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**NAVAL
POSTGRADUATE
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MONTEREY, CALIFORNIA

THESIS

**ASSESSING THE NET EFFECTS OF SANCTIONS ON
THE PROLIFERATION OF WEAPONS OF MASS
DESTRUCTION**

by

Kristopher S. Alexander

December 2012

Thesis Advisor:

Clay Moltz

Second Reader:

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**ASSESSING THE NET EFFECTS OF SANCTIONS ON THE PROLIFERATION
OF WEAPONS OF MASS DESTRUCTION**

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Submitted in partial fulfillment of the
requirements for the degree of

**MASTER OF ARTS IN SECURITY STUDIES
(DEFENSE DECISION-MAKING AND PLANNING)**

from the

**NAVAL POSTGRADUATE SCHOOL
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ABSTRACT

This thesis examines the usefulness of economic sanctions in the prevention of the proliferation of Weapons of Mass Destruction (WMD). Focusing on nuclear proliferation and utilizing the existing sanctions literature, this thesis examines three cases where sanctions played a role in U.S. policy. The cases are South Africa, Libya and Iraq, and the thesis' findings demonstrate that sanctions are a useful nonproliferation tool. Further, this thesis delivers several insights into what factors ensure policy success when using economic coercion to convince countries to give up their WMD. Security assurances, for example, can be useful in using sanctions as a nonproliferation tool. By contrast, threats of regime change can create disincentives for leadership to alter WMD-acquisition strategies. This is especially true when the U.S. Congress adds other conditions to WMD-specific sanctions. Inconsistencies in U.S. nonproliferation policy can also motivate states to acquire WMD, if countries believe Washington has turned a blind eye to an enemy's WMD programs. This thesis takes these insights forward to examine the evolving sanctions regime against Iran's nuclear program. It concludes that, without cautious adjustment to U.S. policy, these sanctions are likely to fail.

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TABLE OF CONTENTS

I.	THE QUESTION OF SANCTIONS AND PROLIFERATION.....	1
A.	MAJOR RESEARCH QUESTION.....	1
B.	IMPORTANCE.....	1
C.	PROBLEMS AND HYPOTHESES	2
D.	THESIS OVERVIEW	4
E.	LITERATURE REVIEW	4
1.	The Rise of Sanctions.....	4
2.	The Evolution to “Smart Sanctions”	11
F.	METHODS AND SOURCES	17
II.	INTRODUCTION TO THE CASE STUDIES AND SOUTH AFRICA’S WHITE BOMB	19
A.	INTRODUCTION: THREE VICTORIES.....	19
B.	SOUTH AFRICA AