPRK in 1994 would provoke the North Koreans led the United States to simultaneously pursue a military buildup on the Korean Peninsula – a move that Pyongyang naturally interpreted as a military threat. In the 1970s, the US threat to end its civilian nuclear cooperation with South Korea had both economic and military implications. In the case of the US threat to cut nuclear assistance to the ROK, American economic sanctions had direct implications for the nuclear weapons issue. South Korea's nuclear program relied heavily on US loans and technology transfers. Because both civilian nuclear energy production and the development of nuclear weapons depended on many of the same technologies and even the same facilities, US sanctions would have had

¹⁹⁵ I use the term military sanctions with essentially the same meaning as George, and Art and Cronin, refer to as "coercive diplomacy": the use of military threats, displays, or the limited use of force to compel another state to change its behavior. These authors distinguish coercive diplomacy from war, in which one state seeks to impose its will on another by force. George describes coercive diplomacy as "forceful persuasion," in which the target state is persuaded to change its behavior through threats and limited force. Art and Cronin define coercive diplomacy as a form of compellance, while George includes more persuasive and less coercive forms of diplomacy in his definition, and explicitly excludes extortion. My conception of military sanctions is more similar the definition of coercive diplomacy used by Art and Cronin. Art and Cronin, 2003; George, 1991. Also see Schelling, 1966, for a discussion of compellance.

negative consequences for both. The ROK's preferences in one of the two areas could not be separated from its preferences in the other (*i.e.*, they were non-separable).

C. Separable and Non-Separable Preferences Across Issue Areas

The question of whether or not issues are separable has important implications for the theory. Both economic sanctions and positive inducements are more likely to be successful when the sender's and the target's preferences in the central issue are of dispute (in the context of this study, the nuclear issue) are non-separable from both states' preferences in the issue to which it is linked. Both sanctions and inducements are more likely to be effective if they will directly affect the costs and benefits of nuclear weapons development. Sanctions that make such efforts more difficult, or less likely to be successful, are more likely to change the target state's behavior. Inducements that offset the costs of compliance also increase the chances of success. With respect to the preferences of the sender, threats that are naturally linked to (non-separable from) the target's nuclear decisions – *i.e.*, the sender would naturally prefer to carry out its threat should the target refuse to comply – are more convincing, and are also more likely to be effective.¹⁹⁶

In issue linkage, each state's preferences in the linked issues may be *separable* or *non-separable*. Preferences are separable when - before the sender state frames the issue linkage – the target state's preferred outcome on one of the issues is independent of the outcome in the other. Many cases of economic sanctions involve separable preferences across the linked issue areas. US trade sanctions against Libya, for example, were linked principally to the demand that Libya renounce its support of terrorism. In the absence of the US-created linkage between these two issues, Tripoli's preferences were separable: its preference for supporting terrorist groups was independent of its preference for selling oil to the United States, and vice versa (the two issues were, however, non-separable to Washington, as there was domestic political gain to be had from sanctioning a state that supported terrorism).

Alternatively, two issues are non-separable if the outcome of one changes the target's preferences in the other. In the Cuban Missile Crisis, a public pledge by the United States not to invade Cuba had a direct effect on the Soviet preference for deploying missiles in Cuba. The linkage between the two was not just the result of the Americans proposing a deal in which one was conditioned upon the other. The USSR's decision to send missiles to Cuba was, in part, motivated by the concern that the US would invade the island, and the credible reduction of that threat had an immediate and direct impact on Moscow's preferences.

¹⁹⁶ As will be discussed later in this chapter, this type of non-separability makes such a threat a form of "explanation," as opposed to "extortion."

The separability of issues is relevant not just for the target state but for the sender as well. As will be discussed in greater detail in a subsequent section, states are reluctant to accept any bargaining proposals that they suspect are extortionate. One factor the target state will weigh in judging whether or not a given proposal is an attempt to extort is whether or not the sender's preferences regarding the linked threat and demand are separable. If the target believes that the sender will prefer to follow through on the threat if the demand is not fulfilled, and that it will prefer not to follow through on the threat if the demand is met – *i.e.*, if it believes that the sender's preferences across the two issues are non-separable - then the target will be more likely to comply. If the two issues are non-separable, then the proposal is both more credible, and is not extortionate.

A sender's chance of using issue linkage successfully is increased if it controls issue areas that are non-separable to the central issue of dispute (and if it can influence outcomes in those issues at an acceptable cost). Chances of success are highest when the sender can link to an issue over which it controls in which both the sender and the target have preferences that are non-separable from the central dispute. If this can be done, then negative sanctions and positive inducements can be proposed that are both credible and persuasive, as the target will be more greatly convinced that the sender will follow through on its threats (or promises), and the target's costs of compliance will be reduced. For example, because the United States could exert powerful influence over South Korea's security as well as its economic fortunes – particularly its ability to develop a civilian nuclear infrastructure – it could link its demands for ROK nuclear compliance to threats that were not only very costly in their own right, but were non-separable from the nuclear weapons issue. Additionally, because the US's own preferences were non-separable from the nuclear question – if Seoul were to pursue nuclear weapons, the United States would have a reduced interest in maintaining its nuclear defense commitment or its troop deployments – the Americans could make these threats very credible.

The sender's ability to link demands to issue areas in which the target – as well as the sender – have non-separable preferences is a function of the sender's leverage. If the sender has leverage over the target, it can control a broader spectrum of issues in which the target has a strong interest. The greater the leverage, the easier it is for the sender to compel the target to comply with its demands. As the following section explains, leverage tends to be greater with positive inducements than with negative sanctions, and with allies than with adversaries. States generally have few sources of leverage to draw on when using negative sanctions to coerce adversaries.

III. When Is Issue Linkage Successful?

In the above section, I identified three conditions that must be fulfilled for issue linkage to have a strong chance of success:

- 1. The threatened sanction or the promised inducement must be more valuable to the target than the cost of compliance.*
- 2. The target must be convinced that compliance will not confer a strategic advantage onto an adversary that will weaken the target's future security (i.e., relative gains).*
- 3. The target must be convinced that it is not being extorted.*

This section explains how these are met and the circumstances under which the sender is most likely to meet them. The first condition – the ability to threaten punishment or promise rewards that are more valuable than the cost of the target's compliance – is dependent upon the sender's leverage.

A. When The Sender Has Leverage

The effectiveness of issue linkage as a bargaining strategy is dependent upon the sender's *leverage*. Leverage is defined here as the ease with which the sender can control issue areas that are valuable to the target, the range of issues controlled, and the magnitude of that control. These are dependent upon the sender's capability as well as its *knowledge* about the target's preferences, capabilities, and domestic political processes. If the sender can exert substantial control across a broad range of issue areas that the target cares about, and can do so at relatively little cost to itself, then issue linkage is more likely to be successful, as the sender can choose from many different options for negative sanctions and positive inducements in its bargaining strategy. The more issue areas the sender controls, the greater its degree of control across multiple issue areas. Likewise, the more knowledge that the sender can bring to bear about how its actions will influence both external and internal conditions for the target, then the easier it is for the sender to choose threats and rewards that are *politically* valuable to the target state and to influential domestic actors within the state. No less importantly, by exercising control across many issue areas, the sender can also more easily link its demands to areas in which both its own preferences as well as the target's are non-separable. If the sender's influence is more limited, or if the exercise of its influence is costly, then inducements and sanctions are both less likely to succeed.

The sender state tends to possess greater leverage when it is more militarily and economically powerful than the target. If the sender is militarily and economically superior to the

target, then it can more easily and effectively draw on those sources of power to offer threats or rewards. In the context of US counter-proliferation policies, the United States almost always enjoys substantial military and economic superiority over the proliferators with which it is negotiating.

States also tend to possess greater leverage with allies than they do with adversaries. Because allies are usually engaged in a number of cooperative endeavors with one another – not just military cooperation, but trade, technology sharing, and close diplomatic collaboration as well – they tend to have a broad array of levers available with which they can exert influence over one another. This is particularly true with respect to negative sanctions. Because there is already a rich set of cooperative arrangements between allies, the threat to sever any one of these ties can be used to coerce. Because there is little cooperation between adversaries, there are generally far fewer levers of influence available that can be used for negative sanctions. In general, a sender can draw on existing areas of cooperation with an ally to frame negative sanctions, but its ability to do so with an adversary is much more limited. A powerful state can, however, often draw on other resources with adversaries to frame positive inducements, as powerful states typically possess the ability to offer things others want even when existing cooperative ties are lacking.

Leverage is greatest when the sender both is bargaining with an ally and enjoys a substantial power advantage. In this case, the sender can draw on levers of influence in a variety of issue areas, can affect those issue areas in ways that may impose large costs or offer significant benefits to the target, and can do this at relatively little cost to itself. The extreme case of this is when the sender is dealing with a client state that is dependent on the sender for its security and economic well-being. The existence of such a relationship does not confer on the sender the ability to simply impose its will on the target, but all else being equal, both negative sanctions and positive inducements will be more successful in such a case.

If there is a substantial power differential between the sender and a target that is an adversary, the sender may still possess substantial leverage over the adversary, but this leverage can much more easily be applied through the use of positive inducements than it can through negative sanctions. This is because in the absence of existing areas of cooperation, the ways in which the sender can impose significant costs on the target are limited. Adversaries often lack ties of trade and investment. Whatever trade does exist is frequently divertible, as the target is typically careful not to make itself unduly vulnerable to a powerful adversary. Libya, for example, engaged in a substantial amount of oil trade with the United States, but as the relationship between the two states became increasingly hostile, Tripoli took measure to mitigate the risk from US sanctions by shifting its trade and investment patterns, something readily

accomplished with a commodity like oil. Diplomatic ties between adversaries are also frequently poor or non-existent. As a result, even the most powerful states are typically left with only two ways to sanction even the weakest of adversaries: multilateral economic sanctions and military force.

However, multilateral economic sanctions and the use of military force are also typically the costliest negative sanctions for the sender to use, and make for the least convincing threats to target. Unless that target state is completely isolated diplomatically and economically – which is rarely the case – an effective multilateral economic sanctions regime is very difficult to organize, and requires the expenditure of substantial political capital to bring other states on board. They also make for the least convincing threats. The target has good reason to doubt that the sender can win support for its implementation. Even if implementation is likely, the target can still count on the sanctions coalition unraveling before sanctions can impose any substantial cost. The target may also be able to count on a powerful ally to block or at least complicate the sender's efforts. Even North Korea and Libya – two of the world's most isolated states – could count on significant resistance to the US's efforts to impose multilateral sanctions.

Military force can be even costlier. The sender must again worry about the target's powerful allies. Even if the sender can use military force with relative impunity, however, the costs of doing so can still be very large. The use of military force against an adversary, or even the implementation of threatening gestures such as deployments or higher states of alert, can trigger a wider conflict. The results of a military attack can be unpredictable, and can create regional instability, provoke retaliation, increase the target regime's legitimacy by producing a rally-around-the-flag effect, or, alternatively, lead to regime collapse. The attack itself can carry substantial economic costs for the sender, and defense preparations in case the target counter-attacks can cost even more. For this reason, military force is generally the last resort, used only when the costs of inaction are perceived to be high, and after other strategies have been pursued.

However, while states generally possess limited sources of leverage with adversaries that can be translated into negative sanctions, the leverage that can be used for positive inducements is often considerably greater. Negative sanctions work best when they can be framed by linking to issue areas in which the sender and target are already cooperating. Positive inducements, however, can be framed by linking to issues in which the two states have outstanding disputes, something that adversaries tend to possess in abundance. If a militarily and economically powerful sender is bargaining with a weak or isolated target state, the sender can offer economic inducements such as trade or technology transfers, or can offer meaningful security assurances. For the United States, its resources in this regard are so vast that it can offer meaningful positive

incentives to even its most hostile and isolated adversaries. Security assurances and treaties, normalized relations, and the opening of trade and investment with the United States can transform a state's strategic and economic situation. Recognition and acceptance by the US can offer security and legitimacy that can outweigh the potential gains of a nuclear deterrent, certainly when the risks of pursuing such a deterrent are weighed into the calculus.

To summarize, states have greater leverage when they are military and economically powerful, and when they are dealing with allies that are military and economically weaker. However, while powerful states have limited leverage over even weak adversaries, their leverage is greatly enhanced by using positive inducements instead of negative sanctions. Therefore, based on leverage alone, we should expect positive inducements to be much more effective than negative sanctions with adversaries. We should also expect both to be effective with allies.

When a state has greater leverage over another, it makes it easier for that state to fulfill condition (1) for successful issue linkage: that the threatened sanctions or the promised rewards be of greater value to the target state than the cost of compliance. If the threat is non-separable from the issue in which compliance is demanded, the sender can use that to increase the target's preference to comply, and agreement is therefore more likely than it would be if the two issues were unrelated. However, if the other two conditions for successful issue linkage are not met – that the gains from agreement not be distributed to the target's strategic disadvantage, and that compliance not lead to unacceptable reputation costs – then the target will still be likely to reject the sender's demands, even if the proposal is otherwise profitable. In the following two sections, I outline these two conditions in greater detail and explain the conditions under which they are more or less likely to be important to the successful use of issue linkage. As was the case with leverage, both the distribution of gains and reputation costs tend to be more favorable with allies than with adversaries, and with positive inducements than with negative sanctions. All three conditions – the value of threats and rewards relative to the costs of compliance, the distribution of gains, and the cost to the target's reputation to comply – tend to be least favorable when the sender uses negative sanctions with an adversary.

B. The Relative Gains Problem

When evaluating any issue-linkage proposal, the target state must take into consideration not only the immediate costs and benefits of compliance, but also the way in which compliance will effect future gains and losses. If the possible gains from compliance in the present are outweighed by costs that are likely to accrue in the future, then the target will reject the offer. There are two ways in which a deal may present the target with costs in the future. One is if

compliance leaves the target less secure by making it more vulnerable to an adversary. In this case, the target must worry that its gains from compliance will be outweighed by an adversary's strategic gains that can be exploited militarily. Another way compliance can impose costs in the future is if it provides some other state with a strategic advantage that can be exploited to extract even greater costs in future bargaining rounds. In both cases, the target is likely to reject the issue-linkage proposal even if that means it will incur substantial costs or forgo gains in the present. This is typically referred to as the *relative gains* problem, as states must worry not only about the absolute gains they can earn from cooperation but the way in which mutual gains are distributed. Any given bargaining proposal, therefore, has to be weighed not only in the context of immediate gains and losses but also in the context of the longer-term strategic environment (the "shadow of the future").¹⁹⁷

The target's concerns are not limited to the gains of the sender. It must also worry whether compliance will give a strategic advantage to a third-party state. In fact, the effects on third parties are often the principal concern of the target. In the negotiations in the summer and fall of 1994 that produced the Agreed Framework, the North Koreans were reluctant to accept any deal that gave the South Koreans a central role in the provision of light water reactors because they believed this could give Seoul an important source of future leverage. In most cases of US counter-proliferation diplomacy, in fact, it is not typically the US itself that is the target's primary security concern but a regional adversary. Iraq, for example, was more concerned with both Iran and Israel than it was with the United States, and Saddam Hussein's frequent refusals to allow inspections – even when doing so invited negative sanctions – were made with those regional actors in mind, and the advantages that would accrue to them from more accurate information about the existence or status of an Iraqi nuclear program.

¹⁹⁷ Traditionally, the relative gains issue has been stated in terms of zero-sum competition: because one state's gains are necessarily at the expense of the other, states are loath to engage in any cooperation that provides another state with relatively greater gains, regardless of the absolute gains that can be had. Therefore, states seek relative gains, not absolute gains. By framing the relative gains problem in this manner, neorealists argued that international cooperation was rare, and that international organizations could have little effect on the likelihood of cooperation. The arguments of neoliberal institutionalists, on the other hand, were premised on states' interests in maximizing absolute gains. As a result, much of the early literature on relative gains focused on this neorealist-neoliberal debate. Prominent advocates of the neorealist position included Waltz (1979), Grieco (1988), and Mearsheimer (1995). Snidal (1991) and Powell (1991) offered important neoliberal responses. My conception of the relative gains problem here is more limited than the way the term is used by Waltz, Grieco, or Mearsheimer. Waltz argued that states are always concerned with relative gains, not absolute gains, because the distribution of gains will affect the state's security. Following Powell, I assume that states are concerned with relative gains only when another state's relatively greater gains in the present can negatively affect their absolute gains in the future. In other words, relative gains are an issue when over the longer term they translate into absolute losses (with future gains and losses appropriately discounted relative to present ones).

Concerns about relative gains are also not limited to material factors that affect the military balance, and can include economic, diplomatic, and informational gains as well. The target, in fact, must be vigilant about the distribution of any gains that could be used as leverage in future disputes. In counter-proliferation, states are frequently concerned about the revelation of information, and how information can give an adversary an unacceptable advantage, or how it will eliminate some advantage that the target currently possesses. North Korea was adamant, for example, in its refusal to allow special inspections by the IAEA, or any inspections of its facilities that could reveal information about its past nuclear activities. Uncertainty about past plutonium reprocessing gave the North an advantage that it was reluctant to surrender. If inspections revealed that they had not reprocessed enough plutonium to make a bomb, the United States and the South Koreans would be more reluctant to offer valuable concessions in negotiations. Even more importantly, the knowledge that the North Koreans did not possess a bomb or sufficient material to make one would give the US and the ROK an increased incentive to attack, as they would not have to worry about nuclear retaliation, and would be more confident that air strikes at Yongbyon would eliminate the North's ability to produce weapons. If inspections revealed, however, that the North Koreans had reprocessed enough plutonium to produce one or more bombs, then the Americans would likely use this information to issue stronger demands. This for the DPRK, the preferred position was to maintain nuclear ambiguity.

Economic gains can bring similar concerns about providing an adversary with future sources of leverage. If trade liberalization will make the target state disproportionately dependent on the sender – which is likely to be the case if the sender has a large and diverse economy while the target is small and autarkical – then the increased leverage this will give to the sender can, in the eyes of some decision makers, outweigh the benefits of improved trade. Technology transfers from the sender can promise substantial economic benefits but can similarly create dependence. The Soviet Union offered four light water reactors to the North Koreans in the mid-1980s, for example, as an inducement for the DPRK to join the NPT – a deal that Moscow anticipated would enhance their future leverage over Pyongyang's nuclear policies (the North Koreans accepted the deal, the Soviets then reneged in the reactors). These concerns are not limited to positive inducements. Economic sanctions can weaken the target state, increasing its vulnerability to attack. Trade sanctions may work to a third-party adversary's advantage by increasing its market share in the sanctioned good or commodity.

The relative gains problem is more salient both when the sender and the target are adversaries, and when the sender links demands to negative sanctions rather than positive inducements. Because allies expect fewer unresolved disputes between one another in the future

than adversaries do, concerns about the distribution of gains between allies will be less acute.¹⁹⁸ Allies also enjoy a number of existing cooperative arrangements that can mitigate the distributional consequences of any new agreement. For example, US offers of increased civilian nuclear cooperation to South Korea raised fewer concerns about relative gains than the offer of light water reactors did with North Korea because the South already had extensive ties of trade and technology transfers with the United States, and was already heavily dependent on the United States as a result. Additional assistance would make little difference. Concerns about relative gains that accrue to third-party states are also reduced in cases of issue-linkage bargaining between allies. Allies tend to have common adversaries and share an interest in preventing those adversaries from gaining a strategic advantage. Thus when the target state and the sender are allies, the target can expect that the sender's demands will be in line with these interests, as the sender is unlikely to coerce the target into doing something that will weaken its ally. The expectation is the opposite with adversaries. The target will always be suspicious that an adversary's demands will leave it at a disadvantage.

The relative gains problem is also more salient when negative sanctions are used than it is with positive inducements. This is because positive inducements – unlike sanctions – can be chosen that mitigate the relative gains problem. North Korea finally agreed to IAEA safeguards in 1992, for example, after the United States both withdrew its nuclear forces from the Korean Peninsula and canceled the 1992 joint US-ROK Team Spirit exercises. Even though the US and the DPRK were adversaries with no history of past cooperation, positive inducements could work in this case because they offset the North Koreans' costs of compliance by making the country more secure. Similarly, the US offset South Korea's concerns about future vulnerabilities that could result from giving up its nuclear program by offering more credible security assurances and firmer defense guarantees, and by keeping US troops deployed on the peninsula that were scheduled to be withdrawn.

C. Reputation and the Extortion Problem

The third condition that must be met for issue-linkage to be successful is that the target state must not believe that it is being extorted. Issue linkage is *extortion* when the sender's demands are linked to threats that are *gratuitous*, and have no rationale aside from giving the

¹⁹⁸ Drezner, 1999, p.31; Powell, 1991. Drezner explains the difference as the result of lower conflict expectations, whereas I focus on the expectation between allies that conflicts will be quickly settled through cooperation and compromise. Powell argues that the relative gains problem is more salient when there is a greater likelihood that the cooperating states will engage in military conflict with one another in the future. Drezner expands this to any sort of conflict that can harm the target state.

target an incentive to comply. It involves a threat that the sender prefers not to carry out, and that it will only carry out to demonstrate its resolve. Assuming that the sender is willing to follow through on the threat, extortion always leaves the target state worse off than it was before.

States are reluctant to comply with extortionate demands because they are concerned about the negative consequences it would have on their reputation.¹⁹⁹ Specifically, they worry that if they comply with an extortionate threat they will invite further extortionate demands in the future, either from the sender or from others, who will conclude that the target is likely to yield to blackmail. As a result, states jealously guard their reputation, and are frequently willing to bear otherwise substantial costs – or forgo significant gains - in order to preserve it.²⁰⁰

An illustrative example of how important concerns about extortion can be in the bargaining process is the way that states react to kidnapping or hostage-taking. If a rebel organization were to kidnap some state's citizens working abroad and demand a \$5 million ransom for their lives, simply in terms of the immediate cost of a deal, the best move would seem to be to pay the \$5 million and save the lives of the hostages. The reason why states often adopt, at least publicly, a strict policy of not making deals in these situations is that they fear gaining a reputation as a weak bargainer. The deal in question is clearly extortionate, as the rebels have no use for their prisoners and no incentive to kill them beyond extracting concessions. Whether the demanded ransom is higher or lower than the hostages' lives are worth is besides the point. Giving in to extortion in this case will lead these rebels, as well as similar groups, to conclude that the US will deal with them similarly in the future. Conversely, a tough stand in this case may cost the hostages' lives, but could effectively deter future kidnappings and save many more future lives. Importantly, the reason that reputation is on the line in this case is that the kidnapping had

¹⁹⁹ International relations scholars debate the significance of reputation in international politics and disagree over the degree to which states actually consider one another's past behavior. Downs and Jones (2002), for example, argue that states rely very little on information about another's past behavior. Mercer (1996) reaches a similar conclusion. I take no position in this debate. However, like Mercer, I argue that whether or not states actually consider each other's past behavior when deciding their own policies, they guard their own reputations as if this were the case. Furthermore, states' concerns about their own reputations are not limited to issues of extortion. States can choose their behaviors to maximize their reputations for resolve (Schilling, 1956), honesty (Sartori, 2005), or reliability (Tomz, 2007) as well. For a game-theoretic perspective on reputation effects, see Fudenberg and Tirole, 1991, ch.9.

²⁰⁰ An extortionate threat can transform the bargaining process into a game of chicken - a test of wills - as both the target and the sender have their reputations on the line. The reputation costs that each side would bear from backing down, and the zero-sum nature of these costs, preclude mutual gains. The target fears it will be labeled an easy mark or weak bargainer and will invite future coercion attempts. The extorter, on the other hand, has staked its reputation on its resolve to carry out the threat should the target call its bluff. Carrying out the threat makes no sense for the extorter in the near term – the threat is costly to carry out and there is no immediate gain in return – however to avoid losing the credibility of all future coercive threats, it must be carried out nonetheless. Therefore, rejecting extortionate threats can deter future extorters, as they will think twice about making a threat that will likely be rejected, only then to have to pay the cost of carrying it out. See Oye, 1992, pp.40-2.

no justification beyond the extraction of payment. If the rebels had some other interest in kidnapping the state's citizens *independent of the ransom*, the dynamic would be different, because a compromise would not signal to other actors – or to the rebels themselves – that the state was likely to give in to extortionate demands in the future.

The difference between extortion and other forms of issue linkage therefore hinges solely on the sender's preferences. In extortion, the sender is threatening an action that it prefers not to have to carry out, *even if the target rejects the linked demands*. For clarity, I adopt Oye's issue-linkage classifications. Oye offers three exhaustive and mutually exclusive categories of issue linkage that differ according to the preferences of the sender: exchange, extortion, and explanation.²⁰¹ He defines these three categories as follows. Assume two issue areas that can be linked: X and Y, with X being an issue controlled by the sender, Y an issue controlled by the target. Each side prefers the other to cooperate (C, as opposed to defect, or D) on the issue area it controls. Cooperation or defection on each issue area can be represented by X(C), X(D), Y(C), and Y(D). Under these circumstances, the three categories can be described as follows:

Exchange: In an exchange, before the two issue areas are linked, each side's first preference is that the other party cooperates while they themselves defect. Thus the sender's preference is X(D)+Y(C), and the target's is X(C)+Y(D). Both sides also prefer mutual cooperation, X(C)+Y(C), over mutual defection, X(D)+Y(D), but in the absence of issue linkage both would defect. Once the two issues are linked such that $X(C) \leftrightarrow Y(C)$ and $X(D) \leftrightarrow Y(D)$, and each side's cooperation in the issue area it controls is coordinated with the other's, the two sides' preferences are changed. The first preference for both is now to cooperate, X(C)+Y(C), which provides both with mutual gains over the *status quo*.²⁰²

Extortion: In this case, the target's preferred outcome is, once again, that the sender cooperates while the target itself defects: X(C)+Y(D). The sender still prefers that the target cooperate, however, the sender itself would now rather cooperate *regardless of what the target does*: X(C)+Y(C). Thus in the absence of any issue linkage, the target would already get its preferred outcome. To make an extortionate threat, the sender links its cooperation to the target's: $X(C) \leftrightarrow Y(C)$ and $X(D) \leftrightarrow Y(D)$. With the linkage, both sides get the highest payoff from mutual cooperation. Importantly, this outcome is better only for the sender – the target is worse off as a result of the issue linkage.

²⁰¹ The categories and definitions provided here are taken from Oye, 1992, pp.37-48.

²⁰² The order of preferences here are the same as in Stag Hunt.

Explanation: Here again, the target's first preference is to defect while the sender cooperates: $X(C)+Y(D)$. In this case, however, the sender's preference is *dependent upon the target's behavior*. The sender prefers to defect unless the target cooperates, in which case the sender prefers to cooperate as well. The order of the sender's preferences is now $X(C)+Y(C)$, $X(D)+Y(D)$, $X(D)+Y(C)$, and $X(C)+Y(D)$. The outcome in this case is not dependent upon any formal issue linkage by the sender, as the two states' choices are already naturally linked to one another (they are non-separable). Instead, it depends on whether the target understands the sender's preferences (and also realizes the issues are non-separable). If the sender can credibly communicate its preferences in this case, both states will cooperate, which will leave both parties better off. Otherwise both will defect.

Both exchange and explanation are Pareto-optimal; extortion is not. Exchange and explanation will always leave both parties at least as well off as the *status quo*. This is not the case with extortion. If the target complies with the extortionate demand, then it will be worse off than it was under the *status quo*, and the linkage will result in a net transfer to the sender. If the target defects, then the sender will either follow through on the threat – in which case both states are worse off – or the sender will back down and cooperate, producing the same result as the *status quo*. Under no circumstances will an extortionate threat produce an outcome in which the target is better off.

Because the goal of extortion is to improve the welfare of the sender at the target's expense, states have a very strong interest to deter extortionate demands. Therefore states that believe they are being extorted are likely to defect even if doing so invites costly punishment. The costs of doing so are typically outweighed by the benefits of deterring the sender and other states that are witness to the extortion attempt from seeking similar rents from the target state in the future. This is effective because states do not undertake attempts to extort lightly – they must be convinced that the target will comply with the threat. Otherwise, making extortion threats can be costly. To preserve its own reputation, if the target fails to comply, the extorter must follow through on its threat, and incur the costs of doing so.

Concerns about extortion are more salient both between adversaries, and when issue linkage is framed in terms of negative sanctions. Adversaries are more likely to suspect one another of aggressive behavior than allies are. Because allies have an interest in preserving one another's strength, they will be more confident that each another's bargaining proposals are not made so the sender can profit at the target's expense. They also have an interest in preserving each other's bargaining reputation and do not want to embolden a common adversary to extort.

Allies also have to worry that visible efforts to extort one another could undermine not only the target state's reputation, but the credibility of the alliance itself. None of these factors work to the advantage of adversaries.

Extortion is also a much greater problem with negative sanctions than it is with positive inducements. For an offer of positive inducements to be viewed as extortion, the target must believe that the sender is offering to provide some reward in return for compliance that it would have preferred to do in any case. Put another way, what the sender views as positive inducements, the target perceives as negative sanctions.²⁰³ This is a rare circumstance. States often misjudge one another's preferences, but they do not typically confuse inducements with sanctions. The notable exception is the offer of high-level talks or negotiations in return for concessions from the target. Sender states do often see the mere act of diplomacy as a concession, whereas the target will typically interpret the withholding of talks as extortion. This exception, however, is limited to bargaining between adversaries. States often view talking with adversaries as a reward to the target, believing that it confers legitimacy, and as a cost to itself, because engagement with an adversary carries domestic political costs for the sender. Allies rarely use negotiations as a bargaining chip.

Negative sanctions, on the other hand, are frequently viewed as extortion. The only way they will not be is if the sender convinces the target that its preference – even in the absence of issue linkage – is to carry out its threat (or if the sanctions are already implemented, to continue to carry them out) unless the target complies with its demands. In other words, negative sanctions are always extortion unless they can be framed as an explanation: the sender must convince the target that its preferences are dependent upon the target's behavior. This is especially difficult to do with adversaries. For one thing, because adversaries lack existing ties of cooperation, most threats of negative sanctions will necessarily be extortionate, as it is unlikely that the sender will have control over an issue area in which its cooperation is dependent upon the target's behavior. Adversaries, in fact, tend to purposely avoid any situation in which their own behavior is conditioned on the other's cooperation. Because adversaries typically have reduced sources of leverage adover one another – which are often limited to military threats and multilateral economic sanctions – the only negative sanctions available are extortionate.

A second reason that it is extremely difficult to avoid the extortion problem when using negative sanctions with adversaries is that it is not easy for the sender to convey its preferences to

²⁰³ This again raises the thorny ontological problem of how to consistently distinguish negative sanctions and positive inducements. The issue is discussed in greater detail in section VIII of this chapter. It is analogous to the problem international relations theorists have confronted with distinguishing deterrence from compellance. The difference depends on how one defines the *status quo*.

the target. Even if the sender can use explanation – *i.e.*, find some issue area of value to the target in which its cooperation is dependent upon the target’s compliance – it will be difficult for the sender to convince the target that this is truly the case. Because extortion and explanation differ only according to the sender’s preferences, the only way to convince a target that a threat is not extortionate is to accurately communicate those preferences. With adversaries, this will likely fail. Adversaries are distrustful and suspicious of one another, lack good channels for communication, and in general have poor information about each other. Rarely do they find one another’s explanations for their behavior convincing. The US military buildup in Korea in 1994, a move the Americans themselves saw as a defensive reaction to North Korea’s threats, was viewed in Pyongyang as an extortionate threat. The United States often has a genuine preference for economic sanctions against states that violate the international nonproliferation regime because it has an interest in upholding the legitimacy and credibility of international norms against the proliferation of nuclear weapons. However, US adversaries who violate these norms rarely see the US’s pursuit of sanctions as anything more than extortion.

In the sections above, I have outlined the three conditions that must be met for issue linkage – positive inducements and negative sanctions – to be successful. All three of these conditions indicate that issue linkage will be more successful with allies than with adversaries, and more successful with positive inducements than with negative sanctions. In particular, negative sanctions are likely to fail with adversaries, as this is the circumstance in which the sender is least likely to have leverage, and in which the threat of negative sanctions is most likely to raise concerns about the distribution of gains as well as suspicions of extortion.

The following sections describe two additional characteristics of the bargaining process that have important implications for the theory. The first is that states have incomplete information about one another’s preferences. The second is that state preferences are determined by the outcomes of domestic political competitions in which different groups, defined in terms of their preferences in the main issue area under dispute (in this study, the nuclear issue) as well as the issue to which this is linked (or is otherwise non-separable), vie with one another over the determination of state policy. Attention to both of these factors adds support to the argument that issue linkage is more likely to succeed with allies than with adversaries, and that positive inducements are more likely to be effective than negative sanctions.

IV. The Effects of Incomplete Information and Uncertainty

Information asymmetry – the fact that negotiating states have private information about their own preferences that the negotiating partner lacks – is central to the act of bargaining.²⁰⁴ If both sides possessed perfect information, there would be no need for linkage or negotiations.²⁰⁵ Both sides would simply anticipate the other's response beforehand, and act accordingly. We would never see sanctions threatened or inducements offered because they would be unnecessary. Likewise, we would never see extortion – the target would know to defect, and the sender, anticipating this defection, would not make the extortionate threat in the first place. Bargaining and issue linkage take place only when information is incomplete. Otherwise, whatever gains could be reaped through the mutual exchange of concessions would be done automatically, without the need for elaborate offers and counter-offers.²⁰⁶

²⁰⁴ The assumption here is only that the two states have private information about their preferences. There is no assumption that this necessarily works to the advantage of one or the other.

²⁰⁵ As will be seen in the following section on domestic politics, this claim is not entirely accurate, as successful issue-linkage is impeded not only by incomplete information but also by the costs of aggregating domestic political preferences and coordinating domestic actors in both states. Both the costs of acquiring and evaluating information, and coordinating domestic political actors' behaviors and policy preferences, are types of transactions costs. *Transaction costs* are the costs of formulating, negotiating, and enforcing an agreement. Without transaction costs, all possible mutual gains from exchange would be realized, and the negotiating process would be obviated. In the real world, the costs of identifying and evaluating issue-linkages, carrying out negotiations, building domestic coalitions to support policies, communicating preferences and intentions, enacting policy through large bureaucracies, and enforcing agreements, are substantial. A central element of the theory presented in this chapter is that transaction costs present more serious barriers to agreement with adversaries than with allies, and with positive inducements than with negative sanctions.

²⁰⁶ This argument reflects the logic of Coase's Theorem. Coase (1960) argued that in the absence of transaction costs, regardless of how property rights are allocated, economic actors can reach efficient outcomes through unrestricted bargaining. An illustrative example is the case of the power plant that dumps ash on a neighboring house. Regardless of whether the plant enjoys the right to pollute or not, an efficient outcome can be reached through bargaining. Assume the cost of the ash to the homeowner is A (the cost of, say, cleaning it up), and the cost to the power plant of installing scrubbing filters (that, we assume, would end the pollution problem) is F . If we assume that the plant has the right to pollute, then so long as $F < A$, the homeowner can pay the plant to install the filters (F), thereby ending the ash (A). The solution is efficient because both parties are no worse off from the deal: the plant pays nothing, the homeowner saves herself from paying A by paying the lesser value of F . If, however, $F > A$, then the most efficient solution is the continued dumping of ash. A more complex version of the story could include a compromise solution whereby it is efficient for the homeowner to pay for a cheaper filter that removes some but not all of the ash. If we assume that the homeowner has the property right in this case and the plant cannot therefore pollute without the homeowner's consent, again, if $F < A$, the plant owner will pay to install the filter herself. If, however, $A < F$, then the plant owner will pay the homeowner the cost incurred from the ash (A) in return for the right to dump it. Note that the outcomes here are the same regardless of how the property rights were allocated: if $A < F$, the ash gets dumped, and if $F < A$, the filter gets installed. Again, in real life there are often efficient compromises where some of the ash gets filtered out and some dumped onto the house. Also note that while the efficiency outcomes are the same, the allocation of property rights does affect the question of equity. Specifically, property rights determine who will pay for the filter. Coase used this proposition (which was later termed Coase's Theorem) to make the argument that institutions are often unnecessary to achieve efficient outcomes. In the above case we get an efficient

Put this way, it becomes apparent that the central purpose of bargaining is to signal information. The purpose of these signals will not always be to reveal accurate information. States sometimes have strong incentives to misrepresent their preferences, intentions, capabilities, and resolve. Bluffing, brinkmanship, and extortion – three bargaining strategies that states use to improve bargaining outcomes in their favor – are all premised on deception and the strategic manipulation of information asymmetries. However, because states are risk averse and cautious in their bargaining behavior, and because there can be substantial costs to the sender if its attempts to bluff or extort should fail, these strategies are of limited value, and are therefore the exception rather than the rule in international diplomacy.²⁰⁷ Certainly bluff, extortion, and brinkmanship will be of little use in US counter-proliferation policy, whose overall success depends on not only winning individual bargaining rounds but on crafting durable agreements across multiple actors. This sort of successful issue linkage is dependent upon reaching deals that provide mutual gains, which in turn rely on successfully overcoming information problems.

There are two types of information problems that are relevant to issue-linkage outcomes. One is that the two negotiating states, whether they are allies or adversaries, do not possess perfect information about each other's preferences and capabilities. In the case of capabilities, the target may not know that a particular issue linkage is possible, because it may not be aware (or may doubt) that the sender has control over the linked issue area. A target may also conclude that a given proposal is not credible because it falsely believes that that sender lacks the resolve to deliver on its threat or promise. In the case of preferences, the target may mistake an issue-linkage proposal for extortion, when it is actually a case of exchange or explanation, because it misreads the sender's preferences. Incomplete information about preferences is particularly

outcome without the expense of arbitration, recourse to the courts, or regulations that mandate filters for power plants (or that require such plants to be built far from houses). According to Coase, so long as there are no significant transaction costs, this sort of unrestricted bargaining (or "Coasian bargaining") will lead to optimal outcomes, at least from the point of view of efficiency. The outcome may not be just, but in both economics as well as international relations, fairness is typically in the eye of the beholder. Coase was concerned with bargaining between firms. Conybeare (1980) was the first to apply Coase's Theorem to the international bargaining that takes place between states. Most scholarship drawing on Coase in the international relations literature has focused on international environmental issues (see, for example, Oye and Maxwell, 1994), but Conybeare considered its application to the realm of international security as well (also see Bernauer and Ruloff, 1999, which applies Coasian logic to arms control). Analogous to the power plant and the homeowner, one state's efforts to enhance its security, wealth, or prestige may have negative consequences for other states (the security dilemma is based on this very concept; see Jervis, 1976). According to Coase's Theorem, these international disputes can be efficiently resolved through unrestricted international bargaining between states, assuming that transaction costs are sufficiently low. The theory presented in this chapter argues that transaction costs are lowest with allies, and when using positive inducements rather than negative sanctions. Therefore, we should expect counter-proliferation disputes to be more frequently resolved under those circumstances.

²⁰⁷ Sartori, 2002 and 2005; Guisinger and Smith, 2002.

problematic, because the target state – by definition – can only distinguish extortion from other types of issue linkage according to the sender's preferences.

The second type of information problem is uncertainty about the value of and the relationships between behaviors in different issue areas. The task that the target state faces in evaluating the costs and benefits of a given issue-linkage proposal, and the task that the sender faces in framing it, is far from trivial, not least because the causal relationships between issue areas are frequently unclear, and the consequences of actions are difficult to predict. As was discussed in Chapter 1, the nuclear issue itself is marked by uncertainty. The value of a nuclear weapons program is far from clear – the risks of preventive attack, nuclear arms racing, alienation from the international community, or even the failure to produce a bomb after sinking substantial costs into the program all could outweigh the possible benefits. The problem is compounded in issue linkage, as both sender and target must determine their preferences for not only the nuclear issue but in the linked issue area as well. They must also evaluate the effects that both have on yet other issue areas, or on each other.

The sender's task of framing issue linkage in the first place is complicated by both types of information problems. The sender must make assumptions about the target's preferences in order to choose an issue area for linkage that the target values. The sender also must have good information about which issue areas it controls, and what the results of its behavior in any given issue area will be. When the sender is choosing among issues such as economic sanctions, military threats, security assurances, and economic aid to the target, these questions are not trivial – the sender and target states may arrive at very different estimates of the sender's ability or resolve to carry out sanction or military threats. The two may also have quite different interpretations of how the sender's threatened actions or promised rewards will affect other issue areas that they both value.

Both of these categories of information problems make it more likely that issue linkage will be successful with allies than with adversaries, and more likely that positive inducements will succeed than negative sanctions. Allies can read one another's preferences better than adversaries can. They share greater trust and fewer misperceptions about one another, they have thick channels of communication – both formal and informal – to draw on, and they tend to have much better knowledge about one another's interests. This makes it easier for allies to overcome information asymmetries and to communicate their preferences to one another than it is for adversaries. Allies are also better aware of each other's capabilities, and more likely to know when a threat or promise can be fulfilled. A past history of cooperation makes it easier for allies to identify issue areas that can be used effectively for linkage. Allies have greater experience

negotiating with one another over a broad set of issues, and can draw on that experience to craft successful issue linkages.

Information problems are also more acute with negative sanctions than with positive inducements, and are particularly a problem when using negative sanctions with adversaries. Positive inducements will rarely be viewed as extortion, while negative sanctions often will. The burden of convincing the target that a threat is not extortionate is therefore typically far greater than in is with promises of a reward. This problem is worst with adversaries, as the sender state will rarely be able to convince an adversarial target that its threats are not extortionate.

A. Incomplete Information About Preferences and Capabilities

States have limited information about one another's bargaining preferences, as well as each other's abilities to deliver on threats and promises. The problem is more acute with adversaries than with allies, as adversaries tend to have less complete and more biased information about one another, and have fewer resources available to overcome those problems in the bargaining process. Adversaries are also more suspicious of one another, and more likely to try to exploit information asymmetries with one another by using extortion, bluffs, and brinkmanship. Each side's discounting of the other's signals is therefore not simply the result of irrational biases but also a product of the rational expectation that the other will distort its own preferences for strategic advantage.

Incomplete information presents the sender with three main obstacles to effective issue-linkage. First, information problems make it difficult for the sender to overcome the target's concerns about extortion. Because extortion is distinguished from the other forms of issue linkage according to the sender's preferences, the more uncertain or suspicious that the target is about the sender, the more heavily it will weigh the chances that it is being extorted. As information problems are greater when the two states are adversaries, suspicions of extortion will present a greater barrier to cooperation in these cases. Likewise, because negative sanctions are far more likely to be extortionate than positive inducements, the problem will be more acute with sanctions.

Second, if the target's uncertainty about the sender's ability to deliver on a threat or promise is high, it will more heavily discount any issue-linkage proposal, and cooperation will be less likely. This problem is also compounded when the two states are adversaries, as in these cases the target will be more uncertain - and more likely to harbor negative biases - about the sender's capability. Again, the situation is usually worse with economic sanctions than it is with positive inducements, as a sender's leverage over an adversary typically *is* inferior to its leverage

over allies. The sender is often limited to costly and difficult options for negative sanctions in these cases such as multilateral sanctions and military force.²⁰⁸

Third, incomplete information about the target's preferences makes it more difficult for the sender to identify issue areas for linkage that the target highly values. Issue linkage will not succeed if the sender links to negative sanctions or positive inducements that the target does not value, or values too little. The sender must therefore have, or infer from the bargaining process, the target's preferences both in the issue area under dispute (*i.e.*, the nuclear question), and in other areas that can be used for linkage. The better this information – which is typically more the case with allies than adversaries – the better the chances that issue linkage will be successful. This problem, too is more acute with negative sanctions than it is with positive inducements. The target state has a much stronger incentive to mislead the sender about its preferences in issue areas the sender controls that can be used to impose costs than it has in issue areas in which the sender can provide benefits.

²⁰⁸ Left out of the discussion here is the question of the sender's resolve to deliver on its threats and promises. The issue of resolve is too complex to be adequately addressed in this chapter, and is worthy of a dissertation (or many dissertations) in its own right. The target state will, of course, weigh the sender's resolve to carry out (or continue to implement) punishments and rewards in its decision to cooperate or defect. It is unclear, however, whether resolve tends to be stronger or weaker depending on whether the sender is an ally or an adversary, or whether issue linkage is in the form of negative sanctions or positive inducements. Drezner (1999) argues that states are more likely to use economic sanctions with adversaries and less likely to do so with allies. This conforms with the broader consensus in the literature that states have greater resolve to follow through on threats with adversaries because they typically have reasons to do so beyond coercion, such as to degrade its capabilities, weaken its regime, or signal resolve to other states (Baldwin, 1985 and 2000; Lindsay 1986; Kirshner, 2002; and Marinov, 2005). The argument can be logically extended to other forms of negative sanctions. The question of how domestic political factors affect the sender's resolve is less clear, and can depend on not only whether or not the target state is an adversary but also the nature of the sanctions and the distribution of costs and benefits to domestic interests. US sanctions against Cuba have long outlasted their rational utility to the United States, but persist because the benefits of the sanctions are concentrated while the costs are diffuse. Sanctions against Libya were harder to maintain because costs were concentrated. Oye argues that these more particular domestic interests can often outweigh reputational considerations because the reputational costs of renegeing are diffuse (Oye, 1992). Drezner argues that the sender may prefer deadlock if it expects future conflict (Drezner, 1999). The situation with positive inducements is even less clear. Domestic interests in the sender state may also benefit from positive inducements, whether they are provided to allies or adversaries (Long, 1996). This is especially the case if inducements open up new trade and investment opportunities for powerful domestic interests, or increase the stature and importance of state bureaucracies. But inducements also run a greater risk than sanctions do of provoking right-wing domestic opponents, who can use charges of appeasement as a political football (Haass and O'Sullivan, 2000). In general, there does not appear to be a clear-cut answer to whether issues of resolve work in favor of allies or adversaries, or whether these effects are stronger with inducements or with sanctions. The issue is likely highly case-dependent (see Crumm, 1995).

B. Uncertainty About Outcomes

Because the consequences of one's own or another's actions is often difficult to accurately predict, and because actions in one issue area tend to have influence in others, states must bargain in an environment of significant uncertainty. This has a number of implications for the theory. First, state preferences cannot be deduced from its strategic environment. As will be discussed in greater detail in another section of this chapter, state preferences are constituted from the preferences of domestic political actors, whose interpretations of the state's interests and the best way to promote those interests may differ substantially. Second, issue-linkage is more likely to be effective when uncertainty can be reduced. This is easier to accomplish with allies, and when using positive inducements.

The rationality of state behavior is complicated by uncertainties about how particular actions will affect outcomes. While leaders may seek to maximize security and utility, there are typically doubts and disagreements over which policies will best meet those goals. This is particularly the case with nuclear proliferation. The costs and benefits of a nuclear program are far from clear. States must weigh how their nuclear decisions will affect the strategic reactions of others. The initiation of a weapons program could prompt costly arms racing or even provoke a preventive military attack. It could invite costly sanctions, or foreclose future opportunities for trade and cooperation with others.

The issue of nuclear weapons development also cannot be separated from other issues such as the domestic economy. The dual-use nature of nuclear technology means that much of the infrastructure necessary to produce a bomb is also needed for a civilian nuclear energy program. If the state is resource poor, and wants to limit its dependence on other states for its energy needs, then it may have a strong incentive to develop the closed nuclear fuel cycle. Because the closed fuel cycle requires either uranium enrichment or plutonium reprocessing capabilities, both of which can produce fuel for a bomb, the state's leaders may pursue the development of such a capability while deferring the question of whether or not to actually produce weapons. All of these considerations, and the difficulty anticipating how other states will react to such moves, make it hard to predict how the state's leadership will arrive at particular preferences based on its strategic environment.

Uncertainty poses more substantial problems for issue linkage in negotiations between adversaries. When states have a past history of cooperation, they can use this experience to draw more accurate and more confident conclusions about the effects of future cooperation. The North Koreans, for example, faced enormous uncertainties in the early 1990s when they were engaged in diplomacy with the United States over their nuclear program. With little past experience with

the Americans – or with cooperation with other states in general – Pyongyang had a difficult time anticipating the effects of compliance, making it skittish about even the smallest agreements and leading it to behave erratically in its diplomacy.

The sender will also face greater uncertainty about how its choices of issue linkage will affect the target when the target is an adversary. With more limited past experience and knowledge about the target, identifying effective issue linkages is a more daunting task. The problem is compounded with negative sanctions. The sender's choice of sanctions with adversaries is limited, and tends to consist of high-stakes actions such as military force or multilateral economic sanctions – areas that are notable for their uncertainty. Also, their high costs of failure make this uncertainty more salient.

V. Sequential Bargaining and Signaling Preferences

As described above, a central aspect of bargaining is overcoming information asymmetries. Most particularly, states are unlikely to cooperate until both are reasonably well convinced that they are not being exploited. There are two main obstacles for the sender in issue-linkage bargaining, both related to information problems. First, the sender must have enough information about the target's preferences to frame an issue-linkage proposal that offers the target gains (and to oneself, of course) if it complies relative to defection, and also have the capability to carry it out. Second, the sender must convince the target of its own preferences, and that its preferences are dependent upon the target's cooperation. A simpler way of describing this is to say that the sender must both find a mutually beneficial bargaining proposal and build enough trust for the target to accept it.²⁰⁹

The trust necessary for successful issue-linkage can be built, and the information necessary to frame mutually gainful issue linkages can be inferred, when bargaining takes place sequentially. As states makes bargaining offers and counter-offers, they reveal information about their own preferences (“signaling”). The two sides can therefore use the bargaining process to signal their own preferences to the other (or, if they are bluffing or extorting, they can try to distort these signals), and to draw inferences about the other state's preferences. The bargaining

²⁰⁹ I use the term “trust” here in the same sense as Kydd (2005), who defines it as “a belief that the other side prefers mutual cooperation to exploiting one's own cooperation.” (p.6). Kydd argues that for two states to cooperate, they must first reach some threshold of trust. My argument here is not dissimilar. I argue that cooperation becomes more likely as information asymmetries are reduced. Each side must believe that it is not being exploited by the other, which requires credible information about the other's preferences. Also relevant are the arguments of Sartori (2002) and Guisinger and Smith (2002) that states value a reputation for honesty.

process, as it unfolds sequentially, is a learning process through which both sides update their information about the other.²¹⁰

Bargaining under conditions of incomplete information – not only about one another’s preferences but also about the potential costs and benefits of agreement or disagreement – is complex and unpredictable. This is even more the case when signals are distorted by cognitive, organizational, and ideological biases. In general, however, the higher the two sides’ *a priori* levels of trust (*i.e.*, the prior belief that the other does not seek to exploit) and the lower the initial information asymmetries, the more likely that the two states will converge on correct beliefs about one another’s preferences. At the same time, if there must be a sufficiently large number of bargaining rounds to produce a cooperative outcome. This is also not to argue that states will not strategically seek to misrepresent their preferences in order to gain more at the other state’s expense. Every diplomat and every poker player knows that total honesty and openness is rarely a good negotiating strategy in every situation. The assumption here is simply that no matter how much noise there is in the signaling of preferences, the two states are more likely to converge on true beliefs about one another’s preferences rather than false ones provided there are a sufficient number of bargaining rounds, *as well as* a minimum level of trust.²¹¹

The sequential nature of the bargaining process has two implications for the theory. First, we should expect that the signaling of preferences between states be more efficient and more likely to improve information when there are richer and thicker channels of communication between the two states.²¹² This is more likely to be the case between allies than adversaries. Allies enjoy numerous contacts with one another – formal and informal, official and unofficial – through which communications can be made. The two states’ diplomats tend to meet regularly, are likely to have greater expertise in each other’s politics and foreign policies than would be the case with adversaries, and are also more likely to have built personal trust with their counterparts in the other state’s government.

In the case of US counter-proliferation diplomacy, when the proliferating state has been an adversary of the United States, it has also typically been an authoritarian state as well. Transparency is lower in such cases, making it more difficult to evaluate the other state’s signals. North Korea is a standout example. Decision makers in Washington were rarely in agreement in

²¹⁰ See Crawford and Sobel, 1982; Kreps and Wilson, 1982; and Kennan and Wilson, 1993. A better way to describe this is that the two states update the probabilities that they assign to each other’s true preferences according to the information provided from signaling in successive bargaining rounds. Signals, or “diplomacy,” may be behavioral (*e.g.*, the imposition of economic sanctions or the mobilization of military forces) or verbal (*e.g.*, official statements or diplomatic talks).

²¹¹ Kydd, 2005.

²¹² Banks, 1991; Fudenberg and Tirole, 1991, ch.8.

their interpretations of Pyongyang's preferences and intentions – even a decade and a half after the Agreed Framework was signed, there continues to be intense debate over the DPRK's intentions in the early 1990s. Communication problems of such magnitude are rare between allies.

Signaling will also be more inefficient – making issue linkage less likely to succeed – if states lack high-level channels of communication. Signals sent through lower-level diplomatic channels are more likely to be discounted, misinterpreted, or lost entirely. Lower-level diplomats and bureaucrats lack flexibility, and are likely to filter out or reject signals that do not conform to established protocols, policies, and expectations. This creates rigidity and unresponsiveness to bold new bargaining proposals that could break deadlocks and create a path to cooperation. North Korea, for example, began to signal its willingness to trade its nuclear program for light water nuclear reactors through low-level and informal channels in 1992. The message was not taken seriously, or was even dismissed out of hand, until it was brought up at high-level talks in July 1993. Some of the key US decision makers had not even heard the idea prior to that. This would, nonetheless, be the cornerstone of the Agreed Framework.

Communication limited to lower-level channels also makes it difficult for states to coordinate preferences across diverse issue areas. Issue linkage can bring together economic, military, and other issue areas that impact the interests and require the input and expertise of numerous state bureaucracies. A proper evaluation of these bargaining proposals requires coordination across these agencies, something that cannot be done unless the proposals are treated at higher levels of the government. In general, bargaining will be less successful when high-level talks are withheld, and contacts between states are limited to lower-level channels. The United States, for example, has often been reluctant to engage in high-level negotiations with adversaries during disputes and crisis, out of the belief that doing so both rewards the state by conferring legitimacy on it, and allows the state to exploit the talks strategically to stall or dissemble. However, negotiations provide important opportunities to gain new information about a negotiating partner's preferences. Additionally, the sequential nature of bargaining reduces states' incentives to misrepresent their preferences, as a reputation for honesty is of value if both sides anticipate future disputes.²¹³ Private diplomacy, in fact, offers many advantages over public signals: they can be more detailed and precise, and they may allow for agreement by allowing concessions while saving face.²¹⁴

²¹³ Sartori, 2005; Guisinger and Smith, 2002.

²¹⁴ Kurizaki, 2007.

The second implication for the theory is that cooperation in the present will make cooperation more likely in the future. As argued above, cooperation becomes more likely as more trust – defined as the belief that the other side prefers to cooperate – is built over successive bargaining rounds. Past cooperation indicates that the two states successfully overcame information problems in past bargaining rounds. States will be more likely to expect one another's cooperation if they have cooperated in the past, because a history of cooperation provides both parties with information about each other's preferences. The more the two states have cooperated, the more recent the cooperation, and the more related the issue areas in which past cooperation occurred are to the current dispute, the more likely that issue linkage will be effective.

Because allies, by definition, share a history of past cooperation, while adversaries by definition do not, we should expect issue linkage to be more successful between allies. Additionally, we should also expect cooperation to be most successful when it is achieved through sequential and progressive steps. States can use smaller agreements as a way to signal their preferences for cooperation on larger issues, and to build trust. This can be done through the exchange of token or symbolic concessions, by writing phased steps into agreements, or by increasing the depth of cooperation over time by making concessions reversible at first, and moving to irreversible measures after more trust has been established. In all three cases presented in the following chapters, confidence-building agreements were used before larger agreements were reached. Token or symbolic measures such as joint statements, summit meetings, the lifting of visa restrictions, or the removal of minor sanctions often did not carry much value for the target state in the present, but made the target more receptive to more consequential issue-linkage proposals in the future. Phased paths to cooperation were particularly important in the two cases involving adversaries. The Agreed Framework began with a freeze but not dismantlement, and was designed to establish trust before moving to such permanent steps. Cooperation with Libya moved from smaller issues such as the Lockerbie trial and intelligence-sharing about al Qaeda before talks could address the larger issue of the country's nuclear program.

VI. State Preferences and Domestic Politics

Negative sanctions and positive inducements change a target state's behavior by influencing its domestic politics. In particular, sanctions and inducements can both (a) change the policy preferences of influential domestic actors, and (b) influence their control over state policy. Sanctions and inducements also affect the target state's domestic politics differently from one another. Negative sanctions can set off a perverse rally effect, which can not only harden the

target state's resistance to cooperation, but can also provoke a hostile backlash and lead to escalation. Positive inducements, alternatively, can lead to a virtuous rally effect, making cooperation more likely. These effects are much more salient when issue linkage is used with adversaries.

In the above sections, I have treated state preferences as given. The target state's preferences, however, cannot be effectively rationally derived or assumed based on its external environment – they are biased according to the particular interests and views of domestic political actors, and the way these actors' preferences are aggregated in the state's domestic political process. Additionally, the bargaining process that takes place between states changes both the domestic actors' preferences themselves, as well as their aggregation into state preferences. Because these domestic political factors have important implications for the theory, it is necessary to sacrifice parsimony and include them.

Of principal concern here is the formation of domestic political coalitions in the target state that have different preferences for cooperating with the sender on the nuclear issue. The members of these coalitions may have more specific interests and preferences in issue areas other than the nuclear issue, and these other preferences may vary significantly across the coalition's members. Issue linkage, therefore, can affect both the constitution of, as well as the competition between, the coalitions.

This theory makes no assumptions about either the domestic processes or institutional arrangements in the target state that determine political outcomes, or about the constitution of the pro- and anti-cooperation factions. It assumes only that every regime, no matter how authoritarian, depends upon the support of a domestic coalition for its rule, and that the members of this coalition will have some non-trivial influence over the state's nuclear policies. Domestic actors' preferences can be shaped by their more particular economic or bureaucratic interests, ideology, or their beliefs about what will most advance the national interest or maximize the survival of the regime.

While very little is assumed in the theory, there are, based on the literature and on the histories of nuclear proliferation cases, some reasonable expectations about the nature of these coalitions that can be identified. For one, the state's military will typically play an important role in the nuclear debate. Also, given the military's interest in maximizing its own capabilities, it will typically be sympathetic to the development of a nuclear deterrent. Foreign ministries and the diplomatic corps, on the other hand, will tend to support greater cooperation with other states and adherence to international regimes. This group tends to be more sympathetic to arguments in favor of nuclear compliance. Solingen argues that the nuclear question is tightly related to

domestic actors' preferences for "inward-looking" or "outward-looking" models of regime survival. She argues that there tend to be relatively stable domestic coalitions whose preferences on the nuclear weapons issue are correlated with their preferences on issues of nationalism, militarism, economic openness, as well as their expectations about international cooperation.²¹⁵ She presents detailed case studies to support her argument that include the three cases covered in this dissertation. My analysis of the domestic politics in these cases broadly agrees with Solingen's.

Solingen, however, treats states' nuclear decisions endogenously, and does not examine how other state can influence those decisions. The relevance of the target state's domestic political coalitions is that they can be changed through the use of issue linkage. In cases where nuclear preferences are already strongly related to preferences for economic or political openness, for example, this relationship can be used by the sender to influence the target's nuclear decisions, either by influencing the support within the coalition for cooperation, or by affecting one coalition's influence over the state's policy process relative to another. Other domestic actors that may not have strong preferences on the nuclear question, or that may oppose cooperation on the nuclear issue but have preferences aligned with pro-cooperation coalition members in other issue areas, can be persuaded to change their preferences on the nuclear issue by linking it to other issues it may care more about.

Alternatively, issue linkage can influence the outcome of the domestic competition between factions over policy. With adversaries, positive inducements that reward the target state's pro-cooperation faction can elevate its standing in domestic policy debates by providing it with evidence that the sender is willing to cooperate, and that it can extract meaningful concessions from the sender. With allies, negative sanctions can likewise undercut claims that the target can defy the sender's demands on the nuclear issue while maintaining its cooperative relationships with the sender in other issue areas of value.

These domestic political dynamics have two implications for the theory's predictions. One is that negative sanctions can produce a *perverse rally effect* – a hostile and escalating spiral that makes cooperation much more difficult to achieve. This effect is much more likely to be triggered with adversaries. The other is that positive inducements can produce a *virtuous rally effect* – i.e., they can lock-in the target state's preferences for cooperation and make deeper, longer-term, and more permanent cooperation substantially more likely. This can occur with allies and adversaries alike. Overall, these effects strengthen the prediction that both positive inducements and negative sanctions are more likely to succeed with allies than with adversaries,

²¹⁵ Solingen, 2007.

and that positive inducements are more likely to be effective than negative sanctions. They also support the prediction that negative sanctions will be especially unlikely to work with adversaries, and in fact run a significant risk of leading to escalation in the dispute.

Negative sanctions can trigger a *perverse rally effect* within the target state, and provoke a backlash.²¹⁶ The perverse rally effect occurs because the threat (or implementation) of sanctions tends to undermine the position of the target's pro-compliance faction and strengthens hardline and nationalist opponents. Threats are typically viewed as aggressive, and can trigger a domestic nationalist backlash, giving hardline and nationalist opponents of cooperation an upper hand in the policy process. Military threats can elevate the role of the target's military in the decision making process at the expense of supporters of compliance. Threats can also undermine the position of proponents of compliance in the target state by providing their opponents with greater rhetorical ammunition, as domestic opponents will seize on the sender's threats to argue that the sender is not cooperative and cannot be fairly negotiated with, and that domestic advocates of cooperation have failed to demonstrate that they can reason with the sender. All of these mechanisms serve to harden the target state's bargaining position, and to undermine the success of negative sanctions.

These effects are much more pronounced with adversaries than with allies. Adversaries are more sensitive to threats. Threats are more likely to trigger nationalist backlashes with adversaries. Domestic opponents of cooperation in an adversarial target state can more forcefully challenge pro-compliance domestic actors by using the sender's threats as evidence to support existing beliefs that the sender is uncooperative and aggressive. This is more difficult to do when the sender is an ally. It is more difficult for domestic actors to draw on negative biases against an ally. Also, in counter-proliferation efforts with adversaries, states are often limited to comprehensive economic sanctions and military force for their issue-linkage strategies. These blunt instruments are also the most likely to trigger backlashes.

Negative sanctions can also provide rents to the target regime or to influential domestic actors, which can weaken their incentives to cooperate, or in some cases even lead them to defect in order to keep those rents in place. Both threats and the implementation of sanctions – whether economic or military – can strengthen an otherwise weak regime if the regime can use the dispute to mobilize nationalism and support. Both military and economic sanctions can also be used as

²¹⁶ I use the term “perverse rally effect” here where other authors have used “rally-around-the-flag effect” or “rally effect.” There are rich literatures on how both economic sanctions and military coercion can produce such effects, leading to perverse consequences. The effect has been analyzed in greatest detail by scholars of economic sanctions, beginning with Galtung (1967). More recently, Selden (1999) has examined this issue in detail. I treat this issue in greater detail in the review of the sanctions literature in Chapter 2.

scapegoats for existing economic or security problems, or used to justify authoritarian measures that strengthen the regime, or economic policies that transfer wealth from the general population to elites whose support is necessary for regime survival. Finally, negative sanctions can disproportionately harm domestic actors who could otherwise be an influential advocates for cooperation. Again, these effects are more salient when using issue linkage with adversaries than with allies.

Negative sanctions can be designed (or “targeted”) to disproportionately harm influential domestic groups, prompting them to champion compliance with the sender in order to avoid the implementation of costly sanctions (or, if they are already implemented, to lift them). This is, however, more difficult to achieve with adversaries, as the sender will have fewer linkage options available and less of an ability to link to issue areas that can have such tailored effects. Also, in cases of US counter-proliferation, when the target is an adversary of the United States, it has also tended to be a closed and authoritarian society (Libya, Iraq, Iran, North Korea). These types of states also tend to be the most difficult to use negative sanctions against that are targeted at influential groups. The types of negative sanctions that will succeed, therefore, also tend to be available only with allies. With adversaries – and in the case of US counter-proliferation, these states are often authoritarian regimes that have little dependence on the US for trade or security – the more likely consequence of negative sanctions is a backlash.

Positive inducements, on the other hand, can create domestic political effects that increase their likelihood of success. They can trigger a *virtuous rally effect*, locking in domestic preferences for cooperation. This can occur when the offer (or delivery) of positive inducements elevates the position of the target’s pro-compliance faction and strengthens their domestic political standing relative to hardliners. By providing domestic supporters of cooperation with tangible rewards, their ability to convince other elites that a cooperative strategy can succeed and that they can extract important concessions from the sender will be strengthened. Likewise, hardliners will have a more difficult time arguing that an aggressive stance needs to be taken toward the sender when it is unthreatening and demonstrating its willingness to provide concrete benefits to the target.

Positive inducements can also be targeted to offset the losses that will accrue to influential domestic groups in the target state and weaken their opposition to compliance. US military aid to South Korea, for example, was used to mollify the ROK military – and particularly hardliners and nationalist elements within the ROK military leadership – who would otherwise have given stronger opposition to cooperating with the United States on the nuclear question. The offer of light water reactors and heavy fuel oil to North Korea not only offset potential

energy losses from dismantling the country's nuclear facilities (those facilities were, at the time, producing almost no energy for civilian consumption and the program was unlikely to do so in the foreseeable future), but offset losses that would accrue to the military and the atomic energy ministry (MAEI).

Finally, positive inducements can provide new rents to domestic groups who then will have a vested interest in maintaining cooperation with the sender over the longer term. This not only increases the strength of domestic supporters of cooperation but also provides the sender with increased leverage over the target, as today's positive inducements can be tomorrow's negative sanctions.²¹⁷ The Soviets offered the North Koreans light water reactors in return for signing the NPT with the added leverage the reactors would provide in mind. US positive inducements to South Korea in the early 1980s helped to lock in ROK preferences for nuclear compliance, and help explain the country's long-term abstention from reprocessing.

VII. Hypotheses

Four empirically testable hypotheses can be deduced from the issue-linkage theory presented in this chapter:

- (H1.a) Negative sanctions are effective with allies, but are very unlikely to be effective with adversaries.*
- (H1.b) Even when effective in the short term, negative sanctions are unlikely to produce long-term compliance.*
- (H1.b) Negative sanctions are likely to be counterproductive with adversaries, and lead to escalation and an aggressive spiral.*
- (H2.a) Positive inducements are effective with both allies and adversaries alike, but are more likely to be effective with allies.*
- (H2.b) In general, positive inducements are more likely to be effective than negative sanctions, and are greatly more effective with adversaries than negative sanctions.*
- (H2.c) Unlike negative sanctions, positive inducements are likely to produce long-term compliance.*

²¹⁷ Baldwin, 1971.

(H2.d) Whereas negative sanctions can produce escalation with adversaries, positive inducements do not.

(H3.a) Cooperation is most likely when mutual concessions are made sequentially, beginning with ones that are less costly and are reversible, and leading over time to ones that are costlier and more permanent.

(H3.b) All-at-once grand bargains are less likely to succeed.

(H3.c) Sequential and progressive exchanges of concessions are most necessary with adversaries.

(H4.a) Both positive inducements and negative sanctions are more likely to be effective when there exist thick and well-established lines of communication between target and sender.

(H4.b) The use of diplomatic contacts or negotiations themselves as a bargaining chip is counterproductive and likely to fail.

The first two hypotheses, *(H1)* and *(H2)*, represent the central argument of this dissertation:

Positive inducements are in general a more effective counter-proliferation tool than negative sanctions. They are significantly more likely to be effective with adversaries than negative sanctions, which are often counterproductive and can lead to escalation rather than cooperation.

Hypotheses *(H3)* and *(H4)* are based on the above discussion on the ways in which incomplete information problems affect the bargaining outcome. An important, but often overlooked, function of negotiations is the provision and gathering of information about the two parties' preferences. By making, accepting, or rejecting bargaining proposals and counter-proposals – whether these take the form of positive inducements or negative sanctions – each side is able to signal its preferences, and to update its information about the other's in a process of Bayesian inference making. A successful bargaining outcome – *i.e.*, the realization of mutual gains from cooperation - depends on how effective this process is at overcoming information asymmetries. When states find it difficult to exchange information and negotiate, the prospects of agreement are low. Agreement is most likely when states have thick and direct lines of

communication available, and when incremental agreements are used to establish trust and positively influence each side's beliefs and assumptions about the other's preferences. Attempts to use negotiations themselves as a bargaining chip are bound to fail, because they upset these channels of communication when they are most necessary, and they are likely to be read by the target state as extortion.

VIII. What Lies Ahead

The following three chapters present the case studies and evaluate their histories in the context of the issue-linkage theory developed in this chapter. The case studies are structured around testing the four hypotheses listed above. The final chapter in this dissertation, the conclusion, then seeks to bring this evidence together, and evaluates how well it supports the theory. In a second section of the conclusion Chapter, I look at some of the theoretical and methodological questions and problems that arose in testing the theory against the three cases, and consider their implications for future research. Finally, a third section considers the findings of this dissertation in the context of US counter-proliferation policy, and offers several brief policy suggestions for US counter-proliferation diplomac

4. North Korea and the Agreed Framework

I. Introduction

The first North Korean nuclear crisis demonstrates the ineffectiveness of negative sanctions with adversaries seeking nuclear weapons, and the danger of escalation. US military threats, and efforts to organize multilateral economic sanctions against the DPRK, not only failed to convince the North Koreans to abandon their nuclear efforts, but nearly triggered full-scale war. The offer of positive inducements, however, successfully resolved the crisis, if only temporarily. The Agreed Framework successfully exchanged US economic and security inducements in return for a nuclear freeze that lasted from the early 1990s until late 2002, when the George W. Bush administration decided to abandon the agreement and pursue a more confrontational approach toward the North.

The strongest evidence from this case supporting the theory comes from US diplomats and policy makers. A number of direct participants in the face-to-face negotiations with the North Koreans that took place during these years have provided richly researched and detailed narratives of the diplomatic back-and-forth and US government deliberations that shaped the outcome of this case. Similarly, several journalists and academics who had a remarkable degree of access to not only American, but also North Korean, officials have also offered thoroughly sourced and meticulously detailed accounts of these events. Finally, the prominence of these events in the international media led to a record of high quality in contemporary news sources.

Several key pieces of evidence emerge from these narratives. One is that in nearly every instance, US negative sanctions were met with hostility and escalation – if not always in deed then in rhetoric. US efforts to use the Team Spirit military exercises as a means of bargaining leverage backfired, and triggered escalation. The threat of UN economic sanctions was met with threats of war. US military reinforcements in the region nearly triggered war.

A careful reading of this evidence does not support the claim that US military threats pushed North Korea toward a more yielding stance in 1994, and in fact contradicts such claims. The North Korean bargaining position changed very little throughout the course of the crisis, and what upon first glance might appear as intransigent or irrational behavior actually appears to be

far more rational and steadfast when the content of US-DPRK negotiations are examined. North Korea's position on IAEA inspections, however disagreeable, were nonetheless consistent over time, and most of the disputes over inspections involved either changes to the IAEA's demands or inconsistencies between US and IAEA positions, rather than North Korean waffling. Similarly, disputes between the DPRK and the ROK were as much the result of ROK intransigence as they were of DPRK maneuvering. Most importantly, the North's willingness to undertake a reversible freeze of its plutonium production in return for security guarantees and economic inducements, as well as the promise of future improvements to US-DPRK relations, was clear from early on. It was the US position that was forced to bend in order to make the Agreed Framework possible.

Process-tracing evidence was even scarcer for this case than in the two other historical cases studied. The closed and insular nature of the Pyongyang government has made direct evidence on the regime's nuclear decisions impossible to obtain. This does not mean, however, that Pyongyang's domestic politics constitutes an impenetrable "black box." As in the other two cases, there is a wealth of scholarship on domestic politics in the country, and the secondary-source material on North Korean politics is used here to create a picture of the factional political fights that took place in Pyongyang in the early 1990s. The most compelling evidence in this regard is drawn from American scholars and journalists who had numerous encounters with members of the North Korean elites, as well as former Soviet diplomats who lived in the country, or otherwise had direct experience with its leadership. While this picture is necessarily incomplete, and offers little detailed evidence on the nuclear decision-making process, it does provide a convincing portrait of the factional interests in the country, the leadership structure, the identities of key political actors, and the domestic political interests that were at stake throughout the crisis. Most importantly, the domestic political evidence parallels the external behavior of North Korea during these years.

Finally, the evidence presented in the North Korean case study challenges the common wisdom that China played an important role in bringing North Korea to the bargaining table and pressuring the country to agree to a nuclear freeze. In fact, there is no evidence to substantiate this claim, and circumstantial evidence that contradicts it. China's position on UN economic sanctions, as well as US military threats, was unchanging, and there was no indication by summer 1994 that the Chinese were willing to sign on to any meaningful sanctions package. Furthermore, there is no available evidence indicating that the Chinese put substantial pressure on the North Koreans behind the scenes. In fact, the available evidence suggests that on the occasions when Beijing did seek to pressure Pyongyang even mildly, the DPRK successfully pushed back. Most importantly, however, is the fact that the North Korean policy stance did not appreciably change.

While much more direct evidence will be needed to understand any of the details of DPRK-Chinese relations during this period, whatever did transpire between the two states, it did not bring about a substantial change in the North Korean bargaining position. All evidence suggests that threats had no positive effect in this case, and were unnecessary to achieve the ultimate settlement. Positive inducements were sufficient.

II. Case History

Of the three states that initiated nuclear weapons programs that are discussed in this dissertation, the DPRK had the strongest incentives to do so. The DPRK was also the only one of the three that succeeded: the North Koreans tested nuclear bombs in 2006 and 2009. Throughout its entire existence as a state, North Korea has experienced profound strategic insecurity. The DPRK and the ROK hold rival claims to be the legitimate government of the entire peninsula. The ROK has had a large contingent of US forces stationed on its soil since the Korean War, which, from the 1950s until 1991, included American nuclear forces. Although the DPRK enjoyed both economic and military superiority over the ROK for decades after the Korean War, after 1980 it became increasingly apparent that the balance of power was shifting in the South's favor. By the 1990s, South Korea had greatly surpassed the North – particularly in the economic realm – and it had become evident that this gap would only widen over the foreseeable future. After the end of the Cold War, and the collapse of the Soviet Union, Pyongyang was left increasingly isolated and economically weakened. Moreover, most observers believed the Kim Il-sung regime's days were numbered. The DPRK was a lonely and impoverished holdover from the Cold War, its economic prognosis was grim, and it was increasingly overshadowed by a wealthy and democratic ROK that enjoyed greater legitimacy and close integration into the international system. Even China, North Korea's closest ally, eventually recognized the ROK and engaged in significant trade with Seoul. The development of nuclear weapons, therefore, appeared to be the only way available to not only secure the regime, but to make the DPRK relevant on the international stage and force the American superpower to deal with it.

The North Koreans also had experience with nuclear diplomacy. Both the Truman and Eisenhower administrations made thinly veiled nuclear threats during the Korean War. The United States deployed nuclear weapons on the peninsula from 1958-1991 and made it clear they were prepared to use them against the North, even in the case of a purely conventional attack.²¹⁸

²¹⁸ For an overview of US nuclear weapons policies in Korea, see Harrison, 2002, pp.197-200. The United States sought to address what it perceived as North Korean conventional military dominance on the peninsula with its nuclear deterrent. The Americans consistently threatened to respond to respond to a

As late as the 1993, the US conducted exercises in the theater that included nuclear-capable B-1B strategic bombers.²¹⁹ Finally, the North Koreans were faced with South Korea's own vast civilian nuclear complex.²²⁰ The South also had had its own nuclear weapons program in the 1970s, which was successfully terminated as the result of American diplomacy.²²¹ Given this history, it is not surprising that Pyongyang would harbor nuclear ambitions throughout its history, and would turn greatly intensify its nuclear efforts as the conventional military balance shifted in the South's favor.²²²

The country's nuclear efforts began in the 1950s, when North Korea began to send students to the Soviet Union to study nuclear engineering and signed an agreement for civilian nuclear cooperation with the USSR. The Soviets also supplied the North Koreans with an IRT-2M nuclear research reactor in the 1960s, which was constructed at the Yongbyon Nuclear Research Center. The center - near Yongbyon, North Pyongan province, approximately 60 miles north of Pyongyang - would become the central site of the DPRK's nuclear weapons effort. This small research reactor became operational in 1967.²²³ Under Soviet pressure, Pyongyang joined the IAEA in 1974 and agreed to put the research reactor under IAEA safeguards in 1977.²²⁴

North Korean conventional attack with nuclear weapons. US nuclear doctrine also made it clear that North Korea, even though it was a non-nuclear adversary, would not be included in the American pledge not to attack non-nuclear states with nuclear forces. As a result, for more than three decades, the DPRK took active steps to defend its forces from nuclear attack. Strategic considerations, however, were not the only explanation for US nuclear deployment in Korea. These weapons were also a way of reassuring Seoul of the American defense commitment, especially the American nuclear umbrella. As discussed in detail in Chapter 5 of this dissertation (which covers the ROK's own nuclear weapons program in the 1970s), the Americans had entertained withdrawing their nuclear forces from Korea in the 1970s, but came to the conclusion that this would be destabilizing, and would create incentives for the South Koreans to pursue weapons of their own. In fact, the Ford administration issued rather stark nuclear threats in 1975 as a way to signal the American commitment to Seoul at a time when US security assurances were increasingly doubted.

²¹⁹ Mansourov, 1997, pp.232-3.

²²⁰ Chapter 5 of this dissertation provides an analysis of South Korea's nuclear weapons program. Also see Ha, 1983; as well as the IAEA's 2004 profile of the ROK's nuclear infrastructure, available online at www-pub.iaea.org/MTCD/publications/PDF/cnpp2004/CNPP_Webpage/countryprofiles/Korea/Korea2004.htm. Last updated December 2004. Web. The ROK had 9 industrial-scale civilian nuclear reactors operational before 1990. For a country that produced none of its electricity from nuclear reactors in 1975 and only 869,000 tons of oil equivalent (toe) in 1980, it was producing, by 1995, almost 17 million toe from nuclear reactors, or about 14% of the total.

²²¹ See Chapter 5.

²²² This is not to argue that the balance-of-power or US and ROK nuclear activities determined the DPRK's nuclear decisions, only to suggest that it is likely these factors contributed to them, and that addressing these issues would be important to rolling back the DPRK's nuclear weapons program. See Chapter 1 for a more thorough discussion on the factors that shape states' nuclear weapons decisions.

²²³ "North Korea Special Weapons Guide: Nuclear Weapons Program," *GlobalSecurity.org*. www.globalsecurity.org/wmd/world/dprk/nuke.htm. Last updated April 2008. Web. Also "North Korea Profile: Nuclear Facilities: IRT-2000 Nuclear Research Reactor." Nuclear Threat Initiative. www.nti.org/e_research/profiles/NK/45_552.html. Last updated May 2003. Web. Also see Mansourov, 1995; CIA, 1986; Albright, 1993. Pyongyang and Moscow signed an agreement in 1956 that brought

A rapid expansion of the Yongbyon complex began in 1979, when ground was first cleared for an indigenously constructed reactor. Construction of the new reactor - a magnox-type, gas-graphite moderated 5MWe reactor, presumably built without significant foreign assistance - began in 1980, and it went into full operation in 1987.²²⁵ The United States first became aware of North Korea's renewed nuclear efforts at Yongbyon when a reconnaissance satellite revealed the construction of the 5MWe reactor in 1982. Two other gas-graphite reactors – a 50MWe unit at Yongbyon and a 200MWe at Taechon – began construction in 1984.²²⁶ In 1986, the US detected evidence suggesting that the North Koreans were pursuing a nuclear weapons program. Satellite photographs showed craters near Yongbyon that US intelligence interpreted as signs of test blasts with explosives designed to compress the plutonium core of an atomic bomb. By 1989, the Americans had noted the construction of Yongbyon's reprocessing facility. While the reactor

North Korean students to the USSR's Dubna Nuclear Research Complex to study nuclear physics and engineering. As many as 150 North Korean students were trained there by 1986. The DPRK and the USSR signed another nuclear assistance agreement in 1959 that provided for technology transfers. The Soviets began construction of the Yongbyon 2MWt research reactor in 1962 (it became operational in 1967). The Soviets also delivered a 0.1MWt critical assembly. The North Koreans had expanded the reactor's capacity to 8MWt by 1987. The Soviets supplied the enriched-uranium reactor fuel. The IRT-2M is a light water reactor design that originally burned 10% enriched uranium fuel but required 36% enriched uranium after the 1987 expansion in capacity. Although the evidence is far from conclusive, it appears the North Koreans may have asked the Soviets for help developing nuclear weapons in the early 1960s, but were refused (Harrison, 2002, p.198). Moscow did provide Pyongyang with Scud missiles at this time, however. These missiles would be the basis of North Korea's missile developments over the coming decades. In 1992, the DPRK revealed in their IAEA declaration that they had separated a small amount of plutonium from spent fuel from the IRT-2M reactor in hot cells in 1975.

²²⁴ Drennan, 2003, p.164; Mazarr, 1995, p.25. By joining the IAEA, the North Koreans began to receive technical assistance from Vienna for its nuclear program, including assistance with uranium mining. The research reactor and a Soviet-supplied critical assembly were placed under IAEA INFCIRC/66 (non-NPT) safeguards.

²²⁵ Albright, 1993, p.16; Venter, 2007, p.195; Bellany, 2006, p.193; Cumings, 1999, p.135. The 5MWe (30MWt) reactor at Yongbyon is a gas-cooled, graphite-moderated Calder Hall style reactor that runs on magnox-type natural uranium fuel. The design is simple and is not dependent upon heavy water, enriched uranium, or other materials that would be hard to obtain or would have to be imported. North Korea possessed an indigenous uranium-mining capability and the country is well endowed with the metal. North Korea consistently maintained that the reactor design was chosen because it burns natural uranium – which the North had in abundance, obviating any need to import reactor fuel - and was simple enough for the country to build without outside assistance. It is true that the design made the construction of a reactor using indigenous resources a possibility, and that the reactor could be run without imported fuel. But this design also produces a great deal more plutonium than other reactor designs, and is therefore well suited for a weapons program. The fact that it was a small reactor run at full output – which would be unnecessary if it were only a prototype plant – and that it was unconnected to the electrical grid, both indicate that the DPRK's intentions were not benign. The later construction of a massive reprocessing facility seems to confirm this suspicion.

²²⁶ Niksch, 2003; Hecker, 2010; Albright and Brannan, 2006; Mansourov, 1995. These two reactors were never completed. Construction on both was frozen by the 1994 Agreed Framework. If completed, they would have vastly increased the amount of plutonium the country would have been able to produce. They also offer an explanation of why the North Koreans would build such a large reprocessing facility at Yongbyon. If these facilities were all online, the North Koreans would have been able to produce as many as 40 nuclear weapons a year.

could be explained as having a civilian purpose, the reprocessing plant was more difficult to explain. North Korea had rich reserves of uranium, and therefore had little need to reprocess plutonium for anything other than weapons. The test blasts had no civilian purpose – they could only be explained by a nuclear weapons program.²²⁷

In 1985, under pressure from the Soviet Union – who in turn were responding to urging from the Americans – the DPRK signed the Nuclear Nonproliferation Treaty. This was done in response to a Soviet offer of four light water nuclear reactors (that would in fact never be delivered) conditional upon the North's accession to the treaty.²²⁸ However, after signing the NPT, the North Koreans engaged in foot-dragging over the required IAEA safeguards agreement and the scheduling of IAEA inspections. It would not be until 1992 that the North Koreans would finally agree to an inspections regime.²²⁹

It is unclear when Kim Il-sung actually made the decision to develop nuclear weapons. What is clear, though, is that the first steps necessary to make a bomb were taken in 1989. With no inspections yet taking place at the facility, the North Koreans shut down the 5MWe reactor for

²²⁷ Oberdorfer, 2001, p.250; CIA, 1982; CIA, 1986; Mazarr, 1995, pp.44-5; Cirincione *et al.*, 2005, pp.284-7; Albright and Higgins, "Looking Back," 2000. The reprocessing facility at Yongbyon was the second largest in the world after the US PUREX facility at the Hanford Site in Washington State. At 180m in length, it was massive – far larger than would be necessary to reprocess all of the plutonium produced by the 5MWe reactor (when discovered, the Americans did not know of Pyongyang's plans for more and larger reactors). The facility (the North Koreans referred to it as a "radiochemistry laboratory") was begun in 1987. US intelligence likely detected the construction of the facility in 1988. Before IAEA inspections in 1992 confirmed that the structure was a reprocessing facility, many believed that the building served some other, possibly benign purpose. Also suspicious was the construction of such a large facility without first building a small pilot plant. This has led some to suspect that there is a pilot plant – undiscovered – elsewhere in the country, and that plutonium could have been processed there, giving the North Koreans a significantly larger stockpile of weapons than is currently believed. There is, however, no evidence to support this conjecture.

²²⁸ Mazarr, 1995, p.41; Oberdorfer, 2001, p.254. The Soviets took little persuading from the Americans – they had little interest in a nuclear-armed North Korea. The Soviet offer was to provide four 440MWe light water reactors in exchange for accession to the NPT. The USSR believed that the supply of these reactors, which produced much less plutonium than the gas-graphite model, would provide Moscow with added leverage over Pyongyang, as the North Koreans could not fabricate the enriched-uranium fuel for the reactors and would have to rely on the Soviets to provide it. The Soviet LWRs were also far more sophisticated than the DPRK's existing reactors – too sophisticated for the North Koreans to maintain or repair without Soviet assistance. NPT would, of course, presumably put all of North Korea's nuclear facilities under IAEA safeguards.

²²⁹ Mazarr, 1995, p.41. North Korea was able to successfully stall for years on IAEA safeguards in part because the IAEA initially sent Pyongyang the wrong forms. After Kang Song-san signed the NPT in December 1985, the IAEA sent North Korea a Type 66 agreement, which is for independent sites, instead of a Type 153, which is for general inspections as mandated under the NPT. The IAEA was unaware of the mistake until the 18 month grace period was up in June 1987 and the North Koreans had not submitted a full declaration. The correct form was then given, which led to another 18 month grace period. When this ended in December 1988, the Koreans still had not submitted a declaration. This incredible episode shows the relatively low priority given to North Korea's nascent nuclear program in Vienna prior to the Gulf War and revelations about Saddam Hussein's nuclear program.

roughly 3 months in 1989 and likely reprocessed plutonium from fuel rods that were extracted. American reconnaissance noticed this shutdown, and US intelligence analysts suspected that the reactor was being refueled, and that plutonium would be reprocessed from the extracted spent fuel. Many analysts concluded that the North Koreans could have reprocessed enough plutonium from this event to make a bomb.²³⁰

Pyongyang's strategic environment had becoming increasingly insecure during this period, as the USSR and China reoriented their foreign policies toward the West and at the same time distanced themselves from North Korea, reducing subsidies and calling their nuclear defense of the country into question. Both the Soviets and the Chinese increased diplomatic and economic ties with South Korea during this period, reflecting the South's growing economic influence in the region, a further source of insecurity for Pyongyang.²³¹ At the same time, the Soviet Union's economic problems called the reactor deal (in return for which the North signed the NPT in the first place) into question, as the Soviets began to demand hard currency in return for their delivery, something Pyongyang was unwilling to provide.²³²

Alarmed by its discoveries about North Korea's nuclear activities and Pyongyang's stalling over IAEA inspections, the United States adopted a policy of engagement in an effort to provide incentives for the North Koreans to comply with their NPT obligations. The Bush administration withdrew US nuclear forces from Korea in 1991 and suspended the 1992 Team Spirit joint US-ROK military exercises, thereby conceding two of North Korea's central demands for nuclear compliance.²³³ The US also agreed to one-off high-level talks, which were held in

²³⁰ Albright and Brannan, 2006; Mansourov, 1995; Mansourov, 1997; Norris and Kristensen, 2005; Harrison, 2002. Estimates differ about how much plutonium was reprocessed from this event, however, the results of IAEA inspections in 1992 strongly suggest that reprocessing did take place. The amount of weapons-grade plutonium that was produced depends upon how much fuel was removed from the reactor, and how efficiently plutonium could be reprocessed from the spent fuel. The amount of fuel removed depends, in turn, upon how long the reactor was shut down. Estimates vary from 70 days to 110 days. Albright and Brannan suggest that a 20% loss of plutonium yield would be typical for a country with North Korea's level of technical proficiency. All things considered, a reasonable upper bound for the amount of plutonium produced is about 10 kg (Albright and Brannan put it at 8-9 kg; estimates from the CIA, DIA, and State Department differ but are close to this range; Japan adopted a much higher estimate). This would be enough to make 1-2 weapons at the most, and possibly not even one weapon, depending on how efficiently the North Koreans could make a bomb.

²³¹ Oberdorfer details many of the changes that take place during the late 1980s and early 1990s in Soviet-Korean and Chinese-Korean relations; Oberdorfer, 2001, pp.197-248. Also see Sigal, 1998, pp.22-3. Seoul hosted the Olympics in 1988. The USSR normalized relations with the ROK in 1990, and China did so in 1992.

²³² Mazarr, 1995, p.41.

²³³ *Ibid.*, pp.53-68; Sanger, November 22, 1991; Sterngold, November 27, 1991; Reiss, 1995, pp.237-8; Sigal, 1998, pp.25-38. The Reagan administration began the process of engagement in 1988 when low-level diplomatic contacts were initiated with the DPRK in Beijing. An interagency review under the Bush administration in 1990 set US policy on an engagement strategy, with the removal of tactical nuclear forces from Korea as a central element. The Bush administration withdrew all ground-launched tactical nuclear

New York in January 1992.²³⁴ At the same time, the ROK and the DPRK signed two landmark agreements in December 1991: a non-aggression pact, and a denuclearization agreement. The latter, the Joint Denuclearization Declaration (JDD), went well beyond the terms of the NPT, pledging both sides to not only forgo nuclear weapons but plutonium reprocessing and uranium enrichment as well. The treaty contained no verification mechanism, but in March 1992 the two states established the Joint Nuclear Control Commission (JNCC) to implement the treaty and arrange inspections. Inspections, however, would never take place.²³⁵

In return for the American and ROK inducements, North Korea signed its IAEA Nuclear Safeguards Agreement in January 1992 and ratified it the following April.²³⁶ In May, Pyongyang submitted a 150-page declaration to Vienna on its nuclear sites and past activities. In the declaration, the North Koreans identified the 5MWe reactor at Yongbyon and the two larger reactors under construction, as well as the reprocessing facility (which it described as a “radiochemistry laboratory”). Most surprising was the DPRK’s admission that they had reprocessed plutonium from broken fuel rods that had been removed during the 1989 shutdown. They claimed, however, that the amount of plutonium produced was trivial.²³⁷

weapons worldwide with the USSR in mind, hoping that the Soviets would respond in kind. This was expanded to include all nuclear weapons in the Korean theater. The South Koreans announced that there were no nuclear weapons on its territory in December 1991. The US and the ROK also offered to suspend the 1992 Team Spirit exercises if the DPRK agreed to IAEA safeguards. The US provided assurances to the North Koreans that once IAEA inspections took place, the two states could embark on a process of repaired diplomatic ties and normalization of relations.

²³⁴ Mazarr, 1995, pp.69-73; Wit *et al.*, 2004, pp.11-3. The chief participants were Kim Yong-sun, the North Korean Workers Party (KWP) Director of International Affairs and a leading proponent of reform, and Arnold Kanter, US Undersecretary of State for Political Affairs and the third ranking official in the Bush State Department. This was the highest-level diplomatic contact between the United States and North Korea in almost 40 years. The talks, held at the US’s mission to the United Nations in New York, were a heavily scripted affair. There was no negotiation – the United States laid out what steps North Korea could take to improve its relationship with the United States, and the North Koreans could take it or leave it. There would be no future talks – this was a one-off affair.

²³⁵ Oberdorfer, 2001, pp.260-5; *New York Times*, January 1, 1992; Sanger, December 13, 1991. The two Koreas signed the Agreement on Reconciliation, Nonaggression, and Exchanges and Cooperation Between the South and North on December 13, 1991, which pledged the two sides to the nonuse of force as well as steps to increase ties between the two countries. On December 31st, the two signed the Joint Declaration of South and North Korea on the Denuclearization of the Korean Peninsula. It did not seem to bother the North Koreans that they were pledging themselves to forgo reprocessing just as they were constructing the world’s second-largest reprocessing facility. The text of the treaty is available online at www.nti.org/e_research/official_docs/inventory/pdfs/aptkoreanuc.pdf.

²³⁶ Sanger, April 10, 1992; Oberdorfer, 2001, p267-8.

²³⁷ Sanger, May 7, 1992; Sigal, 1998, p.39. The declaration confirmed the US suspicion that the large building visible in satellite photography was indeed a reprocessing plant. The North Korean claim, however, that this enormous structure was simply a laboratory for reprocessing research-scale amounts of plutonium was disingenuous. The North Koreans reported that they had reprocessed only 90 grams of plutonium in 1990 from broken fuel rods that were extracted from the 5MWe reactor in 1989. This claim would be contradicted by evidence uncovered in physical inspections in the coming months.

Between May 1992 and February 1993, IAEA inspectors conducted a series of six inspections of the nuclear facilities at Yongbyon. A crisis began, however, when these inspections uncovered discrepancies with the DPRK's declaration. Tests done at the Yongbyon reprocessing facility indicated that the North Koreans had reprocessed plutonium on at least three occasions, not the one time in 1990 as they had claimed. This finding strengthened the belief among many Western analysts that the North had already produced enough plutonium for a bomb.²³⁸

In response to these discrepancies, the IAEA redoubled its efforts to uncover the full extent of North Korea's past nuclear activities.²³⁹ The IAEA sought additional inspections, including "special inspections" – a rarely used provision in the safeguards agreement that would allow inspectors to conduct tests at undeclared sites. In particular, the inspectors pushed for access to two hidden waste storage facilities, which could reveal additional information about past reprocessing activities.²⁴⁰ Meanwhile, to apply pressure on Pyongyang to comply with the IAEA – and also to agree to North-South bilateral inspections under the JNCC - the United States

²³⁸ Smith, April 27, 1993; Oberdorfer, pp.268-71; Albright, 1993; Albright, 1994; Albright and Higgins, "Looking Back," 2000. The North Koreans had previously claimed in a declaration to the IAEA that they had separated roughly 90 grams of plutonium using an experimental procedure in 1990 (a trivial amount compared to what would be necessary to make a bomb), and provided IAEA inspectors with a sample from the batch. Inspectors also asked for – and received – a sample of nuclear waste the North Koreans claimed was produced during that single reprocessing procedure. Inspectors also took samples from within the Yongbyon reprocessing facility. Tests done by the IAEA and at outside laboratories, including the US Air Force Technology Applications Center in Florida and McClellan Central Laboratory in California, suggested, however, that at least three different plutonium separations had been done - in 1989, 1990, and 1991 – not just once in March 1990 as the North Koreans had claimed. It is not clear why North Korea would give a false version of events in its declaration, only then to submit to inspections that would contradict it. One possible and straightforward explanation is that the North Koreans simply underestimated the technical prowess of the IAEA inspectors.

²³⁹ Oberdorfer, 2001, pp.267-8. The IAEA adopted a tough stance on the Yongbyon inspections in no small part because it had been badly burned by revelations after the Gulf War about the Iraqi nuclear program, and saw its reputation at stake in the North Korean case.

²⁴⁰ Mazarr, 1995, pp.94-9; Albright, 1993; Sigal, 1998, pp.38-51. The two waste storage facilities were detected by US satellite surveillance. One was an underground facility whose design resembled a nuclear-waste storage site for a Soviet experimental reactor. The second was the first floor of a structure referred to as "Building 500," and it was connected to the reprocessing facility by underground pipes in late 1991, apparently with the goal of transferring reprocessing waste to the site. The North Koreans tried to hide both facilities – the first was buried and the area landscaped. For the other, dirt was piled up to the second floor, converting the first floor into a basement. US satellite intelligence was used to devastating effect in February 1993 at the IAEA to demonstrate the DPRK's dissembling. The IAEA first began to seek access to the sites in the fall of 1992, but were refused. In February 1993, the IAEA demanded "special inspections" at the two sites. This was a rarely used provision of the Nuclear Safeguards agreement – it had only been invoked twice in the past – that would have allowed greater access at the waste sites. A deadline was set for late March, but the DPRK announced its withdrawal from the NPT two weeks before the deadline arrived.

and South Korea threatened in October 1992 to restart Team Spirit exercises in 1993 unless the DPRK agreed to allow special inspections of the two waste storage facilities.²⁴¹

North Korea refused to allow special inspections at the two suspected waste sites. The DPRK then escalated the dispute by announcing its withdrawal from the NPT on March 12, 1993 – four days after Team Spirit 1993 began. There was, however, a 90-day delay after the announcement before the withdrawal could go into effect, providing a small window of time to negotiate.²⁴² The United States at first responded to the DPRK's withdrawal announcement by pursuing multilateral economic sanctions through the UN Security Council. However, resistance from China and even US allies – including the ROK and Japan, who were unconvinced that diplomacy had been exhausted – forced the Clinton administration reluctantly to the negotiating table.²⁴³

The US agreed to hold high-level talks, which began in New York on 2 June 1993, only 10 days before North Korea's withdrawal from the NPT was scheduled to take effect. These were the first in a series of talks at which the United States was represented by Robert Gallucci and the North Koreans by Kang Sok-ju. At the June talks, the US agreed only to a joint statement (the first ever between the US and the DPRK) in which the two sides pledged non-aggression. This was, however, sufficient for the North Koreans to agree to “suspend” their withdrawal from the NPT – as step they later claimed left them in a unique position in which they were neither outside of the treaty nor subject to all of its provisions.²⁴⁴

At a second round of Gallucci-Kang talks in Geneva in July 1993, the North Koreans formally introduced a proposal for an exchange: the DPRK would give up its indigenous nuclear program in return for light water reactors supplied by the United States and its allies. Light water

²⁴¹ Oberdorfer, 2001, pp.272-3; Mazarr, 1995, pp.90-4; Sigal, 1998, pp.38-51.

²⁴² Mazarr, 1995, pp.102-7; Oberdorfer, 2001, pp.278-80. Citing the IAEA demand for “special inspections” and the resumption of Team Spirit, Pyongyang announced its withdrawal from the NPT on March 12, 1993. The North Koreans were particularly incensed by the resumption of the Team Spirit exercises, which it saw as a betrayal by the Americans. Under the terms of the treaty, withdrawal would not take effect for three months after North Korea's declaration of intent.

²⁴³ Mazarr, 1995, pp.112-7; Sigal, 1998, pp.55-9. The IAEA declared North Korea to be in violation of its commitments under the NPT and formally referred the matter to the UN Security Council on April 1, 1993. The United States, while moderating its rhetoric and treading carefully on the matter, launched a diplomatic blitz to gain international support for sanctions. China, South Korea, and Japan all voiced their preference for diplomacy before resorting to coercive measures. China did seek to put mild pressure on the North Koreans, but that effort failed. For their part, the North Koreans offered to allow inspections that would verify that no plutonium was diverted, but the IAEA refused the offer and insisted on special inspections. The IAEA did conduct “continuity of safeguards” inspections in May 1993. (Wit *et al.*, 2004, p.44).

²⁴⁴ Wit *et al.*, 2004, pp.51-63; Oberdorfer, 2001, pp.283-7. The United States simply agreed to terms that were already contained in the UN Charter, and pledged not to threaten the DRPK with military force, including nuclear weapons. The statement left open the issue of special inspections, which the North Koreans did not agree to, but would not completely rule out. The entire six-paragraph text of the statement can be found in Sigal, 1998, p.260.

reactors would pose a lower proliferation risk: they would produce less plutonium, would be under IAEA safeguards, and the North Koreans would be dependent upon the United States for the enriched uranium that fueled them. They would also produce far more power than the DPRK's gas-graphite models could. The Americans, taken by surprise by the offer, did not believe it would be politically possible to arrange such an exchange, but agreed to "support" such a plan, and to "explore" ways for a third party to provide replacement LWRs. The US also agreed to a third round of high-level talks in September under the condition that the North Koreans begin "serious discussions" with the IAEA over inspections, as well as with the South Koreans over implementation of bilateral inspections under the JNCC.²⁴⁵ In the meantime, the United States continued to hold up the threat of UN economic sanctions in order to pressure the DPRK into agreeing to inspections.²⁴⁶

The remainder of 1993, however, saw no progress with either IAEA inspections or North-South bilateral inspections. Where the Clinton administration had been willing to compromise on the issue, Seoul and Vienna were not.²⁴⁷ The North Koreans would agree only to inspections that would verify the plutonium freeze (*i.e.*, the "continuity of safeguards"), while the IAEA continued to insist on full compliance with the NPT.²⁴⁸ Inspections in August 1993 were limited to changing film and batteries for monitoring equipment and similar maintenance activities.²⁴⁹ Talks between the DPRK and the IAEA in September failed to resolve the

²⁴⁵ Sigal, 1998, pp.67-70; Mazarr, 1995, pp.126-7; Wit *et al.*, 2004, pp.69-75; Stevenson, July 20, 1993. The July meetings were held in the North Korean Mission in Geneva, marking the first time that US-DPRK talks were held with the Koreans as hosts. An LWR deal had been proposed on at least three earlier occasions, including through the Beijing diplomatic channels between the US and the DPRK, but it had never been taken seriously in Washington. Light water reactor designs were far more sophisticated than North Korea's gas-graphite reactors, and the DPRK would depend on the US for equipment and maintenance of the reactor, in addition to the enriched fuel, giving the Americans significant added leverage. The US representatives at the talks anticipated that it would be politically impossible to Washington to supply replacement reactors itself, but thought it might be possible to arrange for a third country to supply them.

²⁴⁶ Mazarr, 1995, pp.127-8; Sanger, September 27, 1993; Sanger, October 15, 1993.

²⁴⁷ Making US diplomacy dependent on the IAEA and the ROK by linking all of these issues turned out to be a nightmare for the United States, and inevitably ended in failure. Differences in the interests of the three actors were simply too large. Also, while the Clinton administration sought to apply pressure to both Vienna and Seoul, it had limited success in doing so. Wit, Poneman, and Gallucci provide a detailed narrative of the diplomacy of fall 1993 and the failure of the US to coordinate its policies with the IAEA and the ROK in Wit *et al.*, 2004, pp.78-117. They describe two camps in Vienna – "safeguards hawks" and a more pragmatic faction that was willing to more greatly accommodate US diplomacy. The safeguards hawks had the upper hand.

²⁴⁸ Mazarr, 1995, pp.126-8.

²⁴⁹ Wit *et al.*, 2004, p.81. The inspectors also discovered a suspicious broken seal at the reprocessing plant, which was still under construction. The North Koreans originally insisted only on changing batteries and film, but relented. The IAEA still insisted on special inspections and called the August inspections "insufficient." These would be the last IAEA inspections of 1993.

impasse.²⁵⁰ As a result, the United States canceled the third round of talks scheduled for that month.²⁵¹

The United States again held out the threat of negative sanctions if the North Koreans failed to demonstrate progress on the inspections issue and with North-South bilateral talks. As the IAEA inched closer toward declaring safeguards broken, the US made it clear that such a move would result in UN economic sanctions.²⁵² The US and the ROK also planned to go forward with 1994 Team Spirit if the deadlock were not resolved.²⁵³

At this same time, however, the United States was pursuing a more conciliatory approach through lower-level and back-door diplomatic channels. US and DPRK diplomats in New York, in a series of more than 20 informal meetings, worked to hash out a resolution both to the immediate impasse over inspections, as well as the long-term question of the North Korean nuclear program. The idea was to lay out a series of incremental steps that would first address near-term concerns such as inspections and North-South bilateral talks (the “small package”), before holding high-level talks to address larger issues (the “big package”).²⁵⁴ By the end of

²⁵⁰ *Ibid.*, pp.81-4.

²⁵¹ Mazarr, 1995, p.127.

²⁵² Reiss, 1995, p.297; Wit *et al.*, 2004, p.100; Sigal, 1998, p.84. The United States continued to discuss sanctions with the permanent UN Security Council members, including China, and issued thinly veiled references to sanction in the press. The Clinton administration also held out the possibility of the IAEA declaring safeguards broken – which would lead to referral of the matter to the UNSC – and hinted in back-channel talks that such a declaration was imminent. At the same time, however, the US worked to prevent the IAEA from taking such a step. The IAEA continued to up the ante over the course of the fall and winter as inspections were not held and cameras began to wind down. On November 1, 1993, Hans Blix declared the continuity of safeguards “damaged” but stopped short of saying they were broken (Sigal, 1998, p.73). In early December, Blix reported that safeguards “could not be said at present to provide any meaningful assurances of the peaceful use of the DPRK’s declared nuclear installations and facilities.” (Wit *et al.*, 2004, p.115). But the agency did not yet declare safeguards “broken,” allowing room for negotiations.

²⁵³ Oberdorfer, 2001, p.296.

²⁵⁴ Weiner, October 27, 1993; Friedman, November 24, 1993; Sanger, November 22, 1993; Sigal, 1998, pp.77-84; Wit *et al.*, 2004, pp.92-7, 98-9; Oberdorfer, 2001, pp.293-6, 301. The Americans began to consider such an approach as early as September 1993, when Robert Gallucci visited Seoul. There, the South Korean foreign minister and deputy prime minister floated the idea of a more comprehensive deal with Pyongyang. The plan was to offer the North Koreans a path to normalized relations. If a resolution to the outstanding inspections issues could be hammered out, a subsequent round of high-level talks would be held to negotiate deeper concessions including normalization and trade. In October 1993, the North Koreans communicated their counteroffer to the package deal. Handed to the US State Department’s Kenneth Quinones in Pyongyang in the form of a handwritten note when he was there accompanying a visit by US Congressman Gary Ackerman to the DPRK capital, the offer consisted of a “small package” in which the North Koreans would allow IAEA inspections (but not special inspections at the two waste sites), in return for which the Americans would cancel Team Spirit and set a date for a third round of talks. A subsequent “big package” would entail full NPT compliance (including, apparently, special inspections) as well as full implementation of the JDD, in return for LWRs, a peace agreement, and normalized relations. The proposal was not embraced in Washington, however – not least because the Pentagon and the National Security Council opposed trading away Team Spirit as an up-front concession. The US and the ROK were also not prepared to make any concessions up front, and demanded that the North Koreans fulfill their

1993, US and DPRK negotiators had agreed on a “small package” exchange: in return for the cancelation of Team Spirit and a third-round of Gallucci-Kang talks, the North Koreans would allow IAEA inspections at its seven declared nuclear sites sufficient to preserve the continuity of safeguards. The North would also initiate North-South talks in preparation for an exchange of envoys.²⁵⁵ This agreement, however, would soon come undone as well - in January the DPRK and the IAEA failed to agree on an acceptable list of inspections activities.²⁵⁶ In anticipation of the IAEA referring the matter to the UN Security Council, the United States began to set the diplomatic groundwork for organizing economic sanctions. Defensive military measures on the Korean peninsula – including the deployment of Patriot antimissile batteries - were also considered should the North Koreans follow through on their threats to treat the implementation of sanctions as an act of war.²⁵⁷

The brokering of the “Super Tuesday” agreement in late February brought a pause in tensions and a brief period of optimism, as both sides agreed to a written schedule of mutual concessions: the North Koreans would allow inspections sufficient to verify the continuity of safeguards at all seven declared sites (but no special inspections) and would conduct low-level talks with the South, in return for which Team Spirit would be canceled and a third round of high-level US-DPRK talks would begin on March 21st.²⁵⁸ Hopes of a breakthrough were soon dashed,

commitments under both the NPT and the JDD before negotiations could progress. The DPRK went public with their proposal on November 11th. Days later, the administration responded by leaking terms of their own package deal. US officials would not commit to any exchanges, however, on the record, and continued to demand preconditions be met before any further negotiations took place. The issue was also discussed in low-level talks between the US and the DPRK that took place in New York, mostly in basement conference rooms at the UN Headquarters. Thomas Hubbard, Gary Samore, and Kenneth Quinones represented the United States, while the second- and third-ranking DPRK delegates to the UN represented North Korea.

²⁵⁵ Gordon, December 31, 1993; Sanger, January 9, 1993; Sigal, 1998, pp.96-9. The deal was struck by telephone on December 29, 1993. As Thomas Hubbard stated it, the North Koreans needed to “accept the technical requirements for maintaining the continuity of safeguards, not the agency’s legal requirements.” (quoted in Sigal, p.98). Michael Mazarr points out that this was essentially what the DPRK had been demanding all along – and what the IAEA had consistently refused to accept (Mazarr, 1995, pp.144-5).

²⁵⁶ Sanger, January 21, 1994.

²⁵⁷ Gordon and Sanger, February 6, 1994; Sanger, February 3, 1994; Sanger, January 30, 1994; Gordon, January 26, 1994; Wit *et al.*, 2004, pp.121-30; Oberdorfer, 2001, pp.294-5, 300-1; Mazarr, 1995, pp.146-7. In late January, the decision to deploy Patriots was leaked to the *New York Times*. The North Koreans threatened to withdraw from the NPT and to restart plutonium reprocessing. On February 1st, Defense Secretary Perry announced that the US would soon determine whether or not to pursue sanctions. The US had been hinting at sanctions for months, and had made it clear that if inspections did not resolve the issue of the continuity of safeguards, that the IAEA would refer the matter to the UNSC at their February 21st Board of Governors meeting, and that the US would pursue economic sanctions through the UNSC. US Ambassador to the UN Madeleine Albright had already been conducting briefings for the other Security Council members. On February 3rd, the North Koreans once again threatened military confrontation should sanctions be implemented. The DPRK had also begun conducting additional military activities.

²⁵⁸ Mazarr, 1995, pp.147-9; Wit *et al.*, pp.121-9, 134-8; Lewis, February 26, 1994; *New York Times*, March 4, 1994; Oberdorfer, 2001, pp.302-3; Sigal, 1998, pp.105-6. The deal was that once IAEA inspections at

however, when the North Koreans balked at a set of tests at the reprocessing facility that inspectors required to determine that no plutonium had been reprocessed since they were last there in August 1993.²⁵⁹ As a result, the IAEA declared that it could not verify the continuity of safeguards, and referred the matter to the Security Council.²⁶⁰

After the IAEA's announcement, the United States began to actively recruit support for economic sanctions through the UNSC – encountering resistance from China - and at the same continued to beef up military defenses in South Korea.²⁶¹ The North Koreans responded to both of these moves with counter-threats. On April 19th, Pyongyang informed the IAEA that it would soon defuel its reactor at Yongbyon, the first step to reprocessing more plutonium. After rebuffing IAEA demands that inspectors be allowed to perform tests on the spent fuel rods that could uncover more information about the DPRK's past nuclear activities, the North Koreans announced on May 12th that they had begun unloading fuel from the reactor.²⁶² The IAEA sent

all seven declared sites - as well as low-level talks at Panmunjom to prepare for a North-South envoy exchange - had begun, then Washington and Seoul would “simultaneous[ly]” announce the cancelation of Team Spirit and a third round of talks. According to a separate US unilateral statement, the cancelation of the exercise and the talks were both “based on the premise that the IAEA inspections will be fully implemented and the North-South nuclear dialogue will continue through the exchange of special envoys.” On March 3rd, the US clarified its position to mean that inspections had to be “successfully” carried out and the North-South envoy exchange had to take place before talks could be held and before cancelation of Team Spirit would be finalized. The text of the Super Tuesday agreement can be found in Sigal, 1998, p.105.

²⁵⁹ Wit *et al.*, 2004, pp.143-4; IAEA inspectors wanted to do tests at the reprocessing facility to determine whether or not plutonium had been present since the last time tests were taken. The tests in question, which involved taking swab samples from a “glove box” in which plutonium was handled as well as using detectors to find minute sources of gamma radiation (“gamma-mapping”), were the same tests used to uncover discrepancies in the DPRK's declaration of its past nuclear activities. On these grounds, the North Koreans refused to allow the tests. The IAEA insisted on them not least because the seals at the glove boxes in question had been broken. Inspectors also discovered that since their last visit in August, the North Koreans had made substantial progress on a second reprocessing line at the facility, which would greatly increase the rate at which they could produce weapons-grade plutonium should they break out of their freeze. Despite all this, and despite the subsequent hand-wringing in Vienna and at the UN, the inspectors believed that no plutonium had been reprocessed since they first visited the facilities in May 1992.

²⁶⁰ *Ibid.*, pp.144-9; Sigal, 1998, p.107. The DPRK also failed to agree to a date for an envoy exchange with the ROK before the March 21st date for the third round of talks. Kang Sok-ju sent Robert Gallucci a letter stating that – contrary to the Super Tuesday agreement - the envoy exchange would have to take *after* the third round, and he threatened that the DPRK would pull out of North-South talks altogether and suspend all cooperation with the IAEA if the United States did not accept those terms. Both the United States and South Korea engaged in an intense effort to negotiate their way through the impasse, but were thwarted by an inability to communicate with Pyongyang's top decision makers, and especially with Kim Il-sung himself. On March 19th, all hope of a resolution ended when the North Korean delegate at the Panmunjom talks threatened to turn Seoul into a “sea of fire” and stormed out of the meeting. On March 21st, the IAEA Board of Governors voted to refer the matter to the UNSC.

²⁶¹ Oberdorfer, 2001, p.306.

²⁶² Oberdorfer, 2001, pp.306-9; Sanger, April 22, 1994; *Reuters*, April 24, 1994; Pollack, May 1, 1994; Sanger, May 15, 1994; Sigal, 1998, pp.113-5; Albright, 1994. The 5MWe reactor at Yongbyon had been shut down on April 8th in preparation for defueling. On April 19th, the North Koreans informed the IAEA

inspectors, who arrived on May 19th, to monitor the refueling process that had begun a week earlier in the absence of safeguards. They refused, however, to back down from their demand for tests of the rods. Despite substantial pressure from the US, the North Koreans refused to yield on the matter. On June 2nd, Hans Blix reported to the UN Secretary General that the ability to determine the DPRK's past nuclear activity from the removed fuel rods was "lost." President Clinton promptly called for UN sanctions.²⁶³ The North Koreans, who had put the removed fuel rods in storage pools under IAEA safeguards, responded with further threats, and on June 13th announced their withdraw from the IAEA.²⁶⁴

In the middle of the crisis, and as the situation veered toward open conflict, former president Jimmy Carter, traveling as a private citizen but with the Clinton administration's support, left for Pyongyang in June 1994 on a mission to defuse tensions.²⁶⁵ Meeting face-to-face

by letter that they would begin to remove spent fuel rods from the reactor "at an early date." They stated that they would allow the IAEA to monitor the process to verify that no fuel was diverted for reprocessing, but they refused to allow any tests that would uncover past activities. The North Koreans claimed that with the exception of a small number of broken rods that were removed in 1989, all of the fuel rods in the reactor had been there since the facility had come online. Many in the West believed that the North Koreans had removed a far larger proportion of the original reactor fuel and reprocessed it, which would give them enough plutonium for perhaps one bomb. By performing non-destructive tests on a cross-section of the fuel rods, the IAEA would be able to determine not only whether fuel had been removed in 1989, but could make an estimate of how much. Swab and gamma-mapping tests could not reveal such information. The IAEA claimed that if they could not perform these tests, that all information on the North's past nuclear activity would be irreversibly lost. Many specialists – rightly – disagreed with this assessment, however. It appears that Vienna was motivated at least as much by a desire to assert its authority and uphold its reputation. At first, the IAEA refused to even send monitors if it could not perform tests to determine the fuel's history. As a result, the North Koreans began to remove the fuel without any monitors present. The IAEA eventually relented, and after about a week's time IAEA inspectors arrived at Yongbyon to monitor the removal of the fuel rods.

²⁶³ Gordon, June 3, 1994; Lewis, June 4, 1994; Wit *et al.*, 2004, pp.186-91; Albright, 1994. The IAEA's claim that North Korea's removal of the rods precluded tests to determine past history were not accurate. The agency's public position on the issue, though, forced the US's hand.

²⁶⁴ On June 2nd, North Korea threatened that it would withdraw from the NPT if the IAEA should declare that it could no longer get information from the removed fuel rods (which the IAEA did later that day), or if the UNSC implemented sanctions (*KBS World Radio (ROK)*, June 3, 1994). The North Koreans also warned again that sanctions would lead to war, and warned that "sanctions mean war, and there is no mercy in war." (Oberdorfer, 2001, p.311; *The Observer*, June 5, 1994). On June 7th, the DPRK delegate to the IAEA announced that his government would "never" allow inspections of the two suspected waste sites, and the North Korean atomic energy ministry (MAEI) threatened to withdraw from the IAEA and move forward with the country's nuclear program (Ottaway, June 8, 1994). The North Koreans also threatened Japan with war if it supported sanctions (Tran, June 10, 1994). The situation escalated to a critical level when the IAEA voted on June 10th to withdraw its technical assistance, and three days later the North Koreans responded by announcing their withdrawal from the IAEA (Sanger, June 14, 1994).

²⁶⁵ Watson *et al.*, June 27, 1994; Smith, June 17, 1994; Wit *et al.*, 2004, pp.185-6, 200-4. The North Koreans had issued a number of invitations to Jimmy Carter to visit the country ever since he left office in 1981. Each invitation was refused at the urging of Washington. In late May 1994, the Clinton administration had tried to communicate directly with Kim Il-sung by sending US Senators Richard Lugar and Sam Nunn to Pyongyang, however the North Koreans refused the visit. Carter, who had close ties to a number of senior Clinton administration officials, called President Clinton on June 1st to discuss the US's

with Kim Il-sung, Carter was able to secure a pledge from the North Koreans to freeze the country's nuclear activities at Yongbyon under IAEA monitoring for the duration of negotiations in return for an American agreement to return to high-level talks. The last-minute accord provided a way for both sides to back down from escalating threats, and the long-postponed third round of Gallucci-Kang talks began in Geneva in July.²⁶⁶

The announcement of Kim Il-sung's death – which came just as the July talks began – led to a rescheduling for August, and concern in Washington that a leadership change in Pyongyang would lead to a hardening of the North Korean bargaining position and the collapse of the Carter-Kim settlement. As talks restarted in August, however, it was clear that the North Korean stance was unchanged, and that the new leadership was committed to the agreements made in June.²⁶⁷ From August through October 1994, three series of high-level talks in Geneva and Berlin between the US and the DPRK led to remarkable progress. The contours of an agreement quickly emerged around the long-standing North Korean proposal to exchange the country's nuclear program for light water reactors and a path toward the lifting of US economic sanctions and the normalization of relations. The main points of contention continued to be the timing of concessions, the role that Seoul would play in any agreement, and IAEA inspections that could

Korea policy. In a subsequent briefing with Robert Gallucci, Carter broached the idea of traveling to Pyongyang as an emissary to try to defuse the crisis. There was debate within the administration over whether to support such a trip – on the one hand, administration officials worried that the only way to overcome North Korean misperceptions would be to communicate directly with Kim Il-sung, and on the other, many officials were concerned that Carter would not make a reliable (or controllable) emissary and would be likely to stray from official US policy when it suited him. Secretary of State Warren Christopher opposed the trip, while Vice President Al Gore – who eventually won the debate – strongly supported it. It was made clear that Carter would travel to Pyongyang as a private citizen, not as an official representative of the United States, and Carter publicly confirmed this in a June 8th letter to the White House. Seoul strongly opposed the visit.

²⁶⁶ Wit *et al.*, 2004, pp.221-41, 251-5. Meeting with Kim Il-sung on June 15th, Carter secured a pledge from the Great Leader that IAEA inspectors would be able to stay at Yongbyon to monitor the spent fuel rods to verify that they were not diverted for reprocessing. The inspectors had already been asked to leave the country, and before Kim's agreement would have to have left before their visas expired on the 22nd. In return for this pledge, Carter promised his advocacy in Washington for a swap of LWRs in return for dismantlement of the North Korean nuclear program (and, importantly, full NPT compliance), and to support a third round of high-level talks in the near future. That evening on *CNN*, Carter stated his opposition to economic sanctions against North Korea. The next day, President Clinton announced that the United States was prepared to accept the Carter deal with the added provision that the North Koreans not refuel the reactor.

²⁶⁷ *Ibid.*, pp.255-72; Sterngold, July 11, 1994; Sterngold, July 15, 1994; Pollack, July 21, 1994. On July 9th, in a move that was controversial in the United States but well received in North Korea, President Clinton offered his "sincere condolences" "on behalf of the people of the United States" to the "people of North Korea" on Kim Il-sung's death. Robert Gallucci also paid his respects at the North Korean mission in Geneva. South Korea's reaction, however, was not only more muted, but at times outright hostile. Wit, Poneman, and Gallucci speculate that this may have had a small but significant positive effect on US-DPRK negotiations (and a negative one for the DPRK-ROK relationship). Both the ROK and the United States were very uncertain about how Kim's death would affect negotiations. In the end there was substantial continuity.

uncover North Korea's past nuclear activities. Pyongyang was again unwilling to sacrifice its key sources of bargaining leverage: its nuclear facilities, and the uncertainty about how much weapons-grade plutonium it had produced already. The North was, however, prepared to cede ground on these issues provided they came well after other reciprocal concessions had been made.

On October 21, 1994, the two sides settled on the Agreed Framework, which laid out a detailed schedule for a phased, incremental exchange of concessions. In the near-term, the North Koreans would continue the existing freeze at Yongbyon – the 5MWe would not be refueled, and the spent rods defueled in the previous spring would be placed into long-term storage, still in Yongbyon but under IAEA seal. Furthermore, construction on the reprocessing facility and the two larger gas-graphite reactors would be suspended. In return, the United States would provide shipments of heavy fuel oil, and would arrange for the delivery of two LWRs under the auspices of a multinational consortium that would be led by the United States. Three core demands of the Americans – IAEA special inspections, the dismantlement of the frozen nuclear facilities, and the shipment of the spent fuel rods out of the country – would be deferred until either substantial progress had been made on the LWRs, or until the reactors had been completed. The condition that concrete steps be taken to implement the North-South JDD were dropped entirely. Finally, the United States would take steps to remove trade barriers between the two countries and to establish diplomatic ties, beginning with the establishment of liaison offices and ultimately leading to the full normalization of relations.²⁶⁸ Both sides, therefore, achieved their principal

²⁶⁸ Albright and Higgins, "The Agreed Framework: Status Report," 2000; Wit *et al.*, 2004, 331-408; Chinoy, 2008; Lee Chae-jin, 2006, pp.177-209. The text of the Agreed Framework can be found in Albright and O'Neill, 2000, pp.249-51. In the agreement, the United States committed itself to arranging the provision of LWRs that could produce a total of 2,000MWe. They would be provided by an international consortium to be led by the United States. A target date of 2003 was set. In the interim, the US would provide 500,000 tons of heavy oil a year. The North Koreans agreed not to restart the 5MWe reactor at Yongbyon or the reprocessing facility, to stop construction of the other two gas-graphite reactors, and to place the recently removed spent fuel rods into long-term storage. All of this would be done under IAEA safeguards, and the DPRK would remain a member of the NPT. The North Koreans also agreed to dismantle the three reactors, the reprocessing facility, and related facilities by the time the LWRs were completed. Initially, the IAEA would be limited to inspections sufficient for continuity of safeguards. Once a supply contract for the reactors was completed, the IAEA would begin to conduct regular and *ad hoc* inspections. Finally, once a "significant portion" of the LWRs were completed (a more specific benchmark was provided in a confidential section of the agreement), the IAEA would be allowed to conduct special inspections. The North Koreans were required to "consistently take steps" to implement the JDD, and pledged to "engage in North-South dialogue, as this Agreed Framework will help create an atmosphere that promotes such dialogue" – conditions so weakly worded that in practice they required essentially nothing. Finally, in another weakly worded section, both countries pledged to lower barriers to trade and investment, to open liaison offices in each other's capitals, and to upgrade relations to the ambassador level "as progress is made." In March 1995, the United States, Japan, and South Korea formed the Korean Peninsula Energy Development Organization (KEDO), the international consortium charged with supplying the DPRK with the LWRs and with heavy oil. Despite strong resistance from Pyongyang

demands. For the Americans, the deal froze plutonium production, and would – if implemented – eventually lead to the irreversible dismantlement of the program as well as total compliance with the NPT. For the North Koreans, a path to closer economic and political ties to the United States was opened, while in the interim Pyongyang would not have to sacrifice its most potent sources of leverage.

In the end, though, the Agreed Framework did not prove durable. It did, however, achieve a freeze of plutonium production at Yongbyon for nearly a decade – no small consideration in light of the progress that North Korea would make in its nuclear effort after restarting reprocessing in 2003.²⁶⁹ The Clinton administration was unable to build on the initial terms of the agreement, or even fulfill some of the central conditions the United States had agreed to, largely because of domestic opposition from conservatives. The Republican Party had reclaimed Congress with huge electoral victories in 1994. By 1996, Congress was withholding the necessary funding to provide the heavy fuel oil and LWRs called for in the Agreed Framework.²⁷⁰ A North Korean long-range missile test in 1998, carried out largely to put pressure on the Americans to cooperate, only raised North Korean missile technology to the forefront of the US agenda, and pressured Washington to deal with this issue before further progress could be made on the nuclear problem.²⁷¹ The election of George W. Bush in 2000 brought hardliners into power in the United States, and gave opponents of the Agreed Framework

over the ROK's central role in KEDO (the two LWRs to be supplied were South Korean models, and the contracted supplier would be KEPCO, the South Korean power company), as well as a dispute over whether the consortium would provide other necessary infrastructure such as power-grid improvements (the DPRK's existing grid could not handle the two reactors' electrical output) and new transmission lines, North Korea and KEDO signed a supply agreement in December 1995. Ground was broken for the project in 1997, but because of repeated delays and difficulties agreeing on a number of side-agreements to the contract, very little progress was made before the agreement was terminated in late 2002. The DPRK did, however, honor the freeze. The reactor was not restarted, the rods were kept in storage, the reprocessing facility was shut down, and construction on the other two reactors was frozen from 1994 to 2002. Pyongyang did threaten at different times to break out of the freeze or otherwise violate the terms of the agreement to put pressure on the United States to fulfill its part of the deal, but backed down in each case. Despite some disagreements with the IAEA, the facilities were continuously under safeguards. The North did, however, refuse to allow a number of strengthened safeguards measures when *ad hoc* and regular inspections were to start. Heavy fuel oil shipments frequently ran late because of underfunding. The question of whether or not the North Koreans were diverting oil for military purposes also became a political football in Washington (the US had installed monitoring equipment at oil storage sites in North Korea, but was unable to tell with certainty whether or how much oil had been diverted – it was unlikely that much had). US-DPRK diplomatic relations made no progress – liaison offices were never opened, mostly because of foot-dragging by the North Koreans. The Clinton administration made only token efforts to lift economic sanctions, and then only toward the end of Clinton's term.

²⁶⁹ Albright and Brannan, 2006.

²⁷⁰ Chinoy, 2008, pp.8-9.

²⁷¹ Gittings, September 1, 1998.

the upper hand.²⁷² In 2002, President Bush identified North Korea as a member of the “Axis of Evil” in his State of the Union Address.²⁷³ Later that same year, the US confronted the North Koreans with evidence that it had been pursuing a second route to a bomb with uranium enrichment.²⁷⁴ By 2003, the Agreed Framework had been completely scuttled, and North Korea conducted its first nuclear test in October 2006.²⁷⁵

III. Negative Sanctions Were Ineffective

The history of this case supports hypothesis (H1):

(H1.a) Negative sanctions are effective with allies, but are very unlikely to be effective with adversaries.

(H1.b) Even when effective in the short term, negative sanctions are unlikely to produce long-term compliance.

(H1.c) Negative sanctions are likely to be counterproductive with adversaries, and lead to escalation and an aggressive spiral.

The adversarial relationship between the United States and North Korea (and also between the DPRK and the ROK) led US attempts to use negative sanctions to be unsuccessful. They also produced significant backlashes. In 1993, the resumption of Team Spirit pushed the DPRK to announce its withdrawal from the NPT. The threat of economic sanctions and the military buildup in early 1994 led to that year’s refueling crisis, and in fact almost led to war.

Three factors explain why negative sanctions were unsuccessful in this case. All three are related to the fact that the US and the DPRK were adversaries. First, the United States possessed few effective levers of influence over North Korea, and was limited to threats of military force and broad economic sanctions. Military force would have been extremely costly, was unpopular with allies, and was opposed by China. The US also did not possess sufficient intelligence data to target all of the country’s nuclear facilities and materials – especially if, as the Americans suspected, weapons-grade plutonium had already been produced in significant quantities. The US also did not have the leverage to enact an effective sanctions regime. China opposed it, US allies wanted to first exhaust diplomacy, and the US had little trade with North

²⁷² Wit *et al.*, 2004, pp.377-80

²⁷³ Sanger, January 31, 2002.

²⁷⁴ Chinoy, 2008, pp.115-24. Substantial questions about this evidence remain.

²⁷⁵ Harrison, 2001. For an excellent description of the breakdown of the Agreed Framework, see Chinoy, 2008, pp.1-141.

Korea to begin with. Diplomatic sanctions were also not an option, as the US had no diplomatic relations with North Korea.

It is often argued that the North Koreans were playing a weak hand in negotiations in 1993 and 1994, but the US hand, at least with respect to negative sanctions, was also not very strong, nor was it particularly credible. The weakness of the US position is reflected in the way the Americans lowered their demands after the Super Tuesday agreement broke down in March 1994, and by the fact that threats were not carried out or were watered down after Pyongyang called the Americans' bluff. The demands over inspections were watered down, while demands for North-South engagement were, at least in practical terms, dropped entirely. After threatening to go forward with Team Spirit 1994, one of the more potent security-related threat that the US wielded, the US reneged.

A second factor that made negative sanctions unsuccessful was the relative gains problem. The North Koreans were often more willing to endure negative sanctions than to concede – even if conceding offered gains in the short term – because they believed that meeting US demands would leave the country in a worse strategic situation over the longer term, and that it would outweigh any possible gains in the present. This was particularly the case with any concession that would surrender an important bargaining chip, such as dismantlement of nuclear facilities or the transfer of spent fuel rods out of the country. The North was also particularly concerned about relative gains in its dealings with the South Koreans, as both North and South viewed their relationship with one another as a zero-sum game, in which one party's gain was necessarily the other's loss.

The third factor that rendered sanctions ineffective was that the North Koreans believed that yielding to them could bring unacceptable costs to its reputation. Again, the concern was acute in this case because of the adversarial nature of the US-DPRK relationship. The North Koreans consistently adopted a tough bargaining posture and used brinkmanship to convince the Americans (and others) that it could not be easily coerced. They feared that giving in to extortionate threats would only invite more and costlier demands in the future, and that the Americans and South Koreans alike would read concessions made in the face of threats as an indication of weakness, and would simply encourage bolder policies. These reputation costs, in Pyongyang's view, outweighed any possible gains from conceding to negative sanctions. Thus sanctions not only failed to work but frequently provoked a backlash, as North Korea sought to demonstrate its resolve.

The following sections provide a detailed treatment of the negative sanctions used in this case. They are divided into two categories: security-related negative sanctions (specifically, the

threat to carry out Team Spirit exercises in 1993 and 1994 – which had been canceled in 1992 – and the military buildup, military threats, and decision to deploy Patriot batteries in 1994), and economic sanctions (the threat to implement multilateral sanctions through the UN Security Council). For each category of negative sanctions, I explain why they were unsuccessful.

A. Military Sanctions

1. Team Spirit

After canceling the Team Spirit military exercises – which the North Koreans characterized as a practice run for a nuclear war – in 1992, the Americans held out the threat of restarting them in 1993 and again in 1994 in an attempt to coerce the North Koreans into nuclear compliance.²⁷⁶ This failed in 1993, and the US and the ROK conducted the exercises in March of that year. The threat failed again in 1994, but after the North called the bluff, the US and the ROK backed down and “deferred” the exercise.²⁷⁷

The United States first threatened negative sanctions against North Korea in 1992 as a way to prod the DPRK into fulfilling its obligations under its IAEA Safeguards Agreement and allow special inspections at suspected sites. In October 1992, the US and South Korea announced that plans for the 1993 Team Spirit military exercises would be resumed (the Bush administration had canceled the 1992 exercise), and that the United States would continue a moratorium on troop withdrawals from the peninsula. These sanctions were explicitly linked to North Korea’s delay in implementing the IAEA Safeguards Agreement, which it had signed earlier in the year.²⁷⁸ This

²⁷⁶ The North Korean military did incur a cost from the exercises. Team Spirit forced them to enact a state of alert and mobilize troops as a defensive move in case the US and the ROK should roll out of the exercises into an invasion. Mobilization was particularly costly because it involved the call-up of reserves and the consumption of precious fuel. Kim Il-sung also supposedly had a personal contempt for the exercises. The characterization of them as practice for a “nuclear war,” however, was pure rhetoric. Before 1992, the exercises did use aircraft capable of carrying nuclear warheads, but by 1993 these aircraft were no longer part of the exercises, and the US had removed its nuclear weapons from the peninsula by the end of 1991. See Oberdorfer, 2001, pp.278-80.

²⁷⁷ Gordon, April 2, 1994.

²⁷⁸ Grier, October 22, 1992; *Reuters*, October 9, 1992; Sigal, 1998, pp.46-8; and Oberdorfer, 2001, pp.272-5. The United States had canceled Team Spirit 1992 as a positive inducement for North Korean nuclear compliance. The US was also in the midst of ground troop withdrawals from South Korea, but these were suspended in response to the North Korean nuclear program. In October 1992, the US still had more than 37,000 ground troops in Korea. The idea to resume Team Spirit originated in Seoul, and was supported in Washington by hawks and proponents of a coercive approach toward North Korea. It was especially popular among the civilian leadership in the Cheney Defense Department. State Department officials, including Charles Kartman and Donald Gregg, opposed the exercises, and anticipated North Korea’s uncooperative response. Gregg, the US Ambassador to the ROK, later called this decision “one of the biggest mistakes” of US Korea policy during his tenure (quoted by Oberdorfer, 2001, p.273). The impasse

move backfired, however. The North Koreans continued to deny access for special inspections, and responded to the October 1992 announcement with a harsh rebuke and demands that the exercise be canceled. Pyongyang also issued threats to ROK and US diplomats that Team Spirit would lead to a suspension of the North-South peace process and other “drastic measures.”²⁷⁹ The inspections impasse between the IAEA and the DPRK dragged on through late 1992 and early 1993, and on March 8, 1993, Team Spirit exercises began, involving 70,000 ROK troops, 31,000 US troops stationed in South Korea, and the deployment of a US carrier group and an additional 19,000 American troops. That same day, Kim Il-sung declared a “state of readiness for war,” referring to the Team Spirit exercises as a “nuclear war test aimed at a surprise, pre-emptive strike,” and “thoroughly aggressive in its content and purpose.”²⁸⁰ Four days later, Pyongyang announced its intention to withdraw from the NPT in 90 days, the waiting period stipulated in the treaty.²⁸¹

Team Spirit was consistently held out as a threat in 1993. Despite the fact that the military had not budgeted the exercise for 1994 and the US military leadership had determined that it had little military utility, the Americans decided to plan for it because they saw it as a useful bargaining chip with the North Koreans that could be traded away for good behavior.²⁸² Yet the Americans and the South Koreans could not at first decide on a way to use the threat to their advantage. Between October 1993 and February 1994, the demanded terms for the exercise’s cancellation changed a number of times, in part because of the North Koreans’ refusal to accept to or follow through on these terms, but more so because of disputes both within the governments in Washington and Seoul, and between the US and the ROK over how the Team Spirit threat ought to be wielded. At different times, it was conditioned on IAEA inspections, on North-South bilateral talks, or not on the table at all. However the offer was presented, though, it was always conditioned upon the North Koreans first fulfilling demands – only then would the US and the ROK consider canceling the exercise.

over inspections focused on two undeclared waste sites at Yongbyon, to which the North refused to grant the inspectors access.

²⁷⁹ Sigal, 1998, p.47. Sigal cites an unnamed State Department official who participated in talks with the North Koreans in New York in January 1993.

²⁸⁰ KPA Supreme Commander Order No. 0034, March 8, 1993, as cited in Mazarr, 1995, p.98; Oberdrofer, 2001, pp.278-80.

²⁸¹ Smith, 1993.

²⁸² Wit *et al.*, 2004, p.48, 106. US policy makers believed – with good reason – that the exercises were so important to the North Koreans that they could “trim and shape Team Spirit to almost any dimension and still get a rise out of the North Koreans” (p.106).

Robert Gallucci, against his suggestions to the contrary, was not allowed to offer the cancelation of Team Spirit as an upfront concession at the June 1992 high-level talks.²⁸³ The South Koreans wanted to use the exercises as leverage in their bilateral negotiations with the North but could not agree on how to do so.²⁸⁴ Meanwhile, the North Koreans repeatedly demanded that the exercises be canceled. Team Spirit was prominently included in the DPRK's first package-deal proposals, and Kim Il-sung mentioned the exercises explicitly during US Representative Gary Ackerman's visit to Pyongyang in October 1993.²⁸⁵ US negotiators began to offer its cancelation as part of their package-deal proposals made through the New York channel in fall 1993. In November, US officials suggested that Team Spirit would be canceled if the North allowed the inspections demanded by the IAEA. However, after ROK President Kim Young-sam voiced opposition to this plan at the November 23rd summit meeting with President Clinton in Washington, the US was forced to reverse its stance, and to demand that in addition to the inspections, Pyongyang had to also exchange high-envoys with Seoul before the cancelation of Team Spirit would be considered.²⁸⁶

Team Spirit was included in the December 29th "small package" agreement: the US and the ROK would cancel the exercises provided that the North allowed the IAEA to begin inspections, and once talks with the South were initiated.²⁸⁷ After this deal fell apart in January 1994, Team Spirit was again included as a key element of the "Super Tuesday" package.²⁸⁸ When that deal failed in March, the US and the ROK announced that they would go forward with the exercise.²⁸⁹ On March 19th, the DPRK representative at the North-South talks at Panmunjom threatened his ROK counterpart (Song Young-dae) with war: "Seoul is not far from here. If a war breaks out, it will be a sea of fire. Mr. Song, it will probably be difficult for you to survive." The

²⁸³ Sigal, 1998, p.63.

²⁸⁴ Wit *et al.*, 2004, p.85-8.

²⁸⁵ *Ibid.*, pp.93-7.

²⁸⁶ *Ibid.*, pp.108-16; Friedman, November 24, 1993; Sanger, November 22, 1993; Holmes, November 16, 1993. The administration leaked its "package deal" counter-offer to the press on November 15. The proposal indicated that Team Spirit was on the table, but no high-ranking US officials went on the record with such an offer. A similar deal, though, was proposed through the back-door New York channel with the North Koreans. President Kim took the Clinton administration by surprise when he insisted that a North-South envoy exchange be demanded as well before the exercises could be canceled. When asked about it directly by reporters at the Clinton-Kim summit in Washington, President Clinton refused to back the offer and instead said he had "no comment." The new position, however, was soon communicated to the North Koreans via the New York channel. In December, the demand was watered down to a requirement that an exchange of envoys be arranged, rather than accomplished, before the exercise could be canceled.

²⁸⁷ Wit *et al.*, pp.116-7; Gordon, December 31, 1993.

²⁸⁸ Sigal, 1998, p.105.

²⁸⁹ Gordon, March 17, 1994.

ROK government promptly released a video recording of the threat to the media.²⁹⁰ On March 21st, the North Koreans threatened to pull out of the NPT altogether if the US went forward with Team Spirit, and stated that it “may bring the Korean nation back to the phase of confrontation and war.”²⁹¹ With its bluff thus called, the United States announced on April 1st that it would “defer” its decision to hold Team Spirit in order to “leav[e] the door open for a dialogue and negotiated settlement.” In the end, the exercises would not be conducted.²⁹²

2. Military Threats and Force Deployments

From late 1993 to June 1994, the United States both reinforced its military presence in Korea and issued a series of escalating military threats. The US never overtly threatened war, and in early 1994, in fact, Washington publicly ruled out preventive war against North Korea. Nonetheless, the Clinton administration made thinly veiled references to preventive strikes (such as President Clinton’s statement that the US would never tolerate a nuclear North Korea), and prepared US forces in Korea for the possibility of an attack from the North in response to sanctions. These defensive reinforcements were provocative, were seen as a threat by the North Koreans, and were also intended to coerce Pyongyang to negotiate on more favorable terms to the US by making the threat of sanctions more credible. The effort failed, however. Worries that the situation could spiral out of control led the Clinton administration to greatly moderate its rhetoric as well as its military preparations. Also, the threats and military moves that did take place were met only with escalating counter-moves from the North Koreans.

The US initiated a military buildup in Korea in late 1993 – which accelerated in early 1994 – and let loose a barrage of threatening rhetoric.²⁹³ The Americans and the South Koreans both began to suggest that they were considering military force through a series of thinly veiled threats in the fall of 1993. President Clinton said on *Meet The Press* in November that “North Korea cannot be allowed to develop a nuclear bomb. When asked whether that meant the US would use air strikes, he responded, “We have our soldiers there. They know that.”²⁹⁴ A week earlier, the ROK defense minister had brought up the possibility of a military response at a press conference in Seoul, prompting the North Koreans to sever bilateral talks.²⁹⁵ Throughout this

²⁹⁰ Oberdorfer, 2001, p.304; Gordon, March 20, 1994; Sigal, 1998, p.111. Kim Il-sung apologized for the remark in April 1994, and the DPRK diplomat who made the threat was removed from his position.

²⁹¹ Sanger, March 21, 1994.

²⁹² Gordon, April 2, 1994.

²⁹³ Oberdorfer, 2001, p.306.

²⁹⁴ Holmes, November 8, 1993.

²⁹⁵ *KCNA News Agency (Pyongyang)*, November 3, 1993; Sanger, November 4, 1993; Wit *et al.* 2004, p.88.

time, influential members of Congress openly advocated the military option.²⁹⁶ The North Koreans responded to these moves with threats of their own.²⁹⁷

The situation escalated with the January 1994 revelation that the United States was planning to deploy Patriot antimissile batteries in South Korea. The move was not intended as a military threat to coerce the DPRK into complying with the NPT, but as a defensive measure. As the Clinton administration increasingly came to expect diplomacy to fail in late 1993, it began to plan for UN economic sanctions and decided to strengthen US military capabilities on the Korean Peninsula to deter a military response.²⁹⁸ Inevitably, however, Pyongyang interpreted these moves as part of a coercive bargaining strategy, and responded with escalating threats. In a letter to Robert Gallucci on January 31st, Kang Sok-ju threatened that the DPRK would restart plutonium reprocessing.²⁹⁹ On February 6th, the ante was upped when the *New York Times* released the American war plan, which was based on an offensive strategy.³⁰⁰ The escalation was sufficiently alarming for James Laney, the US Ambassador to Seoul, to fly to Washington and directly express his concern about “accidental war” to the White House.³⁰¹

The Super Tuesday agreement gave some pause to these escalating threats, but when the accord broke down in March after just a few weeks, and the IAEA announced that it could no longer verify the continuity of safeguards – referring the matter to the UNSC – the escalation continued where it had left off in February.³⁰² On March 23rd, the ROK defense minister outlined

²⁹⁶ Sigal, 1998, pp.102-3. Senator Chuck Robb (D-VA) publicly called on the administration to reintroduce nuclear weapons to the Korean Peninsula on February 1st. Former NSA Brent Scowcroft advocated stronger military preparations to the *New York Times* on February 6th (Gordon and Sanger, February 6, 1993). John McCain (R-AZ) also called for the deployment of nuclear weapons to Korea on February 13th. The Senate passed a non-binding resolution calling on the administration to “ensure that sufficient forces are deployed in the Pacific region.”

²⁹⁷ *Reuters*, January 1, 1994; Tisdall, December 3, 1993; *Agence France-Presse*, November 17, 1993; and *Reuters*, November 14, 1993.

²⁹⁸ Gordon, January 26, 1994; Wit *et al.*, 2004, pp.121-5, 149-50. The Clinton administration was put in a difficult bind by the public revelation of the Patriot deployment. Once it was revealed that the commander of US forces in Korea had requested them, the White House had no choice but to go through with the measure, as any public denial of weaponry requested by a commander in the field would have been politically unacceptable. This was particularly the case after the previous fall’s twin debacles in Haiti and Somalia. For the South Koreans, however, the situation was reversed. The political calculus in Seoul pushed the Blue House to defer deployment so as not to put North-South relations in jeopardy. This led to a public standoff between the US and its ally. The dispute was resolved when the Super Tuesday agreement collapsed in March, which forced Washington’s and Seoul’s hands. US Patriot antimissile batteries arrived in the ROK in April.

²⁹⁹ Wit *et al.*, 2004, p.126-7.

³⁰⁰ Gordon and Sanger, February 6, 1993.

³⁰¹ Oberdorfer, 2001 pp.301-2. Laney’s warnings were part of the reason that Gallucci was elevated to the title of Ambassador-at-Large and given greater independent negotiating power with the DPRK.

³⁰² Sanger, February 16, 1994; Greenhouse, February 18, 1994; Sigal, 1998, pp.104-8. At the time, the DPRK agreement to allow inspections on February 15th, and the resulting Super Tuesday agreement that was hastily put together in New York, were taken as evidence that threats of economic sanctions and

the US-ROK war plan before the National Assembly in Seoul.³⁰³ In addition to announcing that it would go forward with Team Spirit, as well as pursue UN sanctions, the US began to deploy Patriot batteries in South Korea.³⁰⁴ The United States also began making additional reinforcements on the peninsula, including the deployment of Apache helicopters, 1,000 additional troops, Bradley fighting vehicles, advanced radar tracking systems, and increased intelligence assets.³⁰⁵ The DPRK responded with its own military preparations.³⁰⁶

These developments, however, alarmed the US military and prompted concern that the situation could quickly spiral out of control. As a result, the administration began to exercise caution by publicly stressing that additional force deployments were purely defensive, toning down its threats, and beginning to ease some of its demands. On March 25th, the Clinton administration ruled out preventive air strikes against Yongbyon, and on April 3rd Defense Secretary Perry suggested that the US would not use nuclear weapons to defend South Korea.³⁰⁷ The demand for a North-South exchange of envoys was dropped before the end of March, while demands for inspections were limited to only what was necessary to continue safeguards. After this minimal requirement was met, the US would be willing to hold a third round of talks – a far weaker condition for talks than what the US had insisted upon over the previous seven months.³⁰⁸ Nonetheless, the situation continued to escalate, as the North Koreans informed the IAEA they would remove fuel from their reactor.

The DPRK decision to defuel its Yongbyon reactor led again to US and ROK military threats. On May 3rd, US Defense Secretary Perry said before the Asia Society in New York that the US preferred the risk of accidental war to “the far greater risk of letting North Korea develop

military forced had worked, and that they had successfully coerced Pyongyang into accepting the IAEA’s terms. The DPRK portrayed the events in the opposite manner: the IAEA had agreed to *their* terms. Neither is particularly accurate. A better way to describe the deal is that both sides yielded on language but not in substance, making a breakdown of the agreement inevitable. It is also important to note that the ROK offered a key concession at this point by publicly stating its preference to defer deployment of the Patriot batteries.

³⁰³ Oberdorfer, 2001, p.312.

³⁰⁴ Wit *et al.*, 2004, p.150.

³⁰⁵ Oberdorfer, 2001, pp.312-3; Wit *et al.*, 2004, p.176.

³⁰⁶ *Ibid.*, p.127-9, 160. The war preparations of both sides ran a real risk of spiraling into open conflict. Wit, Gallucci, and Poneman explain how the National Intelligence Council came close to issuing a “warning of war” based on North Korea’s military preparations – a move that would almost certainly have greatly inflamed an already tense situation.

³⁰⁷ Gordon, March 25, 1994; Gordon, April 4, 1994.

³⁰⁸ Wit *et al.*, 2004, pp.164-73; Sigal, 1998, pp.111-3. Escalating tensions had, understandably, shaken Seoul much more than it did Washington. The South Koreans, who had not long ago been insisting on linking North-South talks to a third level of talks, were now in favor of dropping the demand altogether. It was the Americans who insisted on keeping the demand in some form and inserting at least some language referring to it into any agreement. Not least of the US’s concerns was the fact that the NPT did not restrict plutonium reprocessing and uranium enrichment, while the JDD did.

the capability of producing a nuclear arsenal or the risk inherent in not maintaining the readiness of our forces.”³⁰⁹ On June 14th, Seoul called up 6.6 million reservists for a mobilization drill. These moves were met by the DPRK with escalatory responses. On May 31st, the North Koreans conducted a long-range missile test in the Sea of Japan. On June 5th, Pyongyang released a statement that “sanctions mean war, and there is no mercy in war.” On June 10th the DPRK announced its intent to withdraw from the IAEA and to expel inspectors from the country, and threatened that it would disable monitoring equipment. On the eve of Jimmy Carter’s visit to Pyongyang, the Korean Peninsula was on the brink of war, despite great resolve within the Clinton administration to negotiate a deal and avoid military conflict.³¹⁰

The June agreement to return to high-level talks in July, and the resulting resolution to the crisis through the October Agreed Framework, ended the escalation of military threats. Even while Carter was in Pyongyang, however, principals in the Clinton administration and the military leadership were meeting in Washington to discuss what further steps to take. The recommendations were almost uniformly for a significant buildup of forces. Joel Wit, Daniel Poneman, and Robert Gallucci claim that had the Carter trip failed, it was “virtually certain” that the US would have followed the recommendations of Defense Secretary Perry and Chairman of the Joint Chiefs Shalikashvili to deploy thousands more troops to Korea – supported by additional air and naval forces – as well as to announce a limited call-up of reserves. This would likely have happened immediately, and would have been announced by President Clinton on primetime television. Interestingly, the three diplomats also believe that this would have provoked “some form of violent retaliation” from the DPRK.³¹¹ In the event, the military option came off the table after Carter’s mid-June trip.³¹²

³⁰⁹ As quoted in Wit *et al.*, 2004, p.176.

³¹⁰ See, for example, the description of the May 19th meeting in the White House Cabinet Room at which preparations for war were discussed in Wit *et al.*, 2004, pp.179-82.

³¹¹ Wit *et al.*, 2004, pp.214-20. 243-4. The US was also preparing for an evacuation of the tens of thousands of Americans in Seoul, an event that almost certainly would have alarmed Pyongyang. It is interesting as well that many of the principals in the Clinton administration believed that neither sanctions nor a military buildup would push Pyongyang in the right direction, yet they supported such moves anyway. It is also important to note that this does not fully consider what the reaction would be in Seoul, Tokyo, and Beijing to such moves. China, Japan, and the ROK would almost certainly have resisted at least some of these provocative decisions, and their objections could possibly have led to a very different outcome than what Wit *et al.* refer to here as “virtually certain.” They themselves note that the administration was very much considering a last-ditch high-level diplomatic mission.

³¹² One last incident, which took place as the fourth set of 1994 Kang-Gallucci talks were beginning in Geneva in late September, is worth noting. The Commander-in-Chief of the US Pacific Fleet (CINCPAC), Admiral Ron Zlapator, told the military newspaper *Stars and Stripes* that the USS *Kitty Hawk* carrier group was deployed to the waters off Northeast Asia to “back up diplomacy.” While this did not upset the planned talks, it did complicate them by leading the North Korean delegates to protest the statements, and requiring the US to back away from Zlapator’s remarks. See Wit *et al.*, 2004, p.297.

3. Why Military Sanctions Were Ineffective

The US lacked sufficient leverage to make the military threat fully credible because the costs of military action would be very high, and the use force was strongly opposed by US allies, China, and many in Washington (including the military). The United States enjoyed enormous military superiority, but was extremely reluctant to use it because the likely consequences of such an action would be dire. Limited air strikes would set back but not destroy the North's nuclear weapons program, and would likely only lead Pyongyang to redouble its efforts to build a bomb in the future.³¹³ Also, any attack, however limited, ran the serious risk of provoking all-out war. The DPRK, even though it would ultimately lose any direct conflict with the Americans, was capable of bringing devastating destruction to Seoul. Even total military victory over Pyongyang carried high costs. The country was backward and impoverished, was ruled by a totalitarian regime, and possessed no significant civil society. Military victory over it would lead to a costly occupation, as well as destabilizing refugee flows. Even limited force could topple the regime and create internal chaos that would negatively impact the entire region. Therefore, while the US did threaten to use military force on several occasions, the North Koreans could at least count on the fact that the Americans would be very reluctant to follow through on these threats. At a minimum, this encouraged North Korean brinkmanship, as Pyongyang had a strong incentive to gamble that the Americans were bluffing, and would offer more concessions before actually resorting to the use of force. They could also count on China, South Korea, and Japan to pressure the Americans to accept a deal before turning to the military option.

A second reason the military threat did not work is that Pyongyang believed that yielding to such a threat would confer a strategic advantage to the United States, and especially to the South Koreans. The bilateral North-South talks were especially important in this respect, as Pyongyang saw its relationship with Seoul as a zero-sum game, and feared any surrender of advantage. The linkage of US threats to progress on North-South talks and implementation of the JDD led Pyongyang to believe that Seoul would be able to use its influence over North Korean-US bargaining on the nuclear issue as leverage. Compliance with demands, therefore, would

³¹³ In November 1993, the CIA claimed that it was likely the North Koreans had already made at least one nuclear weapon. Even if the Americans believed that the North had simply reprocessed sufficient plutonium to make a weapon in the future, the cat would already have been out of the bag. The plutonium, or the built weapon, would already have been spirited away to a hiding place, likely deep underground where American air strikes could not reach them in any case. An attack on the Yongbyon facilities could prevent the DPRK from producing additional plutonium, but it could do nothing about material already produced, and certainly could do nothing to resolve the issue of uncovering the country's past activities. Many also suspected that the large reprocessing facility at Yongbyon was not the country's first plant, and that a pilot-scale reprocessing plant was somewhere hidden in the country. Therefore, it was even possible that a redundant reprocessing capability existed, making air strikes that much less potent.

legitimize Seoul's role as arbiter of the US-DPRK relationship, and confer only more leverage on the South.³¹⁴ Pyongyang's view of the situation was only strengthened by the fact that Seoul perceived the issue in the same light, and was equally sensitive to any loss of control that it exerted over US-DPRK dialogue. The matter was not helped by Seoul's own equivocations over its demands.³¹⁵

The issue of inspections also created relative gains concerns for Pyongyang. The issue was not simply about reputation. The inspections that the IAEA was demanding could shed light on the North's past effort at plutonium reprocessing. If the North Koreans had not actually produced enough plutonium to make a bomb – as the CIA estimated they had – then the South Koreans and the Americans would have less to fear. This not only would weaken the DPRK's bargaining position significantly, but could invite a preemptive attack on the Yongbyon facilities, as the Americans would be much more confident that air strikes could successfully eliminate the country's ability to produce weapons. If, however, they had produced a significant amount of weapons-grade plutonium, then if inspections were to reveal that, the US would insist that the plutonium be placed under safeguards. Either the North would have to comply with this and sacrifice a necessary ingredient for a bomb, or defy the demand and provide the US with a much stronger excuse for sanctions or the use of military force. Either way, the North Koreans would lose the very real strategic edge they got from the existing uncertainty.³¹⁶

The third and principal reason that military threats – including the threat of holding the Team Spirit exercises – did not work in this case is that Pyongyang saw the reputation costs of yielding to them as prohibitively high. This was because these threats were viewed as extortionate. Team Spirit was particularly ineffective for this reason, as the exercises served little military purpose, and offered the United States and South Korea few benefits. In both 1993 and again in 1994, the exercises were scheduled solely as a means of applying pressure to Pyongyang in the midst of its dispute with the IAEA. Furthermore, there was no secret about this fact. US military leaders were on record stating that they preferred not to hold the exercises, and Team

³¹⁴ For its part, the North Koreans also saw the nuclear issue as a way to achieve direct talks with the Americans, and to drive a wedge between the US and the South Koreans. Each side, therefore, tended to see the other's relationship with the US as coming at the expense of its own.

³¹⁵ Much of the volatility in Seoul's policy positions is explained by feuding between conservatives and more liberal-oriented policy makers, as well as the innate tension between the desire to resolve the nuclear issue on the one hand while denying Pyongyang improved relations with Washington on the other. Thus Seoul gave mixed and sometimes contradictory responses to US diplomatic efforts with North Korea during the summer of 1993, it reversed course on the issue of a North-South envoy exchange a number of times, and it undermined the Super Tuesday agreement by demanding an envoy exchange be a key condition, only to then drop the demand months later during the discussions over the Agreed Framework. See Wit *et al.*, 2004, pp.46-7, 64-9, 144-8, 314-5. Also Sigal, 1998, pp.86-9, 190.

³¹⁶ Both Oberdorfer (2001, p.308) and Sigal (1998, p.110) make a similar argument

Spirit had not even been budgeted for 1994.³¹⁷ In fact, by 1993 the exercises had become more theater and symbolism than a requirement for military preparedness. One high-ranking US military officer described the exercises as simply a “diplomatic tool,” and a top Bush administration official described them as a means of demonstrating “determination.” They were seen as unnecessary by many in the US military leadership, and had largely been replaced by other joint exercises that sufficiently addressed force readiness.³¹⁸ Conducting the exercises was gratuitous, and the US and the ROK used them principally to demonstrate their resolve to carry through on a threat after the DPRK reneged on inspections.³¹⁹

Likewise, the military buildup that took place at the end of 1993 and in early 1994 was seen as extortionate. The US argued that troop reinforcements and the deployment of antimissile batteries were purely defensive, however, Pyongyang was – not surprisingly – unconvinced by these claims. An accurate interpretation of Washington’s motives was greatly complicated by war talk in Congress, in Seoul, and in the US and ROK media.³²⁰ The leak of the US war plan in early February 1994 also complicated matters, as it stressed how the use of Patriots to defend key military installations such as airfields in the South would be part of an overall offensive strategy. Incorrect reports in the American and ROK media about the deployment of a carrier group, and also about North Korean war preparations, did not help matters.³²¹ Finally, the North was aware that military preparations were linked to economic sanctions. The American military requested

³¹⁷ Wit *et al.*, 2004, p.106. The value of Team Spirit to the Americans was, according to the authors, that “it could get a rise out of the North Koreans.”

³¹⁸ Sigal, 1998, p.21, 30-2. For the Americans, Team Spirit had little value beyond it being a way to mollify South Korean hardliners and to try to coerce the North Koreans. Its significance, however, was much greater for the DPRK. The mammoth mobilization of US and ROK troops necessarily forced the KPA to prepare for an attack. Such preparations were costly and consumed precious resources. Therefore the costs that the Team Spirit exercises put on Pyongyang were neither symbolic nor trivial.

³¹⁹ Because Team Spirit was militarily unnecessary, costly, and risked provoking the North Koreans, many in Washington – including within the military establishment – saw preparations for the exercises and the announcement that they would resume simply as a gratuitous threat, and hoped that a deal would be struck so that the exercises could be canceled in return for DPRK concessions. In other words, the Team Spirit threat very well fits the definition of extortion. The US and the ROK were also aware of North Korea’s strong opposition to Team Spirit, and must have anticipated that the North would react very negatively to the decision to hold it. North Korea had begun to issue stern warnings about Team Spirit immediately before the October 1992 US-ROK Security Consultative Meeting (SCM) in Washington. Mazarr, 1995, pp.90-3.

³²⁰ Oberdorfer, 2001, p.303.

³²¹ Wit *et al.*, 2004, p.123; Gordon and Sanger, February 6, 1993; Gertz and Bedard, January 27, 1994; and *KBS World Radio (ROK)*, January 29, 1994. Despite reports in both the US and in South Korea, there were, in fact, no plans to deploy a US carrier group to Korea. Similarly, reports about North Korean military preparations failed to put the issue in the proper context. There were, for example, a higher proportion of KPA troops concentrated along the DMZ than there had been in the past, however this reflected a longer-term development, not just war preparations in 1993-4. Also, while there were additional troop maneuvers in the North as a result of the nuclear-related tensions, this was occurring in the context of an already-planned series of winter military exercises.

reinforcements to counter any potential North Korean response to the implementation of UNSC sanctions, as well as to potentially enforce an embargo.

Importantly, these misinterpretations and miscommunications would not have been so severe had the US and North Korea had better established channels to communicate preferences and intentions. The issue was also complicated by a generally poor understanding in Pyongyang about how American politics worked. Had a richer network of contacts existed between the two countries, the North Koreans would have been more capable of distinguishing official signals from noise. A telling example is the threat – by letter – from Kang Sok-ju to Robert Gallucci in late January 1994. Kang threatened that the North would restart its plutonium reprocessing, but the threat was premised on the belief that the third round of talks were off the table, which they were not. A letter from Gallucci clearing up the matter helped to calm tensions and paved the way for the (ultimately unsuccessful) Super Tuesday agreement.³²²

To the North Koreans, both Team Spirit and the military buildup – as well as public threats made by the United States to use military force against the country’s nuclear installations – were seen as nothing more than gratuitous threats designed to pressure Pyongyang into accepting broader IAEA sanctions and deferring to ROK interests in North-South bilateral talks. Both the United States and the ROK strongly preferred not to engage in military conflict, and both preferred not to go forward with Team Spirit as well. The Americans threatened these actions purely to coerce the North Koreans. Pyongyang feared that if they were to yield on this issues, the costs to the regime’s reputation would be pronounced, but domestically and in its international affairs. Such a show of weakness would both undermine the regime’s credibility at home, and would encourage further coercion from the US and the ROK in the future.³²³

B. Economic Sanctions

1. March-April 1993: Threat of Multilateral Sanctions

The United States first threatened to pursue multilateral economic sanctions against North Korea through the UN Security Council on March 13, 1993, the day after the DPRK announced its intention to withdraw from the NPT. Although a bit nebulous and weakly worded, the threat was that if the North Koreans did not “withdraw their withdrawal” from the NPT, the United States would seek economic sanctions in the UN.³²⁴ After the North Koreans failed to

³²² Wit *et al.*, 2004, 126-7, 130. A visit to Pyongyang by Rev. Billy Graham during this same period also played a role in soothing tensions.

³²³ Hayes, “What North Korea Wants,” 1993.

³²⁴ Jehl, March 13, 1993.

meet a March 31st IAEA deadline to allow special inspections, Vienna referred the matter to the UN Security Council, providing the United States with an opportunity to organize a sanctions regime against North Korea. Despite diplomatic efforts with allies, other Security Council members, and especially China, however, the United States failed to win support and was forced to drop the effort and return to the bargaining table. The Clinton administration eventually reversed course and agreed to high-level talks with the North Koreans days before the NPT withdrawal was set to take effect.

The threat of sanctions failed in this case. The United States lacked the necessary leverage to organize effective sanctions. The North Koreans also responded to the American threat by escalating. The Clinton administration, despite its efforts, was unable to convince China, or even regional allies like Japan and the ROK, to support economic sanctions.³²⁵ The United States, in fact, had so few options that it decided to resume direct negotiations with the DPRK in spring 1993, not because US policy makers were in agreement that it was the best course, but because it needed to exhaust the diplomacy option as a tactical move to gain support for sanctions. The DPRK, for its part, made no sign of conceding to the sanctions threat, and in fact, escalated by threatening that sanctions would be considered an act of war. Eventually, holding a losing hand and under pressure from its allies to negotiate, the US shifted its tack and agreed to talks.

2. September 1993 to June 1994: Threat of Multilateral Sanctions

The much more intensive US efforts to use UN economic sanctions as a form of coercive leverage in late 1993, and through the first half of 1994, were no more successful. The United States continued to have difficulty bringing other states along, including China, Japan, and Russia. At no point in the process were the Americans playing a particularly strong hand in the Security Council. The US need to reinforce its military forces in Korea as a defensive measure should sanctions be implemented also complicated the US position by linking military provocations to the push for economic sanctions, and running a significant risk of tipping off conflict. Most importantly, the American effort to organize multilateral sanctions failed to produce anything except escalation. By mid-June 1994, the two sides were, in fact, on the brink of war.

³²⁵ Oberdorfer, 2001, p.283. The South Koreans did win China's abstention on a UNSC resolution calling on the North to comply with the NPT. The resolution did not, however, threaten sanctions. In return for China's abstention, Seoul pledged to drop its categorical opposition to talks between Washington and Pyongyang. China consistently maintained, however, that it would not support economic sanctions.

The United States began to lay the groundwork for UN sanctions after negotiations began to break down in September 1993, and did so with renewed vigor after the “Super Tuesday” agreement collapsed in March 1994 and the IAEA Board of Governors referred the sanctions issue to the Security Council. The US enjoyed the strong backing of the Europeans, whose support in the UN was important to get any resolution passed, but who also had almost no trade with North Korea. However, it again could not win support from China, which continued to maintain that it would not support UN sanctions, and urged a diplomatic settlement to the issue, or from Japan, whose ethnic Koreans contributed significantly to the DPRK economy.³²⁶

When the United States pursued a UNSC resolution in March 1994 demanding that Pyongyang allow inspections, and suggesting that sanctions would follow if they refused, the Chinese blocked it. Instead, China proposed a statement from the Security Council president – which both the United States and the ROK were eventually forced to support - that urged cooperation but did not mention sanctions at all.³²⁷ The Chinese-sponsored statement also forced a significant shift in the US’s public bargaining position: it demanded only the fulfillment of a February 15th DPRK-IAEA agreement for the absolute minimum level of inspections necessary to ensure that plutonium had not been reprocessed.³²⁸ Even this weak statement, though, was met with escalating threats: in April, Pyongyang threatened to refuel the Yongbyon reactor – the first step toward reprocessing plutonium.³²⁹

The push for sanctions increased after the North Koreans began unloading their reactor in May. In a signal that there was bipartisan consensus in Congress on the matter, Senators George Mitchell (D-ME) and Robert Dole (R-KS) jointly stated their support for UN economic sanctions.³³⁰ On May 30th, after negotiations in Pyongyang with IAEA inspectors over tests on removed fuel rods had broken down, the US succeeded in getting a strongly worded statement passed by the Security Council with China’s acquiescence. There were other signs in early June

³²⁶ *Reuters*, December 27, 1993; Sanger, March 23, 1994; Greenhouse, March 23, 1994; Wit *et al.*, 2004, pp.155-60. If anything, the European allies had staked out a tougher position than the United States on sanctions. Russia, however, proved to be more difficult to bring along. China was the major holdout in the Security Council.

³²⁷ Lewis, March 30, 1994; Gordon, March 31, 1994; Lewis, April 1, 1994. The US draft resolution did not explicitly refer to economic sanctions but only the consideration of further action. On a visit to Beijing, ROK President Kim Young-sam appeared to move toward the Chinese position that negotiations should be pursued further before sanctions were considered. The US and China then agreed to a UNSC statement that spoke only of “further Security Council consideration,” without any mention of sanctions or action of any kind.

³²⁸ Sigal, 1998, p.108.

³²⁹ Sanger, April 5, 1994; Sanger April 22, 1994; Wit *et al.*, 2004, p.164. On April 4th, the North threatened to resume “peaceful nuclear activities” at Yongbyon that had previously been frozen. On April 19th, the DPRK informed the IAEA of their intention to remove fuel from the reactor “at an early date.”

³³⁰ Roth, May 16, 1994.

that China could become more cooperative over sanctions – and Beijing indicated that it would be willing to abstain if a sanctions resolution were limited – but on the eve of former President Carter’s visit to Pyongyang, the US still confronted significant challenges to organizing sanctions, and the North Koreans showed little movement on their position. In fact, while the US pursued the sanctions option, the situation only continued to escalate. On June 3rd a DPRK representative in New York warned that North Korea would respond to sanctions in kind.³³¹ On June 5th, the DPRK announced that “sanctions mean war, and there is no mercy in war.” On June 10th, the same day that China had stated it would not veto limited sanctions, Pyongyang announced that it was withdrawing from the IAEA and expelling all remaining inspectors from the country.

Former President Carter undermined the US sanctions push in the UN when he forcefully stated his opposition to the effort during his visit with Kim Il-sung in June, and then – incorrectly, and without permission from Washington – informed the Great Leader that as a result of their tentative freeze agreement on June 16th, the US sanctions effort had been dropped. Even after his return to the United States, Carter continued to speak out publicly against the continuing sanctions drive.³³² In fact, the Carter trip and the resulting return to high-level talks in July did force the Clinton administration to put the issue of sanctions on the back burner. While the sanctions option was held in reserve should high-level talks fail, there were no significant public threats of UN economic sanctions after mid-June 1994.

The 1993-4 drive for sanctions accomplished little except to escalate hostilities between the two sides. As the threat of sanctions grew during this period, so did reciprocal North Korean threats that economic sanctions were the equivalent of war. Likewise, there was no softening of the North Korean bargaining position – in fact, Pyongyang escalated by defueling its reactor, and by announcing its withdrawal from the IAEA. Many in the Clinton administration, as well as former President Carter, believed that the DPRK threat to treat sanctions as war was genuine.

Some have argued that China’s apparent movement toward supporting UN sanctions in the first half of June 1994 served to soften the North Korean bargaining stance, which facilitated Kim Il-sung’s agreement to a freeze in June and the successful negotiation of the Agreed Framework between June and October 1994. There is, however, little evidence to support this

³³¹ Sigal, 1998, p.125; Darnton, June 5, 1994. The US bargaining position was also becoming increasingly unclear at this point, as there was no statement from the Clinton administration on what course of action Pyongyang could take to avoid sanctions, or what conditions would be included in a sanctions resolution.

³³² Wit *et al.*, 2004, pp.223-36; Smith and Marcus, June 20, 1994. During his June 16th meeting with Kim, Carter stated his opposition to sanctions. Later that same day, he repeated this opinion during a live CNN broadcast. The following day, Carter erroneously told Kim that the sanctions push had been dropped. This comment was captured by the media. Carter afterward insisted that he had been careful to reverse this statement to the North Koreans before leaving the country. On June 19th, Carter told *Washington Post* reporters that sanctions “would be a direct cause of potential war.”

claim. China consistently said it opposed the implementation of sanctions, and vocally supported continued negotiations. In early June, China stated that it would not veto a limited sanctions regime, but this was a far cry from supporting sanctions, never mind the phased sanctions proposal that Washington was favoring at that point. If anything, this should be read as an effort to water down any US proposal, not back it up. High-level talks between China and the DPRK in June gave no indication that there was a serious change in either side's position, and the Chinese ended talks in Beijing by publicly reaffirming its "friendship" with the North Koreans. China also consistently indicated its unease with the US military buildup, which the Americans saw as a necessary part of any sanctions regime.

There is little indication that there was any significant softening of Pyongyang's position after mid-June 1994. In fact, with respect to the North Koreans' two central concerns – no inspections to uncover its past nuclear activities, and no large role for Seoul in any agreement that could provide the South with unacceptable leverage – the Americans yielded at least as much as the North Koreans did. Additionally, over the long term, the removed fuel rods would remain at Yongbyon, and nuclear facilities would remain intact, allowing the North to continue with its nuclear efforts where it left off should any agreement break down.

3. Why Economic Sanctions Were Ineffective

The threat of sanctions failed, first, because the US had difficulty making such a threat credible. The United States had even less leverage with the threat of economic sanctions than it had with its military threats. North Korea was an insular state with little external trade with the outside world, particularly with the West (although limited economic ties had been forged with the South and with Japan). Any sanctions regime with teeth would have to be broadly multilateral, and, most importantly, include China, which was the North's largest trading partner and source of aid. Yet the Chinese were unwilling to back economic sanctions against the North Koreans, not least because they feared weakening or even toppling the regime and creating instability and refugee flows on their border. Economic sanctions also ran the risk of provoking the North Koreans and triggering a wider conflict – the North Koreans stated repeatedly that they interpreted the implementation of sanctions as an act of war. Finally, economic and military sanctions were inextricably linked. Because economic sanctions by themselves risked provoking conflict, the US and ROK militaries would conduct military preparations for conflict, which

would inevitably be interpreted by Pyongyang as a threat.³³³ It was particularly problematic that the US and the ROK had adopted an offensive war plan.

The second reason the threat of economic sanctions failed in this case was that they exacerbated the same relative gains concerns that worked against military sanctions. Both concessions to the South Koreans in bilateral talks as well as inspections that shed light on past nuclear activities would, in the eyes of decision makers in Pyongyang, surrender a strategic advantage to the country's adversaries that could be used against them in the future. In the absence of positive inducements to offset these disproportionate gains such as closer trade and diplomatic relations, coercive measures – whether economic or military – failed to produce compliance.

Finally, reputation costs were simply too high for Pyongyang to yield to the threat of economic sanctions. The North Koreans viewed sanctions as a form of extortion, threatened only for the purpose of compelling the North to yield on the issue of inspections. Economic sanctions carried little direct cost for the United States, but to organize them the US had to expend significant political capital, particularly with China. In May 1994, the United States agreed to MFN status for China and to overlook human rights concerns in part to convince China to acquiesce to UN sanctions and to put pressure on Pyongyang. The United States also faced the very real risk that the implementation of sanctions could lead to military conflict on the Korean Peninsula, which would be extraordinarily costly to the United States. The US was prepared to pay these costs only to coerce the North Koreans into allowing inspections that, Pyongyang believed, would confer a strategic advantage on its adversaries. Furthermore, compliance with these demands could invite future coercion. If the North had indeed produced plutonium, and this were revealed by yielding to sanctions and allowing inspections, the US was likely to demand that the DPRK turn over the plutonium, and to tighten the screws to force compliance.

IV. Positive Inducements Were Effective

The North Korean case lends strong support to hypothesis (H2):

(H2.a) Positive inducements are effective with both allies and adversaries alike, but are more likely to be effective with allies.

(H2.b) In general, positive inducements are more likely to be effective than negative sanctions, and are greatly more effective with adversaries than negative sanctions.

³³³ Gordon, March 25, 1994.

(H2.c) Unlike negative sanctions, positive inducements are likely to produce long-term compliance.

(H2.d) Whereas negative sanctions can produce escalation with adversaries, positive inducements do not.

Positive inducements were critical to the success of US diplomacy between 1991-1994, and were central to the 1994 Agreed Framework. The agreement itself was formally structured around the provision of inducements. Furthermore, US inducements managed to steer US-DPRK relations toward a much more cooperative path at key moments of crisis, led to a freeze of the DPRK's plutonium production, and committed both sides to a framework that worked toward normalized economic and diplomatic relations. While the Agreed Framework failed in the long run, it did represent a sea change in the US-DPRK relationship, and was a vast improvement over the *status quo* for both sides. This was not accomplished in one stroke, but was engineered through the use of positive inducements over the course of several years. However, as discussed in the previous section, this process was repeatedly set back when the US used negative sanctions.

Three types of positive inducements were offered in this case: security assurances and military-related inducements, economic inducements, and diplomatic inducements. All were important components of the outcome. The withdrawal of US nuclear forces and the cancellation of Team Spirit exercises played a key role in facilitating cooperation, as did public non-aggression pledges. Economic inducements included the lifting of long-standing US sanctions and the establishment of trade and investment ties, the provision of heavy fuel oil, and the promise to arrange for the supply of two LWRs. Diplomatic inducements included the normalization of relations as well as the less dramatic, but still important, use of high-level talks and joint statements. These measures facilitated cooperation and successfully induced nuclear compliance by drawing on superior sources of leverage than the Americans possessed for economic sanctions, mitigating relative gains concerns, and reducing reputation costs. Positive inducements successfully changed DPRK state behavior by influencing the preferences of North Korean domestic actors, as well as by rewarding reformers in Pyongyang in a manner that gave them increased influence over North Korea's nuclear policy. An important exception here, however, is the attempt to use offers of diplomatic talks as positive inducements. US attempts to use negotiations themselves as a bargaining chip tended to undermine progress rather than promote it. This was compounded by Washington's repeated demand that progress be made between the DPRK on the one hand and the IAEA and Seoul on the other – all on separate

negotiating tracks – as a precondition for further talks. This allowed Seoul and Vienna, which often harbored interests that diverged from Washington’s, to control the direction of US-DPRK negotiations, and gave the DPRK an additional source of bargaining leverage that it otherwise would not have.

A. 1988 – 1992: IAEA Nuclear Safeguards Agreement and Inspections

Interestingly, the United States’s first response to North Korea’s nuclear ambitions was to offer positive inducements. Seeking to build on recent US successes in Eastern Europe and with the Soviet Union, and to take advantage of opportunities opened up by the end of the Cold War, first the Reagan and then the Bush administration, in collaboration with regional allies, launched an initiative to use confidence-building measures and inducements to reorient North Korea toward a more cooperative relationship with the West.³³⁴ This was not limited to the nuclear issue, but sought to address a wide array of outstanding disputes and to diffuse tensions on the Korean Peninsula. This approach proved to be effective. By offering inducements that reduced the DPRK’s perception of the US military threat – especially through the withdrawal of US nuclear forces and the cancelation of Team Spirit – as well as holding out the possibility of normalized relations and, implicitly, regime acceptance, the Americans effectively negotiated a number of concessions from the North Koreans, including an IAEA Safeguards Agreement and inspections.

Beginning in late 1988, the US, following South Korea’s lead with its “*Nordpolitik*” policy, provided a number of small concessions to the North Koreans. These included lifting restrictions on non-governmental DPRK visits to the United States and similar visits by American citizens to North Korea, an exception to long-standing economic sanctions for humanitarian exports, and a softening of the strict US ban on diplomatic contacts with the North.³³⁵ The latter was the most significant: before 1988, US diplomats were not allowed to engage in casual conversation with their DPRK counterparts, even in neutral settings.

The Bush administration also initiated a series of low-level and limited diplomatic talks in Beijing in late 1989 and early 1990. During these Beijing talks, US diplomats communicated to DPRK representatives that they expected several specific concessions from the North in return for the Americans’ positive inducements. These demands were not all associated with the

³³⁴ Wit *et al.*, 2004, pp.6-9; Sigal, 1998, pp.17-32. The Bush administration’s policies were formulated in National Security Review (NSR) 28, “United States Policy Toward North Korean Nuclear Weapons Program,” February 6, 1991 (not yet declassified).

³³⁵ Roehrig, 2006, pp.202-3. Reagan’s decision to begin to lift diplomatic sanctions and pursue a policy of limited engagement was undertaken in collaboration with the South Koreans, who were pursuing a more conciliatory course themselves and helped shape US policies during this period.

country's nuclear program, but addressed a wide array of concerns, and were part of an ambitious effort to effect a major change in US-DPRK relations at the end of the Cold War. The US asked for North Korea to sign the IAEA Safeguards Agreement, and also for progress in DPRK-ROK talks, the renunciation the country's support of terrorism, cooperation on the issue of MIA US soldiers from the Korean War, and a reduction in inflammatory anti-US rhetoric.³³⁶

This approach was, in fact, moderately successful. The DPRK did tone down its rhetoric, returned the bodies of US soldiers, and conducted high-level talks with the ROK. North Korea also agreed to simultaneous UN membership for the two Koreas, a move it had long opposed on the grounds that it would grant legitimacy to the Seoul government. On the issue of the IAEA Safeguards Agreement, however, while the DPRK did negotiate a Safeguards Agreement with Vienna in summer 1991, they refused to sign it and allow inspections.³³⁷ Instead, the North Koreans responded to the US with a counter-proposal: the DPRK would sign a Safeguards Agreement and allow inspections at Yongbyon in return for reciprocal inspections conducted by the North Koreans, the withdrawal of US nuclear weapons deployed on the Korean Peninsula, and negative security assurances that the United States would not attack the North with nuclear weapons.³³⁸

Continuing with the George H. W. Bush administration's engagement approach, US nuclear forces were withdrawn from Korea by the end of 1991. The United States and South Korea also announced that they would allow inspections of civilian and military sites in the ROK. The two allies further agreed to cancel Team Spirit 1992, military exercises that the North Koreans had long condemned and characterized as preparations for a nuclear war against the DPRK. These moves were combined with other offers of inducements made by US allies in the region. Japan conditioned the normalization of relations with the DPRK on its agreement to safeguards. The ROK, which had itself actively sought nuclear weapons and the closed nuclear fuel cycle, pledged never to develop a plutonium reprocessing or uranium enrichment capacity. Finally, the United States made the unprecedented move of agreeing to direct talks between US and DPRK diplomats, which took place at the US Mission to the United Nations in Manhattan in January 1992.³³⁹

³³⁶ Sigal, 1998, pp.25-6.

³³⁷ Reiss, 1995, pp.235-6.

³³⁸ Oberdorfer and Reid, 1991.

³³⁹ Sanger, November 22, 1991; Sterngold, December 19, 1991; Reiss, 1995, pp.237-8. After the Bush administration announced that it would remove nuclear weapons from Korea, the North Koreans were still reluctant to agree to safeguards, and continued to demand additional concessions including, but not limited to, inspections of military sites in the South. US and ROK support for such inspections pushed the deal forward, with the DPRK agreeing to IAEA inspections conditional upon reciprocal inspections in the South

The American policy of inducements worked. In December, Pyongyang signed two landmark agreements with Seoul: a non-aggression pact, and the Joint Denuclearization Declaration (JDD). The JDD pledged both countries to nuclear abstention, forgoing reprocessing and uranium enrichment, and reciprocal inspections. Notably, the JDD went beyond the requirements of the NPT itself, which did not ban reprocessing or enrichment. Pyongyang also signed an IAEA Safeguards Agreement in January 1992, and agreed to allowed inspections that spring and summer. Perhaps most important, though, was the fact that the DPRK had frozen its reprocessing activities. This would remain the case until May 1994, when, in the middle of rising tensions with the United States, the North Koreans would remove fuel rods from the Yongbyon reactor, the first step to reprocessing the spent fuel to make weapons-grade plutonium.

Inducements were successful in this instance for three reasons. One was that the Americans chose a set of inducements that directly addressed North Korea's security concerns, and a major reason for the DPRK's nuclear weapons program in the first place. North Korea could concede without compromising its strategic position – especially with respect to the ROK - over the longer term. Another reason they were successful was that the Americans were capable of signaling their preferences by delivering meaningful inducements upfront. Specifically, the American moves signaled that Washington was prepared to improve its relations with Pyongyang across a broader spectrum of strategic, diplomatic, and economic issues than just the nuclear one. Although these hopes would soon be undermined as events unfolded over 1992, early in the year it appeared in Pyongyang that reformers within the regime, who believed that security could be obtained through economic trade and better relations with the US and its allies and that the nuclear program could be used as a bargaining chip to further this goal, had been proved right.³⁴⁰ The third reason was that reputation costs were low. Not only were North Korean concessions reciprocated by high-profile concessions from the Americans, but they were also in fulfillment of treaty obligations that were willingly accepted, and applied equally to North Korea's adversaries, as the ROK was pledging itself to denuclearization and forgoing the nuclear fuel cycle as well. If anything, the DPRK's reputation benefited, as direct talks with the United States and membership in key international organizations could bestow prestige.

in late November 1991. The US also applied pressure by delaying troop withdrawals from Korea, a move that was specifically linked to the nuclear issue. This move, more a way to reassure Seoul than to put pressure on Pyongyang, involved very little change in US policy, and had little discernible effect on US-DPRK relations or the outcome of the overall engagement policy that the Bush administration successfully pursued during this period.

³⁴⁰ Mansourov, 1997.

B. June 1993: 'Suspension' of the DPRK's NPT Withdrawal

After negative sanctions led to the DPRK's withdrawal from the NPT in March 1993, positive inducements brought the North Koreans (part of the way) back in. By the end of the summer of 1993, it even appeared that the two sides could strike a deal on the nuclear issue. This would eventually be undermined by poor policy coordination among the United States, the IAEA, and South Korea, but the two agreements of 1993 would keep the DPRK from withdrawing from the NPT entirely, and would bring the LWRs-for-nuclear-compliance exchange to the table, for the first time giving the issue serious consideration in Washington. A willingness to talk and offer minor positive inducements during these months, therefore, yielded small but meaningful concessions. These small concessions also set the stage for the package deals that would later take shape, and eventually the Agreed Framework.

After North Korea announced their intention to withdraw from the NPT at the end of March 1993, the Clinton administration began to pursue UN multilateral sanctions, and concentrated their diplomatic efforts on enlisting the cooperation of China. The administration decided to return to the negotiating table with the North Koreans in April only when this effort began to flounder – after not only China but the US's allies voiced their preferences for further engagement with Pyongyang, and indicated that they would not support the American sanctions effort until they were satisfied that positive inducements would not work. Therefore, it was only reluctantly that the Clinton administration agreed to direct talks.³⁴¹ This gave the pro-engagement faction in Washington a chance to set the policy course despite the overall gain in influence by hawks, and the growing impatience with diplomacy in the White House, in the wake of North Korea's NPT announcement.

Contrary to all expectations, however, the Gallucci-Kang talks held in June 1993 in New York yielded results. Most importantly, the DPRK agreed to suspend its withdrawal from the NPT – a move that led to the nebulous and problematic claim that the state was somehow neither fully in nor fully out of the treaty regime, and enjoyed a sort of novel position with respect to its mandates – in return for very minor, if not meaningless, public security assurances from the United States. Interestingly, the agreement – the first written joint statement between the United States and the DPRK – simply reiterated non-aggression pledges the US was already bound to by the UN Charter. It was reached only because unofficial, back-channel negotiations took place with lower-level officials on their own initiative between the two rounds of official talks at the United States's UN mission. These talks not only hammered out an agreement that would keep

³⁴¹ Oberdorfer, 2001, p.283.

safeguards inspections going and plutonium production frozen at Yongbyon, but allowed the two sides to provide information to each other about their own political considerations and preferences, when the formal talks allowed only for scripted and tightly managed exchanges.³⁴²

Positive inducements, specifically, the agreement to a joint statement and public security assurances, succeeded here because they finally provided North Korean reformers with something tangible to demonstrate that they could extract concessions from the Americans and successfully negotiate with them. The statement had little value to the Americans, but it had substantial symbolic value for the North Koreans.³⁴³ Not only did it demonstrate that the Americans were willing to negotiate, but it was a signal that the US was prepared to engage with the North Koreans as a legitimate partner. This not only was a gain for reformers in DPRK domestic politics but was also a victory for the North Koreans over the ROK, as in the eyes of both Koreas, any diplomatic triumph by one – however small – was a loss for the other. Seoul's angry reaction to the statement only added to its value.³⁴⁴ Finally, the agreement provided a face-saving way for the North Koreans to back down from the withdrawal. They did not have to agree to the full terms of the NPT or special inspections, and in fact did not have to yield anything of substance beyond allowing the same sort of inspections for the continuity of safeguards that they had agreed to in May. Reputation costs were therefore very low: the North Koreans won a symbolic statement from the Americans while still refusing to yield to the US's earlier demands to comply with all of the NPT's obligations. In return, they also extracted a real concession from the Americans. The US, after all, had refused a joint statement after the Kanter-Kim talks in 1992.

It is important to note, however, that diplomacy floundered as the US sought preconditions for holding a third round. The United States stipulated that it would agree to a third set of high-level talks only if the North Koreans continued talks with Seoul over implementing the JDD and allowed IAEA inspections that could vouch for the 'continuity of safeguards' on the DPRK's declared nuclear facilities. But the use of talks as an inducement, made conditional upon North Korean progress in separate negotiations with the IAEA and with Seoul, failed. The United States backed itself into a corner by putting future talks at the mercy of the South Koreans and the IAEA, both of which had interests that diverged from the Americans'. The DPRK and the IAEA were soon at loggerheads over the issue of inspections, as the IAEA pushed for

³⁴² *Ibid.*, p.285.

³⁴³ *Ibid.*, p.286.

³⁴⁴ *Ibid.*; Wit *et al.*, pp.63-9. Seoul had reluctantly agreed to US-DPRK direct talks in June only because other options, such as military force and economic sanctions, had such poor prospects of success. ROK conservatives seized on the June US-North Korean joint statement for ammunition against Kim Young-sam, who was forced to respond by tacking to the right and publicly criticizing the US's overtures toward North Korea.

inspections that would address discrepancies with North Korea's declaration of past nuclear activities, and Pyongyang restricting the IAEA to inspections at two declared facilities – the reactor and the reprocessing facility – that were sufficient to guarantee that plutonium was not being produced. At the same time, Seoul and Pyongyang could not agree on an exchange of envoys or even working-level contacts to arrange such an exchange. As a result, the third round of talks were canceled. The June and July 1993 talks had been a breakthrough, and the starting point for a potential deal had been put on the table, but for the rest of 1993 and for the first half of 1994, the US and the DPRK were limited to back channel, low-level, or informal communications.

The offer of high-level talks as an inducement failed for three reasons in this case. One is that they were conditioned upon successful talks with two other parties that had interests that diverged with, and were sometimes at odds with, those of the United States. The second reason was that the refusal to engage in talks robbed both sides of a key forum in which they could negotiate disputes and relegated communications between the US and the DPRK to more inconvenient back channels. The third reason is that the North Koreans did not see the withholding of talks until preconditions were met as a positive inducement but rather as an extortionate threat. This was compounded by the linkage of talks to discussions with the IAEA and the ROK. It meant that Seoul could set conditions the DPRK would have to meet in order to continue negotiations with the United States, making the South Koreans agents of extortion themselves. This raised the stakes of North-South bilateral talks and IAEA inspections to an unacceptable level, as accommodation of either party by the North Koreans could invite further demands. Pyongyang indeed often believed it was in such a position, as both South Korean and IAEA demands did go beyond what the US originally suggested in July.³⁴⁵

C. June-October 1994: The Agreed Framework

The Agreed Framework itself represents the successful use of positive inducements by the United States to achieve counter-proliferation goals. Inducements in this case worked with a staunch adversary, where negative sanctions had failed. The agreement was also achieved after the two sides had reached the brink of war over the nuclear issue. The United States agreed to provide shipments of heavy fuel oil, arrange for the construction of two LWRs, take steps toward the normalization of relations and the lifting of existing economic sanctions (beginning with the establishment of liaison offices), and offer security assurances. In return, the North Koreans would freeze their nuclear program (the 5MWe reactor would be shut down, the reprocessing

³⁴⁵ Sigal, 1998, pp.72-3.

facility and two larger reactors under construction would be put under IAEA seal, and the spent fuel rods removed from the reactor in May would be put in long-term storage and eventually shipped out of the country) and keep safeguards in place. Once the LWRs were fully delivered, the North Koreans would dismantle their existing facilities and come into full NPT compliance.

The Agreed Framework was successfully reached because it offered key concessions as well as up-front tangible concessions to DPRK reformers, it drew on the US's most potent sources of leverage, it included provisions that mollified Pyongyang hardliners, it involved incremental and progressive exchanges over time, and it mitigated relative gains and reputational concerns. The deal drew on rich sources of leverage that the US could not tap in its efforts at negative sanctions. The Americans could offer a possible way out of the economic and strategic morass that the continued pursuit of nuclear weapons could not by holding out the possibility of improved trade and diplomatic ties. Most importantly, the deal implicitly held out the possibility of regime acceptance. As the US provided sophisticated nuclear technology and took steps to restore relations, its security assurances and its commitment not to pursue regime change would become increasingly credible. The offer of fuel oil and LWRs took advantage of the United States's economic and technological superiority. While these were valuable concessions to Pyongyang, for the Americans, it was a way to stop the North Koreans' development of nuclear weapons on the cheap. With a price tag in the billions of dollars, the cost of two nuclear reactors was not trivial. But considering the value of preventing further progress with the DPRK nuclear program, and the fact that US allies would be fitting the lion's share of the bill, it was more than an acceptable price to pay.

Restored relations and trade with the United States and its allies also had long been the central goal of DPRK reformers. They was essential to the agreement for the North Koreans, because the only terms under which they could surrender the nuclear option was if doing so offered an alternative path to regime security. In this case, if the Americans would accept the Kim regime as legitimate, and pursue increased economic and political ties with Pyongyang, then the DPRK would be able to forgo its nuclear weapons program. If this was not forthcoming, then the North Koreans would follow the path preferred by regime hardliners: regime security through the nuclear deterrent.

In the near and medium-term, the United States offered heavy fuel oil and two LWRs, which were important payoffs for the DPRK military and hardliners who needed to see tangible up-front concessions from the United States to go along with the deal. The LWRs were particularly important. They were a sign that the United States was prepared to offer costly positive inducements that publicly signaled better relations and committed the Americans to

greater cooperation. The delivery of advanced civilian nuclear technology, as well as the enriched uranium that would be needed to fuel them, would be high-status concessions symbolizing an American acceptance of North Korea as a member of the international community in good standing.

The agreement was also possible because it set out incremental steps through which the concessions would be made. Because trust was lacking between the two sides, it was necessary that any deal allow for trust to be built through smaller exchanges before more costly concessions could be made. It was also necessary, therefore, that the agreement not require either side to trade away significant sources of leverage in the early stages of the deal. The United States could cut off oil shipments at any time should the North Koreans defect. Likewise, the North Koreans could restart their nuclear program if the agreement broke down. The spent fuel rods would remain in the country for the time being. It would be years before the more permanent concessions – LWRs, shipment of the fuel rods out of the country, and the dismantling of nuclear facilities – would be exchanged.

Finally, the Agreed Framework could succeed because it mitigated concerns about relative gains and reputation costs. By keeping the nuclear program frozen but intact, the North Koreans could agree to the deal without surrendering the nuclear option. Permanent concessions would not be made on that front until substantially greater inducements were provided by the Americans and, it was assumed, progress had been made toward better economic and diplomatic relations. Whatever strategic vulnerabilities would be opened up by surrendering the nuclear program at that point would be offset by the increased stability and security brought by improved relations. Therefore, there was little worry that the agreement would surrender a strategic advantage to the Americans or, more importantly, to the South Koreans. Reputation costs were also low. The Agreed Framework was a major concession to the North – it treated Pyongyang as a legitimate bargaining partner, held out the possibility of regime acceptance, and pledged the United States to making both costly as well as highly symbolic concessions by providing light water reactors. At the same time, the North would keep the spent fuel rods in the country – both a material source of leverage as well as a face-saving measure – and would not have to submit to special inspections that would address its past plutonium activities anytime soon.

V. Sequential Bargaining Was Effective

The history of this case supports hypothesis (H3):

(H3.a) Cooperation is most likely when mutual concessions are made sequentially, beginning with ones that are less costly and are reversible, and leading over time to ones that are costlier and more permanent.

(H3.b) All-at-once grand bargains are less likely to succeed.

(H3.c) Sequential and progressive exchanges of concessions are most necessary with adversaries.

Because trust was low between the United States and the DPRK, deep and lasting concessions on the nuclear issue could not be achieved without first progressing through smaller and less costly exchanges of concessions. This occurred in two ways in this case. First, mutual concessions and minor agreements between 1991-1994 set the stage for the Agreed Framework by communicating each side's preferences to the other and helping to build domestic political coalitions in both states that would support a larger deal. Second, the Agreed Framework itself was formally structured around tit-for-tat exchanges that would take place in four sequential steps, moving from relatively minor and reversible concessions to deeper and more permanent ones over the course of years. It is unlikely that a deal could have been achieved in any other manner, as neither side was prepared to commit to more significant concessions up front – the North Koreans simply would not agree to either the dismantlement of their nuclear facilities or IAEA special inspections, while the Americans were not prepared to normalize economic and diplomatic relations with the DRPK, until a number of intermediate steps were first fulfilled.

A superficial look at the history of this case at first appears to contradict this interpretation. Particularly during the year between July 1993 and June 1994, the United States and North Korea tried to forge “small package” agreements that would resolve the pressing issue of inspections – and indeed did reach several agreements on that matter during this period – but these efforts all failed. Then, in high-level talks between June and October 1994, the two sides struck a formal agreement that addressed not just the immediate crisis over the continuity of safeguards but set out a path toward the resolution of all outstanding issues.

The Agreed Framework, however, did not suddenly arise in the second half of 1994, but was the product of a long and difficult back-and-forth process over the preceding years that

fleshed out the contours of an agreement that would be acceptable to both sides and at the same time shifted each state's preferences in directions that made such an agreement possible. This process began as early as 1991, when the Bush administration adopted a policy of engagement aimed at bringing North Korea into the international nonproliferation regime. The US decision to withdraw its nuclear forces from Korea, and the US-ROK decision to suspend the Team Spirit exercises, were critical in both initiating IAEA safeguards inspections, but more importantly inducing a freeze in the North Korean nuclear program and providing the reformist faction in Pyongyang with sufficient room to pursue a negotiated settlement with the Americans.

This process continued into 1992. The North Koreans sought to negotiate over the nuclear program in the Kanter-Kim talks but were rebuffed. 1992 was also when the DPRK began to put an LWR deal on the table – again only to have the proposal ignored or dismissed. The North Koreans and the Americans came to an impasse over inspections and the evidence that the North had reprocessed more plutonium than they had admitted to in their declaration to the IAEA, but even as that issue produced a crisis in early 1993, North Korea continued to pursue essentially the same course that was set by the mutual concessions of 1991: there was no diversion of spent fuel or reprocessing, and Pyongyang continued to signal its interest in high-level talks and a deal in which the nuclear program would be traded for closer ties to the United States. The sticking point during this period, in fact, was whether the North Koreans would comply with all of the requirements of the NPT, and allow IAEA inspections that would ascertain the extent of the country's past activities. This was, however, something that Pyongyang was not yet willing to agree to.

The DPRK's withdrawal from the NPT came in response to the restart of Team Spirit exercises, the refusal of the IAEA to back down from its demand for special inspections, and the failure of the United States to agree to negotiations since the Kanter-Kim talks were held over a year before, or to offer any way forward apart from special inspections. This prompted a backlash, as the North Koreans resorted to brinkmanship in an effort to force the issue. Importantly, however, plutonium reprocessing remained frozen, and the North Koreans continued to send out signals that they would be amenable to an deal. It is telling that it required very little on the Americans' part to pull the situation back from edge in the June and July 1993 Gallucci-Kang talks. The concessions made in June and July were trivial for the United States, but they were sufficient to induce the North Koreans to agree to "suspend" their NPT withdrawal. The half-in-half-out approach to the treaty that Pyongyang took was unacceptable to both the United States and the IAEA, and proved unsustainable, but again, the North did not restart reprocessing, and continued to communicate its willingness to deal. The July talks, in fact, managed to move

things forward in a critical way, as not only did the DPRK representatives succeed in bringing the LWR offer to the attention of top-level policy makers in Washington, but the Americans began to seriously consider such a plan.

As increasingly hostile disagreements over inspections mounted between summer 1993 and spring 1994, and threats of military and economic sanctions mounted, behind the scenes, American and North Korean lower-level diplomats hashed out increasingly workable frameworks for settling the nuclear issue. These efforts were unable to forestall crisis in early 1994, but would nonetheless serve as the basic blueprint for a settlement once both sides had pulled back from the brink in June 1994. Importantly, even in their earliest manifestations, these proposals mirrored the Agreed Framework in substance. The central point of disagreement was timing. By the end of October, 1993, both the American and North Korean proposals had already converged around an exchange of the cancelation of Team Spirit, LWRs, and normalization, in return for inspections, full compliance with the NPT, and eventually the dismantlement of the nuclear program. The principal issue linkages would therefore be set before 1994. The central question was how incremental exchanges would be timed and structured.³⁴⁶ Over the course of 22 talks between the two sides in New York, negotiations did not stray from this basic framework for a deal. The North Koreans were even willing to accept special inspections, provided they were not granted up front. Agreement, however, was never reached because the United States refused to drop its preconditions for a third round of talks: IAEA inspections and progress on North-South talks. The US would not offer any concessions up front. By December 1993, IAEA and South Korean demands had made it extremely difficult for these preconditions to be met.

When the US and North Korea finally went back to the bargaining table in July with the Carter-negotiated freeze in place, the starting point for both sides in the negotiations was largely in line with the package deals that had been discussed over the previous year. Negotiations were complicated by the issue of what to do about the fuel rods that had been removed in May, otherwise the demands on the table remained the same: NPT compliance, inspections, North-South bilateral talks and implementation of the JDD, Team Spirit, a LWR-for-dismantlement exchange, trade, and normalization of relations. The North Koreans additionally demanded energy offsets for shutting down the Yongbyon reactor. There was little significant change over

³⁴⁶ Wit *et al.*, 2004, pp.96-9. The sticking point throughout the talks would be the “small package,” as the United States refused to conduct high-level talks until the inspections issue was settled. This is not to argue that these elements of the “small package” were minor details, but that the back-channel talks conducted during this otherwise unpromising period of diplomacy was important because it produced key agreements, however informal, about what shape an overall settlement of the nuclear issue could take, and set out the key issue linkages incorporated in the deal.

the course of negotiations – everything else revolved around timing and details.³⁴⁷ Even the death of Kim Il-sung and a month’s pause in the talks did not upset this general course.³⁴⁸

The Agreed Framework itself was structured as a series of tit-for-tat exchanges that were designed to build trust and thereby make deeper and more permanent concessions possible in subsequent phases. As Robert Gallucci described the situation, “there wasn’t sufficient trust for one to take a very large step assuming the other would take the compensatory counter step. There had to be a series of smaller steps.”³⁴⁹ The first of these steps was aimed simply at defusing any immediate crises and creating a stable basis from which future concessions could proceed (what had earlier been the “small package”). Thus the North Koreans would freeze their nuclear program – recently removed fuel rods would be placed in storage pools under IAEA monitoring – while the Americans would provide heavy fuel oil. Construction on the reprocessing facility and the two larger nuclear reactors would also be suspended. The issue of IAEA special inspections – a principal source of dispute for two years at that point - would be deferred until the LWRs were substantially completed, which was not anticipated to happen for years.³⁵⁰ The US agreement to exchange liaison officers and work toward full diplomatic normalization was a central concession as well, and fulfilled a central goal of North Korean reformers who preferred to trade the nuclear program for closer ties to the United States and its allies.

It should be noted, however, that while the use of smaller agreements did make larger concessions possible in this case, the tit-for-tat structure of the Agreed Framework itself also contributed to its ultimate failure. Because the fulfillment of the terms of the treaty depended on the delivery of concessions years into the future, the ultimate success of the agreement was dependent on the resolution of future state leaders to carry them out. This proved to be problematic: the Clinton administration encountered resistance in Congress and within the administration itself that undermined the US’s ability to deliver on its promises, and the election of George W. Bush and his appointment of hardliners who strongly opposed the Agreed Framework to important foreign policy positions eventually killed the agreement. This indicates that while mutual concessions of progressively greater value do facilitate closer cooperation in the future, they will not succeed unless there exists the political will domestically to follow through on the agreement. Inducements, like sanctions, are not invulnerable to the problem of maintaining a state’s resolve to deliver on them over the long term. Many positive inducements –

³⁴⁷ Oberdorfer, 2001, pp.355-6. The greatest changes were probably the decision to defer special inspections for years (and the DPRK commitment to accept them at all), as well as US concessions on North-South bilateral talks (which the North Koreans reneged on at any rate).

³⁴⁸ *Ibid.*, p.351; Wit *et al.*, 2004, pp.255-65.

³⁴⁹ Gallucci as quoted in Oberdorfer, 2001, p.354.

³⁵⁰ Oberdorfer, 2001, p.357.

like the promise in this case to deliver heavy fuel oil – require a long-term commitment. This can mitigate concerns about the other party reneging by creating a built-in enforcement mechanism: because both sides must deliver their concessions over time, if one side reneges, the other has the option of retaliating by ceasing the delivery of its own concessions. Yet it also provides domestic opponents of the deal an opportunity to sabotage the agreement whenever they can gain power in the future.

VI. Lines of Communication

The North Korean case lends strong empirical support to hypothesis (H4):

(H4.a) Both positive inducements and negative sanctions are more likely to be effective when there exist thick and well-established lines of communication between target and sender.

(H4.b) The use of diplomatic contacts or negotiations themselves as a bargaining chip is counterproductive and likely to fail.

Diplomacy in this case was hampered by two related factors: first, the US had almost no direct lines of communication with the North Koreans; and second, when it did establish tenuous diplomatic links, such as through the Gallucci-Kang channel, it treated such contacts as a reward in and of itself that could be offered as an inducement or withheld as a sanction. In the account of US-DPRK diplomacy he co-authored, Robert Gallucci himself acknowledged that he “himself had become a bargaining chip, able to meet the North Koreans only when they had fulfilled certain conditions. That problem reinforced an important drawback in American diplomacy: the haphazard communications with Pyongyang.” US Ambassador to South Korea James Laney likened the situation to “sending up smoke signals in the wind.” Both men advocated the appointment of less visible officials as liaisons and the creation of an “open line” between Washington and Pyongyang.³⁵¹

Remarkably few channels of communication were available for the United States and North Korea through which they could conduct negotiations. In fact, for essentially all of North Korea’s history, the country had almost no contact with the United States other than through the Military Armistice Commission (MAC) at Panmunjom. The US and the DPRK had never extended one another diplomatic recognition, and had no diplomatic missions in one another’s

³⁵¹ Wit *et al.*, 2004, p.165.

capitals.³⁵² It was not until late 1988 that US diplomats were allowed to engage in anything beyond small talk with their North Korean counterparts, even in neutral social settings.³⁵³ Bilateral direct talks between diplomatic representatives of the two countries did not occur until December 1988, and took place in Beijing, where high-level officials on both sides could expect secrecy, low visibility, and the use of China's good offices. Prior to this time, all communication took place through the UN Command's MAC set up after the Korean War in 1953, or had to be channeled through third parties such as China or Eastern European countries, states that the United States could not always count on to represent its interests.

This lack of diplomatic contacts between the two states raised several barriers to successfully negotiating an agreement on North Korea's nuclear weapons program. For one thing, it raised the political costs of holding talks. On the American side, simply scheduling direct talks between the two sides was a departure from the *status quo* that was controversial by itself, and invited attacks from Washington hardliners arguing that agreeing to talks was a form of appeasement. Many policy makers saw direct talks – in particular high-level talks subject to public scrutiny - as particularly costly because they believed diplomatic efforts with the North Koreans were doomed to fail. As result, there was a built-in bias in favor of coercion, diplomatic contacts were frequently relegated to lower bureaucratic levels, and diplomats were forced to follow tight scripts to minimize risk. There was also a temptation to see negotiations themselves as form of positive inducement – even in the absence of any restoration of institutional diplomatic ties – and to set preconditions for future talks, as agreeing to them was politically costly. This approach repeatedly led to failure, as the DPRK was most likely to renege on those preconditions when tension was highest, leading to talks being called off during crises, when they were needed the most. Thus the third round of Gallucci-Kang talks, scheduled for September 1993, were canceled just as tensions mounted with the IAEA and the ROK, even though the previous two

³⁵² Berridge and Gallo, 1999, pp.214-30. The MAC was a very poor forum for US-DPRK negotiations. Technically, the United States was not represented in the MAC, but rather US military officers participated in the UN Command's representation. There were no diplomats involved, only military personnel. The MAC was charged with managing the armistice that was agreed at the end of the Korean War, and the issues that could be put on the agenda for discussion in the MAC were very limited. Yet this was the only way the two sides communicated face-to-face at all prior to 1988. The United States had proposed a deal in 1975 in which the US would recognize North Korea in return for Chinese recognition of the ROK. Pyongyang, however, rejected this deal. North Korea was not even a member of the United Nations until 1991.

³⁵³ *Ibid.* Until 1988, US diplomats were under instructions to limit any interaction with North Korean officials to “non-substantive” issues and to terminate any contact as quickly (and tactfully) as possible, even in the most superficial of social settings. The only exceptions were brief experiments with greater openness in 1983 and 1987. These experiments were quickly terminated, respectively, after the North Korean assassination of leading South Korean officials in Burma, and the North Korean bombing of a South Korean airliner.

rounds of talks were productive. The two sides had to move negotiations to back channels just as negotiations over package deals were becoming increasingly intense and complex. Likewise, talks were canceled again in late March 1994, just as tensions were reaching a climax.

On several occasions, in fact, impromptu back-channel contacts – or contacts low-level officials who seized the initiative without the foreknowledge of the White House – succeeded in resolving crises at times when the US was withholding talks. The North Koreans were successfully persuaded to suspend their NPT withdrawal in 1993 in talks that were initiated when DPRK officials called Kenneth Quinones at the State Department directly, bypassing official channels, at a time when the Americans were dithering over holding talks, and the clock was ticking on DPRK withdrawal from the NPT.³⁵⁴ US and DPRK representatives frequently smoothed over disputes at informal, behind-the-scenes meetings in New York in 1993 and 1994. These talks also served to flesh out the “package deals” that would serve as the basis of the Agreed Framework.³⁵⁵ Major tensions in 1994 that could possibly have resulted in armed conflict were resolved when former President Carter initiated the first US talks with Kim Il-sung. This was the first time anyone representing the United States met face-to-face with Kim, even though he was the ultimate arbiter of the country’s foreign policy.

On the North Korean side, the lack of diplomatic channels meant that any high-level communication brought along high stakes. Simply getting the Americans to agree to them was rewarding – North Korean reformists scored political points from the Kanter-Kim talks in 1992, even though they produced little of consequence and were a one-off affair. A similar gain was reaped from the Gallucci-Kang talks in 1993, and even token gestures such as the June 1993 joint non-aggression statement or the July 1993 pledge from the United States to simply consider an exchange of LWRs were valuable enough to put pro-engagement reformers back in the driver’s seat and pull the DPRK back from the brink of NPT withdrawal.³⁵⁶ However, the high value of

³⁵⁴ Oberdorfer, 2001, pp.283-4.

³⁵⁵ Sigal, 1998, pp.77-8; Wit *et al.*, 2004, pp.98-9. In summer and fall 1993, Kenneth Quinones and Gary Samore – and later Thomas Hubbard – would travel back and forth between Washington and New York to meet with DPRK representatives. Quinones had earlier been given a list of terms for a “package deal” while visiting Pyongyang. These back-channel meetings served as the primary forum in which the two sides could test each other’s preferences for a deal. Both the December 19, 1993 “small package” deal, as well as the “Super Tuesday” deal in February 1994, were made through these back channels in New York.

³⁵⁶ Oberdorfer, 2001, p.286-91; Wit *et al.*, 2004, p.62-77. The results of the June talks appear to have been more rewarding to the reformers than the July talks. The June non-aggression statement was a landmark gesture, however toothless, and at least gave the reformers something tangible to take back to Pyongyang. At the July talks, however, Kang Sok-ju first appeared ready to agree to talks with the IAEA over special inspections in return for a commitment from the Americans to “explore” LWRs, but then backtracked on this proposal and insisted that only a firm commitment to provide the reactors could lead to special inspections. It’s not clear what prompted this reversal – it may have been a bargaining tactic, or it may have reflected concern that a pledge to “explore” or even “support” LWRs would be viewed as insufficient

talks also meant that the reformers could pay a steep price if they failed. The absence of talks for more than a year after the Kanter-Kim meeting in January 1992 was politically costly for reformers in Pyongyang, as was the September 1993 cancelation of the third Gallucci-Kang talks.

The lack of clear diplomatic channels also made it difficult for the two states to form accurate beliefs and expectations about each other. Both sides harbored significant misconceptions about one another, and possessed little information about how each other's foreign-policy choices were made, who were the most influential decision makers, or what each side's motivations, interests, intentions, or preferences were. These information problems are best overcome through the bargaining process itself, which each side can use to form Bayesian inferences about the other. This is much more difficult to achieve when talks are infrequent, the two sides' diplomats and decision makers have little opportunity to build rapport with one another and accumulate experience, and diplomatic contacts are sensitive, high-profile affairs in which exchanges are highly scripted and narrowly limited, and the diplomats themselves – particularly on the North Korean side – are fearful of the negative political costs they will incur if they take the initiative.

Thus the Beijing channel of communication that opened up in 1988, although it represented an enormous break from the earlier policy of not communicating with the North Koreans at all, was hampered by its dependence on the good offices of the Chinese. They also suffered as a result of the low-level representation used by both sides, consisting of diplomats drawn from the staffs of foreign missions, and who lacked the authority and policy expertise that the sensitive issues that were discussed demanded. This led to miscommunication, missed opportunities, and misperceptions. Lower-level diplomats had difficulty dealing with proposals that involved separate issue areas or fell within the portfolio of different state bureaucracies. Innovative diplomatic initiatives also failed to rise to the attention of higher-level decision makers when lower-level officials had difficulty acting on any diplomatic moves that fell outside of their instructions or expectations. The North Koreans, for example, first raised the possibility of a freeze-for-LWRs swap in this setting, but in Washington the offer was discounted and then simply ignored, even though this would, years later, form the core of the Agreed Framework deal. When Kang Sok-ju brought the same offer up in Geneva in 1993, most of the US negotiators had

in Pyongyang. Either way, it meant that the North Koreans had to leave Geneva with less than they had hoped for.

never even heard it before and were taken by surprise.³⁵⁷ Lower level officials, surprised by the offer, simply failed to take it seriously, and it was never passed up the chain of command.³⁵⁸

Again, these issues often had to be resolved through back channels by officials willing to take the initiative. In June 1993, during the NPT withdrawal crisis, accommodation was reached only after Quinones traveled to New York to meet with DPRK officials in a Manhattan coffeeshop. Three days of long talks in this informal setting produced a much more open back-and-forth than the Gallucci-Kang talks had permitted at the US Mission to the UN. Not only were the terms of an agreement reached that allowed for a North Korean suspension of its NPT withdrawal, but Quinones provided the North Korean officials with information about the decision-making process in Washington at a point when the DPRK's diplomacy was hampered by profound misunderstandings about US policy processes and preferences. Yet Quinones's reward for this was an FBI investigation. Importantly, these informal talks changed the course of US-DPRK relations at a critical juncture: the US saw the first Gallucci-Kang talks as a failure and were prepared to move forward with economic sanctions and other coercive measures.³⁵⁹

Finally, the original US negotiating approach often produced perverse consequences, as attempts to limit and withhold talks, and then offer them as inducements in return for compliance, backfired. The US would seek to use talks to reward what Washington believed were sympathetic North Korean officials, or try to limit their dialogue to these officials with whom they believed would be a more receptive audience, only then to issue one-sided demands, and condition further negotiations on the DPRK meeting them. The result was to brand DPRK officials who were the staunchest supporters of engagement and compromise as stooges of the Americans, by presenting them with all the costs of dealing with the Americans while withholding any rewards. This forced otherwise sympathetic diplomats who had taken a risk in championing negotiations to return to Pyongyang not only empty-handed, but bearing new demands.

These were all heavy costs to bear when direct talks were, in fact, bearing fruit nearly every time they were held. Two rounds of high-level talks in 1993 not only defused the NPT

³⁵⁷ Wit *et al.*, 2004, p.54; Oberdorfer, 2001, p.90. Oberdorfer states that US officials were "unimpressed" with the proposal, and one diplomat who was in the negotiating room referred to the idea as "totally hare-brained." The LWR idea had been floated on several occasions: in Beijing with US diplomats, to Hans Blix when he visited the DPRK in 1992, and with the South Koreans. Yet it was never taken seriously. Indeed, after talks broke down once again in summer 1993, the idea was given little consideration in Washington until negotiations over the Agreed Framework began the following year.

³⁵⁸ Sigal, 1998, p.25. Sigal quotes a State Department official as saying that "anything that came through the Beijing channel was almost instantly dismissed." Also see Wit *et al.*, 2004, p.54.

³⁵⁹ Oberdorfer, 2001, p.285; Wit *et al.*, 2004, p.57-8. Quinones was investigated by the FBI for this series of meetings, as well as for meetings that would take place later in the year.

withdrawal crisis but also shaped the contours of the future agreement between the two sides by providing a setting for the communication of preferences. After a third round was canceled in September 1993, progress could only be made in fits in starts, as communication was channeled through lower-level diplomats, and the IAEA and Seoul were allowed to set the diplomatic agenda and steer the course of negotiations. High-level intervention by Jimmy Carter in June 1994 defused crisis again – this time after the North had removed spent fuel from its reactor and kicked IAEA inspectors out of the country – and got negotiations back on track. Carter was the highest-ranking US figure to ever visit Pyongyang – a striking fact considering the importance of the US-DPRK nuclear dispute to Washington, as well as the intensity of the crisis. Finally, high-level talks from July to October 1994 managed to produce an agreement that for almost a decade kept US-DPRK relations more stable than they had been since the Korean War.

VII. Domestic Politics

North Korea's decisions regarding its nuclear weapons program, the successful negotiation of the Agreed Framework, as well as the agreement's eventual unraveling, cannot be appropriately explained without consideration of domestic political factors in Pyongyang. North Korea's domestic politics have often been treated as if they were irrelevant, irrational, or as an impenetrable black box. These are not accurate views. While data about domestic political processes and events in Pyongyang is sparse, a number of sources offer key insights into the country's political order. In some areas – state ideology, the country's economy, the DPRK military – research has shed more light than is commonly recognized. Perhaps not surprisingly, the DPRK's politics was not categorically different from other socialist dictatorships. Decision making was concentrated into the hands of a supreme ruler and a small number of elites who had risen through the party ranks or the military bureaucracy, were longtime cronies of the ruler, or were taken from the ruler's family and associated families. Periodic purges – the most recent before the Agreed Framework having taken place in 1980 – were used to limit the top-most elites to a small circle of loyalists, and to limit the political influence of these elites.³⁶⁰ The military and security organizations held pride of place in the leadership and tended to resist policy change, especially economic, political, or foreign policy reform. Formal institutions were either weak or

³⁶⁰ Mansourov, 2004. This most recent purge had led to the rise of the “1980 Group,” a cadre of loyalists who were rapidly promoted after the Sixth KWP Congress in 1980. The group included a number of elites both within the military (*e.g.*, Jo Myong-rok, who would later visit President Clinton at the White House) and within the civilian leadership (*e.g.*, Yon Hyong-muk and Hong Song-nam) who would rise to prominence (Jo and Yon would sit on the National Defense Council, the innermost circle of the Kims) and champion reform. The reformists from the 1980 Group emerged as one of the dominant groups in DPRK domestic politics in 1988.

non-existent, and the domestic political process largely consisted of factional competition among elites who vied for influence with the Great Leader, Kim Il-sung. These factions were motivated first by preserving the stability of the regime, and second by maximizing their position within it.³⁶¹

North Korea's nuclear decisions were shaped not only by balance-of-threat considerations but also by the country's dire economic situation, and debates within the ruling regime over how to best address economic problems while protecting the regime's other core interests such as national security. Specifically, influential military and political elites – while limited in their ability to shape policies by the dictatorial nature of the regime and the enormous concentration of power into the hands of Kim Il-sung – could be usefully divided into two camps based upon their policy preferences: reformers or “pragmatists” who believed greater economic openness and détente across the 38th parallel were most likely to improve the regime's fortunes, and hardliners and an “old guard” that preferred autarkical measures to promote self-sufficiency (*juche*) and a firm stance against the Americans and South Koreans to deter efforts to undermine the regime. The former camp believed that the continued development of nuclear weapons would make the regime less secure in the longer run, but that the nuclear program was nonetheless an important bargaining chip that could be used to win concessions from the United States. They preferred to negotiate a settlement on the issue. Hardliners saw nuclear weapons as the ultimate guarantor of regime security, and preferred to develop a bomb as quickly as possible. The two camps differed not just on nuclear policy, but across an array of issues, which each group saw through different interpretive lenses. Similar to the other two cases presented in this dissertation, North Korea's nuclear decisions – including the decision to initiate a nuclear program in the first place - were ultimately determined by one man: Kim Il-sung.³⁶² But Kim did not make decisions in a vacuum – his policies were made in the context of advice from influential elites and the interests and preferences of core constituencies on which the regime's legitimacy and power were based. US policy choices, specifically their choices of positive inducements and negative sanctions, directly effected the preferences of these groups, and especially their relative influence over Kim Il-sung (and therefore state policy). US policies could reward or punish one group more than another. US policies could also make each side's arguments more or less persuasive and influential by confirming or disconfirming their predictions about US behavior. Therefore,

³⁶¹ The literature on the DPRK's domestic politics is small but detailed and informative. Mansourov provides a picture of elite factional competition both in the early 1990s (Mansourov, 1995 and 1997) and under Kim Jong-il (Mansourov, 2004). Also see: Becker, 2005; Oh and Hassig, 2000.; Solingen, 2007 and 2001; Harrison, 2002; Cumings, 2005; and Park, 1996. Don Oberdorfer (2001) provides an excellent source of information for all things Korean.

³⁶² Mansourov, 1997, p.221; Savel'yev, 2000, pp.115-8.

by choosing certain policies, the US could shift the DPRK's state preferences, making compliance on the nuclear issue more or less likely.

In this section, I explain the domestic political considerations that influenced the DPRK's nuclear policy choices, and describe the way in which the nuclear issue was intimately connected to other concerns, most importantly economic issues, regime survival, and succession. I then explain how two competing blocs of elites with starkly different approaches to these issues competed with one another for influence over the policy making process. Put simply, one of the two groups believed that greater economic openness, greater integration into the international system, and rapprochement with the West offered the best chances for regime survival and state security, while the other group preferred to double down on autarky and radical self-sufficiency.

A. The Nuclear Issue in the North Korean Domestic Political Context

Three important issues converged in the early 1990s that determined the context of domestic political debates over the nuclear weapons issue in Pyongyang. One was the negative shift in the balance of power, which had been taking place for decades by 1990 but had become much more pronounced as the Cold War came to an end. The second was the DPRK's pronounced relative economic decline, which also had been underway for quite some time, but became far more acute during this period. The third was the issue of succession, as the aging Kim Il-sung, who had ruled the country for nearly half a century and throughout the state's entire existence, prepared the way for his son, Kim Jong-il. The nuclear issue cannot be adequately understood without taking account of this context, and the way in which policy elites in Pyongyang divided into two broad camps that favored different approaches to these problems. One preferred openness and international integration, the other autarky. These preferences were based on differing views about the external security threat, the utility of nuclear weapons, the relative significance of economic and strategic considerations and how they interacted with one another, and expectations about whether that the Americans could be bargained with. The Kims – father and son – were inclined to follow the prescriptions of reformers, but were also beholden to hardliners. This was particularly true with respect to members of the old guard and the military establishment whose support was integral to Kim Jong-il's succession. The policy course was shaped by this competition, and how it was affected by US counter-proliferation policies.

1. The Cold War Ends and the Balance Shifts

In the early 1990s, Pyongyang saw a long-term shift in the regional balance of power suddenly become more acute. Although the North Korean military maintained numerical superiority over the South throughout this period, the quality of these forces, as well as the continued ability to sustain such a sizeable army over time, became increasingly doubtful. By the end of the 1980s, American military analysts were increasingly coming to believe that the South Koreans had become capable of defeating the KPA without American assistance. The North, by concentrating large forces and artillery along the DMZ, possessed the ability to inflict substantial damage on Seoul in a short period of time – and therefore could hold the city hostage – but the DPRK’s chances of successfully defeating the ROK military were low. Pyongyang’s hopes of unifying the peninsula on its own terms became increasingly unrealistic, as the regime began to question the KPA’s ability to even successfully defend the country against a ROK-US attack. At the same time, security guarantees from China and the Soviets – as well as the Soviet nuclear umbrella - were being withdrawn, and the DPRK was losing access to advanced military technology.

These changes also had more direct implications for Kim Il-sung’s regime. Other communist states were undergoing rapid and profound domestic political changes during this period, and by 1992 North Korea remained as one of only a small handful of communist-bloc states that retained their political regimes intact. Most disturbing for Kim must have been the events that took place in East Germany in 1989 and 1990. East Germany was a close ally of North Korea, and the two states shared the predicament of being the communist half of divided nations, competing for legitimacy with its non-communist counterpart. The implications of the collapse of the East German regime, the flight of Erich Honecker into exile (and later his extradition and trial for high treason), the reunification of Germany on the West’s terms, and the relegation of East German communism to history’s rubbish bin could not have been difficult to read: a similar path for North Korea would have dire consequences for Kim, his regime, and his legacy.³⁶³

³⁶³ Solingen, 2007, p130. Kim Il-sung had long-lasting friendships with both East Germany’s Erich Honecker and Romania’s Nicolae Ceausescu.

2. *Economy in Crisis*

The early 1990s also presented Pyongyang with an economic crisis. As a communist-bloc country with a centrally controlled command economy, the DPRK historically had very little trade with the West. The state philosophy of *juche* – or self-sufficiency – which promoted the creation of a wholly independent national economy and military complex, further contributed to the country’s economic isolation.³⁶⁴ Economic plans favored the development of indigenous heavy industry and greatly prioritized the development of the country’s military capability over all else. For the first two decades after the Korean War, this model was successful. The country’s Stalinist economy, facilitated by an all-pervasive totalitarian state and Worker’s Party, effectively squeezed North Korean workers and farmers – at their enormous expense - to promote industrialization and economic growth. North Korea’s economic performance outstripped the South’s, as incredible as that may seem today. Even in the late 1960s it was possible to believe that the North’s economic model would, in fact, triumph.³⁶⁵

By the late 1980s, however, the superiority of the South Korean economic model had become obvious. The South’s economy had outstripped the North’s over the 1970s and 1980s, and by 1990 had grown to nearly 20 times its size. South Korea was several orders of magnitude wealthier, it possessed a thriving modern economy, and its citizens enjoyed a high standard of living.³⁶⁶ The ROK’s economic fortunes were, in fact, part of a broader trend across East Asia, as formerly less-developed countries emerged as major economic powers that exported sophisticated technology products and enjoyed standards of living that rivaled the wealthiest states in the West. Importantly, the East Asian “Tigers” were all open liberal economies that were tightly integrated into the Western economy. They also possessed increasingly open and democratic political systems. The contrast between these countries’ successes and the economic failures and political

³⁶⁴ *Juche* in North Korea is an all-encompassing ideology whose complexity is cannot be given justice here. It is also an evolving concept, the meaning of which having gone through significant changes under the rule of the Kims, father and son. To use Kim Il-sung’s own words, *juche* entails the belief that “one is responsible for one’s own destiny and one has also the capacity for hewing out one’s own destiny.” (Kim Il-sung, 1972, as quoted in Oh and Hassig, 2000, p.19). In economic terms, *juche* meant the following: (1) all the means of production controlled by the state, (2) centralized economic planning focused on defense and heavy industry at the expense of consumer goods and wages, and (3) autarky. In the early 1990s, the DPRK’s foreign trade stood at 10% of GNP. This compares to 50% for the ROK. For a detailed discussion of North Korea’s *juche* economy and its problems and contradictions, see Oh and Hassig, 2000, pp.41-80.

³⁶⁵ See Hamm, 1999, pp.130-7. The DPRK recovered from the Korean War much faster than the South did. While the North exhibited strong growth in the decades immediately after the war, the South’s economy suffered setbacks until the presidency of Park Chung-hee in the 1960s and 1970s. The DPRK had a two-to-one lead in per capita GNP as late as the 1960s. That lead was gone entirely by 1976. The ROK’s economic growth outpaced the DPRK’s from 1966 on.

³⁶⁶ Kang, 2003, pp.353-61.

upheavals sweeping the Eastern Bloc was not lost on observers within the regime in Pyongyang.³⁶⁷

The ROK's economic successes also allowed Seoul to develop a sophisticated and technologically advanced military of far higher quality than the KPA, and to do so using a far smaller portion of the country's economic resources. To keep pace, Pyongyang had to devote an ever-larger share of the country's GDP to the military simply to maintain the existing military balance. In the 1990s, roughly 15-20% of the country's annual income was spent on its military, an unsustainable level that created enormous opportunity costs. The problem was made substantially worse by the fact that Chinese and Soviet security guarantees and arms sales were withdrawn during this period, requiring the KPA to provide for the country's defense without any external support or allies.³⁶⁸

In fact, the end of the Cold War and the resulting realignments and strategic shifts also had broader negative implications for the North Korean economy. Despite the state's *juche* ideology, North Korea had always been heavily dependent on China and the Soviet Union, its two principal benefactors, for food, fuel, finances, technology, and arms. North Korea ran large trade deficits with these countries, and enjoyed subsidized imports of oil and other goods, in addition to security guarantees. This support began to be withdrawn in the late 1980s, sending the North Korean economy into freefall. First the USSR and then China began to demand hard-currency payment for imports, especially oil. As a result, in the early 1990s, North Korea could import oil to fulfill only a third of its requirements, contributing to a 40% fall in industrial production and, partly because of fuel shortages for farm equipment, a series of lackluster harvests.³⁶⁹ In 1992,

³⁶⁷ Solingen, 1998, p.236.

³⁶⁸ Hamm, 1999, pp.50-61, 130-7. The enormous difference between the economic models adopted by the DPRK and the ROK precludes accurate comparisons in defense expenditures – a problem that had similarly long plagued comparisons between US and Soviet defense spending during the Cold War. Hamm's estimate, which is backed up by an extraordinarily detailed analysis, puts the DPRK's defense burden (defense expenditures as share of total GNP) for 1989 at 10.1-14.0%, and for 1994 at 16.0-22.1%. The comparable figures for the ROK are 4.2% for 1989 and 3.5% for 1994. Moreover, the DPRK's defense burden has risen consistently since 1980, while the ROK's has dropped. These figures include arms imports and military aid. If we look only at each country's indigenous military spending, we see that for the ROK, military aid is negligible (the figures, in fact, remain the same for 1989 and 1994 as the above). For the DPRK, on the other hand, the loss of military aid from the Soviets and the Chinese is stark. The indigenous defense burden for the North in 1989 was 7.76-11.6%, but rises to 13.7-22.1% for 1994. By 1995, the North could count on little outside military aid.

³⁶⁹ Rock, 2000, p.142; Andrianov, 2000, pp.46-7; Cumings, 1999, p.134; EIU, *Country Profile: South Korea and North Korea*, 1996, pp.73. The DPRK has no indigenous reserves of oil or natural gas. Imports came from three countries: the USSR, China, and Iran. The USSR and China provided energy resources at "friendship prices" – subsidized, below-market prices – until the early 1990s, after which they both began to require hard currency and charged world-market rates for oil. Iran provided oil and gas in a barter arrangement for SCUD missile technology. As a result of the changes to the DPRK's trading relationships with the USSR and China, oil imports fell 40%, from 2.5 million tons to 1.5 million, between 1990 and

Pyongyang initiated a two-meals-a-day policy for its already malnourished citizens, and by the late 1990s the country was experiencing widespread famine. The resulting economic decline was devastating: GNP fell every year between 1989 and 1993, and the DPRK shed almost 20% of its annual product.³⁷⁰ It is therefore not surprising that the economy was a central issue for Kim Il-sung's regime during this period, and that both national security and regime survival were seen as inextricably linked to economic policies.³⁷¹

The rise of the Asian Tigers also contributed to these political and economic shifts. The Soviet Union and China both sought to forge ties and increase trade with these dynamic economies, moves that Pyongyang inevitably read as betrayal. After decades of recognizing Pyongyang as the sole legitimate government on the Korean Peninsula, both Moscow and Beijing, in the span of just two years, recognized Seoul in the early 1990s, and sought trade ties with the country. Of great symbolic significance to Pyongyang was the decision to hold the 1988 Olympics in Seoul, a move that clearly illustrated the ascendance of South Korea's economy, its growing importance in the international political and economic order, and the fruitlessness of the DPRK's decades-long ambition to unify all Koreans under its rule.³⁷²

3. The Succession of Kim Jong-il

Another factor that weighed heavily into Kim Il-sung's decision making was the effort to prepare the way for the succession of his son, Kim Jong-il, as the country's leader. The elder Kim celebrated his 80th birthday in 1992 (the younger Kim turned 50 the same year). By this time, he had been preparing his son for the leadership for 20 years. By the early 1990s, Kim Jong-il had assumed a major role in shaping the country's national security policies, and had been put in charge of the nuclear weapons program.³⁷³ Hardliners and members of the regime's old guard, however, had reasons to be anxious about the succession. The elder Kim had ruled the

1992. China's oil exports to the DPRK alone fell from 1.2 million tons in the late 1980s to a mere 200,000 tons in 1994. Some of this gap was later closed by increasing already austere energy conservation measures and relying more on hydroelectric and coal power. By 1996, reliance on crude oil had declined to 4% of all energy sources.

³⁷⁰ EIU, *Country Profile: South Korea and North Korea*, 1996, pp.73; Oberdorfer, 2001, pp.385-6; Oh and Hassig, 2000, pp.41-62. By the 1990s, meat and fish, long luxury items in the DPRK, had become unobtainable except when distributed for holidays. Famine hit in 1995, when estimated daily rations plummeted to 100 to 200 grams of rice per day. The North Korean economy shrank every year from 1990-1998, and the country's trade declined every year between 1988-1996. Foreign debt, on which the country had defaulted in the 1980s, stood, by 1998, at 96% of GNP.

³⁷¹ Oh and Hassig, 2000, pp. 58-80.

³⁷² Oberdorfer, 2001 pp.179-288.

³⁷³ Wit *et al.*, 2004, pp.34-5. Nicksch draws on data released from the former Soviet archives to argue that Kim Jong-il had exercised day-to-day control over the nuclear program since the 1980s. Nicksch, 2006, p.99.

country since the end of World War II – for almost half a century – and was the only leader that the DPRK had ever had. Other than being Kim Il-sung’s son, Kim Jong-il had little in the way of the legitimacy that the father had possessed. Kim Il-sung was revered as a partisan leader who fought a guerilla war for national liberation against the Japanese. However falsified and mythologized his life history may have had become, he was seen as a hero of Korean nationalism. The younger Kim, on the other hand, grew up as the pampered son of an all-powerful dictator, and enjoyed an elite lifestyle. Despite the best efforts to craft a similar mythology around him, he commanded none of the reverence that his father had. Kim Jong-il also had fewer ties to the powerful military establishment, and was sympathetic toward economic reformers, or “economic realists,” who favored a more open approach toward the West, and the establishment of stronger economic ties with South Korea and Japan. These views were controversial and strongly opposed by conservatives in the military and the old guard. They were particularly problematic at a time of economic and strategic crisis.³⁷⁴ With Kim Il-sung turning 80, it increasingly appeared that the leadership succession would occur during a period of relative instability and weakness, which further concerned the regime’s elite. As a result, it was imperative that Kim Il-sung maintain the good graces of regime hardliners. This required an assertive foreign policy, which limited the regime’s policy options at a time when strategic uncertainty and bargaining with the United States required flexibility.³⁷⁵

4. The Nuclear Question and Its Relationship to Strategic, Economic, and Political Issues

The dual-use nature of nuclear technology also meant that the nuclear program was linked to both strategic as well as economic concerns. The development of nuclear reactors, a reprocessing facility, a uranium mining capacity, and a cadre of skilled nuclear scientists are all necessary components for a self-sufficient capacity for making plutonium that can be used as fuel for either a reactor or a bomb. Like South Korea, the North lacked indigenous oil reserves, and looked to nuclear energy production as a way to reduce energy dependence. This was a particularly important concern after the end of the Cold War, as both the Chinese and the Soviets withdrew aid and began to require hard currency for trade. The North Koreans also saw the

³⁷⁴ *Ibid.*, pp.5-6, 35-6. Steinberg, 2001; Oh and Hassig, 2004; Mansourov, 1997. Steinberg (2001) and Oh and Hassig (2004) provide the most detailed accounts of how the younger Kim had been groomed for succession for more than two decades, how the acquiescence of the military was integral to this process, and how legitimacy was built by gradually replacing the military’s ‘old guard’ with the younger Kim’s supporters.

³⁷⁵ See Mansourov, 2004, for a detailed account of the domestic political intrigue involved in preparing a path for Kim Jong-il. Also see Oh and Hassig, 2000, pp.87-91.

importance of nuclear energy to the South Korean and Japanese economies, countries that likewise lacked domestic oil supplies. South Korea, in fact, had very rapidly built a substantial nuclear energy infrastructure, as the country did not have a single operational industrial-scale nuclear reactor until the late 1970s. North Korea's gas-graphite reactor itself reflects these dual nuclear goals: the reactor is well-suited for production of weapons-grade plutonium, but also is designed to operate with fuel and a moderator – natural uranium and graphite – that can be found indigenously.³⁷⁶

Nuclear weapons also appeared to be a way to obtain security on the cheap. The North was spending an enormous share of its GDP on national defense, and would have to devote a larger and larger share to the military in the future as South Korean economic growth continued to outpace the DPRK's. The opportunity costs were substantial for a country whose population was among the world's poorest, and whose economy was in decline. Thus the establishment of a nuclear deterrent was not only way to secure the regime but also to free up defense funds that could be used to develop civilian infrastructure and boost the economy.

Most important, however, was the way in which the nuclear question tied into a larger debate over the country's economic openness to and relations with the West. Pyongyang could pursue closer ties with the West and economic openness, or nuclear weapons, but not both. Nuclear weapons could in fact offer increased security by deterring military aggression and also giving Pyongyang a freer hand to adopt an assertive foreign policy without risking retaliation. But the price of such a course would be further diplomatic and economic isolation. Economic integration, on the other hand, offered another potential route to security and regime stability. Increased trade with South Korea, Japan, and the United States, as well as improved access to finances, assistance, and technology, promised substantial economic gains, and the possibility that after years of decline and subsistence-level living standards, the DPRK could begin to follow a path similar to the one China took after its economic reforms under Deng Xiaoping in the late 1970s. An opening toward the West also offered the possibility of greater regional stability, arms reductions on the Korean Peninsula, negative security guarantees, and even recognition and regime acceptance in Washington and Seoul – all factors that could increase the regime's chances of survival. Given the strong odds that the current course – a declining economy that risked a popular uprising and growing dissatisfaction among elites, a deteriorating balance of power, and an ever-increasing inability to maintain defense spending and military preparedness – would prove unsustainable, to many in Pyongyang, the openness route appeared to be not only a superior strategy but the only real option.

³⁷⁶ Harrison, 2002, p.202.

Both strategies, however, involved risks. Continued pursuit of the nuclear option risked preventive military action by the United States or South Korea. There was also no guarantee that the program would produce a nuclear arsenal and a workable delivery system in the near future. The DPRK's declining economic condition could, at any rate, bring about regime collapse regardless of how secure the country's borders were otherwise. An openness strategy also entailed risk, as it could not be achieved without surrendering bargaining chips like the nuclear program, or without giving the West greater economic leverage over Pyongyang, as any increase in trade or financial flows with the US, South Korea, and Japan would create disproportionate vulnerabilities for the North Koreans, and would likely lead to the creation of domestic political interests who benefited from these relationships and would use their political influence to limit Pyongyang's future policy choices. Such an opening would also necessarily involve domestic economic and political reforms that could provide regime opponents with new avenues of influence, and could therefore actually create the very regime instability that it sought to avoid.

The costs and benefits of the nuclear program, therefore, were not obvious, and could not be determined through any straightforward rational analysis. Whenever the pros and cons of policies are unclear, and the potential risks are significant, there will inevitably be domestic political contestation over policy choices. The two camps in this case – hardliners and pragmatists – divided according to how they perceived these costs and benefits, and in turn which policies they preferred. The policy preferences of different domestic groups – based upon their divergent interpretations of the state's interest - were largely shaped by the more particular interests of these groups, and how different policies might affect their prestige and domestic influence.

5. Competing Domestic Factions in the DPRK

The DPRK's worsening economic and security crises set the stage for the emergence of an influential new bloc of elites within the regime who broke with the country's long-standing policies of radical self-sufficiency, militarism, and hostility toward the West. By the end of the 1980s, this reformist bloc was competing with an "old guard" of hardliners over the country's foreign policy orientation and the course the DPRK would adopt to deal with economic and security problems.³⁷⁷

The hardliners, most closely affiliated with the country's military apparatus and an older generation of elites within the Worker's Party that had long advised Kim Il-sung, supported the development of a nuclear arsenal as a way to guarantee regime survival and the state's security at

³⁷⁷ Mazarr, 1995, p.101, 105-7; Mansourov, 1997; Mansourov, 2004; Solingen, 2007, pp.125-138.

a time of increasing uncertainty and risk. This camp was steeped in the regime's *juche* worldview, saw opposition to the Americans and South Koreans – and the reunification of the Korean Peninsula by any means, and on Pyongyang's terms – as part of the state's defining purpose and the foundation of the regime's legitimacy. As a result, they were profoundly mistrustful of the West. These conservatives gave preference to defense-related issues over economic concerns, and were skeptical about the DPRK's ability to follow China's path toward greater integration into the international economic and security order.³⁷⁸

The reformist bloc was much more skeptical of the need for nuclear weapons, tended to view them as a strategic liability, and saw the existing program as something that could be bargained away for the best price.³⁷⁹ Most closely associated with North Korea's foreign ministry (MOFA), they were the driving force behind negotiations with the Americans and South Koreans. Members of this group saw the Soviet collapse and reorientation of Chinese foreign policy as threatening, but also as an opportunity to reorient the state's relationship with the West as a way to increase security and reverse the country's deepening economic decline. They saw trade liberalization and rapprochement with the Americans as the best route to ensure regime survival.³⁸⁰

These groups competed with one another for influence over Kim Il-sung and Kim Jong-il, the country's ultimate arbiters of nuclear (and all) policy, by offering different approaches to the DPRK's strategic and economic quandaries. Two paths were open to the North Koreans – both highly uncertain policy trajectories – to address the country's problems. The choice between the two depended on how various tradeoffs were weighed. The nuclear weapons program was central to this evaluation. On the one hand, the DPRK could pursue a nuclear deterrent as a means to secure the regime and provide it with a greater voice on the international stage. Such a route, though, would foreclose any possibility of improved ties with the United States and its allies, and would further isolate the country from the international economic order. The other alternative was economic reform and liberalization, and the improvement of state security and economic performance through enhanced ties with the West. This was the path that China had set itself on

³⁷⁸ Harrison, 2002, pp.31-4; Guo, 2006, pp.59-64.

³⁷⁹ Chinoy, 2008, p.348; Mansourov, 1995; Solingen, 2007.

³⁸⁰ Mansourov describes this coalition of "civilians and pragmatic softliners" as being centered around the (somewhat ironically named) Institute for Peace and Disarmament, the Ministry of Atomic Energy, and the Ministry of Foreign Affairs. Mansourov, 1995, p.32. Solingen refers to the "old guard" and "*ancien regime* supporters," drawn from the military and security complexes, competing with civilian bureaucrat reformers, and ties this competition over nuclear policy into a wider debate over *juche*, openness, and economic reform. Solingen, 2007, pp.125-138.

in the late 1970s and was pursuing with increased vigor after the end of the Cold War. To do this, however, the North Koreans would have to trade away the nuclear option.

Aside from their differing interpretations of state interests, domestic factions in North Korea also competed over more particular bureaucratic interests. The North Korean military, numerically one of the world's largest, saw its own prestige and capability as being enhanced through the acquisition of a nuclear arsenal. It also stood to have its influence over policy greatly increased in a world of threatening outside powers held at bay through nuclear deterrence, as opposed to one in which the country enjoyed normalized relations with the United States and South Korea.³⁸¹ The foreign ministry, on the other hand, could expand its relatively smaller role in policy were the country to move away from the official state doctrine of *juche*, and toward greater integration in the international system.³⁸²

B. The Role of Domestic Politics in the Bargaining Process

By 1991, a reformist clique in Pyongyang had formed which favored closer ties with South Korea, Japan, and the United States as a way to reverse the country's economic decline, adjust to the end of the Cold War, and, in turn, enhance regime security. They looked to China's market-based reforms and economic integration with the Western trading system as a model. As discussed above, reformers believed that the nuclear weapons program would forestall closer ties with the US and its allies, but that it could be effectively used as a bargaining chip and traded in return for security assurances, better relations, and economic assistance. They also wished to push forward with liberalization measures in the domestic economy, following China's model, and increase trade and investment with the South. Led by reform-minded elites such as Director of the KWP International Department Kim Yong-sun, Prime Minister Yon Hyung-muk, Central Committee Secretary Kang Song-san, Atomic Energy Minister Hong Gun-pyo, and other influential elites within MOFA and the Ministry of Atomic Energy and Industry (MAEI), they consisted principally of younger technocrats who lacked family connections and had risen through the party ranks during the 1980s.³⁸³ At first their placement within the bureaucracy allowed them to pursue initiatives toward the ROK, but they possessed little leverage on the nuclear weapons issue, which was decided among a very small circle of long-standing confidants of the Kim family within the National Defense Council (NDC). The international changes that took place at the end of the Cold War, and the resulting shake-ups in Pyongyang, opened up new

³⁸¹ Mansourov, 1995; Oh and Hassig, 2000, pp.105-26.

³⁸² Solingen, 2007, p.133.

³⁸³ Kang, 1989; Mansourov, 2004, pp.22-6.

opportunities and gave reformist elites a stronger voice on the nuclear question, but they still had to defer to members of the old guard and the military establishment, who adhered to more conservative views about the economy, and gave preference to issues of military defense.³⁸⁴

This changed, however, in 1991, when the Bush administration removed US nuclear weapons from the Korean peninsula. The move not only altered the DPRK's strategic environment, but strengthened the hand of pragmatists in Pyongyang, making more credible their argument that the United States could be bargained with. The withdrawal of US nuclear forces led regime hardliners in Pyongyang to soften their position as well. They were not willing to trade away the nuclear program, but they would accept a reversible freeze of the program if valuable enough inducements were offered in exchange.³⁸⁵ By the end of 1991, a rough consensus had been reached among the DPRK's elite that reform-minded leaders would be allowed to pursue closer ties with the Americans and explore opportunities for economic reform. As a result, Pyongyang reciprocated US inducements with the signing of the Nuclear Safeguards Agreement with the IAEA (done by MAEI reformer Hon Gu-pyo) in January 1992. At the same time, Pyongyang pursued the normalization of relations with Tokyo, held high-level talks with Seoul, signed a landmark North-South non-aggression declaration in December 1991, and in January 1992 agreed to the JDD, which pledged the DPRK to forgo not only nuclear weapons but plutonium reprocessing and uranium enrichment as well.³⁸⁶ Kim Yong-sun, a central figure in the reform faction, represented the DPRK in New York in talks with Arnold Kanter, however, the Americans were unwilling to give Kim and his political allies the one thing they needed most: a path to normalized relations.³⁸⁷

³⁸⁴ Mansourov, 1995; Mansourov, 2004. Mansourov (2004) provides the most detailed treatment of the different domestic political factions in Pyongyang.

³⁸⁵ Harrison, 2002, pp.203-4. Harrison puts special emphasis on a December 24, 1991, meeting of the Workers Party Central Committee at which the issue was heatedly debated. Drawing on interviews with North Korean officials, Harrison claims that as a direct result of the nuclear withdrawal, the pragmatists were able to fight for and win a compromise with the hardliners. The hardliners continued to believe that the US and its regional allies were not willing to bargain in good faith, and would never drop regime change as a policy goal. However, they agreed to "test" the Americans through diplomacy, provided nothing permanent were traded away. The episode illustrates the significance not only of the role of domestic politics in nuclear decision making, but also the role of diplomacy as a way to test an adversary's preferences and intentions through bargaining.

³⁸⁶ *Ibid.*; Oberdorfer 2001, pp.262-3. The non-aggression declaration between North and South Korea was seen as a significant victory for the reformers in Pyongyang. At the December 24, 1991 KWP Central Committee meeting, the reformers won praise, and hard-liners were forced to concede to them, at least temporarily, the upper hand in nuclear policy decisions. It was at this same meeting that Kim Jong-il was named supreme commander of the KPA.

³⁸⁷ Harrison, 2002, pp.203-4; Sigal, 1998, pp.36-7; Mansourov, 1997. Kim Yong-sun was not the first choice to represent the DPRK at the talks. Kang Sok-ju was slated to do so, but the Americans preferred Kim, partly because he held no official government title, making it more difficult to portray the talks as high-level. Kanter also refused to issue a joint statement of any kind at the meeting, and provided negative

The reformers' initiatives, however, came under attack in Pongyang when the IAEA pushed for special inspections in 1992, and most directly in October 1992, when the United States and the ROK announced the resumption of Team Spirit. Team Spirit was particularly problematic because the large-scale exercises required massive and costly mobilization of the KPA.³⁸⁸ The military, which had previously acquiesced to the reformers' diplomatic initiative, reasserted itself, putting pressure on reformist elites who were left in the politically (and personally) dangerous position of having put their necks out for a failed policy. Some reformers paid a steep political price. Yon Hyung-muk, the Prime Minister who had championed North-South dialogue, was removed from his position in December 1992. Kim Yong-sun was removed from the Politburo by the end of 1993. Others survived by bringing their positions into line with the conservatives.³⁸⁹ In an episode illustrative of the shifting political winds in Pyongyang, in November 1992, the IAEA tried to give the North Koreans a way to allow inspections while saving face. Vienna proposed that the DPRK amend its initial declaration to the agency in a manner that acknowledged the two covert waste sites at Yongbyon without admitting any error. The DPRK representatives were at first grateful and cooperative. After consulting with Pyongyang, however, they returned the next day only to accuse the IAEA of being a stooge for the American CIA and refused to cooperate.³⁹⁰

Events came to a head in February 1993, as Team Spirit approached, and UN sanctions appeared increasingly likely. The move to withdraw from the NPT came not from hardliners but from the reformers themselves, who tacked toward a confrontational stance in order to maintain the upper policy hand domestically. The leadership succession, as well as the economic crisis, did not help matters. Kim Jong-il had supported the reformists' international and economic initiatives, and had taken credit for their 1991 and 1992 successes. Now, with the setbacks of late 1992 and early 1993, his political life was on the line. A smooth transition of power was dependent upon support from the military, whose hardline leadership was irritated by both Team Spirit and the developments with the IAEA. Withdrawal from the treaty, therefore, was a way to

security assurances that in fact did not rule out the use of nuclear weapons against North Korea. Most importantly, Kanter did not offer any economic or diplomatic inducements, but merely presented the US position from a script. Kim, on the other hand, was prepared to make deeper concessions, and in fact suggested that the DPRK could accept a US military presence on the peninsula as a stabilizing force. The refusal of the US to negotiate at these talks was a setback for the reformers in Pyongyang.

³⁸⁸ Oberdorfer, 2001, p.273. The cancelation of Team Spirit 1992 was the largest single benefit that the KPA had received from the reformist drive for better relations with the United States and the ROK, and it was integral to their acquiescence to the reformists' lead on the nuclear issue.

³⁸⁹ Mansourov, 1997, pp.232-3; Sigal, 1998 pp.49-50.

³⁹⁰ Oberdorfer, 2001, p.275.

placate the military, and reassert leadership on the nuclear issue.³⁹¹ The resulting crisis also served to elevate security concerns over economic ones at a time when the economic crisis was destabilizing.³⁹²

The NPT withdrawal crisis was successfully defused when the United States was willing to return to the bargaining table and engage in high-level talks. The first series of these, which took place in New York in June 1993, resulted in a joint statement in which the United States pledged nothing of material value. Yet this was sufficient to induce North Korea to “suspend” their NPT withdrawal, continue the existing freeze on their nuclear facilities, and even allow IAEA inspections, so long as they were limited to what was necessary to verify the freeze. This was not nearly enough to satisfy the United States and the IAEA, but was a significant concession nonetheless given the preference of hardliners in Pyongyang to push forward with weapons development. Reformers were able to offer this concession because the June 1993 joint statement, however meaningless in material terms, could be held up as evidence that the Americans were willing to bargain. This was sufficient to at least hold off conservatives who preferred a different course, but not enough to bring North Korea into compliance without the reformers being able to extract deeper inducements from the United States, something that would not prove to be forthcoming until the following year.

The period from July 1993 to March 1994 reflects the difficulty DPRK reformers had walking the fine line required to keep negotiations with the United States from spiraling out of control, while at the same time preventing domestic hardliners from reasserting their control over the nuclear question. The issue of IAEA inspections was a particularly sensitive one. The North Koreans were prepared to allow inspections that would verify that plutonium was not being produced and that the reactor and reprocessing facility were under seal, but they would not risk anything more intrusive that could uncover the country’s past reprocessing activities. For hardliners, this would carry an unacceptable reputation cost, and would invite even bolder demands in the future. For reformers, it would be a humiliating setback that would risk surrendering their influence over policy. The reformers in the MOFA and MAEI also were in the uncomfortable position of bargaining with the Americans and the IAEA about which inspections would or would not be acceptable, while the KPA could then exert its influence over the nuclear program to deny certain tests or renege on terms to which DPRK negotiators had already

³⁹¹ Mansourov, 1997

³⁹² Wit *et al.*, 2004, pp.34-9.

agreed.³⁹³ The US was faced with a similar principal-agent problem, as they were negotiating terms for inspections that the IAEA – which had its own interests on the line – would then conduct. Thus the “small package” deals over inspections fell apart in December 1993 and March 1994, as both the DPRK limited access more strictly than the terms to which North Korean negotiators had already agreed, and the IAEA pushed for tests beyond the terms the Americans had negotiated.³⁹⁴

During this same period, the reformers’ position was being undermined by the US’s refusal to conduct a third round of high-level talks, the ever-present threat that Team Spirit would be resumed, and the threat that economic sanctions would be pursued in the UN. The American reluctance to engage in negotiations made it difficult for the North Koreans to pursue a deal, and instead put the central focus on DPRK-IAEA and DPRK-ROK negotiations over inspections. Team Spirit and the threat of sanctions were particularly problematic, as they shifted the focus to military threats, and strengthened the role of military hardliners. This came to a head in May 1994, when the threat of US military action and economic sanctions led North Korea to escalate by beginning to refuel its 5MWe reactor.

It was the reformers who drove the behind-the-scenes push for a “package deal” in late 1993 and 1994, repeatedly laying out their bargaining position through diplomatic back-channels and through Track II diplomacy in an attempt to move US-DPRK negotiations forward.³⁹⁵ To the reformers, the central issues were economic and diplomatic normalization, but it was impossible to move forward on these issues while the Americans continued to focus exclusively on inspections, and demanded a settlement of that issue (the “small package”) before talks could be held to address the larger concerns. In July 1993, the reformers also managed to put the issue of LWRs on the agenda during the Gallucci-Kang talks in Geneva, something they had earlier repeatedly tried to communicate to the Americans but failed. This proposal was also central to the reformers’ bargaining position, and was a cleverly crafted way for the regime to save face.

³⁹³ Savel’yev, 2000, pp.115-24; Mansourov, 1997; Quinones, 2004. Mansourov describes the DPRK hierarchy as a series of poorly connected “spokes” that are tightly controlled by the two Kims – father and son – but weakly linked to one another. The Foreign Ministry (MOFA) and the Ministry of Atomic Energy (MAEI) were principally in charge of all negotiations with outside actors regarding the nuclear program, and the KPA played no direct role in talks. Quinones also describes a series of “strings” of negotiators charged with the task of conducting diplomacy with the US, the IAEA, and the ROK. Yet the KPA could exert significant control over the nuclear decision-making process, particularly during crisis points in the negotiations. Mansourov describes how this led to poor policy coordination across the bureaucracies. All of the authors describe the more hawkish position of the KPA on the nuclear issue. For a description of how the US and the IAEA could work at cross-purposes, see Sigal, 1998; as well as Wit *et al.*, 2004.

³⁹⁴ Sigal, 1998, pp.106-7; Wit *et al.*, 2004, pp.78-117, 143-4; Mazarr, 1995, pp.144-5; Sanger, January 21, 1994. Also see fn. 247 in this chapter.

³⁹⁵ Harrison, 2002, pp.220-6.

More importantly, though, it would be a tangible sign of economic cooperation and improved relations. Two light water reactors would cost billions of dollars, and would establish a long-term relationship between the DPRK and the US for civilian nuclear cooperation and the provision of enriched-uranium fuel. Symbolically and materially, it would be a costly concession for the Americans. As American critics have noted, North Korea's energy problems could be more efficiently addressed by other means.³⁹⁶ However, civilian nuclear cooperation would be an important sign of improved relations as well as the DPRK's status as a member of the international community in good standing. It would also provide a major payoff to MAEI, who would necessarily oversee the reactors, while oil shipments could free up existing stocks of fuel for the military's needs.³⁹⁷

The August 1993-March 1994 diplomatic stalemate also led to more pronounced political fights between hardliners and reformers in Pyongyang. These tensions were reflected in the reversals and uncertainties in the DPRK's bargaining position, as reformers sought to resolve the country's impasse with the IAEA and the United States while hardliners, particularly in the military, undermined these efforts by refusing anything but the least intrusive inspections – in fact, nothing more than the monitoring of facilities to assure that nuclear material was not being diverted was acceptable – and demanding that Team Spirit 1994 be canceled as a precondition for further negotiations.³⁹⁸ The situation was particularly delicate as the final steps were taken to solidify Kim Jong-il's position as his father's successor. Kim's prominent role in the nuclear negotiations meant that DPRK negotiators could have little flexibility for fear of undermining a smooth transition of power. Kim Jong-il was also appointed to increasingly important positions over the course of 1993 – he became Chairman of the National Defense Commission in April and it was rumored that he would be made President at the December Party Congress – perhaps

³⁹⁶ Oberdorfer, 2001, p.290.

³⁹⁷ According to Mansourov, Kim Jong-il adhered to the conditions of the Agreed Framework and forbid the KPA from diverting US-origin heavy fuel oil for its own use. Fuel oil, though, is a fungible commodity, and whether or not they went directly to the KPA, the shipments increased the total available supply of fuel in North Korea. Mansourov, 2000, p.88-9.

³⁹⁸ Wit *et al.*, 2004, pp.85-6, 88-91; Harrison, 2002, 221-2. Harrison describes how DPRK "pragmatists," led by Kang Sok-ju, sought a compromise arrangement with the United States after the summer of 1993, and were forced to walk a fine line between US pressure on the one hand and the demands of hardliners in Pyongyang on the other. Harrison also relates that fuel rods were removed from the Yongbyon reactor in May 1994 without the Foreign Affairs Ministry's foreknowledge. Harrison's principal evidence is from discussions with Kang Sok-ju and MOFA Director of US Affairs Li Hyong-chol, another key reformer. Kim (2007) describes a similar domestic dynamic in Pyongyang with respect to IAEA pressure over inspections in 1992, as DPRK hardliners began to be more assertive in policy. Kim, 2007, pp.86-8. Also see Mansourov, 1997.

leading reformers to be even more cautious in their diplomacy until these appointments had been completed.³⁹⁹

The reformers were also increasingly focused on the country's declining economic situation during this period. They had succeeded in winning Kim Il-sung's support for key economic reforms, including a greater emphasis on light industry and exports, in early 1993. In early December 1993, the Party's Central Committee made the startling announcement that the previous seven-year plan had failed, and declared a three-year transition period in which liberalizing reforms would be pursued. Kim Il-sung then announced these changes in his New Year's address.⁴⁰⁰ Yet while these concerns may have limited the flexibility with which reformers could conduct their diplomacy with the United States, these events also demonstrated that they remained influential in the policy process and had the support of the Great Leader. It is also telling that when US Congressman Gary Ackerman visited Pyongyang in October 1993, and when the Reverend Billy Graham did so in January 1994, Kim's most visible advisers were members of the reformist clique.⁴⁰¹

The most serious crisis of the period erupted in May 1994 when the DPRK shut down its reactor to defuel it. A similar dynamic was at work in this case as in the NPT withdrawal crisis from the previous year. Reformers in Pyongyang had little to show for months of effort with the Americans. The latest setback was the March collapse of the "Super Tuesday" agreement that was to have suspended Team Spirit and paved the way for high-level talks on March 21st, at which the issues most pressing to Pyongyang, including progress toward the normalization of relations, could finally be addressed. Twenty-two back-channel talks in New York, as well as countless Track II contacts, led up to this agreement. Yet it quickly floundered on the exact same sticking points that all previous efforts had: North-South talks and IAEA inspections. The matter was escalated by the decisions to go forward with Team Spirit, to send Patriot anti-missile batteries to South Korea, and to pursue economic sanctions in the UN Security Council.

³⁹⁹ Wit *et al.*, 2004, pp.90-1, 135.

⁴⁰⁰ Oberdorfer, 2001, pp.297-9.

⁴⁰¹ Graham, 1997, p.625; Wit *et al.*, 2004, p.94. For the Ackerman visit (on which Kenneth Quinones accompanied the Congressman), Kim Yong-nam and Kang Sok-ju were present to advise Kim Il-sung. During the Graham visit, Kim Yong-nam was present. For discussions of how these two DPRK elites fit into the overall political hierarchy as well as the policy debates in Pyongyang, see Mansourov (2004) and Gause (2004). Both men were closely affiliated with one another, with Kim serving as Foreign Minister and Kang as First Vice Foreign Minister. Both were also strong supporters of Kim Jong-il, and would rise to greater prominence under Kim Jong-il's rule. Kim Yong-nam was a member of the "1980 Group," a group of elites that replaced ideologues and members of the old guard within the national security establishment. He was known to be somewhat conservative and cautious, but also pragmatic, rejecting the rigid ideology of the old guard and supporting closer ties with the outside world (in particular the US, Japan, and the ROK) as a way to better secure the regime. Kang, who had significant experience dealing personally with the Americans, was a prominent member of the moderate faction.

Heightened war rhetoric in the United States at the same time as the military buildup for Team Spirit and other US preparations for conflict only elevated the prominence of the KPA in the North Korean policy process.⁴⁰²

As was done in the NPT withdrawal crisis, the DPRK turned to brinkmanship to force the issue. In May 1994, the North Koreans shut down the Yongbyon reactor and began to remove spent fuel rods in preparation for reprocessing – a move that may have been implemented by the military on their own initiative.⁴⁰³ But at the same time, reformers, forced to go along with a more provocative stance, nonetheless continued to hold out the possibility of a settlement by reiterating their offer of a freeze in return for light water reactors. Kim Il-sung publicly offered such a deal in April, but Kim's offer reflected hardliners' preferences by demanding that reprocessing only be frozen once the LWRs were constructed – an offer that would never be palatable to the Americans.

Jimmy Carter's mission to Pyongyang managed to defuse the crisis and bring both sides to the bargaining table by agreeing in principle to the deal that the reformers had been offering all along. When both sides finally met for a third round of talks in July, the starting point for negotiations was the same LWRs-for-freeze proposal that DPRK reformers had offered as far back as spring 1992. The fact that negotiations continued on a steady course after the death of Kim Il-sung indicates the degree to which reformers had the ear of Kim Jong-il (and also suggests that the US decision to offer condolences – something the ROK would not do – reaped benefits).⁴⁰⁴ It is also telling that the reformers were capable of agreeing to special inspections once the LWRs were substantially completed. This was a small but significant shift from the DPRK's earlier position that special inspections would never be acceptable, and it contradicted a rare public pronouncement by the KPA in September 1994 to that effect.⁴⁰⁵ Whatever efforts the hardliners were making to keep this provision in place, therefore, were not succeeding under the new leadership.

The Agreed Framework itself was a huge victory for the reformers, as it contained all of the most important elements of a deal that they had been pursuing. Three aspects of it were particularly important: in the near-term, it involved a freeze rather than dismantlement, making the deal reversible and also palatable to hardliners; it pledged the US to provide LWRs; and it provided a path to normalized diplomatic and economic relations. The deal could only be achieved because it structured concessions as a tit-for-tat exchange over time, progressing from

⁴⁰² Harrison, 2002, pp.221-2; Kim, 2007; Mansourov, 1997; Wit *et al.*, 2004 pp.85-6.

⁴⁰³ Wit *et al.*, 2004, pp.171-2.

⁴⁰⁴ *Ibid.*, pp.255-65.

⁴⁰⁵ *Ibid.*, p.302, 308-9.

reversible and less costly concessions to deeper ones. However, this also created fragility, as any defection from the deal in the early stages could easily undo all of the gains. This did, in fact prove to be the case, as the United States not only delayed its provision of oil and especially the LWRs, but more importantly, never moved forward with normalization of relations. Ultimately, the deal was unworkable because the US was never actually prepared to follow through on what was to Pyongyang its most important element – the possibility of regime acceptance and improved relations.

VIII. Alternative Explanations

This section considers two alternative explanations for the Agreed Framework. The first is that neither sanctions nor inducements were effective. The agreement was actually a complete failure, as it did not win any serious concessions, while the Americans nonetheless gave away substantial benefits. Put another way, the United States got taken for a ride. The North Koreans never had any intention of giving up – or even truly suspending – their nuclear weapons program. While they did freeze their plutonium production at Yongbyon, they continued their weapons program while also keeping all of their facilities intact. Nuclear weapons research, long-range missile development, and most importantly uranium enrichment activities, continued unabated after 1994. Moreover, the North Koreans had possibly already reprocessed spent fuel rods and had therefore already had stockpiled enough weapons-grade plutonium to produce one or more bombs.⁴⁰⁶ While the DPRK continued to work toward development of a nuclear deterrent, thanks to the Agreed Framework, the United States began to provide needed heavy fuel oil, and had even pledged itself to arranging the provision of more nuclear reactors. For proponents of this view, the North Korean nuclear tests of 2006 and 2009 were not only inevitable, but were in fact facilitated by the Clinton administration's naivete, as the Agreed Framework took the pressure off Pyongyang and bought needed time to continue nuclear weapons efforts while enjoying reduced vigilance from the United States.

The second alternative explanation is that US negative sanctions were necessary (and possibly sufficient) to convince the North Koreans to suspend their plutonium activities. This explanation accepts that the Agreed Framework won real concessions from Pyongyang, but holds that this was achieved through the effective use of sanctions. According to this view, the United States's threat to use military force in 1994, and to a lesser extent the growing likelihood that the

⁴⁰⁶ As already discussed in this chapter, the evidence points against this. However, proponents of this alternative explanation have – not surprisingly – tended to be more pessimistic about the DPRK's past nuclear activities.

Americans would successfully organize broad multilateral economic sanctions against the DPRK through the UN Security Council, forced the North Koreans to rethink their nuclear policies. Faced with these threats and lacking foreign support, Pyongyang determined that defiance on the nuclear issue was no longer sustainable without putting the survival of the regime at serious risk. Pyongyang had no choice but to concede.

A. Nothing Worked: The Agreed Framework Won No Real Concessions

According to this view, the Agreed Framework was a charade. The North Koreans traded away nothing of substance, kept all of the components of their nuclear weapons program in place, and even continued to pursue nuclear weapons research that did not involve reprocessing at Yongbyon.⁴⁰⁷ In return, the United States provided concessions that helped to prop up Kim Jong-il's regime, took the heat off the North Koreans while allowing them to continue with their nuclear efforts without fear of retaliation, and undermined the international nonproliferation regime by appeasing a proliferator and setting a negative example for other nuclear aspirants. Positive inducements, according to this view, were not successful, because they brought about no changes of value in North Korea's behavior.

This argument is based on two core assumptions. The first is that the North Koreans were never interested in cutting a legitimate deal in the first place. In the months leading up to the 1994 Agreed Framework, hardliners in Washington frequently argued that the North Koreans were not genuinely willing to use their nuclear program as a bargaining chip, and were only negotiating as a stalling tactic, in an effort to delay the imposition of negative sanctions – or direct military force against the country's nuclear facilities – while the nuclear program continued apace.⁴⁰⁸ The argument that the Agreed Framework was a charade is an extension of this: if the North Koreans were unwilling to bargain over the nuclear issue, then the agreement must not have been a real exchange, but merely a way to buy time.

The second core assumption is that the Agreed Framework did little to keep the North Koreans from developing nuclear weapons. More specifically, the agreement was not enough of an improvement over the *status quo* to warrant the concessions that the United States offered as positive inducements. Opponents of the Agreed Framework hold up the DPRK's uranium

⁴⁰⁷ Representative is William Safire's *New York Times* op-ed claiming that the deal allowed the North's program to continue at "sites forbidden to IAEA inspectors," and that the two LWRs were "prepayment for blackmail." He describes it as a "US cave-in" and a "precedent set for future blackmail." Safire, October 24, 1994. Also see Charles Krauthammer's op-ed in the *Washington Post*, which argued that "nothing has been done to stop the North Korean drive for nuclear weapons." (Krauthammer, June 24, 1994).

⁴⁰⁸ See, for example, Barber, October 20, 1994; and *New York Times*, October 27, 1994.

enrichment program as evidence to support both of these assumptions. It demonstrates, they claim, that Pyongyang never gave up their nuclear weapons ambitions, and that the Agreed Framework only served to distract the United States from North Korea's ongoing weapons activities and complicate their ability to deal with it effectively.⁴⁰⁹

The argument, however, fails on two counts. The first is that the DPRK did make costly concessions in the Agreed Framework that greatly hampered their ability to develop nuclear weapons. By freezing its nuclear reactor at Yongbyon and not reprocessing its spent fuel rods, the DPRK verifiably committed itself to not producing any more weapons-grade plutonium so long as the agreement held. While this did not prevent Pyongyang from pursuing other weapons-related activities – including ones in clear violation of both the NPT and JDD, such as the development of uranium-enrichment facilities or even the construction of nuclear bombs from the country's already reprocessed plutonium – it placed a hard limit on the number of bombs the country could make.⁴¹⁰ All of the country's nuclear weapons were produced with plutonium made from the Yongbyon reactor. Freezing that reactor and continuing minimal safeguards addressed the single most important concern for the United States: North Korea's ability to make more nuclear weapons. The situation was, of course, far from ideal. But insofar as the US valued restrictions on North Korea's bomb-making capacity, and the North depended on plutonium reprocessing at Yongbyon for weapons production, the Agreed Framework did involve significant concessions from Pyongyang, and represented a substantial improvement for the United States over the *status quo ante*, however imperfect.

It is worth considering both how little plutonium the DPRK had produced at the time of the 1994 freeze, and how much more they had made after the Agreed Framework fell apart in 2002. According to a 2006 ISIS report, before the Agreed Framework froze the DPRK's ability to reprocess plutonium, it is very likely that no more than 8 or 9 kg of weapons-grade plutonium had been produced.⁴¹¹ Given North Korea's limited technical capacity and inexperience with the

⁴⁰⁹ As Condoleezza Rice put it in 2003 in an interview with PBS's Gwen Ifill, the Agreed Framework allowed the North Koreans to push forward on a uranium route to the bomb "almost before the ink was dry." *NewsHour with Jim Lehrer*, July 30, 2003.

⁴¹⁰ Uranium enrichment does not violate the NPT, but it does violate the terms of the JDD, which bans the closed fuel cycle. The manufacture or testing of a nuclear weapon violates the NPT.

⁴¹¹ Albright and Brannan, 2006. Almost all of this would come from fuel rods irradiated by the 5MWe reactor. It is unlikely that a significant amount of plutonium was produced with the IRT-2M experimental reactor supplied by the Soviets. Some in the US intelligence community believe that as much as 1 or 2 kg of plutonium were produced from the IRT-2M reactor, however, most analysts – as well as the IAEA – believe this figure is not likely to be higher than 200 grams, an insignificant amount in terms of being able to construct a weapon. The 8 or 9 kg figure is, according to Albright and Brannan, a worst-case scenario. It is quite possible the North Koreans had not reprocessed enough plutonium before 2003 to produce even a single weapon.

fabrication of nuclear weapons, this was likely sufficient for only one nuclear bomb. The North Koreans removed the fuel rods from the 5MWe reactor in 1994, but these were stored under seal and were subject to IAEA safeguards. Therefore, by at least 2003, it is unlikely that Pyongyang had enough fuel for more than a single weapon, and quite possibly lacked even that. After the Agreed Framework collapsed in 2002, however, the North restarted its plutonium production.⁴¹² Between 2003 and 2006, the ISIS report estimates that the DPRK produced another 10-43 kg of weapons-grade plutonium. The total would be sufficient for 4 to 13 weapons. The North Koreans also restarted construction on their 50MWe reactor, which, if completed, would greatly increase the rate at which weapons fuel could be produced.⁴¹³ The Agreed Framework, therefore – whatever its flaws – made the difference between a North Korean capability of producing a single low-yield and unreliable weapon (at best) with a very limited ability to deliver it to a target, and a North Korea with a dozen weapons or more.⁴¹⁴ If the reactor and reprocessing facility at Yongbyon had been operational between 1994 and 2002, this number would be much higher.

The second problem with this argument is that it overlooks – or discounts – the costlier and more permanent exchanges that would have taken place had the Agreed Framework been followed: a series of tit-for-tat exchanges that, if fully implemented, would lead to IAEA special inspections, as well as the irreversible dismantlement of the Yongbyon gas-graphite reactor, reprocessing facility, and the other two reactors under construction. In return, the United States would provide what Pyongyang had been seeking from the beginning of the bargaining process: normalized economic and diplomatic relations. These later stages of the agreement were never reached largely because the US defected from the deal. After the Republicans took control of Congress in the November 1994 elections, it proved impossible for the Clinton administration to secure the necessary funding to fulfill the agreement. Heavy fuel oil shipments were delayed. Economic sanctions that Pyongyang expected to be lifted remained in place, and Congressional support for their removal was not forthcoming. Ground was not broken for the LWRs until 1997, and even then it was not until 1998 that formal bids were issued for the reactors. Funding for the

⁴¹² Stevenson, December 24, 2002; Brooke, December 28, 2002; Mydans, January 10, 2003; Albright and Brannan, 2006. The reprocessing facility at Yongbyon was restarted in 2003 (seals were removed and the restart process was initiated in December 2002). IAEA inspectors were asked to leave the end of December 2002, and the North Koreans announced their withdrawal from the NPT in early January.

⁴¹³ Albright and Brannan, 2006. This figure is based on the likelihood that 20-28 kg of plutonium were separated from the fuel rods that were removed from the reactor in 1994. The reactor could produce about 5-7 kg of plutonium a year, and some was inevitably lost during reprocessing. The reactor was shut down again in 2005. If fuel rods were removed and reprocessed at that time, another 10-15 kg of plutonium could have been separated. It would have taken about a year to reprocess that much from the spent fuel.

⁴¹⁴ The roughly 1kt yield of the October 2006 test is a strong indicator that any North Korean bomb would have been, relative to plutonium weapons produced by other nuclear states in the early stages of their programs, a dud. See Garwin and Von Hippel, 2006.

reactors was not secured until 2000, six years after the agreement was signed. Pyongyang responded to these delays with repeated threats that they would resume their nuclear efforts, yet the North Koreans kept the reactor and reprocessing facility at Yongbyon frozen throughout this period.⁴¹⁵

B. Negative Sanctions Were Necessary

According to this argument, negative sanctions – especially the dual threats of multilateral economic sanctions and military force – were necessary to produce DPRK nuclear compliance. There are several variants of this argument. One is that negative sanctions were *sufficient* to bring about a plutonium freeze, and that positive inducements were, therefore, unnecessary. According to this variant of the argument, the US gave away the store by signing the Agreed Framework. A second variant – and a more commonly argued one – holds that negative sanctions were *necessary but by themselves not sufficient* to bring about agreement.⁴¹⁶ This variant acknowledges the utility of positive inducements, but argues that inducements alone would have been insufficient to resolve the dispute. A third variant holds that negative sanctions were *both sufficient and under-used*.⁴¹⁷ According to this variant, not only were inducements unnecessary, but a greater willingness to use sticks could have produced even greater compliance by the North Koreans. All of these three variants share one common thread: negative sanctions were necessary. They differ on whether they were sufficient, and whether they were adequately used.

All three variants are belied by the fact that negative sanctions not only failed to positively influence North Korean behavior, but consistently provoked an escalatory response. The threat of restarting the Team Spirit exercises provoked only hostility. The threat of economic sanctions triggered threats of war. A defensive US military build-up nearly touched off the conflict it was trying to deter. Most important, though, is the fact that throughout the use of all of these different threats, the North Korean bargaining position changed very little, and in fact did not waver on the most important points. There were very few substantive differences between the Agreed Framework, the package deals discussed in late 1993 and early 1994, or even North

⁴¹⁵ Lee Chae-jin, 2006, pp.178-209; Chinoy, 2008.

⁴¹⁶ Robert Gallucci himself believed that negative sanctions, while not sufficient to produce a deal, were necessary, and contributed greatly to the ease with which the Agreed Framework was negotiated July-October 1994. See Oberdorfer, 2001, p.352-3. Publicly, the Clinton administration made this argument. Greenhouse, July 3, 1994.

⁴¹⁷ This third variant is, of course, simply a stronger version of the first. It is also the interpretation of the case that was most widely espoused by hardliners in the George W. Bush administration, and served as the basis of US policy during Bush's first term. Chinoy, 2008.

Korea's original proposals to trade reprocessing and inspections for LWRs as early as 1992. The DPRK's plutonium production had been frozen since 1989, as no plutonium-containing rods had been removed from the reactor since then. The IAEA was confident that no reprocessing took place since safeguards went into effect in 1992. There was, in fact, every indication that Pyongyang was willing to accept a deal very close to the major terms of the Agreed Framework long before talks were restarted in July 1994. The timing and the details of such a deal certainly changed over time, but these were not large hurdles to agreement. Even the agreement between Carter and Kim Il-sung in June 1994 was not a significant departure from the DPRK's previous bargaining positions. It resulted in a reprocessing and refueling freeze under IAEA monitoring – the very situation that existed before the reactor was defueled. The US, however, yielded more ground – conditions were dropped for a third round of talks, and Carter effectively undermined the push for economic sanctions in the UN.

Pyongyang also consistently refused to yield on the issue of special inspections and implementation of the JDD. The North was resigned not to allow any inspections that would resolve questions about its past nuclear activities until substantial progress had been made on US-DPRK relations. The agreement that special inspections could proceed after LWRs were mostly built was neither a major concession, nor was it a substantial change from the country's previous positions. Likewise, Pyongyang's concerns about yielding any influence over US-DPRK relations to Seoul precluded any deal that granted the South what the North perceived as veto power. As a result, the US had to agree to a greatly watered-down version of its condition that North-South bilateral talks proceed – essentially a meaningless reference to it, in fact – in the Agreed Framework.

China's supposed shift on UN economic sanctions in June 1994 is frequently cited as evidence that sanctions succeeded, and that Kim Il-sung was accommodating in mid-June, and DPRK negotiators were willing to cut a deal that summer and fall, because they believed they no longer had China's backing. There is little evidence for this, however. Again, the DPRK yielded little in its bargaining position. Also, there is every indication that had the US not pursued a more accommodating strategy in mid-June, Pyongyang would have been willing to go to war. Finally, China's position changed very little – it certainly did not come into alignment with the US position on sanctions. Beijing continued to vocally oppose sanctions and push for negotiations, agreed only to not veto a limited sanctions resolution – which was not what the US was proposing – and continued to lend symbolic support to the North Koreans. It is also far from clear how the Chinese would have reacted to the increased US military buildup that was planned should the Carter mission fail.

On the other hand, the positive inducements offered by the United States in return for the plutonium freeze were broadly in line with what the DPRK had been demanding all along. The provision of LWRs was a long-standing demand, as was progress toward normalized relations, improved opportunities for economic cooperation and trade, and security guarantees. Without direct evidence of what transpired in Pyongyang in the country's decision-making process, it is impossible to disprove the counterfactual claim that these inducements would have failed – or would have encouraged only further demands – if they were not coupled with threats. Yet the evidence that is available is more consistent with the argument that inducements were a sufficient cause of the Agreed Framework, and that sanctions were counter-productive and risked uncontrollable escalation. There is, at a minimum, very little evidence to suggest that sanctions were either necessary or sufficient causes of this outcome.

The stronger form of this argument – that a more coercive approach would have been more successful in general – is even less convincing. This position relies on a somewhat incredible counterfactual: that despite the fact that negative sanctions failed nearly every time they were used in the actual history of this case, if they had only been used more forcefully, or for a longer period of time, they would have succeeded. It assumes, therefore, that if threats had been made sufficiently credible, and that the threatened actions had promised to be sufficiently costly to the North Koreans, then the DPRK would have given in to American demands. Importantly, it also assumes that this point would have been reached before it provoked war. In other words, success was always just around the corner if the US was only willing to push hard enough, maintain its resolve, and not give in to proponents of engagement.

Yet this is essentially the approach that neoconservatives favored in the Bush administration, and the policy that they began to implement during Bush's first term. This approach, however, met with even less success than coercive strategies did in the 1990s. The disavowal of the Agreed Framework, financial sanctions such as freezing important DPRK assets in a Macao bank, the interdiction of a North Korean vessel on the high seas, the pursuit of multilateral trade sanctions, and diplomatic sanctions produced nothing but the restarting of the Yongbyon nuclear facilities, the production of far more plutonium than the DPRK possessed when Clinton left office, missile tests, a 2006 nuclear test, continued weapons sales, and only further distance between US and DPRK bargaining preferences.⁴¹⁸ It is telling that the Bush

⁴¹⁸ Chinoy, 2008; Harrison, 2002, pp.215-30; Kessler and Linzer, October 17, 2006; Williamson, November 30, 2006; Greenlees and Lague, April 13, 2007; Onishi, November 14, 2006; Kahn and Weisman, April 12, 2007; Sanger and Yardley, October 6, 2006. Chinoy offers a meticulously detailed account of US-DPRK relations over the nuclear issue after the Agreed Framework. The Agreed Framework encountered serious difficulties well before George W. Bush took office. The Clinton

administration itself sought out a more conciliatory approach after North Korea's 2006 weapons test, and Washington hardliners were increasingly marginalized from the making of US-North Korea policy. The US eventually pursued a deal through the Six-Party Talks that was remarkably similar to the 1994 Agreed Framework.⁴¹⁹ In other words, the counterfactual of a more coercive approach was actually run, and it failed.

The way in which the Bush administration's efforts at coercion failed is also illustrative. After deciding on a tough approach, the administration soon found that its leverage over the DPRK was limited. Allies were unwilling to support hardline policies, while China and Russia were willing to oppose them. When pushed, the North Koreans repeatedly responded with further aggression. The US military in Korea was still confronted with the problem that the necessary military preparations for economic sanctions could themselves trigger the war they were designed to deter. The costs of negative sanctions, whether economic or military, were also very high, and would divert resources and attention away from higher priorities in the Middle East and Central Asia, leading the US military leadership to consistently oppose such brinkmanship.

Most important were the strategic realities and reputational concerns that prevented coercion from working. Kim Jong-il was bargaining from a difficult position. Trade and

administration failed to follow through on its pledge to lift economic sanctions or take steps to normalize relations. Also, oil shipments were delayed, and ground was not broken until after Clinton left office on the two LWRs that were originally intended to have been completed by 2003. The DPRK, for its part, introduced additional tension into the US-DPRK relationship by conducting a missile test in 1996, and pursuing high-speed centrifuge technology to enrich uranium (likely beginning in 1997 or 1998 - the timeline is contested). The agreement was killed in November 2002 when the Bush administration announced that the US would no longer fulfill its commitment to provide fuel oil. Within two months, the North Koreans had restarted plutonium production at Yongbyon. The Bush administration used negative sanctions on a number of occasions, all of which proved unsuccessful. In 2005, for example, the administration imposed financial sanctions against Banco Delta Asia, a Macao Bank the DPRK used for financial transactions, in an attempt to put pressure on the North Koreans in the Six Party Talks. This led Pyongyang to boycott the talks for about one year, until the US would agree to discuss lifting the sanctions. The DPRK used this time to continue its weapons efforts. In 2002, the United States interdicted a Cambodian-flag carrying ship on the high seas that was transporting a shipment of North Korean missiles to Yemen. The US had to release the ship after it was determined that the seizure violated international law. The US initiated the Proliferation Security Initiative (PSI) in 2005 as a multilateral force aimed at interdicting WMD shipments, and began conducting drills with partner states in the Pacific. PSI has not successfully interdicted any North Korean WMD cargo but has been an added source of tension not only with the DPRK but with the Chinese (see Chapter 6 of this dissertation for an account of the PSI's role in the Libyan nuclear case). Bush administration efforts to enact tough economic sanctions against the North Koreans, particularly after the 2006 nuclear test, were unsuccessful. Finally, the administration issued stern warnings ahead of the DPRK's nuclear test in 2006. The North Koreans carried it out anyway, leading the Bush administration to then adopt a more conciliatory approach.

⁴¹⁹ Chinoy, 2008; Cooper and Yardley, February 14, 2007; Albright and Brannan, 2006. The US agreed in February 2007 to lift economic sanctions, provide heavy fuel oil, and give \$400 million in aid to North Korea in return for a freeze of the Yongbyon facilities. This would, essentially, put the United States exactly where it was in 1994, but with the North Koreans having produced much more plutonium between 2003 and 2006.

normalized relations with the US, the ROK, and Japan could greatly boost the DPRK's economic fortunes and lift a heavy burden on the country's military. But rapprochement was useless unless it also involved acceptance of the regime, something the US and its allies were obviously unwilling to provide. Backing down to US coercive efforts not only risked surrendering strategic advantages, but ran the more compelling risk of emboldening the Americans to adopt an even more hostile stance toward the North. Any lack of resolve on Kim's part could also perilously weaken his rule, and lose him the support of the military. As the country progressed further toward a nuclear deterrent, as the domestic economic situation continued to deteriorate, and as repeated negotiating efforts failed to bear fruit, the chances of overcoming these barriers to cooperation became larger, and Kim Jong-il's rule became increasingly dependent upon taking a hard stance against the US. If it came to war, the North would almost certainly lose, but the gamble that the Americans were bluffing consistently appeared to be a better bet than succumbing to threats and risking the stability of the regime.

IX. Conclusion

The successful negotiation of the Agreed Framework demonstrates that positive inducements can be a useful and effective tool of American statecraft, even when dealing with adversaries. Kim Il-sung had strong incentives to develop nuclear weapons. The US and the DPRK also had a long history of mutual distrust and hostility. In spite of this, however, the United States succeeded in winning an agreement that froze North Korean production of weapons-grade plutonium and quite possibly could have progressed to deeper concessions and long-term compliance with the international nonproliferation regime, had the Clinton administration's policies not been set back by Congressional opposition and reversed under George W. Bush.

Conversely, US attempts at coercion, including military threats and the threat of multilateral economic sanctions, all failed. The lack of trade and diplomatic relations between the US and the DPRK, and the long-standing hostility between the two states (in fact, the Korean War was still technically unsettled), meant that the United States had a limited set of coercive tools in its arsenal. These were limited to multilateral economic sanctions through the United Nations, and the use of military force. The US's ability to sponsor UN sanctions was limited by the opposition of China, and the ambivalence of key regional allies such as Japan and South Korea. Furthermore, Pyongyang responded to the threat of economic sanctions with a counter-threat of escalation to war. Militarily, the US sought to use the joint US-ROK Team Spirit military exercises as a way to exert pressure on the North. This, too, not only failed to be

effective, but risked escalation. Finally, US military reinforcements aimed at defending the ROK should UN sanctions be passed, as well as US plans for preventive military force should diplomacy fail, pushed the situation to the brink of full-scale conflict.

The Agreed Framework was accomplished through both the back-and-forth exchange of concessions, over years, between the United States and North Korea, as well as incremental future exchanges that were incorporated directly into its text. These tit-for-tat concessions would have – had they been successfully implemented – progressed from a freeze of reprocessing-related activities at Yongbyon to full compliance with treaty obligations and the dismantling of the gas-graphite reactor and reprocessing facility, steps not required by the NPT. The Americans pledged to meet these concessions with inducements that would grow in value over time, beginning with shipments of heavy fuel oil, and eventually leading to the construction of two light water nuclear reactors, the lifting of sanctions that had been in place for decades, and the normalization of relations.

In both cases, earlier agreements made later ones easier to achieve. Earlier concessions such as a reprocessing freeze or fuel oil shipments required no permanent cost, and could easily be reversed if the other side reneged. This allowed for trust-building without unacceptable significant risks. It also rewarded domestic groups that supported a negotiated settlement by demonstrating that such an approach could work. Concessions made in incremental steps also provided a way for each state to signal its preferences, and overcome problems of incomplete information. Hardline camps in both Pyongyang and Washington doubted that the other side would negotiate in good faith. North Korean hardliners believed that the Americans and South Koreans were bent on regime change and that any surrender of the nuclear option would necessarily put the regime at risk. Hardliners in Washington, on the other hand, believed that the North Koreans were determined to develop nuclear weapons, and that any agreement was simply a stalling tactic designed to buy time for the DPRK to push forward with its nuclear efforts without the risk of US coercive action. Smaller agreements therefore provided a way for each side to demonstrate its willingness to bargain and to signal its price.

The dearth of diplomatic contacts and communication channels between the US and the DPRK complicated negotiations and made agreement more difficult to reach. Likewise, the tendency in Washington to view talks as a form of inducement or reward, and the resulting demand for DPRK compliance as a pre-condition for talks, made US policies less likely to succeed. Proponents of negotiation had to pay political costs simply to exchange offers with or gather information from the other side. US attempts to use the promise of holding talks as a carrot for nuclear concessions in Pyongyang appeared as ultimatums. The two sides, in fact,

nearly went to war in 1994, yet the situation was quickly diffused when former President Carter, on his own initiative, went to Pyongyang and engaged in high-level talks. The deal that was struck as the result of this meeting was little different from what the two sides had already had on the table for many months.

Finally, an adequate explanation of North Korean nuclear policies, and the course of the US-DPRK bargaining process, must take domestic political factors into consideration. North Korea's nuclear policy preferences were heavily shaped by a number of different considerations, including strategic, economic, and domestic political concerns. The development of nuclear weapons was seen by many in Pyongyang as a way to redress the changing military balance on the peninsula and guarantee regime survival at a time when radical changes were sweeping the communist world and Soviet-backed regimes were falling like dominoes. But this by itself is not sufficient to explain the DPRK's nuclear decisions. A secure nuclear deterrent can be a powerful deterrent and may provide substantial security on the cheap, but a nascent program years away from fruition – with no delivery system – can be destabilizing and even invite the very aggression it seeks to deter. As a result, policy elites close to Kim Il-sung differed over whether the regime should bargain over the program or pursue the development of a weapon no matter what. Their preferences were linked to differing beliefs about the preferences, credibility, and intentions of the US and its allies. Hardliners saw little utility in bargaining and substantial risk, while a pragmatist faction believed accommodation with the West was the best chance for long-term regime survival. US bargaining behavior affected both the preferences of these groups and their relative influence over the policy process. The course of negotiations and the signing of the Agreed Framework in 1994 cannot be adequately explained without attention to these factors.

The history of the North Korean case also provides some other insights about the effectiveness of negative sanctions and positive inducements that are worthy of mention. Specifically, the case illustrates the ways in which US diplomacy can be complicated by the need to coordinate policy with regional allies and other key international actors whose interests and preferences may diverge from the US's in important areas, as well as the difficulty of pursuing counter-proliferation strategies with an adversary that enjoys the support – however limited in this case – of an influential ally whose interests may also diverge from US interests in important ways. Below, I briefly discuss the way each of these factors played a role in this case, and consider how more generalized lessons can be taken from them that are relevant to US counter-proliferation policies. Then, in a final part to this section, I try to put the negotiation of the Agreed Framework and the lessons taken from it into the context of the later history – and overall failure – of the US counter-proliferation effort with North Korea.

A. Other Key Insights

The history of the North Korean case offers a number of important insights that are worth noting at some length. First, it is important to draw attention to the relatively large number of international actors that were deeply involved in this case, and had strong and often competing interests in both the outcome as well as the means chosen to produce that outcome. The interests and influence of these actors complicated US counter-proliferation policy in this case, and indicates that further research is required about how the two-actor bargaining theory presented in this dissertation can be adapted to more effectively consider a larger number of participants. Second, because this chapter focuses on a single – albeit important – episode in an otherwise much longer case history, I try to briefly put the Agreed Framework into the context larger context of the US counter-proliferation effort with North Korea and weigh into the debate of whether or not the agreement represented a success or failure within this larger context. I argue that the agreement is best seen as a limited but important success that was later undermined by the adoption of coercive strategies by the Bush administration. These coercive policies were most responsible for the US's inability to prevent the North Koreans from building a nuclear weapons stockpile.

B. Dealing With The Interests of Other International Actors

This case differed from the other two cases presented in this dissertation in that US bargaining choices were often limited by the preferences of other international actors, most importantly the South Koreans, the Japanese, the Chinese, and the IAEA. The South Koreans were particularly influential in the US policy process, as the US and the ROK often had divergent interests. Both states, to be sure, had a strong interest in rolling back North Korea's nuclear program, but the manner in which that effort was approached had different implications for Seoul and Washington. Most of all, the South Koreans had a strong interest in making sure that negotiations did not jeopardize the close relationship between the ROK and its US ally, both to prevent the US from pursuing regional policies that advanced US goals at the expense of Seoul's, and to avoid the domestic political fallout from a US-DPRK rapprochement that unfolded independent of Seoul. Pyongyang could – and did – exploit this situation for their own purposes by playing the US and ROK off of one another. The North Koreans could, in essence, hold relations with Seoul hostage as a bargaining chip with Washington.

The IAEA had interests that diverged from Washington's as well. Vienna sought both to maintain the integrity of the international nonproliferation regime and to restore its own reputation in the wake of revelations during and after the Gulf War that it had dropped the ball on

the Iraqi nuclear weapons program, which proved to be much more advanced than the agency had suspected. But upholding the nonproliferation regime and preventing the North Koreans from developing a nuclear weapons capability did not always mean the same thing. For example, the IAEA was greatly concerned with uncovering the extent of Pyongyang's past reprocessing activities, but this was immaterial to the goal of freezing future reprocessing, or even preventing the rise of a nuclear power on the Korean Peninsula. Conversely, the IAEA had no mandate to prevent the North Koreans from reprocessing plutonium. While the IAEA was clearly interested in monitoring and reporting the DPRK's nuclear activities, because the NPT did not bar non-nuclear member states from pursuing the closed nuclear fuel cycle, the IAEA had no legal basis for opposing such actions, and therefore little reason to see such opposition as a core institutional interest. The United States and its allies in the region, however, clearly did have a strong interest in opposing the acquisition of the fuel cycle, as production of weapons-grade plutonium was the key step to developing the capacity to build nuclear bombs. These competing interests often put the IAEA and the United States at cross-purposes. The US was willing to compromise with the North Koreans on issues such as inspections in order to win concessions on reprocessing. This was, after all, a core element of the Agreed Framework. The IAEA had the exact opposite interest, and continued to pursue special inspections and a full accounting of past reprocessing activities even as those efforts complicated US diplomacy with Pyongyang. The US, on the other hand, could only put limited pressure on Vienna to accommodate American diplomacy, as the United States also had a vested interest in maintaining the credibility of the NPT and IAEA inspections. Also, important domestic actors in Washington were sympathetic to the IAEA's view, and opposed making concessions that they believed sacrificed the reputation of the nonproliferation regime in return for North Korean compliance.

The heavy involvement of several international actors and the need to manage relations with all of them across different issue areas in order to address the nuclear crisis also raised challenges for state bureaucracies. This was the case with the United States early in the diplomatic process, as the nuclear issue was originally handled at relatively lower levels of the administration, leaving different agencies to deal with different international actors over the same issue, often without proper policy coordination. It was a much more serious problem, however, in Pyongyang. The North Korean state had a limited capacity to deal with multiple-track negotiations, especially involving adversaries with whom it previously had little or no relations. There was no established bureaucracy for negotiations with the United States, and DPRK-US diplomacy was poorly coordinated between DPRK-ROK and DPRK-IAEA relations. This required a reshuffling of the bureaucratic hierarchy – something also mandated by the rapid and

profound change in relations with the Chinese and Russians – and greater micro-management of foreign policy by Kim Il-sung and his closest advisers.⁴²⁰ These problems also contributed to misinterpretations, information problems, and contradictory signals and policies.

US-DPRK bargaining in this case was also strongly influenced by China. However inaccurately the Americans may have viewed China's relationship with and influence over North Korea, they nonetheless believed both that sanctions – especially multilateral UN sanctions – would be difficult or impossible to implement without Chinese support, and that if China could be persuaded to put pressure on Pyongyang, that it could powerfully influence the North Koreans' nuclear decisions. The reality was that the former was more accurate than the latter. For multilateral sanctions to be effective, they would have to have Beijing's acquiescence if not outright support. At the same time, Chinese pressure on the DPRK would likely not be sufficient to bring about major changes in the North Korea's nuclear behavior. In any case, China's influence, both real and perceived, did shape the negotiating process by pushing Washington toward a more conciliatory approach with Pyongyang than it would have otherwise preferred.

C. After the Agreed Framework

In light of later events – the eventual breakdown of the agreement, and two North Korean nuclear weapons tests – it is tempting to write off the Agreed Framework as either a complete failure or insignificant. However, the accord produced real concessions, however incomplete, and its failure was not predestined. The Yongbyon gas-graphite reactor was the only route available to Pyongyang for a nuclear weapon. Whatever efforts the DPRK was actually making toward the development of centrifuges for uranium enrichment, there was very little reason to believe that the enrichment route would provide the country with the ability to increase its nuclear stockpile without plutonium from Yongbyon at any point in the foreseeable future. The Agreed Framework, therefore, limited the DPRK to however many nuclear weapons it could make out of the plutonium it reprocessed before 1994 – likely no more than one.

The question for the United States, therefore, was whether or not this limit on North Korea's ability to make nuclear weapons was worth both the direct cost of the US's positive inducement – lifting sanctions, heavy fuel oil shipments, and two nuclear reactors – as well as the reputation costs that could result from making them. There seems to be little reasonable debate over the first consideration: oil shipments and the billions of dollars required for the nuclear reactors were a small price to pay to keep North Korea from building more weapons. It is not impossible that the US could have achieved this at a lower cost, but it is not likely. And the cost

⁴²⁰ Mansourov, 1997.

of the concessions required by the Agreed Framework were trivial in comparison to what the US would incur from military action or even multilateral economic sanctions, both of which had a lower chance of success.

The reputation cost is less obvious. Did the US encourage other proliferators, or the North Koreans themselves, to more strongly challenge the international nonproliferation regime by signing the Agreed Framework? Given how quickly the deal began to flounder, and that it eventually fell apart, the question of reputation costs is based on the counterfactual of both sides actually adhering to the agreement, and therefore cannot be definitively answered. Several things lead us to conclude, however, that it was unlikely the agreement would undermine broader nonproliferation goals. For one thing, North Korea had strong incentives to develop nuclear weapons, and powerful elites in Pyongyang preferred to push forward with the program rather than cut a deal. The Agreed Framework in fact was likely more costly for the North Koreans than it was the Americans, both strategically and in terms of the domestic political capital expended by its proponents in order to forge the agreement. Both sides made real and costly concessions in order to realize mutual gains that left both better off – this was not a case of extortion. For another thing, substantial transaction costs had to be overcome in order to reach the deal. The two sides, in fact, just barely reached agreement in 1994. Before Jimmy Carter's visit to Pyongyang, it was not unreasonable to believe that the two sides would go to war. It would take an unusual level of risk acceptance for the leader of another state to conclude, based on the North Korean case, that challenging the international nonproliferation regime is a good (never mind cost effective) way to extort payment from the United States. One would expect instead that the history of this case would be more likely to lead outside observers to conclude that nuclear proliferation runs at least as high a risk of inviting conflict.

Overall, it appears that the reverse is actually true: the failure to reach a deal and the continued development of the nuclear weapons program would have undermined the international nonproliferation regime much more than the Agreed Framework would. All else being equal, the rise of a new nuclear weapons state is a more serious challenge to international nonproliferation efforts than a deal involving the provision of nuclear-energy related concessions that, in effect, was the same in principle as the deal that is inherent to the NPT itself. It is also unlikely, in light of later events, that a more coercive approach would have enjoyed greater success. Between 2002, when the Bush administration abandoned the Agreed Framework, and October 2006, when the North Koreans performed their first nuclear test, the United States adopted a much tougher approach toward North Korea, with much worse results. The Agreed Framework limited the DPRK to less than 10 kg of weapons-grade plutonium (enough for one weapon) until 2003, and

kept the spent fuel rods removed in 1994 from being reprocessed for seven years. It was under the Bush administration's policies that the North Koreans produced almost all of their plutonium and conducted two weapons tests. It is very difficult to believe that this has done less damage to the international nonproliferation regime than another eight years of the Agreed Framework – even without further progress – would have brought.

It is impossible to know what would have happened had the US adopted a different approach toward North Korea in the early 1990s, or if the Bush administration had tried to maintain or build on the Agreed Framework. The evidence suggests, though, that a more coercive approach would have yielded worse results. The US possessed limited leverage: the cost of military action was prohibitively high; relations with allies, the IAEA, and other states complicated diplomacy and made economic sanctions difficult or impossible to implement; and the United States's lack of trade with North Korea made unilateral sanctions unlikely to work. Furthermore, the evidence from this case suggests that coercive efforts would most likely only reinforce the very behaviors they were intended to stop. Therefore, even if positive inducements could produce only limited results, they were worth pursuing, and were superior to all available alternatives.

5. South Korea

I. Introduction

As in the other two case studies presented in this dissertation – Libya and North Korea – the United States used a mix of both negative sanctions and positive inducements (‘carrots’ and ‘sticks’) with South Korea in its effort to persuade Seoul to abandon the country’s nuclear weapons program. Only in this case, however, was the Americans’ use of negative sanctions successful. This was possible because the United States was bargaining with a close ally. As a result, the US was capable of applying significant pressure on Seoul without raising anxieties about extortion and while keeping reputation costs low enough to avoid deadlock or produce a backlash.

While both negative sanctions and positive inducements were effective at changing South Korea’s nuclear behavior, negative sanctions achieved only short-term and limited compliance, while positive inducements – especially regime acceptance and strong security guarantees – produced long-term agreement. Motivated principally by anxieties over a weakening US defense commitment, South Korea initiated a nuclear weapons program in 1970. During the decade in which the program was active, the ROK conducted secret weapons research, and sought to acquire from abroad the necessary components of the closed nuclear fuel cycle. The United States responded to these moves with both sticks and carrots. Specifically, the US threatened to withdraw technical assistance and end technology transfers, and ultimately to reconsider its security guarantees. The US sought to reassure Seoul by reaffirming its security commitment, provided the country drop its nuclear weapons ambitions and forgo the closed fuel cycle, and by publicly restating its determination to defend the ROK with military force, both conventional and nuclear. By 1976, the US succeeded in pressuring Seoul to abandon a French deal for a reprocessing plant, and to reduce – but not to end – its weapons research. The ROK’s nuclear ambitions were rekindled by the Carter administration’s plan to withdraw US troops from Korea, and by the period of worsened US-ROK relations during Carter’s tenure. The nuclear issue was finally resolved by the offer of positive inducements – most importantly regime acceptance and

stronger defense commitments – to the Chun Doo-hwan regime made by President Reagan after he took office in 1981.

Several key pieces of evidence are notable in this case. First, the testimony of US diplomats and policy makers, journalistic sources, recently released official cables, and other government documents provide a record of the decision making process in Washington, the rationale for US policy, and the strong American resolve to end the ROK's nuclear ambitions even if strong measures were required to do so. This evidence demonstrates that the United States began to issue increasingly strong threats to Seoul – mostly in secret, and ultimately through high-ranking channels – and even threatened to rethink its military alliance with the ROK should the country refuse to comply with US demands. This evidence also demonstrates that these threats were successful in achieving compliance with specific US demands – particularly the cancelation of a deal for a French reprocessing plant – but failed to bring the Park regime's nuclear ambitions to an end.⁴²¹

I draw from newly available US intelligence reports to complement secondary sources, and paint a fuller picture of the ROK's nuclear weapons program itself. These sources suggest that the Park regime had, in fact, initiated a more sophisticated, formal, and centrally managed nuclear weapons program than has previously been thought. They also suggest that in spite of the seriousness of the nuclear weapons effort, Park himself had not actually made a firm decision to develop a nuclear bomb, but rather sought to achieve the ability to do so on short notice. While the Americans were, for years, unaware of these efforts, American intelligence on the program was quickly brought up to speed once the US was motivated by the 1974 Indian nuclear test to subject South Korea and other states to greater scrutiny.

While this evidence has helped create a fuller picture of the South Korean nuclear weapons program, a number of important aspects of the ROK's effort remain obscured. Most importantly, little direct evidence is available about the actual decision-making process in the Blue House. Evidence on this front is largely taken from the testimony of a handful of South Korean politicians and advisers, whose stories are not well substantiated. CIA documents provide some new information on ROK deliberations on the nuclear issue, but these reports are not sourced. As a result, the evidence provided in this chapter on ROK domestic politics is incomplete, and relies heavily on the interpretations of Korea specialists in the United States.

Also, far less is known about the ROK's nuclear efforts after the cancelation of the French nuclear deal and Project "890" in 1976 than is known about US-ROK bargaining during

⁴²¹ The most notable of these sources is a 1978 CIA report on the South Korean nuclear effort that sheds new light on the program. CIA, 1978.

the 1975-1976 period.⁴²² While several nuclear-related threats by Seoul are on record, it is unclear whether or not these were bluffs, or the degree to which the Park regime intended to reinvigorate its nuclear program. There is significant evidence that nuclear weapons research, as well as efforts to procure weapons-related technology from abroad, continued through the late 1970s, but almost nothing is known about the actual decision-making process in Seoul. Finally, there is little in the public record regarding the Reagan administration's views on the ROK nuclear program, or on any communications that may have taken place on this issue between Washington and Seoul after Reagan took office. I present evidence that the Reagan administration's efforts to lend legitimacy to the Chun regime and to strengthen the US defense commitment to the ROK were part of a deal in which the South Koreans, in return, agreed to end their nuclear ambitions. While this evidence is strongly suggestive, however, it is uncorroborated by primary sources.

II. Case Summary

President Park Chung-hee's decision to pursue the nuclear option in 1970 was based on growing concerns over the American defense commitment to South Korea and the United States's willingness to defend the country from the Soviet- and Chinese-allied North's enormous military. In 1969, Richard Nixon had presented the Nixon Doctrine, which announced the US's intention to maintain a smaller military presence abroad and to leave a greater share of regional defense burdens to its allies.⁴²³ This was followed with the announcement that the United States would

⁴²² Project "890" was the name of the South Korean secret nuclear weapons program. CIA, 1978.

⁴²³ The Nixon Doctrine is the term applied to the principles laid out in Nixon's July 25, 1969 speech in Guam, specifically: "One, that we will keep our treaty commitments, our treaty commitments, for example, with Thailand under SEATO; but, two, that as far as the problems of internal security are concerned, as far as the problems of military defense, except for the threat of a major power involving nuclear weapons, that the United States is going to encourage and has a right to expect that this problem will be increasingly handled by, and the responsibility for it taken by, the Asian nations themselves." (Nixon, July 25, 1969). This was further clarified in Nixon's November 3, 1969 address to the nation, in which he put forth the following three tenets of US foreign policy: "First, the United States will keep all of its treaty commitments. Second, we shall provide a shield if a nuclear power threatens the freedom of a nation allied with us or of a nation whose survival we consider vital to our security. Third, in cases involving other types of aggression, we shall furnish military and economic assistance when requested in accordance with our treaty commitments. But we shall look to the nation directly threatened to assume the primary responsibility of providing the manpower for its defense." (Nixon, November 3, 1969). The specific policies the Nixon Doctrine would entail was not clear. In Vietnam, it meant "Vietnamization" – the ultimately failed attempt to hand South Vietnam's security over to indigenous military forces as US troops were withdrawn – however what this meant for the US's military posture in the rest of Asia was open to debate. See, for example, Laird, 1972; and Pauker *et al.*, 1973. Regardless of the US's actual intent, the Nixon Doctrine created anxiety among US allies in the region, particularly South Korea (see fn. 414 below).

withdraw 20,000 troops – an entire division – from South Korea.⁴²⁴ These moves came at a time when Seoul was already preoccupied with its security, and led to no small amount of anxiety about the alliance and its ability to successfully deter North Korean aggression.⁴²⁵ Park feared the US commitment to South Korea's defense was weakening, and focused efforts on strengthening the country's independent military capabilities.⁴²⁶ The nuclear program was just one important

⁴²⁴ In March 1970, the National Security Council issued the top-secret National Security Decision Memorandum 48 (NSDM-48), which detailed the president's decision to remove one of the two US divisions in South Korea – 20,000 troops – and pull the remaining division back from the DMZ. (Kissinger, 1970). Consistent with the Nixon Doctrine, the administration proposed sizeable funding increases for South Korean military aid and support for force modernization. NSDM-48 also called for planning by the Defense Department for further troop withdrawals from the peninsula, contingent upon ROK force modernization. The decision to pull troops out of Korea was made public the following June. (Beecher, June 12, 1970). After six months of negotiations between Washington and Seoul, the two parties agreed to a withdrawal schedule in February 1971. (*New York Times*, February 9, 1971; Lee Chae-jin, 2006, p.70). The US Seventh Infantry Division was withdrawn from Korea and deactivated. This reduced the total US troop strength in Korea from 63,000 to 43,000. The Second Infantry Division, which was the sole remaining US Army Division in Korea, was redeployed south of the DMZ, leaving a small number of guards at Panmunjom as the only remaining US military personnel within the Demilitarized Zone. (*Associated Press*, March 3, 1971; Gardner and Stahura, 1997, p.53).

⁴²⁵ There are a number of relevant factors here that, for reasons of space, cannot be fully treated in the text. The DPRK military had undergone a massive buildup in the 1960s. Although it was significantly inferior in quality to ROK military forces, it was numerically superior, and its deployment was heavily concentrated along the DMZ. The late 1960s had also seen a series of bold provocations by the North, including a commando raid on the Blue House in Seoul and an assassination attempt on President Park, as well as the seizure of a US Navy vessel in international waters. Seoul had urged a strong response to these incidents, especially to the Blue House raid – Park wanted to attack the DPRK – but was rebuffed by the United States (House Committee on International Relations, 1978, pp.54-6). Finally, Seoul had grave concerns about the alliance with the United States. President Nixon's withdrawal of troops from Vietnam and the announcement of the Nixon Doctrine created worries. These would be greatly exacerbated by Nixon's visit to China in 1972, the Shanghai Communique and the US's stated intent to withdraw troops from Taiwan, and the withdrawal of US forces from Vietnam. Choi and Park, 2008, pp.375-6; Cha, 1999, pp.59-99.

⁴²⁶ Park drew parallels between what he saw as the United States's betrayal of Taiwan's security interests through rapprochement with Beijing, and a weakening US commitment to Seoul. US withdrawal from Vietnam also sent the signal that being a loyal and staunchly anticommunist ally to the United States was not enough to guarantee US support. Pollack and Reiss, 2004, p.261; Reiss, 1988, p.80; Choi and Park, 2008, p.376. Military (and economic) self-sufficiency, however, had long been a goal of the Park regime, and Seoul had pursued these goals since the military junta took power in the early 1960s. As will be discussed in later sections of this chapter in greater detail, Seoul's interests in self-sufficiency would often put the country at odds with their American allies. The nuclear debate itself was one aspect of this endeavor. The United States had, through most of the 1960s, opposed the ROK's efforts to develop an indigenous defense industry. The Americans were concerned about the possibility of the rapidly expanding South Korean economy overheating. More importantly, they worried that a more independent military capability would limit the US's ability to restrain South Korean behavior, and could encourage aggression toward the North, potentially embroiling the United States in an unwanted conflict on the peninsula. After the Nixon Doctrine, however, US policies in this regard moved into greater alignment with Seoul's, and the United States began to cautiously support a military modernization program. This coincided with Seoul's growing concerns about the future of the alliance. In the 1970s, Park launched the country on a program of rapid military modernization and the development of defense industries. The ADD was established in 1970 (see below) to oversee a program of military purchases and research and development. Between 1973 and 1975 the agency's budget doubled. In mid-1975, Park initiated the Force Improvement Plan (FIP), which pushed military modernization and self-sufficiency even further, raising the country's expenses on defense

component of a wider plan to ramp up the South's defense.⁴²⁷ The goal of the program was not necessarily to acquire actual nuclear weapons but to achieve a 'breakout' capability comparable to what many believed Japan possessed. Park also reasoned that a nascent nuclear program could be used as a bargaining chip against the Americans to pressure them to maintain a security commitment to the ROK, or, perhaps more accurately, as a hedge. If the US security commitment and nuclear umbrella were ever withdrawn, Seoul could quickly develop a nuclear deterrent. In the meantime, a breakout capability or even an advanced program – coupled with the threat of producing a bomb – could provide a strong incentive for the Americans to maintain its commitments.⁴²⁸

Park created the Agency for Defense Development (ADD) and the covert Weapons Exploitation Committee (WEC) in late 1970, charging the former with the task of modernizing the ROK's defense industry and overseeing technology research and development, and the latter with exploring ways to import and develop sophisticated and advanced weaponry, including

from 5% to 7.5% of total GNP. The initiation of a nuclear weapons program was an integral part of this plan. House Committee on International Relations, 1978, pp.76-80, Reiss, 1988, p.82.

⁴²⁷ Lee Chae-jin, 2006, pp.68-70. The United States also provided aid for conventional military modernization to partly offset the effects of withdrawing the 7th ID. However, a two-year delay in providing the allocated \$1.5 billion per year in military aid only increased Seoul's anxieties. Reiss, 1988, p.81.

⁴²⁸ In a 1978 CIA report, the Agency concluded that even though Park had ordered the creation of a formal nuclear weapons program, he had "not decided that Korea would actually build bombs," and he "probably did not expect to confront the need or opportunity to make a decision on the production of either warheads or a delivery system for at least several years." In this regard, it is important to note that all of the technologies the South Koreans pursued during these years, including reprocessing technology, surface-to-surface missiles, and high explosives that could be used in an implosion device, had other legitimate conventional uses (CIA, 1978). Oberdorfer cites Oh Won-chol, a principal adviser to President Park who oversaw the country's program to develop heavy industry in the 1970s, and was integrally involved in the country's nuclear decisions. According to Oh, Park did not intend to develop an actual weapon, but to develop the necessary expertise and infrastructure to be able to do so on a few months' notice. Oh is quoted as saying, "Park wished to have the [nuclear] card to deal with other governments." (Oberdorfer, 2001, pp.68-9). Ha (1978, 1983), Siler (1998), and Nolan (1991, p.51) all argue that the nuclear program was partly, or even principally, intended as a way to put pressure on the Americans to uphold their defense commitments. Reiss speculates about the potential for using the program as a hedge against US withdrawal (Reiss, 1988, p.104). Pollack and Reiss (2004, p.262, fn. 17) cite an unnamed American official as claiming that the Koreans did not anticipate that the Americans would discover the nuclear program, and that they planned to present their "nuclear weapons status" to Washington as a *fait accompli*. It is credible that Seoul believed they could more successfully hide the program. When it was initiated, the Koreans could not have anticipated the heavy scrutiny that international nuclear transfers would receive after an Indian nuclear test. As it was, the Americans only uncovered the ROK's efforts when they did because the Indian test prompted a worldwide examination of nuclear activities that had previously been ignored. However, it is not entirely clear whether this means that Seoul expected to have progressed much further toward a bomb before Washington caught on, or whether they believed they could have actually constructed a weapon. The latter, of course, is less credible, given the extensive ties between the two countries and the time it would have taken for the Koreans to advance to such a point. It is also not clear what the cited US official means by "nuclear weapons status," as this could simply refer to an advanced program that had the technical capacity to produce a bomb in short order but had not yet done so.

nuclear weapons technology and the components needed to build an indigenous capacity to produce fissile material. The WEC was a secretive, *ad hoc* committee that consisted of top Blue House officials. The committee explored weapons deals with a number of international partners, including talks with Israel over the purchase of Gabriel surface-to-surface ballistic missiles.⁴²⁹

The WEC voted unanimously to create a full-scale nuclear weapons program.⁴³⁰ By the end of 1973, the ADD had completed a plan for the development of an indigenous nuclear weapons capability within the next decade, at the cost of \$1.5-2 billion.⁴³¹ To this end, the Park regime sought to import a variety of nuclear weapons-related equipment and facilities, train Korean nuclear scientists abroad, and recruit ethnic Korean nuclear specialists from the United States.⁴³² Concurrently, Seoul sought to develop a missile-delivery system that could deliver a

⁴²⁹ House Committee on International Relations, 1978, pp.79-80. After the United States had denied the transfer of American ballistic missile technology, the South Koreans turned instead to the Israelis. When it became clear to the Americans that Seoul would purchase Gabriel missiles from Israel, they agreed to provide the Koreans with their own Nike Hercules technology.

⁴³⁰ *Ibid.* The report does not provide a date for the decision to develop nuclear weapons. However, Selig Harrison cites General Kim Yoon-ho, the former ROK chairman of the joint chiefs of staff, as saying that Park decided on a “Master Plan” to produce a nuclear bomb in 1970 (Harrison, 1993).

⁴³¹ Pollack and Reiss, 2004, p.262. A team of 20 nuclear scientists that worked on the nuclear weapons program were assigned to update Park personally on the program’s progress once or twice a month.

⁴³² The full extent of the WEC’s nuclear weapons-related activities is still not known. Because of the enormous overlap in technologies and skills that are required for civilian and military nuclear programs, many of the Park regime’s efforts served the twin goals of greater energy self-sufficiency and the nuclear weapons program. In fact, all of the nuclear-related activities specifically mentioned here can be described as ‘dual use.’ This is typically the case with nuclear proliferation: aside from actually designing or constructing a bomb, the components of a nuclear weapons program are generally consistent with peaceful civilian nuclear pursuits. Often, the only distinction between a civilian effort from a military effort is intent. In the South Korean case, the nuclear weapons program and a large push to develop a civilian nuclear infrastructure were taking place simultaneously. Before 1968, South Korea’s nuclear infrastructure consisted entirely of a single American-supplied TRIGA Mark II research reactor, which had gone critical in 1962. The Park regime issued its first long-term civilian nuclear energy plan in 1968, which called for the development of two nuclear power reactors by 1976. This was the first of an increasingly ambitious set of plans for the development of what would eventually become a major domestic nuclear energy complex. A second research reactor (TRIGA Mark III) was purchased from the Americans in the late 1960s, and went critical in 1972. Both research reactors were very small and posed no significant proliferation risk. They ran on HEU fuel (70% enriched) that was supplied from the United States. The ROK’s first nuclear power reactor, Kori-1, was completed in 1978. Seoul signed a contract with the American firm Westinghouse to construct the reactor in 1970, and had initiated a training program for South Korean nuclear scientists and plant operators in 1968 (Seoul had had a formal program for sending South Koreans abroad for education in nuclear engineering and related fields since the late 1950s). Construction on Kori-1 began in late 1970. In 1974, Seoul contracted with Westinghouse again for its second nuclear reactor, Kori-2. The ROK relied on foreign funding for all of these projects, and contract bidders had to submit financing proposals with their bids. The lion’s share of funds came from American sources, including the US Export-Import Bank. For a very detailed discussion of the early years of the South Korean nuclear energy program, see Ha, 1983, pp.82-104. Also, the Nuclear Threat Initiative provides updated information on South Korea’s civilian nuclear facilities online at www.nti.org/e_research/profiles/SKorea/Nuclear/4406_4412.html. For the Park regime’s recruitment of ethnic Korean scientists from the United States and Canada, see Oberdorfer, 2001, p.69.

nuclear payload to targets in North Korea from launch sites well below the DMZ.⁴³³ In 1972, a lone physicist, assisted by a high-explosives expert, was employed by the ADD to develop a bomb design. In late 1974, these efforts were expanded under the title of project “890,” which included work on bomb design, high explosives fabrication, and computer codes.⁴³⁴ However, the Korean nuclear program mostly focused on acquiring the means to produce weapons-grade plutonium to fuel a nuclear bomb. In the early and mid-1970s, Seoul entered into negotiations for a Canadian NRX-type research reactor, a Canadian heavy-water CANDU power reactor, a French plutonium reprocessing facility, and a Belgian mixed-oxide (MOX) fuel fabrication facility.⁴³⁵

⁴³³ CIA, 1978. According to this CIA report, Seoul gave the development of a delivery system top priority. As already mentioned, the South Koreans pursued a deal with Israel to acquire Gabriel missiles adapted for surface-to-surface use, but in the end were able to acquire the Nike Hercules from the United States. The Nike Hercules, adapted for surface-to-surface strikes, would be able to hit Pyongyang and other major targets if launched from along the DMZ, but would require significant improvement to be used from further-removed launch sites, or to strike targets deeper within the DPRK. Also, construction of a warhead that could be carried by such a missile would be no small engineering task. The Agency report judged that the South Koreans would be able to develop a warhead to be carried by a Nike Hercules variant, but it would be low yield (3-30kt) and would likely require testing. The ROK would also have been able to deliver nuclear warheads from the air using American-supplied aircraft.

⁴³⁴ *Ibid.*, pp.6-7. The report concludes that the weapons-design group involved a few dozen Ph.D.’s and a larger number of technicians. It suffered from squabbles within the group and technical incompetence, and ultimately made little progress over the course of its brief existence. The missile-design unit of the project was in fact much larger than the group tasked with designing an actual warhead, providing some insights into the Park regime’s priorities.

⁴³⁵ Importantly, these facilities are all components of a closed nuclear fuel cycle. In the early 1970s, when the ROK began to pursue these technologies, the closed nuclear fuel cycle was far less controversial than it would become after the 1974 Indian nuclear test. The components of the fuel cycle can be used to produce fissile material for a bomb, however, they also provide for greater energy independence by eliminating the need for importing reactor fuel. For discussions on the ROK’s interest in the fuel cycle, see Kang and Feiveson, 2001; and Ha, 1983, pp.104-6. South Korea began talks with the Canadians about the possible acquisition of heavy water reactors (HWRs) in 1972. Interestingly, Canada had been trying to increase its global market share for its pressurized heavy water reactors (PHWRs) for years, and had specifically pursued contacts with the South Koreans, but had been unsuccessful (among other things, this reactor design was more expensive than equivalent light water reactors). It was not until the 1970s, after the decision had been made to pursue a nuclear weapons capability, that Seoul became open to purchasing reactors of this type. HWRs are much more suitable to a nuclear weapons program than LWRs. They burn natural-uranium fuel, eliminating dependence on foreign imports of enriched fuel, and therefore also eliminating a possible lever of influence over safeguards (the heavy water, though, would have to be imported, as the ROK had no deuterium production capability). They also produce more plutonium than light water designs. Both NRX and CANDU are HWR designs (CANDU is a commercial-scale design based on NRX, Canada’s first research reactor, which was built at Chalk River in the 1940s). Indeed, India used a Canadian-built, NRX-type reactor to produce the plutonium for its first nuclear bomb. The NRX-type reactor deal was canceled shortly after India’s test. South Korea’s first CANDU reactor, Wolseong-1, would begin commercial operation in 1983. See Bratt, 2006, pp.128-131; Ha, 1983, pp.93-4; CIA, 1978. Seoul entered into negotiations with the French for a reprocessing facility in 1973. This was only a pilot-scale facility, and would be able to reprocess only 1% of the spent fuel from the Kori-1 reactor. However, the South Koreans would be able to develop a new commercial-scale facility indigenously based on the French design. Additionally, the pilot-scale facility would be able, on its own, to produce enough plutonium for one nuclear weapon per year. Ha, 1983, pp.104-5; CIA, 1978, pp.5-6. Seoul also negotiated the purchase of a MOX-fuel fabrication research laboratory. This would have completed the closed nuclear

The South Koreans managed to keep their nuclear weapons ambitions a secret from the Americans, a task made easier by the fact that the United States paid little attention to the South's search for nuclear suppliers in Western Europe and Canada. Additionally, South Korea's efforts to purchase nuclear facilities and equipment on the open market were taking place at a time when plutonium-reprocessing capabilities were widely pursued as a potential source for civilian reactor fuel, and the acquisition of such technologies was not by itself a sign of a weapons program. This, however, changed when India tested a nuclear device on May 18, 1974. The fissile material that fueled the Indian device had been produced using ostensibly civilian nuclear facilities, including a Canadian-designed heavy water reactor of the same type sought by the South Koreans. India's test prompted a reevaluation of the proliferation risks of the closed nuclear fuel cycle among the nuclear suppliers in general and a greater vigilance over nuclear exports on the part of the United States in particular. This led the Americans to discover the ROK nuclear weapons program in November 1974.⁴³⁶ A US intelligence review of international proliferation

fuel cycle, giving the South Koreans the necessary technology to produce mixed-oxide fuel for nuclear reactors from its reprocessed spent fuel, and decreasing the need for imported reactor fuel. MOX fuel fabrication technology is not itself used in the manufacture of fissile material for weapons (in fact, it is typically used to convert weapons-grade fissile material from decommissioned warheads into the more proliferation-proof mixed-oxide form), but it is only useful in civilian nuclear energy production if there is reprocessed plutonium available to make mixed-oxide fuel. The MOX deal with Belgium would be canceled as the result of pressure from the United States in 1975. CIA, 1978, p.6. Seoul would also later explore the possibility of nuclear and missile cooperation with Taiwan, and nuclear cooperation with India.⁴³⁶ India produced its first nuclear bomb by reprocessing plutonium from the spent fuel of a Canadian-supplied NRX-type reactor. The Canadians supplied the reactor in the 1950s for peaceful energy purposes. The Indians constructed their own reprocessing facility in the mid-1960s. James Young describes the surprise with which the US and British intelligence communities met the Indians' accomplishment as well as the resulting reevaluation of nuclear policies and assumptions about proliferation (Young and Stueck, 2003, p.16). The 1974 Indian test led to greater cooperation and agreements on stricter export controls among the major nuclear suppliers. Despite US efforts, though, and the introduction of new safeguards requirements, a ban was never instituted on the export of enrichment and reprocessing technology. France and West Germany in particular opposed restrictions on the export of this technology. For brief, yet informative, summaries of both the Indian nuclear weapons program and the evolution of multilateral cooperation among the nuclear suppliers, see Cirincione *et al.*, 2005, pp.221-37, 443-450. More detailed and up-to-date information can be found online from the Nuclear Threat Initiative's *Inventory of International Nonproliferation Organizations* at nti.org/e_research/official_docs/inventory/pdfs/nsg.pdf. The United States was aware of some of the specifics of the Korean effort well before India's nuclear test, but were unaware that these were components of a weapons program. Specifically, Washington had known about Seoul's negotiations with Paris to purchase a plutonium reprocessing facility that had begun in 1972 (Hayes, "The Republic of Korea and the Nuclear Issue," 1993, p.52). Yet it was not until after India tested a nuclear device in 1974 that the Americans put these moves into the context of nuclear weapons proliferation. The Indian test took the United States by surprise. In its aftermath, Washington began to put other potential proliferators, including South Korea, under increased scrutiny. A group of nuclear and intelligence experts in Washington were charged with canvassing US embassies for any signs of weapons-related activities. It was then that intelligence agents at the US Embassy in Seoul uncovered the South Korean project. (Gillette, November 4, 1978). This conclusion was based on more than nuclear import efforts. According to Pollack and Reiss (2004, p.262), among the Americans' sources was a disaffected Korean nuclear scientist. Specifically, the two authors claim that a "young CIA case officer" at the US

risks at this time had already concluded that the South Koreans could develop a nuclear weapons capability within a decade.⁴³⁷

The Ford administration feared that the revelation of a South Korean nuclear weapons program would trigger destabilization across East Asia. In particular, the United States was concerned that Japan would produce nuclear weapons of its own, and that the Soviets and Chinese would provide nuclear support to the North Koreans. As a result, measures were taken to keep the matter from the press. Information on the Korean program was restricted to a small circle of policy makers in Washington. Communications between Washington and the US Embassy in Seoul were conducted through private channels.⁴³⁸ At the same time, however, there was broad agreement within the Ford administration that the US had to act to stop the program.⁴³⁹ The Americans had a significant interest in the strategic stability of Northeast Asia, and maintained a sizeable military presence in the region. To risk being dragged into a new conflict on the Korean peninsula, or being confronted with a regional nuclear arms race in an area where the US had deployed hundreds of tactical nuclear weapons was unacceptable. This was particularly true in the early months of 1975, only a few years after US combat troops had been withdrawn from Vietnam, a matter of weeks before the fall of Saigon, and in the middle of the American pursuit of rapprochement with Beijing. There was almost unanimous agreement in Washington that the United States would take strong action if necessary – up to and possibly including a threat to withdraw security assurances – if Seoul did not abandon its nuclear ambitions.⁴⁴⁰

Concerned about public revelation of the ROK's nuclear program as well as the soundness of the alliance, the Americans resolved to move slowly and cautiously on the issue.⁴⁴¹ Richard Sneider, the US Ambassador to South Korea, quietly met with his French counterpart in early March 1975 about France's pending sale of a reprocessing facility to the South Koreans.

Embassy in Seoul recruited a South Korean scientist who had been “dragooned” into working on the program. Also, Daniel Sneider - the son of Richard Sneider, the US Ambassador to the ROK at the time -- claims that the US was alerted to the South Korean program by a young CIA agent who uncovered a warhead design (Sneider, September 12, 2006).

⁴³⁷ SNIE, 1974. According to James Young, the SNIE was published before the discovery of the weapons program (Young and Stueck, 2003, p.17). Therefore the estimate of the time necessary to develop a bomb should even have been shorter.

⁴³⁸ Young and Stueck, 2003, p.18-19.

⁴³⁹ *Ibid.*

⁴⁴⁰ *Ibid.*

⁴⁴¹ Oberdorfer, 2001, p.70.

Yet even though Sneider presented the French with intelligence showing that the plant was part of a nuclear weapons effort, the French refused to end the deal.⁴⁴²

With Seoul, the US first focused on South Korea's NPT membership. In collaboration with one another, the United States and Canada threatened to hold up or cancel civilian nuclear reactors unless Seoul ratified the treaty, which it had signed in 1968. The Canadians conditioned a deal for a CANDU pressurized heavy-water reactor (PHWR) on NPT ratification, while the Americans threatened to hold up funding for an already-planned Westinghouse LWR. The South Koreans responded to this pressure by ratifying the treaty in March 1975.⁴⁴³

Seoul's willingness to ratify the NPT did not reflect any real changes in the country's nuclear behavior. In fact, the Park regime continued to harbor serious misperceptions about the US position on its nuclear efforts. By this point, the South Koreans were aware that the Americans had become suspicious of their activities. However, Park incorrectly believed that because he himself distinguished the ROK's research and nuclear fuel cycle activities as being

⁴⁴² *Ibid.*; Harrison, 2002, p.248. Even though the South Koreans, overall, greatly underestimated the American reaction to their nuclear activities, they were sufficiently worried about the US response to the deal for a reprocessing plant to try to keep the sale a secret from the Americans. CIA, 1978.

⁴⁴³ The Westinghouse reactor, Kori-2, was already past the design stage, but construction depended upon US funding through the Ex-Im Bank. The Canadians and the South Koreans were in the process of finalizing a deal on the CANDU commercial reactor, which would be South Korea's first heavy water reactor, Wolsong-1. A safeguards agreements between the two countries was being renegotiated as a result of the Indian nuclear test the year before. The Indian test had made the CANDU sale controversial in Ottawa, and some Canadian decision makers wished to cancel it. In the end, it was decided that going forward with the deal, but with a stricter arrangement for safeguards, would both help increase Canada's global market share in the civilian nuclear industry (viewed as particularly important after the 1973 oil shock), and give the country greater influence over global nuclear safeguards requirements. Bratt provides the history from the Canadian point of view (Bratt, 2006, pp.128-30). US State Department cables declassified in 2006 reveal that there was significant collaboration between Washington and Ottawa over South Korean NPT ratification as early as January 1975. Specifically, it appears that Canada was originally prepared to go forward with the CANDU deal so long as Seoul signed a strict bilateral safeguards agreement, while NPT ratification would be strongly urged but not required. The Canadians approached the Americans in order to weigh their position on ROK NPT ratification, which led to a common policy on the issue. See cable from US State Department to US Embassy Seoul, US Embassy Ottawa, and US Mission to the IAEA Vienna, "Canadian Pressure for ROK Ratification of NPT," January 24, 1975, Central Foreign Policy Files 1973-1976, Record Group 59, General Records of the Department of State, Document No. 1975STATE016913; and cable from US Mission to the IAEA Vienna to US State Department, "Non-Proliferation Treaty," February 27, 1975, Central Foreign Policy Files 1973-1976, Record Group 59, General Records of the Department of State, Document No. 1975IAEAV01694. The United States, for its part, threatened to withhold Export-Import Bank credits, including \$79 million in loans and \$157 in loan guarantees, for the construction of the Kori-2 reactor. The threat was not made explicitly. The US Ambassador to the ROK was instructed to inform Seoul that the funds would be withheld pending a presidential review that was ordered in the wake of the Indian nuclear test. Seoul was also informed that "Korea's very timely ratification of the NPT will be an important factor in Ex-Im eventually gaining Congressional agreement to finance Kori-2." Cable from US State Department to US Embassy Seoul, "Ex-Im Financing for Kori-2; Stevenson Hearings," March 12, 1975, Central Foreign Policy Files 1973-1976, Record Group 59, General Records of the Department of State, Document No. 1975STATE055955. Also Ha, 1983, p.92; and Senate Joint Resolution 51, March 7, 1975. The ROK's National Assembly ratified the NPT on March 20, 1975, and ratification was deposited on April 23, 1975.

beneath the threshold of an actual decision to make a bomb, that the United States would draw similar conclusions. The Americans did not; they saw Seoul's research and development activities, and its acquisition of dual-use technologies, as destabilizing in and of themselves. Park also drew false analogies between Seoul's nuclear program and the Israeli and Japanese nuclear programs. Israel had secretly developed nuclear weapons yet still received substantial support from the United States. Japan had developed a closed nuclear fuel cycle and the technical capacity to produce a nuclear weapon in a short period of time (a 'breakout' capability), had also put off NPT ratification for years, yet continued to receive a defense guarantee from the Americans, and continued to be protected by the US's nuclear umbrella. He therefore concluded, falsely, that the ROK might encounter short-term resistance from the US, but Washington would ultimately acquiesce to the country's development of an independent nuclear capability.⁴⁴⁴ In fact, both the strategic and historical context of the ROK's efforts was quite different from the Israeli and Japanese cases. The United States had indeed already resolved to stop the South Koreans' efforts even if it meant, as a last resort, threatening the well-being of the alliance.⁴⁴⁵

The ROK's efforts to acquire technology related to the closed fuel cycle, as well as the secret, formal nuclear weapons program, continued unabated after March 1975. The South Koreans continued to pursue the purchase of a reprocessing facility from the French as well as a heavy-water CANDU reactor from the Canadians. Seoul also issued a statement shortly after NPT ratification that appeared to condition the country's adherence to the treaty on continued US protection, and particularly the US's extension of its nuclear umbrella.⁴⁴⁶ Most concerning to the Americans were the country's continuing work on a secret weapons program and its deal with

⁴⁴⁴ CIA, 1978, pp.12-3. This is only a slightly simplified description of the Blue House's perceptions of the nuclear program's strategic implications. Amazingly, relatively little thought was given to the effects that a nuclear weapons program would have on the ROK's foreign relations, even after the Indian nuclear test. The bureaucracies charged with overseeing the country's nuclear activities – the ADD and the Korea Atomic Energy Research Institute (KAERI, which was part of the Ministry of Science and Technology) – focused more on the technical challenges and imperatives of the nuclear effort, usually at the expense of strategic considerations. Their advice to the Blue House was likewise skewed toward technical questions. They also put a great deal of emphasis on the economic aspects of the nuclear program, particularly the energy independence that a closed nuclear fuel cycle would provide. Groupthink may also have played a role in creating misperceptions. Few Korean policy makers were privy to information about the weapons aspects of the country's nuclear program. Project 890 itself, which was responsible for the parts of the program that were directly related to building a weapon, was highly compartmentalized, with a large degree of isolation between the various units. Furthermore, oversight of the various programs was haphazard and informal, with Park himself making operational decisions and delegating very little authority. There was little in the way of institutional checks, and the ADD in particular chronically pushed its efforts beyond its technical means and provided exaggerated estimates of its capabilities – while ignoring strategic risks – in order to expand its own budget and influence.

⁴⁴⁵ Young and Stueck, 2003, pp.18-9.

⁴⁴⁶ Reiss, 1988, p.92.

Paris for a reprocessing plant. The US continued to put pressure on France to pull out of the reprocessing deal, but Paris refused.⁴⁴⁷

In late spring and early summer 1975, the two sides began to more publicly signal their bargaining positions on the nuclear issue to one another. Anonymous officials in Washington leaked to the *New York Times* in early April that there were concerns about South Korea's nuclear plans.⁴⁴⁸ In early June, the Americans disclosed Seoul's deal for a reprocessing facility with Paris.⁴⁴⁹ Park Chung-hee first publicly stated Seoul's bargaining position in an interview with Rowland Evans and Robert Novak for the *Washington Post* in June 1975.⁴⁵⁰ Although Park stuck to South Korea's official line that the country had no nuclear weapons program and was in compliance with the NPT, he stated that "we have the capability" to build nuclear bombs, and that Korea would be forced to do so "if the US nuclear umbrella were to be removed." Going even further, while acknowledging that the United States had gone to pains to reaffirm its defense commitment, Park claimed that "there were and still are quite a number of Koreans doubting the commitment of the United States," and then asked, "what if those doubts are well founded?" Referring specifically to the 2nd Infantry Division, the only remaining US ground troops on the peninsula, Park stated that if further troops were withdrawn, it would invite North Korean aggression, and, most importantly, would greatly weaken American credibility. The message was clear: if the United States did not maintain its existing level of commitment, Seoul would develop an independent nuclear deterrent.

Park followed the threat up days later with further comments to *Washington Post* reporters, in which he expressed concern about the American resolve to use nuclear weapons to defend South Korea. Noting that the US Forces Korea (USFK) commander did not have authorization to use tactical nuclear weapons without the order of the president, Park expressed doubt that the US would resort to using its nuclear arsenal unless it was forced to do so. Then, while again denying the existence of a nuclear program and pointing to South Korea's recent ratification of the NPT, Park reiterated the threat to do "everything in [South Korea's] power to

⁴⁴⁷ OTA, 1977, pp.220-3; Ha, 1983, pp.130-3. The United States sponsored the creation of the London Suppliers Group, which met for the first time in 1974. France and West Germany, which were not yet parties to the NPT, were included in these meetings. The US pushed for a ban on the export of reprocessing equipment, and the creation of regional reprocessing centers. This was rejected by the French, but France did agree to require trilateral safeguards agreements between itself, the IAEA, and any recipient of its nuclear exports. Importers would also have to agree to a no-explosion pledge. Safeguards would apply to both imported equipment as well as any new facilities copied from the imported technology. In May 1975, the Seoul and Paris signed the "Agreement for the Application of Safeguards," and negotiations took place for a trilateral safeguards agreement, which would be signed in September.

⁴⁴⁸ Gelb, April 10, 1975.

⁴⁴⁹ Rich, June 4, 1975.

⁴⁵⁰ Evans and Novak, June 12, 1975.

defend its own security – including development of nuclear weapons if necessary – if the US nuclear umbrella were withdrawn.”⁴⁵¹ Thus two conditions for South Korean compliance were stated: no further troop withdrawals, and no withdrawal of the US commitment to defend North Korea with nuclear weapons. On the same day, the ROK Minister of Science and Technology told a Korean newspaper that the country already possessed the necessary technical capabilities to produce a nuclear weapon.⁴⁵²

In the summer of 1975, the United States began to focus principally on the French reprocessing deal. Resolved to block the purchase, Washington quietly began a diplomatic initiative to confront Seoul over the matter. The diplomatic effort was led by US Ambassador Richard Sneider and former ambassador and current Assistant Secretary of State for East Asian and Pacific Affairs Philip Habib.⁴⁵³ Sneider first approached the South Koreans, making inquiries initially through the Ministry of Science and Technology, then progressively working up the South Korean hierarchy, eventually to the Blue House itself.⁴⁵⁴ Despite possessing significant evidence that the South was indeed pursuing a weapons program, the Americans refrained from any direct accusation. Nor did they reveal the extent of their intelligence. Instead, the US vigorously objected to the reprocessing deal on the grounds of “the appearances of things” and “the difficulties that it would cause.”⁴⁵⁵ US concerns, however, were met only with denials that a program existed.⁴⁵⁶ The South Koreans went forward with the French nuclear deal, signing an agreement in September 1975.⁴⁵⁷

Between the summer of 1975 and January 1976, the United States applied increasing pressure on the South Koreans to abandon the reprocessing deal. The Americans’ threats became progressively costlier and increasingly explicit.⁴⁵⁸ In August of that year, Defense Secretary James Schlesinger met with Park in Seoul and, again without directly accusing the South

⁴⁵¹ Oberdorfer, June 27, 1975.

⁴⁵² Ha, 1983, p.128. Ha also argues that Seoul intended to use the nuclear weapons program as a “bargaining chip” in its effort to pressure the Americans to strengthen its security commitment.

⁴⁵³ Young and Stueck, 2003, pp.19-20.

⁴⁵⁴ Oberdorfer, 2001, p.71.

⁴⁵⁵ *Ibid.* Oberdorfer cites Paul Cleveland, who was the political counselor at the US Embassy to the Republic of Korea at the time. A number of reasons account for the Americans’ caution. One is that there was concern that public revelation of the program would itself be destabilizing. Another was that the Americans wanted to allow a way for Park to concede while saving face. A third was that the US did not want to place undue strain on the alliance, or signal to adversaries that there were any fractures in the relationship.

⁴⁵⁶ The Koreans were also quick to point out that the US tolerated a Japanese reprocessing capability, and that plutonium reprocessing had economic benefits and did not necessarily mean that the ROK was pursuing nuclear weapons. Harrison, 2002, p.247.

⁴⁵⁷ The deal could go through after the ROK had agreed to a trilateral safeguards agreement. Ha, 1983, pp.131-2.

⁴⁵⁸ Harrison, 2002, p.248.

Koreans, communicated that while US security assurances would endure, the one thing that could disrupt them would be the South's development of a nuclear weapon.⁴⁵⁹ Months later, Assistant Secretary Habib, in a series of talks with the ROK Ambassador in Washington, communicated the US's forceful demand – to no avail – that the deal for the reprocessing plant be canceled.⁴⁶⁰ In December 1975, Ambassador Sneider informed Science and Technology Minister Yi Chong-sok and KAERI President Yun Yong-ku that the reactor deal would “jeopardize availability of best technology and largest financing capacity that which only US could offer, as well as vital partnership with US, not only in nuclear scientific areas but in broad political and security areas.”⁴⁶¹ Before the end of 1975, the US had threatened to cease civilian nuclear cooperation, including the training of scientists, and to withdraw US security guarantees, including the nuclear umbrella.⁴⁶² All of these threats were made in secret.

At the same time, however, inducements were also offered to Seoul. To address South Korea's concerns over civilian energy production, the Americans offered guaranteed access to reprocessing under US control and a formal agreement for increased technology transfers from the United States.⁴⁶³ Additionally, the Americans sought to reassure the ROK that the US

⁴⁵⁹ Oberdorfer, 2001, p.71.

⁴⁶⁰ *Ibid.*, pp.71-2.

⁴⁶¹ Cable from US Embassy Seoul to US State Department, “ROK Nuclear Reprocessing,” December 16, 1975, Central Foreign Policy Files 1973-1976, Record Group 59, General Records of the Department of State, Document No. 1975SEOUL09662. The Canadians, again in collaboration with the United States, also delayed the contract for their CANDU reactor until the ROK killed the reprocessing deal. The United States once again held up loans and licenses for Kori-2 (Ha, 1983, p.92). The US Congress had delayed these funds in March 1975 to pressure the ROK into ratifying the NPT. They were then approved in June (the ROK ratified the treaty in March), under the condition that South Korea entered into the required safeguards agreement with the IAEA. This entered into force in November. The United States then delayed funding once again in order to pressure the Koreans into abandoning the reprocessing deal with the French. Westinghouse eventually signed the agreement for Kori-2 in November 1976 and finances were arranged in January 1977.

⁴⁶² Peter Hayes claims Henry Kissinger made this threat in 1975, but does not provide a date more specific than the year. He also claims the threat “killed” both the weapons program and the French reprocessing deal. He cites as his source an unnamed “former senior congressional aide who met with Park Chung-hee on proliferation concerns in the 1978-80 period.” (Hayes, 1991, pp.204-5). Selig Harrison makes a similar claim in a 1993 *Washington Post* article. Citing an interview with former ROK Chairman of the Joint Chiefs General Kim Yoon-ho, he states that a US threat to cancel its security commitment to South Korea in March 1975 led Park to abandon the nuclear program (Harrison, 1993). Harrison does not mention Kissinger, however. The two claims are, however, inconsistent with one another. If, as Hayes claims, a threat by Kissinger to withdraw security assurances led Seoul to abandon its reprocessing deal, this would suggest the threat came late in 1975, as the reprocessing deal did not die until January 1976. Hayes's claim is the more credible of the two. Given that the two versions are based on two separate sources - one American, the other Korean – yet they are substantially the same, it is likely that Harrison simply got the month wrong. Also see Hayes, “The Republic of Korea and the Nuclear Issue,” 1993, p.52; and Cha, 1999, p.133 (incl. fn. 73). Young recalls Habib making similar threats. Young and Stueck, 2003, p.20.

⁴⁶³ Oberdorfer, 2001, p.72. Also see cable from US Embassy Seoul to US State Department, “ROK Nuclear Reprocessing,” December 16, 1975, Central Foreign Policy Files 1973-1976, Record Group 59, General Records of the Department of State, Document No. 1975SEOUL09662.

security commitment would remain solid provided the nuclear weapons program was terminated. To this end, US officials issued increasingly strong statements of support for the alliance, as well as public threats against North Korean aggression. As early as November 1974 – when the Americans had first discovered the ROK’s nuclear program – President Ford, while visiting Seoul, stated that the United States would not cut existing troop levels on the peninsula. In the aftermath of the fall of Saigon, the US took pains to draw a distinction between the Americans’ policies in Vietnam and its security guarantees with South Korea. Secretary of State Kissinger reaffirmed the US defense commitment in the strongest terms, and publicly warned the North not to doubt the US’s commitment to the South.⁴⁶⁴ Secretary of Defense Schlesinger threatened massive retaliation and the use of tactical nuclear weapons against an attack from the North.⁴⁶⁵ In December, on the 34th anniversary of the Pearl Harbor attack, President Ford announced the “Pacific Doctrine,” which reaffirmed the US commitment to East Asia in general and South Korea in particular. Ford also stated that the United States would not agree to a separate peace, and – addressing an important source of concern for Seoul – that the South Koreans themselves would be party to any settlement on the security of the peninsula.⁴⁶⁶

As a result of this pressure from the US, South Korea withdrew from the French reprocessing deal in January 1976.⁴⁶⁷ Project “890” – the secret weapons program – continued, however, until December 1976. The cancelation of the reprocessing deal prompted a reorganization of Seoul’s nuclear bureaucracy. Later in 1976, conclaves between Park, the Cabinet, and Blue House advisers led to the decision to cancel 890 and to further reorganize the nuclear bureaucracy. The decision to cancel the program was based both on US threats and the failure of the program to make any significant technical progress.⁴⁶⁸

This was not, however, the end of South Korea’s nuclear efforts. While the formal program to design a bomb was terminated, much of the nuclear research establishment remained in place, and efforts focused on nuclear fuel cycle technology that could be used to fuel a

⁴⁶⁴ Lee Chae-jin, 2006, p.76.

⁴⁶⁵ *Ibid.*; Finney, June 21, 1975.

⁴⁶⁶ Kwak and Patterson, 1999, p.88. The Pacific Doctrine was, to a large extent, a revision of the Nixon Doctrine. Importantly, it stressed not only the military defense of US allies in the region but also economic development. The South Koreans still had reason to doubt the US commitment, however, as there was continued support for US troop withdrawals within Congress. See Oh, 1976.

⁴⁶⁷ Oberdorfer, January 30, 1976; Gillette, November 4, 1978. Interestingly, French President Giscard d’Estaing claimed on NBC’s *Meet the Press* that it was France who canceled the deal (Ha, 1983, p.181).

⁴⁶⁸ CIA, 1978. According to Oberdorfer, Secretary of Defense Donald Rumsfeld threatened that the United States would “review the entire spectrum of its relations with the ROK,” both military and economic, as late as May 1976 (Oberdorfer, 2001, p.72). In some respects the program even intensified in 1976, as Park initiated a six-year plan to indigenously develop a NRX-type reactor, as well as a heavy-water production facility. This effort was discontinued along with Project 890 in December 1976 (CIA, 1978).

weapon.⁴⁶⁹ Park created the Korea Nuclear Fuel Development Institute (KNFDI) in late 1976 to oversee research on the closed nuclear fuel cycle.⁴⁷⁰ The KNFDI pursued research on reprocessing technology, fuel production, uranium conversion, and fuel irradiation, and imported a post-irradiation examination (PIE) facility from France.⁴⁷¹

The nuclear issue received renewed attention in the wake of the Carter administration's push to withdraw troops from Korea. Carter had vocally supported the withdrawal of US troops from Korea throughout his campaign, and his election in November 1976 caused consternation in Seoul.⁴⁷² Just days after Carter took office in 1977, the administration ordered a review of the US's military posture in Korea, with particular attention to the redeployment of US troops.⁴⁷³ In May 1977, Carter approved a timetable for troop withdrawal from the ROK.⁴⁷⁴

⁴⁶⁹ There is some debate about when the ROK's nuclear weapons efforts were finally abandoned. All the evidence suggests that the formal nuclear weapons program, project "890," came to an end in December 1976. Numerous sources, however, suggest that the Park regime continued to pursue fuel cycle technology with the goal of a nuclear weapons capability in mind. This debate cannot be definitively resolved because there is not sufficient data in the public domain on South Korea's nuclear activities during this period, and because the difference between a purely civilian nuclear fuel cycle and a plutonium production capability to fuel nuclear weapons is only a matter of intent. What appears to be clear is that after December 1976, the South Koreans left much of the scientific bureaucracy of the nuclear weapons complex in place, continued to pursue elements of a closed nuclear fuel cycle (including fuel-cycle related technology from the French), issued thinly veiled nuclear threats from the highest levels of government, and pursued high-explosives and missile technology necessary for a nuclear deterrent. Harrison cites a South Korean nuclear scientist as saying that Park decided to pursue a "roundabout" route to a weapon by focusing on the reprocessing technology needed to create the plutonium fuel for a bomb (Harrison, 2002, p.248-9). Hayes interviewed a former US ambassador who stated that Park did not dismantle the country's nuclear weapons facilities but merely "stood them down." Hayes also cites another senior US official as saying that the ROK continued with nuclear weapons-related "hanky-panky" until at least 1980. (Hayes, 1991, p.205). These claims are consistent with the evidence presented by others such as Oberdorfer (2001), Choi and Park (2008), Pollack and Reiss (2004), and Siler (1998). In 1995, the *Associated Press* cited several top ROK officials claiming that not only did the nuclear weapons program continue after 1976, but in the late 1970s the country was very close to achieving a nuclear weapons capability and that Park even planned to unveil a nuclear weapon in 1981 (Choe, October 5, 1995). The *Associated Press* article cites Kang Chong-sung, member of the National Assembly and former chief of the Defense Security Agency under Park; Sun U-ryon, a former party legislator under Park; and Choi Hyong-sup, the former Minister of Science and Technology.

⁴⁷⁰ CIA, 1978. The KNFDI was originally created as a subsidiary of KAERI to oversee research on the development of a NRX-type reactor, but this project was discontinued at the end of 1976.

⁴⁷¹ Harrison, 2002, p.249; Kim Hyung-a, 2004, p.197.

⁴⁷² Oberdorfer, 2001, p.84-6; Cha, 1999, pp.144-5 (incl. fn. 15); Niksch, 1981. Oberdorfer first became aware of Carter's position in May 1975, early in Carter's candidacy for president.

⁴⁷³ Presidential Review Memorandum/NSC 13 (PRM-13), January 29, 1977. See Brzezinski, 1977.

According to Oberdorfer, the wording of the memorandum was misleadingly mild. US Secretary of State Vance was instructed by the White House, for example, that the question was simply how troops would be withdrawn. The question of whether they would be withdrawn had already been decided. Oberdorfer, 2001, p.87.

⁴⁷⁴ Presidential Directive/NSC-12 (PD-12, May 5, 1977). See Carter, 1977. The Directive ordered one brigade of the 2nd ID to be withdrawn by the end of 1978, and a second by the end of 1980. The remaining ground troops would be withdrawn at a later date yet to be determined. See also Cha, 1999, pp.144-5 (incl. fn. 16). The Carter administration planned to offset the troop withdrawals with increased assistance to the ROK military.

The plan was met with shock in Seoul and with strong opposition in Washington.⁴⁷⁵ It also led to further nuclear threats from the South Koreans. In the wake of the May 1977 visit to Seoul by Undersecretary of State Habib and Chairman of the Joint Chiefs General George Brown to consult with President Park about the troop withdrawals, the Koreans once again raised the possibility of nuclear weapons. The ROK Presidential Office issued a statement on May 26th stating the ROK hoped that the withdrawals would be accompanied by assistance to boost the country's indigenous defense capabilities and that the US nuclear deterrent would remain intact. In a statement to the *Korea Times*, the Blue House implied that the ROK would be forced to pursue nuclear weapons if the American nuclear umbrella were to be withdrawn.⁴⁷⁶ The following month, Foreign Minister Park Tong-Jin, speaking before the National Assembly's Foreign Affairs Committee, again raised the specter of a South Korean bomb.⁴⁷⁷ In October 1978, a ROK general told a US State Department official that the South would renege on its NPT obligations if US ground troops were withdrawn as planned.⁴⁷⁸

These threats were accompanied by accelerated nuclear efforts. In 1978, Seoul again began to discuss the prospect of nuclear fuel-cycle related technology transfers with the French.⁴⁷⁹ Meanwhile, research on high-explosives that could be used to make a nuclear bomb, and missiles that could deliver nuclear warheads, continued apace.⁴⁸⁰ Despite the cancelation of project "890," secret work on missile technology under the auspices of the ADD continued.⁴⁸¹ When Lockheed closed a plant that made solid-fuel rocket motors in California, South Korea imported the second-hand equipment.⁴⁸² In September 1978, the ROK successfully tested a surface-to-surface version of the Nike Hercules (NHK) that could carry a nuclear warhead.⁴⁸³ Later Seoul tried to purchase Atlas-Centaur IRBM technology.⁴⁸⁴

The United States again employed negative sanctions to pressure the South Koreans to end their nuclear efforts. President Carter personally intervened both in Seoul with President

⁴⁷⁵ Oberdorfer, 2001, pp.85-91. Although Park was well aware of Carter's position on troop withdrawal, he failed to take it entirely seriously, and was surprised to see the plan being implemented. Opposition within the Carter administration and the US military was fierce.

⁴⁷⁶ *Korea Times* as cited in Ha, 1983, pp.128-9.

⁴⁷⁷ *Ibid.* Again Ha cites the *Korea Times*.

⁴⁷⁸ Hayes, 1991, p.205.

⁴⁷⁹ Oberdorfer, 2001, p.73. Oberdorfer claims the deal was for a reprocessing facility. It is not clear, however, whether this was the case, or whether the deal was for related technical training or technologies. Ha refers to "technical assistance for the development of fast breeder reactor technology" (Ha, 1983, p.103). I have therefore chosen simply to use the term "fuel-cycle related technology."

⁴⁸⁰ CIA, 1978.

⁴⁸¹ Nolan, 1991, p.49.

⁴⁸² Harrison, 2002, pp.253-4. The Nike Hercules uses solid-fuel propellant.

⁴⁸³ There is some debate on this point, but it appears that the NHK could deliver a 0.1-0.5 ton warhead. See Nolan, 1991, p.50; Harrison, 2002, p.254; and System Planning Corporation, 1998.

⁴⁸⁴ System Planning Corporation, 1998. The US government blocked the deal.

Park and with French President Giscard d'Estaing to kill a potential deal for nuclear fuel-cycle technology, and secured a contract with the South Koreans for two nuclear reactors for Westinghouse instead.⁴⁸⁵ Carter also may have threatened to withdraw US financing for nuclear energy projects.⁴⁸⁶ These measures again succeeded in killing specific projects and winning small concessions, however, they did not end Park's overall nuclear ambitions.

The Carter administration's attempts to allay South Korean security concerns were mostly unsuccessful. Carter promised to increase military aid to offset American withdrawals, however Congress blocked funding. A US commitment to maintain deployment of air and naval forces only recalled similar commitments in 1950 that failed to deter a North Korean invasion. Carter, unable to overcome domestic opposition, and having received intelligence reports indicating that the North Korean military was stronger than previously believed, was ultimately forced to abandon his plans for troop withdrawal after only token redeployments.⁴⁸⁷

South Korea's nuclear ambitions ended after General Chun Doo-hwan came to power in 1980. In return for American security pledges, as well as US acquiescence to the coup that brought Chun to power and acceptance of his regime, the new leader was willing to abandon the effort to develop nuclear weapons-related technologies.⁴⁸⁸ Chun purged the ADD of its nuclear

⁴⁸⁵ Oberdorfer, 2001, p.73; Harrison, 2002, p.249. This came at time when there were repeated tensions between the United States and France over sensitive nuclear exports.

⁴⁸⁶ Pollack and Reiss, 2004, p.263. The authors' source is Kang Chong-sung (see fn. 458 above).

⁴⁸⁷ US-ROK relations during this period indeed reached new lows. The South Koreans genuinely doubted the American commitment to defend the ROK. There was personal animosity between Carter and Park. Seoul was irritated not only by the decision to withdraw troops but the way in which the Carter administration handled those plans, without prior consultation with the South Koreans and without discussions with Moscow or Beijing. Carter and some members of Congress were also concerned about the Park regime's record on human rights. Finally, the Koreagate scandal had just broken, in which Seoul sought to bribe American politicians. The Koreagate scandal led to Congressional threats to hold up military and economic assistance to the ROK, including loans for nuclear reactors. See Cha, 1999, pp.141-68; Oberdorfer, 2001, pp.84-108; and Ha, 1983, pp.95-6.

⁴⁸⁸ Chun urgently needed US support after the coup, and had requested a visit to Washington. For the Carter administration, the principle concerns were ROK security and human rights. In particular Carter was worried that Chun would execute the opposition leader (and later president) Kim Dae-jung, who had been arrested after the 1980 coup. The outgoing Carter administration lacked the necessary leverage to force a stay of execution, however the incoming Reagan administration agreed to take up the issue. It appears that the Washington summit meeting was offered principally as a *quid pro quo* for Kim's life. The Reagan administration's support for Chun boosted the regime domestically, but was costly for the United States in terms of Korean public opinion, as the Americans came to be viewed as supporting not only a military coup but a violent crackdown on protestors. The issue of nuclear proliferation was explicitly raised at the Reagan-Chun meeting that took place in early 1981. See cable from US State Department to US Embassy Seoul, "Korea President Chun's Visit – The Secretary's Meeting at Blair House," February 5, 1981, Document No. 1981STATE030225, available online at <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB306/doc04.pdf>; and cable from US State Department to US Embassy Seoul, "ROK President Chun's Meeting With the Secretary at the State Department," February 6, 1981, Document No. 1981STATE031379, available online at <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB306/doc06b.pdf>.

personnel, discontinued the country's missile program, and ended other research and development efforts related to nuclear-weapons development.⁴⁸⁹ The United States, for its part, took strong steps to demonstrate its commitment to both South Korea's national defense and the Chun regime in particular. Chun Doo-hwan was one of President Ronald Reagan's first official state guests after the Reagan took office in 1981, and was the first Korean president to visit the White House in over a decade.⁴⁹⁰ At the summit meeting, Reagan provided explicit assurances that the United States would indefinitely maintain its existing level of ground forces on the Korean peninsula, expand US military assistance to South Korea (most immediately demonstrated by the sale of F-16s that the Carter administration had earlier blocked), and continue to provide access to American civilian nuclear technology and related funding.

Although there have been several suspicious incidents related to South Korea's nuclear program since 1980, there is no evidence that a centrally planned nuclear weapons effort was ever revived.⁴⁹¹ Furthermore, there have been no reports of South Korean threats to develop a nuclear capability since the late 1970s.

III. Negative Sanctions Were Effective

The South Korean case lends support to hypothesis (*H1*):

(H1.a) Negative sanctions are effective with allies, but are very unlikely to be effective with adversaries.

⁴⁸⁹ Kim, Hyung-a, 2004, p.199; Pollack and Reiss, 2004, p.263; Harrison, 2002, p.249-50; Hayes, 1991, p.206. Kim describes "*quid pro quo* negotiations" between Chun and Washington after the first coup in 1979, leading the United States to acquiesce to Chun's second coup and seizure of the presidency in 1980. Pollack and Reiss cite Kang Chong-sung as saying that by December 1982, all ADD personnel associated with the nuclear effort were terminated or retired. According to Kim, Chun brought the nuclear weapons and missile programs to a halt fairly rapidly in 1980 by dismissing about 30 ADD executive members. Another 800 were dismissed in December 1982. Harrison reports that in order to win American support, Chun agreed to terminate specific nuclear-related efforts that the Americans identified as suspect. Hayes reports that the missile program ended in the early 1980s, but that cost was also a significant motivation in this decision.

⁴⁹⁰ For a description of Reagan administration policies toward the ROK and the contrast between these policies and those of the Carter administration, see Cha, 1999, pp.169-75. The profoundly different approach toward the ROK taken by the Reagan administration was the result of the administration's different strategic outlook in general. Human rights issues were far less of a concern to Reagan than they were to Carter. Maintaining and strengthening the US's projection of military power in Northeast Asia was also consistent with Reagan's vision of "peace through strength."

⁴⁹¹ Pinkston, November 9, 2004. South Korean scientists conducted plutonium extraction experiments in 1982. Depleted uranium fuel rods were irradiated in one of the country's TRIGA research reactors, and very small quantities of plutonium were extracted using hot cells. South Korea did not divulge these experiments to the IAEA until 2004. The country also engaged in small uranium enrichment experiments in 2000. In neither case do these experiments seem to be part of an organized weapons program or program to develop fuel cycle technology.

(H1.b) Even when effective in the short term, negative sanctions are unlikely to produce long-term compliance.

(H1.b) Negative sanctions are likely to be counterproductive with adversaries, and lead to escalation and an aggressive spiral.

In this case, negative sanctions were far more successful than they were in the Libyan and North Korean cases. They could not ultimately produce a lasting settlement on the nuclear issue – positive inducements, particularly security assurances, were necessary for that – but they did consistently force the South Koreans to make greater and greater concessions over their nuclear program. They were also an important tool for the United States in communicating its resolve to stop the country’s nuclear ambitions. Sanctions were used successfully in this case because the target was a close US ally. This was so for three reasons: (A) the alliance gave the US substantial and asymmetric leverage over the South Koreans; (B) US demands did not create significant concerns for South Korea about the distribution of gains; and (C) the alliance lowered the reputational costs of agreement.

A. Why Negative Sanctions Were Effective

1. Leverage

One important reason sanctions worked in this case but failed in the Libyan and North Korean cases is that the US-ROK alliance provided the Americans with enormous bargaining leverage over the South Koreans. Additionally, the relationship was highly asymmetric. The ROK was utterly dependent on the United States both for its security as well as its economic development. While the United States had a strong interest in maintaining its level of cooperation with the South Koreans, the Americans had no similar reliance on Seoul, and possessed far greater freedom of action. It is important to note, however, that this leverage did begin to diminish somewhat over time. By the late 1970s, when the Carter administration put pressure on the ROK to contract with Westinghouse instead of the French contractor Framatome for the country’s seventh and eighth nuclear reactors, it was already becoming apparent that America’s loss of monopoly status in international nuclear exports had reduced the US’s ability to use civilian energy cooperation as a way to influence the ROK. Negative sanctions still succeeded in this case, but tellingly, South Korea soon signed contracts with Framatome for its ninth and tenth reactors. The same can be said for security-related sanctions. As South Korea would develop its

indigenous defense capabilities, and as the military balance would shift to the ROK's favor, the United States's ability to coerce its ally would naturally diminish. At least in the 1970s, however, America's ability to influence South Korean behavior through threats and coercion was quite large.

The most important and most obvious source of leverage was the American military guarantee. The South Koreans were dependent upon the United States for their defense. The US deployed tens of thousands of troops on the peninsula, committed itself to defending South Korea from foreign invasion, and extended its nuclear umbrella to the country. Additionally, South Korea's own military capabilities depended on US military aid and the availability of American military technology.

South Korea also relied on the United States for economic growth. The United States was the source of the majority of foreign loans to South Korean industries (with Japan, America's closest ally in the region, accounting for almost all of the rest).⁴⁹² This foreign capital underwrote Korea's rapid economic expansion in the 1960s and 1970s, and any threat to the investment flow would risk financial catastrophe. The Korean economy was driven by exports, and the US market was by far the leading destination for South Korea's goods. Also, the United States was an important source of technology for the South Koreans. This was especially true for the country's infant civilian nuclear industry. South Korea is a resource-poor state, and by the 1970s was heavily dependent on fossil-fuel imports for energy. Seoul had big plans for nuclear energy, and hoped to fill most of its energy requirements through nuclear power generation by the end of the century, a goal that became particularly urgent after the oil shocks of the 1970s.⁴⁹³ This was not possible without access to American technology and guaranteed loans. By 1975, South Korea already had two US-supplied research reactors, one Westinghouse power reactor under construction (scheduled to be completed in 1978), and other Westinghouse reactors already past the design stage. Korean nuclear technicians were being trained in the United States. Korea's reactors were also being funded in large part through guaranteed US loans, much of it through the US Ex-Im Bank.⁴⁹⁴ Moreover, there were few alternative sources of support to which South Korea could turn. The United States dominated the civilian nuclear industry in the 1970s, and the Koreans were already committed to using American designs. Other potential suppliers, such as Canada, were close US allies that cooperated with the Americans on nuclear export policy.⁴⁹⁵

⁴⁹² Chung, 2007, pp.324-38.

⁴⁹³ Ha, 1983.

⁴⁹⁴ *Ibid.*, pp.85-101.

⁴⁹⁵ Wonder, 1985.

In early 1975, when the Ford administration was planning its approach to the South Korean nuclear issue, all of these levers of influence were considered.⁴⁹⁶ It was decided that economic threats would be issued first, and military-related sanctions would be considered if Korean concessions were not forthcoming. The Americans first broached the nuclear issue with the Koreans early in 1975, threatening to hold up Ex-Im Bank loans for the Kori-2 nuclear reactor.

This threat presented Seoul with very significant potential costs if they were to continue to remain outside of the NPT regime. While the South Korean civilian nuclear program was still small at this point (a single commercial-scale reactor was yet to go online), the country had plans for the rapid development of nuclear energy infrastructure, and saw the development of the industry as a way to address economic needs as well as the problem of dependence on fossil-fuel imports.⁴⁹⁷ The ROK's petroleum imports had increased more than ten-fold over the decade from 1965-1975, and the share of the country's energy consumption that was dependent on those imports rose from 11.9% to 54.9% over that same period. The issue was of particular concern in the wake of the 1973 oil shock.⁴⁹⁸

Furthermore, the South Koreans could not easily mitigate the effects of a withdrawal of American assistance by shifting trade to other countries. The United States commanded an enormous share of the global civilian nuclear energy market in 1975. Between 1965-1975, two American companies – General Electric and Westinghouse – were responsible for more than 72% of all non-Eastern Bloc reactor exports worldwide. Outside of the US and the Soviet Union, only four countries – France, West Germany, Canada, and Sweden – exported nuclear reactors during that period⁴⁹⁹. Furthermore, the country's current and planned reactors were all dependent upon low-interest US loans and loan guarantees, and the enriched uranium needed to fuel the reactors would have to be provided by the United States.⁵⁰⁰ Any civilian reactors from other suppliers would also have to be accompanied with substantial loans. The ROK had not had trouble securing such funding from other suppliers such as Canada, but it would certainly be more difficult to develop a large nuclear infrastructure based on foreign loans without the Americans as a potential supplier.

⁴⁹⁶ Young and Stueck, 2003, pp.18-9.

⁴⁹⁷ Ha, 1983.

⁴⁹⁸ *Ibid.*, pp.98-9; Kim, 1991.

⁴⁹⁹ Ha, 1983.

⁵⁰⁰ *Ibid.*, pp.76-80, 103. As late as 1976, the United States possessed more than 95% of the world's uranium enrichment capacity, with the Soviets making up the rest. The Europeans did not have any presence in the international market for enriched-uranium fuel until 1979, when Eurodif's gaseous-diffusion plant at Tricastin, France went online. At any rate, the first three Westinghouse reactors built in the ROK were turnkey facilities, and were dependent upon US-supplied LEU fuel.

The threat of withdrawing civilian nuclear cooperation was successful in pressuring Seoul to ratify the NPT, which they did in March 1975. This was achieved solely through the threat of economic sanctions. One reason this was possible is that ratification of the NPT was a relatively low-cost concession, and, in fact, even offered a number of benefits to the South Koreans. Seoul had already signed the treaty seven years before, was a member of the IAEA, and had signed a bilateral agreement with the United States on civilian nuclear cooperation that imposed many of the same restrictions and safeguards requirements as the NPT. Also, NPT ratification did not completely foreclose the South Koreans' ability to develop a nuclear capability. The equipment and facilities necessary to reprocess the plutonium or enrich the uranium needed to fuel a bomb were all dual use, and could be acquired as components of a civilian nuclear fuel cycle without violating the treaty. NPT membership in some ways made it even easier for Seoul to continue with their plans, as treaty ratification could provide a cover for nuclear weapons-related activities by lending them a degree of legitimacy. Under the NPT, the development of civilian nuclear energy infrastructure was a right of all treaty members. This included the construction of reprocessing facilities and heavy water reactors that could be used to produce weapons-grade uranium. As long as their plans to develop a weapon could be effectively concealed, all of the necessary activities the country needed to undertake to achieve a breakout capability would not only be consistent with the terms of the treaty but actually protected by it. Furthermore, as a treaty member in good standing, the Koreans would have a seat at the table in NPT deliberations, and would be able to play a role in the future evolution of the treaty. Given that many of the developing countries that were party to the treaty shared a strong interest in protecting the right to develop civilian nuclear technology, Seoul would likely find many allies in any effort to preserve the ability to acquire dual-use items.⁵⁰¹

At the same time, by March 1975, Seoul had not yet come to fully appreciate the US's opposition to its nuclear efforts, and had reason to believe that meeting US demands on the NPT issue could successfully appease US decision makers and reduce the likelihood that Washington would additional pressure on the South over its nuclear activities in the future. The Park regime could not have known the degree of consensus in Washington on the need to block the ROK's

⁵⁰¹ It did not, of course, work out this way. A relatively small group of nuclear suppliers controlled the global market in dual-use items, and the United States continued to hold a disproportionate share of the power within this group. Additionally, the United States was successful in organizing the world's major nuclear suppliers outside of NPT and IAEA through the NSG. Opposition to restrictions on the export of dual-use nuclear technologies principally came not from potential buyers in the developing world but from upstart suppliers like France and West Germany who were trying to capture greater market share. However, none of this denies that South Korea had a strong interest in taking part in NPT deliberations and playing as much of a role in shaping the international nonproliferation regime as possible.

nuclear weapons ambitions. Seoul knew, though, that it had many allies within the American defense establishment and in the US Congress, and may have believed that NPT ratification would provide these allies with sufficient ammunition to block any future American demands or strong-armed tactics. Finally, both Seoul itself and its allies in the American government could hold up NPT ratification to deflect any accusations from the Soviets or the North Koreans about Seoul's nuclear activities. This would be particularly useful in light of the DPRK's failure to ratify the treaty themselves.⁵⁰²

The next set of American threats focused on the French reprocessing deal. In this case, the US offered a more direct, varied, and costly set of negative sanctions. Economically, the United States threatened to cut civilian nuclear cooperation and funding, including loans and licenses for nuclear reactors already in the works. Even more powerful was the threat to withdraw military cooperation and to reevaluate the Americans' commitment to the US-ROK alliance. These threats were communicated repeatedly, secretly, directly, and through a number of different diplomatic channels. Ultimately, they successfully pressured Seoul to cancel the deal for the reprocessing facility in January 1976 and the formal weapons program (project "890") in December 1976.

The ability of the United States to achieve its goals in a relatively short time in this instance, and to do so without any significant public scrutiny or signaling to adversaries that there was tension within the alliance, testifies to the enormous amount of leverage the Americans could bring to bear. As described above, the ROK's dependence on American trade, technology, civilian nuclear cooperation, and military assistance, was significant. Interestingly, however, Seoul did manage to extract significant concessions from the Americans during this period. The Ford administration essentially reversed the Nixon Doctrine, which was made formal when Ford announced the Pacific Doctrine. The United States also pledged nuclear cooperation and military assistance, and acquiesced to the purchase of a Canadian heavy-water reactor as well as other nuclear technology such as a PIE facility from the French.⁵⁰³ Therefore, even during this period,

⁵⁰² Again, none of this turned out to be accurate. There was remarkable agreement in Washington that the South Korean nuclear effort had to be stopped. There was also an unusual consensus on the need to use every source of leverage the United States possessed – including the threat of withdrawing security assurances – to effect this. Seoul was simply not aware of the degree of American resolve in March 1975. The country's decision to ratify the NPT while continuing with the nuclear program unabated indicates that the Park regime believed at a minimum that NPT ratification would not significantly reduce the ability to develop a nuclear capability.

⁵⁰³ Harrison, 2002, p.248-9. Harrison quotes Chul Kim, a ROK nuclear scientist involved in the French deal: "[The Post-Irradiation Examination] facility entails determining the ratio of radioactive material in the spent fuel, moving spent fuel from the storage fuel at the reactor to a special shelter, and the measurement and dissolution of the spent fuel through special remote control procedures. These processes are akin to the key phase of reprocessing." While a PIE facility is not normally used to separate plutonium, its hot cells

when American leverage over Seoul was at its highest, the United States could not simply dictate its will.

During the Carter administration, just a few years after the Ford administration's diplomatic efforts, negative sanctions were again successfully brought to bear to coerce Seoul into abandoning nuclear weapons-related activities. The United States also succeeded in pressuring the Park administration to sign a Memorandum of Understanding (MoU) in 1979 that limited Seoul to missiles with a range of less than 180km. However, this time, US leverage, particularly in the area of civilian nuclear assistance, was noticeably reduced. Whereas the United States had, earlier, dominated the bidding for Korean nuclear facilities, American companies now faced much stiffer competition.⁵⁰⁴ As South Korea sought to rapidly expand its nuclear energy production capacity, the United States risked losing its market share in the country, which in turn would reduce the Americans' future leverage. When discussions began once again in 1978 with the French to purchase technologies related to the closed fuel cycle, the Americans did successfully block it. This time, however, the US president himself had to intervene with both Paris and Seoul before the Koreans agreed to purchase two reactors from Westinghouse.⁵⁰⁵ Even then, the next two reactors the country purchased were from the French.⁵⁰⁶

Here as well, though, the South Koreans succeeded in extracting meaningful concessions from the United States. The Carter administration dropped its plans to withdraw ground troops from the peninsula. While limiting the range of ROK missiles, the US nonetheless conceded to production of surface-to-surface missiles provided they were within that limit. The Americans also accelerated technology transfers, including military technology. The United States, therefore, could not use its leverage to compel its ally to give up these programs without acceding to some of the ROK's own demands, at least not without risking a rupture in the alliance.

Two interesting aspects of the US's use of negative sanctions in this case are worth highlighting. First, the United States could not build up the ROK's own defense capability or transfer a greater share of the defense burden to the ROK without simultaneously sacrificing some of its own leverage over Seoul. The same was true with civilian nuclear power. Even as the provision of American nuclear technology to Seoul seemingly increased the country's dependence on US-produced fuel and future assistance, at the same time it provided South Korea

could be used for such a purpose. The US demanded that the French-supplied PIE facility purchased by Seoul be limited in size to make such a use more difficult. See Kang and Feiveson, 2001.

⁵⁰⁴ By the mid-1970s, France and West Germany in particular emerged as major players in the nuclear export market. Ha, 1983, pp.70-1, 94.

⁵⁰⁵ Oberdorfer, 2001, p.73; Harrison, 2002, p.249.

⁵⁰⁶ Ha, 1983.

with the knowledge and technical base to assert greater independence. Second, over the long term, negative sanctions were a losing proposition. While the US could repeatedly threaten sanctions to compel nuclear compliance, as leverage inevitably waned, this became more and more difficult. In the long run, the only way to prevent South Korea from developing a nuclear capability (or a latent capability) was to provide the inducements and especially the security assurances necessary to reduce the country's preferences for the weapons in the first place.

2. Concerns Over Relative Gains Were Low

Concerns over relative gains between the US and the ROK were not an issue. The two countries faced common enemies and their strategic interests were greatly aligned in the region. Concerns about any power shift in the relationship were marginal, or non-existent. Even more importantly, the enormous power differential between the two states obviated any concern over relative power shifts, as the US's advantage was so large that a nuclear program could not make much of a difference. Concerns over relative gains in this case were instead squarely focused on the power balance across the 38th parallel. The very purpose of the US-ROK military alliance was to balance against the Chinese- and Soviet-supported DPRK, and to deter any aggression from the North. The South Koreans did have an interest in boosting their military and industrial capabilities in order to reduce the country's dependence on the United States, however this was a goal that the Americans shared. The US actively supported South Korean economic development as well as the development of a more self-sufficient defense capability. The United States was also, at this time, looking for ways to reduce its military footprint in East Asia. American troops withdrawals were, in fact, a source of friction between the two countries and the principal trigger for the ROK's nuclear efforts in the first place.

Not only did concern over relative gains not complicate the use of sanctions in this case, it actually worked in the Americans' favor. Because South Korea's principal concern was the power balance with the North, and because the United States could easily manipulate that balance through its level of commitment to the alliance, the linkage of economic and military sanctions to the nuclear issue could be used to great effect. The ROK's nuclear weapons program was itself a hedge against any future weakening of the Americans' commitment to the country's defense. Indeed, it was part of a larger program to rapidly develop industrial and military capabilities in order to guarantee Korean self-sufficiency. In the short term, however, a rudimentary nuclear program offered no immediate improvement to the military balance on the peninsula. It would require years of investment for the Park regime's plans for self-sufficiency to have a significant practical effect in this regard. In the interim, Park's plans were wholly dependent on the

continued support of the United States. Continued rapid economic growth could only be achieved through exports to an open US market. Military and industrial development, including the development of the nuclear infrastructure itself, relied upon American loans and investment, as well as the transfer of American technology. In other words, the United States could threaten to undermine the very goals that the nuclear effort were designed to further, and could do so at minimal cost to itself.

3. Reputation Costs Were Low

Another reason the close alliance between the US and the ROK allowed negative sanctions to be effective was that it reduced the reputation costs that typically present barriers to agreement. As discussed in Chapter 2, states will ordinarily resist extortionate threats – even if conceding is otherwise less costly than defiance – because giving in to extortion can invite future coercion. In this case, however, reputation was not an important concern. The United States and South Korea already had an established record of cooperation and mutual trust. Korean defense was dependent upon the country’s relationship with the United States, as was South Korea’s economic well being. The United States had expended blood and treasure to defend the country during the Korean War and had upheld its defense commitment for a quarter of a century. Furthermore, the Americans had taken a relatively hands-off approach to Korean domestic politics, acceding to otherwise undesirable political outcomes such as a military coup, human rights violations, and the declaration of martial law and imposition of authoritarian rule after 1972. Concerns over future extortion were considerably lower in this relationship than they were between the United States and adversarial states such as Libya that were pursuing nuclear weapons.

At the same time, South Korea and the United States had a common interest in maintaining the credibility of the alliance. Successful deterrence of North Korean aggression depended in large part on how convincingly the Americans could signal their commitment to defend Seoul. For the Americans, this fit into the much larger framework of the overall Cold War relationship with the Soviet Union. Washington believed that the credibility of its commitment to South Korea had direct ramifications for extended deterrence for states in which the United States had an even greater interest, such as the NATO allies in Western Europe. As a result, both states’ views of reputation costs were different than they would have been in an adversarial relationship. There was little incentive for either to adopt a firm bargaining stance out of concern for reputation. More important was signaling a commitment to the alliance and an alignment of strategic interests. There is little concern that yielding to a close ally’s demands will signal to an

adversary that a state is ripe for exploitation and coercion. On the other hand, deadlock between allies can present an adversary with an opportunity to exploit division and conflict within the alliance. This not only reduced the reputation costs of agreement between the United States and South Korea in this case, but gave both sides a strong incentive to approach the nuclear issue cautiously, and to negotiate a resolution quietly.

Finally, negative sanctions could succeed in this case because the thick lines of communication and history of mutual trust between Washington and Seoul allowed the two sides to credibly communicate their preferences, and to shape their bargaining positions in terms that facilitated compromise. Specifically, the ability to credibly communicate preferences allowed the two sides to shape their demands as explanations rather than extortion. For Seoul, this meant presenting the country's nuclear weapons program as a direct and necessary response to any sign that the American defense commitment was weakening. The Park regime consistently signaled to Washington that the development of a nuclear weapon was conditional upon the American commitment to the alliance and the nuclear umbrella. When South Korea ratified the NPT in 1975, it issued a statement indicating that adherence to the treaty was conditional on the alliance with the United States. In June 1975, and again in July, when the United States was applying increasing pressure on Seoul to abandon its nuclear program, Park publicly indicated that if American security assurances were to be withdrawn, the ROK would pursue a nuclear deterrent. At the same time, however, Seoul was careful to signal that it would refrain from nuclear weapons development as long as the American commitment to the alliance was sound. This was coupled with repeated denials that the South Koreans were pursuing a nuclear bomb. Park began to make public threats to go nuclear again in 1978, when the Carter administration began to pursue further troop withdrawals from the peninsula. Again, Seoul was careful to condition these threats on the American defense commitment, and to frame nuclear weapons development in terms of an explanation, *i.e.*, as a logical, or even necessary, strategic choice in light of any withdrawal of American security guarantees.

For its part, the United States sought to communicate its concern to the Park regime that the development of a closed nuclear fuel cycle would destabilize the strategic balance in Northeast Asia, and that the US would have no choice but to withdraw its nuclear umbrella and cease its assistance with the ROK's civilian nuclear program. Importantly, the Americans had to address a misperception among decision makers in the Park regime that the United States would tolerate the development of a nuclear capability provided that Seoul did not cross the threshold of constructing or testing an actual weapon. This misperception was based on the US's acceptance of Japan's reprocessing capabilities as well as the Americans' acquiescence to Israel's

development of an undeclared nuclear deterrent. It was also based on domestic political factors in Seoul that favored technical considerations about the nuclear issue at the expense of strategic ones. Also, the Americans needed to disabuse the Park regime of the notion that they could pursue a nuclear weapons program in secret, without the Americans discovering it.

American threats were therefore chosen not simply in a way that provided the US with the greatest amount of leverage, but also in a manner that communicated US interests and preferences. The United States first focused on the NPT, and threatened to withhold US financing for civilian nuclear projects if the treaty were not ratified. Also, the US coordinated these moves with the Canadians, who conditioned their own civilian nuclear cooperation on NPT ratification. These threats linked an area in which the Americans had significant leverage to the ROK's nuclear behavior, and they also communicated the American concern over the use of civilian nuclear technologies for the development of nuclear weapons, an issue that had risen to prominence in Washington after the May 1974 Indian test. At the same time, by focusing on the NPT, the United States could communicate its commitment to supporting civilian nuclear energy while also signaling its concerns about proliferation and the transfer of dual-use technologies. Therefore, the threats themselves, as well as the demand for NPT ratification, signaled the Americans' concerns about the development of a breakout capability through the acquisition of dual-use nuclear technology.

By summer 1975, US demands had focused on the ROK's deal with the French for a pilot-scale reprocessing facility. By then, the Park regime was aware that the Americans had discovered the country's nuclear weapons program, and Seoul had taken steps to curtail these activities, ceasing its search for sensitive technologies on the international market and reorganizing the nuclear bureaucracy to more greatly conceal its efforts.⁵⁰⁷ It was still not clear to the South Koreans, however, that the United States was not willing to tolerate the development of the closed nuclear fuel cycle, or how far the Americans would go to prevent it. Also, Park was gravely concerned about the US commitment to the alliance, and possibility that the ROK would be left in an increasingly vulnerable situation in the future as the United States withdrew from its security commitments in Asia and pursued rapprochement with the Chinese. By the end of 1975, however, Washington had threatened the South Koreans with the revocation of civilian nuclear cooperation, and a broad reconsideration of its military commitment. Again, linked issues were chosen not simply to provide the US with the greatest amount of leverage, but also to communicate American interests. The United States viewed a South Korean reprocessing capability as potentially destabilizing, and the Americans would be forced to rethink their

⁵⁰⁷ CIA, 1978.

commitment to the alliance in order to avoid any risk of getting dragged into a regional conflict or triggering regional nuclear balancing. Here again the threat was shaped more as explanation than extortion: the successful achievement of the ROK's plans for military and economic self-sufficiency, of which the nuclear program was an integral part, was directly dependent upon the Americans' provision of strategic stability and economic and technical assistance. If South Korea's plans worked against US strategic interests, that cooperation would necessarily be withdrawn.

These distinctions between explanation and extortion, as discussed in Chapter 2, are not merely rhetorical. In the case of the South Korean threat to pursue nuclear weapons if the American security guarantee were withdrawn, Seoul was communicating that in the case of American withdrawal, the ROK would have a legitimate preference to develop nuclear weapons. This was not an extortionate threat that the South Koreans would prefer not to carry out. Likewise, by threatening to withdraw civilian nuclear assistance and even security assurances if the South Koreans were to continue to pursue the components of a closed nuclear cycle, the Americans were signaling legitimate preferences as well. The United States had an interest in providing nuclear technology and loans, as it increased the American market share in the civilian nuclear industry, provided the US with greater leverage over South Korea's nuclear activities, and strengthened a key ally, allowing the US to potentially downsize its military presence in the region in the future. Those interests would change, though, if the South continued to pursue dual-use technology. The risk of future instability in the region and the possibility of the US getting caught in an unwanted conflict rose under such circumstances, and outweighed other possible benefits such as maintaining market share. Also, the withdrawal of nuclear assistance could directly work to limit the South's capacity to develop destabilizing weapons. The US's calculus was similar in the case of security assurances. The Americans had a strong interest in maintaining the alliance and deterring aggression from the North, however the alliance would threaten to become more of a liability if Seoul began to develop a nuclear arsenal.

IV. Positive Inducements Were Effective

The South Korean case lends strong support to hypothesis (H2):

(H2.a) Positive inducements are effective with both allies and adversaries alike, but are more likely to be effective with allies.

(H2.b) In general, positive inducements are more likely to be effective than negative sanctions, and are greatly more effective with adversaries than negative

sanctions.

(H2.c) Unlike negative sanctions, positive inducements are likely to produce long-term compliance.

(H2.d) Whereas negative sanctions can produce escalation with adversaries, positive inducements do not.

Although, as demonstrated in the previous section, negative sanctions were used successfully to pressure Seoul into making limited or short-term concessions with its nuclear activities, they were not by themselves effective at convincing the South Koreans to abandon their nuclear weapons ambitions entirely. Instead, this could not be achieved until the United States offered substantial positive inducements. Additionally, these inducements had to include credible security assurances, which addressed the strategic concerns that triggered Seoul's quest for the nuclear capability in the first place. Ultimately, inducements worked because they could be framed in terms of explanation, and because they rewarded key domestic actors in a way that shifted South Korean state preferences in a direction that made agreement more likely.

The United States used three types of positive inducements to win nuclear concessions from Seoul. These were economic inducements, including civilian nuclear cooperation and technology transfers; security assurances, including military assistance, deployment of American forces, and public reassurance of the US's commitment to defend the South (including with the use of its tactical nuclear arsenal); and finally acceptance of the Chun Doo-hwan regime after Chun's seizure of power. These inducements were offered sequentially and progressively, beginning with offers of economic rewards and progressing to more and more credibly communicated security guarantees. Throughout, they had a powerful effect on South Korean preferences and behavior. Defense-related assurances facilitated cooperation by reducing the very security anxieties that underlay Seoul's quest for a bomb. Likewise, civilian nuclear cooperation and technology transfers satisfied the country's economic and energy needs that were also furthered by development of a closed nuclear fuel cycle. Finally, regime acceptance offered stability and legitimacy to the Chun regime in the wake of the 1980 coup. Importantly, however, these inducements did not simply alter the strategic costs and benefits of the nuclear weapons program for the state, but affected the domestic policy debate by shaping the preferences of key domestic groups and by shifting the domestic balance of political power.

The United States could more easily offer inducements in this case than with Libya and North Korea, and the South Koreans could more easily make reciprocal concessions, because of the US-ROK alliance. The store of established trust between the two countries allowed decision

makers to more successfully frame bargaining proposals in terms of explanation. Unlike the other two cases presented in this dissertation, the offer of rewards to Seoul for compliance with American nuclear demands did not encounter hard-line opposition in Washington, or opposition based on the argument that it would encourage future transgressions by the South Koreans or others. Seoul, for example, although it very purposefully used its nuclear program to extract economic and security concessions from the Americans, could nonetheless frame demands in terms of an explanation rather than extortion. Its logic was that in the absence of an American defense commitment over the long term – specifically one that included an American willingness to keep ground troops as a tripwire and deploy nuclear weapons on the peninsula as a deterrent – that the South Koreans would be forced to pursue an indigenous nuclear capability in order to preserve the strategic balance. American assurances, on the other hand, would make this unnecessary. In other words, Seoul was not making a threat so much as explaining how American policy choices would affect their own strategic calculus. This not only lowered the potential reputational costs of offering inducements, but also squelched criticism from domestic opponents that the United States was rewarding misbehavior. In this case, it actually played into the position of US hawks and exploited disagreements in Washington. Seoul’s actions only gave ammunition to critics of President Carter’s plan to withdraw American ground troops as well as what they saw as the president’s prioritization of human rights over national security concerns.⁵⁰⁸

Economic and security-related inducements were also successful because they both offset the costs that Seoul would incur by complying with US demands, and rewarded domestic interests in a manner that facilitated support for agreement. Seoul’s nuclear efforts were aimed at creating both economic and military self-sufficiency. Greater economic self-sufficiency could be achieved through the closed nuclear fuel cycle and a reduction in the country’s dependence upon both foreign oil and US nuclear fuel and technology. Greater military self-sufficiency could be achieved through the nuclear deterrent. Yet, just as US negative sanctions took advantage of the United States’s enormous leverage over these issues, inducements could draw on those same sources of leverage to address the underlying strategic and economic concerns.

⁵⁰⁸ Choi and Park, 2008, pp.377-8; Siler, 1998, pp.70-5; Oberdorfer, 2001, pp.85-94. An important reason for this was that conservatives in Washington tended to view the proposal to withdraw troops in relation to North Korea (Kwak and Patterson, 1999, p.92). Any withdrawal of US ground troops would be seen by conservatives as a unilateral benefit offered to the North Koreans without anything demanded in return. Opposition to the Carter withdrawal plan came from all fronts in Washington, and was not restricted to conservatives. Even key members of Carter’s own administration strongly opposed the policy and sought to undermine it. This opposition, however, was built more upon the specifics of Carter’s plan rather than unquestioning support for the Park regime, or for maintaining the existing level of US forces on the Korean peninsula for the indefinite future. Democrats in general had soured on the Park regime, and Congressional Democrats shared Carter’s concerns about human rights in South Korea. Conservative Republicans, on the other hand, gave their unwavering support to Seoul.

Even though US dominance in the international civilian nuclear market waned over the course of the 1970s, the development of South Korea's nuclear industry could be achieved far more easily with US assistance than without. South Korea's development of heavy industry, a *sine qua non* for greater military self-sufficiency, could only be achieved through access to American markets, technology, and finances. Seoul's concerns over regional stability and national security could be greatly alleviated so long as the American commitment to defend the country was credible for the indefinite future. Most importantly, so long as the United States could commit itself to the indefinite provision of security assurances and nuclear energy assistance, they could obviate most of the strategic or economic logic used to justify the nuclear effort in the first place.

Likewise, the ROK's goal of developing an indigenous and self-sufficient military-industrial complex could not be achieved without the assistance of the United States. Military self-sufficiency was impossible without the development of heavy industry, which itself could not be achieved without access to US markets for exports. The South Korean economy simply could not provide the necessary demand to meet the production levels required for competitive economies of scale in the heavy-industry sector. Financing for this sector also depended on American loans and direct investment. More directly, the ROK was far from the capability to develop its own sophisticated weaponry, and needed access to American military technology to balance against the Soviet-armed North. For this reason, US agreement to provide advanced fighter jets and other military equipment could offer strong incentives to comply with American nuclear demands.⁵⁰⁹

At the same time, economic and security-related inducements rewarded key domestic interests, simultaneously shifting groups' preferences while altering the domestic balance of political power. Within the military, many nationalists who favored radical self-reliance, and who would be weakened by the US threat to withdraw from its defense commitment and cut military assistance, were also offered a path to greater self-sufficiency through increased assistance in return for nuclear compliance. These promised rewards were insufficient under Ford and Carter, who failed to deliver significant military aid and, in the case of Carter, refused to allow access to certain military technology.⁵¹⁰ Under Reagan, however, military sales increased, and the ROK military was given access to advanced US fighter aircraft and other desirable

⁵⁰⁹ Kong, 2000, pp.38-41; Klare, 1997; Hartung, 1990; and Goose, 1992, pp.46-7.

⁵¹⁰ In the case of Carter, US assurances were also undercut by Congressional action in response to the 'Koreagate' scandal, as Congress was unwilling to increase military aid after it became public. Oberdorfer, 2001, p.137; Roehrig, 2007, pp.135-6.

weaponry.⁵¹¹ Also, toward the end of Carter's presidency, the United States, while pushing the ROK into the MoU on ballistic missile technology, simultaneously agreed to a large expansion in South Korean missile forces provided the missiles were kept to a 180km range.⁵¹² These inducements successfully shifted the political balance in favor of military elites who were skeptical of the nuclear program and the country's ability to rapidly achieve industrial and military self-sufficiency.

US civilian nuclear inducements likewise undermined domestic actors in Seoul who championed the development of the closed fuel cycle and the diversification of nuclear suppliers. These inducements were especially important after the Ford administration left office, as the US's market share in the civilian nuclear industry diminished and opened up greater opportunities for the South Koreans to purchase technology and receive assistance from other suppliers. US threats continued to be effective, as the United States offered cheaper technology and did continue to enjoy a near-monopoly on nuclear fuel. However, many South Korean elites nonetheless favored paying higher costs to other suppliers to weaken American influence, and supported steps to develop an indigenous fuel fabrication capability as well as import uranium ore from other suppliers.⁵¹³ Their arguments were undermined by America's commitment to provide expanded access to civilian nuclear technology as long as South Korea foreswore a reprocessing capability. Likewise, the United States's acquiescence to Seoul's development of fuel fabrication technologies was an important inducement, as it met domestic demand for greater self-sufficiency while still not yielding on the fuel cycle issue.

Similar to the case with Libya, regime acceptance proved to be an important part of the South Korean case. It also illustrates the significance of domestic political effects. Despite the use of very potent economic and security-related threats by the United States, as well as a number of attempts to provide credible security assurances and commitments to South Korea's defense, the United States ultimately did not succeed in bringing the ROK's nuclear efforts to a lasting end until a coup brought Chun Doo-Hwan to power in Seoul. Chun had a strong interest in gaining America's imprimatur of legitimacy as a means of solidifying his grip on power. The US provision of this, and the resulting summit meeting between Reagan and Chun in Washington, was undertaken under a set of conditions that included compliance with American non-

⁵¹¹ Cha, 1999, pp.172-5; *Associated Press*, April 27, 1981; and Gwertzman, June 13, 1980. President Carter had originally decided to provide advanced F-16 fighter aircraft to Seoul, but later decided against it. One of Reagan's first acts was to approve the sale of the F-16 Falcons.

⁵¹² Mistry, 2003, pp.90-7; System Planning Corporation, 1998.

⁵¹³ Ha, 1983, pp.93-7, 117; Choi and Park, 2008, 377; and Kang and Feiveson, 2001.

proliferation policies.⁵¹⁴ To be sure, other factors also made the Reagan administration's nonproliferation efforts more likely to succeed than Carter's. For one thing, the Reagan administration's assurances were far more credible in light of the president's broader strategic vision and milder approach to human rights. However the assassination of Park and the domestic vulnerabilities of the Chun regime offered the United States a greater opportunity for policy success than they had had during the 1970s.

The Reagan administration's greater ability to credibly offer inducements – particularly security inducements – should nonetheless not be overlooked. Reagan's preference for a more activist American grand strategy, regardless of its overall wisdom, enhanced the United States's ability to provide credible security assurances to South Korea. No less important, however, was the administration's view that strategic considerations, anti-communism, and market capitalism all trumped concerns over human rights and democracy. Especially during the Carter administration, American efforts to promote human rights and democratic government in South Korea were at odds with Washington's nonproliferation policy. This is not to argue that human rights concerns should be sacrificed in order to advance nonproliferation goals, but it does suggest that better attention to these possible tradeoffs, as well as better coordination of the two policy areas, is warranted.

V. Incremental and Reciprocal Concessions

The history of this case is consistent with hypothesis (H3):

(H3.a) Cooperation is most likely when mutual concessions are made sequentially, beginning with ones that are less costly and are reversible, and leading over time to ones that are costlier and more permanent.

(H3.b) All-at-once grand bargains are less likely to succeed.

(H3.c) Sequential and progressive exchanges of concessions are most necessary with adversaries.

Over the course of the 1970s, the United States used both stronger coercive threats and more substantial inducements with Seoul, which in turn produced greater cooperation over time, and eventually led to the end of the country's nuclear efforts. The United States also specifically

⁵¹⁴ As discussed in Section II of this chapter, the nuclear weapons program was not the main reason for Reagan's agreement to hold a summit meeting. More important were security concerns, as well as the fate of Kim Dae-Jung. However, nuclear proliferation was an important consideration.

avoided a “grand bargain” with the South Koreans. Instead, the Americans focused on specific concessions, such as NPT ratification, safeguards agreements, the cancelation of deals for foreign nuclear technology related to weapons development or the closed fuel cycle, and the acceptance of limits on missile systems. This approach succeeded in preventing the ROK from developing a nuclear weapons capability, it accurately and credibly communicated America’s interests and its resolve to prevent ROK nuclearization, yet it also avoided a rupture in the alliance or a public dispute with Seoul by limiting American demands, negotiating cautiously, and providing a route for Seoul to make concessions while saving face.

Sequential and progressive bargaining exchanges are successful because they allow both sides to find a winning agreement that requires the least amount of concessions and a minimum of coercion, while at the same time using each bargaining round to communicate one another’s preferences. Both of these mechanisms were at work in this case. The United States, early in 1975, very purposefully decided on a policy of gradually increasing threats against Seoul. At the same time, Washington would offer increasingly strenuous demonstrations of the American defense commitment. The Americans sought to coax the South Koreans into abandoning their nuclear weapons ambitions – especially the purchase of a French reprocessing facility – with a minimum of coercion. The intention was to apply sufficient pressure to produce policy change while leaving enough room for the Park regime to concede while saving face. Thus the Americans moved from the threat of withholding funds for the Kori-2 reactor to the much more severe threat of withdrawing defense guarantees. Also, both sides, over the course of multiple bargaining rounds, achieved relatively small concessions that did not fully satisfy each state’s demands, before progressing to costlier ones. This approach was successful because each exchange made agreement easier to achieve in later rounds. Agreements built trust, favorably shifted state preferences and reduced information problems, and therefore lowered the costs of future concessions.

This is seen clearly in the Ford administration’s approach to the South Korean program, which produced considerable compliance by the end of 1976 by progressing from smaller to larger demands. ROK NPT ratification only went a short way toward fulfilling US interests, but it made future compliance easier to achieve by giving the nuclear issue a more prominent place on the agenda and illustrating the importance with which the US viewed the issue and the willingness of the United States to use costly sanctions to achieve its demands. Additionally, the Canadian demand for NPT ratification in return for completion of the CANDU reactor deal demonstrated that the United States could cooperate on this issue with alternative nuclear suppliers. Even France, which had itself not ratified the treaty, demanded a trilateral safeguards

agreement with the IAEA. As a result, by the middle of 1975, Park had become aware that the original plan to achieve a breakout nuclear weapons capability would not succeed without meeting strong American opposition, and shifted his strategy toward using the nuclear program instrumentally to extract American security concessions from the United States. Seoul's qualifications to treaty ratification in the form of a signing statement, as well as Park's nuclear threats in June and July 1975, were articulations of a bargaining proposal: in return for iron-clad defense commitments – especially the nuclear umbrella – Seoul would forgo the nuclear weapons option. This led to increasingly stronger American demonstrations of its commitment to ROK defense. At the same time, the United States shifted its emphasis to the nuclear fuel cycle, drawing on potent levers of influence to pressure Seoul to abandon a deal for a reprocessing facility. By December 1976, escalating demands, threats, and inducements had achieved NPT ratification and compliance, substantial concessions on the fuel cycle issue, and important setbacks to the weapons program.

In this case, the incremental and progressive use of threats and inducements was most effective because it overcame misperceptions, false assumptions, and information problems. Specifically, each side's bargaining proposals were used to provide information about each other's preferences. This allowed for a fuller reappraisal of negotiating position, and over time moved state preferences into closer alignment, ultimately allowing for a resolution that was mutually acceptable.

The Park regime's nuclear weapons policies were, in fact, built on a number of fallacies about the United States's interests on the issue of proliferation. These misperceptions led to inaccurate expectations about US responses to the ROK's nuclear behavior. Most importantly, Park drew a distinction between the development of ostensibly civilian nuclear infrastructure that had dual-use applications and the development of a nuclear weapons capability – a distinction that the United States did not share. This is partly explained by the way the regime viewed the nuclear program. Even though Park had gone so far as to create a formal program in charge of strictly weapons-related research in 1974 (project "890," which, among other things, worked on a bomb design), his plan was to develop the necessary technology and expertise to quickly develop a bomb without actually making one. Instead, Park deferred the decision on whether or not to pursue an actual weapons stockpile, and believed it would be years before a decision would have to be made.⁵¹⁵ This view was based on the advice he received from the ADD, which oversaw the country's nuclear efforts. Each activity related to the nuclear program was presented and considered apart from the whole, and was typically considered only in the context of technical

⁵¹⁵ CIA, 1978; Oberdorfer, 2001, pp.68-9.

capabilities. Because the decision to build a bomb was deferred, it was rarely discussed what the overall strategic impact would be of a nascent weapons program, or how other states would react to it. Interestingly, no study was ever prepared for Park that outlined the costs and benefits of initiating such a program in a strategic context.⁵¹⁶

Park and his advisers also misjudged Washington's resolve to prevent the ROK from developing a latent nuclear capability. This was based partly on false analogies between the the South Korean nuclear program and Japan and Israel, other US allies that developed either nuclear weapons or a breakout capability without losing American support. The regime failed to understand the significance of the Indian nuclear test in 1974 and its effect on the US's proliferation policies. Also, Park underestimated the United States's sensitivity to the possibility of getting dragged into another conflict in Asia after Vietnam, and the effect that this had on the US's perception of a ROK nuclear program's possible destabilizing influence in the region.

Finally, hardliners and nationalists in the regime tended to view US nuclear demands primarily – and incorrectly – through the lens of American economic interests as well as the US's desire to keep South Korea in a subordinate position as a dependent client state. According to their thinking, acquisition of the fuel cycle would deny US commercial interests a growing market, while the development of defense industries – including nuclear weapons – would reduce US arms sales. A more independent defense capability would also work against Washington's desire to maintain operational control over the ROK military. This view was, in fact, an extension of the regime's own self-sufficiency arguments: just as the South Koreans sought to establish defense and economic capabilities independent of the United States, so must the Americans wish to prevent this. In other words, they saw ROK self-sufficiency as part of a zero-sum game in which Korea's gains could only come through reciprocal losses for American interests. As a result, US strategic interests, including US concerns about regional stability that were in many ways aligned with Seoul's own strategic interests, were overlooked.⁵¹⁷ The result was that powerful actors within the regime were inclined to see US demands as extortionate: the United States was threatening to withdraw economic and security assistance, actions which would offer no benefits to the Americans themselves, in order to coerce Seoul into acceding to demands that offered disproportionate benefits to Washington.

In order to be successful, US diplomacy had to overcome these misperceptions, both by credibly and more accurately signaling US preferences and resolve, and by targeting threats and

⁵¹⁶ CIA, 1978.

⁵¹⁷ Kim, Hyung-a, 2004, pp.195-6. Kim cites Oh Won-chol, who made arguments along these lines as late as 1994.

inducements in a manner that favorably shifted the domestic balance of political power in Seoul toward moderate political actors that were more receptive to US demands. Specifically, the Americans' task was to frame their own demands in terms of explanation. Specifically, the United States's own interest in maintaining a strong security commitment on the peninsula was dependent upon Seoul abstaining from nuclear activities that upset regional stability, risked a nuclear arms race, and exposed the United States to the possibility of another unnecessary war in Asia only months after the fall of Saigon.

Therefore US success depended not only on the mix of costs and benefits offered to Seoul but on the consistency and clarity with which these offers could be communicated. The United States was relatively successful in 1975-1976 because these signals could be sent effectively. The Ford administration applied consistent pressure on Seoul, using a number of different messengers and communicating through various diplomatic channels. Public assurances and promises to maintain troop levels added credibility to the American defense commitment, while direct threats from high-level American leaders, including Cabinet members, communicated American interest and resolve.

This can be contrasted with American diplomacy during the Carter administration. Carter's focus on human rights, and his unilateral decision to withdraw ground troops, undermined the American bargaining position and prompted a renewal of the ROK's nuclear efforts. Domestic divisions in Washington and the Carter administration's more aloof stance toward Seoul likewise undercut US attempts to squelch South Korea's fuel cycle and missile research. Carter also harbored misperceptions about the effects of his troop withdrawal plans, and misjudged Seoul's reaction to it. Carter, not entirely unconvincingly, believed that a large US contingent of ground troops was no longer necessary to deter North Korean aggression. This view, however, failed to consider the role troop deployment played in providing concrete reassurances to the South Koreans, particularly at a time when this commitment was cast into doubt by American strategic setbacks in Southeast Asia and US rapprochement with China. Unsurprisingly, these misperceptions and the failure to correct them through effective diplomacy led to setbacks in the US's nonproliferation policies during this period.

The Reagan administration's stronger commitment to Korean defense, more credible promises to maintain or even increase US military forces in the region, as well its renewed focus on shared strategic interests, allowed US diplomacy to be more effective in the early 1980s. As discussed in later sections of this chapter in greater detail, Reagan was also presented with a fortuitous domestic environment in the ROK that made the country much more receptive to US nonproliferation policies than the Park regime had been. However, domestic politics alone do not

explain President Chun's decision to finally abandon the country's nuclear weapons-related efforts. Effective diplomacy that accurately communicated US preferences and intentions, as well as greater receptivity to Seoul's interest in American security assurances in Washington, was necessary to achieve success.

VI. Lines of Communication

The South Korean case lends strong empirical support to hypothesis (H4):

(H4.a) Both positive inducements and negative sanctions are more likely to be effective when there exist thick and well-established lines of communication between target and sender.

(H4.b) The use of diplomatic contacts or negotiations themselves as a bargaining chip is counterproductive and likely to fail.

Unlike in the North Korean and Libyan cases, a thick network of channels of communication existed between Washington and Seoul, making negotiations far less complicated. Not of least significance is the fact that the two sides could make offers and threats, or other communications, in secret. Diplomacy conducted in secrecy is an effective way to lower the reputation costs of compromise and yielding to threats and sanctions. The United States and South Korea took advantage of a variety of communication channels, both public and private, to enhance credibility, more accurately communicate preferences, lower reputation costs, and ultimately reach a compromise.

The ability of the two sides to conduct diplomacy in secret was important in bringing this case to a successful outcome. This was so principally for two reasons. One is that the United States was concerned that any public acknowledgment of the South Korean nuclear program would lead to adverse consequences. The central worry in this regard was regional stability. The very existence of a program, it was believed, could trigger balancing behavior, both on the part of North Korea and its communist allies, as well as US-allied Japan. Another was that public revelation of the nuclear program would complicate Washington's diplomacy with Seoul by raising the reputational costs of compromise.⁵¹⁸ Pressure that is applied through back channels and away from public scrutiny can be more effective than public threats and promises in this regard. This is because the target state can yield to threats, and the sending state can offer

⁵¹⁸ Young and Stueck, 2003, p.19.

inducements, without risking large reputation costs, either domestically or internationally. This in turn lowers the barriers to agreement.

For these reasons, the United States approached the nuclear issue with discretion and caution, working quietly through back channels and away from public scrutiny. Few actors in Washington or within Korea itself were made aware of the ROK nuclear weapons program. The United States, in fact, refrained from accusing the South Koreans of pursuing a nuclear bomb – either publicly or privately – even though they possessed conclusive intelligence about the program. The Americans focused instead on the NPT and specific deals to purchase sensitive dual-use nuclear technologies, thereby provided a face-saving route to compromise for the Park regime.⁵¹⁹ Quiet diplomacy also allowed the two sides to bargain without signaling to adversaries that the alliance was weakened. As a result, even though the United States had employed substantial threats, including a full reevaluation of the US security commitment, this did not become public knowledge until years later.

Most importantly, communication between the two governments could take place through multiple established lines of communication without risking unwanted or unintended public signals. When dealing with states with which the United States had no diplomatic ties, such as North Korea or Libya, US decision makers frequently perceived costs in simply conducting diplomatic contacts or negotiations. US-DPRK meetings, for example, were frequently seen as potentially granting unwarranted “rewards” or benefits, conferred simply by holding talks. Whether or not holding talks did actually represent any form of reward to the North Koreans, the perception of this meant that there were potential domestic political costs in

⁵¹⁹ Interestingly, after the French reprocessing deal was canceled in January 1976, it was the Korean side that leaked to the press that the United States had made substantial threats, including security-related threats. American officials, on the other hand, downplayed the US bargaining position. For the Koreans, it was better to appear to have caved in the face of sizeable threats, as this would minimize the reputation costs of having yielded to the Americans. This way, the signal to others would be that while the Park regime may have given in to coercion, it only did so when costs were extraordinarily high, and with a partner with which it had established a deep level of trust. The Americans, on the other hand, stood to lose from any appearance that it required such substantial threats and promises in order to gain compliance from a weaker – in fact dependent – ally over a deal for a reprocessing facility. There were, of course, competing incentives at work. The Americans, for example, would also want to demonstrate resolve. They therefore had at least some interest in signaling that they were willing to go to great lengths to prevent a Korean move that so much as had the appearance of moving the country toward a nuclear weapon. It is not surprising in this case, though, that the desire to allow Seoul to save face, while exaggerating America’s influence over its ally, outweighed any need to demonstrate resolve. This was especially true considering that the United States was more concerned with demonstrating the strength of the alliance and its resolve to defend South Korea than it was with demonstrating its commitment to denying the ROK a nuclear arsenal. For the Koreans themselves, downplaying their decision to accede to American demands might have been more consistent with the charade that they did not have a nuclear weapons program, and were only forgoing a pilot-scale reprocessing facility. However, the Park regime also had an incentive to demonstrate to domestic nationalists its willingness to defy Washington. Seoul also had an interest in signaling resolve to a wider domestic audience in the United States.

Washington to even agree to a negotiation.⁵²⁰ This was not the case with the South Koreans. High-level talks could still be used as a reward – this was certainly the case with Chun’s visit with Reagan – but high-level diplomacy, even at the cabinet level, could be conducted without any concern that political capital would be expended. This allowed for nearly continuous communication between the two sides during the 1970s, even when relations between the two countries were at their lowest. It also allowed both sides to communicate preferences and resolve misperceptions (the US came to understand the importance of security assurances and the continued deployment of ground troops, the ROK came to appreciate the strength of America’s opposition to even a fuel cycle capability) without resorting to more overt and destabilizing signals such as the public revelation of nuclear facilities, financial and trade sanctions, or troop redeployments.

VII. Domestic Politics

South Korea’s nuclear decisions can only be properly explained in the context of the country’s domestic politics and the effects that US sanctions and inducements had on it. The Park regime, by the beginning of the 1970s, was fixated on five principal concerns: economic growth, relations with North Korea, the US security commitment, nationalism and self-sufficiency, and domestic opposition to the regime. Importantly, these five issues did not exist separately but were inextricably connected to one another, and were approached through a common policy framework. The nuclear weapons program fit into the larger policy framework of rapid industrialization, centralized authority, national prestige and independence, and military buildup. However, it was also at odds with state goals in other issue areas, such as shoring up economic and military support from the United States, or maintaining regional stability to facilitate economic growth. This opened these policy choices to heated contentions within the regime. The bargaining that took place between the United States and South Korea over the nuclear issue must also be understood within this context. American sanctions and inducements played directly and indirectly into these domestic political dynamics in Seoul, shaping South Korean policy preferences, affecting the influence of different domestic political groups over the policy process, and ultimately bringing about the decision to abandon the country’s nuclear weapons program.

⁵²⁰ See Chapter 4 for a detailed analysis of US counter-proliferation diplomacy with North Korea.

Of the above competing policy goals, the preeminent focus of the Park regime throughout the 18 years that Park Chung-hee ruled the country was economic development.⁵²¹ This was both a personal obsession of Park, and the basis of his regime's popular legitimacy. Park believed that the future of the country – its security and its independence, as well as the well being of its citizens – lay in the creation of a modern advanced economy.⁵²² After a brief period of import-substitution, the Park regime embarked on a program of state-guided and export-oriented capitalism that produced tremendous economic gains for the ROK. These policies were supported by a political coalition that brought together the country's military, its large business concerns (*chaebol*) and industrialists, and technocratic elites. Anti-communism and nationalism, strong political forces in the ROK, were co-opted to suppress anti-capitalist and pro-self-sufficiency forces within the military, and to win over the rural peasantry.⁵²³ While this coalition had to contend with vocal opposition from labor groups, pro-democracy intellectuals, and small businesses, it was capable of providing the Park regime with significant legitimacy and stability in the years after the 1961 coup.

Park's export-oriented economic model in the 1960s depended on centralized economic planning, the state's subsidization of commercial loans, the promotion of large and concentrated firms with extensive ties to the state, and a powerful domestic intelligence and security apparatus.⁵²⁴ Economic policy making was heavily vested in the Economic Planning Board (EPB), a powerful committee staffed with American-trained economists and technocrats who controlled the Korean Finance Ministry, and through it the power to coerce the business sector by controlling the flow of capital.⁵²⁵ *Chaebol* were provided with hugely subsidized loans and financial assistance in return for success on the export market. The state also provided cheap labor by cracking down on the labor movement and attempts by workers to organize.

⁵²¹ Park himself identified "an industrial revolution in Korea" as the principal effect and purpose of the 1961 military coup. Park, 1971, p.175. The regime's slogan of "national modernization" resonated very strongly with the South Korean public (Lee Byeong-cheon, 2006, p.22). This is not to say, however, that economic development was the sole pillar of regime legitimacy. Like Syngman Rhee before him, Park also relied on strong anti-communism and Korean nationalism. But Park saw economic development as the single most significant way to further all of the state's collective goals, and it was likewise the single most important source of legitimacy for the regime's policies. Also see Haggard, 1994, p.23.

⁵²² Oberdorfer, 2001, p.34.

⁵²³ Park did, however, defy nationalists – even on sensitive issues – when economic growth was at stake. Hence Park normalized relations with Japan in the mid-1960s, which cost significant domestic political capital but reaped an economic windfall. See Lie, 2000, pp.58-61.

⁵²⁴ Seo, 2006, pp.71-8; Cho, 2006; Kim Hyung-a, 2004, pp.110-127.

⁵²⁵ Haggard, 1994, p.24; Oberdorfer, 2001, pp.34-35; Seo, 1996, p.71. The EPB was endowed with tremendous power. It could, essentially, set economic policy for the country. It controlled fiscal and monetary policy, oversaw economic planning, and directly controlled most of the country's financial system.

The system was underwritten by foreign loans and, as a result, a substantial current account deficit. The need for foreign capital, as well as for large foreign markets for export, meant that this system was dependent upon continued good relations with the United States. It also depended upon the continued regional stability that was underwritten by the United States military.⁵²⁶ In contrast to Syngman Rhee's vision of unifying the peninsula by force, Park saw conflict with the North as an impediment to economic progress, and pursued the twin goals of deterrence and engagement with Pyongyang as a means of preserving the stability and peace necessary for economic success. The alliance with the United States was of paramount importance. The US military's presence on the peninsula and the American nuclear guarantee were integral to successful deterrence of North Korean aggression, and allowed Seoul to focus on the economy without having to invest a larger share of the country's resources in defense. Over the 1960s, in fact, the ROK defense budget dropped from about one-third of GDP to less than one-fifth.⁵²⁷

As long as American assistance was assured, the economic model worked. Indeed, it produced unprecedented economic growth in the 1960s.⁵²⁸ It also successfully provided the regime with legitimacy and domestic support.⁵²⁹ The military was happy to tolerate these policies so long as it received its large subsidies and technology transfers from the United States. Even the labor movement and opposition parties could be kept in check – with the help of a certain level of domestic coercion – so long as the rising tide of the country's economic growth continued to raise all ships.

Despite its successes – in many respects, because of them – Park's economic growth model also produced, by the end of the 1960s, an unsustainable level of foreign debt. Substantial current account deficits led to reduced international competitiveness and pressure on domestic wages, in turn leading to demands from international lenders for economic stabilization measures.⁵³⁰ Wage and price pressures undermined economic growth and productivity.⁵³¹ The

⁵²⁶ The ROK also benefited from the US's war in Vietnam, which accounted for 40% of the country's foreign exchange earnings in 1966 (Oberdorfer, 2001, pp.34-5).

⁵²⁷ Hwang, 2003, p.101.

⁵²⁸ Collins, 1988, p.2; Cole and Park, 1983, pp.159-60. In the 1966-1970 period, exports grew at an average annual rate of 37%, while GDP grew at an average annual rate of 10%. This compares to 8% and 3%, respectively, for the 1953-1966 period. South Korean per capita income doubled in the second half of the 1960s. In other words, the South Korean economy underwent an unprecedented and profound transformation during these years. For a discussion of the importance that access to the US market had for the success of this model, see Lie, 2000, pp.57-70.

⁵²⁹ Haggard, 1994, p.24; Cumings, 2005, p.360. Park ran for reelection in a relatively open election in 1967 on a platform of economic growth and development and won 51.4% of the vote.

⁵³⁰ Collins, 1988, pp.2-3; Haggard, 1994, pp.29-30; Cole and Park, 1983, p.160. The country's external debt was 6.9% of GDP in 1965. By 1969, this had increased to 27.2%. From 1969 to 1970 alone, the debt

resulting stabilization measures such as restrictions on foreign borrowing led to a sudden and steep decline in economic activity, and a wave of bankruptcies.⁵³² At the same time, growing labor unrest fueled the political opposition. Anti-government protests increased during this period, and strikes proliferated. The regime's earlier successes also produced later problems with urban workers by laying the groundwork for a stronger opposition once the economy slowed. The rapid increase in real wages in the second half of the 1960s created a larger and more powerful urban working class, which tended to support the opposition.⁵³³ Economic weakness and unrest also threatened to rupture Park's political coalition, as popular support declined with economic performance, powerful supporters in industry bristled at the fiscal and monetary tightening of Park's stabilization efforts, and nationalist elites, particularly within the military establishment, were strengthened as external economic and security shocks exposed the country's vulnerabilities and dependence upon international assistance.⁵³⁴

At the beginning of the 1970s, a number of external factors – both economic and strategic – added to these domestic problems and further upset the country's economic model. This triggered a significant reorientation of policies and a realignment of domestic political factions. These same changes contributed to the Park regime's decision to initiate a nuclear weapons program. As already described at length in this chapter, signs of US retrenchment in East Asia such as the Nixon Doctrine, US troop withdrawals, and US-Chinese rapprochement, triggered anxiety in Seoul and concerns about national security. This coincided with disruptions in the international economy that had significant negative effects on South Korea's potential growth and competitiveness, most notably the US leaving the gold standard in 1971, the imposition of US

service ratio grew from 7.8% to 18.2%. At the same time, the rate of growth for exports dropped from 42% in 1968 to 28% in 1970.

⁵³¹ Haggard, 1994, pp.25-30. From 1966-1970, real wages in the ROK rose 65%. At the same time, the nominal exchange rate went down 15%. Depending on how productivity is measured, this produced as much as a 50.8% percent increase in unit labor costs.

⁵³² Collins, 1988, p.11; Cole and Park, 1983, pp.159-161. A devaluation of the *won* in 1971, in particular, helped push firms into bankruptcy by raising the cost of foreign debt servicing.

⁵³³ Koo, 2005, pp.129-137; Choi, 1993, pp.28-9; and Haggard and Moon, 1993, p.74. The resurgence of the labor movement during this era is symbolized by the self-immolation of a labor protestor in 1970. Rising wages in the 1960s led to weakened competitiveness on world markets, prompting a significant change to Seoul's growth model in the 1970s, and harsher repression of labor under the *Yushin* regime.

⁵³⁴ This is not to argue that economic malaise and labor unrest were the principal driving factors behind *Yushin*. The motivation for *Yushin* was both the exhaustion of the labor-intensive export-oriented development model at the end of the 1960s, and, just as – if not more – importantly, the desire for military self-sufficiency that resulted from external security shocks in the early 1970s such as the Nixon Doctrine. More immediately, *Yushin* was a response to Park Chung-hee's declining electoral fortunes. See Lee, 1997, pp.144-7; Solingen, 1998, pp.225-6; Haggard, 1994, pp.24-42; and Haggard and Moon, 1993, pp.75-9.

restrictions on textile imports, global recession, and the steep rise in world oil prices in the early 1970s.⁵³⁵ These disruptions reduced access to export markets, and fueled labor unrest.

Nationalism and self-sufficiency had long been important themes in Seoul's domestic politics, particularly within the military establishment. The economic and security shocks of the late 1960s and early 1970s exacerbated these concerns and provided ammunition to elements within the regime that supported a more intense push for the development of heavy industry and the creation of indigenous defense industries. These forces coincided with calls from the country's *chaebol* for an end to stabilization efforts and the adoption of growth-oriented fiscal and monetary policies. Finally, the labor movement and political opposition became much more of a threat by the beginning of the 1970s. Park's near-loss in the 1971 election to Kim Dae-Jung (in spite of widespread government interference in the voting) especially was a wake-up call, and weakened Park's political standing at a time when support for a different policy course in the military and business establishments was growing.⁵³⁶

Facing a legitimacy crisis, Park instituted sweeping policy changes in the early 1970s that were oriented toward statism, nationalism, and self-sufficiency. Park initiated the *Yushin* system in 1972, which scrapped the country's constitution and established strict authoritarian rule.⁵³⁷ The KCIA was used to brutally crack down on dissidents and regime opponents. Martial law was declared and civil liberties suspended. The regime also instituted draconian measures against organized labor, strikes, and protests.⁵³⁸

On the economic front, the regime abandoned macroeconomic stabilization and adopted expansionary fiscal and monetary policies, bailing out failing companies and pushing economic growth.⁵³⁹ It also shifted from an emphasis on light industry exports to heavy industry through the introduction of the Heavy and Chemical Industrialization Policy (HCI). Park had used import-substitution policies in the 1960s to promote indigenous heavy industries, however, in the 1970s this effort became the defining characteristic of the regime's economic policies. The thinking behind HCI was primarily about national security: it reflected anxieties within the

⁵³⁵ Haggard, 1994, pp.24-42; Kim, 1991; and Park, 1991, pp.73-94.

⁵³⁶ Lee Chong-suk, 2006, p.235; Haggard, 1994 p.31. The Federation of Korean Industries (FKI), which represented the largest firms, began an intense lobbying effort against the EPB technocrats led by Nam Duck-woo.

⁵³⁷ *Ibid.*, pp.235-44; Cumings, 2005, pp.362-3; Oberdorfer, 2001, pp.41-6. *Yushin* played on security anxieties and anti-communism to extend government control over society and the economy and to provide Park with dictatorial power. After the April 1971 election, a series of protests and demonstrations swept the country. Park declared a State of National Emergency in December 1971, citing "quasi-wartime conditions" and national security. *Yushin* was declared in October 1972.

⁵³⁸ Cumings, 2005, pp.367-76.

⁵³⁹ Haggard, 1994, pp.30-1. The Emergency Measures Regarding Economic Stability and Growth were introduced on August 3, 1972. This bailed out indebted firms, cut interest rates, and set price controls.

leadership about the country's dependence on American weapons and military technology in the wake of the Nixon Doctrine, and the resulting gains in political influence by the military and nationalists. The plan was to rapidly develop the necessary infrastructure for a domestic defense industry – principally steel, precision machinery, chemicals, electrical power, and shipbuilding – through central, long-term planning and tight financial control over the *chaebol*.⁵⁴⁰

The new bureaucratic structure that oversaw the HCI and the country's "Big Push" for military and economic self-sufficiency reflected the shifts that had taken place in domestic political power. Economic policy was now tightly controlled from the Blue House, and Oh Won-chol, an engineer and former Assistant Vice Minister of the Ministry of Commerce and Industry (MCI), and a staunch industrial nationalist who had played an important role in the export-oriented economy of the late 1960s, was appointed chief of the Second Economic Secretariat and put in charge of HCI. This also gave Oh control over the ADD as well as the country's nuclear weapons program and missile development program, all of which were aimed at developing an independent defense capability. As a result, the EPB's technocrats, who had implemented the light-industry focused export model of the 1960s, were bypassed, and were increasingly marginalized in the economic decision-making process. Oh, who answered directly to Park, instead relied on a more nationalist cadre of bureaucrats drawn from the MCI.⁵⁴¹

The regime also initiated a military buildup. The Force Improvement Plan (FIP), intended to offset any weakening of the conventional deterrent from US troop withdrawals, was instituted in 1974.⁵⁴² This produced annual increases in the ROK military budget of 25%-50%. Ultimately, defense spending increased six fold over the course of the decade. Yet at the same

⁵⁴⁰ One of the more detailed histories of the Heavy and Chemical Industrialization Policy is Stern *et al.*, 1995. HCI began in 1971 and was formally announced in early 1973. It lasted for almost all of the remainder of Park's rule. The difference between this policy and the earlier export-oriented model was one more of degree than of kind. The Park regime had always placed importance on self-sufficiency, military power, and heavy industry. The development of infrastructure – especially for energy, communication, and transport – had long been a goal of the regime. The real change was that in the mid- to late-1960s the focus of economic policy had been growth through export, with less importance placed on particular industries. HCI placed the development of heavy industry at the center of economic policy. The regime had viewed the promotion of heavy industry and the fostering of self-sufficiency as an important component of economic policy. After 1970, however, this goal was viewed with much greater urgency.

⁵⁴¹ The EPB was staffed with economists, often American-trained, who favored an export-oriented, liberal, open-market economic strategy. Their preferences were strongly expressed in the economic model Seoul followed in the 1960s. The technocrats from the MCI, on the other hand, tended to be industrial nationalists who favored centrally orchestrated reforms, especially rapid industrialization and the development of a self-sufficient defense industry. For them, economic policy was tightly intertwined with – if not entirely directed by – defense policy. There was no love lost between the two groups. The EPB did not vocally object to HCI Policy, and overall, quietly went along with the new direction the country took. However, this more greatly reflected the concentration of power in the Blue House and its ability to intimidate other domestic actors during this period than it does any actual concurrence with policy decisions. See Kim, Hyung-a, 2004, pp.168-83.

⁵⁴² Hamm, 1999, p.80.

time, Park pursued a policy of engagement with North Korea. In the belief that economic and military development could best succeed in a climate of strategic stability, in the early 1970s Park pursued talks with Pyongyang. Lower-level exchanges in 1971 – the first since the Korean War – led in 1972 to a visit to Pyongyang by the head of the KCIA, who met in person with Kim Il-sung. A reciprocal visit was made to Seoul.

Ironically, though, this new military-economic model designed to foster self-sufficiency was no less dependent on US cooperation and assistance than the export-led model run by the EPB in the 1960s. The ROK's nascent small arms and munitions factories relied upon technology transfers from the United States, as did the country's ambitious plans for nuclear energy. The development of heavy industry in general depended on financing from the United States and Japan. Even the military buildup was possible only through the purchase of American arms, and the strategic stability that underpinned the entire endeavor was subsidized by American troops and nuclear weapons. Likewise the nuclear weapons program was only possible so long as American technology and funding could underwrite the effort and American arms could help counterbalance the possibly destabilizing effects of a nascent program.

It was this central irony that gave US inducements and threats their potency in the nuclear bargaining that began in 1975. US threats to withhold funding for the civilian nuclear program and, ultimately, to potentially withdraw US economic and military assistance across the board, put the entire economic model in danger and endangered the stability of the regime. It also strengthened technocrats and moderates who put greater priority in the alliance with the United States and favored more restrained policies.

Most importantly, American threats issued in 1975 initiated a bargaining process between the two states that provided each side with information on the other's preferences. By vesting such centralized power in the hands of Oh and his associates who oversaw HCI Policy, and by restricting even the knowledge of a nuclear weapons program to a small circle of decision makers, Park had created an information-poor decision-making environment that led to misinterpretations about the US's position on nuclear proliferation. The nuclear weapons issue was not adequately considered outside of technical considerations and the overall goal of self-sufficiency. Specifically, because the program was viewed as an attempt to develop a nascent capability, while any decision about constructing an actual bomb would be deferred, Park and his advisers failed to properly weigh the strategic consequences of the program. Additionally, the American reaction was misjudged, as Park improperly compared South Korea's situation with Japan's acquisition of the nuclear fuel cycle and Israel's secret development of a nuclear deterrent. US reactions to other challenges during this period also contributed to the expectation

that the Americans to yield: ROK attempts to procure French Exocet missiles and Israeli Gabriel missile both encountered strong US opposition, but ultimately led the United States to transfer Harpoon and Nike-Hercules missile technology to the South Koreans.⁵⁴³ US threats successfully corrected these misperceptions by pointing to the contradictions between the push for defense self-sufficiency and the reliance on the United States to achieve it, by communicating US interests and resolve, and by lending influence to political actors in Seoul who challenged the nationalists' views on nuclear weapons and the fuel cycle.

Therefore the Park regime's nuclear decisions between 1975 and 1979 can be seen as an attempt to reconcile domestic political pressures with both strategic needs and US nonproliferation policies. The regime had to make assessments about the potential US response to any given policy choice, and could do so with increasing accuracy as successive bargaining rounds provided each side with more accurate information about the other's preferences and intentions. US threats to withhold civilian nuclear assistance unless Seoul ratified the NPT, therefore, communicated that the Americans and their allies put nonproliferation high on the agenda in the wake of the Indian test – and also indicated that the Americans were suspicious of South Korea's nuclear activities – but produced minimal concessions. Park complied with the US's specific demands on NPT ratification, but continued the nuclear program and issued a public threat to develop nuclear weapons if the American defense commitment were withdrawn.

Importantly, Park's use of the threat of nuclear weapons development as a source of bargaining leverage with the United States was aimed at winning American concessions provided that would disproportionately benefit the nationalist members of his ruling coalition that most strongly supported self-sufficiency, and who threatened to derail the country's international- and export-oriented policies. This made civilian nuclear assistance particularly important, as the development of a nuclear energy sector was viewed as an integral part of economic independence and industrial deepening, especially in the wake of the oil crisis of the early 1970s. This also explains the paramount significance of the US defense commitment. American security guarantees addressed Seoul's strategic concerns about North Korea, but also spoke to the concerns of ROK military officers who put a high premium on American military assistance, technology, and training. Without satisfying these groups, Park would find compliance with American nuclear demands very difficult, if not impossible.

Nonetheless, after NPT ratification, the Park regime continued to underestimate the Americans' resolve to prevent South Korean development of the closed fuel cycle and a nuclear weapons capability, and continued to move forward with plans for a French reprocessing facility.

⁵⁴³ Kim, Hyung-a, 2004, pp.186-7.

Escalating US threats over the course of 1975 again presented Park with the dilemma of maintaining a nationalist political coalition while preserving the alliance with the United States, on which economic growth, regional stability, and in turn regime survival depended. Repeated South Korean threats to go nuclear, while demanding stronger US security assurances, communicated what inducements would be necessary to concede to American demands while maintaining regime support. Indeed, public commitments by the US to defend the peninsula and maintain ground troop levels, such as President Ford's announcement of the Pacific Doctrine, did go a long way toward satisfying these groups, however temporarily. At the same time, expanded nuclear energy cooperation was explicitly discussed between the US and South Korea. These inducements provided strong incentives for MCI economic planners and HCI Policy supporters to agree to forgo reprocessing technology, particularly as the US offered not only continued nuclear assistance but acquiesced to technologies such as Canadian heavy water reactors and fuel fabrication equipment that reduced the South's dependence on American nuclear fuel and created greater self-sufficiency in the nuclear energy sector.

US threats and inducements were therefore sufficient to produce significant concessions by the end of 1976: the reprocessing deal was dropped, Park publicly foreswore nuclear weapons, and the formal underground nuclear weapons program (project "890") was terminated. Again, however, Park took only the actions considered necessary to earn agreement with the US, while he tried to keep future nuclear options as open as possible. Project "890" was abandoned, but its bureaucrats and scientists largely remained on the payroll, and a number of nuclear-related projects, such as high-explosive, ballistic missile, and fuel cycle research, continued. These activities were far less ambitious than the nuclear program had been before December 1976, but their persistence indicated that even the most serious US threats were unlikely to achieve compliance over the long term so long as Seoul's existing domestic political configuration remained intact, and ROK decision makers were not entirely convinced that the United States would stick to its defense commitments, come through on promised economic and military aid, or even be able to meet South Korean nuclear efforts with continued fortitude.

In the late 1970s, several factors, both internal and external, again coincided to bring the nuclear issue back to the forefront. Domestically, in spite of strong economic success under the HCI Policy for most of the decade, the ROK economy began to show signs of distress by 1978. Specifically, rapid economic growth and a rising inward flow of capital had begun to produce inflation, wage pressures, and, in turn, a weakening in the export sector. From 1976-1979, real

growth steadily decreased, inflation grew, and the current account deficit widened.⁵⁴⁴ The import-substitution policies that were put in place to promote industrial deepening – a fixed exchange rate, tight state control of lending and increasingly discriminatory lending practices, enormous investment in heavy industry at the expense of consumer goods and basic commodities, and substantial foreign borrowing – were a principal cause of this macroeconomic instability.

During this same period, a number of external shocks upset Seoul's economic and foreign policies. The election of Jimmy Carter in 1976 again threw the US's defense commitment into doubt. Carter had campaigned on a pledge to withdraw US ground troops from Korea, and by early 1977 it had become clear that the new president intended to follow through on the plan, in spite of domestic opposition in Washington, and without consulting the South Koreans themselves. To compound matters, Carter's promise to offset the withdrawals with hundreds of millions of dollars in military assistance encountered strong Congressional opposition.

Carter put much greater emphasis on the human rights issue than the Ford and Nixon administrations had. While human rights concerns certainly did not exclusively drive the US's Korea policy during this period, Carter's vocal support on the issue had a strong effect on opposition protests in South Korea, which undermined the Park regime.⁵⁴⁵ Also, during the late 1970s, the 'Koreagate' scandal was at its peak, as investigations revealed the role the ROK had played in influence-buying schemes in Washington. This further tarnished Park's public reputation in the US, and complicated US-ROK relations. Carter's human rights stance and the Koreagate investigation both increased support within the regime for defense self-sufficiency and the development of a nuclear capability, as they led to increased doubt about the future of the alliance, and strengthened nationalists whose influence within the regime rose as labor and pro-democracy protests increased. Opposition to Carter in Washington also offered Park the potential to exploit US domestic divisions through public hints about nuclear weapons development.⁵⁴⁶

Finally, the late-1970s oil shock and global recession had a strongly negative effect on the South Korean economy. Both Japan and the United States were hard-hit by the oil crisis, and the resulting drop in US and Japanese demand for imports contributed to South Korea's economic woes. As oil costs rose, South Korea's inflation hit record levels. Declining exports also added

⁵⁴⁴ Haggard, 1994, pp.49-50 (incl. Table 3-1). From 1976-1980, real GDP growth dropped from 13.2% to -2.0%, with substantial decreases every year. Between 1977-1980, inflation steadily grew from 10.3% to 28.5%. The current account deficit grew from 2.6% of GNP in 1976 to 11.2% in 1980. Also, growth in real wages shot up from 8.8% in 1974 and 1.4% in 1975 to 21.5% in 1977 and 17.4% in 1978.

⁵⁴⁵ Kim, Hyung-a, 2004, pp.159-60.

⁵⁴⁶ Kim Hyung-a makes these same arguments about the domestic political effects of Carter's policies, as well as their effects on weapons development (Kim, Hyung-a, 2004, p.160). Solingen argues that protests and domestic political instability in South Korea strengthened nationalists in Seoul (Solinigen, 2007, p.93).

fuel to the fire for labor protests, and strengthened the popularity Kim Dae-jung and the opposition. It is no coincidence that this period saw strengthened calls in Seoul for the construction of civilian nuclear reactors as well as the development of the fuel cycle.⁵⁴⁷ It is also during this period that Seoul pursued a deal for fuel cycle technology from Paris.

Despite rising discontent, Park and his supporters in the military and the MCI resisted liberalization and stabilization measures proposed by the EPB, and continued to pursue the HCI Policy.⁵⁴⁸ Yet, the results of the general election in December 1978 alarmed the regime. Because Park was able to appoint one-third of the National Assembly, the outcome was meaningless in practice, however, the opposition's strong showing at the polls signaled widespread discontent and the degree to which regime legitimacy had declined as a result of the economic slowdown.⁵⁴⁹ The election result added even more support to the opposition movement.

The election triggered a bureaucratic shakeup in the Blue House. Power returned to EPB technocrats, led by Kim Jae-ik, in early 1979. Kim opposed HCI, argued that overcapacity in the heavy-industrial sector was undermining growth, and supported broad economic reforms. Over strong opposition from the MCI and the *chaebol*, the EPB officially proposed wide-ranging policy changes, including higher interest rates, more indirect monetary management, and privatization of banking. MCI technocrats and large industrial firms, on the other hand, preferred devaluation of the *won* and lower interest rates. However, MCI bureaucrats, who had become firmly entrenched in the regime, and the *chaebol*, whose power had grown enormously as a result of HCI, were too powerful for reformers to successfully overcome. Thus the final months of Park's rule were characterized by deep political divisions in Seoul that would remain unresolved until Chun Doo-hwan came to power.

The domestic political situation became critical in the summer of 1979. A release of political prisoners only fueled the domestic opposition. Within the regime, military hardliners and nationalists, boosted by the breakdown of domestic order, sided with Park as he instituted a brutal crackdown. "Partial martial law" was declared, political unrest was put down in Pusan, and Kim Young-sam, the president of the opposition New Democratic Party (NDP), was expelled from the National Assembly. Park was assassinated in October 1979, but domestic unrest continued. Brief movement toward political liberalization and civilian democratic rule in the aftermath of the assassination ended with the December 1979 coup that put most of the state's levers of power in the hands of General Chun Doo-hwan. After protests grew in early 1980,

⁵⁴⁷ Chung, 2007, pp.14-5; Cumings, 2005, pp.372-82; Solingen, 2007, p.93.

⁵⁴⁸ Haggard, 1994, pp.60-2.

⁵⁴⁹ In fact, the NDP opposition won a higher vote share than the ruling party.

Chun arrested opposition leaders, including Kim Young-sam and Kim Dae-jung, and instituted martial law. The ROK military brutally suppressed an uprising in Kwangju province. In a move that particularly upset the Carter administration, Kim Dae-jung was sentenced to death.

Chun's regime, however, was weak, and faced serious domestic political and economic challenges. The domestic economy remained weak in 1980, and had continued to decline. Pro-democracy and human-rights protestors were encouraged by the Carter administration's stance on human rights and the US's aloofness toward the new regime. Chun lacked the support of elites and the public necessary to sustain authoritarian rule. At the same time, he had to contend with a rising urban middle class that had formed as a result of the country's rapid economic growth. All this time, exports continued to decline, while external debt rose.

Chun sought to shore up his political base in Seoul by forging a coalition that included moderates in the military establishment who were skeptical of HCI and the possibility of quickly creating a self-sufficient defense establishment and wished to restore closer ties with the Americans, and technocrats and government economists who wished to return to the more liberalized export-oriented growth model of the Second Five-Year Plan of the late 1960s. Chun also wooed the country's emerging middle class, which favored macroeconomic liberalization and monetary stabilization, and would support authoritarian rule as a means of suppressing workers and guaranteeing cheap labor. Finally, Chun relied on support from middle-sized and small firms as he took on the *chaebol*, which opposed liberalizing reforms, and had seen their economic and political influence grow enormously over the previous decade.⁵⁵⁰ The EPB was restored to prominence in economic planning and policy setting, HCI Policy was abandoned, and economic liberalization and stabilization measures were adopted. Additionally, the military's share of overall state spending dropped in the 1980s back to its 1960s levels.

The collapse of the nationalist, pro-HCI coalition in 1979, and the forging of a reformist coalition in 1980, made Seoul more receptive to US demands for nuclear compliance at a time when a new administration in Washington could more credibly meet Seoul's demands for security assurances and military cooperation. Chun's ruling coalition put greater value on continued access to American and Japanese markets and technology, and less on defense self-sufficiency. It was also less sanguine about the country's ability to rapidly develop an independent defense industry and heavy industrial base while pursuing weapons policies that irritated Washington. At the same time, the oil crisis, and the revitalized push for nuclear energy

⁵⁵⁰ Chung *et al.*, 1997, pp.39-44. The *chaebol* would, however, eventually win this fight. While Chun did succeed in introducing some rationalizing reforms in the early 1980s, the *chaebol* only continued to grow – economically, politically, and institutionally – over the 1980s.

that resulted from it, worked in the Americans' favor, as it was unlikely that Seoul could achieve its ambitious nuclear energy goals without continued or even enhanced American technical and financial assistance. Finally, Chun needed US support for the domestic legitimacy needed to assert government power and put down rising protests. Chun's visit to Washington sent a clear signal to the domestic opposition that the new leadership enjoyed the support of the Reagan administration and could use violence and martial law to achieve its domestic ends without having to appease the Americans. This was a very different calculus than the one that had prevailed during the Carter administration.

As a result of these forces, weapons-related research, the secret missile program, and fuel cycle research were either abandoned or greatly curtailed. Chun also initiated a purge of related bureaucracies, especially the ADD. By the mid-1980s, the country's nuclear weapons-related efforts had ceased, and despite the continued existence of important domestic groups that supported both the fuel cycle and nuclear weapons, these programs would not be revived, even as the country's ability to accomplish both of these goals grew substantially over the coming years.

This change in South Korean behavior is explained not only by the effects of US policy choices on the domestic political balance in Seoul. In the short term, Chun himself had a strong incentive to acquiesce to the Reagan administration's nonproliferation policies, as his regime stood to gain substantially from US regime acceptance and the expansion in military and economic cooperation offered by the new president. The new administration, moreover, was not only prepared to accept Chun's seizure of power, but was also willing to downplay issues of democracy and human rights, and give Chun a freer hand to build domestic support and squelch opposition. Thus the Reagan administration could make highly credible and attractive offers of positive inducements at a time when US leverage was particularly strong and the Chun regime's bargaining position was notably weak.

While this analysis – because it seeks to measure the effects of US policy choices – has focused primarily on domestic politics in Seoul, it should be noted that domestic politics in Washington also played an important role in shaping outcomes. US domestic politics were particularly significant in that competing interests made it difficult to send convincing or consistent signals to the ROK about the American defense commitment. Efforts to reassure Seoul in the wake of the Nixon Doctrine, for example, were regularly undermined by contradictory signals from Congress. Public opposition to the Vietnam War fueled calls for US retrenchment and isolationism. On April 9, 1970, Senator Joseph Tydings (a Democrat representing Maryland) gave a speech on the Senate floor saying that the Nixon administration should live up to the Nixon Doctrine and continue to withdraw troops from Korea. He argued that the ROK was well

capable of defending itself and that only a small US contingent was necessary to serve as an effective tripwire.⁵⁵¹ This not only alarmed the South Koreans, but focused their attention on Congress rather than the White House. The event served as a trigger for the Park regime's efforts to directly influence Congressional votes, eventually culminating in the "Koreagate" scandal.⁵⁵² Also, the military aid promised by the Nixon administration as an offset to troop reductions, and an important source of funding for the ROK military's self-sufficiency plans – on which the United States ultimately reneged – was subject to Congressional political exigencies. Although the Nixon administration had originally promised to allocate the funds on a five-year basis, Congress insisted on an annual allocation. This led to greater volatility in funding levels. In the end, Congress did not fulfill the Administration's commitments for modernization funds until 1977.⁵⁵³ These domestic political factors greatly weakened the US's ability to make credible commitments to Seoul, and undermined the White House's efforts to reassure their ally. In turn, they fueled nationalists in Seoul who were skeptical of the country's ability to count on US support.

Aside from the effects of the Vietnam War, interest in Korean democracy and human rights also accounted for domestic divisions in Washington. Widespread distaste for the Park regime's autocratic rule, and its use of violent crackdowns and arrests against its domestic opposition, complicated efforts by the Nixon and Ford administrations to win Congressional support for the White House's policies.⁵⁵⁴ This was true with American aid for the Force Modernization Plan, as Congress cut the proposed assistance levels out of opposition to the ROK's human rights abuses.⁵⁵⁵ The "Koreagate" scandal – itself a reaction to US domestic politics – likewise inflamed Congressional opposition to ROK aid.

Domestic politics again played an important role in shaping the Carter administration's Korea policies, especially the president's plan for troop withdrawals, which reflected the public's attitude toward foreign defense commitments after Vietnam and was included in Carter's campaign platform as a candidate. Carter's personal interest in the human rights issue also complicated diplomacy with Seoul, and Carter had a personal dislike for President Park, whom he saw as nothing more than a dictator. While Carter did put pressure on Park on the nuclear issue, he gave precedence to human rights. In 1979, during Carter's trip to Seoul, the president

⁵⁵¹ House Committee on International Relations, 1978, p.64.

⁵⁵² *Ibid.*, p.65, 67-8; *Time*, November 29, 1976.

⁵⁵³ House Committee on International Relations, 1978, pp.69-70.

⁵⁵⁴ It should also be noted that US domestic opposition to the Park regime's record on human rights and authoritarianism created legitimacy problems for Park as well. The Park regime was held in low esteem in the United States, which only worsened anti-Park sentiment in South Korea. Lie, 2000, pp.77-9.

⁵⁵⁵ Hamm, 1999, p.80.

affirmed US security assurances, guaranteed the nuclear umbrella, and deferred troop withdrawals, but he also pressed for human rights concessions such as the release of political prisoners.

Yet, even though Carter's withdrawal plans reflected a broader public mood and were fueled by popular disapproval of the Park regime, they encountered fierce domestic opposition, which ultimately contributed to the plans' demise. Conservatives in Congress – both Republican and Democratic – opposed the move. Opposition also came from within the military, which resulted not only from strategic considerations but also bureaucratic interests, as the Army naturally resisted the loss of an important command.⁵⁵⁶ There was also strong resistance in Congress to the White House's proposals for military aid to offset the proposed troop withdrawals. A group of Senators led by John Glenn, for example, blocked the transfer of advanced aircraft such as the F-16 to the ROK. Overcoming such opposition would be difficult enough under ordinary circumstances. In this case, the president's agenda was dominated by a weak economy, crisis in Iran, and an upcoming election. Overall, these domestic divisions not only undermined the plan to withdraw ground troops, but complicated America's ability to provide security assurances, or even consistently communicate the country's interests.

These divisions also presented Park with an opportunity to exploit US domestic political divisions to his advantage and undermine the US bargaining position. The relatively weak hand of the Carter administration can be seen in the confrontation between Carter and Park in Seoul in 1979, in which Park furiously criticized the US president's policies and yielded little ground even as Carter was forced to backtrack on withdrawal. Park could even use Carter's plan to his advantage domestically, as US withdrawal was widely unpopular in South Korea – it was even opposed by the political opposition – and could be successfully exploited to justify the regime's authoritarian domestic policies.⁵⁵⁷

The Reagan administration possessed more potent levers of influence over South Korea than its predecessors had, not only because of the weaknesses of the Chun regime but because of Reagan's more activist foreign policy beliefs and the administration's stronger public backing and political support for a more assertive application of American power. Defense commitments were far more credible under Reagan. This, combined with more concrete gestures such as the

⁵⁵⁶ According to Hamm, bureaucratic politics shaped the influential intelligence estimates of DPRK military forces that came out in 1979. These assessments, which claimed that the US had greatly underestimated DPRK capabilities, were used to justify Carter's ultimate reversal on troop withdrawals. Hamm cites Richard Holbrooke as saying that the reversal was decided independently of these estimates, and that DIA estimates of North Korea's troop strength were heavily influenced by the Army's own interests. See Hamm, 1999, pp.81-2.

⁵⁵⁷ Kim, Hyung-a, 2004, p.161.

deployment of additional ground troops, increased military sales and the transfer of advanced military technology, and the enhancement of the alliance's formal institutions for military cooperation, allowed the United States to more credibly address Seoul's security concerns. At the same time, the administration's emphasis on military supremacy, anti-communism, and free-market capitalism, at the expense of democracy and human rights, led to a closer alignment of interests between Seoul and Washington during this period. Reagan genuinely saw Chun as a potential partner, and therefore could reverse the years of deteriorating US-ROK relations during the 1970s.

VIII. Alternative Explanations

Two principal alternative explanations for South Korea's nuclear decisions require detailed consideration. The first is that the ROK's nuclear choices were primarily dictated by changes to the strategic environment. This position holds that the dynamics of South Korea's external security environment – changes to regional conventional and nuclear threats, and the American defense commitment – are alone sufficient to explain both the decision to develop nuclear weapons and, ultimately, the decision to abandon the program. The second alternative explanation holds that Seoul's decision to abandon its nuclear program was made solely in response to American coercion. In this case, positive inducements were incidental or secondary. Seoul had no choice but to end its pursuit of a nuclear bomb once the United States credibly demonstrated that it would present the South Koreans with unacceptable costs. These arguments share two key assumptions. One is that South Korea's nuclear decisions can be sufficiently understood through rational cost-benefit analysis. Attention to domestic political factors is unnecessary. Another shared assumption is that reputation costs are not important. For both alternative explanations, strategic choices are made solely within the context of immediate costs and payoffs, without concern for how these decisions may affect strategic interactions in the future, either domestically or internationally.

I treat these two alternative explanations in turn, identify their weaknesses, and present evidence from the case that are better (or solely) explained by the issue-linkage theory outlined in Chapter 2 of this dissertation. In the process, I emphasize three points. First, South Korean, as well as American, domestic politics must be accounted for to fully explain the ROK's nuclear choices. Second, these choices can only be understood in the framework of an overall bargaining relationship that accounts for informational asymmetries as well as reputational concerns. Finally, the nature of the relationship between the two bargaining states – in this case, close allies – is essential.

A. The Strategic Balance Explains ROK Decisions

This argument, which can appropriately be described as a neorealist explanation, holds that the balance of threat was, by itself, sufficient to explain both the ROK's initial decision to pursue nuclear weapons as well as the country's decision to abandon the program. According to this view, the Park regime's nuclear decisions were based on the military balance across the 38th parallel, the strength of the American security commitment, and North Korea's aggressiveness. The nuclear weapons program was initiated in response to a growing North Korean threat and a declining American commitment to South Korea's security. The program was discontinued because American threats to withdraw those commitments – coupled with reassurances that they would remain in place if the nuclear program were dropped – altered the strategic calculus.

This explanation is not entirely inaccurate, just incomplete. Security concerns were, in fact, the initial trigger for Park Chung-hee's decision to develop nuclear weapons in the early 1970s. The move was precipitated by both the North Korean military threat and, most proximately, signals from the United States that its defense commitment to the South was waning. This coincided with a series of events – minor North Korean attacks on ROK military forces, the US's reluctance to respond to DPRK provocations, the American failure in and withdrawal from Vietnam, Nixon's visit to China – that heightened this anxiety and led Seoul to reconsider its defense options.

By the same token, strategic considerations did influence later decisions about the nuclear program. Seoul offered significant concessions over its program in 1975 and 1976 in response to American threats to withdraw security cooperation. By the end of 1976, it was apparent to the South Koreans that continued defiance of the United States would threaten the alliance and put the ROK's security in jeopardy. At this point, the ROK was still a number of years away from developing a nuclear deterrent. Its first commercial-scale nuclear reactor was still years away from completion and the country could not develop an indigenous capacity to produce nuclear fuel without risking the loss of necessary outside civilian nuclear assistance. Meanwhile, the DPRK's military still possessed a numerical advantage over the South's, and an adequate redress of that imbalance was dependent upon American military assistance. Therefore, the nuclear weapons program was, on balance, a strategic liability. This led Seoul to concede to American demands. In 1977, when the Carter administration announced plans to withdraw US ground forces, Seoul once again pushed forward with its nuclear efforts. Again, US threats, as well as the cancelation of troop withdrawals, altered the strategic balance, and Seoul's efforts were discontinued.

There are three major flaws, however, with any explanation based purely on the balance of threat. The first is under-determination. Specifically, South Korea's strategic environment could explain a number of different and often contradictory outcomes. The pursuit of a nuclear arsenal carried a variety of conflicting security implications, making it impossible to understand Seoul's decisions based on structural considerations alone. Likewise, Seoul's possible response to American threats was not limited to the simple, binary choice between continuation of the program or its termination. Between 1975 and 1980, the South Koreans actually made no final decision either way. Instead, Park hid elements of the program, ceased others, reorganized the nuclear bureaucracy, issued threats and denials, pursued various dual-use projects, and extracted positive inducements from the Americans, all without abandoning the possibility of developing a nuclear deterrent at some point in the future. The strategic balance by itself cannot adequately explain these behaviors. It can only describe a set of limits imposed on the overall range of possible outcomes.

The second problem with this argument is that it rests on an excessively narrow assessment of the Park regime's motives for a nuclear program. Nuclear weapons can, of course, increase a state's security. But a nascent program can also be used instrumentally in a bargaining process. It can serve as a bargaining chip in negotiations with states that have an interest in preventing the spread of nuclear weapons. In this case, there is evidence that the Park regime was aware of this implication from the very beginning. In any event, it is beyond question that, once American suspicions were aroused, Seoul used its program instrumentally in negotiations with the United States to secure stronger security commitments, even after Seoul had come to understand how pursuit of a nuclear bomb could otherwise become a strategic liability.

Third, a strictly neorealist explanation cannot capture the way in which negative sanctions and positive inducements can shift state preferences by influencing domestic politics in the target state. In this case, American threats and promises of rewards had a direct impact on Seoul's domestic policy debates both by preferentially rewarding and punishing domestic actors, and by strengthening or weakening their influence in the policy making process. Structural factors in the international system may have also strongly shaped these debates, and provided limitations on potential policy choices, but the interaction of domestic politics and the US-ROK bargaining process must be examined in order to understand why the Koreans chose the policies that they did, and how US statecraft influenced those outcomes.

I consider these three flaws at greater length.

1. The Outcome Is Underdetermined by the Balance of Threat

Under-determination is a categorical problem with neorealist explanations of specific cases. This is no less true in the case of South Korea's nuclear decisions. It is true that national security was an overriding concern for the ROK, and that the country had been confronted with a particularly challenging external strategic environment since the end of the Second World War. In the early 1970s, when the nuclear decision was made, the Park regime was facing a hostile and possibly militarily superior North Korea and its nuclear-armed Soviet and Chinese allies. The United States, which had underwritten the ROK's security for a generation, had begun to reevaluate its role in Asia, had begun to seek major changes in its relationships with the People's Republic of China, and had started to withdraw from Vietnam. Roughly a third of US Forces Korea was withdrawn from the Korean Peninsula (although, importantly, American tactical nuclear weapons remained). Likewise, it is clear that these changes prompted significant anxiety in Seoul and led the Park regime to consider a number of ways to restore the military balance in the event of a withdrawal of American commitments, including nuclear weapons.

However, a number of different outcomes could be explained by these shifts in the strategic balance. The pursuit of a nuclear deterrent, especially in the earliest stages of a program, can create as much vulnerability as it reduces. A developed and deployed nuclear force could be very effective at deterring a North Korean attack. The United States, after all, deployed tactical nuclear weapons on the peninsula themselves, and extended their nuclear umbrella to South Korea. A nuclear deterrent could also make up for an apparent DPRK advantage in the military balance across the 38th parallel, and therefore provide for greater stability as South Korea continued to increase and to modernize its conventional weapons capabilities. This, however, assumes an already fully developed nuclear weapons capability, and ignores the regionally destabilizing effects that the revelation of a nuclear weapons program could have. A nuclear weapons program that had not yet produced a bomb but was expected to do so in the near future could encourage the North to launch a preventive attack. At a minimum, the North could threaten such an attack in an effort to create a crisis and build international pressure for the South to abandon its program.⁵⁵⁸

The South Koreans would also have to worry about the effects a nuclear weapons program would have on its alliance with the United States, as well as the reactions of other

⁵⁵⁸ Yager makes this argument. In fact, Yager lays out a thoughtful and detailed analysis of a number of arguments in favor of and against the development of nuclear weapons by South Korea. Yager, 1980, pp.50-65. Reiss also does an excellent job of laying out the pros and cons of South Korea's nuclear efforts, from both a strategic and economic point of view. Reiss, 1988, pp.95-108.

regional actors such as Japan, China, and the Soviet Union. Certainly after the 1974 Indian nuclear test, it should have been clear to Seoul that it was likely the Americans would discover the ROK's nuclear program, and that this discovery would lead to significant pressure from Washington to abandon the project, if not an outright rupture in the relationship.⁵⁵⁹ While the South already had concerns about the US defense commitment and the effect this would have on deterring the DPRK, these worries would pale in comparison to the effect a full-blown break in the alliance, or the withdrawal of formal US nuclear guarantees.⁵⁶⁰ Likewise, South Korean nuclear weapons could lead to a Japanese decision to follow suit, or even a Soviet decision to support the development of a North Korean bomb.⁵⁶¹

Finally, South Korea's security was integrally related to the country's economic condition, which in turn was extraordinarily dependent upon the ROK's relationships with the United States and Japan. Between 1972 and 1976, the South Korean economy grew by an average of 10.2% per year.⁵⁶² This rapid growth was built upon the export of manufactured goods, foreign direct investment and loans, as well as continued regional peace and stability. As discussed in the section of this chapter on domestic politics, South Korea's economy was built on a borrow-and-export model. Korea's dependence on foreign markets for export and overseas savings for capital cannot be overstated. The ratio of exports to GNP was already enormous and increasing during this period, rising from 11.6% in 1971 to 36.8% in 1981.⁵⁶³ At the same time, the ROK would incur roughly \$20 billion in external debt by 1979, with the lion's share of that sum owed to banks in the United States and Japan. Those same two countries accounted for about 85% of South Korea's FDI during the same period.⁵⁶⁴ Any serious disruption in these

⁵⁵⁹ Indeed, the Americans soon did discover the program, and the ROK was aware of this discovery before the end of 1974. See Section II of this chapter for a detailed description of these events.

⁵⁶⁰ The Americans would certainly have had a difficult time justifying continued extended nuclear deterrence and a strong defense commitment to the ROK were they to develop an independent nuclear capability. Even more difficult to justify would be the continued deployment on US nuclear weapons on the peninsula. Not least of concern would be the danger that the United States could get dragged into a nuclear war against the Soviet Union.

⁵⁶¹ Given the fact that the North Korean nuclear program did not provoke the Japanese into developing nuclear weapons, it is unlikely that a South Korean bomb would do so. It is also unlikely that either China or the USSR would actually have supported the development a North Korean nuclear weapons capability. However, the point here is that from Seoul's point of view in the early 1970s, these were all legitimate considerations, making the security benefits of a nuclear program at best not entirely obvious.

⁵⁶² Reiss, 1988, p.96.

⁵⁶³ Seo, 2006, p.58.

⁵⁶⁴ Reiss, 1988, p.96. Reiss cites personal correspondence with the Bank of Korea for the figures on FDI. Specifically, Japanese and US investors accounted for 85% of all FDI between 1972-1976, or more than \$483 million. Notably, this was the most intense period of Park's drive for South Korean self-sufficiency (*Yushin*). See Section VII of this chapter for a more detailed discussion of the role of South Korea's domestic political and economic factors in the country's nuclear decision making process. Also see Solingen, 2007, pp.82-99 for a broadly similar treatment of the nuclear weapons issue.

economic ties would have been disastrous for the South Korean economy. Given Seoul's sizable expenditures on its military, its lack of significant domestic defense industries and related heavy industries during this period, and its enormous push for military modernization, any serious economic problems would have significant spillover effects on national security.⁵⁶⁵

The raw economic data, however, fails to fully capture the degree of dependence that Seoul had on the US in particular. The South Korea military was dependent upon American weapons exports and technology transfers. Korea's nuclear ambition itself was predicated upon the availability of American civilian nuclear technology, expertise, and funding. The ROK's nuclear scientists were frequently trained in the United States, Park had specifically recruited ethnic Koreans in America into his nuclear effort, and the light water reactor that was currently under construction in South Korea was being built by the American firm Westinghouse and was funded by loans from the United States. Any withdrawal of US support would therefore greatly complicate the nuclear weapons program itself. Given all of these considerations, it is far from clear that the strategic balance would necessarily have led Seoul to develop a nuclear program, never mind to continue with the program well after the 1974 Indian test. If Seoul had never undertaken a nuclear weapons program, or had unilaterally discontinued its program in late 1974, these policies could equally well be explained by the balance of threat, as the risks of regional instability or upsetting the alliance with the US were substantial and potentially quite costly.

Even more important, though, is the fact that the threat balance cannot adequately explain Seoul's decision to abandon the program, or the timing of that decision. Here, too, there is the problem of under-determination: South Korea's decisions in this regard are again consistent with the strategic balance, however, there are a number of other possible outcomes that would be consistent with such an explanation as well. The US threat to withdraw from the alliance, and the potential changes to the regional balance-of-power that would result, provided a strong incentive for Seoul to concede to American demands. South Korea was, in essence, presented with a Hobson's choice: choosing the nuclear weapons program over the alliance was simply not an option. When Park initiated the nuclear program in 1970, it is highly probable that he assumed that (or at least hoped) that South Korea would be able to conceal its intentions from the United States and others until it was far more advanced. Indeed, it is likely he would have had more time

⁵⁶⁵ This tight interrelationship between economic growth, modernization, self-sufficiency, and military defense is treated at length in Section VII. It is also important to note that these four related national imperatives often implied mutually contradictory policy choices (also covered in detail in Section VII). These contradictions underline the weaknesses and ambiguities of any purely neorealist explanation of Korea's nuclear decisions.

if the Indians had not tested a bomb of their own in 1974.⁵⁶⁶ By discovering the program when it did, and taking steps to stop it, the United States greatly complicated Park's plans. With a more advanced program, and with military modernization and industrialization efforts further along as well, Seoul may have been able to compensate for any American withdrawal of its defense commitments. In 1975 and 1976, however, this was not a viable proposition. Seoul viewed the DPRK's military as superior. The South had to consider the North's alliance with the Soviets and Chinese as well. The US security commitment was simply too important to Seoul's ability to defend its territory to trade away for a nuclear weapons program that was many years away from fruition.

However, the outcome of this case is more complicated than simply choosing the alliance over nuclear weapons. Seoul did not simply abandon its weapons program when faced with a shifted strategic balance. The US and South Korea entered a bargaining relationship that, over the course of 1975 and 1976, resulted in South Korea's ratification of the NPT, withdrawal from a deal for a French reprocessing facility, and the formal termination of project "890," but it did not end the country's nuclear ambitions. At the same time, Seoul was able to extract stronger defense commitments from the Americans. Revived efforts to acquire sensitive nuclear technologies in the late 1970s are consistent with the election of Jimmy Carter and the renewed threat of a US withdrawal, but again, American threats and security assurances produced temporary compliance, while the country's nuclear efforts were simply reorganized and hidden. In the early 1980s, the South appears to have finally abandoned any nuclear weapons ambitions. This decision came at a time when the Reagan administration was prepared to offer substantial and concrete security guarantees, and when American reassurances were more credible. However, the decision was also based on the change of regime in Seoul and Chun Doo-hwan's need to win regime acceptance from Washington. At a minimum, there is no reason to believe that it would have been any more difficult for Seoul to hold onto its ambitions and simply keep its efforts

⁵⁶⁶ This by itself raising an interesting issue that is worthy of greater attention. At least according to the data that is available in the public domain, the Americans did not suspect that the South Koreans were pursuing a nuclear weapons program until late 1974, after CIA agents in the US Embassy in Seoul conducted a thorough examination of Seoul's recent (ostensibly civilian) nuclear activities. This search was not initiated because of any concerns about the South Koreans per se, but rather as part of a global search for nuclear weapons-related activities in the wake of the Indian test. This is similar to what occurred in the Libyan case. The United States and Britain did not discover Libya's nuclear activities in the 1990s because of their attention to Libya itself, but rather through happenstance. The US had uncovered the A.Q. Khan network, and only through that had they discovered Libya's nuclear purchases from the network. Yet in both cases, intelligence was crucial to the outcome. Certainly in the South Korean case, it is imaginable that - in the absence of an Indian test or some other event to alert the nuclear suppliers to the danger of proliferation through civilian nuclear acquisition - the program could have progressed much further than it actually had, and the Koreans could at a minimum have acquired a latent nuclear capability comparable to what the Japanese had achieved.

underground during this period than it had been between 1976 and 1980. Again, there are a number of different policy choices consistent with the strategic balance.

2. The ROK Used its Nuclear Program as a Bargaining Chip

The balance-of-threat explanation relies on an incomplete interpretation of South Korea's intentions and motives concerning the country's nuclear program in the 1970s. In the minds of President Park and other important decision makers in Seoul, the nuclear effort was a hedge against any weakening of the American defense commitment. The idea was that the country would pursue the technical capability to produce a weapon in a short period of time but refrain from doing so as long as the US upheld its commitment to defend the country. The program could therefore be used not only to develop a nuclear deterrent if it became necessary, but to also provide the ROK with a powerful source of bargaining leverage with the Americans. It was an implicit (and by June 1975 even an explicit) threat that the South Koreans would develop nuclear weapons if the US defense commitment – and in particular, the US nuclear defense commitment – should waver. In this sense, it was designed more as a way to influence US policy than as a way to directly address the military balance on the peninsula. The first choice for Seoul was to have a program advanced enough that if it chose to do so, it could produce a bomb in short order. This would be unnecessary so long as the United States was committed to defending the country with its nuclear and conventional military forces. Should that commitment be withdrawn, though, the South Koreans could continue with their pursuit of nuclear weapons as a second-best option. The desire to acquire a turn-of-a-screw nuclear capability (*i.e.*, to be, figuratively, a turn of a screwdriver away from building a bomb) is summarized by Don Oberdorfer, who interviewed South Korean nuclear adviser Oh Won-chol:

“[Oh] said that Park had not decided actually to produce a South Korean bomb, but that he was determined to acquire the technology and capability to do so on a few months' notice, as he and many others believed the Japanese could do. ‘Park wished to have the [nuclear] card to deal with other governments,’ Oh told me in 1996. In this field, the capability to produce nuclear weapons is almost as potent as possession of the bomb itself.”⁵⁶⁷

The history of South Korea's nuclear efforts cannot be understood without first recognizing the program's role as a bargaining chip. The ROK's preference was not to develop a nuclear arsenal but to keep the US's own deterrent threat in place by giving the Americans a powerful incentive to do so. The balance of threat may offer insights into why the South Koreans

⁵⁶⁷ Oberdorfer, 2001, p.68-9.

would have an interest in there being a strong military deterrent against the North, but it cannot explain the instrumental use of the nuclear program to extract defense commitments from an ally.

More importantly, it cannot explain the complex bargaining that took place between the United States and South Korea as a result. South Korea's overriding interest was national security, but security could be provided through the alliance or through an independent nuclear deterrent. In the early 1970s, neither of these appeared as a safe option to Seoul. The credibility of the American defense commitment was declining. The development of an indigenous nuclear weapons capability, meanwhile, would take many years. Additionally, the two were integrally related to one another. Development of the country's nuclear capabilities depended on American assistance and the underwriting of regional stability by the United States during the years it would take to develop such capabilities. At the same time, a bomb program would call the stability of the alliance into question and risk greater regional instability. This tension led to extended bargaining between the two allies between 1975-1980, in which the two sides exchanged threats and inducements in an effort to achieve a mutually acceptable resolution. The South Koreans preferred to have a rock-solid commitment from the Americans while keeping the nuclear option open and building up their economic and military self-sufficiency. The Americans, on the other hand, preferred to roll back South Korean nuclear efforts while maintaining as much flexibility in their military commitments as possible. The United States, of course, had the upper hand in the relationship, as the South depended heavily, and asymmetrically, on the US for its defense and its economic development.

Ultimately, South Korea's nuclear policy choices can only be understood in the context of a bargaining settlement between the ROK and the United States. Neither the forfeiture of South Korean nuclear ambitions nor the US's defense commitment and troops deployments can be seen in isolation from one another in this regard. These policy choices were made in the context of a strategic bargaining relationship that resulted in an equilibrium settlement that was mutually acceptable to the two sides. South Korea agreed to abandon its pursuit of nuclear weapons only after it had been provided satisfactory reassurance by the Americans that ground troops would remain, that the Chun regime's legitimacy would not be challenged, and that US civilian nuclear assistance would continue. This settlement came only after a sequential exchange of bargaining proposals successfully communicated each sides preferences to the other, and moved those preferences toward a common, mutually acceptable resolution. Many possible outcomes would be consistent with the prevailing military balance. The actual outcome resulted from the strategic bargaining process between the United States and South Korea.

3. The Outcome Was Dependent Upon Domestic Factors

An explanation that rests solely on the balance of threat also overlooks the mechanisms through which American threats and promises influenced South Korean nuclear policies. Seoul's nuclear decisions were intimately linked to broader political issues, especially economic performance, self-sufficiency, and Korean nationalism. The dual-use nature of the components of the closed nuclear fuel cycle was not just a convenient cover for the country's nuclear weapons efforts. South Korea had a genuine interest in developing energy self-sufficiency through its civilian nuclear program, and the closed fuel cycle would reduce the country's dependence both on fossil-fuel imports as well as reactor fuel imported from the major nuclear suppliers, particularly the United States. The Park regime's legitimacy rested principally on its ability to promote growth and industrial development. At the same time, Park had to maintain the support of Korean nationalists, particularly within the military establishment, who bristled against the country's dependence on what they feared was a fickle United States. They prioritized national self-sufficiency, especially in the area of national defense. The nuclear program and the acquisition of dual-use facilities were to them a way of addressing all of these interests.

There was also the question of prestige. Seoul viewed Japan's history of industrial development as a model not simply as the result of a dispassionate evaluation of Japan's successful performance, but also out of a sense of nationalist rivalry. Japan's similar dependence on the United States for defense, as well as its lack of natural resources and dependence on energy imports, was not lost on the Park regime. Nor was Japan's own nuclear program, and the country's successful development of an indigenous capability to produce fissile material. The Park regime wished to match these capabilities not simply to address power imbalances in the region but also to elevate national prestige and, more importantly, the prestige of the regime, both domestically and internationally.

These considerations not only provide a fuller picture of the events of the case, but are necessary to understand bargaining outcomes. They explain, for example, the significance of the US's threats to withdraw financial and civilian nuclear assistance. This assistance was essential to sustained economic growth and self-sufficiency, and in turn it was integral to the Park regime's model for domestic power and legitimacy.

It also explains Seoul's need for strong security reassurances and the South Koreans' acute sensitivity to any sign of weakening of the US commitment, even in the absence of any real threat to the regional balance of power in the short term. The Park regime used the country's security threats – and even inflated these threats – to justify its program of authoritarian rule and the intense push for rapid industrialization. That the regime be seen as a bulwark against an ever-

present security threat was a key pillar of its legitimacy. Park unquestionably had serious reservations about the Americans' willingness to defend South Korea over the long term, and feared that the US would eventually reassess its role on the peninsula the same as it had with Taiwan or even South Vietnam. However, with more than 40,000 US troops still deployed there, many more stationed in nearby Japan, and, most importantly, hundreds of US tactical nuclear weapons deployed in the theater, Seoul's security anxieties should not necessarily have been so acute as to prompt a nuclear weapons effort that put the relationship with the United States at risk. If one considers, however, the domestic political implications of a nuclear deterrent, and its potential contribution to the regime's legitimacy both with nationalist elites and with the public, the decision to pursue the program and to continue those efforts even in the face of enormous threats from the Americans makes better sense. The regime had a larger stake in nuclear weapons development than simply strategic concerns.

A full accounting of Seoul's nuclear decision making also has to include the way that bargaining – the mutual and sequential offers of rewards and threats – between the United States and the ROK shaped state preferences. American threats and promises directly affected domestic political debates in Seoul, and strengthened the hand of domestic actors who favored nuclear restraint. The US's threats to withhold military and economic assistance disproportionately disadvantaged the military and the technocrats on the Economic Planning Board and within the Ministry of Science and Technology. These powerful groups had a strong interest in maintaining the country's ties to Washington, and were skeptical of South Korea's ability to establish a significant degree of military and economic self-sufficiency in the near term. The US bargaining position offered to strengthen these groups if the ROK were to comply with American demands, while at the same time created strong incentives for them to form a coalition to gain Park's ear and to present a more accurate portrait of US preferences than that provided by groups such as the ADD or the scientists and bureaucrats within the nuclear program itself, who had substantial self-interest in continuing the program and appealing to nationalist sentiments. This also illustrates the importance of economic threats, and especially the threat to withdraw civilian nuclear cooperation, as this not only undermined overall goals of the regime but also very directly influenced the policy preferences of organizations such as KAERI, which stood to disproportionately lose from US sanctions.

B. Negative Sanctions Were Sufficient

According to this argument, US inducements, in the form of security guarantees and acceptance of the Chun Doo-hwan regime, were not necessary to produce South Korean

compliance. Seoul's dependence on its military and economic relationships with the United States was so deep and provided the Americans with so much leverage that, once enough pressure was applied, the Koreans would fold and abandon their nuclear ambitions. This argument, in essence, models South Korean decision making in terms of a simple cost-benefit analysis. The costs of defying US demands in this case threatened to be so large that they outweighed any possible gains of the nuclear program. Additionally, US leverage was so great that it could not only punish Seoul for continued nuclear activities but could make it extraordinarily difficult to acquire the necessary equipment, technology, and expertise to successfully develop a bomb. Therefore the United States could not only raise the costs of proliferation, but could impinge upon its possible benefits as well.

There is merit to this position insofar as it holds that US leverage in this case was quite significant, and that threats were substantially effective. It overlooks, however, two important problems. One is that as long as the South Koreans were genuinely concerned about the credibility of the US security commitment, they could simply hide or suspend their nuclear efforts to avoid American sanctions while holding out the threat of developing weapons as a means of pressuring the US into maintaining its military commitments. The other problem is that the argument relies on a misreading of the facts of the case. South Korea did not, in fact, give up its nuclear weapons ambitions in 1976, even though the Americans had made substantial threats. They simply pushed the program further underground. When the Carter administration sought to redeploy ground troops, Seoul not only reinvigorated the program, but issued threats as a way to put pressure on the Americans to keep the troops in place. The program did not come to a lasting end until President Chun terminated it in return for security assurances and regime acceptance.

1. Seoul Could Suspend or Hide the Program Without Ending It

The Park regime was acutely concerned by what it saw as the US's abandonment of South Vietnam and its betrayal of Taiwan. Park himself drew strong parallels between the American relationship with these two states and the US-ROK alliance, and was not consoled by Washington's rhetorical assurances to the contrary. The worry was that if Seoul did not take strong steps to develop its own defensive capabilities in the short term, including a nuclear weapons capability, that in the long term it could be left without the protection of American conventional and nuclear forces, and with nothing to replace them. The Carter administration's decision to withdraw all American ground troops from the peninsula exacerbated these concerns.

Furthermore, Seoul was not prepared to fully give up on its nuclear weapons ambitions until these concerns were addressed. This meant that while the South Koreans were willing to

provide short-term concessions, and to give in on specific demands such as the French reprocessing deal, they nonetheless sought to keep their nuclear options as open as possible while doing what was necessary to avoid US negative sanctions and maintain the stability of the alliance.

While this case indeed demonstrates that sanctions can be used effectively with allies, it nonetheless exposes their central weakness. Because the pursuit of weapons is more a question of intent than technology, sanctions can produce concessions in the near term, but they will ultimately fail to produce compliance over the longer term unless the sending state possesses the resolve and the ability to hold up substantial and credible threats indefinitely, as well as use intrusive measures to verify compliance. Given the dual-use nature of the technology, the rapidly expanding South Korean civilian nuclear industry, and the relative ease with which nuclear experiments can be hidden or disguised, it is reasonable to assert that had the South Koreans chosen to do so, they could have continued to entertain the development of a nuclear weapon indefinitely, and slowly worked toward that end. In fact, it appears that this is exactly what the Park regime planned to do after 1976.

2. The Nuclear Program Continued Even After the Fiercest Threats Were Made

The other problem with this explanation is that the United States had already made its most serious threats to the South Koreans by early 1976, yet this failed to end Seoul's nuclear ambitions. The country's nuclear efforts continued into the 1980s, and were not fully abandoned until the Park regime was no longer in power and the United States had provided more substantive and convincing security assurances. The facts of the case simply do not support the claim that US threats caused the Park regime to abandon the program.

There is substantial disagreement in the academic literature on this point. This stems from two factors. One is that the historical record of the case, particularly after 1976, is thin. The second is that scholars have typically conflated the Korean weapons program with the French reprocessing deal, and have either been unaware of or simply refused to engage with evidence of other relevant nuclear activities. The historical record of this case is, indeed, quite thin. This is partly explained by the scant attention the case has received from scholars, but is also partly a result of the tight nature of the alliance itself. The US and the ROK have simply been effective at collaborating to keep sensitive information related to this case out of the public domain.

However, there are a number of reasons to take South Korea's nuclear endeavors after 1976 seriously. One is that between 1977 and 1980, high-level officials made several nuclear-

related threats to the United States. Reports of these threats are clear enough, numerous enough, and involve a sufficient variety of sources to conclude that Seoul was at a minimum making a coordinated effort to influence decision making in Washington by raising the possibility of a revival of the nuclear weapons program. This by itself is sufficient to conclude that Park's nuclear ambitions were not in fact abandoned in 1976. It is also important to note that after 1980, there are no reports of such threats being made. Seoul's use of a nuclear weapons program as a bargaining chip with the United States appears to have ended, in any overt sense, with the Park regime.

In addition, though, there is the evidence that a great deal of the nuclear weapons-related research from the 1970-1976 period continued, and even intensified, in the wake of the Carter administration's decision to withdraw ground troops from the peninsula. Ambitions of developing the closed nuclear fuel cycle certainly continued after 1976. ROK nuclear scientists appear to have held onto these ambitions even after 1980, and small-scale experiments with reprocessing and uranium enrichment, as well as the exploration of importing MOX fuel production technology, seem to confirm this.⁵⁶⁸ Seoul also continued to pursue relevant high-explosive and missile technology, most of which was dropped after Park's assassination. Finally, the research programs and bureaucracies related to the 1970-1976 nuclear effort seem to have continued intact, for the most part, after 1976, and were simply reorganized or more carefully hidden. These groups underwent a substantial purge under Chun Doo-hwan, and there is no evidence that they were later revived.

These facts make it difficult to argue that the country's nuclear weapons ambitions ended in 1976, or even that 1976 represented a clear turning point in the country's nuclear effort. Yet, 1975-1976 does represent the peak intensity of American threats. By January 1976, the United States had already threatened the ROK with a full range of negative sanctions, economic and military. These threats did produce significant concessions, but did not bring the Park regime's nuclear efforts to a complete end. It is possible that the continued use of threats over the years could have successfully prevented the ROK from ever developing a latent nuclear weapons capability, however, in light of the technological gains the country has made between the late 1970s and today, this is highly unlikely. It is near certain that South Korea could have developed a breakout capability by now if it had so desired. US opposition and threats may have slowed this process, but it is unlikely that it could have stopped it entirely. It does appear, however, that after 1980, outside of a minority of nationalists and officials within the nuclear bureaucracy, there has

⁵⁶⁸ However, these efforts also appear to be far more limited and disorganized compared to the more concerted efforts that took place between 1976 and 1979.

been little domestic pressure in South Korea for the development of an indigenous nuclear weapons capability. This has been true even after the withdrawal of US tactical nuclear weapons from the peninsula in the early 1990s, and the development of a North Korean nuclear weapons capability and multiple DPRK nuclear weapons tests. This shift in Seoul's preferences is best explained by the United States's provision of security assurances and other positive inducements.

IX. Conclusion

The South Korean case illustrates that both sanctions and inducements can be effective in nonproliferation diplomacy when dealing with an ally. The alliance provided the United States with substantial leverage over the ROK, something the Americans could use to great effect in negotiations. The ROK's dependence on the United States was such that were the US to cut its assistance, it would not only impose heavy costs on Seoul but would directly undermine the country's nuclear program itself and, more broadly, South Korea's national security. Likewise, the United States could offer inducements that provided substantial economic and military gains, and the Americans could use these offers to strongly influence the power and preferences of domestic political actors in Seoul.

Additionally, the close nature of the alliance allowed both sides to make strong threats without provoking a backlash or a hardening of each other's bargaining positions. The South Koreans made thinly veiled public threats to develop nuclear weapons in the summer of 1975 and again during the Carter administration. The Americans threatened to use a broad spectrum of economic and military sanctions. The alliance, however, kept concern over relative gains to a minimum, and reputation costs low. As a result, each side could yield to demands without paying unacceptable costs.

However, the uses of sanctions and inducements in this case differed from one another in one important respect. Even though sanctions could bring significant pressure to bear, and could produce limited concrete concessions or temporary compliance, they could not successfully force the South Koreans to abandon their nuclear weapons ambitions entirely. From 1976 to 1980, the Koreans simply suspended many of their nuclear activities, hid others, reorganized bureaucracies, and issued denials, all while pursuing alternative routes to a weapons capability without inviting American opposition. Seoul even increased its efforts during the Carter years when the US defense commitment was again called into question. It was only through the offer of inducements that the program was finally brought to an end.

This case also illustrates how the effects of both sanctions and inducements are determined by domestic political processes. The US's threat to withdraw civilian nuclear

cooperation raised the possibility of heavy costs for the domestic actors in Seoul that most strongly supported the nuclear weapons program and also controlled the flow of information about the program to the president. It also directly threatened the regime, as economic growth and self-sufficiency, core goals of the Park regime that underpinned its legitimacy, would be endangered without access to American nuclear assistance and technology. Broader economic threats likewise put core regime interests at risk, and strengthened the hand of technocrats in the EPB and elsewhere that opposed the nuclear program and favored cooperation with the Americans. US inducements likewise shaped domestic political outcomes. US security assurances not only mitigated concerns about the balance of power but also reduced the domestic appeal of nationalists, advocates of military and economic self-sufficiency, and proponents of import substitution, while strengthening domestic actors who favored economic growth through integration into the Western capitalist economic system. US economic cooperation and nuclear energy assistance favored these same actors while weakening the hand of business groups and nationalists that favored greater independence in these sectors and gained influence in domestic political debates by playing on anxieties over long-term US commitments. Most importantly, a lasting resolution to the nuclear issue was achieved not simply by allaying the ROK's concerns over the balance of military power on the peninsula but by granting much-needed support and legitimacy to the Chun regime. American inducements were therefore effective because they rewarded key South Korean domestic actors and shaped policy preferences in a way that made agreement more likely. The outcome of this case cannot be explained without an accounting of these domestic political factors.

Because bargaining took place between close allies, information problems could be more easily overcome, making both sanctions and inducements more likely to succeed. In the early 1970s, when Park initiated the ROK nuclear program, there existed significant misperceptions within both Washington and Seoul about each other's preferences. Washington failed to fully grasp the degree to which changes to American policies in East Asia would raise security-related anxieties in Seoul. The Americans also failed to understand the degree to which domestic factors put additional pressure on Park to pursue both nuclear weapons and the closed nuclear fuel cycle. For their part, the South Koreans misunderstood both the strength of the US position on nuclear proliferation after the 1974 Indian nuclear test and the near-unanimous resolve in Washington to use whatever means necessary to stop not only explicit nuclear weapons activities but also any attempts to develop a reprocessing capability. Yet the thick channels of communication between the two states, and a history of established trust and cooperation, allowed them to overcome these misconceptions and bring state preferences and intentions more closely into alignment. By the

1980s, it had become clear to South Korean elites that nuclear weapons or even the fuel cycle could be pursued only at the cost of stability within the US-ROK alliance. After the Carter administration's failures over its withdrawal plans, the Americans understood that a continued American military presence in Korea was needed not simply to address power imbalances but to provide the necessary assurances in Seoul to keep the ROK from pursuing potentially destabilizing nuclear-related projects that jeopardized US interests. Most importantly, this was accomplished for the most part in secret, and was achieved without sending destabilizing signals to the North Koreans, the Chinese, or the Soviets, even during a time that was otherwise characterized by regional strategic setbacks and perhaps the lowest point in US-ROK relations since the Korean War.

Finally, even though this case was a success, it nonetheless demonstrates that successful counter-proliferation is very difficult to achieve. With South Korea's program, from the point of view of the issue-linkage theory presented here, the United States was presented with a relatively easy case. The ROK was a close ally, it was utterly dependent on the United States for its security in a very challenging strategic environment, and it was likewise economically dependent on the United States. Furthermore, the relationship was strikingly asymmetrical. The United States was the principal supplier of the very technologies and expertise that the South Koreans required to develop a nuclear weapons capability. The only other available suppliers were all close US allies, which shared formal and informal agreements with the Americans regarding the export of dual-use nuclear technologies. Finally, Seoul was party to several treaties, including a bilateral treaty on nuclear cooperation with the United States, that provided the Americans with legitimacy and additional leverage in their counter-proliferation efforts. Yet, in spite of the Americans' use of substantial threats and offers of inducements – including firm security assurances – the South Koreans did not fully abandon their nuclear weapons ambitions until more than a decade after the program was initiated. Significant pressure was required, and months of bargaining, before Seoul could even be coaxed into giving up a deal for a reprocessing facility with Paris. Even then, after the United States had threatened to withdraw its defense commitments, the Park regime did not fully abandon the program, and in fact renewed its veiled nuclear threats only a few years later when the Carter administration was contemplating further troop withdrawals. The nuclear program was not fully terminated until after Park's assassination. Even after that, the South engaged in dubious nuclear experiments that at a minimum suggest that there were elements in the country's nuclear establishment that continued to entertain ambitions of acquiring a closed nuclear cycle well into the 2000s.

Three points are worth mentioning here with respect to this difficulty. One is that however effective negative sanctions and positive inducements may be relative to one another, or relative to other methods of influencing state behavior, they are clearly very limited in absolute terms. Even in cases of large power asymmetries and rich sets of influence levers, it is very difficult – and sometimes not even possible – to successfully change another state's preferences sufficiently to produce the desired outcome.

Second, even when dealing with the closest of allies, reputation costs can still be large enough to create a serious obstacle to agreement. In this case, the Park regime had to worry about the perceptions of the Americans, the North Koreans, as well as domestic actors. The nature of the alliance with the US made coercive diplomacy much more effective in this case relative to the other two cases discussed in this dissertation, and reputation costs were relatively low as a result, however, they were sufficiently present to make the Americans' task challenging, even to produce short-term compliance.

Third, the nature of a nuclear weapons program in its earliest stages itself makes counter-proliferation efforts difficult. Nearly all of the relevant technologies and expertise in the early stages of nuclear weapons development are consistent with civilian nuclear energy production. Furthermore, the states with the greatest incentives to prevent the spread of nuclear weapons – especially the United States – are the same states that have the biggest incentives to promote civilian nuclear energy. This was even a greater factor in the South Korean case than it is in contemporary cases, as in that era the closed nuclear fuel cycle was viewed as a more legitimate route to energy self-sufficiency than it is today, and nuclear energy was viewed as a more profitable undertaking.

Finally, the question of whether or not a state has an active nuclear weapons program often hinges simply on intentions. Once a country has an advanced civilian nuclear energy program, a cadre of trained scientists and engineers, and wealth, it can, with few exceptions, develop nuclear weapons if it chooses to do so in a relatively short period of time, and if its resolve is sufficiently great, there is very little another state can do about it short of using enormous military force. Too many of the relevant technologies are dual use. Expertise, once acquired, cannot simply be given up, and intentions can be too easily masked. While it is certainly an easier task – but by no means easy – to compel or otherwise induce states into providing concrete, short-term concessions, over the longer term, nuclear counter-proliferation is extraordinarily difficult to achieve.

These observations are, in fact, at the heart of the arguments made in this dissertation. Ultimately, nonproliferation policy depends on shaping other states' preferences and their

intentions. Long-term compliance with the nonproliferation regime is very unlikely unless a state's preferences are in alignment with it. A global nonproliferation regime built on coercion is bound to fail. This is a principal reason why positive inducements are such an important tool in nonproliferation policies: they are generally more capable of bringing a state's long-term preferences and intentions into alignment with the nonproliferation regime than threats and coercion.

6. Libya

I. Introduction

This chapter examines the ultimately successful effort by the United States to convince Libya to give up its nuclear weapons program. The case provides an excellent testing ground for the theory: the United States employed a wide variety of tools in its counter-proliferation effort, including both sanctions and inducements; the United States and Libya were stalwart adversaries; and both sides were engaged in a stalemate for decades before a sea-change in long-standing policies took place, and Libya agreed in 2003 to give up a nuclear weapons program that it had consistently worked on for more than thirty years.

The case also differs from the other two presented in this dissertation in two key respects. First, the United States did not give priority to the nuclear issue until the very end of the bargaining relationship. Instead, the Americans were most concerned with Libya's support of terrorists and radical organizations, and were particularly focused, after 1988, on issues surrounding the bombing of Pan Am Flight 103 over Lockerbie, Scotland. Second, the security context was far more benign for Libya than it was for the two Koreas. Libya faced few serious regional security threats, and was relatively secure in its borders. In fact, its single greatest security threat was the United States itself, and this would not have been so had the Libyans not picked fights with the superpower. In fact, there is little reason to believe that the Gaddafi regime's pursuit of nuclear weapons was influenced by security considerations. If anything, the country's nuclear program – which never succeeded in coming close to providing an actual deterrent – actually made the state less secure by running the risk of a preventive attack.

Contrary to the common wisdom, negative sanctions were both ineffective with Libya, and unnecessary to achieve a successful counter-proliferation outcome. The Libyans decided to give up their nuclear weapons program in order to win the positive inducements offered by the United States for cooperation: rapprochement with the West, closer ties with the United States, and greater integration into the international economy. The Gaddafi regime was weakened by many years of economic decline and political isolation, however, this was much more the result of unwise economic and strategic policy choices, and the geopolitical shifts that resulted after the Cold War came to an end, than it was the outcome of US and UN sanctions.

The timing of Libya's external policies present the strongest evidence that sanctions were ineffective, and that inducements were successful. Libya consistently responded to US negative sanctions – both economic and military – with escalation. Libyan terrorist activity spiked after the Reagan administration's 1986 attack. Libya refused to yield to US and UN sanctions, and instead sought to escape their effects by shifting trade and investment patterns. Libya, in fact, never wavered in its position on the Lockerbie trial even after years of multilateral sanctions, and progress was not made on the issue until the US and the UK changed *their* positions, and accepted a third-country trial – something the Libyans had been pushing for all along.

As with all three of the historical cases examined, process tracing of the decision making that took place in Tripoli is greatly complicated by the unavailability of primary-source evidence. Gaddafi presided over a closed, authoritarian regime, and deliberations on sensitive issues such as the nuclear question were likely limited to a small circle of close advisers. Direct evidence of how the Libyans viewed their nuclear choices is therefore weak.

Much stronger is the evidence that US and UN economic sanctions had limited effects on the Libyan economy. Good data on Libya's trade and internal economic conditions is available and is presented in the case study. Likewise, a number of scholars have closely examined the effects of economic sanctions on Libya, and their findings are broadly in agreement with one another. While economic sanctions did have a negative effect on the Libyan economy, this was mild in comparison to the overall economic decline brought on by Gaddafi's own domestic economic policies. US and UN sanctions only worsened this decline on the margins, and it is unlikely that this marginal effect was necessary to bring about policy change on the nuclear question.

While the decision-making process in Tripoli cannot be observed directly, there is convincing evidence of factional competition within the regime between inward-looking hardliners and outward-looking reformers. Moreover, the vicissitudes of this political competition parallel the changes made to the country's foreign policies – including the nuclear issue – and its posture toward the United States. This evidence is indirect, but substantial.

Finally, the testimony of US diplomats and policy makers are used to illustrate that the Libyan decision to denuclearize was the outcome of a years-long US policy of engagement, and came as the final exchange in a series of sequential agreements. The timing of the Libyan decision belies the Bush administration's claim that Libya was cowed into surrendering its nuclear weapons program by the 2003 US invasion of Iraq. Libya began to seek out a compromise on the questions of its chemical and nuclear programs well before the invasion, rapprochement with the US had already been long underway, and the final decision to

denuclearize came after it was clear that the US invasion of Iraq was not going to be the easy victory that the Bush administration anticipated. Claims that sticks were effective in this case cannot be convincingly disproved until direct evidence is available about the deliberations that took place in Tripoli. However, the preponderance of the available evidence fails to substantiate such claims, and in fact contradicts them in important ways. The US offer of restored diplomatic ties and trade with Libya is a more convincing explanation for Libya's nuclear choices.

II. Case Summary

The coup that brought Colonel Muammar Gaddafi to power in Libya also brought about a major shift in the country's foreign policies. Gaddafi immediately began to orient Libya away from the US and its allies, with which the country had previously been strongly allied, and demanded a quick withdrawal of US and British military forces from the Libya's territory.⁵⁶⁹ The regime moved to increase its control over the country's oil sector, adopted a hardline bargaining stance with foreign (mostly American) oil companies, and by 1973 had begun nationalizing Western oil interests.⁵⁷⁰ Agricultural lands belonging to Italian settlers were expropriated. Pan-Arab unity, opposition to Israel, and challenging American and Western influence in the region quickly became core foreign policy goals of the state.⁵⁷¹

American policy toward the Gaddafi regime was at first remarkably restrained. During the Nixon administration, the US tipped off Gaddafi about plots to overthrow the regime, including one backed by Israel. The US also put pressure on Israel not to launch retaliatory strikes against Libya after intelligence linked Tripoli to the attack on Israeli athletes at the 1972 Munich Olympic Games.⁵⁷² The mild US approach stemmed not only from Libya's still relatively cautious behavior during the first years of Gaddafi's rule but also from the belief that

⁵⁶⁹ It is important to point out, however, that Gaddafi was simply following through on a controversial decision already made by the monarchy years earlier not to renew leases on US and British bases in the country, which were due to expire in the early 1970s. In the event, the US and UK evacuated military forces in 1970. St. John, 2002, pp.91-2.

⁵⁷⁰ The new regime's approach to the oil sector was actually relatively restrained between 1969 and 1973. Tripoli put increasing pressure on foreign oil interests during this period, however this continued a process that had begun under the monarchy, and reflected changes taking place across the region. By 1973, however, the Libyan government had begun to take a much more assertive approach, pursuing widespread nationalization and assuming a leadership role in moving OPEC toward an aggressive stance with the West. St. John, 2002, pp.93-4; Gurney, 1996; Vandewalle, 2006, pp.89-94.

⁵⁷¹ St. John, *Libya*, 2008, pp.134, 150-3; St. John, 2002, p.92; Vandewalle, 1995, p.26. Some excellent summaries of the political, economic, and foreign policy changes that took place in the wake of Gaddafi's seizure of power include Simons (1996, pp.209-20) and Joffe (2008). Joffe notes that Libya's policy reorientation was both highly ideological and highly personal, reflecting Gaddafi's own core beliefs.

⁵⁷² St. John, 2002, pp.105-6.

engagement was the best way to prevent the country from falling into the Soviet Union's orbit, and the hope that American access to Libyan oil fields would continue.⁵⁷³

Beginning in 1973, however, hostility between Libya and the United States became more evident. Of greatest concern to the US was Tripoli's involvement in the Arab-Israeli conflict and its support for international terrorism, anti-Western groups, and radicals and revolutionaries throughout the region. Libya provided material aid to Egypt during the 1973 Yom Kippur War and was a driving force behind OEAPEC's retaliatory oil embargo. More importantly for the United States, the Libyans staunchly opposed US-Egypt rapprochement and the Egyptian-Israeli peace process in the years after the war.⁵⁷⁴ At the same time, as the country became increasingly flush with petrodollars in the wake of the 1973 oil crisis, it began to support a wide variety of terrorist groups around the world, from Palestinian groups such as the Abu Nidal Organization to the Irish Republican Army and Japanese Red Army. Overall, Gaddafi significantly ramped up military spending over these years, and adopted increasingly adventurous and destabilizing foreign policies.⁵⁷⁵

At first, the United States sought to signal its displeasure with the regime through minor diplomatic sanctions. After the American ambassador to Libya resigned in 1972, Washington did not appoint a successor, and US representation to the country was downgraded to the level of a *chargé d'affaires*. The US also began to block weapons deals with Tripoli.⁵⁷⁶ Increasing hostility between the two sides, however, only pushed Libya into an alliance with the Soviet Union, which supported the Arab cause against US-allied Israel. The Soviets, seeking to increase their influence in such a strategically important region, were all too happy to put ideological differences aside and foster a relationship with Gaddafi. Tripoli signed its first arms deal with Moscow in 1974, and the Soviet premier led an official visit to the country in 1975. By the end of the 1970s, Libya had positioned itself as a Soviet ally.⁵⁷⁷

⁵⁷³ Vandewalle, 2006, p.131; Niblock, 2001, p.21.

⁵⁷⁴ Tanter, 1999, p.136; St. John, 2002, p.107; O'Sullivan, 2003, p.175.

⁵⁷⁵ Jentleson and Whytock, 2006, pp.56-7; Vandewalle, 2006, pp.130-5. A 1976 CIA study identified Libya as "one of the world's least inhibited practitioners of international terrorism," and linked the Gaddafi regime not only to Palestinian groups, the IRA, and the JRA, but also guerilla organizations in the Philippines, Somalia, Yemen, Chad, Morocco, Tunisia, Thailand, and Panama, among other countries. Central Intelligence Agency, 1976.

⁵⁷⁶ St. John, 2002, p.108.

⁵⁷⁷ The USSR and Gaddafi's Libya truly made for strange bedfellows, given Gaddafi's fervent anti-communist rhetoric and the importance of religion to his regime's legitimacy. Likewise, Libya was both an embarrassment and an unpredictable ally for the Soviets. However, the country's windfalls from oil sales meant Libya could pay much-needed hard cash for weapons, and the Soviets were still smarting from the loss of Egypt. At the same time, Gaddafi's policies had led to increased diplomatic isolation and created strategic insecurity, and Moscow, however ideologically unappealing, was a benefactor of last resort. Wright, 1981, pp.215-7. It should be noted, however, that economic ties between the United States and

As Gaddafi drifted further into Moscow's orbit, and increasingly adopted confrontational policies that challenged US interests, American patience with the regime began to wear thin. By the late 1970s, US-Libyan relations had become overtly hostile.⁵⁷⁸ Even as Libyan oil continued to flow into the United States, tensions between Washington and Tripoli became heated over US support of Egypt and the Middle East peace process. The United States increasingly blocked arms deals to Libya while vastly increasing the sale of arms to Egypt (the two countries had fought a brief border war in 1977). Gaddafi's opposition to Egyptian-Israeli peace was so strong that Tripoli plotted Anwar Sadat's assassination.⁵⁷⁹ Gaddafi also gave vocal support to the Iranian Revolution, and in December 1979 a mob stormed the US Embassy in Tripoli. Days later, the United States suspended diplomatic relations with Libya.⁵⁸⁰ The Carter administration banned arms sales to the country in 1978, and added Libya to the US's new list of state sponsors of terrorism at the end of 1979, which imposed further financial sanctions. Libya's diplomatic representatives were expelled from the United States after Reagan took office in 1981.⁵⁸¹

Gaddafi's pursuit of nuclear weapons dates from the very beginning of his rule.⁵⁸² His predecessor, King Idris, had signed (but did not ratify) the NPT in 1968, and had joined the IAEA in 1963. However, this did nothing to deter Gaddafi from pursuing any and all available routes to a nuclear bomb. Lacking any of the technological prerequisites for an indigenous nuclear program, Gaddafi first sought to purchase weapons outright. In 1970, the Libyans approached

Libya not only remained strong but actually increased during the 1970s, and the US became the largest importer of Libyan oil in 1977. St. John, 2002, p.109.

⁵⁷⁸ Cooley argues that a major turning point came in 1977, when the Carter administration learned of a Libyan plot to assassinate US diplomat Hermann Eilts. Eilts had played a key role in US negotiations with Egypt's Anwar Sadat and in the Camp David Accords. (Cooley, 1982, pp.80-3). St. John, however, disputes the significance of this event, and argues that US-Libyan relations had already become very hostile by this point. (St. John, 2002, p.110).

⁵⁷⁹ Cooley, 1982, pp.80-1, 117-24. The history of Egypt-Libya relations is a convoluted one, and any reference to it here is necessarily greatly simplified.

⁵⁸⁰ Oberdorfer and Smith, 1979.

⁵⁸¹ Vandelwalle, 2006. pp.132-3. Libya was one of the four charter members of the US State Department's list of state sponsors of terrorism, along with Iraq, Syria, and South Yemen. The State Department added Libya to the list December 29, 1979. Under the Arms Export Control Act of 1976 (Public Law 90-629) and the Export Administration Act of 1979 (Public Law 96-72), Libya's addition to this list restricted arms exports, many dual-use technologies and equipment, and financial assistance.

⁵⁸² Solingen, 2007, p.215; Corera, 2006, p.108; Bahgat, 2007, p.129. This section provides a detailed overview of the Libyan nuclear program, but it is not intended to be an exhaustive account of Libya's nuclear activities. The single most comprehensive account of the program I have encountered is Wyn Q. Bowen's IISS Adelphi Paper on the subject (Bowen, 2006).

China about the purchase of nuclear weapons, but were rebuffed.⁵⁸³ Tripoli also sought to purchase nuclear weapons or facilities from both India and Pakistan, all without success.⁵⁸⁴

Failing to find a supplier of off-the-shelf weapons or facilities, Libya instead turned to efforts to develop an indigenous nuclear capability. The Atomic Energy Establishment (AEE) was created in 1973 and charged with the development of an ostensibly civilian nuclear infrastructure.⁵⁸⁵ Libya's Arab Development Institute (ADI) was tasked with recruiting scientists and engineers from abroad, and brought in technical workers from many Arab countries. Tripoli also used its vast oil wealth to buy equipment and assistance from a number of foreign suppliers. Nuclear cooperation with Pakistan began in the mid-1970s, and Libya became a major funder of Pakistan's own nascent nuclear weapons program in the hopes that they could share in the spoils. Yet Libya's investment in the Pakistani program, running into the hundreds of millions of dollars, bought little more than some training for Libyan scientists. Moreover, once President Bhutto was overthrown by Zia al-Haq, the relationship was severed.⁵⁸⁶

Libya also sought to purchase nuclear technology and assistance from a wide variety of states, including equipment that could be used for both uranium and plutonium routes to bomb production. Tripoli succeeded in importing uranium ore from Nigeria and Niger (some of it to be passed on to the Pakistanis). Also, Libya invaded and occupied the Aouzou Strip in neighboring Chad, a country that also possessed significant uranium reserves.⁵⁸⁷ Tripoli sought uranium enrichment technology from the French and Germans, but these attempts were unsuccessful. The Belgian firm Belgonucleaire had originally agreed to provide Libya with a uranium conversion facility, but was forced to renege once US opposition and Libya's aggressive policies became clear. In 1984, the Libyans also succeeded in acquiring a pilot-scale modular uranium conversion plant from an unknown country (possibly Japan). Another country (possibly the Soviets or the Chinese) exported uranium hexafluoride (UF₆) to Libya during this time.⁵⁸⁸ Gaddafi even tried to

⁵⁸³ *Ibid.*, p.26; James Martin Nonproliferation Studies report prepared for the Nuclear Threat Initiative, "Libya Profile: Nuclear Overview," 2007. www.nti.org/e_research/profiles/Libya/Nuclear/index.html. Web. Also see Cooley, 1982, p.230.

⁵⁸⁴ Cirincione *et al.*, 2005, p321.

⁵⁸⁵ IAEA, 2008, p.3. The institutional structure of Libya's nuclear program changed repeatedly over its history. Libya's Secretariat of Atomic Energy was historically the most important.

⁵⁸⁶ Bowen, 2006, pp.30-1; Cooley, 1982, 231-2; Spector and Smith, 1990, pp.175-6; Cordesman, 1991, pp.151-2.

⁵⁸⁷ According to Cirincione *et al.*, "[b]etween 1978 and 1991, Libya imported a total of 2,263 metric tons of yellowcake (most of which was not declared to the IAEA). The total amount of uranium exported by Libya was 1,587 metric tons contained in 6,367 drums." Cirincione *et al.*, 2005, p.322. While the Aouzou Strip did contain significant uranium reserves, and this did likely fit into Gaddafi's calculations in seizing the territory, it was also contested territory for a number of other reasons, and Libya claimed it even before Gaddafi came to power.

⁵⁸⁸ Bowen, 2006, p.33; Solingen, 2007, p.213; Jahn, March 12, 2004.

purchase a nuclear reactor from an American supplier, but the deal was killed by the Nixon administration.⁵⁸⁹ In the end, these efforts, too, failed to provide Libya with any of the necessary elements of a successful nuclear program.

The most significant nuclear assistance to Libya in the 1970s and 1980s came from the Soviet Union. Libyan-Soviet nuclear cooperation began in 1975, when the two signed a nuclear trade pact, and the USSR promised Tripoli a nuclear research facility, including a small research reactor. The Soviets pressured Gaddafi at this time to ratify the NPT as a condition for the USSR's assistance, and Libya did so in 1975.⁵⁹⁰ The Soviet-built 10MWt IRT-1 research reactor (the Tajura Research Reactor, or TRR) was completed as part of the Tajura Nuclear Research Complex (TNRC) in 1979 and placed under IAEA safeguards just over a year later.⁵⁹¹ The TRR was a light water reactor that ran on Soviet-supplied highly enriched uranium fuel (HEU) that had been enriched to 80% U235. Once safeguards were about to begin, the Soviets shipped the reactor's first supply of HEU fuel. The reactor could not produce plutonium on a scale needed to produce weapons. However, Soviet nuclear cooperation did provide important experience and knowledge to Libyan nuclear scientists and engineers, and the Tajura reactor was, in fact, used in the 1980s and 1990s for laboratory-scale plutonium production.⁵⁹²

In spite of Gaddafi's efforts to build a nuclear bomb, the United States's primary concern was the regime's support of terrorism and its ties to the Soviet Union. After Ronald Reagan took office in 1981, his administration adopted a far more coercive strategy toward Libya than the United States had followed up until that point. A variety of diplomatic, military, and economic sanctions were employed in an attempt to destabilize the regime or even remove Gaddafi from power, or at a minimum to apply enough pressure to convince Gaddafi to abandon his support of terrorist organizations and radical groups.⁵⁹³ The US instituted an embargo on Libyan oil in

⁵⁸⁹ Cooley, 1982, pp.230-1. Libya nuclear scientists continued to be trained in the United States until the early 1980s. Spector and Smith, 1990, p.177.

⁵⁹⁰ Bowen, 2006, p.18.

⁵⁹¹ The TNRC, just outside of Tripoli, became the center of the Libyan nuclear program. Aside from the 10MWt research reactor, it also came to include a hot cells facility, critical assembly, neutron generator, and a TM4-A Tokamak. For a fuller description of the TNRC's facilities, see Feldman and Mahaffey, 2010.

⁵⁹² James Martin Nonproliferation Studies report prepared for the Nuclear Threat Initiative, "Libya Profile: Nuclear Overview," 2007. www.nti.org/e_research/profiles/Libya/Nuclear/index.html. Web. In the 1980s, Libya irradiated a number of uranium targets in the reactor and succeeded in separating a small amount of plutonium in hot cells. This would have been insufficient to produce a bomb but would have been valuable experience for scientists who planned to develop a weapons program in the future. Both Moscow and Paris had also agreed to provide much larger reactors, but both deals later fell through. It is also important to note that Libya did secure low-level nuclear cooperation from Argentina, and sent Libyan students to study nuclear physics and engineering in a number of other countries throughout this period. Boureston and Feldman, 2004, p.89; Bowen, 2006, p.32.

⁵⁹³ Vandewalle, 2006, pp.133-4.

1982, enacted a ban on refined petroleum products, and barred all Export-Import Bank financing in 1985. The Reagan administration finally banned all US trade, travel, and commercial contacts with Libya in 1986. Also in 1986, the US conducted air strikes against Libya in retaliation for the bombing of a West Berlin discotheque frequented by US military personnel. The air strikes killed Gaddafi's daughter and wounded two of Gaddafi's sons. Coercive measures, however, did not succeed in cowing Gaddafi, and at least in the short term, brought about an escalation of hostilities. Libya's support of global terrorism, particularly against US-related targets, actually escalated in the years following the air strikes, culminating in the Pan Am flight 103 bombing in 1988, which killed 259 passengers, including 189 US citizens, and the UTA 772 bombing in 1989.⁵⁹⁴

Libya's pursuit of a nuclear capability was greatly hampered in the late 1980s, however, this was not so much a direct result of US coercive measures, or any lack of resolve on the part of the regime, as it was a result of growing financial difficulties and an increased unwillingness among nuclear suppliers to give the regime assistance. Mikhail Gorbachev's rise to power in the Soviet Union and the resulting changes to Soviet foreign policies cut off an especially important source of nuclear technology and expertise.⁵⁹⁵ Of greatest significance, however, were the low oil prices that prevailed during this period, which severely hampered Tripoli's ability to finance major nuclear purchases.⁵⁹⁶

In fact, it may be more accurate to say that Libya did not so much reduce its nuclear efforts as refocus them. Rather than pursue large purchases of additional major facilities and reactors, Tripoli increasingly focused its efforts on plutonium-related experiments using the existing facilities at Tajura, and on an uranium enrichment route to a bomb using high-speed

⁵⁹⁴ The Reagan administration claimed that the 1986 bombing of Libya succeeded in deterring further Libyan terrorism. However, the Department of Defense's own Defense Science Board concluded in 1997 that despite "the popular belief for years...that [the 1986] US attack suppressed Libyan activity in support of terrorism...an examination of events in subsequent years paints a different picture. Instead, Libya continued, through transnational actors, to wage a revenge campaign over a number of years..." Defense Science Board, 1997, p.15. Also see St. John, 2004, p.387; and Jentleson and Whytock, 2006, p.59.

⁵⁹⁵ Bowen, 2006, pp.31-6. The USSR provided civilian nuclear cooperation, including HEU fuel for the TRR, Soviet specialists to work at TNRC, and training for Libyan scientists within the Soviet Union, throughout the decade. However, major nuclear deals with Moscow, such as one for the construction of a 440MWe reactor that could produce plutonium, were canceled in the middle of the decade. Tripoli may also have had a deal in the early 1980s with Moscow for a uranium conversion facility. This never came to fruition.

⁵⁹⁶ Three factors came together at this time to bring about a downturn in Libya's economic fortunes: low world oil prices, unsound economic policies by the Gaddafi regime, and an increasing lack of modernization in Libya's oil infrastructure. Vandewalle notes that "the direct impact of the United States' unilateral sanctions between 1986 and 1992 was relatively small," and that shortfalls from the US oil embargo were largely offset by increased sales to Europe (Vandewalle, 2008, pp.39-41). O'Sullivan comes to the same conclusion (O'Sullivan, 2003, pp.186-188). See also Reed and Stillman, 2009, pp.271-2; Takeyh, 2001, p.65; and Vandewalle, 2006, pp.158-166.

centrifuges. During the late 1980s, Libyan scientists isolated small amounts of plutonium from fuel irradiated with the TRR.⁵⁹⁷ Small-scale uranium conversion experiments also took place during this period.⁵⁹⁸ At this same time, Libyan scientists, under the direction of a German engineer and using German centrifuge designs, unsuccessfully tried to develop a uranium enrichment capability.⁵⁹⁹

International outrage over the 1988 Pan Am bombing over Lockerbie, Scotland, and Tripoli's refusal to turn over the perpetrators for trial, led to a successful US effort to organize broad multilateral sanctions against Libya in 1992 and 1993. The sanctions banned arms sales to Libya and the sale of some oil-related technology and equipment, however the United States was unable to achieve a full trade embargo against the country. Additionally, in 1996 the US Congress passed the Iran and Libya Sanctions Act (ILSA), a highly contentious law that provided for US sanctions against foreign companies that traded with Iran and Libya.

Multilateral sanctions had a stronger effect on the Libyan economy than US unilateral sanctions or ILSA, however, even these were only on the margins. UN sanctions had a more positive effect than US sanctions, but also only intensified the negative economic effects of low oil prices, an uncertain investment climate in Libya, aging infrastructure in the Libyan oil sector, and a badly mismanaged domestic economy. More than anything else, by the end of the 1990s, after Tripoli had already begun to seek rapprochement with the West, the sanctions foreclosed the economic opportunities that such closer ties would offer, and therefore provided the United States with additional bargaining leverage in negotiations.⁶⁰⁰

Libya's deteriorating economic situation and diplomatic isolation led to both domestic unrest and the rise of a technocratic and reformist bloc of elites, who by the late 1990s would become the dominant faction in the regime. Even in the beginning of the decade, however, domestic change had progressed far enough that Gaddafi could begin to reach out to the United States.⁶⁰¹ Importantly, these efforts had begun before UN sanctions were even passed. Hoping that the George H.W. Bush administration would be willing to bargain with them, in 1991 Gaddafi had expressed his willingness to deal with the Americans, but the US did not respond.⁶⁰² Later, Libyan overtures through back channels were rebuffed. Interestingly, the Libyans signaled both that they were prepared to deal over the country's WMD programs and that they were

⁵⁹⁷ IAEA, 2004, p.6.

⁵⁹⁸ *Ibid.*, p.5; Bowen, 2006, pp.34-5.

⁵⁹⁹ *Ibid.*, pp.35-6; Levy and Scott-Clark, 2007, pp.361-2.

⁶⁰⁰ Vandewalle, 2008, pp.42-4; O'Sullivan, 2003, pp.195-202. The effects of the various sanctions used against Libya are covered in detail in later sections of this chapter.

⁶⁰¹ Dashti-Gibson and Conroy, 2000, p.112; Hedges, April 20, 1995; Solingen, 2007, pp.222-3.

⁶⁰² St. John, 2003, p.464; St. John, 2002, pp.154-5.

willing to discuss a trial for the Lockerbie suspects if it took place under a third party's jurisdiction.⁶⁰³ The US, however, was unwilling to negotiate, even though they would eventually agree to terms very similar to what the Libyans were offering six years later.

In the 1990s, Libya greatly intensified its nuclear activities, especially as new opportunities to obtain nuclear technology and assistance appeared through the A.Q. Khan international network, which operated out of Pakistan. In this case, orders were placed with the Pakistanis, and then – using an intricate global network of suppliers, manufacturers, and middlemen – parts, equipment, and designs would be shipped to Libya. Most deliveries would be shipped through the United Arab Emirates or Malaysia, where the scrutiny of commercial shipping was weakest.⁶⁰⁴

Contact with the Khan network was initiated by Libyan intelligence in 1995, and in 1997 the first shipments of equipment arrived.⁶⁰⁵ This time Libya's efforts focused on uranium enrichment with gas centrifuges. HEU production with centrifuges allowed for easier concealment and dispersal of nuclear facilities, and the Libyans were more careful to hide their efforts in the less permissive climate of the late 1990s and early 2000s. The Khan network also provided blueprints for a weapon.⁶⁰⁶ By 2003, the Libyans had a 9-centrifuge P-1 cascade under vacuum, and parts for 10,000 P-2 centrifuges already arriving.⁶⁰⁷ Even with these acquisitions, the Libyans were nowhere near the achievement of an actual weapon. However, they had made far more progress between 1997-2003 than they had over the previous 28 years under Gaddafi's rule.⁶⁰⁸

Even as the Libyans' efforts to acquire a nuclear capability increased, Gaddafi continued to push for engagement with the West.⁶⁰⁹ These policy changes were reflected in the rise of prominent technocrats and moderates within the regime. Gaddafi began to exhibit a newfound moderation in both rhetoric and deed, as Libya embarked on a radical change of course in its

⁶⁰³ St. John, 2004, p.388; Hart, January 18, 2004, p.B5; Slavin, April 27, 2004. The Libyans reached out to both former Senator Gary Hart and former Secretary of State William P. Rogers. Both traveled to Tripoli. Both received clear signals from Gaddafi that the Libyan dictator was willing to deal with the Americans over Lockerbie and WMD. The Bush administration declined to entertain the offers.

⁶⁰⁴ Bowen, 2006, pp.37-8.

⁶⁰⁵ Corera, 2006, pp.108-9; IAEA, 2008, p.5. Ties between Libya and A.Q. Khan date back to 1984. The reestablishment of ties in 1995, however, was what led to the first delivery of nuclear equipment. For a detailed account of the A.Q. Khan network, including its dealings with Libya, see Levy and Scott-Clark, 2007.

⁶⁰⁶ IAEA, 2008, p.6.

⁶⁰⁷ James Martin Nonproliferation Studies report prepared for the Nuclear Threat Initiative, "Libya Profile: Nuclear Overview," 2007. www.nti.org/e_research/profiles/Libya/Nuclear/index.html. Web. Also Jentleson and Whytock, 2006, pp.67-8.

⁶⁰⁸ Bowen, 2006, pp.39-43. P-1 and P-2 are the centrifuge designs used by the Pakistanis themselves to enrich uranium, with the P-2 being the more advanced model.

⁶⁰⁹ Joffe, 2004, pp.222-3; St. John, 2004, p387; Vandewalle, 2006, pp.139-44; Takeyh, 2001, p.66.

approach to terrorism, severing support and ties to many terrorist organizations and expelling organization such as the Abu Nidal Organization from its territory.⁶¹⁰ Also, Libya softened its approach to its neighbors, moving away from pan-Arab unity and toward a more constructive, Africa-focused policy.⁶¹¹

At the same time, however, the multilateral sanctions regime was weakening. A number of African leaders, including the highly influential Nelson Mandela, were calling for a lifting of the sanctions. More and more cracks in enforcement began to appear as well, as African leaders threatened to defy the air travel ban against Libya, the International Court of Justice agreed to hear a case brought by Libya over the Lockerbie demands, and the Europeans bristled over ILSA.⁶¹² Facing these pressures, as well as domestic pressure from US oil and agricultural interests to lift sanctions, the Clinton administration decided to concede to Tripoli's demand for the trial to take place at the Hague rather than in Scotland.⁶¹³

Clinton's agreement to a third-country trial (the Netherlands would be the host to a trial conducted under Scottish law), and further guarantees that the trial would not be used to undermine the legitimacy of the regime, led Gaddafi to turn over the Lockerbie suspects. UN sanctions were subsequently suspended (but not permanently lifted). The Lockerbie settlement also created a unique opportunity for dialogue between the United States and Libya. Along with British diplomats, American and Libyan representatives met face to face for the first time in 18 years in July 1999. This would be the beginning of a series of communications between the two sides, mostly in secret, that would eventually lead to Libya handing over its nuclear program in 2003.⁶¹⁴

The opening US bargaining position in the resulting negotiations was that the Libyans would have to publicly take responsibility for Lockerbie, pay reparations to the victims' families, and verifiably renounce terrorism, before the US would support the permanent lifting of UN sanctions. US sanctions would remain in place until the Libyans could satisfy concerns about WMD, especially its chemical weapons program.⁶¹⁵ The Clinton administration also engaged in several confidence-building gestures, signaling its willingness to change course on its Libya policy. Aside from the most significant signal, the willingness to compromise on the Lockerbie trial, the Americans declined to oppose Libyan participation in a UN peacekeeping mission in the

⁶¹⁰ Neumann, *Middle East Policy*, 2000, p.143; Bowen, 2006, pp.56-7.

⁶¹¹ Entelis, 2008, pp.184-6; Vandewalle, 2008, pp.216-21; Solingen, 2007, pp.222-4.

⁶¹² Senate Hearing No.106-740, 2000, p.4; O'Sullivan, 2003, p.184; St. John, 2002, p.175; Jentleson and Whytock, 2006,p.69.

⁶¹³ St. John, 2002, p.176; Joffe, 2004, p.224; St. John, 2004, p.390; Lippman, 1998.

⁶¹⁴ St. John, 2004, p.391.

⁶¹⁵ *Ibid.*; Jentleson and Whytock, 2006, p.71.

Democratic Republic of the Congo, and sent State Department consular officials to Libya to assess travel safety, opening the door for a partial lifting of the travel ban.⁶¹⁶ The administration did stand firm, however, on its insistence that the WMD issue be addressed before they could support any permanent lifting of US sanctions.⁶¹⁷

The Libyans, for their part, responded favorably. Musa Kusa, the Libyan intelligence chief and Gaddafi's representative at the talks with the Americans, expressed Tripoli's willingness to open the country to inspections and to sign the Chemical Weapons Convention (CWC). Additionally, the Libyans were willing to cooperate with the Americans on efforts against al Qaeda, a mutual enemy. Clinton, however, did not strongly pursue the WMD issue at this time, as Lockerbie was still first priority.⁶¹⁸

The George W. Bush administration, which took over in January 2001, was initially reluctant to continue talks with the Libyans. This changed, however, after the September 11th attacks. The administration decided to reach out to Libya as a potential ally in the War on Terror, as Gaddafi's long-standing feud with al Qaeda and his expressions of willingness to work together with the Americans against the terrorist organization immediately after the attacks presented the US with a strong incentive to cooperate.⁶¹⁹ Additionally, the Bush administration received a further incentive to deal with the Libyans after Tripoli informed them that its practice of setting aside oil concessions for US companies – something Libya had done since sanctions first went into place – would end, and that concessions would instead be given to European oil companies.⁶²⁰

US and British intelligence on the A.Q. Khan network in general, and its dealings with Libya in particular, began to slowly coalesce over the early 2000s. By 2003, the US intelligence community had concluded that the Libyans could have a bomb in 4 years.⁶²¹ According to the UK's Joint Intelligence Committee (JIC), intelligence on Libya's ties to the A.Q. Khan network

⁶¹⁶ St. John, 2002, p.183

⁶¹⁷ At this time, the US's WMD concerns focused on Libya's chemical weapons program, as good intelligence on Libya's recent nuclear efforts were not available until 2000 at the earliest. Additionally, the Clinton administration gave priority to the Lockerbie issue over WMD concerns. Bowen, 2006, p.60.

⁶¹⁸ St. John, 2004, p.392.

⁶¹⁹ Joffe, 2004, p.223; St. John, 2004, pp.393-4; Suskind, "The Tyrant Who Came In from the Cold," October 1, 2006; and Suskind, *The One Percent Doctrine*, 2006, pp.258-71.

⁶²⁰ Bowen, 2006, p.67.

⁶²¹ While the shortened timeline to a Libyan bomb reflected better intelligence on the Khan deals, it was nonetheless overly pessimistic. The problem stemmed not from the intelligence community's understanding of Libya's access to technology and equipment, but from its estimate of how capable the Libyans were of capitalizing on these acquisitions and using them to actually build a bomb. The Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction, 2005, p.253.

began to arrive in April 2000, and the US and Britain understood the extent of Libya's dealings with Khan by July 2002.⁶²²

Libya offered reparations for the Lockerbie families in May 2002, leaving a public admission of responsibility as the sole remaining stumbling block to the permanent lifting of UN sanctions.⁶²³ The following year, the Libyans resolved this last remaining issue by sending a letter to the UN Security Council acknowledging their responsibility in the attacks, leading to a vote to permanently lift the sanctions in September 2003.⁶²⁴ The United States could finally turn its focus to the issue of WMD.

It was the Libyans who initiated direct talks over the WMD issue, working through back-channels with British intelligence, in March 2003. Saif al-Islam Gaddafi, Muammar Gaddafi's son, was directly involved in these efforts.⁶²⁵ New talks began during the opening weeks of the Iraq War. The Libyans once again expressed their desire to trade their nuclear and chemical weapons programs in return for the lifting of the remaining sanctions and the normalization of relations with the United States.⁶²⁶ However, the Libyans continued to hide the extent of their nuclear operations. Through the course of these negotiations, the Americans and British selectively revealed some of their intelligence to the Libyans to put pressure on the Libyans to be more forthcoming.⁶²⁷

In September 2003, American and British intelligence officers met in Tripoli with Libyan officials to discuss inspections.⁶²⁸ Then in October 2003, the United States intercepted the *BBC China*, a German ship carrying a cargo of centrifuge parts from Dubai to Libya. The seized centrifuge components had been manufactured by members of the A.Q. Khan network in Malaysia. Mystery still surrounds the interdiction. Inspections in Libya took place immediately afterward. It is unclear whether the US and Britain were acting on their own in seizing the

⁶²² Without providing details of the intelligence, the JIC notes that the British intelligence community had become "particularly concerned" with Libya's nuclear progress by January 2003. Joint Intelligence Committee (JIC), 2004, p.18.

⁶²³ The proposed settlement was cleverly crafted to influence US domestic politics in Libya's favor. Under its terms, the Lockerbie families would receive roughly \$4 million each after the lifting of UN sanctions, another \$4 million upon removal of US sanctions, and a final \$2 million once Libya was removed from the US's list of state sponsors of terrorism. The structure of payments was designed to provide incentives for US domestic actors, particularly the Lockerbie families and their legal representatives, to at least refrain from opposing, if not actually to support, further steps toward the normalization of US-Libyan relations. Koppel and Labott, May 28, 2002; Alterman, 2008, p.243.

⁶²⁴ The United States acquiesced to the lifting of sanctions by abstaining.

⁶²⁵ Frantz and Meyer, 2005; Evans, 2004. Saif Gaddafi initiated contact with MI6 only days before the US and UK invaded Iraq in March 2003. At the time, Gaddafi was a student at the London School of Economics.

⁶²⁶ Jentleson and Whytock, 2006, p.74.

⁶²⁷ Bowen, 2006, pp.65-6.

⁶²⁸ Prados, 2005; St. John, 2004.

shipment, had been tipped off by the Libyans, or had sought Libyan concurrence beforehand.⁶²⁹ In any case, the seizure served the purpose of making clear to Tripoli the depth of US and British intelligence on Libya's dealings with the Khan organization.

After the interdiction, negotiations became more intense. In December 2003, CIA and MI6 experts were allowed to carry out a detailed survey of Libyan nuclear facilities.⁶³⁰ Finally, a deal was hashed out on December 16, 2003 in London with the Libyans: Tripoli would make a public announcement that it was giving up its nuclear weapons program. This announcement was made on Libyan television three days later by the country's foreign minister, followed by brief comments from Gaddafi himself.⁶³¹ For its part of the bargain, the United States agreed to lift its sanctions against Libya and move toward normalizing relations with the country. Of greatest significance was the implicit acceptance of the Gaddafi regime that the agreement entailed.⁶³² While the agreement did not resolve all outstanding issues between the two sides, it did lead the Libyans to give up a nuclear program in which it had invested billions of dollars, and handed the United States an enormous counter-proliferation success with a long-standing adversary.

III. Negative Sanctions Were Ineffective

Between 1973, when the United States decided not to appoint a new ambassador to Tripoli, and 2003, when Libya announced it would give up its nuclear weapons program, the US used a wide array of negative sanctions against Libya, including the severing of diplomatic ties, economic sanctions and embargoes, the organization of broad multilateral sanctions through the UN, and even military force. This section describes these sanctions, their effects on the Libyan economy and domestic politics, and ultimately Libya's international behavior. I divide the sanction episodes according to three time periods: diplomatic sanctions and arms embargoes in the era before Reagan took office, the Reagan administration's more coercive policies and use of military force, and the period of UN economic sanctions in the 1990s.

The Libyan case affirms hypothesis (H1):

(H1.a) Negative sanctions are effective with allies, but are very unlikely to be effective with adversaries.

⁶²⁹ There are a number of aspects to this story that indicate there is more to it than has been officially reported. See Reed and Stillman, 2009, pp.273-4; Solingen, 2007, p.214; and Traynor, January 17, 2004.

⁶³⁰ Suskind, "The Tyrant Who Came In from the Cold," October 1, 2006.

⁶³¹ Frantz and Meyer, 2005.

⁶³² Jentleson and Whytock, 2006, p.77.

(H1.b) Even when effective in the short term, negative sanctions are unlikely to produce long-term compliance.

(H1.b) Negative sanctions are likely to be counterproductive with adversaries, and lead to escalation and an aggressive spiral.

Three decades of American sanctions, threats, and coercive efforts yielded few positive results with Libya's behavior. In fact, US coercion in the 1970s and particularly in the 1980s was counterproductive and simply fueled Libyan aggression. Libya reacted to American coercive measures as the theory predicts. Negative sanctions were generally read as extortion attempts. Instead of persuading Tripoli to make concessions, they pushed the Gaddafi regime to take measures to reduce the country's vulnerability to American influence, and to push back against the Americans aggressively in order to avoid reputation costs and future extortion.

An important exception to this pattern, however, was the UN multilateral sanctions regime that was implemented through most of the 1990s. While the sanctions package had only marginal economic effects, and by itself failed to bring about Libyan compliance, they helped to set the stage for negotiation and ultimately agreement between the Tripoli and Washington. They also provided the US with an important lever of influence in the bargaining process. UN sanctions were able to play this role, without instigating a counterproductive backlash, because of their multilateral nature. Global compliance with the sanctions regime, if not universal support, lowered the reputation costs of compliance, and allowed Gaddafi to portray concessions as cooperation with the international community as a whole rather than capitulation to an adversary.

A. Diplomatic Sanctions and Arms Embargoes: 1973-1980

US sanctions on Libya in the 1970s were ineffective, undermined US policy goals, and contributed to escalating hostilities between the two sides. By the end of the decade, the United States and Libya had become principal enemies of one another, and US policies helped to drive Tripoli into an alliance with the Soviet Union.

The United States began to employ negative sanctions in 1973, after a four-year period of restraint, as Washington took stock of the foreign policy ramifications of the Gaddafi-led coup. After the purely symbolic gesture of downgrading diplomatic ties by not appointing a new ambassador to Tripoli, the United States shifted to limited arms embargoes, beginning under the

Ford administration and intensifying under Carter. Eventually, in 1978, the Carter administration instituted a ban on military sales to Libya.⁶³³

From the American point of view, these arms embargoes were not extortionate but rather a form of explanation. Blocking, and finally banning, arms sales was a natural response to Libya's more adventurous and aggressive foreign policies, which challenged US interests in the region. The move was aimed primarily at reducing (or preventing an increase in) Libyan military capabilities by restricting the supply of sophisticated weaponry from the United States. Coercive goals were secondary. In particular, the US was reluctant to take a stronger stance at this time, particularly military action or any steps to reduce oil imports.⁶³⁴

The view from Tripoli, however, was different. Gaddafi saw the United States's regional role in general as threatening, and American support for Israel and especially aid to Egypt as a direct affront. Although Gaddafi at first held out hope for a more favorable US approach to Libya after Carter first took office, the continued US arms embargoes – most gallingly for Gaddafi, the continued refusal to deliver C-130 aircraft that had already been paid for years before – disabused him of any optimism. At the same time, the United States went ahead with arms sales to Egypt, after Egypt and Libya had engaged in a four-day border clash in 1977.⁶³⁵ To the Libyans, American behavior was coercive, and extortionate.

Tripoli responded to this perceived extortion principally by seeking to minimize its vulnerability. To reduce its sensitivity to American sanctions, Libya was able to turn to the Soviet Union for weapons imports, nuclear assistance, and diplomatic support. While Gaddafi was never successful in getting strong security guarantees from the Soviets, he did receive billions of dollars worth of advanced armaments, hosted thousands of Soviet military advisers, and even received material support during the brief war with Egypt in 1977 (the Soviets did not, however, play a direct combat role). The Soviets also provided Libya with nuclear training, expertise, and the country's nuclear research facility and reactor. The Soviet-Libyan alliance also complicated Washington's foreign policies in the region, as Tripoli became one of Moscow's most robust clients.⁶³⁶

⁶³³ Vandewalle, 2006, pp.132-3; St. John, "The Libyan Economy in Transition," 2008, p.145. Also see fn.568.

⁶³⁴ Smith, 1979. In 1979, 40% of Libyan oil exports were still going to the United States.

⁶³⁵ Lippman, August 11, 1978; St. John, 2002, p.110; Cody, February 22, 1980.

⁶³⁶ By the late 1970s Libya was perhaps the USSR's most important client in the region, and was seen as a balance against the growing relationship between the United States and Sadat's Egypt. In some respects, however, the closeness of the relationship was more rhetorical than real. The two countries shared support for the Palestinian cause and animosity toward US-backed Egypt, but at a finer level, the interests of the two diverged. Libya opposed any peace settlement with Israel and backed Palestinian rejectionists, while Moscow sought to play a strong role in any peace process. Moscow was also unwilling to back the Libyans

Libya also moved to avoid reputation costs and any appearance of giving in to extortion by escalating hostilities. International reputation, particularly with the United States itself but also with other regional actors, was an important concern here. Gaddafi also had to be more concerned about reputation costs domestically, as the regime had based much of its legitimacy on its opposition to Western imperialism and support for the Palestinian cause. This was made even more acute by the fact that the United States had never explicitly framed its coercive measures in terms of issue linkage, and specific concessions were never demanded. Instead, the embargoes were aimed across a broad spectrum of fundamental disputes between the two countries. The US and Libya were on opposite sides of major regional issues, particularly the Arab-Israeli conflict and US support for Egypt. Additionally, the United States had grievances with the country's basic military and foreign policy postures across the board. Any appearance of yielding on such a broad set of core policy issues would be ruinous for the regime, particularly when foreign (and especially American) imperialism was a key issue in both the regime's rhetoric, among the population at large, and across the region.

As a result, Libya's anti-Western and anti-Israel policies, its support of terrorist organizations, and its pursuit of nuclear weapons continued apace. In fact, especially after the introduction of the 1978 total arms embargo, the US-Libya relationship can best be categorized as an aggressive spiral. After a mob sacked the US embassy in Tripoli, the United States instituted more sweeping economic sanctions against Libya by adding the country to the list of state sponsors of terrorism, and enacted diplomatic sanctions by permanently closing its embassy.⁶³⁷ Gaddafi, in turn, expanded his support of terrorist and guerilla organizations to include groups in Latin America, challenging the United States in its own backyard.⁶³⁸ In 1980, Libyan proxies

in any endeavor that was destabilizing or that could invite strong retaliation from the United States; certainly, the Soviets wanted to avoid direct conflict in the Middle East at all costs. Gaddafi was also a loose cannon that the USSR found difficult to restrain, and his unpredictability and support for international terrorism were liabilities. For example, Moscow was outraged by the Libyan-backed Abu Nidal Organization's Vienna and Rome airport bombings. Also, while Gaddafi sought to strengthen ties to Moscow after the US bombing of Libya in 1986 (Gaddafi ludicrously offered – and not for the first time – to join the Warsaw Pact), the Soviets distanced themselves. In the end, the strongest link between the two countries was arms purchases. Libya used its vast supply of petrodollars to pay cash on the barrelhead for Soviet armaments, providing Gaddafi with more weaponry than his military could even use, and giving Moscow badly needed hard currency. Once Tripoli's cash flow dried up after world oil prices dropped in the 1980s, the Soviets became less willing to make arms deals with the country. For a good summary of the Libya-USSR relationship, see Ronen, 2008, pp.81-104. See also St. John, *Libya*, 2008, pp.179-82, for a description of the simultaneous increase in US hostility and strengthening of ties between Libya and the USSR.

⁶³⁷ The US suspended its diplomatic representation in Libya in December 1979 after a crowd of 2,000 stormed the US embassy in response to the Carter administration's decision to allow the Iranian shah into the United States. The Libyan government instigated the attack. Oberdorfer and Smith, December 6, 1979.

⁶³⁸ St. John, 2002, p.122.

raided a Tunisian border town, provoking military threats from France. Later that year, Libyan warplanes began to challenge American military forces in the Mediterranean. Days before the 1980 US presidential election, Gaddafi openly threatened war.⁶³⁹ Also, in 1980, Libya mounted a full-scale invasion of neighboring Chad, in an attempt to seize the uranium-rich Aouzou Strip. At the same time, Libyan nuclear cooperation with the Soviets deepened.⁶⁴⁰

B. Military Coercion: 1981-1986

The Reagan administration adopted a much more coercive approach toward Libya than previous administrations. This partly reflected the more hostile climate between the two countries that existed at the time Reagan took office, but it was more a function of the administration's conviction that ambitious coercive measures were generally effective, and could bring Libya and other US adversaries into line.⁶⁴¹ As a result, the United States initiated a variety of diplomatic, economic, and even military sanctions against Libya in the 1980s.

Immediately after taking office, the Reagan administration permanently severed diplomatic ties with Libya, and warned US citizens to leave the country. The United States also began to more aggressively challenge Libya's territorial claims in the Gulf of Sidra, and to increase US assistance to Libya's regional rivals.⁶⁴² Most significantly, Reagan moved the US toward a policy of regime change. The United States engaged in covert operations against Libya and sabotage, and supported Libyan dissident groups. The administration also let loose a barrage of anti-Gaddafi propaganda, misinformation, and threats, including blaming the Libyan leader for the assassination of Egypt's Anwar Sadat, and signaling to US allies in the region that the Gaddafi regime's days were numbered.⁶⁴³

From 1981 to 1986, the United States conducted a series of increasingly provocative naval excursions in the Gulf of Sidra, where Libya had made highly controversial territorial claims. One of the goals of these maneuvers was to provoke Gaddafi into providing the

⁶³⁹ *Ibid.*, pp.112-5.

⁶⁴⁰ The Libyans struck a deal with Moscow in 1977 for two 440MWe reactors. This ultimately fell through for reasons that remain unclear. The collapse of the deal in 1986 coincides with Gorbachev's reorientation of Soviet foreign policy, with the Chernobyl accident, and with a significant decline in Libya's ability to pay cash for Soviet assistance. Any combination of these could be responsible for the USSR's decision. Bowen, 2006, p.29, 32-3.

⁶⁴¹ Stanik, 2003, pp.38-46.

⁶⁴² Bowen, 2006, pp.124-126; Wright, 1981; Oberdorfer, November 8, 1981; and Getler, May 7, 1981.

⁶⁴³ For a summary of the Reagan administration's anti-Gaddafi policies and its support of regime change, see Wright, 1981, pp.13-19. A much more detailed investigation can be found in Hersh, February 22, 1987. Among other measures, Reagan ordered the CIA to conduct covert operations aimed at undermining the Gaddafi regime by aiding internal and regional opponents. Woodward, November 3, 1985. Also see Simons, 1996, pp.321, 324-331; and Woodward, 1987, pp.411-2, 444.

Americans with a *casus belli*. These actions were limited to shows of force and dogfights with Libyan military aircraft, and resulted in the downing of Libyan jets. In 1986, however, this was escalated to a large-scale naval buildup and ultimately air strikes against targets in Libya, including Gaddafi's residence. At the same time, military exercises and AWACS surveillance flights were being conducted with Egypt to signal that the US was both contemplating an attack and was prepared to support a coup against Gaddafi.⁶⁴⁴

Military coercion failed to produce positive changes in Libyan behavior, and instead led to increased aggression. Gaddafi's anti-Western and violent policies and his pursuit of nuclear weapons continued apace, yet he never provided the single act of aggression the Reagan administration needed to justify an overwhelming response. Instead, Libya offered an increasing volume of terrorist activity. Hit squads were used more frequently and more brazenly to assassinate or kidnap Libyan dissidents abroad. Soviet- and Czechoslovak-made weapons were purchased both to bolster the country's own military and to supply terrorist groups around the world. During this period, Libya covertly sent troops to support the PLO in Lebanon (1981), planned numerous assassinations of Middle Eastern heads of state, and sponsored hijackings, airplane bombings, and in 1985, attacks at Rome and Vienna airports.⁶⁴⁵ Collins, in fact, drawing on several data sources, including the US State Department's *Patterns of Global Terrorism* reports, demonstrates that Libyan-sponsored terrorism – and, more importantly, terrorism specifically directed toward Americans – reached new peaks in the mid-1980s. He counts, in the years 1981-1983, 9 Libyan-sponsored attacks, 7 of them directed at Americans. For 1984-1986 (excluding the period in 1986 after Operation El Dorado Canyon), he counts 51 attacks, 8 against Americans. Perhaps more importantly, US casualties from Libyan sponsored attacks grew from 2 in the 1981-1983 period to 96 in the 1984-1986 period (again excluding the portion of 1986 after the April attack).⁶⁴⁶

The escalation of hostilities in the first half of the 1980s, particularly the 1985 Abu Nidal attacks at Rome and Vienna airports, which were linked to Libya, eventually led the Reagan administration to use military force against the Libyan mainland. This began in March 1986 with Operation Prairie Fire, in which the US Navy moved three carrier groups into the Gulf of Sidra to challenge Libya's controversial claims to those waters, resulting in an exchange of fire that killed 72 Libyans. In retaliation, Tripoli ordered the bombing of a West Berlin discotheque frequented

⁶⁴⁴ The Americans were indeed considering a variety of military and covert operations against Gaddafi, and even pursued joint military options with Egypt. See Woodward, 1987, pp.419-20, 435-6, 442-4. For a summary of Libyan-related terrorist activities in the early and mid-1980s, see Stanik, 2003, pp.81-5.

⁶⁴⁵ Stanik, 2003, pp.81-5; *Washington Post*, May 31, 1981.

⁶⁴⁶ Collins, 2004, pp.4-9.

by US military personnel. The bombing, which took place on April 5, 1986, killed 4 and injured hundreds. As a result, on April 15, 1986, the United States bombed targets in Libya, including the al-Aziziyah barracks, home to Gaddafi's residential compound. Other targets included military sites and terrorist training compounds. While Gaddafi himself survived the attack, his 15-month old adopted daughter was killed and two of his sons were injured.

Again, the policies were partially, if not mostly, aimed at regime change, either by directly killing Gaddafi or by instigating a rebellion or coup. Despite the preferences of some officials in the administration, however, the Reagan administration was unwilling to resort to the sort of large-scale military operation, such as an invasion, that would reliably bring the Gaddafi regime to an end. The 1986 military operations, therefore, were designed to put coercive pressure on the regime, while at the same time creating the possibility that the regime would collapse, or that it would lash out at the United States forcefully enough to provide an excuse for tougher and more decisive military action. Although the Reagan administration and its successors would never again resort to direct military attacks on Libyan territory, at the time, officials saw US actions as an initial step in what could prove to be a longer and more punishing series of actions should Gaddafi remain in power and fail to moderate his behavior.⁶⁴⁷

The attack, the strongest and most direct form of military coercion the United States would use against Libya, not only failed to bring about a reduction in Libya's sponsorship of terrorism and other aggressive activities, but provoked retaliation and escalation. The number of fatal Libyan-sponsored attacks against US targets remained high in the post-bombing period of 1986. In 1988, Libya sponsored the bombing of Pan Am Flight 103 over Lockerbie, Scotland, which killed 270 people. The Lockerbie bombing was likely specifically ordered as a revenge attack for the 1986 bombing of Libya.⁶⁴⁸ In 1989, the Libyans blew up a French airliner, UTA

⁶⁴⁷ Operation El Diablo Canyon was the culmination of a long and intense debate within the Reagan administration over how to deal with Libya in particular and international terrorism in general. Support for military action to produce regime change came mainly from National Security Adviser John Poindexter, Deputy National Security Adviser Donald Fortier, NSC member Vincent Cannistraro, and Secretary of State George Schultz. Defense Secretary Caspar Weinberger and the Joint Chiefs of Staff, on the other hand, supported a more restrained approach. DCI William Casey was skeptical about the efficacy of military force, and instead championed CIA covert action, believing that the administration should abandon its policy of operating through proxies such as Libyan dissidents and use its own agents to affect regime change. These political fights are detailed at length in Woodward, 1987; Stanik, 2003; and Wills, 2003.

⁶⁴⁸ Gaddafi would alternately deny this and drop hints that it was a revenge attack. For example, *The Guardian* reported in 1999 that the Libyan leader "also seemed sometimes to imply that [the Pan Am 103 bombing] was retaliation for air strikes on Libya in 1986 when Margaret Thatcher had allowed US planes to fly from British bases after two US servicemen died in the bombing of a Berlin disco. 'Locker A', he called that; the deadly explosion on the packed Boeing 747 over a sleepy Lowlands town was 'Locker B'." Black, April 6, 1999.

Flight 772, over Chad.⁶⁴⁹ In 1986, the Abu Nidal Organization, sponsored by Libya, hijacked Pan Am Flight 72 in Karachi, Pakistan, and killed 20 people, including two Americans. Allegedly, the intent was to crash the plane into Tel Aviv, but the plot was foiled. The attacks on both Pan Am flights have been described as revenge attacks for the 1986 bombing of Libya.⁶⁵⁰ Overall, in the years immediately after the 1986 bombing raid, Libyan terrorist attacks became deadlier, and more focused on American targets.⁶⁵¹ Libya also continued to provide material support and refuge to radical Palestinian organizations, and would continue to do so for many years. Most notably, the Abu Nidal Organization would continue to enjoy significant support from Tripoli. Importantly, support for terrorist organizations and the sponsorship of attacks on American and other Western targets continued in spite of the threat of more attacks by the Reagan administration, in spite of the administration's continued support for regime change, and even in the face of declining economic resources resulting from falling global oil prices and other factors.

Libya's pursuit of nuclear weapons also continued in the wake of the 1986 attack. Even with now-limited opportunities for international assistance (Soviet support had already begun to wane by this date), and with reduced and declining state revenues to invest into its nuclear efforts, Tripoli continued to pursue a number of different paths toward an indigenous nuclear weapons capability. Plutonium experiments were conducted by Libyan scientists at the TNRC, including, between 1984-1990, the irradiation of nearly 100 uranium targets using the Soviet-supplied reactor, all in violation of IAEA safeguards. Plutonium was successfully separated in hot cells from at least two of the irradiated targets.⁶⁵² At the same time, the Libyans sought to acquire both a uranium conversion facility and centrifuges for the separation of weapons-grade uranium.⁶⁵³ A team of Libyan scientists had begun work with a German engineer on uranium enrichment in the early 1980s, and this work continued until the German's departure in 1992. The effort ultimately failed, but it provided Libyan scientists with practical expertise in related fields.⁶⁵⁴ A 2004 IAEA report states that modules for a uranium conversion facility were imported from an unnamed

⁶⁴⁹ The attack on UTA Flight 772 was in retaliation for French military participation in the defeat of Libya in Chad in 1987. The 1987 defeat was a humiliating blow to the Libyan military, particularly as it came so soon after the 1986 bombing by the United States.

⁶⁵⁰ Cushman, November 14, 1991; Swain, March 28, 2004; Stephey, August 21, 2009; St. John, 2002, p.143.

⁶⁵¹ *Ibid.*, pp.138-9; Collins, 2004, pp.7-9; Defense Science Board, 1997, p.15; Jentleson and Whytock, 2006, p.59. Overall, the number of publicly known Libyan-sponsored attacks against all categories of targets decreased, and Gaddafi's rhetoric on the terrorism issue became somewhat more moderate. However, this may have simply signaled a more careful approach to terrorism, and an effort to better hide Tripoli's activities, rather than any real change in policy.

⁶⁵² IAEA, 2004, p.6.

⁶⁵³ *Ibid.*, pp.4-5.

⁶⁵⁴ *Ibid.*, p.5; Slevin, February 21, 2004.

country (likely Japan) in 1986, although the modules were placed into storage until the late 1990s.⁶⁵⁵ Libya also exported uranium to another unnamed country (likely the USSR), where it was converted to a number of uranium compounds, including 39kg of uranium hexafluoride, the feedstock for U235 enrichment. This was apparently done as sample materials for a conversion facility that was to be supplied by the Soviets (no such facility was ever constructed). The Libyans themselves also conducted laboratory-scale uranium conversion experiments.⁶⁵⁶ Finally, Libya's contacts with A.Q. Khan were initiated during this period. The Libyans met with Khan for the first time in 1984, and in 1991 discussed a centrifuge deal. Cooperation was not pursued at this point only because the Libyans decided the assistance was not worth the cost.⁶⁵⁷

Libya also proceeded with efforts to develop chemical weapons in the late 1980s. Libya hired the services of a number of Western companies, led by West German contractors, to construct a chemical weapons facility at Rabta. Construction had begun in 1984, and by 1990 the Libyans had produced and stockpiled 23 tons of mustard gas. The country had also stockpiled thousands of chemical-weapons shells and had produced small amounts of nerve agent from imported precursor chemicals in laboratory experiments.⁶⁵⁸

⁶⁵⁵ IAEA, 2004, p.4. The IAEA report does not identify the UCF's country of origin. But Jahn, citing anonymous diplomats involved in the 2004 inspections of Libya, reported in the *Associated Press* in March 2004 that the facility was delivered by a Japanese company, possibly with the knowledge of the Japanese government. (Jahn, March 12, 2004).

⁶⁵⁶ IAEA, 2004, p.4.

⁶⁵⁷ IAEA, 2008, p.5.

⁶⁵⁸ Tripoli, however, for unknown reasons, apparently ceased production of chemical weapons agents by the end of 1990. The United States had discovered the facility at Rabta at the end of 1987 and had demanded its closing, while making an implied military threat. In 1990, Gaddafi staged a fire at the plant, but the CIA soon discovered the ruse. Months later, chemical weapons activities at the site were abandoned. The US's military threat may have pushed Gaddafi to abandon the program. However, the loss of foreign assistance (the Rabta facility was constructed largely with the aid of Western European companies) and the tightening of export controls on chemical weapons precursors could also be to blame. Export controls had already denied the Libyans an important precursor for mustard gas, forcing them to adopt a more complicated process. The Libyans never succeeded in producing sarin or other nerve agents in significant quantities, also because of limited access to chemicals and expertise. Finally, the mustard gas they had produced was of limited utility, as Libya's shells and delivery mechanisms would have had little success in delivering potent quantities of the gas. At any rate, it is impossible to separate out the roles of US threats and these technical restrictions. Much of the history of Libya's chemical weapons program remains opaque, and many source materials are classified. Also, US intelligence in the 1990s tended to inflate the program's size and progress, making contemporary reports on the topic too often inaccurate or misleading. One useful recent discussion on the topic is Tucker, 2009. Also enlightening is Mahley, 2004; and Jeffrey Lewis's discussion on his blog *Arms Control Wonk* about the site at Tarjuna that the US (most likely mistakenly) claimed was a chemical weapons production facility in the 1990s (Lewis, Jeffrey, "Tarhuna CW Facility," *Arms Control Wonk*, March 25, 2007. www.armscontrolwonk.com/1440/targhuna-cw-facility. Web.).

C. US Economic Sanctions: 1981-1992

US economic sanctions against Libya, instituted at the same time as efforts at military coercion during the Reagan administration, fared little better. They had no positive effect on Libyan behavior in the short term, did not moderate Libya's aggressive policies, and did not lead to any decrease in Libyan nuclear efforts. There is no evidence, however, that they contributed to a spiral of aggression or retaliatory measures as the military strikes had. Like the arms embargoes that began in the 1970s, the Libyans sought to reduce their exposure to American coercive efforts, in this case by shifting trade patterns toward Western Europe and investing petrodollars in European downstream petroleum assets. Otherwise their economic effects remained marginal, at least until the embargo on oil equipment and parts became more acutely felt as Libyan oil equipment aged and deteriorated over the coming years. Importantly, however, they did serve as an important bargaining chip in the US-Libyan bargaining that began in 1998 and culminated in the 2003 decision to abandon the nuclear program and the 2006 restoration of diplomatic relations.

The Reagan administration instituted broad, unilateral economic sanctions against Libya, embargoing Libyan crude oil imports in 1982, and heavily tightening export restrictions to the country, including oil-extraction technologies that would be difficult for the Libyans to procure elsewhere. The import ban was extended to refined petroleum products in 1985. In January 1986, the US instituted a comprehensive trade ban against Libya and froze Libyan investments in the United States. In June 1986, two months after the US bombed Libya, Reagan ordered American oil companies to end operations in Libya and withdraw their personnel from the country.⁶⁵⁹

It was, however, unclear what policy changes Libya could adopt that would be sufficient to satisfy the United States and reverse the sanctions. In fact, just as with military coercion, the goal of the economic sanctions was as much regime change as it was policy change. The administration did not place high expectations on the ability of unilateral trade sanctions to induce any policy changes in Libya, and saw them as ineffectual and weak. Instead, they were meant as an initial step that would make it easier to justify escalation to both multilateral sanctions and

⁶⁵⁹ The oil companies ordered to withdraw in June 1986 had previously been exempted from US trade sanctions. Five US companies had combined assets in Libya valued at approximately \$2 billion. These companies successfully negotiated standstill agreements with the Libyan government before withdrawal, so that, while the Libyan National Oil Company (LNOC) would take over operations of the oil fields, the US companies would retain their claims, which could be exercised were they to return. St. John, 2002, pp.141-2.

military force.⁶⁶⁰ In this respect, it was as much a form of economic warfare as it was a coercive strategy.⁶⁶¹

Tripoli also successfully took steps to avoid many of the negative effects of the sanctions. Even though, in 1982, the United States represented an enormous share of Libya's oil market, and the regime was dependent on foreign oil sales for nearly all of its revenue, Tripoli was able to mitigate the effects of the sanctions by shifting trade patterns. At first, the Libyans continued to access the American market via on-the-spot purchases. Also, refined petroleum could still be legally exported to the US between 1982-1985. This bought time, and allowed the country to successfully shift trading partners, specifically, by selling more oil to the Europeans. In 1980, Libya sold 35% of its oil to the Americans and 40% to France, Italy, the UK, Spain, and Germany combined. By 1987, 70% of Libyan oil exports went to those same five European countries.⁶⁶²

This not only allowed Libya to maintain a heavy volume of oil sales, but gave Gaddafi increased leverage with America's most important allies, as these countries became increasingly dependent on the flow of Libyan oil. This influence was strengthened by similar changes in Libyan investment patterns. Libya had begun to shift its finances away from assets and investments vulnerable to American sanctions even before the 1986 freeze went into effect, greatly minimizing the pain the US could inflict. Much of this capital flowed into Europe, where the Libyans acquired downstream petroleum-related assets such as distributors and refineries. These investments not only protected Libyan financial investments from US coercive measures, but also increased Libya's influence over key American allies by raising the Europeans' costs of implementing their own sanctions.⁶⁶³ Libya also managed to maintain overall levels of oil

⁶⁶⁰ O'Sullivan, 2003, p.177 (incl. fn.16); Stanik, 2003, pp.72-3.

⁶⁶¹ I use the term "economic warfare" here to refer to the use of economic instruments of statecraft to inflict damage on another state, with the ultimate goal of destroying that state or forcing its capitulation. This is distinct from "economic coercion," which I use here to mean the use of economic statecraft to compel another state to abandon some behavior or to undertake a new behavior by raising the costs of disobedience. In coercion attempts, some behavior or policy is demanded from the other state, typically with the assurance that if that action is taken, then the coercive threat will not be carried out, or a coercive measure already implemented will be withdrawn. In this case, the Reagan administration made no clear demands, and chose its policies largely with the intention of overthrowing Gaddafi. In the international relations literature, some authors, such as Alexander George, have also called this coercion, considering it an attempt to coerce a country's opposition to overthrow a leader or regime (George calls this Type C coercion – see George, "Coercive Diplomacy: Definition and Characteristics," 1994, p.9). I do not follow that convention, and instead use a distinction between coercion and warfare more in line with Baldwin's (see Baldwin, 1985, pp.33-50). These definitions and distinctions are treated at length in Chapter 2 of this dissertation.

⁶⁶² O'Sullivan, 2003, pp.188-92.

⁶⁶³ There were several reasons why Libya's investments in downstream petroleum assets in Europe made sense. Avoiding US sanctions was an important one, and was likely even the driving factor behind Libyan investment patterns in the early 1980s, when Tripoli began to anticipate a US trade embargo. Such investments, however, had begun long before then. In fact, Libya had begun to consider such investments

production and export, and overall, Libya's oil exports remained in line with OPEC quotas throughout the 1980s and into the 1990s.⁶⁶⁴

More damaging was the export ban on oil-extraction technology. Libya's oil sector was already in need of modernization by 1986, and the country lacked expertise and skilled managers, so the ban on these technologies and on US technical assistance did affect the Libyans' ability to extract oil at existing fields over time. Tripoli partially compensated for this, however, by attracting new foreign investment in exploration and drilling, which, at least over the short term, made up much for the shortfall. As a result, the effects of the export ban took a long time – years, in fact – to be fully felt.

Even here, though, the overall effects were weak. The ban on oil equipment did successfully raise the costs of procuring needed technology, but it was still possible to acquire it (at least before UN sanctions came into effect) in Europe and Asia, or from the black market, albeit at additional expense. More importantly, the Libyans had chronically underinvested in modernization of their oil sector for many years – since the 1969 coup, in fact.⁶⁶⁵ The US export ban simply added to a long-standing problem. Likewise, the dearth of competent management in the oil industry after US personnel left reflected a wider problem in the Libyan economy, which was rife with inefficiency and poor management.

Perhaps the most damaging aspect of the sanctions regime, in fact, was the effect that US coercive measures – not just economic sanctions, but military and diplomatic sanctions as well – had on the overall investment climate in Libya. US hostility and threats increased the perception of risk for businesses considering investments in Libya, and the possibility of future military action or additional sanctions led them to favor short-term rather than long-term investments in the country, and ones that offered the possibility of a speedy exit. This too, however, was a long-standing problem, and not simply the result of US sanctions. Gaddafi's support of terrorism and aggressive foreign policies had long deterred investors beyond those looking for fast money in the oil sector. Also, the regime had instituted ill-conceived domestic economic policies, which also helped create an unfavorable climate for investment.⁶⁶⁶ Finally, it is important to note that this period was categorized by depressed oil prices globally and significant spare production capacity

even before the coup that put Gaddafi in power. They provided some cushion to volatility in the international oil market, and guaranteed access to European markets. Gurney, 1996, pp.146-68.

⁶⁶⁴ *Ibid.*, pp.95-100; O'Sullivan, 2003, fig. on p.194.

⁶⁶⁵ *Ibid.*, p.193-5; Gurney 1996, p.97; *Associated Press*, April 11, 1999; Cordesman, 2004, pp.243-4.

⁶⁶⁶ O'Sullivan, 2003, p.192.

among OPEC states. This made new oil investment difficult to attract everywhere, not simply in Libya.⁶⁶⁷

D. UN Sanctions: 1992-2003

UN sanctions against Libya were facilitated by Libya's aggressive terrorist campaign in the wake of the 1986 US bombing of the country. Specifically, they came in response to the bombings of Pan Am flight 103 and the French UTA flight 772. In October 1991, a French court issued arrest warrants for four Libyans in association with the 1989 bombing of UTA 772. Weeks later, the US and UK charged two other Libyans, both intelligence agents, with the 1988 Pan Am bombing. Once the Libyans refused to hand over the accused, the Americans, French, and British began an aggressive and ultimately successful push for sanctions in the UN Security Council.

UNSC Resolution 748 was adopted in March 1992. This binding resolution established a worldwide embargo of Libyan airline flights, aircraft-related purchases, and arms transfers and military assistance. It also enacted diplomatic sanctions by requiring reductions of consular and diplomatic officials in Tripoli. Demands to the Libyans made by the Americans, French, and British, and endorsed by Resolution 748, set out – in contrast to earlier American sanctions – a relatively clear set of demands. For sanctions to be lifted, Libya would have to renounce international terrorism (and, to the satisfaction of the UN Secretary General, demonstrate that it had severed its ties to terrorist organizations). More immediately, Tripoli was required to hand over the Pan Am 103 and UTA 772 suspects, publicly take responsibility for the bombings, and make reparations to the families of those killed.⁶⁶⁸ The three Western allies succeeded in passing UNSC Resolution 883 in November 1993, which extended the sanctions regime. All Libyan assets abroad, excluding petroleum-related assets, were frozen, and sales of equipment related to the refining and transportation of oil were banned. The Americans had pursued a multilateral oil

⁶⁶⁷ Vandewalle, 2006, pp.109-19; Gurney, 1996, pp.136-8.

⁶⁶⁸ The US, Britain, and France set out their demands for cooperation with the investigations of the two bombings in November 1991. In January 1992, the UN Security Council passed Resolution 731, which supported the three countries' demands, and threatened sanctions if they were not met. Libya's refusal to comply led to UNSC Resolution 748, which reiterated the conditions of 731 and enacted sanctions. UN Security Council. *Resolution 731 (1992) Adopted by the Security Council at Its 3033rd Meeting, on 21 January 1992*. S/RES/731 (1992). Resolution text available on line at www.unhcr.org/refworld/docid/3b00f15a2c.html. Web. Also UN Security Council. *Resolution 748 (1992) Adopted by the Security Council at Its 3063rd Meeting, on 31 March 1992*. S/RES/748 (1992). Resolution text available online at www.unhcr.org/refworld/docid/3b00f16718.html. Web. See also Sciolino, December 19, 1991.

embargo, but were unable to secure the cooperation of Western European allies, who were dependent on Libyan oil exports.⁶⁶⁹

UN sanctions did not have a large positive effect on Libyan behavior, however, they did reinforce positive trends that were more directly caused by exogenous economic and political factors. Declining oil revenues, economic mismanagement, the loss of the Soviet Union as a benefactor, generational change, domestic unrest, and UN multilateral sanctions all combined to push Gaddafi and his regime toward a more accommodating stance. The sanctions added to the country's economic woes on the margins, worsening an already severe negative trend, and reinforced the country's diplomatic and – as a result of the flight ban – physical isolation. Most importantly, the multilateral nature of the sanctions created a different reputational calculus for Libya. Unlike US negative sanctions, the UN sanctions, even while being more directly damaging to the country's economy and prestige, did not provoke a hostile spiral. In fact, the Libyans had begun to seek negotiations to avoid or remove the sanctions as soon as their adoption became likely in 1992.

The difference between the Libyan reaction to US sanctions in the 1980s and UN sanctions in the 1990s is best explained by the different reputational costs presented by each. US sanctions were viewed by Tripoli as extortionate demands from an adversary. Concessions, therefore, risked inviting further attempts at coercion. This was especially true given the Reagan administration's lack of explicit and clear demands to Libya, and the administration's preference for regime change. UN sanctions, on the other hand, enjoyed universal compliance, if not support. Even Libya's traditional backers in the Middle East and Africa, as well as Russia, did not challenge them. Furthermore, these sanctions were linked to a clear set of demands that could feasibly be met without unacceptable cost. These factors did not eliminate reputational concerns – Gaddafi still had to concern himself with his domestic audience and with his image in the region – but they did serve to make them less acute. Concessions could be framed as compromises with the international community as a whole, rather than with the United States and its Western allies. Gaddafi, for example, endured years of sanctions because he was unwilling to surrender the Lockerbie suspects for trial in the US or Britain, even while he was willing to do so in a neutral country, a distinction that, in material terms, made little difference. Also, having been presented with a clear set of demands, Tripoli could negotiate over terms and play the

⁶⁶⁹ UN Security Council. *Resolution 883 (1993) Adopted by the Security Council at Its 3312th Meeting, on 11 November 1993*. S/RES/883 (1993). Resolution text available online at www.unhcr.org/refworld/docid/3b00f1617.html. Web. Also Lewis, November 12, 1993.

sanctioning states off of one another in the bargaining process. This allowed the country to save face by creating the appearance of a give-and-take process.

The multilateral sanctions regime coincided with a period of increasing moderation in Libyan foreign policy. The country's support of terrorism significantly waned, and Libyan-sponsored terrorist acts directed at American or Western targets had essentially ceased even before the sanctions were introduced. In 1992, for example, Tripoli handed over the British a dossier containing intelligence on the IRA, including Libya's own dealings with the organization.⁶⁷⁰ Collins notes that not only did Libyan-sponsored terrorist attacks fail to rise during this period, but attacks against the United States ceased after 1989, and Libyan-sponsored terrorist attacks in general ended by the mid-1990s.⁶⁷¹

Although Libya failed to comply with the US's and UK's Lockerbie-related demands, and indeed chose instead to endure the effects of the sanctions for most of the decade, Gaddafi repeatedly sought compromise on the issue, and began to make conciliatory gestures toward the United States. After UNSCR 748 had been adopted (March 1992), but before UNSCR 883 was passed (November 1993), Libya offered a compromise, stating that it would agree to a trial in a "neutral" country.⁶⁷² Gaddafi also initiated several minor (and bizarre) overtures toward Israel, including allowing a religious pilgrimage by Libyans to Islamic sites in Jerusalem, even though this incited anger among many Palestinians (and raised the ire of hardliners in Libya).⁶⁷³ In 1993, Gaddafi renounced terrorism in a major speech.

Libya's regional policies also underwent significant change in the 1990s. In the early part of the decade, Libya's policies toward its African and Arab neighbors continued more or less as it had in the 1980s. In spite of a thaw in relations with Tunisia and the creation of the Arab Maghreb Union (AMU) in early 1989, relations between the Libyans and its North African neighbors were frequently strained by Libya's continued support for radical groups within those countries' borders. Tripoli also sought to use the AMU as a vehicle for supporting radical Palestinian groups. Libya's relations with sub-Saharan Africa likewise continued to be tense. In the early 1990s, Gaddafi supported radical organizations and opposition groups in Rwanda, Mali, Nigeria, and elsewhere.⁶⁷⁴

UN sanctions were not, however, the principle cause of these course adjustments in Tripoli. The continued decline in economic fortunes brought on by an unfavorable international

⁶⁷⁰ Adams, June 7, 1992.

⁶⁷¹ Collins, 2004. Also see Niblock, 2001, p.93. Niblock relates the drop in terrorist support to the domestic curtailment of the revolutionary committees at the end of the 1980s.

⁶⁷² *Associated Press*, March 2, 1992; *Crossette*, March 3, 1992.

⁶⁷³ Greenberg, June 2, 1993.

⁶⁷⁴ St. John, 2002, pp.212-8.

oil market and domestic economic mismanagement was the primary trigger for Libya's policy shift over this period. The UN sanctions did have a significantly more pronounced effect on the Libyan economy than the US's unilateral sanctions, however, they too were only on the margins, and simply amplified and worsened existing problems, while restricting Libya's ability to improve its fortunes through greater integration into the global economy.

After a spike in oil prices resulting from the Gulf War at the beginning of the decade, global oil prices dropped, hitting a low in 1998 (which in fact was the lowest price they had reached since the price crash in 1986). While the price of oil had reached \$30 a barrel in the early 1980s, it had dropped to \$19 a barrel by 1997, and plummeted to \$10 a barrel in 1998.⁶⁷⁵ As a result, from 1992 to 1999, the Libyan economy was stagnant, and per capita income in the country actually fell in real terms.

Also, despite attempts at economic reform in the late 1980s and in 1990, Libya's domestic economy continued to be plagued by corruption, inefficiency, and mismanagement. The poor state of the economy outside of the oil sector meant that oil exports continued to represent nearly all of the country's export revenues, and also the vast majority of the government's revenue. This left the state at the mercy of low and volatile world oil prices, and greatly restricted Gaddafi's ability to maintain the social compact on which he had based his regime's legitimacy: the provision of social services for the general population, and patronage for elites.

In comparison to this exogenous pressure, the effects of the UN sanctions were relatively mild, and only marginally added to the country's economic woes. The United States's failure to secure a global oil embargo against Libya meant that Tripoli continued to have access to major oil markets. European investors were not deterred from the country's oil sector, where their involvement continued apace. They were, however, made less likely to pursue long-term or complex projects such as technology-intensive exploration and drilling by the country's uncertain investment climate. Even this, though, resulted as much from exogenous factors as the sanctions themselves. Depressed oil prices, unsound economic policies, domestic political stability, and diplomatic isolation, all of which were factors long before UN sanctions were introduced, were mostly responsible. Additionally, Libya's strict production-sharing policies made the country a less attractive target for foreign investors.⁶⁷⁶

The UN sanctions did draw some blood. Restrictions on Libyan assets abroad reduced the revenues Libya earned from its significant investments in the downstream petroleum industry

⁶⁷⁵ Crace, April 6, 1999.

⁶⁷⁶ O'Sullivan, 2003, p.200.

– refineries, distribution, filling stations – in Europe, which exacerbated Tripoli’s foreign exchange woes and depleted hard currency reserves. Overall, the reduced demand for the Libyan *dinar* and a continued depletion of foreign currency reserves created strong inflationary pressure. This, combined with the increased cost of imported consumer goods resulting from the air ban, led to soaring prices, and the value of the US dollar on the Libyan black market skyrocketed.⁶⁷⁷

Sanctions on trade were also painful, and their effects could not be mitigated by changes in trade patterns, as was the case with the US unilateral sanctions. The most significant element of the trade sanctions was the ban on oil equipment, which included parts for refineries, port facilities, and pipelines. This caused significant damage to Libya’s domestic downstream petroleum industry, and raised the cost of exporting oil and especially refined product. The global nature of the sanctions meant that Tripoli had to turn to the black market for parts and equipment, where costs could be several times higher.⁶⁷⁸

Some effects of the sanctions were more acutely felt by the country’s elite than by the general population. The ban on air travel and aircraft parts meant that foreign travel, if possible at all, could only be accomplished by crossing into neighboring countries first by land, or traveling to Malta by ferry. This isolated elites who highly valued access to travel, shopping, and especially education abroad.⁶⁷⁹ Also, the global arms embargo put an end to the regime’s ability to subsidize the sort of massive military buildup that had taken place during the 1970s and 1980s. This weakened the military itself, and also eliminated an important lever of control the regime could use with it.⁶⁸⁰

As was the case with the US sanctions, however, the Libyans were able to avoid many of the intended effects of the UN sanctions regime. Because of a time lag before sanctions were fully implemented, and because Tripoli had anticipated the passage of sanctions for many months before they were passed, the Libyans were able to relocate assets to less vulnerable locations in order to avoid the financial freeze. Also, the Europeans’ refusal to agree to a ban on oil exports meant that Libya continued to have access to major markets for its most important export and source of state revenue. It is also worth pointing out that US unilateral sanctions introduced in the 1980s actually undermined American goals during this period, as the Reagan-era oil embargo had led to a shift in trade patterns that greatly increased Europe’s dependence on Libyan oil.

⁶⁷⁷ *Ibid*, p.197; EIU, *Country Report: Libya*, 1996, p.16.

⁶⁷⁸ Matar and Thabit, 2004, pp.30-1. To partially avoid this problem, Tripoli tried to buy up as much equipment as possible in the early 1990s before the sanctions took effect.

⁶⁷⁹ Vandewalle, 2006, p.173.

⁶⁸⁰ O’Sullivan, 2003, pp.206-7. Noteworthy is Libya’s robust pursuit of arms imports, notably from Russia, after the suspension of UN sanctions in 1999. Also noteworthy is the fact that Tripoli managed to fund a strong and pervasive domestic security apparatus during the 1990s. Vandewalle, 2006, p.205.

Therefore, not only did the US embargo fail to shift Libyan behavior in the desired direction, it made the imposition of a global embargo in the 1990s less likely, ultimately weakening the US's bargaining hand.

E. Continued US Economic Sanctions and ILSA: 1992-2003

After UN sanctions were passed in 1992, and even after they were suspended in 1999, US sanctions remained in place. Additionally, the US Congress passed the Iran and Libya Sanctions Act, which imposed sanctions on third-country corporations that did business in Libya. Finally, the United States threatened (but did not use) military force against Libyan chemical weapons sites, and sought to extend multilateral sanctions to include a global oil embargo. Of these, only the US embargo on oil equipment had any appreciable effect on Libya. As noted above, all sanctions used against Libya failed, even in concert, to effect the desired policy changes. US unilateral sanctions did provide bargaining leverage to the United States in the negotiations that took place beginning in 1998, however this was more than a decade after they were implemented, and were useful only in the context of a wider package of positive inducements. The ILSA sanctions, and the military and economic threats of this period, had, on balance, a negative effect on US policy goals. The pain they imposed on Libya was negligible, if anything. ILSA did, however, complicate US cooperation with its allies in Western Europe, and created additional divisions over policy toward Libya.

The effects of US economic sanctions were more profoundly felt during the 1990s than they were in the 1980s, largely because the ban on oil equipment only began to impact Libya's volume of oil exports in this decade. While Libya was generally able to maintain its level of oil exports throughout the period (1997 and 1998 were the only years in which production fell below OPEC quotas), in spite of the American ban oil imports and the export of oil equipment and parts, by shifting trade to Europe and by pursuing new exploration and drilling, this was achieved with increasing difficulty after 1990. Oil fields that had previously been operated by US oil companies and, after their withdrawal, had been taken over by the Libya National Oil Corporation (LNOC), depended on US-made parts and equipment. Lack of modernization and ill repair had been a problem for many years at these oil fields, and the effects of this were more pronouncedly felt in the 1990s, after a decade of being forced to either forgo modernization and repairs or looking for parts on European markets or the black market. One reliable estimate puts the decline in output at these fields by the late 1990s at 8% annually.⁶⁸¹

⁶⁸¹ O'Sullivan, 2003, p.201. The 8% decline in production refers only to LNOC-operated fields, not Libyan oil production as a whole. As stated elsewhere in this chapter, Libyan oil exports in the 1990s were largely

In 1996, the United States Congress passed the Iran-Libya Sanctions Act (ILSA), which placed sanctions on third-country corporations that made new petroleum-related investments in Libya in excess of \$40 million per year (existing contracts were exempted). According to the new law, the president could choose from a menu of possible sanctions to impose on foreign companies that ranged from the strict to the very weak, or could opt to waive sanctions altogether. The law, aimed more at Iran than Libya, became a major source of tension between the United States and its European allies, who continued to conduct a large amount of oil business with both the Libyans and the Iranians, and vocally protested what they argued was an extraterritorial imposition of law and a violation of their national sovereignty.⁶⁸²

Aside from creating friction with America's allies and perhaps mollifying domestic constituencies, however, ILSA had no direct political or economic effect on Libya itself. Libya already had long-standing European investment in its oil industry, and new investment amounting to over \$40 million was rare. Oil companies could, at any rate, evade the restrictions simply by amending existing contracts. Additionally, new investment of that magnitude was deterred far more by existing market conditions, which had little or nothing to do with sanctions and threats. The United States never applied sanctions to any third-party company doing business in Libya during the period the law was in effect (1996-2006), and there is no evidence that ILSA either deterred investors – even on the margins – or did anything to convince Tripoli that stricter measures were forthcoming.⁶⁸³

Negative sanctions against Libya in the 1990s and 2000s can best be described as foreclosing economic opportunities and providing the United States with a source of leverage over Tripoli that could later be used in negotiations. Exogenous economic factors had a much greater overall effect on Libya than sanctions, limiting Libyan economic growth throughout most of the 1980s and 1990s and ultimately undermining the Gaddafi regime and its foreign and domestic policies. They promoted domestic opposition to the regime and its approach to both the economy and the outside world, among both the masses and elites, and created pressure for change. By the late 1990s, this had led to significant shifts in the ruling coalition and pushed the regime toward greater international openness and both political and – especially – economic

in line with OPEC limits, falling short only in 1997 and 1998. Over the 1990s, OPEC marginally increased Libya's quota, and indeed crude oil production increased from just over 1 million barrels in 1989 to just below 1.4 million barrels in the years 1994-1998. This was achieved, however, at increasing cost, as LNOC-controlled fields produced less and less oil. The unavailability of oil equipment was only one major cause of this. At the same time, some of these existing fields were simply being depleted of their reserves. See Niblock, 2001, pp.63-71. O'Sullivan argues, however, that under better circumstances, Libya might have successfully lobbied to raise OPEC quotas (O'Sullivan, 2003, p.195).

⁶⁸² Katzman, 2006.

⁶⁸³ *Ibid.*

liberation. While sanctions did not cause this situation, and only marginally contributed to it, they did represent a significant obstacle to the sort of sweeping changes the regime needed to make to reorient policies, reinvigorate investment and growth, and, overall, make the sort of economic changes necessary to maintain regime stability over the longer term. As a result, while they were not capable of coercing the Libyans into policy change during the 1992-1999 period, they did provide the United States with a bargaining chip that could be used in negotiations with Libyans once tit-for-tat exchanges began in earnest in 1998.

IV. Positive Inducements Were Effective

Libya's decided to give up its nuclear program because of American positive inducements. The case lends strong support to hypothesis (H2):

(H2.a) Positive inducements are effective with both allies and adversaries alike, but are more likely to be effective with allies.

(H2.b) In general, positive inducements are more likely to be effective than negative sanctions, and are greatly more effective with adversaries than negative sanctions.

(H2.c) Unlike negative sanctions, positive inducements are likely to produce long-term compliance.

(H2.d) Whereas negative sanctions can produce escalation with adversaries, positive

Three distinct – but related – positive inducements were offered to the Libyans by the United States in return for denuclearization: restored trade and investment in the form of the lifting of sanctions that had been in place for many years, the normalization of diplomatic ties, and tacit acceptance of the Gaddafi regime. These inducements were not offered in a vacuum, but rather came at the end of a years-long bargaining process that began 1998, and involved the exchange of lesser but significant concessions by both sides. The final deal that resolved the nuclear issue in 2003 (leading eventually to normalized relations in 2006) came at the end of this process, and as the result of it.

The United States resisted bargaining with the Libyans or offering any concessions whatsoever until 1998, when the US and Britain yielded on the issue of the Lockerbie trial's location. Britain led the way on this, negotiating directly with the Libyans, sounding out possible compromises, and acting as an intermediary between Washington and Tripoli. This step initiated a long series of negotiations over the course of more than five years that would resolve not only

the Lockerbie issue but all of the most important outstanding disputes between Libya and the United States, including the nuclear issue.

Importantly, the negotiations that took place between August 1998, when the US and the UK announced that they would accept to a trial before Scottish judges in a neutral country, and April 1999, when Libya handed over the two Lockerbie suspects, reveal a series of assurances and inducements offered by the British and Americans designed to mitigate Libyan concerns and reduce the reputation costs of concessions. Specifically, the US and UK were prepared to guarantee the suspension of UN sanctions, a de-politicized trial on a third-country's territory, and limits to the scope of the investigation into the bombing.⁶⁸⁴

In practice, the promise not to politicize the trial was an important concession to Gaddafi, as it meant that the two Western powers would not use information revealed in the trial to impugn the Gaddafi regime, and would not use intelligence agents to question the two suspects in an attempt to gain information that could be used against Tripoli. It was, implicitly, a form of regime acceptance, as Washington and London were, in effect, agreeing to put aside any role the Gaddafi regime itself may have played in the Pan Am 103 bombing, and to treat the case as an isolated matter involving two criminal suspects.⁶⁸⁵ The suspension of UN sanctions was a major step as well. With international support for the sanctions regime waning, suspension was, for all practical purposes, the same as completely lifting the sanctions, as the United States would find it difficult or impossible to get the necessary international backing to reinstate them. Also, this exchange not only provided Gaddafi with material gain (in the form of increased trade and investment after the sanctions were suspended) but perhaps more importantly with a way to achieve this while avoiding large reputation costs and saving face. The third-party location of the trial, the guarantee that US and UK intelligence agents would not interrogate the suspects, and the promise that the trial would not be politicized, gave Tripoli a way to turn the suspects over while minimizing the degree to which such a move could be portrayed or interpreted by adversaries as a costly capitulation to the United States. The fact that the United States and Britain kept their

⁶⁸⁴ Washington and London agreed to a suspension of sanctions once the two suspects were handed over even though it was clear that this meant, in practice, that they would be agreeing to an irreversible end to the sanctions. The US was having a difficult enough time maintaining the sanctions regime. There was little chance that once they were suspended, the other Security Council members, especially Russia and China, could be persuaded to reinstate them.

⁶⁸⁵ Niblock, 2001, pp.55-8; Black, October 31, 1998; and Black, April 6, 1999. The significance of this concession is apparent when one considers how different this was from the Reagan administration's branding of Tripoli as, essentially, an outlaw regime, and the administration's espousal of regime change as a policy objective. The Americans refused to provide formal assurances that the investigation would be limited to the two suspects. However, promises that the prosecution did not intend "at this time" to call Libyan witnesses, and guarantees that the suspects would not be questioned by American or British agents, were clear enough.

word, and did not use the trial to target Gaddafi himself, therefore established trust, and also lowered the reputation costs of future, costlier concessions.

Another series of exchanges, again relating to the Lockerbie issue, came as a result of the secret talks that were held between the Libyans and the Bush administration from 2001 to 2003. First was the monetary settlement for the Lockerbie families, which was provided in stages. Three different payouts were arranged, with each coming in response to a different American inducement. The first sum was paid in September 2003, in return for the permanent lifting of UN sanctions.⁶⁸⁶ The next two were to be paid, respectively, once US sanctions were lifted, and after Libya was removed from the US list of state sponsors of terrorism.⁶⁸⁷ Interestingly, the reparations payments were originally demanded unconditionally by the United States, but during the talks were explicitly linked to reciprocal inducements, to be exchanged according to a schedule. Here again, the tit-for-tat exchange of inducements facilitated cooperation after sanctions could not produce the same results. Furthermore, the inducements were more important symbolically and communicatively than they were in terms of material or strategic value. The UN sanctions were permanently withdrawn in September 2003, which was four years after they had already been suspended. Even more importantly, in practice, there was little hope that they could ever be reinstated. Their final removal was mostly of symbolic value. They were also valuable as a face-saving measure, however, as the Gaddafi regime could hold up the reciprocal lifting of sanctions and portray the first settlement payment as a concession made instrumentally to secure US inducements. US agreement to these terms also further demonstrated its preference for rapprochement and, ultimately, acceptance of the regime, making future rounds of agreement easier. The United States sought to save face in the exchange as well. The fact that talks with Libya were conducted in secret allowed the Bush administration to claim it had little to do with the settlement, which was arranged privately through the families' lawyers.⁶⁸⁸

The surrender of Libya's nuclear program was arranged through nine months of secret talks in London and Tripoli between March and December 2003, when Gaddafi publicly announced the decision to denuclearize. US inducements were critical to agreement. In return

⁶⁸⁶ Also included in the deal was the provision that the Libyans would accept responsibility for the attack. This was done via a letter to the Security Council in mid-August 2003. The Libyans then released the first settlement payment for the families of the victims out of an escrow account. In September, the sanctions were lifted. Barringer, September 13, 2003; and Barringer, August 16, 2003.

⁶⁸⁷ US sanctions were not lifted until the nuclear issue was settled. They were officially removed in September 2004, leading to the second Libya payment. The third payment, however, never came. The United States did eventually remove Libya from the State Department list of terrorism sponsors, but not until 2006, and months after the settlement offer expired. Weisman, September 21, 2004; Wald, July 8, 2006.

⁶⁸⁸ Weisman, August 15, 2003.

for denuclearization, the United States offered to lift the remaining US sanctions, and to eventually restore diplomatic ties. Implicitly, this meant the full acceptance of the Gaddafi regime, a permanent end to the pursuit of regime change, and the US's acquiescence to Libya's integration into the global economy. But this, too, was not done in the form of an all-at-once agreement but rather in a series of mutually agreed steps, and consisted of Libya exchanging nuclear concessions sequentially in return for specific inducements.⁶⁸⁹

The denuclearization process was divided into three phases. Phase I focused on the identification and removal of the most sensitive materials and documents, which was mostly accomplished by the end of January 2004. In return, in February 2004, the United States lifted the travel ban to and from Libya and allowed American oil companies to begin negotiations for their return.⁶⁹⁰ Phase II, which began in February, undertook the much longer task of removing all of the remaining elements of the Libyan nuclear and chemical programs.⁶⁹¹ At the end of this phase, Washington partially restored diplomatic ties with Libya through the establishment of a US Liaison Office in Tripoli, and lifted most of the ILSA sanctions. Phase III, which took up most of the remainder of 2004, focused on inspections, and creating a detailed history of Libya's nuclear weapons program. At the end of this phase, the United States lifted most of the remaining trade and financial sanctions against the country. Only those stemming from Libya's presence on the US State Department's list of state sponsors of terrorism remained in place (and would not be removed until 2006, when Libya was taken off the list and full diplomatic ties were restored).⁶⁹²

Libyan denuclearization was made possible through a series of agreements, beginning in 1998, involving the sequential offer of positive inducements. These ranged from the diplomatic to the economic, and, most importantly, included US acceptance of the Gaddafi regime.

⁶⁸⁹ There was no formal, upfront agreement on the timing of these exchanges. Disarmament activities were dictated by logistics, and US reciprocal inducements were simply provided at the fruition of each of these steps to the satisfaction of the Libyans. Bowen, 2006, p.75.

⁶⁹⁰ Equipment and materials airlifted out of Libya in Phase I included uranium hexafluoride, gas centrifuges and centrifuge parts (both P-1 and P-2), and nuclear weapons designs. They were sent from Libya to Oak Ridge National Laboratories in Tennessee. (DeSutter, 2004). The Libyans also agreed to pay compensation for the UTA 772 families at this time (Smith, January 10, 2004).

⁶⁹¹ This phase also required several subsidiary agreements regarding the location to which materials and equipment would be taken, who would conduct inspections and have custody of equipment, how it would be handled, and who would pay for it. Overall, roughly 1,000 tons of equipment were shipped out of the country during this phase. It also involved the removal of HEU fuel rods that had been provided by the Russians for the TRR. Finally, the issue of unemployed nuclear scientists and the conversion of the HEU-fueled reactor to LEU fuel had to be addressed. IAEA Staff Report, "Removal of High-Enriched Uranium in Libyan Arab Jamahiriya," March 8, 2004. Available online at http://www.iaea.org/NewsCenter/News/2004/libya_uranium0803.html; DeSutter, 2004; Bowen, 2006, p.76.

⁶⁹² Brinkley, May 16, 2006.

Moreover, denuclearization itself was accomplished piecemeal, over a series of tit-for-tat exchanges of Libyan nuclear concessions in return for American positive inducements. This case, therefore, illustrates how positive inducements can have a powerful effect in bargaining between states, even when negotiations are taking place between adversaries.

The case also illustrates how inducements can succeed in cases where sanctions could not. While the lifting of US and UN sanctions played a role in the denuclearization process, the sanctions themselves did little to change Libyan behavior over the course of the many years during which they were implemented. Importantly, the exchanges between the United States and Libya that produced denuclearization took place after the sanctions had already begun to be lifted. UN sanctions were suspended in 1999, and there was little hope after that that they could be reinstated. They were withdrawn permanently in September 2003, three months before Gaddafi's announcement that he would give up his nuclear program. US sanctions were largely lifted in response to denuclearization, but they had been in place for almost two decades at that point. Neither UN nor US sanctions was sufficient to produce denuclearization, either during the many years of their implementation, or even as a result of lifting them. More important were inducements that signaled to Tripoli the US's willingness to accept the Gaddafi regime, permanently end any support for its overthrow, and promote Libya's integration into the world economy.

V. Incremental and Reciprocal Concessions

The 2003 Libyan decision to denuclearize, in return for a lifting of US sanctions and the normalization of relations between the two countries, was only possible because it came at the end of a series of earlier exchanges. These began in 1999, when the two sides agreed to a third-country trial for the Lockerbie suspects. Subsequent negotiations resolved outstanding disputes over the Lockerbie issue. Libya and the United States also engaged in intelligence cooperation against al Qaeda after the 2001 attacks. These significant but relatively less valuable exchanges, particularly the resolution of the Lockerbie dispute, were necessary before a settlement on the nuclear weapons issue could be achieved.

The Libyan case, therefore, supports hypothesis (H3):

(H3.a) Cooperation is most likely when mutual concessions are made sequentially, beginning with ones that are less costly and are reversible, and leading over time to ones that are costlier and more permanent.

(H3.b) All-at-once grand bargains are less likely to succeed.

(H3.c) Sequential and progressive exchanges of concessions are most necessary with adversaries.

As is naturally the case between adversarial states, little trust existed between the United States and Libya in the 1990s and early 2000s. By the time secret talks began between the Clinton administration and the Libyans in 1999, the two countries had been at odds with one another for the better part of three decades, and across six presidential administrations. Hostilities between the two sides had taken place on every level – military, economic, and diplomatic – and several major disputes across a number of distinct issue areas were outstanding. In such a climate, an overall, grand settlement that resolved all major issues at once was very unlikely, if not impossible to achieve.

As the theory predicts, however, a sequential exchange of reciprocal concessions over time, and of increasing value over time, accompanied by other confidence-building measures, made, between 1993-2006, increasingly deeper agreements possible across the most important extant issues. For the Americans, this meant full resolution of the Lockerbie issue, including monetary reparations and a public admission of responsibility; an end to Libyan-sponsored terrorism; a more constructive approach to the Israel-Palestine peace process; and a complete and verifiable end to Libya's WMD programs (*i.e.*, chemical and nuclear). For the Libyans, the central issues were the lifting of UN and US economic sanctions, the country's removal from the US's list of state sponsors of terrorism, the lifting of the US travel ban, a full normalization of relations, the removal of financial and loan restrictions, and regime acceptance. Over the course of roughly a decade, these issues were resolved through reciprocal, tit-for-tat exchange. Most importantly, these exchanges were made in sequence, often according to a detailed, mutually agreed-upon script, with clearly communicated demands, established metrics for compliance, and mechanisms for verification. Finally, they were made progressively, beginning with exchanges that were, politically speaking, the easiest, and moving over time to thornier issues. Agreement on smaller issues both credibly communicated and helped shape each side's preferences, built trust, and made succeeding agreements possible. In the end, a decade of this process led to significant change in the relationship between the two sides, not just on the nuclear issue, but across a much wider spectrum of concerns.

A bargaining process based on mutual concessions between the United States and Libya could not begin in earnest until 1998, after the United States became willing to negotiate a third-country trial under Scottish law for the Lockerbie suspects. US domestic politics greatly constrained the Clinton administration's policy choices, and forced the administration to resolve

the Lockerbie issue before others could be addressed. Before the United States was forced to adopt a more flexible approach by the imminent fracture of the UN sanctions coalition, Washington's demands were unconditional: a trial had to be held in either the United States or Britain. On the Libyan side, the country's own domestic politics ruled out such a concession. Jentleson and Whytock describe the US position during these years as failing to be "reciprocal," as the Americans simply issued a set of demands and were not "open to negotiations" or "ready to deal with Gaddafi."⁶⁹³ They were, in fact, extortionate: the Americans threatened continued and escalating punishment unless demands were met.

Once the United States yielded, and – after half a decade of holding firm on the issue – offered to hold the trial under Scottish law in the Netherlands, a bargaining process between the two sides began in earnest. The change in the US position offered the Libyans a face-saving route to satisfying UN demands, and indeed led to essentially the same deal the Libyans had begun to propose six years earlier. After further negotiations between August 1998 and April 1999 resolved other details of the trial – most importantly an American and British pledge not to use the trial as a political weapon against the Gaddafi regime – the two suspects were handed over, and UN sanctions were subsequently suspended.

The agreement over the trial's location and format created an opening for direct talks between the United States and Libya for the first time since diplomatic ties were severed decades earlier. The United States made clear during these talks that the Lockerbie issue, specifically the outstanding issues of reparations for the families and a public admission of responsibility, had to be settled before the United States would support the permanent lifting of any sanctions, or before diplomatic ties could be restored.⁶⁹⁴ US concerns over Libyan WMD programs were also made clear in the meetings, however, these could not be addressed until the Lockerbie issue was first resolved. This stance reflected domestic political realities in Washington: pressure from US interest groups, especially the Lockerbie families, precluded any exchange with Libya without resolving the reparations issue first. The talks were ultimately suspended in 2000 without any agreement reached on the issue of reparations, however, they did allow for the communication of preferences by each side, with the United States making clear the sequence of steps that needed to be taken before sanctions could be lifted, and the Libyans making clear that they were willing to resolve outstanding issues, including its nuclear and chemical weapons activities. Perhaps more importantly, it became clear from both the trial and the talks that the United States was ultimately

⁶⁹³ Jentleson and Whytock, 2006, pp.64-5.

⁶⁹⁴ The United Kingdom, on the other hand, decided to reestablish diplomatic ties with Libya in 1999. Hoge, July 8, 1999.

willing to accept the Gaddafi regime into the international fold provided Libya met certain realistic conditions.

These talks set the stage for the next round of cooperation between the United States and Libya. Beginning in 1999, there was a noticeable thaw in US-Libyan relations, as Libya severed ties with radical organizations, moderated its stance toward Israel, and pursued more benign foreign policy goals in Africa. The United States, meanwhile, softened its own rhetoric and made a series of public references to the country's improved international behavior.⁶⁹⁵ The incoming George W. Bush administration, while still holding Libya to the demands laid out in the UN sanctions resolutions, also exhibited restraint, and launched a full review of US policy toward Tripoli.⁶⁹⁶ The administration also restarted unofficial talks with the Libyans immediately after taking office. Perhaps most telling was Libya's reaction to the September 11, 2001 attacks.⁶⁹⁷ Libya was quick to condemn the attacks and to publicly offer the Americans condolences. More importantly, the two countries engaged in intelligence sharing and cooperation against al Qaeda in the wake of the attacks. Both the United States and the Gaddafi regime faced a common threat from Islamist radical organizations. This cooperation in fact grew directly out of the 1999-2000 talks between Libya and the Clinton administration, as al Qaeda and Islamist terrorism had been discussed between the two sides in those meetings.⁶⁹⁸

Growing out of these initial cooperative exchanges were policies, adopted by both sides in the early 2000s, that were clearly meant to signal each side's preferences to the other, even while the Bush administration adopted a hardline stance toward state-sponsored terrorism, "rogue" states, and WMD proliferation. The US State Department's *Patterns of Global Terrorism* report for 2002 took a noticeably more moderate tone toward Libya.⁶⁹⁹ Likewise, Libya was left out of George W. Bush's "axis of evil" in 2002, despite its continued presence on the State Department's list of state sponsors of terrorism. Libya, for its part, signed the Convention for the Suppression of the Financing of Terrorism in 2002, as well as the Convention on the Making of Plastic Explosives for the Purpose of Detection, thereby agreeing to all twelve of the major international conventions and protocols on terrorism.⁷⁰⁰ The message from both sides was clear: the United States considered Libya separately from other "rogue" states such as

⁶⁹⁵ A good summary of this period is found in St. John, 2002, pp.177-84. Also see Deeb, 2000. See Neumann, Senate Hearing 106-740, 2000; and Lancaster, December 24, 1999 for evidence of US moderating its official rhetoric during this period.

⁶⁹⁶ Behr and Sipress, April 19, 2001; St. John, 2002, pp.10-11.

⁶⁹⁷ St. John, 2004, p.393.

⁶⁹⁸ St. John, *Libya*, 2008, pp.242-4.

⁶⁹⁹ US Department of State, 2003, p.80.

⁷⁰⁰ *Ibid.*

Iraq or North Korea, and was prepared to accept the Gaddafi regime provided certain conditions were met; and the Libyans were prepared to meet American conditions concerning terrorism and WMD.

Finally, the growing rapprochement between the two countries allowed for the negotiation of a rough schedule of exchanges to resolve remaining issues. The United States, in its direct talks with the Libyans, presented Tripoli with a “script” that laid out a set of American demands regarding compensation for the Lockerbie families and an admission of responsibility for the attacks, and also held out a number of positive inducements that the United States was prepared to offer in exchange for each demand.⁷⁰¹ This “script” was reflected in the May 2002 settlement offer of \$4.1 billion that was made by the Libyans to the Lockerbie families. The money was to be put into escrow, and released in steps as several conditions were met. 40% would be released once UN sanctions (at the time suspended) were permanently lifted, 40% once US sanctions were lifted, and 20% once Libya was removed from the State Department’s sponsors of state terrorism list.⁷⁰² In addition, the United States made it clear that it would not lift US sanctions or restore diplomatic ties until the WMD issue was resolved as well.⁷⁰³

Therefore, the negotiations and the series of exchanges that took place between the two countries between 1998 and 2003 laid the groundwork for – and indeed made possible – the December 2003 decision to denuclearize. The Libyans, over this period, satisfied all outstanding US demands over Lockerbie, making it politically feasible for the Bush administration to move forward on the WMD issue. At the same time, US acquiescence to the suspension, and then to the permanent lifting of UN sanctions, along with other important confidence-building measures and exchanges, provided the Libyans with evidence that the US promise to keep its side of the bargain in a deuclearization agreement could be believed.

The December 2003 announcement by Gaddafi was preceded by a rapid series of exchanges that were negotiated in a flurry of secret talks. It was only 10 months after the offer of a Lockerbie settlement that the Libyans approached the British in London about negotiations over WMD. In August 2003, Libya and the Lockerbie families reached an agreement over a settlement and Tripoli accepted responsibility for the attack in a letter to the United Nations, and in September UN sanctions were permanently lifted. Denuclearization talks were structured simply as an extension of the *quid-pro-quo* arrangement for Lockerbie. Once the Lockerbie

⁷⁰¹ Leverett, January 23, 2004.

⁷⁰² Rizzo, May 29, 2002. As described elsewhere in this chapter, this schedule of payments had the added benefit of neutralizing opposition from the Lockerbie families to rapprochement with the United States.

⁷⁰³ Also, a British official visited Tripoli in August 2002 and discussed the WMD issue with the Libyans directly. Bowen, 2006, p.62.

concessions were completed, and UN sanctions were withdrawn in return, another series of steps could begin that would ultimately bring Libya's nuclear program to an end – and allow for inspections and monitoring, including a full accounting of past activities – in return for regime acceptance, the restoration of trade in investment, and the normalization of diplomatic ties between Libya and the United States. In September 2003, the month the Lockerbie dispute was finally settled and UN sanctions lifted, and the same month the Bush administration ordered an all-agency review of US relations with Libya, the Libyans reached a decision to open the country's nuclear program up to inspections. In October, following intelligence revelations by the Americans and British that showed the extent of their knowledge about Gaddafi's dealings with the Khan network – and after the interdiction of the *BBC China* – US and British inspectors were given access to nuclear and chemical sites and facilities.⁷⁰⁴

Libya's 2003 decision to denuclearize came as the result of a years-long series of *quid-pro-quo* exchanges between the United States and Libya. These exchanges made denuclearization possible by communicating preferences and establishing the necessary trust to enact an agreement. As Section VII of this chapter, which covers domestic politics, will make clear, these exchanges of concessions shifted each country's domestic politics in a direction that made future accommodation possible by strengthening pro-reform political actors and weakening hardliners. This was best accomplished through measures that were directly targeted at important domestic groups, such as the settlement offered to the Lockerbie families. Because of this dynamic, exchanges could proceed from relatively small issues, such as a compromise over a trial location, to much more significant ones, such as inspections and denuclearization. Moreover, it is unlikely that sufficient trust existed between the two sides before this process of sequential and progressive mutual concession making for a denuclearization deal to have been effected in its absence.

⁷⁰⁴ Joffe, 2004, pp.222-3; Bowen, 2006, pp.64-5; St. John, 2004, p.397. St. John claims Libya had made its decision to denuclearize before the October interdiction of the *BBC China*. St. John's source is an interview between by the author with Saif al-Islam Gaddafi. Obviously, such a claim from Saif Gaddafi should be treated with more than a grain of salt, as the Libyans have every incentive to portray their decision as being of their own free volition and not in response to the US seizure of centrifuge parts bound for the country. However, as referenced here and discussed elsewhere in this chapter, there is evidence from other sources as well that indicate that the Libyans had already made their decision to give up the program. It is worth recalling, of course, that it was the Libyans themselves who pursued a deal over WMD, and they had offered such a deal a number of times over previous years.

VI. Lines of Communication

The Libyan case lends strong empirical support to hypothesis (H4):

(H4.a) Both positive inducements and negative sanctions are more likely to be effective when there exist thick and well-established lines of communication between target and sender.

(H4.b) The use of diplomatic contacts or negotiations themselves as a bargaining chip is counterproductive and likely to fail.

As Libya scholar Ronald Bruce St. John points out, US sanctions initiated under the Reagan administration had the effect of cutting off the flow of information between the United States and Libya, while at the same time had little (if any) positive effect on Libyan behavior.⁷⁰⁵ This became particularly relevant during the 1990s, when Libyan policies began to change, and Tripoli began to pursue a rapprochement with the United States. As early as 1992, Tripoli began to pursue negotiations with the Americans, and was forced to initiate contacts through back channels such as former Senator Gary Hart because the United States had severed formal ties to the country. Importantly, the Gaddafi regime sought to communicate preferences that were broadly in line with the terms the United States would later agree to: a trial for the Lockerbie suspects in a neutral country, the renunciation of terrorism, and the abandonment of WMD programs, all in return for a lifting of sanctions and the normalization of relations. Some details aside, this is indeed what the Americans settled for in the negotiations that took place in the late 1990s and early 2000s. Nonetheless, all of Gaddafi's overtures before that time were rejected out of hand. Some of this is explained by conditions during most of the 1990s that would change late in the decade and make compromise possible. Before the Americans became willing to compromise on the location of a trial, the sanctions regime had begun to weaken, greater pressure from allies had come to bear on the United States in favor of a settlement, and the preferences of

⁷⁰⁵ St. John, 2004, p.402. St. John, interestingly, is specifically referring to economic sanctions, not diplomatic sanctions. He claims that these "shuttered already closed societies, making it extremely difficult for US intelligence to monitor internal developments." This is a good and interesting point, and worthy of fuller treatment than provided in this dissertation. The central point here is that diplomatic sanctions – the severance of communication channels – weaken the effectiveness of counter-proliferation policies. It is worth noting, though, that economic sanctions can often produce a similar effect, albeit more indirectly. As I argue in this section, and in more detail in Chapter 2 of this dissertation, a lack of communication between the two parties makes it difficult for the two sides to read one another's preferences and intentions accurately, thereby making suspicions of extortion more acute (and as a result, making agreement less likely). As economic sanctions make societies more impenetrable to outside observers, this, of course, would also have the effect of making preferences and intentions that much more inscrutable. This is another way, therefore, in which economic sanctions can be counterproductive.

the Pan Am 103 families had begun to shift after years without closure and in the face of the growing possibility that a trial might never take place if the United States continued to maintain to its position. Libya's renunciation of terrorism had also become more apparent.

Just as important, though, was the fact that the United States found it difficult to read Libya's preferences and intentions in the absence of any direct communication channels. The lack of diplomatic ties, and the opacity of the regime, left the Americans increasingly ignorant of significant changes that had taken place domestically in Libya, and lacking in trusted intermediaries. Additionally, whatever accurate signals were sent by the regime were complicated by conflicting data coming from Libyan dissidents, with whom the United States maintained closer ties, on whom they frequently relied for information, yet who had their own interests and incentives to misrepresent events in Libya.

On the other hand, when fruitful negotiations with Libya did begin in 1999, they were facilitated by the fact that the United States could count on trusted allies which had restored ties with Libya, and which could therefore act as intermediaries. British assistance, in particular, proved to be of great importance during US-Libyan negotiations, as Britain had reestablished diplomatic relations with Tripoli in 1999, while the United States chose not to reestablish ties.⁷⁰⁶ The British served not only as an important channel of communication between the two parties that would not otherwise have been available (and, more directly, as a sponsor of the secret talks), but also as an important source of information for both sides, as they could gauge intentions and communicate bargaining preferences. The Americans, for example, did not begin negotiations with the Libyans until the British had already been engaged in direct talks and had given the United States assurances about Tripoli's intentions. The British played this role again after 2001, allowing the Americans to limit their own participation to only a handful of talks while the British laid much of the groundwork in the background. It was also the British who were first contacted in March 2003 by the Libyans when they offered to negotiate over the nuclear program. Once again, London laid the preliminary groundwork for negotiations. This enabled London to provide reassurances to both sides that each one's stated preferences for a settlement were genuine. The United States was therefore able to enter discussions when it already had been provided with strong reason to believe a deal was possible. Without the British acting as intermediaries, then, a negotiated settlement might not have occurred when it did.

⁷⁰⁶ Bowen, 2006, p.59-60. Bowen argues that while Britain was important in providing a communications link, it was only the United States that could offer the inducements necessary to reintegrate Libya into the international community.

Also important is the fact that communications between the Libyans and Americans could take place in secret. This was facilitated by the discussions over the Lockerbie trial, as other issues such as the nuclear program and normalization of relations could be discussed on the sidelines of these talks without alerting the public. It was also made possible by the fact that the British had been engaged with the Libyans in talks already for months, and that other intermediaries, including Nelson Mandela and Saudi Prince Bandar, were involved.⁷⁰⁷ The ability to discuss these issues away from public scrutiny allowed the two sides to save face, and it reduced concerns over reputation costs as well as domestic political costs, as both Washington and Tripoli had to worry about domestic opposition from hardliners who opposed any settlement.⁷⁰⁸

The lack of any diplomatic ties between the US and Libya presented more obvious difficulties in 2004, as the two sides needed to cooperate on nuclear inspections and the removal of materials and equipment from the country. At first, even the transit of inspectors and US officials into the country was problematic, as special provisions had to be made for travel to Libya on US passports in light of the extant travel ban. Moreover, the logistics of inspections and dismantlement had to be handled principally by the United Kingdom, which had had an embassy operating in Tripoli for more than four years by then, and therefore had the personnel, contacts, and facilities to arrange counter-proliferation activities that the Americans, with no presence on the ground, could not.⁷⁰⁹

VII. Domestic Politics

The Libyan case illustrates how the international bargaining process and domestic political processes can interact with one another to produce either spirals of aggression or mutually reinforcing concessions. In this case, both occurred at different times: US coercive efforts during the Reagan years reinforced revolutionary and anti-Western political forces in Libya and led to a hostile spiral. Later, mutual concessions between the two countries, beginning during the final years of the Clinton administration and continuing under the Bush administration, eventually produced denuclearization and rapprochement. It is also important to note, however, that domestic political changes in Libya that were largely independent of US policies set the stage for productive bargaining in the late 1990s, and rapprochement would have been unlikely in their

⁷⁰⁷ Tran, April 9, 1999.

⁷⁰⁸ Secrecy was, in fact, one of the principal demands of the United States before engaging in dialogue, to which the Libyans agreed. It was also worries over possible leaks that led the Clinton administration to sever talks in 2000 before the November elections. See Bowen, 2006, p.60.

⁷⁰⁹ *Ibid.*, p.74.

absence. Therefore, the case illuminates both the promise of positive inducements and the limitations of statecraft in general.

The Gaddafi regime's legitimacy rested from the beginning largely upon its claim to be a champion of Arab unity and self-sufficiency. Central to this was anti-colonial and anti-Western rhetoric and a foreign policy that challenged the dominant role of the United States in the region. Gaddafi took pains to portray the 1969 coup as a popular movement or revolution, and successfully sought to generate revolutionary fervor as a means of mobilizing popular support. This revolutionary ideology was reflected in the informal institutions the regime erected to exercise power both domestically and internationally. Gaddafi relied less on formal state institutions than he did on an informal system of revolutionary committees that mobilized support, brutally rooted out opposition among the public and within state institutions such as the military and security services, and directly implemented foreign policy by supporting terrorist networks and operating clandestine operations out of Libyan embassies abroad.⁷¹⁰ Gaddafi's quest for a nuclear bomb was simply one part of this overall political orientation, and it reflected the regime's ideology more than international security considerations.

The establishment of anti-Western resistance and national and regional autonomy as pillars of regime legitimacy – as well as the portrayal of Western powers as untrustworthy actors and illegitimate partners – led US efforts at coercion to produce unintended and often counterproductive domestic effects, and promoted spirals of aggression. It set up imposing reputation costs both domestically and internationally should the regime give any appearance of giving in to Western coercion (or extortion). This dynamic was most apparent with the Reagan administration's use of coercive diplomacy. American diplomatic and economic sanctions, and American military provocations in the Gulf of Sidra, only led to greater hostility, strengthened Gaddafi domestically, and weakened the groups the United States counted on most to oppose Gaddafi and his foreign policies. Repeatedly in the early 1980s Gaddafi seized upon military incidents in the Gulf – such as the 1981 downing of two Libyan fighters by the US naval forces, and the Reagan administration's push for economic sanctions – to mobilize supporters, to increase the power of the revolutionary committees over formal state institutions such as the

⁷¹⁰ For a discussion of Gaddafi's pan-Arabist and anti-Western ideology and its roots, see Vandewalle, 1998, 124-31; and Burgat, 1995. For a description of the revolutionary committees, their extra-legal roles in revolutionary political mobilization and internal security, and the formal and informal structures of the Libyan state in general, see Mattes, 2008. Finally, for a discussion of Libyan foreign policy making and the role of ideology and the revolutionary committees in this process, see Joffe, 2008.

military, and to call for the creation of a popular militia that could offset the military's domestic clout. The net effect was to strengthen Gaddafi's grip on power.⁷¹¹

The Reagan administration's decision to use military force against Libya in 1986 also led to domestic political effects in Tripoli that ultimately undermined American goals. The attack exposed the weakness of the Libyan military, and gave Gaddafi an opportunity to expand his control over the organization and to diminish its influence over the policy agenda. Senior army officers were forced to accept rank reductions, army headquarters were relocated from Tripoli to a remote location, and a number of officers simply fled the country. Considering that Washington viewed the Libyan military as an important potential source of opposition to Gaddafi's foreign policies and believed they could carry out a coup, a weakening military, coupled with a resulting rise in the status of the country's revolutionary committees, represented a setback for the Americans.⁷¹² The attacks also weakened two other groups the Reagan administration supported: domestic opponents to the regime and opposition groups in exile. The April bombing raid and the brief period of instability in its aftermath gave Gaddafi the pretext to violently crack down on any internal opposition or domestic actors that could be linked to American support. At the same time, the attack created a backlash among the Libyan population against the United States and allowed Tripoli to portray Libyan opponents to the regime in exile as US pawns.⁷¹³

Libyan policies moderated over the course of the 1990s, however, this had little to do with US and UN economic sanctions and other coercive measures – all of which had only marginal economic effects within Libya – and more to do with the regime's unsound economic policies, the loss of the Soviet Union as a benefactor, and the vicissitudes of the international oil market. The country's growing economic malaise and diplomatic isolation fueled the rise of a reformist faction of elites who challenged the country's foreign and economic policies. Two competing groups – technocratic reformers on one side, and hardliners, led by close Gaddafi confidant Abdelssalem Jalloud, on the other – struggled for control over the future direction of the country. Each represented key stakeholders in the country: respectively, an oil industry that could reap huge rewards from reconciliation with the United States and Europe, and a large

⁷¹¹ Vandewalle, 1998, pp.121-2; Vandewalle, 2008, pp37-8.

⁷¹² St. John, 2002, pp.139-40. Mattes and Vandewalle both challenge this interpretation, however, and assert that the army in fact came out ahead in response to the 1986 attack, as it alone was capable of suppressing rebellion and reestablishing order in the wake of the bombings. Mattes, 1995, pp.105-8; Vandewalle, 1998, p.123. The purges that took place within the army's elite ranks, and the strengthening of revolutionary committee zealots, as well as contemporary news reports, suggest otherwise. See, for example, Seib, September 5, 1986; and Whitaker *et al.*, April 28, 1986.

⁷¹³ St. John, 2002, p.140.

intelligence and security apparatus that would be weakened by any opening. Most important was the old guard of the regime that had benefited enormously from the country's patronage system, and stood to lose these rents if liberalization were to proceed in any real form. The two sides competed for the ear of the country's leader and ultimate arbiter of policy, Gaddafi. By the end of the 1990s, the pragmatists in Tripoli had succeeded in gaining the upper hand, as the further-deteriorating economic situation, and the rise of a new generation of elites who had no stake in anti-Western posturing and resented the isolation imposed by travel bans, weakened the hardliners' position.⁷¹⁴

Domestic political factors also shifted American policy preferences. When the Reagan administration left office in January 1989, the US adopted a more moderate approach to Libya, as Reagan-era hardliners were replaced by pragmatists who took a more skeptical view of the efficacy of coercion, particularly the use of military force.⁷¹⁵ The Reagan administration's efforts to bring about regime change were abandoned in favor of a more limited, and at the same time clearer, set of demands that could, at least in theory, be accommodated without necessarily threatening the regime's hold on power. Most notably, the George H. W. Bush administration discontinued the covert operations aimed at weakening or overthrowing the regime that had been initiated under Reagan. Even as tensions between the two countries rose to a fever pitch in the aftermath of the Lockerbie bombing and subsequent revelations that the Libyans were responsible for it, neither the Bush administration nor the Clinton administration threatened Gaddafi's rule to the degree that the US had under Reagan. After the Lockerbie indictments, rather than act militarily as the United States had in 1986, the US instead joined with Britain and France in issuing a set of clear demands: the surrender of the Lockerbie suspects (and UTA 772 suspects), an acceptance of responsibility for the attacks, the renunciation of terrorism, and reparations to the families of the victims. This stands in marked contrast to the approach of the Reagan administration after the Rome and Vienna airport bombings and the discotheque bombing in West Berlin.

The more moderate stance of each side reinforced one another. While the Lockerbie families became an important domestic group in the United States and imposed some limits on how much US policy could be moderated, the noticeable decline in Libyan-sponsored terrorism over the 1990s allowed the Clinton administration to abstain from the military provocations the

⁷¹⁴ Vandewalle, 2006, p.98.

⁷¹⁵ Of course, this was not the only factor at work. Reagan policies toward Libya were also shaped by the Cold War context and a common view among Reagan officials that Libyan terrorism, and Middle Eastern terrorism in general, was tightly linked to the Soviet Union. By the time George H. W. Bush took office, the Cold War had ended, Soviet influence in the Middle East had significantly waned, and the USSR's days were numbered.

US had used in the 1980s. Had Libyan terrorism remained at its peak levels, or even if Gaddafi had sponsored another Lockerbie-style attack, this would have been improbable.

Most importantly, domestic political factors played a key role in both Libya and the United States in the negotiations, and ultimately the rapprochement, that took place between the two countries between 1998 and 2006. The weakening of the international sanctions regime had begun to force the US's hand on the issue of a third-country trial for the Lockerbie suspects by the late 1990s, and although domestic support for a strong stance against Libya continued, this also had begun to shift. While American families of the Pan Am 103 victims continued to lobby for an unyielding position toward Gaddafi, they were no longer in lockstep on the issue, as a growing number worried that flagging international support for sanctions would kill any chance for a trial and therefore any hope of achieving closure. British families of the Lockerbie victims had already moved much further on that point, and had begun to support compromise on the issue of a third-country trial.⁷¹⁶ US oil companies, which, if US sanctions were not soon lifted, stood to lose the concessions that had been put aside by the Libyan government after Reagan ordered their withdrawal from the country in the 1980s, were becoming increasingly eager to compromise and restore ties with a Libyan government whose political and economic moderation had become ever more apparent.⁷¹⁷ These political shifts in the United States were given added impetus by Libya's more moderate behavior, as American hardliners found it more difficult to advocate in favor of an unyielding US position.⁷¹⁸

⁷¹⁶ Black, February 28, 1998; Uchitelle, September 11, 1996; *Reuters*, October 26, 1997. Also important was the ICJ's decision to hear Libya's case about the Lockerbie trial and UN sanctions.

⁷¹⁷ In 1997, oil companies and other corporate interests formed the lobbying firm USA Engage, whose stated mission is to lobby against US unilateral sanctions (www.usaengage.org). O'Sullivan points out that the end of the Cold War provided US commercial interests a new voice in promoting foreign policy preferences, as they felt less obliged to be silent on these issues, and more capable of influencing decision makers in Washington. (O'Sullivan, 2003, pp.20-1). Zagorin and Doyle (March 27, 2000) and Kaplan (July 24, 2000) provide details about the role oil companies and other corporate interests played in lobbying for a more accommodationist position toward Libya and an end to sanctions during the latter years of the Clinton administration. See also Joffe, 2008, p.205; and Lippman, January 26, 1998.

⁷¹⁸ Zagorin and Doyle, March 27, 2000; Kaplan, July 24, 2000; Zoubir, 2006, p.50-4. Different interests in Washington adopted various policy positions on the issue for different reasons. Oil and agricultural interests, and influential members of Congress representing oil and farm states, had a commercial interest in improving relations with Libya, and feared losses from European rapprochement with the country. Career diplomats in the State Department and advisers in the Clinton administration believed that engagement with Libya would be more effective at achieving American goals than sanctions. The Lockerbie families, who were the most influential of those who supported a hard stance against Gaddafi, wanted justice for the regime's terrorist attacks. In the late 1990s and into the 2000s, the pro-engagement interests became increasingly vocal and influential in Washington, as Libya's more moderate behavior made pro-engagement arguments more publicly acceptable. Also, it should be noted that pressure from outside the United States played a critical role at this time, as figures such as Nelson Mandela, and US allies such as Britain, strongly lobbied in Washington for a more moderate stance.

The US's decision to accept a trial for the Lockerbie suspects in the Netherlands under Scottish law was not by itself sufficient to produce agreement between the two sides, but initiated a bargaining process in which proposals from both sides moved the two states' preferences into closer alignment. In negotiations between August 1998 and April 1999, for example, the US and Britain offered a number of inducements to the Libyans that allayed the anxieties of the Gaddafi regime, including its concern that a trial would be used to undermine the regime or challenge Gaddafi and other key figures. US reassurances signaled that the United States was now willing not only to negotiate with Libya but even to accept the legitimacy of the Gaddafi regime. This provided a foundation for future concessions and strengthened the arguments of reformers in Libya who promoted rapprochement.

These early compromises pushed the two sides toward increasing cooperation from 1999 to 2003. Throughout, both sides engaged in confidence-building measures and made other concessions that affected one another's domestic politics and in turn favorably shaped the other state's preferences. The US lifted sanctions on medicine and agricultural exports in July 1999, a move that rewarded a key domestic group, agricultural producers, and at the same time strengthened Libyan domestic interest in pursuing closer ties.⁷¹⁹ Clinton administration officials also began to cautiously but publicly note improvements in Libyan behavior.⁷²⁰ State Department officials were sent to Libya, ostensibly to determine whether safety conditions there were sufficient to allow for a lifting of the travel ban. US oil companies were also allowed to visit Libya and inspect oilfields. The Libyans for their part intensified their efforts to forge ties with the Europeans, putting added pressure on US interests that stood to lose from continued US sanctions while European companies grabbed up new opportunities.⁷²¹

However, both sides still had to contend with domestic constituencies that limited their ability to make concessions. Overwhelming support in Congress for the ILSA sanctions, including a lopsided 2001 vote for a 5-year extension of the law, undermined US foreign policy and reflected the continued importance of domestic interest groups.⁷²² Continued advocacy by

⁷¹⁹ The food and medicine exemption to economic sanctions was not undertaken solely with respect to Libya (it applied to sanctions against Iran and Sudan as well). However it does reflect shifts in domestic political preferences in the United States, and it did have a direct bearing on the US-Libya relationship. Shenon, April 29, 1999.

⁷²⁰ For example, Neumann, Senate Hearing 106-740, 2000; and Neumann, *Middle East Policy*, 2000. Also see Hoagland, March 26, 2000.

⁷²¹ St. John, 2003, pp.468-72.

⁷²² St. John, 2002, p.19, p.193; Mitchell, July 26, 2001. With respect to Congress, the fate of the US travel ban is telling. Despite the March 2000 State Department visit to Libya to assess the lifting of the travel ban, Congress voted to advise the president not to lift it in April, leading the State Department not to act to lift the ban. When the ban was up for renewal in November of that year, Secretary of State Madeleine Albright, who had earlier ordered the State visit to Libya, now sought to extend the ban by 6 months.

the Pan Am 103 families for a tougher stance made the Lockerbie issue *sine qua non* for the administration, which meant that Libya would have to meet American demands on that point before WMD matters could be productively discussed.

For the Libyans, domestic opposition took the form of hardliners that continued to occupy high positions in the regime, and the people's committees, which continued to be an important political force in the country. Decades of policies that centralized and informalized both political and economic power, and established a patronage system through which elite support was bought with oil revenues, created a sclerotic domestic political order that resisted necessary changes such as economic liberalization and foreign policy moderation. Late 1980s and early 1990s reforms, and the rise of powerful technocrats and reformists within the regime, had failed to change these basic power structures.⁷²³

The reformers' influence, though, was becoming increasingly apparent. Laws passed in 1997 created a legal framework for foreign direct investment in Libya.⁷²⁴ The Abu Nidal Organization was expelled from the country.⁷²⁵ Gaddafi announced that he would no longer support rejectionist Palestinian groups and would deal only with the Palestinian Authority.⁷²⁶ Yet more substantial reforms were not forthcoming. The continued role of hardliners complicated any agreement over monetary reparations to the Lockerbie families, or an admission of responsibility for the bombing.

The early 2000s saw a further consolidation of reformists' political influence in Libya, growing steps toward economic liberalization, and significantly greater cooperation with the United States. These three trends were directly influenced by – and mutually reinforced – one another. After George W. Bush took office, the shared interest between the US and Libya in fighting al Qaeda was important in providing an opening to reinstate secret talks and to continue the process that had begun under Clinton to resolve the outstanding Lockerbie issues. Libya's and the US's common fight against Islamist terrorists and al Qaeda also led to shifts in domestic political preferences in both countries, facilitating cooperation on other issues as well. While the United States and Libya had before stood on opposite ends of this issue, particularly as the United States had supported Islamist groups in Afghanistan, by the late 1990s the two countries both saw Islamist terrorist as a threat. The issue had been raised during the talks that had been held between Libya and the Clinton administration in 1999 and 2000, allowing both countries to

Under pressure from Congress and families of the Lockerbie victims, however, the ban was extended for a full year. Slavin, November 27, 2000.

⁷²³ Vandewalle, 2006, pp.174-6.

⁷²⁴ Libya's Law No. 5 (1997). Otman and Karlberg, 2007, pp.68-70.

⁷²⁵ US Department of State, 2001.

⁷²⁶ Neumann, *Middle East Policy*, 2000.

communicate their interests and preferences, and laying the groundwork for future cooperation. After the September 11th attacks, the Bush administration cooperated with Gaddafi on intelligence gathering against al Qaeda. Moreover, in return for Libyan assistance, the US agreed to freeze the assets of the Libyan Islamic Fighting Group (LIFG), which posed a particular threat to the Gaddafi regime, shortly after September 11, 2001.⁷²⁷ This acknowledgment of a shared enemy, and cooperative efforts to fight it, further shifted preferences on each side toward rapprochement. Also, particularly given the prominence that al Qaeda and the War of Terror had on the neoconservative agenda in the United States, Gaddafi's cooperation on this front did a great deal to neutralize right-wing opposition to further cooperative steps.

Libya's May 2002 settlement offer to the Lockerbie families not only opened up the road toward future exchanges but also served to neutralize another important domestic political opponent to rapprochement in the United States. The settlement was to be paid out in installments that were conditioned on specific benchmarks toward the normalization of relations between the two countries, thus helping to offset continued opposition to relations with Libya by the victims' families. By the end of 2003, the US and Libya had successfully resolved all outstanding aspects of the Lockerbie dispute and were prepared to move forward on the nuclear issue.

This progress paralleled domestic political developments in Tripoli. The influence of reformers and technocrats among the elite, which had begun to become apparent in the 1990s, had increased. While the regime's old guard continued to wield influence, they were no longer the dominant faction. Political elites, meanwhile, were increasingly drawn from outside the revolutionary committees (the traditional source of political recruitment), and were increasingly better educated.⁷²⁸ The new generation's rise was reflected in the more prominent role of Gaddafi's son Saif, who himself was situated among the reformist faction. The younger Gaddafi played an important role in talks with the British and Americans in 2003.⁷²⁹ Equally important was the appointment of Shokri Ghanem, a Western-trained economist and vocal supporter of liberalization and reform, as Libya's prime minister.⁷³⁰

The period also saw a new and deeper round of liberalization efforts. Gaddafi pursued policies aimed at promoting foreign investment, privatized state industries, downsized the state bureaucracy, and targeted corruption within the regime. In January 2002, monetary reforms

⁷²⁷ The US even went so far as to brand LIFG as a subordinate of al Qaeda, which was a dubious claim. The United States eventually listed the LIFG as a terrorist organization in 2004. Pargeter, 2008, p.99.

⁷²⁸ Obeidi, 2008, pp.118-9.

⁷²⁹ Anderson, 2006, p.45; Rublee, 2009, pp.159-60.

⁷³⁰ *Ibid.*; Vandewalle, 2006, pp.185-6.

pegged the Libyan dinar to the IMF's Special Drawing Rights, devaluing the currency by half.⁷³¹ Prime Minister Ghanem, in 2003, identified hundreds of state enterprises, both within the oil sector and beyond, for privatization.⁷³² To attract foreign investment, duties were slashed and free trade zones were established.⁷³³

The decision to give up nuclear weapons in 2003 cannot be understood outside of this context.⁷³⁴ Economic factors exogenous to Libya's relationship with the United States had created political pressures within the country that promoted domestic political change and, in turn, shifts in policy preferences. These shifts were not, by themselves, sufficient to bring about the policy changes that were seen in the early and mid-2000s. Reformers' efforts to liberalize the Libyan economy and seek rapprochement with the United States were only successful because the Americans had made such a path both possible and preferable to alternatives. The US agreement to depoliticize the Lockerbie trial and hold it in a third country provided a face-saving way for Gaddafi to resolve the dispute over a trial. The American agreement to allow the suspension of UN sanctions both signaled a US willingness to bargain in good faith and opened up economic opportunities for Libya that played into the hands of reformers. Most importantly, the US's willingness to accept the Gaddafi regime allowed Gaddafi to favor reformers without compromising regime stability.

Finally, both sides also structured the bargaining process in a way that strengthened their domestic pro-settlement factions and weakened hardliners. Both sides, for example, cooperated to keep talks over WMD a secret in an effort to marginalize the role of hardliners in the policy process and to prevent them from derailing any agreement. On the American side, the most outspoken opponent of any rapprochement with Libya was John Bolton, at the time the US Under Secretary of State for Arms Control (who would soon be pushed out of this role by his appointment as US Ambassador to the UN). Bolton stood against the US's offer of regime

⁷³¹ IMF, 2009, p.24; Otman and Karlberg, 2007, p.292-3. The devaluation of the dinar in 2002 was an important measure to attract foreign investment in the country, as foreign investors were generally unwilling to invest outside the oil sector when the local currency was greatly overvalued. Otman and Karlberg, 2007, provides an excellent general review of the Libyan economy and the reforms undertaken at the end of the 1990s and in the 2000s. See especially pp.281-310, which reviews reforms in the banking sector, the agricultural sector, currency reforms, the creation of a stock market, and many of the other important reforms that took place under Ghanem's leadership during this period.

⁷³² Resolution No. 31 (2003). Vandewalle, 2006, p.187; Otman and Karlberg, 2007, pp.217-32.

⁷³³ *Ibid.*, p.257-9.

⁷³⁴ Etel Solingen also makes the argument that economic and domestic political changes set the stage for Libyan denuclearization (Solingen, 2007, pp.219-26). Solingen, however, does not fully consider the role that US statecraft played in the outcome. I argue that while these domestic changes were necessary preconditions, it was the offer of positive inducements that ultimately led to Gaddafi's decision to give up nuclear weapons. Importantly, while these domestic changes were occurring in the early 2000s, the regime continued to pursue the nuclear option via the Khan network. See Section VIII on alternative explanations for the Libya case for a fuller treatment of this issue.

acceptance in return for denuclearization, and believed the US should pursue regime change in Libya, a policy preference he shared with other neoconservatives in the Bush administration. Bolton had also made public statements about Libya in recent months that challenged the US's pursuit of reconciliation.⁷³⁵ By restricting the number of policy makers who took part in the Libya talks and by keeping them secret until Gaddafi's announcement in December 2003, the White House was able to exclude these voices from the process.

VIII. Alternative Explanations

I consider three competing explanations of Libya's decision to abandon its nuclear weapons program in late. They are as follows:

(A) Negative Sanctions Worked

According to this line of reasoning, two factors were ultimately responsible for Libyan behavior. The first was the implementation of both US and UN economic sanctions during the 1990s and early 2000s. While these sanctions were not principally targeted at Libya's nuclear weapons program, they imposed a high enough burden on Tripoli to influence a significant change in state preferences. Additionally, they imposed such high costs that a continued adversarial foreign policy became economically and politically untenable, and the creation of a functioning nuclear deterrent no longer feasible. At the same time, the economic and diplomatic isolation produced by these measures gave the United States the bargaining power it needed to negotiate Libya's ultimate surrender of its nuclear program.

The second and no less significant factor is the 2003 invasion of Iraq. While no overt threats were made to Libya, and Libya was not included in George W. Bush's "axis of evil," the invasion and the subsequent arrest of Saddam Hussein led Gaddafi to draw the conclusion that continued nuclear weapons development ran a significant risk of inviting a US preventive attack and regime change. While this threat had always existed to a degree, and the United States had indeed used military force in the 1980s against the country, the 2003 invasion – according to this argument – sent a highly credible signal that the Americans were willing to carry out a ground invasion against adversaries in the Middle East to affect regime change. Furthermore, the ease with which the US military removed Saddam Hussein from power demonstrated that Gaddafi,

⁷³⁵ Hirsh, May 2, 2005. Bolton wanted to include Libya in Bush's "axis of evil," and refused to reassure Tripoli that the Bush administration would drop pursuit of "regime change" in favor of "policy change." The British had successfully petitioned influential members of the Bush administration such as National Security Adviser Condeleezza Rice and Secretary of State Colin Powell to cut Bolton out of negotiations with the Libyans.

with far fewer military resources, would have no hope of resistance once the United States chose to invade. Finally, the US decision to forgo UN authorization for the invasion signaled that preventive attack could proceed in the face of political opposition from China, Russia, or even America's allies such as Germany and France. According to this argument, economic sanctions created the necessary conditions for policy change, and the invasion of Iraq determined the timing of Gaddafi's decision.

(B) Domestic Political Change In Libya Best Explains the Outcome

According to this line of reasoning, the decision to abandon nuclear weapons and to seek rapprochement with the United States was made independent of US inducements or threats. Instead, economic and political factors inside Libya led Gaddafi to alter his policies. This narrative fits with Gaddafi's own version of events.

This explanation considers both the external strategic and political environment of the state as well as domestic demographic and economic changes in Libya. The end of the Cold War, political changes across the Middle East, and a long-term decline in oil prices led to economic and diplomatic isolation, and made rapprochement with the United States and integration with the global economic order a necessity. At the same time, unwise domestic economic policies, dependence on the oil sector, and generational shifts changed the domestic political calculus. Revolutionary rhetoric and the use of anti-Western policies to mobilize support for the regime increasingly lost their efficacy. A new generation of elites came to resent the country's isolation and the resulting foreclosure of opportunities for education, investment, employment, and travel abroad, at a time when other Arab elites were increasingly taking advantage of these opportunities in the West. Finally, declining oil revenues weakened the regime's ability to provide social services, procure military equipment, and reward key elites. Regime power was built on this system of payoffs, and as Gaddafi's ability to uphold his end of the social bargain deteriorated, opposition to the regime and instability grew. Rapprochement with the United States became necessary for regime survival, and the nuclear program increasingly became an albatross around the regime's neck, as it drained state coffers while at the same time perennially failing to produce usable weapon. Ultimately the program came to be seen only as a bargaining chip to use to negotiate reconciliation with the Americans.

(C) Changes to Libya's Security Environment Best Explain the Outcome

In many ways, this argument is the polar opposite of alternative explanation (A). Under this argument, the Gaddafi regime sought nuclear weapons as a means to guarantee state survival. In particular, the nuclear program was a hedge against the threat of future conflict with the Americans, the Israelis, or the Egyptians. US coercion (including the use of military force by the Reagan administration), the American preference for regime change, tensions with a US-supported Egypt and a nuclear-armed Israel (which also openly threatened Libya), and an impotent and weakening conventional military made the pursuit of a nuclear weapons capability an attractive option. Gradual softening in the American stance after Ronald Reagan left office, however, led to a rethinking of Libyan policy. According to this argument, 2001 represented a watershed in Libyan security preferences. The September 11th attacks in New York and at the Pentagon by al Qaeda gave the United States and Libya a common enemy, and shifted priorities for both states. By that point, Cold War balancing concerns had been irrelevant for a decade, and the United States's status as sole superpower led it to downgrade Libya's position on its security agenda. After 2001, counterterrorism, as well as Iraq, became much more pressing priorities. The American "war on terror" gave the US and Gaddafi a common adversary, and provided a strong incentive to move toward cooperation and put hostilities aside. Meanwhile, the US invasions of Iraq and Afghanistan signaled that the United States's priorities had shifted, and left the Americans with little attention or resources to engage in hostilities with Libya. This became clearest when the United States engaged in direct cooperation with Tripoli against al Qaeda, when President Bush left Libya out of the "axis of evil" in his 2002 State of the Union address, and when the Bush administration, in spite of its more aggressive stance in general toward "rogue" states, continued with the Clinton administration's initiatives to resolve the Lockerbie dispute and to improve relations with Libya. These sharp improvements in Libyan security led Gaddafi to see the country's nuclear program as less of an asset and more of a liability. Trading away the nuclear program for increased cooperation with the United States was the natural outcome of this new security calculus.

I treat these competing explanations in turn, and draw evidence from the historical record to show how they fail to account for all of the data, and how the bargaining theory presented in this dissertation better explains these events. While there are elements of the above explanations that are directly at odds with one another, they are not entirely mutually exclusive. The domestic political explanation (2), for example, is consistent in many ways with both the coercion explanation (1) and the expectations-of-conflict explanation (3). Indeed, elements of (2) and (3)

are found in my own explanation of the case. The important distinction here is that none of the three explanations is sufficient (and often not necessary) to explain the outcome. The outcome cannot be explained without consideration of the US offer of positive inducements in an iterated bargaining process that began in the late 1990s and culminated in the December 2003 deal that included Libya's surrender of its nuclear program.

A. Negative Sanctions Worked

The first alternative explanation for Libya's decision to give up its nuclear program is that it was compelled to do so to get out from under economic sanctions, and at the same time avoid the fate of Saddam Hussein's Iraq. Not surprisingly, this was the explanation for Libya's cooperation that was offered by the George W. Bush administration, and it matches the logic of neoconservatives and the administration's Bush Doctrine. It fails, however, on four counts. First, it does not explain why Libya would capitulate in 2003 in the face of US military force against another state, and in the absence of any overt threat to Libya itself, while under the same leadership, Libya not only failed to yield to the Regan administration's more direct coercive measures, but actually escalated hostilities with the United States. Second, there is as much reason to believe that Gaddafi would conclude that US military operations in Iraq and Afghanistan reduced the chances of an attack against Libya as there is to believe he would feel threatened. After all, the United States was engaging in two large-scale conflicts, and would be hard-pressed to initiate another. Third, a capitulation by the Libyans would be at odds with the behavior of other rogue states pursuing nuclear weapons during this period. The Iranians and North Koreans, both long-standing adversaries of the United States, were pursuing far more advanced nuclear weapons programs in 2003. Moreover, these two countries were explicitly included with Iraq in George W. Bush's "axis of evil," while Libya was not. Yet these two states continued to develop nuclear weapons apace after the events of 2003. This difference in behavior undermines the claim that any such "demonstration effect" was sufficient to successfully cow the Libyans. Finally, it overlooks substantial evidence that the Gaddafi regime had decided to pursue rapprochement with the United States a decade before the Iraq invasion, had already sent signals that it was willing to trade away its nuclear program, and had actually been engaged in a series of mutual concessions and secret negotiations with the Americans. To claim that the overthrow of Saddam Hussein was responsible for Libya's behavior is to ignore the process of rapprochement that had begun while Bill Clinton was still in the White House.

The two US coercive military operations against Libya in 1986 - Operations Prairie Fire and El Dorado Canyon - were both more direct and more threatening to the Gaddafi regime than

the US invasion of Iraq in 2003. Rather than cow Libya into submission, however, they provoked greater hostility. The Reagan administration threatened regime change, and conducted a military attack that actively targeted Gaddafi himself. In addition, the attack came in the midst of covert efforts to overthrow the regime and a series of military provocations. Yet, even though the Reagan administration had repeatedly identified Libya's support of international terrorism and its ties to the Soviet Union as its principal grievances, Tripoli simply doubled down on both behaviors after the bombing. Support of terrorism and foreign radical organizations continued throughout the late 1980s, and even increased after Operation El Dorado Canyon. There is reason to believe that both the Pan Am 103 bombing and a hijacking in Pakistan in 1986 were specifically planned as revenge attacks. Importantly, terrorist attacks were sustained even while declining oil revenues and diplomatic isolation put an increasing burden on Libya for its activist foreign policies. At the same time, Gaddafi sought to further increase the country's ties to the Soviets by proposing a more formal alliance and pursuing increased weapons purchases and technology transfers, including nuclear assistance. It was Moscow that began to rethink the benefits of the USSR-Libya relationship, particularly after the 1986 bombing, as Libya's pariah status and risky foreign endeavors conflicted with Gorbachev's reorientation of Soviet foreign policy and rapprochement with the West. Libya's defiant response to the Reagan administration's confrontational policies, which were far more assertive than George W. Bush's policies toward Libya, casts strong doubt on the claim that the US invasion and occupation of Iraq in 2003 could, in a matter of months, produce the exact opposite reaction even though Libya was ruled by the same regime and was facing the same adversary as was the case in the Reagan era.

It is also not necessarily convincing that Gaddafi would have interpreted US military operations in Iraq to represent an increased level of threat. The United States had committed a substantial number of troops in Afghanistan beginning in 2001, and by December 2003 there was no indication that troop levels could be significantly drawn down anytime soon. By December 2003, the United States had also been in Iraq for nine months. Attacks by insurgents had already begun to escalate by the end of the summer of 2003, forcing the UN to evacuate. The Ramadan Offensive of October and November forced US forces to resort to air strikes and artillery. It is true that the capture of Saddam Hussein in December created a brief sense of optimism, but it was nonetheless clear by that time that the United States would have to maintain a sizeable presence in Iraq for the foreseeable future, and had its hands full with the occupation. It is also unlikely that the capture of Saddam Hussein would – in spite of all the setbacks in Iraq – so profoundly affect Gaddafi's calculus that he would capitulate on the nuclear issue within days as a result. At

a minimum, it would have been equally reasonable for Tripoli to conclude that the threat of US military action had actually decreased over the course of 2003, as the US occupations of Afghanistan and Iraq greatly limited both the Americans' ability and their desire to invade a third country without clear provocation.

Additionally, the United States did not issue any threats or ultimatums to the Libyans. In fact, the US approach to Libya at this time can be sharply contrasted with the American position on North Korea and Iran. Both Iran and North Korea were included with Iraq in President Bush's "axis of evil" in the 2002 State of the Union Address. Libya was not. Both Iran and North Korea were the targets of intense US counter-proliferation efforts, both were long-standing adversaries of the United States, and both were listed as state sponsors of terrorism by the US State Department. Moreover, both Iran's and North Korea's nuclear weapons programs were far more advanced than Libya's.

The signals sent to Gaddafi by the Americans were far more benign than those sent to Iran and North Korea. Iran borders on both Iraq and Afghanistan, and after the invasion of Iraq the US conducted surveillance flights over Iranian territory and carried out covert operations within Iran's borders. Iranian offers to cooperate against al Qaeda (a common enemy), come clean on the nuclear issue, and end its support of terrorism in return for a "grand bargain" that restored relations between the two countries was rebuffed by the US in May 2003.⁷³⁶ Yet the Americans were at that same time engaged in secret talks with the Libyans, were cooperating with the Libyans against al Qaeda, and had successfully negotiated a resolution to most of the outstanding points of disagreement in the Lockerbie issue.

The US-North Korean relationship was also quite poor during this same period. Pyongyang had restarted plutonium production only months before, and had withdrawn from the NPT in January. Both sides issued increasing threats over the course of the year and engaged in demonstrations of military force, as the Americans issued deployment orders for 24 bombers to the region and the North Koreans tested missiles.⁷³⁷ The different approaches the Bush administration took toward the country casts strong doubt on the argument that Gaddafi was intimidated by US actions in Iraq, and begs the question of why Libya should be cowed by a show of US military force when Iran and North Korea, subject to even more of a threat, were at the same time moving ramping up their nuclear efforts.

⁷³⁶ Linzer, February 13, 2005; Kessler, June 18, 2006; Hersh, July 7 and 14, 2008. Also see *Frontline*, "Showdown with Iran," PBS, October 23, 2007. The episode can be viewed online at www.pbs.org/wgbh/pages/frontline/showdown/.

⁷³⁷ Starr, March 5, 2003.

Finally, Libya's decision to give up its nuclear program came at the end of a years-long series of negotiations and exchanges of mutual concessions that had begun under the previous administration, long before the invasion of Iraq. In fact, Tripoli had begun to reach out to the Americans over a decade before the 2003 decision, and had explicitly put its unconventional weapons programs, including the nuclear program, on the table. The United States, on the other hand, did not prioritize the Libyan nuclear program, and refused to negotiate over the issue until the Lockerbie dispute was fully resolved. After the Lockerbie situation was settled, agreement over the nuclear program came quickly, and was achieved with promises of restored diplomatic and economic ties and the tacit acceptance of the Gaddafi regime.

The Libyans had begun to consistently send signals to the Americans that they were willing to deal on the Lockerbie issue, and on the nuclear chemical weapons issue as well, by the end of 1992, and before UN sanctions had even gone into effect. In spite of overtures made through intermediaries such as Colorado Senator Gary Hart, the George H. W. Bush administration, and later the Clinton administration, rebuffed any offers from Tripoli to negotiate, and set the surrender of the Lockerbie suspects and the forfeit of WMD programs as preconditions for any talks over the restoration of relations. From 1993-1998, the Clinton administration refused to bend in its demands, even as Tripoli's foreign policies with respect to terrorism, regional conflicts, and Israel-Palestine all moderated significantly.

Clinton's hand was forced in 1998 by the weakening of the multilateral sanctions regime, and a trial for the Lockerbie suspects was achieved only when the United States decided to yield on the issue of the trial's location – essentially giving in to a demand set by the Libyans years before. Secret talks between the United States and Libya (mediated by the British) began in 1999 under Clinton, this time without preconditions other than that the talks be kept secret and the Libyans cease their lobbying efforts for the lifting of sanctions (minor demands to which the Libyans agreed, particularly as Gaddafi had his own interest in keeping the talks secret from both the Libyan domestic audience and American hardliners), and the talks were continued by the George W. Bush administration. Moreover, the Bush administration continued the approach of structuring the negotiation in terms of a scripted *quid-pro-quo* exchange, prioritizing first the Lockerbie issue, then the Libyan chemical weapons program, and finally the nuclear weapons issue.

US and Libyan cooperation after the September 11, 2001 attacks illustrate both the degree to which negotiations had removed barriers to future cooperation by that point and the convergence of US and Libyan interests on key geopolitical issues. While the post-9/11 period saw the ratcheting up of threats to Iran and North Korean, the exact opposite occurred toward

Libya. Both sides engaged in intelligence sharing about al Qaeda. Qualifications were put into the State Department's 2002 report *Patterns of Global Terrorism*, explaining that Libya was headed in the "right direction." Likewise, Libya was purposely excluded from George W. Bush's "axis of evil" in spite of its "rogue" status, its pursuit of WMD, and its continued presence on the State Department's list of state sponsors of terrorism.

There were instances of hostile and threatening rhetoric from the Bush administration toward Libya during this period, but they typically came from a hardline faction that opposed the administration's policy of negotiation. John Bolton took the lead in issuing harsh statements about the Libyans, and his actions induced ire among other Bush administration officials and particularly among British officials who supported a negotiated settlement with Tripoli. In the end, Bolton and other hardliners were successfully marginalized, and were kept in the dark about developments from the secret talks that took place among the three countries.

By the time the Libyans approached the British in March 2003 about the nuclear issue, the US-Libyan relationship had already improved significantly, and secret talks had been conducted on and off for four years and across two presidential administrations, one Democratic and one Republican. Moreover, the Libyans had been indicating a willingness to strike a deal on the issue for over a decade. It was the Americans who insisted on a Lockerbie settlement first. By March 2003, the Lockerbie issue was indeed more or less settled – a deal was already well in the works on this issue of reparations, and the only remaining hurdle was an acknowledgement of responsibility. The timing of Libya's approach to the US and UK on the nuclear issue is therefore entirely consistent with the earlier pace of negotiations.

The weakest part of the "demonstration effect" claim has to do with the timing of the final announcement that the Libyans would forfeit their nuclear program. While this came days after the capture of Saddam Hussein, causal inferences between the two are unwarranted and unsupported by the evidence. Gaddafi had already allowed CIA and MI6 agents into the country to inspect nuclear sites the previous September, indicating that a deal was already well in the works. By September 2003, the US occupation of Iraq had begun to appear less successful than it had seemed immediately after the invasion. Likewise, the significance of other US coercive measures, such as the creation of the PSI and the interdiction of a German vessel carrying centrifuge parts from Malaysia to Libya are questionable. The interdiction of the *BBC China* was not a PSI operation, and it did not take place until the month after Gaddafi had allowed British and US intelligence agents to conduct inspections of sensitive sites. Even assuming that the interdiction was done without Libya's cooperation – which remains debatable – the United States and Britain had already begun to show intelligence on the Khan network to the Libyans by this

time, and it had to have been clear to Tripoli that the Americans possessed significant knowledge about Libya's dealings with the organization.

The argument that coercion was successful against the Libyans was made both by the Reagan administration in the wake of the 1986 military attack and by the George W. Bush administration after the December 2003 announcement that Libya would give up its nuclear program. The available evidence, however, indicates that this was not the case, and that coercion was not only unproductive but frequently produced a more hostile response. The final settlement with Libya, contrary to these claims, resulted from a prolonged *quid-pro-quo* exchange between the two countries that had begun in 1999. By September 2003, a deal was already in hand – before the interdiction of the *BBC China*, before the capture of Saddam Hussein, and after the occupation of Iraq had already showed signs of failure.

B. Domestic Political Change In Libya Best Explains the Outcome

This argument holds that the Gaddafi regime decided to give up the program as the result of a broader shift in foreign policy preferences that were based on domestic political and economic changes over the previous two decades. According to this view, the regime's economic deficiencies and policy miscues in the 1970s and 1980s led to popular dissatisfaction and increasing opposition to the regime among elites. These domestic political pressures put the country on an inevitable course toward rapprochement with the United States. Gaddafi, following the advice of technocrats and reformers, came to understand that the regime could not maintain its grip on power over the long term without reintegrating into the international economy. He also became convinced that this could not be achieved without first abandoning the pursuit of nuclear weapons. The regime thus came to view the nuclear program as an albatross around its neck: an obstacle to improved ties with the West (particularly the United States), and a drain on scarce funds away from more important domestic economic initiatives.

The argument that domestic political change set the stage for policy reversal is indeed accurate. Beginning in 1987-1988, Libya's economic fortunes had already deteriorated sufficiently to prompt a shift in domestic policy toward economic and political liberalization. The country's political isolation and economic misfortunes, and the continued failure of Gaddafi's management of the economy, also increasingly discredited the old guard and brought reformers into ascendance. A protracted struggle between pro-openness political factions and an entrenched old guard that stood to lose from liberalization within the country – and possibly from rapprochement with the West – resulted, by the early 1990s, in the rise of domestic political forces that favored reintegration into the international fold. This faction, by the late 1990s,

eventually had come to dominate Libyan policy debates.⁷³⁸ Also by the late 1990s, Gaddafi had successfully neutralized opposition to the regime, reined in ideological zealots in the revolutionary committees, and cracked down on domestic Islamist groups, giving the regime a freer hand in its policies.⁷³⁹ Finally, important generational change took place during this period. A new and large cohort of young Libyans had come of age in an isolated country with few economic opportunities. The platitudes on which the Gaddafi regime had been built – pan-Arabism, anti-imperialism – did not resonate as effectively with this generation, and a substantial number resented the regime’s policies. Members of this generation among the Libyan elite begrudged the country’s isolation and their lack of access to travel or education abroad.⁷⁴⁰

These changes provided the political will and the opportunity to directly pursue a more accommodationist policy toward the West. Partly as a result of this, but also because of limitations imposed by declining resources, the Gaddafi regime’s foreign policies moderated significantly over the course of the decade, as Libya ended its support of terrorism, adopted a more constructive position on the Palestinian issue, and moved from Arab nationalism and pan-Arab unity toward pan-African initiatives. Gaddafi also pursued negotiations with the United States over a variety of disputed issues, and indeed reached a settlement on the issue of the Lockerbie indictments by the end of the 1990s. Most importantly, the regime became willing to negotiate over its nuclear weapons program, and sought to do so for just over a decade before the United States agreed to begin direct talks over the issue in 2003.

However, while the above argument does accurately explain the course of Libyan domestic politics and some of its driving factors, it only captures a necessary pre-condition for rapprochement and denuclearization. It fails to explain why Tripoli did not agree to surrender its nuclear program until 2003, more than a decade after it first sent signals to the United States and Britain that it was willing to negotiate over the issue. In fact, it does not explain the timing of most of Libya’s most important concessions, such as surrendering the Lockerbie suspects in 1999. Finally, it fails to explain why the Libyans not only continued to pursue nuclear weapons during the 1990s (and indeed right up until the 2003 decision to abandon the program) but in fact accelerated their acquisition of nuclear technology via the A.Q. Khan network after 1995.

⁷³⁸ Takeyh, 2001, pp.65-6. According to Takeyh, the reformers were led by General Secretary Umar al-Muntasir and Energy Minister Abdallah Salim al-Badri, while the hardliners were led by Abdesssaïem Jalloud, a close confidant of Gaddafi and a leader of the 1969 revolution. Jalloud and other hardliners in the regime wanted to continue Tripoli’s defiant policies toward the West, and saw anti-Westernism as an important pillar of the regime’s legitimacy. Takeyh identifies 1998 as a turning point, the year in which Gaddafi decisively sided with the pragmatists and began to publicly criticize the hardliners. This fits with the course of Libyan policies as well.

⁷³⁹ Deeb, 2000.

⁷⁴⁰ Vandewalle, 2006, p.98.

On the simplest level, of course, this timing can be explained, in part, simply by the existence of the A.Q. Khan network during this period. More than any other factor, the specific course of Libya's nuclear program was determined by the availability of technologies, of expertise, and of benefactors willing to provide nuclear assistance. In the 1970s, the Libyans had reached out to many states in a failed attempt to gain nuclear cooperation. In the 1980s, when most nuclear suppliers were no longer willing to do business with Libya, nuclear efforts were focused on the Soviet Union. Once Soviet assistance was no longer available, Libya's efforts were directed internally, as scientists at the TNRC conducted experiments using the Soviet-supplied IRT-1 reactor, and with the assistance of a small number of foreign experts attempted to develop gas-centrifuge technology.

However, nuclear assistance via the Khan network had been offered to the Libyans long before they finally chose to accept it in 1995. A.Q. Khan had made overtures to the Libyans as early as 1984. In fact, twice before 1995, the Libyans engaged in contacts and the purchase of nuclear information, however the information provided by the Khan network was judged not to be worth the expense, and both times contact was severed.⁷⁴¹ Therefore, the reestablishment of ties with Khan in 1995 reflects not simply the availability of the network's services but a decision by Gaddafi that that avenue toward a nuclear weapon would be pursued. It is telling that a 2004 IAEA report on the Libyan program describes the 1995 decision to work with Khan as a "strategic" one.⁷⁴² Whatever the reason for this decision, it demonstrates all the same that domestic political factors alone were insufficient to lead Libya to give up its nuclear program, or even to halt work on it.

⁷⁴¹ IAEA, 2008. The first contact took place in 1984. Khan offered uranium enrichment technology, but Libyan officials judged the technology too sophisticated for Libyan capabilities at the time. Libya was, during this same time, also working with a German nuclear expert on centrifuge enrichment technology. Contact with Khan was reestablished in 1989, and a series of meetings took place over the next two years. A deal was made for information from the network on L-1 centrifuge technology. The Libyans, however, felt that they had paid more than this information was worth, and declined to enter a deal for centrifuge parts or complete centrifuges. Contact was then reestablished again in 1995. The pattern of contacts and dealings with the Khan network, therefore, were apparently determined to a large extent by technical considerations and price. This is consistent with the view that the Libyan nuclear program continued largely unabated from its inception immediately after the Gaddafi regime took power in 1969 to the final decision to give up the program in 2003.

⁷⁴² It is not publicly known what drove that decision, however, it is certainly inconsistent with the moderation seen in essentially every other area of Libyan policy during this period. Gaddafi may have simply still believed that a nuclear weapon would enhance his standing internationally or domestically. Alternatively, he may have judged that a more advanced program would have greater value and lead to more concessions in future negotiations with the United States. If so, it was a very costly and risky bargaining chip. More likely, though, is that Gaddafi had simply seen the nuclear program as a worthwhile hedge against continued American hostility, figuring that he had little to lose, especially if it could be kept secret, and, if Khan could truly deliver on an enrichment capability, potentially much to gain. By 1995, after all, the United States had shown surprisingly limited interest in Libya's nuclear efforts, and even less of a willingness to bargain over the country's nuclear program.

While the Libyans had begun to signal to the US and British that they were willing to negotiate over the issue of WMD as early as the beginning of the 1990s, at no point before 2003 did Tripoli actually take any actions to slow or stop its quest for a nuclear bomb. By the time the first shipment of centrifuges arrived via the Khan network in 1997, a major realignment among Libyan political factions was already well under way, and the country was moving increasingly toward economic and political liberalization. Support for terrorist organizations had substantially waned if not entirely ceased, and Libya's foreign policy stance was softening as a whole. Yet, all this time, the nuclear program proceeded, and continued to receive significant investment at a time when funds were scarce and the Libyan economy was in grievous decline. However much domestic politics explains the moderation of Libyan policies over the 1990s, and substantial shifts in state preferences, it does not explain Gaddafi's decision to negotiate denuclearization in the early 2000s, or to publicly surrender the country's program to the US and Britain at the end of 2003.

The exact decision-making process behind Tripoli's decision to ramp up the nuclear program in 1995 remains obscure. It is important to note, though, that when the decision was made, Gaddafi had good reason to believe he could deal with the A.Q. Khan network in secrecy. Even more importantly, with UN and US sanctions still in place, a US refusal to even negotiate with the Libyans – and the loss of Soviet support – which could have at least partially offset American power, in 1995 Gaddafi had no choice but to consider his near-term prospects for successful rapprochement with the United States to be uncertain, if not marginal. In fact, the United States had given no indication by this time that it was willing to accept the Gaddafi regime under any circumstances, and the Clinton administration's policies toward Libya had proved to be no more flexible on this front than George H. W. Bush's had when he left office. Therefore, whatever the exact basis of the decision was, it was necessarily made under conditions of significant uncertainty with respect to Libya's future relationship with the United States.

It is appropriate, then, to consider Libya's nuclear efforts between 1995 and 2003 as a hedge against future conflict. The regime could continue to pursue a restoration of ties with the West, and could even seek to negotiate away the nuclear program itself, but could also fall back on the nuclear program if rapprochement failed to occur. At the same time, the country's nuclear efforts could proceed with little fear of preventive attack so long as secrecy was maintained, and there was every indication that US intelligence agencies were, by the beginning of the new century, unaware of the extent of Gaddafi's program.

It was the bargaining process with the United States which began in 1998 that shifted Libyan preferences in this regard, and ultimately led Gaddafi to turn over the nuclear program.

Specifically, several elements of the bargaining process made this possible: the conduct of direct negotiations; the exchange of sequential and progressive mutual concessions, beginning with the location of the Lockerbie trial, which built trust between the two sides and led the Libyans to view denuclearization as a way to improve relations and promote regime survival; and especially the US offer of concessions for denuclearization, most notably the promise to restore economic and diplomatic ties and to accept the legitimacy of Gaddafi's regime. Only in consideration of these factors can the December 2003 decision to denuclearize be explained. Independent economic and domestic political factors may have set the stage for this bargaining process, and may have been necessary conditions for a negotiated settlement, but both the decision itself and its timing were determined by the United States's decision to offer positive inducements.

C. Changes to Libya's Security Environment Best Explain the Outcome

The third and final alternative explanation is that Libya's decision making on the nuclear issue was exclusively driven by security concerns. According to this line of thinking, which fits with the traditional view of nuclear weapons among international relations scholars, Gaddafi decided to pursue the nuclear deterrent in response to his perception of regional and global security threats, especially Israel and the West. The sharp break with the previous regime's policies can best be explained by Gaddafi's ideology, specifically his anti-colonialism and Arab nationalism, which led him to view Western and Israeli influence in the region as existential threats. Facing a nuclear threat from Israel, Libya immediately launched its own weapons program.

This argument also views the Libyan decision to give up its nuclear arsenal as a strategic move taken in response to changes in the security environment. By 2003, the Arab-Israeli peace process had progressed enough that it was unlikely a major war between Israel and its Arab neighbors would take place. Also, progress on that front increasingly demonstrated to Tripoli the gains that could be had from cooperation rather than continued isolation and opposition, as the security of neighboring Arab states such as Egypt improved. Meanwhile, the Libyans became aware of the strategic and economic costs of their program. After years spent pursuing a bomb, after potentially billions of dollars were spent, and even after gaining the cooperation of the Khan network, Tripoli had little to show for its efforts, and was still many years away from possessing a true deterrent. At the same time, the program invited preventive strikes, a fact that was driven home by Israel's attack on the Osiraq facility in Iraq in 1981, and the American invasion of Iraq in 2003. Also, declining economic fortunes left Tripoli with enormous opportunity costs from its nuclear program. The program was also a barrier to closer cooperation with the West and

reintegration into the global economy, which offered a way out of the country's decades-long decline.

This argument further holds that the threat posed by the United States had diminished significantly by 2003 as well. The end of the Cold War and the decline of pan-Arabism and Arab nationalism as a political force in the Middle East had changed the US's relationship with Middle Eastern states. In the absence of competition with the Soviets for influence in the region, the US no longer viewed its relations with states like Libya as part of a broader, zero-sum game, and no longer treated its relationship with these countries as critically as it had in the past. Most significantly, the United States had dropped its Reagan-era pursuit of regime change in Libya and had, by 2003, long ceased its efforts to topple Gaddafi through covert support of opposition groups, propaganda, and aid to regional adversaries. In fact, the United States had begun to show a sincere interest in rapprochement with Tripoli.

Finally, the September 11, 2001 attacks had given Libya and the United States a common enemy. In contrast to the dynamics of Cold War politics, now the United States and Libya felt more threatened by al Qaeda and other radical Islamists than by each other. From the Libyan point of view, these groups represented, by the early 2000s, a greater existential threat to the regime than the United States did. According to this line of thought, by giving up its nuclear program and cooperating with the United States, Gaddafi was simply responding to changes in the security environment and threats to his regime's survival.

The central problem with this argument, however, is that Libya's security environment was, throughout Gaddafi's rule, relatively benign. In fact, the dominant threats to the regime stemmed primarily from Gaddafi's own adventurist policies and especially his regime's sponsorship of terrorism. Gaddafi's adoption of aggressive policies in general, and his quest for nuclear weapons in particular, was based much more heavily on his pursuit of domestic legitimacy and international prestige than the external threat environment.⁷⁴³ It is true that a number of states in the Middle East either developed nuclear weapons (Israel), actively pursued them (Iraq, Iran, Syria, possibly Egypt), or considered pursuing them (Algeria, Saudi Arabia). However, the timing of these programs (or ambitions) does not coincide with Libya's nuclear decisions, nor does Gaddafi's pursuit of nuclear weapons square with Libya's relationships with these other states. In the case of Egypt, for example, Gaddafi was not only on friendly terms with Nasser but idolized him. Gaddafi was hostile toward Sadat, however, Egypt's nuclear ambitions ended with the death of Nasser. Syrian, Algerian, and Iraqi nuclear efforts all predated Libya's program, and the Algerian program was more likely influenced by Libya's than the other way

⁷⁴³ Solingen, 2007, pp.214-6.

around. In the case of Iran and Israel, both are distant from Libya, and it is unlikely that their nuclear programs (or in the case of Israel, actual weapons) would spark greater strategic balancing on the part of Libya than geographically closer and more technologically capable neighbors such as Egypt.

The timing of Libya's program also does not correspond with the dynamics of its relationship with the United States. The US did not, at first, take a hostile stance toward Libya, and had enjoyed friendly relations with the country before the 1969 coup, and even continued to operate a large military base on its territory. The US was also the country's primary partner in the oil trade. The United States had not yet allied with neighboring Egypt, which in the early 1970s continued to be a Soviet client (and fought a war with US-allied Israel in 1973). Finally, the United States did not pose a substantial military threat to Libya until the Reagan administration took office in 1981. By then, Gaddafi had been pursuing nuclear weapons for a decade.

Even more importantly, the strategic context does not explain Libya's decision to ramp up its pursuit of nuclear weapons in the mid-1990s, or to abandon them in early 2000s. In the 1980s, Libya faced a hostile United States that sought to topple the Gaddafi regime; several regional states pursuing nuclear weapons, including Iraq and Algeria; and a hostile Israel, which had launched a preemptive attack against Iraq's nuclear program in 1981. Yet Tripoli decided to turn down the chance to acquire nuclear technology and assistance from the Khan network in 1984. Alternatively, by the mid-1990s, the Cold War had ended, the United States had dropped any active pursuit of regime change, and Israel had begun to pursue negotiations with the PLO and had forged a tenuous peace with many of its Arab neighbors. Yet it is during this period that Libya sought out the assistance of A.Q. Khan and ramped up its nuclear efforts. In 2003, on the other hand, the United States invaded and occupied Iraq, and had adopted a much more assertive position toward 'rogue' states developing WMD and toward terrorism, including the Bush Doctrine, which claimed a US right to preventive strikes. Israel in the early 2000s, moreover, should have appeared more threatening to the Libyans than it had in the mid-1990s, not less. Under Ariel Sharon, Israel adopted a hardline stance toward both the Palestinians and other states in the Middle East. Yet it was at this same time that Gaddafi decided to surrender his nuclear program. Gaddafi and other Libyan elites have claimed that Tripoli had come to see the nuclear effort as more of a burden than an asset by the early 2000s. This may be true, but the security context cannot explain why they did not see it this way in the 1970s, or why their thinking changed 25 years later.

The Gaddafi regime may well have viewed Israel and the United States as threats. However, the regime's decisions regarding the nuclear program over the course of almost 35 years, and particularly its decision to abandon the effort in 2003, cannot be explained by the existence or perception of security threats. These events can, however, be explained by the issue-linkage theory offered in this dissertation. Specifically, Libya's decision to surrender its nuclear weapons was influenced by the promise of positive inducements, including the restoration of relations and acceptance of the Gaddafi regime, by the United States. Other factors, such as the country's growing isolation, economic problems, and generational changes – all of which were largely independent of US policies – may have played a necessary role by setting the stage for US-Libyan bargaining and cooperation, as did the shared threat from Islamist radicals and al Qaeda. However, these were not sufficient causes. In the end, Gaddafi's decision, and the resulting rapprochement between the United States, was the outcome of a years-long negotiating process in which a series of concessions were exchanged, making an agreement over denuclearization possible.

IX. Conclusion

The history of Libya's pursuit of nuclear weapons, as well as the broader relationship between the United States and Libya during Muammar Gaddafi's rule, illustrates the effects of negative sanctions and positive inducements when used against an adversary, and supports the theory outlined in Chapter 3.

Sanctions were of ineffective in this case. US unilateral sanctions – particularly military sanctions – had a decidedly negative effect in the 1980s, and produced a hostile backlash. Only after many years of implementation did US sanctions begin to have a significant effect on Libya's economic situation, and even then only reinforced a downward trend driven much more by exogenous factors that had little to do with American policies. UN multilateral sanctions did not produce a backlash, but nor did they force Libya to moderate its behavior. Their direct economic effects, while more pronounced than those of US sanctions, were likewise on the margins, and only made already poor economic conditions in Libya worse. They served more as a form of bargaining leverage in negotiations, and in this sense functioned more as the basis for later positive inducements (that could have been offered in any regard) rather than successful negative sanctions. Most importantly, they were ultimately unnecessary, and Libyan compliance was achieved through tit-for-tat bargaining and the exchange of other inducements such as regime acceptance. There is no evidence this could not have been accomplished in the absence of sanctions.

As the issue-linkage theory predicts in the counter-proliferation cases with adversaries, positive inducements proved to be effective. After refusing to deal with the Libyans directly for years, the United States finally offered a compromise on the issue of where the Lockerbie trial would be held, which initiated a bargaining process that lasted from 1998 to 2003 – when Libya abandoned its nuclear program – and beyond. Over the course of this years-long bargaining process, the two sides engaged in a “scripted” exchange of mutual concessions, which progressed from smaller issues to larger ones.⁷⁴⁴ Each exchange facilitated domestic political conditions in both countries that favored future agreements. Agreement on a trial for the Lockerbie suspects led to a Libyan admission of responsibility, reparations, and the withdrawal of sanctions. Resolution of the Lockerbie issue paved the way for talks over the nuclear program. The Lockerbie settlement weakened domestic resistance in the US from victims’ families and the Congress and allowed US negotiators to move on to the nuclear issue. At the same time, American signals that the US would accept the Gaddafi regime’s legitimacy strengthened Gaddafi’s hand domestically and facilitated the rise of reformers to positions of power. It also added material support to their arguments in policy debates, which gave them greater sway over Gaddafi himself and more control over the agenda. Also important was cooperation over al Qaeda, a common enemy, which reinforced preferences for rapprochement. By the end of 2003, Gaddafi could both surrender the nuclear program without inviting unacceptable domestic political costs, and could trust that the move would not be used to undermine the regime domestically or internationally by the United States.

The availability of direct lines of communication were important, and facilitated agreement between the two sides. Most notable was the role the British played in both pursuing compromise and hosting talks. The British served as a go-between, allowing the United States at first to communicate its bargaining preferences through British good offices while avoiding the domestic political costs that the establishment of more formal ties with Libya would have entailed. Once face-to-face talks did begin, the British continued to serve as facilitator, as the UK restored full diplomatic ties with Libya while the US did not. The Libyans could also work through back channels in London. Finally, this allowed for secret talks, and therefore the possibility of communicating preferences and sounding out compromises or exchanges that might otherwise have been impossible. This challenges the argument that only public diplomacy, in which audience costs are paid, provide a credible way to communicate preferences, and supports the argument made in Chapters 2 and 3 that informal communications, secret talks, and back channels can facilitate agreement.

⁷⁴⁴ Leverett, January 23, 2004.

Finally, two other observations are worth noting. First, this case highlights the role that intelligence can play in nuclear nonproliferation negotiations. The Americans and British, having largely been in the dark on Libyan nuclear progress during the 1990s, had become aware of Libya's uranium-enrichment efforts by 2003. This was achieved not through intelligence gathering in Libya directly but as the result of successfully penetrating the A.Q. Khan smuggling network in the early 2000s. It was fortuitous happenstance, therefore, that the two allies came to possess such rich information on Libya's program at a time when negotiations between the two sides were progressing. This intelligence proved to be a crucial form of leverage in negotiations, and it is worth asking whether or not denuclearization could have been achieved in its absence, as it was not until the US and Britain showed Gaddafi some of the cards in their hand that the Libyans were ready to reveal all of theirs. Interestingly, intelligence was used as both a 'stick' and a 'carrot' in negotiations. Intelligence on Khan was used to force Gaddafi's hand, and in this sense could be considered coercive. But it was also offered as a confidence-building measure, as it showed that the US and Britain were willing to share sensitive information about the nuclear network that, if a deal were not forthcoming, might have been better to keep secret. Finally, it is possible that the Libyans themselves cooperated on the *BBC China* interdiction. If so, this would be a case of Tripoli using intelligence as a 'carrot' of their own, and both sides using it as a way to organize a face-saving maneuver.

Second, it is worth noting once more that an important part of this case is the role that economic decline and political unrest, largely independent of US sanctions or inducements, played in shifting Libyan preferences toward reconciliation with the United States. While this was insufficient on its own to lead Libya to give up its nuclear program – in fact, Libya actually ramped up the program in the mid- and late-1990s at a time when economic decline and political isolation were most pronounced – it was sufficient to bring the country to abandon terrorism and the support of radical guerilla groups. It was also a necessary condition for successful bargaining, as rapprochement would have been unlikely without economic malaise and diplomatic isolation first producing a political coalition that favored the integration of the country into the international system and tit-for-tat negotiations with the United States over an array of sensitive issues. This illustrates the inherent limitations of any counter-proliferation policy. While inducements may be effective, and may indeed be a more powerful tool than coercion under many circumstances, this does not mean that they will always – or even usually – be effective. Had the oil market been more favorable, or had the regime been less dependent on it for revenues and in turn its power base, or even if a powerful ally or benefactor had been available in the

1990s, the outcome may have been substantially different and, from the US point of view, much worse, regardless of the policies the United States chose.

7. Conclusion and Policy Recommendations

I. Review of Findings

The purpose of this dissertation has been to shed light on how negative sanctions and positive inducements – the main elements of US counter-proliferation policy – can be used appropriately and effectively to convince states with nuclear weapons programs to reverse course and comply with the international nonproliferation regime. The central contention of this dissertation has been that positive inducements are typically a more effective tool of foreign policy than negative sanctions are, and can be a powerful instrument of statecraft in counter-proliferation. Also, the difference in the effectiveness between the two is more pronounced when dealing with adversaries than it is with allies. With allies, both sanctions and inducements can be effective, but inducements are more likely to secure long-term cooperation. With adversaries, negative sanctions are not only much less effective than inducements, but run the risk of triggering escalation. The commonly made argument that ‘sticks’ are most appropriate with rogue states pursuing nuclear weapons, while ‘carrots’ are ineffective and constitute ‘appeasement,’ is fundamentally flawed. In fact, ‘carrots’ should be at the top of the list of policy options in these cases.

A. Issue-Linkage Theory

The issue-linkage theory of negative sanctions and positive inducements presented in Chapter 3 is based on a number of fundamental assumptions about counter-proliferation diplomacy, and indeed any attempt to influence the behavior of another state:

- First, both sanctions and inducements are *bargaining strategies*, and the strategic bargaining metaphor is an appropriate way to conceptualize their use. States choose their policies according how they anticipate the other state will respond.
- Second, sanctions and inducements are best understood as forms of *issue linkage*, in which cooperation in one issue area is conditioned upon cooperation in another.

- Third, states' *preferences* are central to understanding the bargaining process and outcomes. The value both states assign to the nuclear issue, their willingness to use extortion, and the value they assign to specific threats and promises are all important.
- Fourth, states bargain under conditions of *incomplete information*. States must form beliefs about one another's preferences, and in turn form expectations about one another's reactions, in order to choose their own policies. These beliefs are built on the availability of intelligence, observations of past behavior, biases, and the nature of the relationship between the two states. States can more easily cooperate when they can accurately screen one another's preferences, and signal their own. States also have incomplete information about the gains that are possible from cooperation or defection. This is particularly the case with nuclear proliferation, as the consequences of developing nuclear weapons is both uncertain and carries substantial risk.
- Fifth, bargaining is *sequential*. The sequential nature of bargaining introduces distributional and reputational barriers to cooperation, as states are typically willing to incur significant costs to avoid a reputation as an easy target for extortion, or to avoid conferring a strategic advantage to an adversary that could be exploited for significant gain in the future. However, sequential bargaining, paradoxically, reduces incentives for bluffing, endows "cheap talk" diplomacy with real influence, and allows states to change one another's preferences and beliefs in ways that make cooperation more likely.
- Sixth, *domestic politics* is important. States' preferences are powerfully shaped by the external security context, but are ultimately determined by the particular preferences and beliefs of domestic actors, and the domestic political balance of power. Domestic political effects can be significant even when states are insecure if there is substantial uncertainty and there are divisions among influential elites over which policies are best. This is typically the case with nuclear proliferation. The security implications of nuclear weapons development are highly uncertain. The nuclear weapons issue is frequently contentious among elites, and is naturally linked to preferences regarding the state's economic and political orientation, the prestige of the regime, as well as nationalism. Both sanctions and inducements can be targeted in ways that successfully exploit these factors.

Building on these assumptions, I have presented an issue-linkage theory of nuclear counter-proliferation from which several general predictions about the effectiveness of positive inducements and negative sanctions can be deduced.

- First, positive inducements are more likely to be effective than negative sanctions. The sender can typically draw on a wider set of resources to offer inducements than it can with sanctions. Sanctions are also more likely than inducements to exacerbate distributional and reputational problems. Inducements also have fewer enforcement problems, as they can be withdrawn in the event of noncompliance.
- Second, the relatively superior effectiveness of inducements is much greater with adversaries than it is with allies. Inducements are a promising tool of international influence with adversaries, while sanctions are not. Moreover, sanctions are not only likely to fail, but can make a bad situation worse by triggering an escalatory spiral and wider conflict. The difference in utility between sanctions and inducements is wider with adversaries than it is with allies because informational, distributional, and reputational barriers to cooperation are all substantially higher. At the same time, with adversaries, the sender enjoys far fewer resources to draw from to issue meaningful threats. Adversaries know less about one another, are more mistrustful, have higher expectations that they will be exploited, are more concerned with relative gains, and are more concerned about their reputation as a tough bargainer. They also typically have already taken measures to protect themselves from one another's influence attempts. All of this makes sanctions must less likely to be effective. However, there is substantially less of a problem with these negative effects when using positive inducements, as inducements either do not involve, or are more capable of mitigating, many of these same barriers to agreement. Finally, because adversaries lack existing cooperative arrangements, the sender often has only two options for threats: military force and multilateral economic sanctions. The policy options for inducements – better relations, security assurances, enhanced trade, technology transfers – tend to be more diverse and more flexible.
- Third, withholding diplomatic talks as a bargaining tactic is counterproductive. There is real value to private diplomacy. States are much less likely to bluff or try to exploit one another than is typically believed, and successful bluffs are difficult to achieve with

adversaries. Private diplomacy represents an important channel of communication between states in which policy preferences can be coordinated and private information revealed. Miscommunication and disagreement are more likely when these lines are severed.

- Fourth, cooperation and conflict can lead to self-reinforcing spirals. Cooperation in one area leads to reputational gains that make cooperation in other areas more likely. Similarly, smaller or even symbolic agreements can serve as powerful signals that can improve the chances of future cooperation. Incremental agreement is therefore more likely to succeed than attempts to craft all-at-once deals or set ultimatums for compliance with costly and inflexible demands.

B. Case Studies: North Korea, South Korea, and Libya

The four propositions above were tested against the historical records of three US counter-proliferation efforts: North Korea, South Korea, and Libya. US counter-proliferation policies with these three states could be effectively treated as natural experiments, providing a rich empirical testing ground for the theory. Comparative case-study methods and within-case comparison was used to test the four hypotheses. Process-tracing was used to test whether the causal mechanisms predicted by the theory explained the outcomes of the cases. The results give empirical support to the theory, while casting doubt on rival theories. Negative sanctions were used numerous times in all three cases, and included military, economic, and diplomatic sanctions, both implemented and threatened. Sanctions were ineffective in the two cases involving US adversaries: North Korea and Libya. They were effective with South Korea, but even in that case, they produced the desired behavior over the short term, but failed to fully resolve the underlying proliferation dispute. Positive inducements were also used numerous times in all three cases. They also took a number of different forms: military, economic, and diplomatic. Inducements enjoyed significantly greater success than negative sanctions in all three cases. In the two adversarial cases, negotiations were withheld, and preconditional concessions were demanded before diplomatic talks could be held. In both cases, these tactics simply delayed agreement, and in the North Korean case were a contributing factor to escalation that nearly triggered war. The United States withheld talks with both Libya and North Korea, and maintained contacts through back channels and lower diplomatic levels even at times when agreement was possible, and after both sides had already signaled preferences that in fact turned

out to be similar if not exactly the same as the terms of later agreements. Finally, deeper and more valuable cooperation was achieved in both of these cases as the result of earlier incremental agreements. In both cases, minor or symbolic confidence-building agreements served to break impasses or successfully communicated preferences for cooperation.

My findings in all three case studies differ from those of previous authors in important regards. In the North Korean case, I found no evidence that the threat of UN sanctions, or the implicit threat of a US military attack, was effective in convincing North Korea to cooperate. The Clinton administration had unrealistic expectations about both the US's ability to win support from the Chinese for sanctions, as well as China's ability to influence North Korean behavior. There is no clear evidence that Chinese persuasion in 1994 pushed Pyongyang toward a more accommodating position on the nuclear question. In fact, the North Korean bargaining position changed very little, if at all, while the US became more flexible. If anything, the push for economic sanctions, and the related military buildup in Korea, created a substantial risk for war at a time when many US decision makers themselves believed that sanctions had little chance for success. These findings challenge the argument that it was the mixture of carrots and sticks in 1994 that made the Agreed Framework possible, and they support arguments by scholars such as Sigal that threats were, in fact, unnecessary and even counterproductive, and inducements alone could have achieved the same if not better results.⁷⁴⁵

In the South Korean case, my findings challenge several commonly held beliefs about the history of the ROK nuclear weapons program. First, I find that the program did not end in the mid-1970s as many believe, and in fact continued well after Park Chung-hee was assassinated. Furthermore, the program did not simply continue as a set of separate projects or 'rogue' experiments but as a centrally directed initiative.

Second, I cite CIA sources that indicate that the nuclear weapons program had more ambiguous goals, and was better organized, than previous descriptions have indicated. Park initiated a formal nuclear program that involved research and development projects not just on the nuclear fuel cycle and missile technology but on the components of an actual bomb. Yet, the intent was not to actually produce such a bomb, but to fulfill all of the necessary intermediate steps so that a nuclear deterrent could be built on short notice should a decision to do so be made. The case demonstrates how a focused and organized nuclear weapons program can be initiated in the absence of any clear decision to acquire nuclear weapons, and that ambiguous decision-making does not necessarily mean that the resulting nuclear activities will be similarly

⁷⁴⁵ Sigal, 1998.

ambiguous. In fact, every activity in this case was consistent with a clear determination to develop a bomb, even though no such decision had actually been made.

Third, I find that US threats were not sufficient to bring Seoul's nuclear efforts to a close, yet inducements made to Chun Doo-hwan, particularly in the form of regime acceptance by the Reagan administration, were. Other scholars have argued either that US threats brought the program to a clear end, or that South Korean nuclear ambitions continued long after the early 1980s and were simply frustrated by continued US counter-proliferation efforts.⁷⁴⁶

In fact, a number of questions remain about the ROK's nuclear weapons ambitions that will not be answered until more data becomes available. Ironically, because negotiations in this case took place between close allies, the amount of publicly available information has been remarkably small. Making matters worse is the fact that scholars have largely neglected this case, which is highlighted by the fact that important English-language primary source materials have been publicly available for years without receiving any attention.⁷⁴⁷ There is significant evidence that the nuclear program lived beyond 1976. However, there is less information available about communications between the Reagan administration and Chun Doo-hwan regarding ROK nuclear efforts, or the pending execution of Kim Dae-jung. Additionally, a number of questions remain about South Korea's later (*i.e.*, post-1980) nuclear activities. Further research on this important case is badly needed.

In the case of Libya, I find that US military, diplomatic, and economic sanctions had little or no positive effect. Contrary to what Reagan administration officials and a number of outside observers have argued, air strikes against Libya in 1986 did not lead to any moderation in Libyan behavior, and in fact provoked a backlash. I also find that Libyan nuclear efforts did not, in fact, diminish in the early 1990s, and that delays in the program's development are explained better by technical restrictions and in unavailability of resources and outside aid than by any changes in Gaddafi's resolve to develop nuclear weapons. US unilateral sanctions and UN multilateral sanctions did have negative effects on the Libyan economy, but only insofar as they contributed on the margins to an already worsening economic situation in Libya. There is no evidence that these sanctions were either necessary or sufficient to produce nuclear compliance. Libyan economic decline and generational political changes would likely have occurred at any rate. The country's diplomatic isolation appears to have played a stronger role in this regard than the

⁷⁴⁶ For example, Harrison (2002) argues that the country continued to harbor nuclear ambitions long after the Chun-Reagan summit. Drezner (1999), on the other hand, finds that threats brought the program to a definitive end in 1976.

⁷⁴⁷ I cannot, for example, find any references to a key 1978 CIA document on the ROK nuclear weapons program (CIA, 1978) in the literature, even though this CIA document provides key details about the nuclear weapons program.

economic sanctions themselves. Also, there is evidence that the Libyans had become willing to make a deal over their nuclear program before economic sanctions had even begun to have their sharpest bite. Finally, I find that there is little merit to the George W. Bush administration's claim that the 2003 invasion of Iraq contributed to Libya's decision to turn over its nuclear weapons program. Not only is there a complete absence of evidence supporting such a claim, but the timing of the invasion does not align with the timing of US-UK-Libya negotiations or the decision to turn over the weapons program.

II. Additional Findings and Future Research

A. The Security Context

In two of the three cases examined in this dissertation – North Korea and South Korea – the external security environment was a critical motivation for the pursuit of a nuclear weapons capability. Only in the Libyan case was state security not a compelling factor for the decision to pursue nuclear weapons. In the case of North Korea, Kim Il-sung began to develop the technical capacity and expertise for a nuclear program soon after the Korean War, during which the United States had made nuclear threats. Rapid development of the Yongbyon nuclear complex came in the wake of South Korea's aborted attempt to develop its own nuclear weapons. Also, the deployment of US tactical nuclear weapons to the Korean Peninsula was repeatedly cited by Pyongyang as a security threat. Similarly, the US decision to withdraw its nuclear forces from Korea successfully convinced the North Koreans to enter into a safeguards agreement with the IAEA after years of foot-dragging.

In the South Korean case, the Nixon Doctrine and the US failure in Vietnam triggered a sense of insecurity in Seoul and doubts about the US defense commitment. This was a significant causal factor in South Korea's decision to pursue nuclear weapons. It should be noted, however, that in both the North and the South Korean cases, the security context was not a sufficient cause of proliferation. Particularly in South Korea, the development of a nuclear arsenal was a domestically contentious goal, and the security benefits that such a program would provide were questionable in light of the probable effect that it would have on the US alliance and the regional strategic balance. The decision was also clearly influenced by more particular regime goals such as prestige and self-sufficiency, and fit into a broader policy orientation that linked military, economic, and domestic political issues. Nonetheless, the security context was important enough in both cases that the United States had to address the issue with security assurances, as well as

with changes to the US's regional military posture in order to achieve its counter-proliferation goals.

Another interesting aspect of the two Korean cases is the way in which they are causally linked to one another. The South Korean decision to develop nuclear weapons, as well as US nuclear deployments designed to mitigate Seoul's security concerns and more strongly signal the US's commitment to defend the ROK, contributed to Pyongyang's motivations for its own nuclear deterrent. The implication is that while US security commitments may in fact be a useful way to convince allies not to pursue their own nuclear weapons, they can, at the same time, exacerbate existing security dilemmas and make it more likely that regional adversaries will pursue nuclear weapons of their own. There is no clear solution to this problem. It does suggest, however, that US policy makers should be particularly sensitive to cases of proliferation that involve enduring regional rivalries, and that states involved in such rivalries may have a higher likelihood of pursuing nuclear weapons.⁷⁴⁸

B. Regime Security and Regime Acceptance

Regime security was a principal concern in the target state in all three cases, and was likewise an important factor in the states' nuclear decisions in all three cases. Importantly, the issue of regime security played a more prominent role in the decision to freeze or reverse nuclear decisions than in the decisions to initiate weapons programs in the first place. In all of the cases, whatever the initial motivations were for initiating the program, it eventually came to be seen by many domestic decision makers in each country as a powerful bargaining chip that could be traded to provide increased security for an insecure regime. In the South Korean case, Chun Doo-hwan successfully traded the country's nuclear ambitions, as well as Kim Dae-jung's life, in return for much-needed support from the Reagan administration in the wake of a destabilizing coup. The Libyan and North Korean cases were similar in that domestic elites in both countries saw the nuclear program as a source of bargaining leverage with the United States that could be used to reverse regime-threatening isolation and economic decline – and, in the North Korean case, a deteriorating regional balance of military power. However, four factors made this easier to achieve in the Libyan case than in the North Korean one. First, pro-engagement elites in Libya had much greater influence over Gaddafi than reformers had over Kim Il-sung and Kim Jong-il in Pyongyang, where the military maintained substantial domestic power. Second, Libya had much more to gain from nuclear compliance, given the country's dependence on oil exports and the

⁷⁴⁸ The argument that enduring rivalries make proliferation more likely is made by Paul, 2000. It is also empirically supported by Singh and Way, 2004. See Chapter 1 for a more detailed discussion.

significant opportunities in Libya for foreign investment. Third, security problems were far less acute in the case of Libya, which was remarkably secure in its territorial borders compared to North Korea. North Korea, in fact, is in many ways not a viable state, as the unification of the peninsula under the Seoul government is more a question of when than if. Finally, the US was prepared to drop regime change as a long-term goal in the Libyan case, but was not prepared to do so in the case of North Korea. However objectionable the Gaddafi regime may be, it was not inimical to the United States's two primary goals in the region: anti-terrorism and access to oil. US interests in Northeast Asia, however, were very different, and the US alliance with South Korea in particular precluded any real rapprochement with Pyongyang.

All three cases thus highlight the significance of regime interests in counter-proliferation, and the importance of *regime acceptance* as a way to promote nuclear cooperation. It also begs the broader question of whether cooperation with 'rogue' states can be achieved without a willingness to accept objectionable regimes as legitimate. The question has particular relevance for the case of Iran as well, as it may not be possible to reach any sort of stable cooperation with Teheran on the nuclear issue or any other major area of dispute so long as the United States continues to promote regime change in the country. In some cases, such as North Korea, it may be more desirable to forgo settlement of the nuclear question than engage in rapprochement with unpalatable regimes. In any event, the tradeoff between regime change and nonproliferation goals will likely prove to be a significant obstacle in US counter-proliferation policies, and the issue of regime acceptance as a way to foster cooperation with such states deserves greater attention from scholars and policy makers.⁷⁴⁹

C. "Transmission Belts" and "Circuit Breakers"

The domestic political context in the target state proved to be critical to the outcomes of all three cases, despite the fact that the three cases involved very different regime types and domestic political settings. What was perhaps most striking – and least understood – about the three cases was the way in which domestic political factors could alternately be receptive or unreceptive to US influence attempts. For example, in the case of Libya, it appears unlikely that any US policies would have succeeded in significantly improving Libyan behavior in the 1970s or 1980s, as the regime was well insulated during that period from US coercive policies, and unreceptive to offers of inducements. The regime became much more receptive to US bargaining offers in the 1990s, even though the US failed to capitalize on the opportunity until late in the

⁷⁴⁹John S. Park (US Institute for Peace), James Walsh (MIT), and Jeffrey Knopf (Naval Postgraduate School), all discussed this same issue in the context of both North Korea and Libya at the International Studies Association 2009 Annual Convention (New Orleans, LA).

decade. While economic and diplomatic sanctions did marginally influence Libyan domestic politics over the years, most of the changes occurred independently, and slowly. In fact, putting the *relative* effectiveness of sanctions and inducements in this case aside, the *absolute* effectiveness of any US policies were mostly dependent upon domestic political changes and changes in the international system that US policies did not and likely could not greatly influence. The case was much the same with South Korea. While US coercion did produce significant changes in Seoul's behavior, it was not until Park Chung-hee was assassinated that the country could be persuaded to abandon its nuclear ambitions. Furthermore, it is unlikely that the United States could have resolved the issue so long as Park was in power, and regime change – again, independent of any US policies – was in fact the most important causal factor.

There are several important implications here. One is that successful counter-proliferation depends on whether domestic elites can, as Jentleson and Whytock suggest, act as “transmission belts” for US influence attempts, or if they will instead act as “circuit breakers” and in fact insulate the regime. Either the stars are aligned or they are not. The most critical component of US counter-proliferation policies may, therefore, simply be the timing of their use. Another implication is that counter-proliferation may indeed be very difficult to achieve in general, and a successful outcome may be heavily dependent upon fortuitous and exogenous factors in addition to the actual policy choice.

Also, this lends support to Solingen's domestic-political argument that nuclear choices are heavily shaped by the competition between inward-looking and outward-looking domestic coalitions. US counter-proliferation policies may simply be unlikely to be effective if outward-looking coalitions do not exist, or are too weak to be successfully exploited by US policies. At the same time, the South Korean case at least raises the question of whether there is a limit to Solingen's argument. If a country's leader is sufficiently dedicated to nuclear weapons, and that leader is sufficiently insulated from elite influence, no amount of opposition will be enough to force a significant – and especially a permanent – policy change. In this case, Park Chung-hee's personal commitment to the nuclear issue may have been sufficiently great to preclude reaching a lasting settlement until after his assassination.

The three case studies are insufficient to identify the conditions under which leaders, elites' political-economic orientations, the external security environment, and the influence of US policies will play stronger or weaker causal roles in a state's nuclear decisions. It is likely, though, that if a regime is sufficiently insulated, and is sufficiently inward-looking – or, alternatively, if the leader is sufficiently insulated and is dedicated to nuclear weapons

development - then any US policies short of regime change or preventive war will be insufficient to reverse the state's commitment to nuclear weapons development.

D. The Role of the International Nonproliferation Regime

This study has implications for whether *ad hoc* bilateral bargaining can be used successfully to strengthen international regimes.⁷⁵⁰ The findings here suggest a cautious yes: US counter-proliferation efforts have, on a number of occasions, produced results that have strengthened the international nonproliferation regime. However, they also suggest that however congruent US policy goals and the international regime are in this regard, that there are important institutional interests – particularly with respect to the IAEA – that can complicate counter-proliferation efforts. This was most salient in the case of North Korea, during which US and IAEA interests often diverged. While the United States and the IAEA shared an interest in strengthening the nonproliferation regime in general and the institutional credibility of the IAEA in particular, the US also had to balance these concerns with the security threat posed by a nuclear-armed North Korea, and the stability and balance of power in Northeast Asia. As a result, the United States was more willing to compromise with Pyongyang than Vienna was, and to accept settlements that were not entirely compatible with the DPRK's NPT treaty and IAEA safeguards obligations. At the same time, the US had to provide the IAEA with an important role in the negotiating process, which on a number of occasion led to outcomes that the US would have preferred to avoid. One way of looking at this is to argue that the IAEA's behavior was self-defeating and irrational, as many in Vienna apparently would have preferred to have North Korea leave the NPT entirely rather than agree to any exceptions in its requirements for membership. Another, however, is to argue that the IAEA's actions illustrate a principal-agent problem, in which the institutional interests of the IAEA sometimes conflict with the broader goals of the regime and of the states most important to the regime's creation and its maintenance. As this problem arose in only one of the three cases, however, there is insufficient data to warrant firm conclusions in this regard. It does suggest, however, that the role of the actual institutions that shape and monitor nonproliferation policies deserve substantially greater attention. There is, in fact, a troubling gap in the literature on the role of these institutions, and much more work on the subject is warranted.

⁷⁵⁰ See Oye, 1992; and Oye and Maxwell, 1994. Both works address the issue of how bilateral bargaining can strengthen or expand international regimes.

D. The Supply Side

This dissertation has primarily focused on the role that domestic political factors in the target state have played in determining the effects of US nonproliferation strategies, with lesser consideration given to domestic politics in Washington. The case studies reveal, though, that American domestic politics – unsurprisingly – can have a significant effect on efforts to use negative sanctions as well as positive inducements. This is indeed consistent with much of the sanctions literature. Sanctions scholars have argued, for example, that domestic political factors in the sender state can make threats and inducements more or less credible, and make the imposition of sanctions or the delivery of inducements more or less likely.⁷⁵¹

The United States's sanctions policies against Libya were influenced by interest groups such as oil companies and the Lockerbie families. The Ford administration could bargain more effectively with Seoul over its nuclear program than the Carter administration could, because Ford enjoyed nearly unanimous support in Washington for his policies, while Carter was mired in domestic fights over the withdrawal of troops and human rights violations. The Clinton administration favored coercive strategies over engagement and the use of positive inducements with North Korea not least because winning domestic support for such unpopular policies would require the expense of an unacceptable amount of political capital. The Agreed Framework collapsed in large part because of domestic political changes in the United States that made it difficult for the US to honor its end of the bargain.

I have limited the attention given to these supply-side issues with sanctions and inducements in order to keep the US decision-making process exogenous to the theory, in the belief that making US policy choice an endogenous variable would remove all agency from the policy process and limit the usefulness of any findings to policy makers. This is appropriate for empirical tests that take the form of natural experiments. If the theory tells you what you *are* going to do, it cannot be very good at telling you what you *ought* to do. However, the cost of this has been to ignore many important domestic political effects in the sender state that may have a significant impact on outcomes. Clearly the US's ability to convince a target state that it will deliver on any given inducement package depends upon the domestic political support for such a package in Washington, and the chances that an election could quickly lead to renegeing.

⁷⁵¹ There is a vast literature on the effects of domestic political divisions on international bargaining. Schelling (1960), for example, argued that a domestic opposition could enhance a leader's bargaining leverage. This view was later formalized by Putnam (1988) in a "two-level games" model of domestic-international interactions. Milner and Rosendorff (1997), however, argue that an overly hawkish domestic opposition can undermine a leader's credibility in international bargaining – a view supported by the cases examined in this dissertation. See also Evans, 1993; and Pahre and Papayouanou, 1997.

One issue worth considering in this regard is the degree to which inducements and sanctions can become ‘locked-in’ on the sender side. Just as both sanctions and inducements can provide rents or selective costs within the target state, so can the same occur with the sender. Inducements in the form of increased trade or technology transfers, for example, reward some US exporters, while punishing other interests. Likewise, sanctions can provide rents to domestic producers in the United States. These factors may determine not only how long the implementation of sanctions and inducements may last, but the feasibility of delivering on them at all, or the credibility of offering them. This study has largely neglected these factors under the assumption that treating US policies as exogenous would provide more policy-applicable findings. This is, of course, not unproblematic, as policy makers also need to know which policies are feasible over the long term. Further study is warranted with particular attention to these issues.

E. Mixing Carrots and Sticks

The two cases of counter-proliferation efforts with US adversaries that were examined in this dissertation cast doubt on the frequently made claim that positive inducements must only be used with such state at the same time as negative sanctions, or must only be tried only after sanctions were used first. The evidence from both the Libyan and North Korean cases indicate that negative sanctions were both ineffective and unnecessary. Positive sanctions were likely sufficient in both cases to affect positive change in the target state’s nuclear behavior.

Furthermore, there is no *a priori* reason to believe that positive inducements by themselves will invite attempts to extort. Positive inducements that are used to achieve valuable concessions from the target are quite different from inducements that are provided in an attempt to appease an extortionist. In the latter case, there is good reason to believe that inducements would invite future intransigence. But in the former, the only signal that is sent is that the sender is a shrewd rational bargaining partner. Additionally, inducements do not leave the sender unnecessarily vulnerable. Just as the target can defect from a deal, so can the sender withdraw inducements. An effective bargainer will always make sure that the inducements it provides are reversible if the other party’s cooperation can be easily withdrawn.

G. Virtuous and Vicious Cycles of Cooperation

This dissertation finds that cooperation in the present is more likely when there is a history of cooperation between the two states in the past. An important implication of this – which is directly supported by the three cases studies – is that even minor instances of

cooperation, or ‘confidence-building’ measures, can help build the trust necessary for deeper and more meaningful cooperation. On the other hand, threats – particularly if they are viewed as exploitative – can trigger escalation and more deeply entrench mistrust. One implication of this is that interdependence can reduce the chances of conflict by predisposing states to cooperative resolutions to disputes, and by raising the costs of exploitation by putting the wider relationship at risk. However, another implication is that these relationships may be volatile, as misinterpretations and disagreements can trigger escalatory spirals. The cases studied here do indicate that relations between adversaries ought to be quite volatile, and that cooperation is tenuous. A closer examination of the collapse of the Agreed Framework, or the course of US-Libyan relations after 2004, could offer important insights. Another question for future research would be whether states fall more easily into virtuous or vicious cycles of cooperation, and how easily existing alliance can be fractured by unresolved disputes.

H. Do We Select For Failures?

The three cases examined here suggest a reason why the literature on nuclear counter-proliferation is both pessimistic and heavily focused on difficult cases such as North Korea and Iran. Disputes over nuclear weapons proliferation can be solved more easily, successfully, and quietly with allies than with adversaries. The South Korean case, for example, is likely covered much more sparsely in the literature because there is, in fact, little to observe. Negotiations were conducted for the most part behind closed doors, and the dispute was resolved without public threats, the imposition of sanctions, or other ‘noisy’ gestures. Yet these cases are important. The key to understanding counter-proliferation is to compare cases that vary on both independent as well as dependent variables. A focus limited to the hardest cases – adversarial and isolated ‘rogue’ states such as North Korea – risks a biased image of nuclear weapons proliferation, and selects for cases that are more difficult to resolve, more likely to involve threats and sanctions than inducements, and more greatly characterized by information problems and misperceptions. Identifying specific barriers to cooperation is difficult if we focus only on cases in which these barriers are many and high.

I. Moral Hazard

Perhaps the weakest area in the literature on positive inducements is the issue of moral hazard. It is frequently claimed by scholars and policy makers alike that positive inducements may invite future efforts to exploit. The most pessimistic authors have argued that the use of inducements with adversaries will always encourage exploitation. These critics typically draw on

the analogy of the Munich Pact and the appeasement of Hitler to make their case. Others have acknowledged that moral hazard is a problem, and have cautioned that inducements should be used cautiously with adversaries, or should always be mixed with threats to reduce temptations to exploit.

Missing is a rigorous theoretic treatment of the problem of moral hazard.⁷⁵² In this dissertation, I have focused primarily on the constraints that the target's concerns about extortion can put on the effectiveness of sanctions *in that case*. I have argued that this is the more likely problem in counter-proliferation, as states should rarely – if ever – be willing to incur the substantial risk and expense of initiating a nuclear weapons program in the hopes that they may use it to extort the United States. Nor is there evidence that states are likely to defect from existing nuclear-related agreements in order to improve the terms of the deal. For example, this did not happen in the North Korean case, even though North Korea was the likeliest candidate for such a strategy. However, the absence of such extortion in a handful of case studies does not tell us much that is generalizable about the moral hazard problem, and a fuller and more robust treatment of this issue is badly needed.

There are several considerations – some of which are clarified in this study – that can serve as a useful starting point for addressing this problem. First, moral hazard is, fundamentally, a problem of incomplete information. Moral hazard emerges from the information asymmetries about preferences and behavior between the two parties. In a world of complete information, moral hazard would not exist. Additionally, there are, in fact, two distinct problems with moral hazard: one that has to do with behavior, the other with preferences. The salience of these two problems is also dependent upon the stage of the agreement. In the bargaining stage, preferences

⁷⁵² One problem is the very definition of the term “moral hazard” as used in this context. Here, I refer broadly to the problem of an offer of positive inducements in the present – whether they are successful or unsuccessful – encouraging extortion in the future, whether it is done by the current bargaining partner or other states. Specifically, this could occur if the current target state or other states observing the exchange of inducements with the target state interpret the offer of positive inducements as a sign that future extortion will be met with similar rewards. This is loosely analogous to the moral hazard problem encountered by insurers: the mitigation of a client's risk may perversely encourage an unacceptably high level of risk-taking. In both cases, the target actor is – or believes it is – shielded from the consequences of risky behavior, and is therefore provided with an incentive to engage in the very behaviors that the sender would most like to avoid. Fundamentally, moral hazard is an information problem. Whether the issue is insurance, contracts, principal-agent relationships, or positive inducements, moral hazard involves the provision of incentives to one party to exploit information asymmetries about its own behavior against another party. The use of moral hazard here to refer to *all* cases of positive inducements, here, is imprecise. For the analogy with insurance coverage to work, the term should be limited to the provision of inducements regardless of whether the sender is being extorted or not. Nonetheless, the term “moral hazard” is presented as a universal problem with positive inducements by a number of authors, including Cortright (1997), Haass (1998), and Cha (2003). Cha describes moral hazard as one of the principal concerns of hawks in the US counter-proliferation effort with North Korea.

are more relevant – moral hazard in the bargaining stage results from information asymmetries about preferences. In the enforcement stage, information about each other’s behavior is more important. The question in the enforcement stage is how well each side can monitor the other’s compliance. The latter issue is, in fact, well studied in the literature, and well understood. It is the first problem – in the bargaining stage – that is not.

The strongest form of the ‘appeasement’ argument holds that inducements will create a moral hazard problem – i.e., they will produce incentives for future extortion – regardless of whether the sender is currently being extorted or not. Any payment for nuclear compliance will invite others to pursue nuclear weapons, in the expectation that they too will receive bribes. Therefore, inducements will *necessarily* weaken the international nonproliferation regime. However, several conditions would have to hold for this to be true. First, other states would have to have a high expectation that they, too, would receive similar rewards, even if they were resorting to extortion. Second, the risk of not receiving such a reward (or in fact inviting punishment) and the cost of the nuclear program itself would have to be less than the expected reward. It appears, on its face, very unlikely that either of these conditions would be met. The US’s use of inducements would have to increase enormously for other states to reasonably suspect that such payments would not only be the norm, but would be given away freely and easily, even to extorters. Also, the costs of a nuclear weapons program can be politically and economically high. The very small proportion of states that have initiated such programs out of the set of countries that possess the technical capacity to do so indicates at a minimum that states do not make the decision to pursue nuclear weapons lightly. If international security issues are typically not enough to provoke proliferation, it is difficult to believe that US inducements would radically change the calculus.

A weaker form of the ‘appeasement’ argument would be that moral hazard problems would arise if the US becomes, or appears to have become, a victim of nuclear-related extortion. This is not likely to be enough to encourage other states to incur the risk of proliferation. In fact, the empirical evidence suggests that states are much more concerned about their reputations in this regard than is rational, and that states will willingly incur significant costs to avoid a reputation as a weak bargainer even though the actual risk of incurring such a reputation is very low.⁷⁵³

The issue here is related to the much broader debate in the literature about reputation and credibility. How important is reputation in international politics? How much do states rely on past behavior as a guide to another state’s behavior in the future? To what degree can states

⁷⁵³ Mercer, 1996.

enhance their bargaining power through demonstrations of resolve? To what degree will bargaining power be lost if states concede to others' demands, particularly to minor ones? These are central questions in international relations that require greater attention in the field than they have received. The findings in this dissertation are insufficient to answer most of these questions. They do suggest, however, that states' concerns about extortion far outweigh the actual risk of being a victim to extortion. Extortion with a nuclear weapons program is likely very rare. They also suggest that deceptive bargaining strategies are not nearly as effective as decision makers believe them to be.

J. Time Horizons and the "Balance of Patience"

An important issue that was not considered in this study was the role of time preferences. This is important in two ways: states may have different senses of urgency in any bargaining relationship, and states can also create urgency through such tactics as ultimatums and "exploding" offers. Time effects can change the costs of non-agreement, and in turn alter state preferences. In general, the state with the lowest sense of urgency has a bargaining advantage that it can exploit by stalling. The result is that the state with the greater sense of urgency will, all else being equal, be willing to settle the issue on less favorable terms for itself than it otherwise would. As a simple example, one can typically get a lower price for a used car from someone who "has to sell" because they are moving away or badly in need of cash in a hurry. Thus just as there is a balance of power, there is also a "balance of patience" as well. The state willing to go longer without an agreement can extract a higher price for cooperation.

The issue, however, becomes quite complex in the context of nuclear counter-proliferation. The target state may, as time passes, come closer to making a bomb. Thus the stakes can rise as time goes by. However, this is not always the case. Nor, even when it is the case, do the stakes always have to rise – as time goes by, the sender can also gather better intelligence, or the target state may encounter technical problems that make the development of a bomb less rather than more likely. Also, other changes such as economic downturns, or shifts in the balance of military capabilities, or the loss of key allies, can effect the "balance of patience," leading the two sides to more or less urgently desire a settlement. While all this occurs, both sides may also strategically create more or less urgency by issuing ultimatums or exploding offers, by ramping up one's nuclear efforts, by turning the issue over to third parties such as the UN Security Council, or by taking actions such as military mobilizations that raise the risk of

escalation. Finally, time pressures could exacerbate the already substantial information problems that create barriers to cooperation.⁷⁵⁴

Because of the uncertainty and complexity of the time element, I have preferred to leave these issues out of this study, and simply consider them as an element of state preferences. This may have provided for more parsimonious theory, but at a cost. Policy makers are, of course, acutely aware of time sensitivities in negotiations. By ignoring these issues, I have gained simplicity at the expense of less policy relevance. To make matters worse, few scholars have paid close attention to these issues, even though they were, in fact, recognized as critical elements of international bargaining in the early literature on the subject.⁷⁵⁵ It would be useful to revisit the three cases presented in this dissertation, as well as a broader set of counter-proliferation cases, to focus explicitly on the time element, and to measure the effects that both exogenous and strategic time pressures had on outcomes.

III. Policy Recommendations

In this section, I offer six cautious policy recommendations based on the findings in this dissertation. They can be summarized as follows: neither sanctions nor inducements are always the “best option,” neither should be viewed as a “last resort,” and neither is “cheap”; sanctions and inducements should be chosen in light of the overall international and domestic context; diplomacy and negotiation are valuable – and necessary – tools of statecraft that should not be underestimated; and the best way to solve a dispute is by addressing the underlying problem, not just the immediate source of conflict.

A. Sanctions Are Not Cheap, and Inducements Are Not A Last Resort

The United States has come to treat economic sanctions as the default policy in its counter-proliferation efforts with states of concern. This seems to have happened with little consideration of either the chances for their success, the costs of organizing them – in terms of both economic losses as well as the necessary political capital to win and sustain support for them – the limits they can impose on future policy choices, and the chances that they will lead to escalation. Sanctions are not without their utility, and provided they are employed with a keen understanding of the conditions under which they are most likely to succeed or fail, can be a potent and effective counter-proliferation tool. But because they entail costs and because, in a number of circumstances, they can provoke escalation and make a bad situation only worse, they

⁷⁵⁴ I am grateful to Matthew Bunn for this last point.

⁷⁵⁵ For example, George (1994) discusses the issue of time pressure at length.

should not be viewed as any more of a “safe” option or fallback policy than positive inducements, military force, or containment.

Likewise, positive inducements should not be viewed as the last resort of US counter-proliferation policies, only to be tried when more coercive policies have failed to bear fruit. Both sanctions and inducements can be very effective if they are used under the appropriate circumstances, are employed toward reasonable goals and linked to both reasonable and flexible demands, and are crafted in a manner that best exploits the international and domestic context in which they are used. Neither is a policy of last resort or desperation, but an effective tool that has appropriate and inappropriate uses. When positive inducements are the most promising tool – as was the case with North Korea – they should be used first, not last.

B. “Munich” and the Domestic Political Cost of Inducements

The North Korean case demonstrates that the offer of positive inducements, and especially the long-term commitment to their provision, can easily be stymied by domestic opponents, who often criticize such policies as “appeasement.” In fact, references to Hitler and the Munich Pact have become *de rigueur* in US politics not only when inducements are offered to adversaries, but even when the US so much as negotiates with adversaries.⁷⁵⁶ This dissertation strongly suggests that such comparisons are naïve. Nonetheless, it is inevitable that the provision of inducements to adversaries as a counter-proliferation strategy, however successful such a strategy may be, will meet with strong domestic challenges that make leaders less willing to use them and put into doubt the US’s ability to maintain a stable policy built on positive inducements over the long term. The North Korean case is again an illustrative one. The Agreed Framework’s demise had many causes, but not least in significance was Washington’s inability to stick to its end of the deal in the face of sustained domestic opposition.

Good policy should not be determined by domestic political factors, but it should be chosen in consideration of those factors. Especially if a policy requires a long-term commitment to succeed, it must be designed with long-term domestic political support in mind. Inducements can be chosen in ways that make this more likely. One way is to choose an inducements package that provides rents to powerful domestic interest groups. This is easiest to achieve with trade and technology inducements, which can provide domestic firms with lucrative business contracts and new markets. Another strategy is to align the provision of inducements with the interests of powerful bureaucracies who will fight to keep lucrative programs within their portfolio.

⁷⁵⁶ The debate during the 2008 US Presidential election over whether or not the US should so much as talk to the Iranians is illuminating. See, for example, Thomas, June 23, 2008.

Importantly, the Agreed Framework did none of these things. The transfer of nuclear technology was outsourced to the South Koreans and the Japanese, and the provision of heavy fuel oil benefited no one in the United States. It is not surprising, therefore, that the Agreed Framework quickly became a political orphan in Congress.

The argument here is not that inducements should be avoided because they are domestically problematic. The argument is that *both* sanctions and inducements must be viewed as longer-term initiatives that require concentrated and “locked-in” domestic political support for success. Furthermore, this is not impossible to achieve, as cooperation with even the most hostile of adversaries often benefits (or can be made to benefit) some domestic constituencies.

C. Consider Timing and Context

Political scientists sometimes treat international diplomacy as if it occurs in a vacuum.⁷⁵⁷ Policy makers typically know better. Whether or not US counter-proliferation policies are effective depends more than anything else on the domestic and broader international context in which they are used, as well as the nature of the overall relationship between the US and the target state. Different policies are appropriate for different contexts, and any policy prescriptions based on theory must be made with this in mind.⁷⁵⁸ This, of course, does not mean that scientific and generalizable findings by scholars are useless to real-world policy makers. It simply means that the broad lessons of academic scholarship must be used as guides, not determinants, for policy. My findings in this study suggest that sanctions and inducements must be carefully tailored to fit the context, such that they exploit international and domestic factors to achieve a magnified political effect on the target state. This study also suggests that this ought to be significantly easier to achieve with allies than with adversaries. However more or less likely these tools are to be effective with different states, they will undoubtedly be more effective if they are chosen and designed to fit the context. Inducements will work best when they are targeted at influential elites who can change the target state’s policies, and when they can lock in the support of domestic constituencies who will have a vested interest in continued cooperation. Technology and trade can be particularly effective in this regard.

However, existing conditions may simply not be conducive to sanctions and inducements. If this is the case, any counter-proliferation effort may be doomed to fail. Policies should not be chosen in desperation. When favorable conditions are not present, containment and a wait-and-see approach may be the “least bad” option. On the other hand, if the conditions are

⁷⁵⁷ Diehl, 1992.

⁷⁵⁸ George and Smoke, 1974.

ripe for inducements, opportunities ought to be seized. The timing of policies is just as important, therefore, as the policies themselves.

D. Know (and Talk To) Your Enemy

A central finding of this dissertation is that the withholding of diplomatic talks and negotiations is rarely a good policy, and is likely to make compliance more, rather than less, difficult to achieve. Refusing to talk to an adversary impoverishes one's own knowledge about that adversary's preferences, and makes it more difficult to craft effective policies, while achieving nothing. On the other hand, negotiating with an adversary neither signals weakness nor cedes any strategic advantage. The North Korean and Libyan cases demonstrate that there is more to be lost than gained from refusing to talk. In both cases, the United States unsuccessfully sought to set preconditions for talks. In the end, the US was forced to go to the bargaining table, and made deals that more than likely could have been achieved much earlier had Washington been more willing to negotiate. Also, in both cases, important signals from the target state were lost in transmission because they were sent through third parties or low-level channels, where they were either misinterpreted or were never forwarded to decision makers that could have acted on them.

Four potential costs of agreeing to talks with an adversary are typically cited: they provide a potent source of criticism to one's own domestic allies, they confer legitimacy on the target regime, they offer the target a way to exploit the negotiations by stalling or dissembling, and they send a signal of weakness and irresoluteness. Only the first of these holds water. Negotiating with an adversary can indeed invite domestic criticism, however these costs would likely be much less if withholding talks were not such a common practice, and if leaders in Washington did not strengthen the taboo against negotiations with their rhetoric. In any event, there are often tradeoffs between effective policies and domestically popular policies, and this is no different.

The argument that diplomacy confers legitimacy on an adversary is much less convincing, and is contradicted by the historical record. The United States and many other states have successfully engaged in talks with the most odious adversaries without conferring any benefits on them or granting them any legitimacy by doing so, including with the Soviet Union, North Vietnam, the Chinese and North Koreans over the Korean War armistice, and the Iraqis at the end of the Gulf War. Talking to a bitter adversary in itself does not confer either legitimacy or advantage.

Nor do talks open up an avenue for exploitation. In fact, in some ways face-to-face diplomacy can accomplish the opposite, as they make it more difficult for third parties to claim that the United States never tried to reach a negotiated settlement, and they make it easier to communicate specific demands or ultimatums. States have always pursued coercive measures while simultaneously engaging in diplomacy. It is also unclear how the target state can get much benefit from lying in negotiations. Agreeing to negotiations does not somehow make oneself more susceptible to falsehoods and manipulation.

Finally, negotiations do not signal weakness. Only the appearance of being forced into negotiations reluctantly give the appearance of weakness, which is all the more reason to maintain contacts with one's adversaries from the start. Negotiations are not a form of surrender or concession. They are a tool used to overcome the information problems that create barriers to effective policies. Furthermore, they are not policies in and of themselves, and likewise do not in and of themselves affect the strategic balance of the dispute.

E. Solving the Underlying Problem and Building Future Cooperation

A distinction must be made between convincing a state to undertake a particular action in the short- or medium-term in order to avoid some punishment or receive some reward, and changing a state's preferences in a manner that makes such behavioral changes stable over the longer term. The latter is much more difficult to achieve than the former, yet it is also necessary to bring about real and lasting policy change. If compliance with the international nonproliferation regime is built on the near-term receipt of rewards or the constant threat of sanctions in the event of defection, then policy failure is typically a matter of time, and will be reversed as soon as the target state is able to renege and get away with it. Positive inducements are more capable of bringing about such longer-term change in preferences, as they can promote the coalescence of domestic constituencies in the target state that support cooperation, and can likewise generate similar vested interests in the sender. It is, in general, far easier to maintain cooperative exchange over time than it is to hold out the threat of punishment over the long term, especially if punishment is dependent on military mobilization or the recruitment of international partners for sanctions. This does not mean that inducements can always achieve these results – they must be carefully targeted to particular groups in order to be self-reinforcing, and can easily fall apart if this is not the case. The Agreed Framework is a case in point. However, they can more easily be targeted to achieve these ends than sanctions can.

A US policy objective should always be to ultimately resolve the underlying issues that motivated the target's nuclear efforts in the first place. If near-term behavioral compliance can be

achieved without sacrificing this longer-term goal, it should. Short-term, reversible, or superficial agreements can be built upon to achieve deeper cooperation. However, short-term compliance should not be bought at the expense of longer-term goals. If threats produce minor concessions in the present only to make nuclear weapons proliferation more likely in the future, they should be avoided. The debate over preventive military force against the Iranian nuclear program is particularly relevant in this regard. Even if air strikes or commando raids could, in fact, destroy Iran's existing nuclear facilities – which itself is a highly dubious proposition – such a “success” would have to be weighed against the chances of Tehran only doubling down on its nuclear efforts in the future, while enjoying much greater public support for the regime and the nuclear program in the process. Air strikes may impose a significant cost on Tehran, but they only exacerbate the underlying security problems that motivate the weapons effort in the first place, as well as fortify the nationalist and inward-looking tendencies of the regime.

On the other hand, the findings in this dissertation suggest that cooperation in one area can make cooperation in other areas more likely. This should especially be the case with different issue areas that are non-separable and reinforce one another. Thus counter-proliferation policies must be considered within the context of the wider relationship between the two countries, and their various outstanding disputes. Resolving minor disputes outside of the nuclear weapons issue can, in fact, make counter-proliferation strategies more likely to succeed over the longer term. Policy makers must therefore consider all of these policies as part of a program to improve the US's relationship with the target state. In cases where this is impossible or – more typically – undesirable, counter-proliferation is more likely to be ineffective.

F. Be Flexible and Be Prepared For Failure

The potential effectiveness of US counter-proliferation policy – or any foreign policy – is limited. Successful counter-proliferation depends on intelligence and accurate information, attention to context, patience, steadfastness, dealing with one's own domestic political constraints, as well as a number of exogenous factors that can put significant limits on policy options. Just as a successful poker player knows that she cannot win every hand, and must therefore know when it is appropriate to fold, a successful policy maker must also know when to cut her losses. There are substantial incentives for decision makers to “do something” even when the available policy options are unlikely to produce the desired results. Rationalizations about moral hazard problems and credibility can conveniently be used to justify coercive actions such as economic sanctions that are doomed to fail. However, the urge to “do something” can often lead to costly choices, or to policies that make a bad situation worse.

Policy makers need to weigh sanctions and inducements against *all* of the available options. This includes scaling back one's demands if they are too high. It also includes adopting a policy of containment. Decision makers need to more frankly consider the possibility that their demands in a given case will simply not be met, and that there are no sanctions or inducements that can be offered at an acceptable cost to produce full compliance. The United States has often been able to get away with policy overreach largely because its strategic advantages are so great that it enjoys a significant cushion for policy error. As the 2003 invasion of Iraq, the Vietnam War, or the decision to drive north of the 38th parallel in Korea have demonstrated, however, bad policies can lead to real and substantial costs.

In the context of counter-proliferation, two things should be kept in mind. First, flexibility is simply smart diplomacy – it is not weakness. Likewise, ultimatums can be as much a sign of foolishness as resolve. The goal should always be to produce the best results *possible*. Accommodation that prevents a state from developing nuclear weapons is almost always superior to standing firm on one's demands if doing so creates a new nuclear weapons state. The North Korean case serves as a useful example. Many US policymakers were loath to compromise on required safeguards inspections, and some were willing to accept policy failure if avoiding it meant yielding on demands. It is difficult to believe, though – and empirically unsupported – that the compromises made in the Agreed Framework did more damage to the international nonproliferation regime than North Korea's nuclear tests.

Second, containment is not only an acceptable policy option but the preferred one if there are no superior alternatives. It is simply not always going to be possible to prevent the spread of nuclear weapons to new states, and in some significant subset of future cases, counter-proliferation policies will not be able to produce the desired results at acceptable costs. Policy makers need to plan for this contingency. The United States needs to adopt strategies that account for the possibility of policy failure, and prepare for the containment option as a contingency. This means, above all else, clearly articulating the “red lines” that United States will not tolerate being crossed, and what actions will provoke military action. Counter-proliferation threats and the deterrent threats used for a containment policy are often at odds with one another. For example, during the early 1990s North Korean nuclear crisis, President Clinton publicly stated that the United States simply would not tolerate a nuclear-armed North Korea, and implied that the United States would go to war to prevent it. Clinton may have viewed such a threat as useful in his administration's counter-proliferation effort, but making such bluffs can also undermine the credibility of deterrent threats. As I have argued, the credibility of threats is mostly based on the inherent interest in the issue under dispute, however, bluffs can send

confusing signals and raise the chances of misperception. Now that North Korea in fact does have nuclear arms, the United States has to establish as a bright and clear red line: it will not tolerate the transfer of nuclear arms or fissile material to terrorists, and doing so would unquestionably lead to war. This red line is harder to make credible, however, after the US has already threatened war over the development of weapons in the first place. It would therefore have been useful for the Clinton administration to have more carefully considered the possibility of counter-proliferation failure and anticipate the requirements for an effective containment policy.

Appendix

This section provides a graphic representation of the issue-linkage theory presented in this dissertation.

Arrow Diagram 1 illustrates the relationship between the variables and the principal causal pathways of the theory. The logic here is the basis of hypotheses (*H1*) and (*H2*), which are empirically tested in the three case studies. The correlation between independent variable (IV) and dependent variable (DV) is tested directly using across-case and within-case comparisons, and then, using process tracing, all four causal pathways (the intervening variables) are tested independently.

The following variables are relevant:

1. Antecedent Conditions: whether the target state is an ally or adversary of the sender.

An ally is defined here as a state with which the sender has had a history of cooperation in the past, with few unresolved major disputes. An adversary is a state with which the sender has had little cooperation, and has major outstanding disputes. This variable is presented here as a dichotomy, however, it should be noted that this is simply a convenient simplification. States may have varying degrees of past cooperation or present disputes. The distinction is relatively unproblematic with the set of counter-proliferation cases, as the relationship of the United States with these states has tended to be unambiguous. Libya, North Korea, Iraq, and Iran, for example, were clearly adversaries of the United States when the US actively pursued counter-proliferation policies with them. Alternatively, South Korea and Taiwan were allies. In general, the relationship between this variable and the dependent variable should be read as follows: the greater the past history of cooperation has been, the more effective negative sanctions will be.

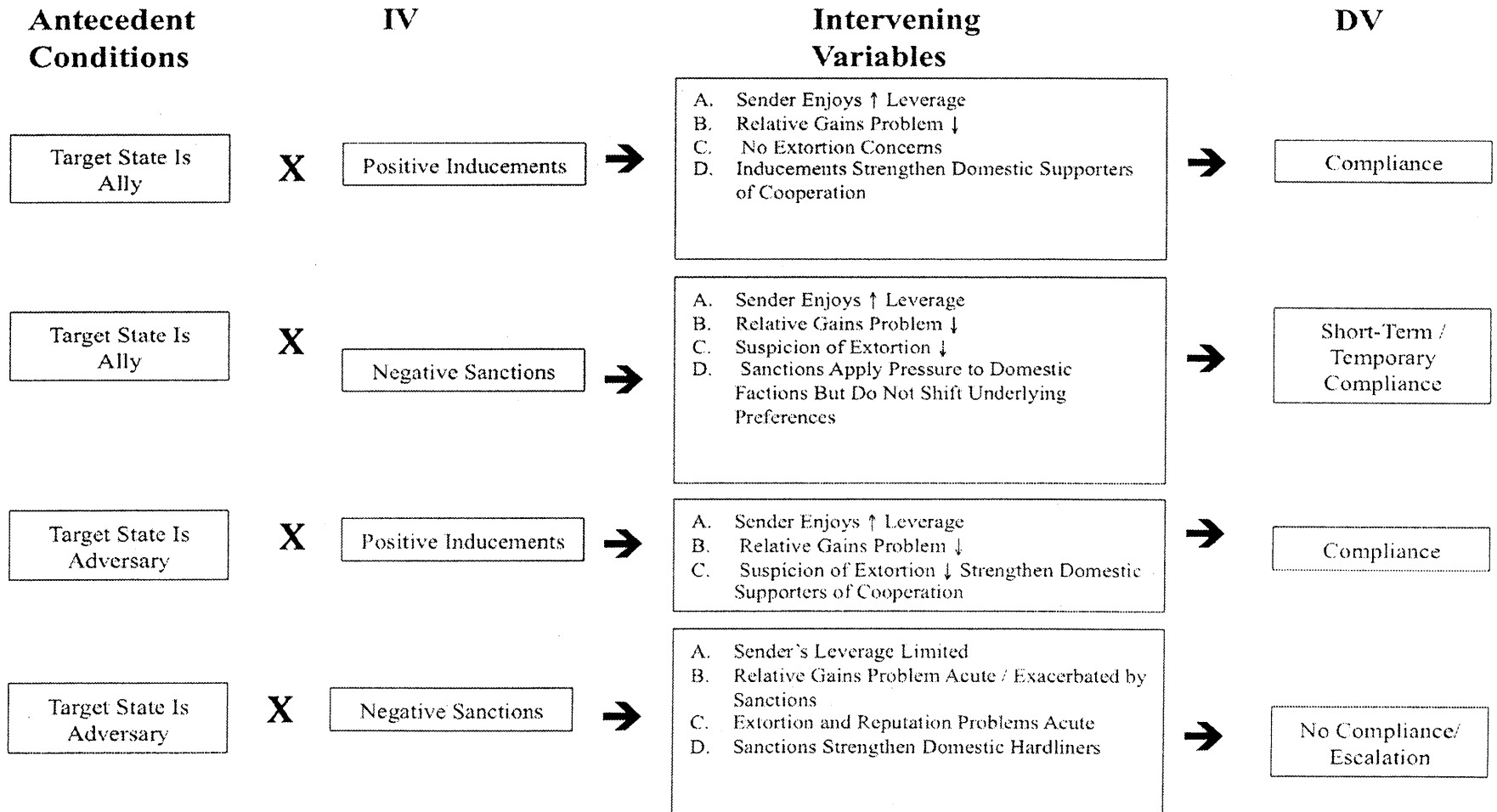
2. ***Independent Variable: whether negative sanctions or positive inducements are used.***
3. ***Intervening Variables.*** These are the four principal causal mechanisms presented by the theory, which are labeled in the arrow diagram as follows.
 - A. ***The amount of leverage the sender possesses over the target.*** The sender is likely to possess greater leverage with allies than with adversaries.
 - B. ***The target's concern with the distribution of gains (the relative gains problem).*** This problem is more acute with adversaries than with allies, and is more greatly exacerbated by sanctions than inducements. Inducements can, in fact, be used to mitigate this problem.
 - C. ***The target's suspicion that it is being extorted, and its concern with reputation costs.*** Extortion concerns are more acute between adversaries than allies, and are more greatly exacerbated by sanctions than inducements.
 - D. ***Domestic political effects in the target state.***
4. ***Dependent Variable: whether or not the target is likely to comply with the sender's demands, and whether counter-proliferation policies will provoke an escalatory spiral.***

Arrow Diagrams 2 and 3 illustrate the causal pathways of the two subsidiary hypotheses, (H3) and (H4), respectively. These two hypotheses are separately tested in each of the three cases studies.

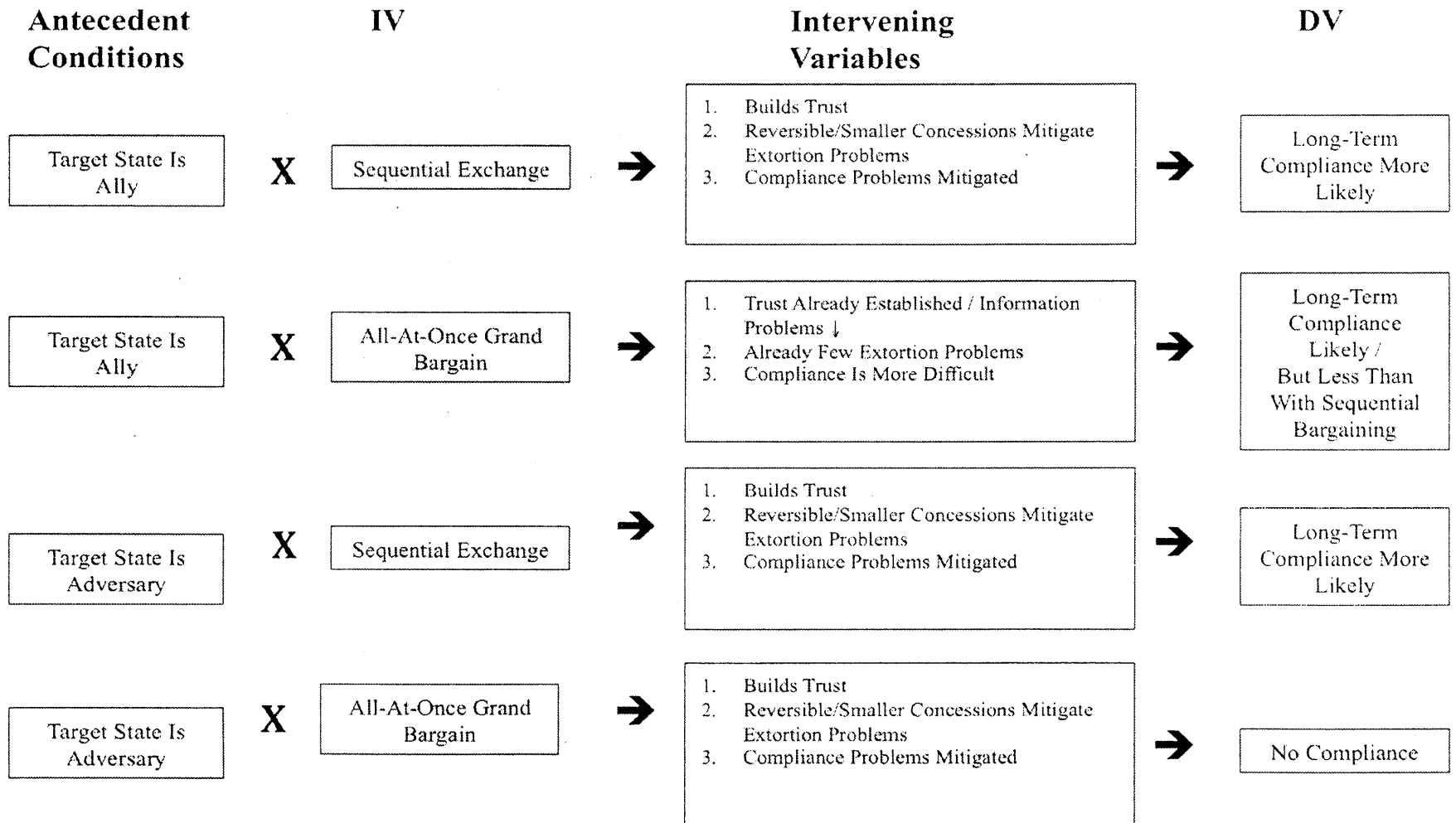
(H3) holds that *sequential exchanges of concessions and staged/phased compliance are more effective, particularly with adversaries, and make cooperation more likely.*

(H4) holds that *thick and well-established communication channels between the sender and target (as are typically found between allies, and typically lacking between adversaries) make compliance a more likely outcome.* Conversely, (H4) also holds that *the suspension or withholding of negotiations as a bargaining tactic is likely to backfire.*

ARROW DIAGRAM 1: PRINCIPAL CAUSAL PATHWAYS OF ISSUE-LINKAGE THEORY (HYPOTHESES H1 AND H2)



ARROW DIAGRAM 2: CAUSAL PATHWAYS OF HYPOTHESIS (H3)

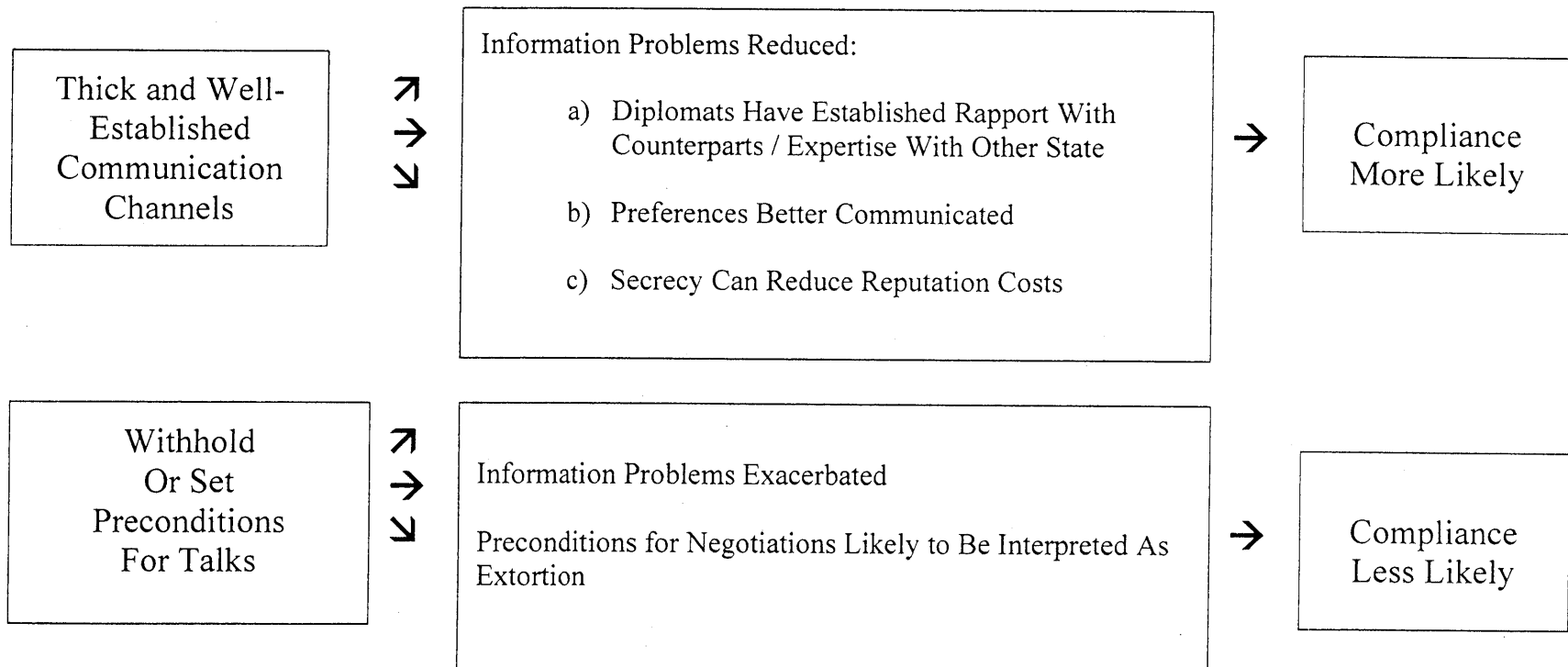


ARROW DIAGRAM 3: CAUSAL PATHWAYS OF HYPOTHESIS (H4)

IV

Intervening Variables

DV



Bibliography

- Adams, James. "Gadaffi to Hand Over IRA Secrets to Britain." *Times (UK)* June 7, 1992.
- Agence France-Presse*. "N. Korean Envoy Warns Against Threats on Suspected Nuke Program." November 17, 1993.
- Albright, David, and Corey Hinderstein. "Unraveling the A.Q. Khan and Future Proliferation Networks." *Washington Quarterly* 28.2 (2005): 111-128.
- Albright, David, and Holly Higgins. "Looking Back." *Solving the North Korean Nuclear Puzzle*. Eds. David Albright and Kevin O'Neill. Washington: Institute for Science and International Security, 2000. 15-30.
- . "The Agreed Framework: Status Report." *Solving the North Korean Nuclear Puzzle*. Eds. David Albright and Kevin O'Neill. Washington: Institute for Science and International Security, 2000. 31-56.
- Albright, David, and Kevin O'Neill, eds. *Solving the North Korean Nuclear Puzzle*. Washington: Institute for Science and International Security, 2000.
- Albright, David, and Paul Brannan. *The North Korean Plutonium Stock Mid-2006*. Institute for Science and International Security (ISIS), June 26, 2006.
www.isis-online.org/publications/dprk/dprkplutonium.pdf. Web.
- Albright, David. "A Proliferation Primer." *Bulletin of the Atomic Scientists* 49.5 (June 1993): 14-23.
- . "How Much Plutonium Does North Korea Have?" *Bulletin of the Atomic Scientists* 50.5 (September 1994): 46-53.
- Allison, Graham T. *Essence of Decision: Explaining the Cuban Missile Crisis*. Boston: Little, Brown, 1971.
- Allison, Graham T. *Nuclear Terrorism: The Ultimate Preventable Catastrophe*. New York: Henry Holt, 2005.
- Alterman, Jon B. "Postscript: Libya As Harbinger? The U.S.-Libyan Rapprochement." *Libya Since 1969: Qadhafi's Revolution Revisited*. Ed. Dirk J. Vandewalle. New York: Palgrave Macmillan, 2008. 239-248.
- Anderson, Lisa. "Rogue Libya's Long Road." *Middle East Report* 241 (2006): 42-7.

- Andrianov, Vladimir D. "Economic Aspects of the North Korean Nuclear Program." *The North Korean Nuclear Program: Security, Strategy, and New Perspectives from Russia*. Eds. James Clay Moltz and Alexandre Y. Mansourov. New York: Routledge, 2000. 41-50.
- Anthony, Ian, Christer Ahlstrom, and V. Fedchenko. *Reforming Nuclear Export Controls: The Future of the Nuclear Suppliers Group*. Oxford: Oxford University Press, 2007.
- Art, Robert J., and Patrick M. Cronin, eds. *The United States and Coercive Diplomacy*. Washington: United States Institute of Peace Press, 2003.
- Associated Press*. "7th Infantry Set to Leave Korea." March 3, 1971.
- . "Korean Jet Sale Proposed." April 27, 1981.
- . "Libya Says Pan Am Suspects May Be Sent to 'Neutral' Site." March 2, 1992.
- . "Ban Lifted, Libya Is Set to Retool Oil Works." April 11, 1999.
- Axelrod, Robert M. *Structure of Decision: The Cognitive Maps of Political Elites*. Princeton, NJ: Princeton University Press, 1976.
- Bahgat, Gawdat. *Proliferation of Nuclear Weapons in the Middle East*. Gainesville, FL: University Press of Florida, 2007.
- Baldwin, David A. "The Power of Positive Sanctions." *World Politics* 24.1 (1971): 19-38.
- . *Economic Statecraft*. Princeton, NJ: Princeton University Press, 1985.
- . "The Sanctions Debate and the Logic of Choice." *International Security* 24.3 (2000): 80-107.
- Baldwin, David A., and Robert A. Pape. "Evaluating Economic Sanctions." *International Security* 23.2 (1998): 189-98.
- Banks, Jeffrey S. *Signaling Games in Political Science*. New York: Harwood Academic, 1991.
- Bapat, Navin A., and T. Clifton Morgan. "Multilateral Versus Unilateral Sanctions Reconsidered: A Test Using New Data." *International Studies Quarterly* 53.4 (2009): 1075-94.
- Barber, Ben. "N. Korea Nuke Pact Defended; GOP Senators Rap It As One-Way Deal." *Washington Times* October 20, 1994: A1.
- Barringer, Felicity. "Libya Admits Culpability in Crash of Pan Am Plane." *New York Times* August 16, 2003: A6.
- . "Pan Am 103's Bereaved Watch U.N. Lift Libya Sanctions." *New York Times* September 13, 2003: A2.
- Beaton, Leonard, and John Maddox. *The Spread of Nuclear Weapons*. New York: Praeger, 1962.

- Becker, Jasper. *Rogue Regime: Kim Jong Il and the Looming Threat of North Korea*. Oxford: Oxford University Press, 2005.
- Beecher, William. "U.S. Troop Cut in South Korea Reported Sought to Save Funds." *New York Times* June 12, 1970: 1.
- Behr, Peter, and Alan Sipress. "Energy Panel Seeks Review of Sanctions; Oil Production in Iraq, Iran and Libya Seen As Critical." *Washington Post* April 19, 2001: A13.
- Bellany, Ian. *Curbing the Spread of Nuclear Weapons*. Manchester: Manchester University Press, 2005.
- Bernauer, Thomas, and Dieter Ruloff, eds. *The Politics of Positive Incentives in Arms Control*. Columbia, SC: University of South Carolina Press, 1999.
- Berridge, G. R., and Nadia Gallo. "The Role of the Diplomatic Corps: The U.S.-North Korean Talks in Beijing, 1988-94." *Innovation in Diplomatic Practice*. Ed. Jan Melissen. Basingstoke, UK: Macmillan, 1999. 214-230.
- Bethe, Hans A. "The Technological Imperative." *Bulletin of the Atomic Scientists* 41.7 (1985): 34-6.
- Betts, Richard K. "Paranoids, Pygmies, Pariahs, and Nonproliferation." *Foreign Policy*.26 (1977): 157-83.
- . "Paranoids, Pygmies, Pariahs, and Nonproliferation Revisited." *Security Studies* 2.3 (1993): 100-124.
- Black, Ian. "Gadafy Given Lockerbie Trial Assurances." *Guardian (UK)* October 31, 1998.
- . "Lockerbie Families Cheered by Hague Court Ruling; Venue Choice for Trial of Libyans Is Setback for Britain and US." *Guardian (UK)* February 28, 1998: 10.
- . "How the Deal Was Done." *Guardian (UK)* April 6, 1999: 8.
- Blanchard, Jean-Marc F., and Norrin M. Ripsman. "Asking the Right Question: *When do Economic Sanctions Work Best?*" *Power and the Purse: Economic Statecraft, Interdependence, and National Security*. Eds. Jean-Marc F. Blanchard, Edward D. Mansfield, and Norrin M. Ripsman. London: F. Cass, 2000. 219-253.
- Blank, Stephen. "UN Appeasers Let Rogue States Call the Shots." *Asia Times* February 14, 2003.
- Bolton, John R. "Bring on the Foreign Policy Debate." *Wall Street Journal* May 19, 2008, A15.
- Bourseton, Jack, and Yana Feldman. "Verifying Libya's Nuclear Disarmament." *Verification Yearbook 2004*. Ed. Trevor Findlay. London: Verification Research, Training and Information Centre (VERTIC), 2004. 87-105.
www.vertic.org/publications/verification%20yearbook.html. Web.

- Bowen, Wyn Q. *Libya and Nuclear Proliferation: Stepping Back from the Brink*. IISS Adelphi Paper 380. New York: Routledge, 2006.
- Bratt, Duane. *The Politics of CANDU Exports*. Toronto: University of Toronto Press, 2006.
- Braun, Chaim, and Christopher F. Chyba. "Proliferation Rings: New Challenges to the Nuclear Nonproliferation Regime." *International Security* 29.2 (2004): 5-49.
- Brinkley, Joel. "U.S. Will Restore Diplomatic Links with the Libyans." *New York Times* May 16, 2006: A1.
- Brooke, James. "Threats and Responses: Asian Arena; North Korea Says It Plans to Expel Nuclear Monitors." *New York Times* December 28, 2002: A1.
- Brooks, Risa A. "Sanctions and Regime Type: What Works, and When?" *Security Studies* 11.4 (2002): 1-50.
- Brzezinski, Zbigniew. National Security Adviser. *Korea*, Presidential Review Memorandum/NSC 13 (PRM-13). January 29, 1977.
www.jimmycarterlibrary.org/documents/prmemorandums/prm13.pdf. Web.
- Bunn, George. "The Nuclear Nonproliferation Treaty: History and Current Problems." *Arms Control Today* 33.10 (2003): 4-10.
- . "The Nuclear Nonproliferation Regime and Its History." *U.S. Nuclear Weapons Policy: Confronting Today's Threats*. Eds. George Bunn and Christopher F. Chyba. Stanford, CA: Center for International Security and Cooperation, 2006. 75-125.
- Bunn, Matthew. *Securing the Bomb 2010: Securing All Nuclear Materials in Four Years*. Cambridge, MA and Washington: Project on Managing the Atom, Harvard University, and the Nuclear Threat Initiative, April 2010.
- Bunn, Matthew, and Andrew Newman. *Preventing Nuclear Terrorism: An Agenda for the Next President*. Cambridge, MA: Belfer Center for Science and International Affairs, 2008.
- Burgat, François. "Qadhafi's Ideological Framework." *Qadhafi's Libya: 1969-1994*. Ed. Dirk J. Vandewalle. New York: St. Martin's Press, 1995. 47-66.
- Buzan, Barry. *An Introduction to Strategic Studies: Military Technology and International Relations*. New York: St. Martin's Press, 1987.
- Byman, Daniel, and Matthew C. Waxman. *The Dynamics of Coercion: American Foreign Policy and the Limits of Military Might*. Cambridge, UK: Cambridge University Press, 2002.
- Carim, Xavier, Audie Klotz, and Olivier Lebleu. "The Political Economy of Financial Sanctions." *How Sanctions Work: Lessons from South Africa*. Eds. Neta Crawford and Audie Klotz. New York: St. Martin's Press, 1999. 159-177.

- Carter, Jimmy. President of the United States. *U.S. Policy in Korea*. Presidential Directive/NSC-12 (PD-12). May 5, 1977. Partially Declassified July 1, 1999.
www.jimmycarterlibrary.org/documents/pd12.pdf. Web.
- Central Intelligence Agency (CIA). Research Study. *International and Transnational Terrorism: Diagnosis and Prognosis*. April 1976. Declassified October 2001.
- . National Foreign Assessment Center. *South Korea: Nuclear Developments and Strategic Decisionmaking*. June 1978. Declassified October 2005.
- . *North Korea: Nuclear Reactor*. July 9, 1982.
www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB87/. Web.
- . *North Korea: Potential for Nuclear Weapon Development*. September 1986.
www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB87/. Web.
- Cha, Victor D. *Alignment Despite Antagonism: The United States-Korea-Japan Security Triangle*. Stanford, CA: Stanford University Press, 1999.
- . "Weak but Still Threatening." *Nuclear North Korea: A Debate on Engagement Strategies*. Eds. Victor D. Cha and David C. Kang. New York: Columbia University Press, 2003. 13-40.
- Chafetz, Glenn. "The End of the Cold War and the Future of Nuclear Proliferation: An Alternative to the Neorealist Perspective." *Security Studies* 2.3 (1993): 125.
- Chellaney, Brahma. *Nuclear Proliferation: The U.S.-Indian Conflict*. New Delhi: Orient Longman, 1993.
- Chinoy, Mike. *Meltdown: The Inside Story of the North Korean Nuclear Crisis*. New York: St. Martin's Press, 2008.
- Cho Young-chol. "The *Chaebol* Regime and the Developmental Coalition of Domination." *Developmental Dictatorship and the Park Chung-hee Era: The Shaping of Modernity in the Republic of Korea*. Ed. Lee Byeong-cheon. Paramus, NJ: Homa & Sekey Books, 2006. 108-133.
- Choe Sang-hun. "South Korea Close to A-Bomb Development in Early 1980s." *Associated Press* October 5, 1995.
- Choi, Jang Jip. "Political Cleavages in South Korea." *State and Society in Contemporary Korea*. Ed. Hagen Koo. Ithaca, NY: Cornell University Press, 1993. 13-50.
- Choi, Kang, and Park Joon-sung. "South Korea: Fears of Abandonment and Entrapment." *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*. Ed. Muthiah Alagappa. Stanford, CA: Stanford University Press, 2008. 373-403.
- Chung Young-iob. *South Korea in the Fast Lane: Economic Development and Capital Formation*. Oxford: Oxford University Press, 2007.

- Chung, Kae H., Hak-chong Yi, and Ku Hyun-jung. *Korean Management: Global Strategy and Cultural Transformation*. Berlin: Walter de Gruyter and Co., 1997.
- Chyba, Christopher F., Chaim Braun, and George Bunn. "New Challenges to the Nonproliferation Regime." *U.S. Nuclear Weapons Policy: Confronting Today's Threats*. Eds. George Bunn and Christopher F. Chyba. Stanford, CA: Center for International Security and Cooperation, 2006. 126-160.
- Cirincione, Joseph, Jon B. Wolfsthal, and Miriam Rajkumar. *Deadly Arsenal: Nuclear, Biological, and Chemical Threats*. 2nd ed. Washington: Carnegie Endowment for International Peace, 2005.
- Coase, Ronald H. "The Problem of Social Cost." *Journal of Law and Economics* 3 (1960): 1-44.
- Cody, Edward. "Egyptian Says U.S. Would Supply F-15s; Egyptian Defense Chief Asserts U.S. Would Supply F-15 Fighters." *Washington Post* February 22, 1980.
- Cohen, Avner, and Benjamin Frankel. "Opaque Nuclear Proliferation." *Opaque Nuclear Proliferation: Methodological and Policy Implications*. Ed. Benjamin Frankel. London: F. Cass, 1991. 14-44.
- Cole, David C., and Park Yong-chol. *Financial Development in Korea, 1945-1978*. Cambridge, MA: Council on East Asian Studies, Harvard University, 1983.
- Collins, Stephen D. "Dissuading State Support of Terrorism: Strikes or Sanctions? (An Analysis of Dissuasion Measures Employed Against Libya)." *Studies in Conflict and Terrorism* 27.1 (2004): 1-18.
- Collins, Susan M. "South Korea's Experience with External Debt." *National Bureau of Economic Research*. 1988. www.nber.org/papers/w2598. Web.
- Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction. *Report to the President of the United States*. March 31, 2005. Unclassified ed. www.gpoaccess.gov/wmd/index.html. Web.
- Conybeare, John A. C. "International Organization and the Theory of Property Rights." *International Organization* 34.3 (1980): 307-34.
- Cooley, John K., *Libyan Sandstorm*. New York: Holt, Rinehart, and Winston, 1982.
- Cooper, Helene, and Jim Yardley. "Pact with North Korea Draws Fire from a Wide Range of Critics in U.S." *New York Times* February 14, 2007: A10.
- Cordesman, Anthony H. *Weapons of Mass Destruction in the Middle East*. London: Brassey's UK, 1991.
- . *Energy Developments in the Middle East*. Westport, CT: Praeger, 2004.

- Corera, Gordon. *Shopping for Bombs: Nuclear Proliferation, Global Insecurity, and the Rise and Fall of the A.Q. Khan Network*. Oxford: Oxford University Press, 2006.
- Cortright, David, and George A. Lopez, eds. *Economic Sanctions: Panacea or Peacebuilding in a Post-Cold War World?* Boulder, CO: Westview Press, 1995.
- Cortright, David, ed. *The Price of Peace: Incentives and International Conflict Prevention*. Lanham, MD: Rowman & Littlefield Publishers, 1997.
- Crace, John. "Black Gold: Oil Prices Are Rising After Years in Decline." *Guardian (UK)* April 6, 1999: 10.
- Crawford, Vincent P., and Joel Sobel. "Strategic Information Transmission." *Econometrica* 50.6 (1982): 1431-51.
- Crossette, Barbara. "U.S. Dismisses Libyan Offer on Neutral Trial Site for Bomb Suspects." *New York Times* March 3, 1992: 10.
- Crumm, Eileen M. "The Value of Economic Incentives in International Politics." *Journal of Peace Research* 32.3 (1995): 313-30.
- Cummings, Bruce. *Parallax Visions: Making Sense of American-East Asian Relations at the End of the Century*. Durham, NC: Duke University Press, 1999.
- . *Korea's Place in the Sun: A Modern History*. Updated ed. New York: W. W. Norton, 2005.
- Cushman, John H, Jr. "Indictments Are Expected in Pan Am Jetliner Bombing." *New York Times* November 14, 1991: 3.
- Darton, John. "Clinton Says That North Korea Can Still Avoid U.N. Sanctions." *New York Times* June 5, 1994: 16.
- Dashti-Gibson, Jaleh, and Richard W. Conroy. "Sanctions Against Libya, Sudan, and Afghanistan." *The Sanctions Decade: Assessing UN Strategies in the 1990s*. Eds. David Cortright and George A. Lopez. Boulder, CO: Lynne Rienner Publishers, 2000. 107-134.
- Davis, James W. *Threats and Promises: The Pursuit of International Influence*. Baltimore: Johns Hopkins University Press, 2000.
- Davis, Zachary S. "The Realist Nuclear Regime." *Security Studies* 2.3 (1993): 79.
- Deeb, Mary-Jane. "Qadhafi's Changed Policy: Causes and Consequences." *Middle East Policy* 7.2 (2000): 146.
- Defense Science Board (DSB). *1997 Summer Study Task Force on DoD Responses to Transnational Threats. Vols. I and II*. Washington: Defense Science Board, Office of the Under Secretary of Defense for Acquisition and Technology, October 1997.
www.acq.osd.mil/dsb/reports1990s.htm. Web.

- DeSutter, Paula A. Assistant Secretary of State for Verification and Compliance. Testimony Before the Senate Foreign Relations Committee. *Libya – Next Steps in U.S. Relations*. Hearing Before the Committee on Foreign Relations. United States Senate. 108th Congress. 2nd Session. Senate Hearing 108-496. Washington: GPO. February 26, 2004. frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108_senate_hearings&docid=f:94557.pdf. Web.
- Diehl, Paul F. "What Are They Fighting For? The Importance of Issues in International Conflict Research." *Journal of Peace Research* 29.3 (1992): 333-44.
- Dorussen, Han. "Mixing Carrots with Sticks: Evaluating the Effectiveness of Positive Incentives." *Journal of Peace Research* 38.2 (2001): 251-62.
- Downs, George W. "The Rational Deterrence Debate." *World Politics* 41.2 (1989): 225-37.
- Downs, George W., and Michael A. Jones. "Reputation, Compliance, and International Law." *Journal of Legal Studies* 31.1 (2002): S95-S114.
- Downs, George W., and David M. Rocke. "Conflict, Agency, and Gambling for Resurrection: The Principal-Agent Problem Goes to War." *American Journal of Political Science* 38.2 (1994): 362-80.
- Doxey, Margaret P. *International Sanctions in Contemporary Perspective*. Basingstoke, UK: Macmillan, 1987.
- Drennan, William M. "Nuclear Weapons and North Korea: Who's Coercing Whom?" *The United States and Coercive Diplomacy*. Eds. Robert J. Art and Patrick M. Cronin. Washington: United States Institute of Peace Press, 2003. 157-224.
- Drezner, Daniel W. *The Sanctions Paradox: Economic Statecraft and International Relations*. Cambridge, UK: Cambridge University Press, 1999.
- . "Bargaining, Enforcement, and Multilateral Sanctions: When Is Cooperation Counterproductive?" *International Organization* 54.1 (2000): 73-102.
- . "The Trouble with Carrots: Transaction Costs, Conflict Expectations, and Economic Inducements." *Security Studies* 9 (2000): 188-218.
- . "The Hidden Hand of Economic Coercion." *International Organization* 57.3 (2003): 643-59.
- Economist Intelligence Unit (EIU). *Country Report: Libya*. London: Economist Intelligence Unit. 4th Quarter, 1996.
- . *Country Profile: South Korea and North Korea*. London: Economist Intelligence Unit. October 18, 1996.
- Eland, Ivan. "Economic Sanctions As Tools of Foreign Policy." *Economic Sanctions: Panacea or Peacebuilding in a Post-Cold War World?* Eds. David Cortright and George A. Lopez. Boulder, CO: Westview Press, 1995. 29-42.

- Elliott, Kimberly Ann. "The Sanctions Glass: Half Full or Completely Empty?" *International Security* 23.1 (1998): 50-65.
- Entelis, John P. "Libya and Its North African Policy." *Libya Since 1969: Qadhafi's Revolution Revisited*. Ed. Dirk J. Vandewalle. New York: Palgrave Macmillan, 2008. 173-189.
- Evans, Michael. "Libya Knew Game Was Up Before Iraq War." *Times (UK)* March 13, 2004.
- Evans, Peter B. "Building an Integrative Approach to International and Domestic Politics: Reflections and Projections." *Double-Edged Diplomacy: International Bargaining and Domestic Politics*. Eds. Peter B. Evans, Harold K. Jacobson, and Robert D. Putnam. Berkeley, CA: University of California Press, 1993. 397-430.
- Evans, Rowland, and Robert Novak. "Korea: Park's Inflexibility." *Washington Post* June 12, 1975: A19.
- Fearon, James D. "Domestic Political Audiences and the Escalation of International Disputes." *American Political Science Review* 88.3 (1994): 577-92.
- Feldman, Yana, and Charles Mahaffey. First Watch International (FWI). "Libya." Stockholm International Peace Research Institute (SIPRI). Updated 2010. www.sipri.org/research/disarmament/nuclear/researchissues/past_projects/issues_of_concern/libya/libya_default. Web.
- Ferguson, Charles D., William C. Potter, Amy Sands, Leonard S. Spector, and Fred L. Wheling. *The Four Faces of Nuclear Terrorism*. New York: Routledge, 2005.
- Filson, Darren, and Suzanne Werner. "A Bargaining Model of War and Peace: Anticipating the Onset, Duration, and Outcome of War." *American Journal of Political Science* 46.4 (2002): 819-37.
- Finney, John W. "U.S. Says Russians Now Have Deployed 60 MIRV Missiles." *New York Times* June 21, 1975: 1.
- Flank, Steven. "Exploding the Black Box: The Historical Sociology of Nuclear Proliferation." *Security Studies* 3.2 (1994): 259-94.
- Foran, Virginia I., and Leonard S. Spector. "The Application of Incentives to Nuclear Proliferation." *The Price of Peace: Incentives and International Conflict Prevention*. Ed. David Cortright. Lanham, MD: Rowman & Littlefield Publishers, 1997. 21-54.
- Frankel, Benjamin. "The Brooding Shadow: Systemic Incentives and Nuclear Weapons Proliferation." *Security Studies* 2.3 (1993): 37.
- Frantz, Douglas, and Josh Meyer. "The Deal to Disarm Kadafi." *Los Angeles Times* March 13, 2005.
- Friedman, Thomas L. "U.S. and Seoul Differ on Appeal to North Korea on Nuclear Sites." *New York Times* November 24, 1993: 16.

- Fudenberg, Drew, and Jean Tirole. *Game Theory*. Cambridge, MA: MIT Press, 1991.
- Fuhrmann, Matthew. "Spreading Temptation: Proliferation and Peaceful Nuclear Cooperation Agreements." *International Security* 34.1 (2009): 7-41.
- Galtung, Johan. "On the Effects of International Economic Sanctions: With Examples from the Case of Rhodesia." *World Politics* 19.3 (1967): 378-416.
- Garwin, Richard L., and Frank N. Von Hippel. "A Technical Analysis: Deconstructing North Korea's October 9 Nuclear Test." *Arms Control Today* 36.9 (2006): 14-16.
- Gause, Kenneth E. "The North Korean Leadership: System Dynamics and Fault Lines." *North Korean Policy Elites* (IDA Paper P-3903). Ed. Kongdan O. Hassig. Alexandria, VA: Institute for Defense Analyses (IDA), June 2004.
www.brookings.edu/papers/2004/06northkorea_oh.aspx. Web.
- Gelb, Leslie H. "Arms Expert Warns on Nuclear Spread." *New York Times* April 10, 1975: 3.
- George, Alexander L. "The Development of Doctrine and Strategy." *The Limits of Coercive Diplomacy: Laos, Cuba, Vietnam*. Eds. Alexander L. George, David K. Hall, and William E. Simons. Boston: Little, Brown, 1971. 1-35.
- . "Comparisons and Lessons." *The Limits of Coercive Diplomacy: Laos, Cuba, Vietnam*. Eds. Alexander L. George, David K. Hall, and William E. Simons. Boston: Little, Brown, 1971. 211-254.
- . *Forceful Persuasion: Coercive Diplomacy As an Alternative to War*. Washington: United States Institute of Peace Press, 1991.
- . "Introduction: The Limits of Coercive Diplomacy." *The Limits of Coercive Diplomacy*. 2nd ed. Eds. Alexander L. George and William E. Simons. Boulder, CO: Westview Press, 1994. 1-6.
- . "Coercive Diplomacy: Definition and Characteristics." *The Limits of Coercive Diplomacy*. 2nd ed. Eds. Alexander L. George and William E. Simons. Boulder, CO: Westview Press, 1994. 7-12.
- . "Theory and Practice." *The Limits of Coercive Diplomacy*. 2nd ed. Eds. Alexander L. George and William E. Simons. Boulder, CO: Westview Press, 1994. 13-22.
- George, Alexander L., and Andrew Bennett. *Case Studies and Theory Development in the Social Sciences*. Cambridge, MA: MIT Press, 2005.
- George, Alexander L., David K. Hall, and William E. Simons. *The Limits of Coercive Diplomacy: Laos, Cuba, Vietnam*. Boston: Little, Brown, 1971.
- George, Alexander L., and William E. Simons. *The Limits of Coercive Diplomacy*. 2nd ed. Boulder, CO: Westview Press, 1994.

- . "Findings and Conclusions." *The Limits of Coercive Diplomacy*. 2nd ed. Eds. Alexander L. George and William E. Simons. Boulder, CO: Westview Press, 1994. 267-294.
- George, Alexander L., and Richard Smoke. *Deterrence in American Foreign Policy: Theory and Practice*. New York: Columbia University Press, 1974.
- Gertz, Bill, and Paul Bedard. "S. Korea to Get Patriot Missiles; U.S. Fears Failure of Talks with North." *Washington Times*. January 27, 1994: A1.
- Getler, Michael. "U.S. Tells Libyans to Close Mission and Leave Country; U.S. Expels Libyan Diplomats, Orders Mission in Washington Closed." *Washington Post* May 7, 1981.
- Gillette, Robert. "U. S. Squelched Apparent S. Korea A-Bomb Drive." *Los Angeles Times* November 4, 1978: A1.
- Gittings, John. "North Korea Fires Missile over Japan; Hardliners in Pyongyang 'Overplay Their Hand' - Tokyo Warns of Serious Impact on Security." *Guardian (UK)* September 1, 1998: 2.
- Goldstein, Avery. "Understanding Nuclear Proliferation: Theoretical Explanation and China's National Experience." *Security Studies* 2.3 (1993): 213.
- Goose, Stephen D. "The Comparative Military Capabilities of North Korean and South Korean Forces." *The U.S.-South Korean Alliance: Time for a Change*. Eds. Doug Bandow and Ted Galen Carpenter. New Brunswick, NJ: Transaction Publishers, 1992. 37-58.
- Gordon, Michael R. "U.S. Sees Progress on Nuclear Talks with North Korea." *New York Times* December 31, 1993: 1.
- . "U.S. Said to Plan Patriot Missiles for South Korea." *New York Times* January 26, 1994: 1.
- . "U.S. Cancels Talks with North Korea over Atom Inspections." *New York Times* March 17, 1994: 10.
- . "U.S. to Bolster Forces If U.N. Votes Korea Curbs." *New York Times* March 25, 1994: 13.
- . "U.S. to Press North Korea over A-Sites." *New York Times* March 31, 1994: 11.
- . "U.S. and South Korea Defer Setting Maneuvers." *New York Times* April 2, 1994: 3.
- . "U.S. Rules Out Using Force to Save Muslim Town." *New York Times* April 4, 1994: 1.
- . "White House Asks Global Sanctions on North Koreans." *New York Times* June 3, 1994: 1.
- Gordon, Michael R., and David E. Sanger. "North Korea's Huge Military Spurs New Strategy in South." *New York Times* February 6, 1994: 1.
- Graham, Billy. *Just As I Am: The Autobiography of Billy Graham*. New York: HarperCollins, 1997.

- Greenberg, Joel. "Libyans Cut Short a Visit to Israel." *New York Times* June 2, 1993: 7.
- Greenhouse, Steven. "Seoul Reconsiders Call for Missiles." *New York Times* February 18, 1994: 3.
- . "Christopher Says U.S. Stays Firm on Korea, but Pledges Diplomacy." *New York Times* March 23, 1994: 12.
- . "U.S. View of Sanctions: Turn Up Heat Half Way." *New York Times* July 3, 1994: 12.
- Greenlees, Donald. "Bank Blocks Plan to Release Frozen Funds to North Korea." *New York Times* March 27, 2007: A6.
- Greenlees, Donald, and David Lague. "Trail Led to Macao As Focus of North Korean Corruption." *New York Times* April 13, 2007: A6.
- Grieco, Joseph M. "Anarchy and the Limits of Cooperation: A Realist Critique of the Newest Liberal Institutionalism." *International Organization* 42.3 (1988): 485-507.
- Grier, Peter. "Nuclear-Inspection Issue Sets Back Korean Talks." *Christian Science Monitor* October 22, 1992: 8.
- Guisinger, Alexandra, and Alastair Smith. "Honest Threats: The Interaction of Reputation and Political Institutions in International Crises." *Journal of Conflict Resolution* 46.2 (2002): 175-200.
- Guo, Sujian. *The Political Economy of Asian Transition from Communism*. Burlington, VT: Ashgate, 2006.
- Gurney, Judith. *Libya: The Political Economy of Energy*. Oxford: Oxford University, 1996.
- Gwertzman, Bernard. "U.S. Showing Displeasure over the Crisis in Seoul." *New York Times* June 13, 1980: A9.
- Ha Young-sun. "Nuclearization of Small States and World Order: The Case of Korea." *Asian Survey* 18.11 (1978): 1134-51.
- . *Nuclear Proliferation, World Order, and Korea*. Seoul: Seoul National University Press, 1983.
- Haass, Richard, ed. *Economic Sanctions and American Diplomacy*. New York: Council on Foreign Relations, 1998.
- Haass, Richard, and Meghan L. O'Sullivan, eds. *Honey and Vinegar: Incentives, Sanctions, and Foreign Policy*. Washington: Brookings Institution Press, 2000.
- Haggard, Stephan, ed. *Macroeconomic Policy and Adjustment in Korea, 1970-1990*. Cambridge, MA: Harvard Institute for International Development, 1994.

- Haggard, Stephan, and Chung-in Moon. "The State, Politics, and Economic Development in Postwar South Korea." *State and Society in Contemporary Korea*. Ed. Hagen Koo. Ithaca, NY: Cornell University Press, 1993. 51-94.
- Hamm, Taik-young. *Arming the Two Koreas: State, Capital, and Military Power*. New York: Routledge, 1999.
- Harrison, Selig S. "A Yen for the Bomb? Nervous Japan Rethinks the Nuclear Option." *Washington Post* October 31, 1993.
- . "Time to Leave Korea?" *Foreign Affairs* 80.2 (2001): 62-78.
- . *Korean Endgame: A Strategy for Reunification and U.S. Disengagement*. Princeton, NJ: Princeton University Press, 2002.
- Harsanyi, John C. *Rational Behavior and Bargaining Equilibrium in Games and Social Situations*. Cambridge, UK: Cambridge University Press, 1986.
- Hart, Gary. "My Secret Talks with Libya, and Why They Went Nowhere." *Washington Post* January 18, 2004: B5.
- Hartung, William D. "U.S.-Korea Jet Deal Boosts Arms Trade." *Bulletin of the Atomic Scientists* 46.9 (1990): 18-24.
- Hayes, Peter. *Pacific Powderkeg: American Nuclear Dilemmas in Korea*. Lexington, MA: Lexington Books, 1991.
- . "The Republic of Korea and the Nuclear Issue." *Asian Flashpoint: Security and the Korean Peninsula*. Ed. Andrew Mack. St. Leonards, Australia: Allen & Unwin, 1993. 51-84.
- . "What North Korea Wants." *Bulletin of the Atomic Scientists* 49.10 (1993): 8-10.
- Hecker, Siegfried S. "Lessons Learned from the North Korean Nuclear Crises." *Daedalus* 139.1 (2010): 44-56.
- Hedges, Chris. "Libya Girds for Defiance of the West." *New York Times* April 20, 1995: 7.
- Hersh, Seymour M. "Target Qaddafi." *New York Times Magazine* Feb 22, 1987: 16.
- . "Preparing the Battlefield: The Bush Administration Steps Up Its Secret Moves Against Iran." *New Yorker* July 7 and 14, 2008.
- Hirschman, Albert O. *National Power and the Structure of Foreign Trade*. Berkeley, CA: University of California Press, 1945.
- Hirsh, Michael. "Bolton's British Problem." *Newsweek* May 2, 2005: 41.
- Hoagland, Jim. "Stealthy Shift on Libya." *Washington Post* March 26, 2000: B7.

- Hoge, Warren. "New Libyan Cooperation Leads to Renewed Ties with Britain." *New York Times* July 8, 1999.
- Holmes, Steven A. "Clinton Warns North Korea Against Building Atom Bomb." *New York Times* November 8, 1993: 6.
- . "A Compromise Seen with North Korea." *New York Times* November 16, 1993: 16.
- Holst, Johan Jørgen. "Confidence-Building Measures: A Conceptual Framework." *Survival* 25.1 (1983): 2-15.
- House Committee on International Relations. US House of Representatives. *Investigation of Korean-American Relations: Report of the Subcommittee on International Organizations*. Washington: GPO, October 31, 1978.
- Hufbauer, Gary C., Jeffrey J. Schott, Kimberly Ann Elliott, and Barbara Oegg. (HSE) *Economic Sanctions Reconsidered*. 3rd ed. Washington: Peterson Institute for International Economics, 2007.
- Huth, Paul K. *Extended Deterrence and the Prevention of War*. New Haven, CT: Yale University Press, 1988.
- Hwang, Jihwan. "Rethinking the East Asian Balance of Power: Historical Antagonism, Internal Balancing, and the Korean-Japanese Security Relationship." *World Affairs* 166.2 (2003): 95.
- Hymans, Jacques E. C. *The Psychology of Nuclear Proliferation: Identity, Emotions, and Foreign Policy*. New York: Cambridge University Press, 2006.
- . "Theories of Nuclear Proliferation: The State of the Field." *Nonproliferation Review* 13.2 (2006): 455.
- . "When Does a State Become a 'Nuclear Weapon State?'" *Nonproliferation Review* 17.1 (2010): 161-80.
- International Atomic Energy Agency (IAEA) Board of Governors. *Implementation of the NPT Safeguards Agreement of the Socialist People's Libyan Arab Jamahiriya*. GOV/2004/12. Vienna: International Atomic Energy Agency, 2004.
- . *Implementation of the NPT Safeguards Agreement of the Socialist People's Libyan Arab Jamahiriya*. GOV/2008/39. Vienna: International Atomic Energy Agency, 2008.
- International Monetary Fund (IMF). *Socialist People's Libyan Arab Jamahiriya: 2009 Article IV Consultation-Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for the Socialist People's Libyan Arab Jamahiriya*. IMF Country Report No. 9/294. September 2009.
www.imf.org/external/pubs/cat/longres.cfm?sk=23299.0. Web.
- Jahn, George. "Japan Company Sold Atomic Plant to Libya." *Associated Press* March 12, 2004.

- Janis, Irving Lester. *Groupthink*. Boston: Houghton Mifflin, 1983.
- Jehl, Douglas. "U.S. Seeking U.N. Pressure to Compel North Korea to Honor Treaty." *New York Times* March 13, 1993: 3.
- Jentleson, Bruce W., and Christopher A. Whytock. "Who 'Won' Libya? The Force-Diplomacy Debate and Its Implications for Theory and Policy." *International Security* 30.3 (2006): 47-86.
- Jervis, Robert. *Perception and Misperception in International Politics*. Princeton, NJ: Princeton University Press, 1976.
- . "Deterrence Theory Revisited." *World Politics* 31.2 (1979): 289-324.
- . "Deterrence and Perception." *International Security* 7.3 (1983): 3-30.
- Jo, Dong-Joon, and Erik Gartzke. "Determinants of Nuclear Weapons Proliferation." *Journal of Conflict Resolution* 51.1 (2007): 167.
- Joffe, George. "Libya: Who Blinkered, and Why." *Current History* (2004): 221-5.
- . "Prodigal or Pariah? Foreign Policy in Libya." *Libya Since 1969: Qadhafi's Revolution Revisited*. Ed. Dirk J. Vandewalle. New York: Palgrave Macmillan, 2008. 191-214.
- Joint Intelligence Committee (JIC), House of Commons (UK). *Review of Intelligence on Weapons of Mass Destruction*. London: The Stationery Office, July 14, 2004.
www.archive2.official-documents.co.uk/document/deps/hc/hc898/898.pdf. Web.
- Kaempfer, William H., and Anton D. Lowenberg. *International Economic Sanctions: A Public Choice Perspective*. Boulder, CO: Westview, 1992.
- . "Unilateral Versus Multilateral International Sanctions: A Public Choice Perspective." *International Studies Quarterly* 43.1 (1999): 37-58.
- Kahn, Joseph, and Steven R. Weisman. "North Korea Is Said to Tie Nuclear Accord to Freeing of Funds." *New York Times* March 15, 2007: A8.
- Kang, David C. "The Avoidable Crisis in North Korea." *Orbis* 47.3 (2003): 495-510.
- Kang Myung-ku. "Industrial Management and Reforms in North Korea." *Economic Reforms in the Socialist World*. Eds. Stanislaw Gomulka, Ha Yong-school, and Kim Cae-one. Armonk, NY: M.E. Sharpe, 1989. 200-11.
- Kang, J., and H. A. Feiveson. "South Korea's Shifting and Controversial Interest in Spent Fuel Reprocessing." *Nonproliferation Review* 8.1 (2001): 70-8.
- Kaplan, Lawrence F. "Engagement Ring." *New Republic* July 24, 2000: 18-21.

- Katzman, Kenneth. *The Iran-Libya Sanctions Act (ILSA)*. Congressional Research Service (CRS) Report. April 3, 2006. fpc.state.gov/documents/organization/64937.pdf. Web.
- KBS World Radio (ROK)*. "South Denies Plans to Deploy U.S. Aircraft Carriers." In Korean. Translated by BBC Monitoring Service. January 29, 1994.
- KBS World Radio (ROK)*. "Envoy to UN Reportedly Hints at Withdrawal from Nuclear Treaty." In Korean. Translated by BBC Monitoring Service. June 3, 1994.
- KCNA News Agency (Pyongyang)*. "Minister's Remarks Against South Minister's 'Outburst.'" In Korean. Translated by BBC Monitoring Service. November 3, 1993.
- Kennan, John, and Robert Wilson. "Bargaining with Private Information." *Journal of Economic Literature* 31.1 (1993): 45-104.
- Keohane, Robert O., and Joseph S. Nye. *Power and Interdependence: World Politics in Transition*. Boston: Little, Brown, 1977.
- Kessler, Glenn. "In 2003, U.S. Spurned Iran's Offer of Dialogue: Some Officials Lament Lost Opportunity." *Washington Post* June 18, 2006.
- Kessler, Glenn, and Dafna Linzer. "Rice Trip to Push Full Sanctions for N. Korea; U.S. Intelligence Chief Says Radiation Samples Confirm Nuclear Test Last Week." *Washington Post* October 17, 2006.
- Kim, Yoon Hyung. "Policy Response to the Oil Crisis and the Presidential Emergency Decree (1974)." *Economic Development in the Republic of Korea: A Policy Perspective*. Eds. Lee-jay Cho and Yoon Hyung Kim. Honolulu: The East-West Center, 1991. 183-206.
- Kim Hyung-a. *Korea's Development Under Park Chung-hee: Rapid Industrialization, 1961-79*. New York: RoutledgeCurzon, 2004.
- Kim, Jungsup. *International Politics and Security in Korea*. Northampton, MA: Edward Elgar Publishing, 2007.
- Kirshner, Jonathan. "The Microfoundations of Economic Sanctions." *Security Studies* 6.3 (1997): 32.
- . "Economic Sanctions: The State of the Art." *Security Studies* 11.4 (2002): 160-79.
- Kissinger, Henry A. National Security Adviser. National Security Decision Memorandum 48 (NSDM-48). March 20, 1970. Declassified September 2002.
- Klare, Michael. "East Asia's Militaries Muscle Up." *Bulletin of the Atomic Scientists* 53.1 (1997): 56.
- Knorr, Klaus. *The Power of Nations: The Political Economy of International Relations*. New York: Basic Books, 1975.

- Kong, Tat Yan. *The Politics of Economic Reform in South Korea: A Fragile Miracle*. New York: Routledge, 2000.
- Koo, Hagen. "Social Contradictions of the Korean State." *Asian States: Beyond the Developmental Perspective*. Eds. Richard Boyd and Tak-Wing Ngo. New York: RoutledgeCurzon, 2005. 129-145.
- Koppel, Andrea, and Elise Labott. "Libya Offers \$2.7 Billion Pan Am 103 Settlement." *CNN* May 28, 2002. archives.cnn.com/2002/US/05/28/libya.lockerbie.settlement/. Web.
- Krauthammer, Charles. "Peace in Our Time." *Washington Post* June 24, 1994.
- Kreps, David M., and Robert Wilson. "Sequential Equilibria." *Econometrica* 50.4 (1982): 863-94.
- Kristensen, Hans M. "Kleine Brogel Nukes: Not There, over Here!" *FAS Strategic Security Blog*, February 12, 2010. www.fas.org/blog/ssp/2010/02/kleinebrogel2.php. Web.
- Kristof, Nicholas D. "The Osirak Option." *New York Times* November 15, 2002: A31.
- Kroenig, Matthew. *Exporting the Bomb: Technology Transfer and the Spread of Nuclear Weapons*. Ithaca, NY: Cornell University Press, 2010.
- Kurizaki, Shuhei. "Efficient Secrecy: Public Versus Private Threats in Crisis Diplomacy." *American Political Science Review* 101.3 (2007): 543-58.
- Kwak Tae-hwan, and Wayne Patterson. "The Security Relationship Between Korea and the United States, 1960-1982." *Korean-American Relations 1866-1997*. Eds. Lee Yur-bok and Wayne Patterson. Albany, NY: State University of New York Press, 1999. 83-98.
- Kydd, Andrew H. *Trust and Mistrust in International Relations*. Princeton, NJ: Princeton University Press, 2005.
- Lacy, Dean, and Emerson M. S. Niou. "A Theory of Economic Sanctions and Issue Linkage: The Roles of Preferences, Information, and Threats." *Journal of Politics* 66.1 (2004): 25-42.
- Laird, Melvin R. Secretary of Defense. *National Security Strategy of Realistic Deterrence: Annual Defense Department Report FY 1973*. Statement of the Secretary of Defense Before the House Subcommittee on Defense Appropriations. Washington: Department of Defense, February 22, 1972.
- Lancaster, John. "U.S. Moves Toward Better Ties to Libya; Administration Cites Moderation by Gadhafi." *Washington Post* December 24, 1999: A9.
- Lapp, Ralph E. *Arms Beyond Doubt: The Tyranny of Weapons Technology*. New York: Cowles Book Co, 1970.
- Lavoy, Peter R. "Nuclear Myths and the Causes of Nuclear Proliferation." *Security Studies* 2.3 (1993): 192.

- Lee Byeong-cheon, ed. *Developmental Dictatorship and the Park Chung-hee Era: The Shaping of Modernity in the Republic of Korea*. Paramus, NJ: Homa & Sekey Books, 2006.
- Lee Chae-jin. *A Troubled Peace: U.S. Policy and the Two Koreas*. Baltimore: Johns Hopkins University Press, 2006.
- Lee Chong-suk. "The Yushin Regime and the National Division Structure." *Developmental Dictatorship and the Park Chung-hee Era: The Shaping of Modernity in the Republic of Korea*. Ed. Lee Byeong-cheon. Paramus, NJ: Homa & Sekey Books, 2006. 215-247.
- Lee Yeon-ho. *The State, Society and Big Business in South Korea*. New York: Routledge, 1997.
- Leng, Russell J. *Interstate Crisis Behavior, 1816-1980: Realism Vs. Reciprocity*. New York: Cambridge University Press, 1993.
- Leverett, Flynt. "Why Libya Gave Up On the Bomb." *New York Times* January 23, 2004: A23.
- Leverett, Flynt, and Hillary Mann Leverett. "How to Press the Advantage with Iran." *New York Times* September 29, 2009: A39.
- Levi, Michael A., and Charles D. Ferguson. *U.S.-India Nuclear Cooperation: A Strategy for Moving Forward*. New York: Council on Foreign Relations, 2006.
- Levite, Ariel E. "Never Say Never Again: Nuclear Reversal Revisited." *International Security* 27.3 (2003): 59-88.
- Levy, Jack S. "Prospect Theory, Rational Choice, and International Relations." *International Studies Quarterly* 41.1 (1997): 87-112.
- Lewis, Paul. "U.N. Tightens Sanctions Against Libya." *New York Times* November 12, 1993: 10.
- . "North Korea Agrees to Some U.N. Nuclear Inspections." *New York Times* February 26, 1994: 3.
- . "China Shields North Koreans on Atom Issue." *New York Times* March 30, 1994: 10.
- . "U.S. and China Reach Accord at U.N. on Korean Nuclear Issue." *New York Times* April 1, 1994: 7.
- . "U.N. Told North Korea's Nuclear Record Can't Be Retrieved." *New York Times* June 4, 1994: 3.
- . "U.S. Offers a Plan for U.N. Sanctions on North Koreans." *New York Times* June 16, 1994: A1.
- Liberman, Peter. "The Rise and Fall of the South African Bomb." *International Security* 26.2 (2001): 45-86.

- Lie, John. *Han Unbound: The Political Economy of South Korea*. Stanford, CA: Stanford University Press, 2000.
- Lindemyer, Jeff. "The Global Nuclear Energy Partnership." *Nonproliferation Review* 16.1 (2009): 79-93.
- Lindsay, James M. "Trade Sanctions As Policy Instruments: A Re-Examination." *International Studies Quarterly* 30.2 (1986): 153-73.
- Linzer, Dafna. "U.S. Drones to Probe Iran for Arms: Surveillance Flights Are Sent from Iraq." *Washington Post* February 13, 2005: A1.
- Lippman, Thomas W. "Trade Ban Irks Libyans; Tripoli Prefers Boeings, but U.S. Won't Sell Them." *Washington Post* August 11, 1978.
- . "U.S. Rethinking Economic Sanctions: State Dept. Team Weighs Costs, Impact of Trade Restrictions." *Washington Post* January 26, 1998: A6.
- Long, William J., ed. *Economic Incentives and Bilateral Cooperation*. Ann Arbor, MI: University of Michigan Press, 1996.
- Mahley, Donald. Deputy Assistant Secretary of State for Arms Control Implementation. "Dismantling Libyan Weapons: Lessons Learned." *Arena*. No. 10. Washington: Chemical & Biological Arms Control Institute (CBACI), November 2004. Accessed online via *Arms Control Wonk* at www.armscontrolwonk.com/1107/mahley-on-libya. Web.
- Mansfield, Edward D., and Jack Snyder. "Democratization and the Danger of War." *International Security*. 20.1 (1995): 5.
- Mansourov, Alexandre Y. "The Origins, Evolution, and Current Politics of the North Korean Nuclear Program." *Nonproliferation Review* 2.3 (1995): 25-38.
- . "North Korea's Decision-Making Processes Regarding the Nuclear Issue at Early Stages of the Nuclear Game." *Peace and Security in Northeast Asia: The Nuclear Issue and the Korean Peninsula*. Eds. Young W. Kihl and Peter Hayes. Armonk, NY: M.E. Sharpe, 1997. 220-239.
- . "The Natural Disasters of the Mid-1990s and Their Impact on the Implementation of the Agreed Framework." *The North Korean Nuclear Program: Security, Strategy, and New Perspectives from Russia*. Eds. James Clay Moltz and Alexandre Y. Mansourov. New York: Routledge, 2000. 76-92.
- . "Inside North Korea's Black Box: Reversing the Optics." *North Korean Policy Elites* (IDA Paper P-3903). Ed. Kongdan O. Hassig. Alexandria, VA: Institute for Defense Analyses (IDA), June 2004. www.brookings.edu/papers/2004/06northkorea_oh.aspx. Web.
- Marinov, Nikolay. "Do Economic Sanctions Destabilize Country Leaders?" *American Journal of Political Science* 49.3 (2005): 564-76.

- Martin, Curtis H. "Rewarding North Korea: Theoretical Perspectives on the 1994 Agreed Framework." *Journal of Peace Research* 39.1 (2002): 51-68.
- Martin, Lisa L. *Coercive Cooperation: Explaining Multilateral Economic Sanctions*. Princeton, NJ: Princeton University Press, 1992.
- . "Credibility, Costs, and Institutions: Cooperation on Economic Sanctions." *World Politics* 45.3 (1993): 406-32.
- Mastanduno, Michael. *Economic Containment: CoCom and the Politics of East-West Trade*. Ithaca, NY: Cornell University Press, 1992.
- . "Economic Statecraft, Interdependence, and National Security: Agendas for Research." *Power and the Purse: Economic Statecraft, Interdependence, and National Security*. Eds. Jean-Marc F. Blanchard, Edward D. Mansfield, and Norrin M. Ripsman. London: F. Cass, 2000. 288-316.
- Matar, Khalil I., and Robert W. Thabit. *Lockerbie and Libya: A Study in International Relations*. Jefferson, NC: McFarland & Co., 2004.
- Mattes, Hanspeter. "The Rise and Fall of the Revolutionary Committees." *Qadhafi's Libya: 1969-1994*. Ed. Dirk J. Vandewalle. New York: St. Martin's Press, 1995. 89-112.
- . "Formal and Informal Authority in Libya Since 1969." *Qadhafi's Libya: 1969-1994*. Ed. Dirk J. Vandewalle. New York: St. Martin's Press, 1995. 55-82.
- Mazarr, Michael J. *North Korea and the Bomb: A Case Study in Nonproliferation*. New York: St. Martin's Press, 1995.
- Mearsheimer, John J. "Back to the Future: Instability in Europe After the Cold War." *International Security* 15.1 (1990): 5-56.
- . "The False Promise of International Institutions." *International Security* 19.3 (1995): 5-49.
- Mercer, Jonathan. *Reputation and International Politics*. Ithaca, NY: Cornell University Press, 1995.
- Meyer, Stephen M. *The Dynamics of Nuclear Proliferation*. Chicago: University of Chicago Press, 1984.
- Mill, John Stuart. *A System of Logic, Ratiocinative and Inductive: Being a Connected View of the Principles of Evidence and the Methods of Scientific Investigation*. 8th Ed. New York: Harper and Brothers, 1874.
- Milner, Helen V., and B. Peter Rosendorff. "Democratic Politics and International Trade Negotiations: Elections and Divided Government as Constraints on Trade Liberalization." *Journal of Conflict Resolution* 41.1 (1997): 117-46.

Mistry, Dinshaw. *Containing Missile Proliferation: Strategic Technology, Security Regimes, and International Cooperation in Arms Control*. Seattle: University of Washington Press, 2003.

Mitchell, Alison. "Senate Extends Sanctions on Libya and Iran." *New York Times* July 26, 2001: A6.

Moltz, James Clay, and Alexandre Y. Mansourov, eds. *The North Korean Nuclear Program: Security, Strategy, and New Perspectives from Russia*. New York: Routledge, 2000.

Montgomery, Alexander H. "Ring in Proliferation: How to Dismantle an Atomic Bomb Network." *International Security* 30.2 (2005): 153-87.

Montgomery, Alexander H., and Scott D. Sagan. "The Perils of Predicting Proliferation." *Journal of Conflict Resolution* 53.2 (2009): 302-28.

Morgan, T. Clifton, and Anne Miers. "When Threats Succeed: A Formal Model of the Threat and Use of Economic Sanctions." *Peace Research Abstracts* 38.1 (2001)

Morgan, T. Clifton, and Valerie L. Schwebach. "Fools Suffer Gladly: The Use of Economic Sanctions in International Crises." *International Studies Quarterly* 41.1 (1997): 27-50.

Mydans, Seth. "Threats and Responses: Nuclear Standoff; North Korea Says It Is Withdrawing from Arms Treaty." *New York Times* January 10, 2003: A1.

Neumann, Ronald E. Deputy Assistant Secretary of State for Near Eastern Affairs. Testimony Before the Senate Foreign Relations Committee. *U.S. Foreign Policy Toward Libya*. Hearing Before the Subcommittee on Near Eastern and South Asian Affairs of the Committee on Foreign Relations. United States Senate. 106th Congress. 2nd Session. Senate Hearing 106-740. Washington: GPO. May 4, 2000. frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=106_senate_hearings&docid=f:67394.wais. Web.

---. "Libya: A U. S. Policy Perspective." *Middle East Policy* 7.2 (2000): 142-5.

New York Times. "Seoul's Troops to Replace G.I.'s on Armistice Line." February 9, 1971: 6.

---. "2 Koreas Agree on Nuclear Ban, but Not on Method of Inspections." January 1, 1992: 2.

---. "North Resolute in Resisting Seoul on Atom Inspections." March 4, 1992: 6.

---. "Mr. McCain's Risky Korea Strategy." October 27, 1994: 28.

NewsHour with Jim Lehrer. "Newsmaker: Condoleezza Rice." *Public Broadcasting Service (PBS)* July 30, 2003. Transcript and video available online at www.pbs.org/newshour/bb/white_house/july-dec03/rice_7-30.html. Web.

Niblock, Tim. *"Pariah States" & Sanctions in the Middle East: Iraq, Libya, Sudan*. Boulder, CO: Lynne Rienner Publishers, 2001.

- Nikitin, Mary B. *Proliferation Security Initiative (PSI)*. Ft. Belvoir, VA: Defense Technical Information Center, 2008.
- Niksich, Larry A. "U.S. Troop Withdrawal from South Korea: Past Shortcomings and Future Prospects." *Asian Survey* 21.3 (1981): 325-41.
- . *North Korea's Nuclear Weapons Program*. Washington: Congressional Research Service (CRS), 2003.
- . "North Korea's Weapons of Mass Destruction." *North Korea: The Politics of Regime Survival*. Eds. Young Whan Kihl and Hong Nack Kim. Armonk, NY: M.E. Sharpe, 2006. 97-117.
- Nixon, Richard. "Address to the Nation on the War in Vietnam." November 3, 1969. Public Papers of the Presidents. John T. Woolley and Gerhard Peters. *The American Presidency Project*. www.presidency.ucsb.edu/ws/?pid=2303. Web.
- . "Informal Remarks in Guam with Newsmen." July 25, 1969. Public Papers of the Presidents. John T. Woolley and Gerhard Peters. *The American Presidency Project*. www.presidency.ucsb.edu/ws/?pid=2140. Web.
- Nolan, Janne E. *Trappings of Power: Ballistic Missiles in the Third World*. Washington: Brookings Institution, 1991.
- Norris, Robert S., and Hans M. Kristensen. "North Korea's Nuclear Program, 2005." *Bulletin of the Atomic Scientists* 61.3 (May/June 2005): 64-7.
- Nossal, Kim Richard. "International Sanctions As International Punishment." *International Organization* 43.2 (1989): 301-22.
- Obeidi, Amal S. M. "Political Elites in Libya Since 1969." *Libya Since 1969: Qadhafi's Revolution Revisited*. Ed. Dirk J. Vandewalle. New York: Palgrave Macmillan, 2008. 105-126.
- Oberdorfer, Don. "Park: Seoul Target of North." *Washington Post* June 27, 1975: A1.
- . "S. Korea Cancels A-Plant." *Washington Post* January 30, 1976: A1.
- . "Egypt Is Assured of U.S. Backing in Attack on Libya; U.S. Promises Egypt an 'Umbrella' If It Attacks Qadaffi." *Washington Post* November 8, 1981.
- . "North Korea Shifts Stance on Inspection; Proposal Would Hinge On U.S. Nuclear Withdrawals." *Washington Post* November 27, 1991.
- . *The Two Koreas: A Contemporary History*. 2nd ed. New York: Basic Books, 2001.
- Oberdorfer, Don, and T. R. Reid. "North Korea Issues Demand for Mutual Nuclear Inspections." *Washington Post* June 21, 1991.

- Oberdorfer, Don, and J.P. Smith. "U.S. Suspends Most Diplomatic Ties with Libya." *Washington Post* Dec 6, 1979: A1.
- Observer (UK)*. "Koreans Trade Nuclear Insults." June 5, 1994: 17.
- Office of Technology Assessment (OTA). *Nuclear Proliferation and Safeguards*. Washington: Congress of the United States, Office of Technology Assessment, 1977.
www.fas.org/spp/starwars/ota/index.html. Web.
- Ogilvie-White, Tanya. "Is There a Theory of Nuclear Proliferation? An Analysis of the Contemporary Debate." *Nonproliferation Review* 4.1 (1996): 43-60.
- Oh, John K. C. "South Korea 1975: A Permanent Emergency." *Asian Survey* 16.1 (1976): 72-81.
- Oh, Kongdan, and Ralph C. Hassig. *North Korea Through the Looking Glass*. Washington: Brookings Institution Press, 2000.
- Oh, Kongdan, and Ralph C. Hassig. "North Korea's Nuclear Politics." *Current History* 103.674 (2004): 273-279.
- Olsen, Edward A. "The Arms Race on the Korean Peninsula." *Asian Survey* 26.8 (1986): 851-67.
- O'Neil, John and Choe Sang-hun. "US Softens Proposal on North Korea." *New York Times* October 12, 2006.
- Onishi, Norimitsu. "South Korea Won't Intercept Cargo Ships from the North." *New York Times* November 14, 2006: A9.
- O'Sullivan, Meghan L. *Shrewd Sanctions: Statecraft and State Sponsors of Terrorism*. Washington: Brookings Institution Press, 2003.
- Otman, Waniss, and Erling Karlberg. *The Libyan Economy: Economic Diversification and International Repositioning*. New York: Springer, 2007.
- Ottaway, David B. "N. Korea Forbids Inspections; 2 Nuclear Waste Sites Off-Limits, Says Envoy, Rebuffing U.S." *Washington Post* June 8, 1994.
- Oye, Kenneth A., ed. *Cooperation Under Anarchy*. Princeton, NJ: Princeton University Press, 1986.
- . *Economic Discrimination and Political Exchange: World Political Economy in the 1930s and 1980s*. Princeton, NJ: Princeton University Press, 1992.
- Oye, Kenneth A., and J. H. Maxwell. "Self-Interest and Environmental Management." *Journal of Theoretical Politics*. 6.4 (1994): 593.
- Pahre, Robert, and Paul A. Papayoanou. "Using Game Theory to Link Domestic and International Politics." *Journal of Conflict Resolution* 41.1 (1997): 4-11.

- Papayoanou, Paul A., and Scott L. Kastner. "Sleeping with the (Potential) Enemy: Assessing the U.S. Policy of Engagement with China." *Power and the Purse: Economic Statecraft, Interdependence, and National Security*. Eds. Jean-Marc F. Blanchard, Edward D. Mansfield, and Norrin M. Ripsman. London: F. Cass, 2000. 157-87.
- Pape, Robert A. *Bombing to Win: Air Power and Coercion in War*. Ithaca, NY: Cornell University Press, 1996.
- . "Why Economic Sanctions Do Not Work." *International Security* 22.2 (1997): 90-136.
- . "Why Economic Sanctions Still Do Not Work." *International Security* 23.1 (1998): 66-77.
- Pargeter, Alison. "Qadhafi and Political Islam in Libya." *Libya Since 1969: Qadhafi's Revolution Revisited*. Ed. Dirk J. Vandewalle. New York: Palgrave Macmillan, 2008. 83-104.
- Park Chung-hee. *To Build a Nation*. Washington: Acropolis Books, 1971.
- Park, Han S., ed. *North Korea: Ideology, Politics, Economy*. Englewood Cliffs, NJ: Prentice Hall, 1996.
- Park Tong-whan. *The U.S. and the Two Koreas: A New Triangle*. Boulder, CO: Lynne Rienner Publishers, 1998.
- Park, Yung Chul. "Price Control and Stabilization Measures." *Economic Development in the Republic of Korea: A Policy Perspective*. Eds. Lee-jay Cho and Yoon Hyung Kim. Honolulu: The East-West Center, 1991. 73-100.
- Pauker, Guy J., Steven Canby, A. Ross Johnson, and William B. Quandt. *In Search of Self-Reliance: U.S. Security Assistance to the Third World Under the Nixon Doctrine*. Santa Monica, CA: Rand Corp., 1973.
- Paul, T. V. *Power Versus Prudence: Why Nations Forgo Nuclear Weapons*. Montreal: McGill-Queen's University Press, 2000.
- Perkovich, George. *India's Nuclear Bomb: The Impact on Global Proliferation*. Oxford: Oxford University Press, 2002.
- Perry, William J. "It's Either Nukes or Negotiation." *Washington Post* July 23, 2003: A23.
- Pinkston, Daniel A. "South Korea's Nuclear Experiments." CNS Research Story. James Martin Center for Nonproliferation Studies. November 9, 2004. cns.miis.edu/stories/041109.htm. Web.
- Podvig, Pavel. "What to Do About Tactical Nuclear Weapons." *Bulletin of the Atomic Scientists (Web Edition)* February 2010. www.thebulletin.org/web-edition/columnists/pavel-podvig/what-to-do-about-tactical-nuclear-weapons. Web.
- Pollack, Andrew. "U.N. Says North Korea Refuses to Allow Nuclear Inspections." *New York Times* May 1, 1994: 6.

- . "South Renews Recrimination in Korea." *New York Times* July 21, 1994: 9.
- Pollack, Jonathan D., and Mitchell B. Reiss. "South Korea: The Tyranny of Geography and the Vexations of History." *The Nuclear Tipping Point: Why States Reconsider Their Nuclear Choices*. Eds. Kurt M. Campbell, Robert J. Einhorn, and Mitchell Reiss. Washington: Brookings Institution Press, 2004. 254-292.
- Potter, William C. *Nuclear Power and Nonproliferation: An Interdisciplinary Perspective*. Cambridge, MA: Oelgeschlager, Gunn & Hain, 1982.
- . "Unsafe at Any Size." *Bulletin of the Atomic Scientists* 53.3 (1997): 25.
- Powell, Robert. "Absolute and Relative Gains in International Relations Theory." *American Political Science Review* 85.4 (1991): 1303-20.
- Prados, John. "How Qaddafi Came Clean." *Bulletin of the Atomic Scientists*. 61.6 (2005): 26.
- Press, Daryl G. "The Credibility of Power: Assessing Threats During the 'Appeasement' Crises of the 1930s." *International Security* 29.3 (2005): 136-69.
- Putnam, Robert D. "Diplomacy and Domestic Politics: The Logic of Two-Level Games." *International Organization* 42.3 (1988): 427-60.
- Quester, George H. *The Politics of Nuclear Proliferation*. Baltimore: Johns Hopkins University Press, 1973.
- . "Reducing the Incentives to Proliferation." *Annals of the American Academy of Political and Social Science* 430 (1977): 70-81.
- Quinones, C. Kenneth. "North Korea Nuclear Talks: The View from Pyongyang." *Arms Control Today* 34.7 (2004): 6-11.
- Reed, Thomas C., and Danny B. Stillman. *The Nuclear Express: A Political History of the Bomb and Its Proliferation*. Minneapolis: Zenith Press, 2009.
- Reiss, Mitchell. *Without the Bomb: The Politics of Nuclear Nonproliferation*. New York: Columbia University Press, 1988.
- . *Bridled Ambition: Why Countries Constrain Their Nuclear Capabilities*. Washington: Woodrow Wilson Center Press, 1995.
- Reistad, Ole, and Styrkaar Hustveit. "HEU Fuel Cycle Inventories and Progress on Global Minimization." *Nonproliferation Review* 15.2 (2008): 265-87.
- Reiter, Dan. "Preventive Attacks Against Nuclear Programs and the 'Success' at Osiraq." *Nonproliferation Review* 12.2 (2005): 355-71.
- Reuters*. "U.S., in Pact with South Korea, Delays Further Troop Withdrawal." October 9, 1992.

- . "China Says It Opposes Steps Against North Korea." December 27, 1993.
- . "North Korea Warns U.S. but Says Solution Possible." January 1, 1994.
- . "North Korea Fails to Answer Atom Agency." April 24, 1994.
- . "Mandela Presses for Neutral-Nation Trial of Lockerbie Suspects." October 26, 1997.
- Rich, Spencer. "Paris Giving Atomic Plants to 4 Nations." *Washington Post* June 4, 1975: A1.
- Rizzo, Patrick. "Libya Offers Crash Families Billions." *Toronto Star* May 29, 2002.
- Rock, Stephen R. *Appeasement in International Politics*. Lexington, KY: University Press of Kentucky, 2000.
- Roehrig, Terence. *From Deterrence to Engagement: The U.S. Defense Commitment to South Korea*. Lanham, MD: Lexington Books, 2006.
- Ronen, Yehudit. *Qaddafi's Libya in World Politics*. Boulder, CO: Lynne Rienner Publishers, 2008.
- Roth, Bennett. "Senators Seek Action Against North Korea." *Houston Chronicle* May 16, 1994: 1.
- Rowe, David M. "Economic Sanctions Do Work: Economic Statecraft and the Oil Embargo of Rhodesia." *Security Studies* 9 (2000): 254-87.
- . *Manipulating the Market: Understanding Economic Sanctions, Institutional Change, and the Political Unity of White Rhodesia*. Ann Arbor, MI: University of Michigan Press, 2001.
- Rubinstein, Ariel. "Perfect Equilibrium in a Bargaining Model." *Econometrica* 50.1 (1982): 97-109.
- Ruble, Maria Rost. *Nonproliferation Norms: Why States Choose Nuclear Restraint*. Athens, GA: University of Georgia Press, 2009.
- Safire, William. "Clinton's Concessions." *New York Times* October 24, 1994: 17.
- . "I Remember Muammar." *New York Times* December 22, 2003: A31.
- Sagan, Scott D. "Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb." *The Coming Crisis: Nuclear Proliferation, U.S. Interests, and World Order*. Ed. Victor A. Utgoff. Cambridge, MA: MIT Press, 2000. 17-50.
- Sagan, Scott D., and Kenneth N. Waltz, eds. *The Spread of Nuclear Weapons: A Debate Renewed*. 2nd ed. New York: Norton, 2003.
- St. John, Ronald Bruce. *Libya and the United States: Two Centuries of Strife*. Philadelphia: University of Pennsylvania Press, 2002.

- . "Libyan Foreign Policy: Newfound Flexibility." *Orbis*. 47.3 (2003): 463.
- . "'Libya Is Not Iraq': Preemptive Strikes, WMD and Diplomacy." *Middle East Journal* 58.3 (2004): 386-402.
- . "The Libyan Economy in Transition: Opportunities and Challenges." *Libya Since 1969: Qadhafi's Revolution Revisited*. Ed. Dirk J. Vandewalle. New York: Palgrave Macmillan, 2008. 127-52.
- . *Libya: from Colony to Independence*. Oxford: Oneworld, 2008.
- Sanger, David E. "Cheney, in Korea, Orders Halt to U.S. Pullout." *New York Times* November 22, 1991: 7.
- . "Koreas Sign Pact Renouncing Force in a Step to Unity." *New York Times* December 13, 1991: 1.
- . "North Korea Assembly Backs Atom Pact." *New York Times* April 10, 1992: 3.
- . "North Korea Reveals More About Its Nuclear Sites." *New York Times* May 7, 1992: 8.
- . "North Korea Won't Budge on Nuclear Stance." *New York Times* September 27, 1993: 9.
- . "U.S. Warns North Koreans of U.N. Action on Nuclear Inspections." *New York Times* October 15, 1993: 9.
- . "U.S. Delay Urged on Korea Sanctions." *New York Times* November 4, 1993: 9.
- . "U.S. Revising North Korea Strategy." *New York Times* November 22, 1993: 5.
- . "North Korea Reported to Balk At Inspection Terms." *New York Times* January 21, 1994: 5.
- . "North Korea Warns U.S. on Patriot Missiles." *New York Times* January 30, 1994: 4.
- . "North Korea Threatens to End A-Arms Talks." *New York Times* February 3, 1994: 5.
- . "North Koreans Agree to Survey of Atomic Sites." *New York Times* February 16, 1994: 1.
- . "North Korea Bars A-Plant Survey; Threatens to Quit Nuclear Treaty." *New York Times* March 21, 1994: 1.
- . "Squeezing North Korea: Getting Blood from a Stone." *New York Times* March 23, 1994: 12.
- . "North Korea Rejects U.N.'s Call for Full Inspection of A-Plants." *New York Times* April 5, 1994: 8.
- . "North Korea Moves to Use Fuel for Bomb." *New York Times* April 22, 1994: 3.

- . "North Koreans Say Nuclear Fuel Rods Are Being Removed." *New York Times* May 15, 1994: 1.
- . "North Korea Quits Atom Agency in Wider Rift with U.S. and U.N." *New York Times* June 14, 1994: 1.
- . "A Nation Challenged: The Rogue List; Bush Aides Say Tough Tone Put Foes on Notice." *New York Times* January 31, 2002: A1.
- Sanger, David E., and Jim Yardley. "U.S. Warns North Koreans About Nuclear-Weapon Test." *New York Times* October 6, 2006: A8.
- Sartori, Anne E. "The Might of the Pen: A Reputational Theory of Communication in International Disputes." *International Organization* 56.1 (2002): 121-49.
- . *Deterrence by Diplomacy*. Princeton, NJ: Princeton University Press, 2005.
- Savel'yev, Roald V. "Leadership Politics in North Korea and the Nuclear Program." *The North Korean Nuclear Program: Security, Strategy, and New Perspectives from Russia*. Eds. James Clay Moltz and Alexandre Y. Mansourov. New York: Routledge, 2000. 110-126.
- Schelling, Thomas C. *The Strategy of Conflict*. Cambridge, MA: Harvard University Press, 1960.
- . *Arms and Influence*. New Haven, CT: Yale University Press, 1966.
- Schroeder, Dietrich. *Science, Technology, and the Nuclear Arms Race*. New York: Wiley, 1984.
- Sciolino, Elaine. "U.S. and Its Allies to Move on Libya over Air Bombings." *New York Times* December 19, 1991: 1.
- Seib, Gerald F. "Libya's Gadhafi Strengthens His Zealots." *Wall Street Journal* September 5, 1986: 22.
- Selden, Zachary A. *Economic Sanctions As Instruments of American Foreign Policy*. Westport, CT: Praeger, 1999.
- Senate Hearing 106-740. *U.S. Foreign Policy Toward Libya*. Hearing Before the Subcommittee on Near Eastern and South Asian Affairs of the Committee on Foreign Relations. United States Senate. 106th Congress. 2nd Session. Washington: GPO. May 4, 2000.
frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=106_senate_hearings&docid=f:67394.wais. Web.
- Senate Joint Resolution 51. "A Joint Resolution to Disapprove Export-Import Bank Financing for a Nuclear Reactor Sale to South Korea." United States Senate. 94th Congress. 1st Session. *Congressional Record – Senate*. Vol. 121. Part 5. March 7, 1975.
- Seo Ick-jin. "Industrialization in South Korea." *Developmental Dictatorship and the Park Chung-hee Era: The Shaping of Modernity in the Republic of Korea*. Ed. Lee Byeong-cheon. Paramus, NJ: Homa & Sekey Books, 2006. 51-79.

- Shenon, Philip. "U.S. Eases Policy on Some Sanctions." *New York Times* April 29, 1999.
- Sigal, Leon V. "Averting a Train Wreck in North Korea." *Arms Control Today* 28.8 (1998): 12.
- . *Disarming Strangers: Nuclear Diplomacy with North Korea*. Princeton, NJ: Princeton University Press, 1998.
- Siler, Michael J. "U.S. Nuclear Nonproliferation Policy in the Northeast Asian Region During the Cold War: The South Korean Case." *East Asia* 16.3-4 (1998): 41-86.
- Simons, Geoffrey L. *Libya: The Struggle for Survival*. Basingstoke, UK: Macmillan, 1996.
- Sinai, Joshua. "Libya's Pursuit of Weapons of Mass Destruction." *Nonproliferation Review* 4.3 (1997): 92-100.
- Singh, Sonali, and Christopher R. Way. "The Correlates of Nuclear Proliferation: A Quantitative Test." *Journal of Conflict Resolution* 48.6 (2004): 859.
- Slavin, Barbara. "Libyan Travel Ban Extended for One Year." *USA Today* November 27, 2000.
- . "Libya's Rehabilitation in the Works Since Early '90s." *USA Today* April 27, 2004.
- Slevin, Peter. "Libya Made Plutonium, Nuclear Watchdog Says." *Washington Post* February 21, 2004: A15.
- Smith, Alastair. "Diversionary Foreign Policy in Democratic Systems." *International Studies Quarterly* 40.1 (1996): 133-53.
- . "A Summary of Political Selection: The Effect of Strategic Choice on the Escalation of International Crises." *American Journal of Political Science*. 42.2 (1998): 698.
- Smith, Craig S. "Libya Will Pay \$170 Million in Bombing of French Airliner." *New York Times* January 10, 2004: A5.
- Smith, J. P. "U.S.-Libya: A Peculiar Relationship; Despite Rhetoric, U.S.-Libyan Trade Is Thriving." *Washington Post* July 29, 1979.
- Smith, R. Jeffrey. "N. Korea Quitting Arms Pact; Step Ends Obligation to Permit Inspections." *Washington Post* March 12, 1993.
- . "N. Korea and the Bomb: High-Tech Hide-and-Seek; U.S. Intelligence Key in Detecting Deception." *Washington Post* April 27, 1993.
- . "'Promising' Signs Seen in N. Korea; Clinton Cautious on Inspection Vow, Carter Statement." *Washington Post* June 17, 1994.
- Smith, R. Jeffrey., and Ruth Marcus. "Carter Trip May Offer 'Opening'; White House Wary of Ex-President's View N. Korea 'Crisis Is Over.'" *Washington Post* June 20, 1994.

- Sneider, Daniel. "The U.S.-Korea Tie: Myth and Reality." *Washington Post* September 12, 2006.
- Snidal, Duncan. "The Game Theory of International Politics." *Cooperation Under Anarchy*. Ed. Kenneth A. Oye. Princeton, NJ: Princeton University Press, 1986. 25-57.
- . "Relative Gains and the Pattern of International Cooperation." *American Political Science Review* 85.3 (1991)
- Snyder, Glenn H., and Paul Diesing. *Conflict Among Nations: Bargaining, Decision Making, and System Structure in International Crises*. Princeton, NJ: Princeton University Press, 1977.
- Snyder, Jack. *Myths of Empire: Domestic Politics and International Ambition*. Ithaca, NY: Cornell University Press, 1991.
- Sokolski, Henry, and Victor Gilinsky. "Bush Is Right to Get Tough with North Korea." *Wall Street Journal* February 11, 2002: 22.
- Solingen, Etel. "The Domestic Sources of Regional Regimes: The Evolution of Nuclear Ambiguity in the Middle East." *International Studies Quarterly* 38.2 (1994): 305-37.
- . *Regional Orders at Century's Dawn: Global and Domestic Influences on Grand Strategy*. Princeton, NJ: Princeton University Press, 1998.
- . *Nuclear Logics: Contrasting Paths in East Asia and the Middle East*. Princeton, NJ: Princeton University Press, 2007.
- Special National Intelligence Estimate (SNIE). *Prospects for Further Proliferation of Nuclear Weapons*. Director of Central Intelligence. April 1, 1974. fas.org/nuke/guide/snief4-1-74.pdf. Web.
- Spector, Leonard S., and Jacqueline R. Smith. *Nuclear Ambitions: The Spread of Nuclear Weapons, 1989-1990*. Boulder, CO: Westview Press, 1990.
- Squassoni, Sharon A., and Amy F. Woolf. *Global Threat Reduction*. New York: Novinka Books, 2006.
- Stanik, Joseph T. *El Dorado Canyon: Reagan's Undeclared War with Qaddafi*. Annapolis, MD: Naval Institute Press, 2003.
- Starr, Barbara. "U.S. Orders 24 Long-Range Bombers to Guam." *CNN* March 5, 2003. articles.cnn.com/2003-03-04/us/n.korea.bombers_1_deployment-order-nuclear-reactor-bombers?_s=PM:US. Web.
- Stein, Arthur A. "The Politics of Linkage." *World Politics* 33.1 (1980): 62-81.
- Steinberg, David I. "On Patterns of Political Legitimacy in North Korea." *The North Korean System in the Post-Cold War Era*. Ed. Samuel S. Kim. New York: Palgrave, 2001.

Stephey, M.J. "The Lockerbie Bomber: Abdel Basset al-Megrahi." *Time (Web Version)*. August 21, 2009. www.time.com/time/world/article/0,8599,1917851,00.html. Web.

Stern, Joseph J., Kim Ji-hong, Dwight H. Perkins, and Yoo Jung-ho. *Industrialization and the State: The Korean Heavy and Chemical Industry Drive*. Cambridge, MA: Harvard Institute for International Development, 1995.

Sterngold, James. "North Korea to Allow Nuclear Inspections If U.S. Does." *New York Times* November 27, 1991: 3.

---. "Seoul Says It Now Has No Nuclear Arms." *New York Times* December 19, 1991: 3.

---. "Korean Summit Talks Postponed As Northern Military Backs Heir." *New York Times* July 11, 1994: 1.

---. "South Korea Prohibits Trips to North to Mourn Leader." *New York Times* July 15, 1994: 2.

Stevenson, Richard W. "U.S.-North Korea Meeting Yields Some Gains on Arms." *New York Times* July 20, 1993: 2.

---. "North Korea Begins to Reopen Plant for Processing Plutonium." *New York Times* December 24, 2002: A1.

Suskind, Ron. *The One Percent Doctrine: Deep Inside America's Pursuit of Its Enemies Since 9/11*. New York: Simon & Schuster, 2006.

---. "The Tyrant Who Came In from the Cold: Gadhafi Gave Up His WMDs Not Because We Scared Him, but Because We Talked to Him." *Washington Monthly* October 1, 2006: 19-23.

Swain, Jon. "Revealed: Gaddafi's Aircraft Terror Plot That Failed." *Times (UK)* March 29, 2004.

System Planning Corporation. "Non-Proliferation Issues: South Korea." *Report of the Commission to Assess the Ballistic Missile Threat to the United States. Appendix III: Unclassified Working Papers*. July 15, 1998. www.fas.org/irp/threat/missile/rumsfeld/pt3_southkorea.htm. Web.

Takeyh, Ray. "The Rogue Who Came In from the Cold." *Foreign Affairs* 80.3 (2001): 62-72.

Tannenwald, Nina. *The Nuclear Taboo: The United States and the Non-Use of Nuclear Weapons Since 1945*. Cambridge, UK: Cambridge University Press, 2007.

Tanter, Raymond. *Rogue Regimes: Terrorism and Proliferation*. New York: St. Martin's Press, 1999.

Tape, James, and Joseph Pilat. "Nuclear Safeguards and the Security of Nuclear Materials." *Nuclear Safeguards, Security and Nonproliferation: Achieving Security with Technology and Policy*. Ed. James E. Doyle. Amsterdam: Butterworth-Heinemann, 2008. 17-30.

- Thayer, Bradley A. "The Causes of Nuclear Proliferation and the Utility of the Nuclear Non-Proliferation Regime." *Security Studies* 4.3 (1995): 463.
- Thomas, Evan. "The Mythology of Munich." *Newsweek* June 23, 2008: 23.
- Time*. "Koreagate on Capitol Hill?" November 29, 1976.
- Tisdall, Simon. "North Korea Escalates War of Words with Clinton." *Guardian (UK)* December 3, 1993.
- Tollison, Robert D., and Thomas D. Willett. "An Economic Theory of Mutually Advantageous Issue Linkages in International Negotiations." *International Organization* 33.4 (1979): 425-49.
- Tomz, Michael. "Domestic Audience Costs in International Relations: An Experimental Approach." *International Organization* 61.4 (2007): 821-40.
- Tostensen, Arne, and Beate Bull. "Are Smart Sanctions Feasible?" *World Politics* 54.3 (2002): 373-403.
- Tran, Mark. "N. Korea Threatens War with Japan." *Guardian (UK)* June 10, 1994: 14.
- . "U.S. Lays Ground for Talks to Reward Tripoli." *Guardian (UK)* April 9, 1999: 16.
- Traynor, Ian. "Libya's Black Market Deals Shock Nuclear Inspectors." *Guardian (UK)* January 17, 2004.
- Tucker, Jonathan B. "The Rollback of Libya's Chemical Weapons Program." *Nonproliferation Review*. 16.3 (2009): 363-84.
- Uchitelle, Louis. "Who's Punishing Whom? Trade Bans Are Boomerangs, U.S. Companies Say." *New York Times* September 11, 1996: 1.
- US Department of State. *Patterns of Global Terrorism 2000*. Department of State Publication 10822. Washington: Office of the Secretary of State. April 2001. www.state.gov/s/ct/rls/crt/2000/. Web.
- . *Patterns of Global Terrorism 2002*. Department of State Publication 11038. Washington: Office of the Secretary of State. April 2003. www.state.gov/s/ct/rls/crt/2002/pdf/index.htm. Web.
- van Bergeijk, Peter A. G. *Economic Diplomacy, Trade and Commercial Policy: Positive and Negative Sanctions in a New World Order*. Aldershot, UK: E. Elgar, 1994.
- Van Evera, Stephen. "The Cult of the Offensive and the Origins of the First World War." *International Security* 9.1 (1984): 58-107.
- . *Guide to Methods for Students of Political Science*. Ithaca, NY: Cornell University Press, 1997.

- Vandewalle, Dirk J., ed. *Qadhafi's Libya: 1969-1994*. New York: St. Martin's Press, 1995.
- . *Libya Since Independence: Oil and State-Building*. Ithaca, NY: Cornell University Press, 1998.
- . *A History of Modern Libya*. Cambridge, UK: Cambridge University Press, 2006.
- , ed. *Libya Since 1969: Qadhafi's Revolution Revisited*. New York: Palgrave Macmillan, 2008.
- Venter, Al J. *Allah's Bomb: The Islamic Quest for Nuclear Weapons*. Guilford, CT: Lyons Press, 2007.
- Von Hippel, Frank. *Managing Spent Fuel in the United States: The Illogic of Reprocessing*. Princeton, NJ: International Panel on Fissile Materials (IPFM), 2007.
- Wagner, R. Harrison. "Economic Interdependence, Bargaining Power, and Political Influence." *International Organization* 42.3 (1988): 461-83.
- . "Bargaining and War." *American Journal of Political Science* 44.3 (2000): 469-84.
- Wald, Matthew L. "Sanctions Lifted, Libya Withholds Final Lockerbie Payment." *New York Times* July 8, 2006: A7.
- Walsh, Jim, Thomas Pickering, and William Luers. "Iran and the Problem of Tactical Myopia." *Arms Control Today* 39.10 (2009): 15-17.
- Waltz, Kenneth N. *Theory of International Politics*. Reading, MA: Addison-Wesley, 1979.
- Waltz, Kenneth N. *The Spread of Nuclear Weapons: More May Be Better*. London: International Institute for Strategic Studies, 1981.
- Waltz, Kenneth N. "Nuclear Myths and Political Realities." *The American Political Science Review* 84.3 (1990): 731-45.
- Waltz, Kenneth N. "More May Be Better." *The Spread of Nuclear Weapons: A Debate Renewed*. Eds. Scott D. Sagan and Kenneth N. Waltz. 2nd ed. New York: Norton, 2003. 3-45.
- Washington Post*. "Four Libyan Volunteers Reported Killed in Lebanon." May 31, 1981: A16.
- Watson, Russell, Karen Breslau, Eleanor Clift, Bill Powell, and B.J. Lee. "A Stooge or a Savior?" *Newsweek* June 27, 1994: 38.
- Weiner, Tim. "U.S. in Quiet Talks with North Korea." *New York Times* October 27, 1993: 8.
- Weisman, Steven R. "U.S. Will Keep Penalties Against Libya, Officials Say." *New York Times* August 15, 2003: A12.
- . "U.S. Lifts Trade Embargo on Libya in Return for Promise on Arms." *New York Times* September 21, 2004: A7.

- . "How U.S. Turned North Korean Funds into a Bargaining Chip." *New York Times* April 12, 2007: A8.
- Whitaker, Mark, John Wolcott, and Anne Underwood. "Getting Rid of Kaddafi." *Newsweek* April 28, 1986: 18.
- Williamson, Elizabeth. "Hitting Kim Jong-il Right in the Cognac; U.N. Forbids Selling North Korea Weapons, or Anything Else the Dictator Really Wants." *Washington Post* November 30, 2006.
- Wills, David C. *The First War on Terrorism: Counter-Terrorism Policy During the Reagan Administration*. Lanham, MD: Rowman & Littlefield, 2003.
- Wit, Joel S., Daniel Poneman, and Robert L. Gallucci. *Going Critical: The First North Korean Nuclear Crisis*. Washington: Brookings Institution Press, 2004.
- Wonder, Edward F. "The Nuclear Marketplace and the Nonproliferation Regime." *The Nonproliferation Predicament*. Ed. Joseph F. Pilat. New Brunswick, NJ: Transaction Books, 1985. 71-82.
- Woodward, Bob. "CIA Anti-Qaddafi Plan Backed; Reagan Authorizes Covert Operation to Undermine Libyan Regime." *Washington Post* November 3, 1985.
- . *Veil: The Secret Wars of the CIA, 1981-1987*. New York: Simon and Schuster, 1987.
- Wright, Claudia. "Libya and the West: Headlong into Confrontation?" *International Affairs* 58.1 (1981): 13-41.
- Yager, Joseph A., ed. *Nonproliferation and U.S. Foreign Policy*. Washington: Brookings Institution Press, 1980.
- York, Herbert. "Multiple Warhead Missiles." *Progress in Arms Control? Readings from Scientific American*. Eds. Bruce M. Russett and Bruce G. Blair. San Francisco: W.H. Freeman, 1979. 122-131.
- Young, James V., and William W. Stueck. *Eye on Korea: An Insider Account of Korean-American Relations*. College Station, TX: Texas A&M University Press, 2003.
- Zagorin, Adam, and Brian Doyle. "Why Libya Wants In." *Time* March 27, 2000: 66-7.
- Zoubir, Yahia H. "The United States and Libya: From Confrontation to Normalization." *Middle East Policy* 13.2 (2006): 48-70.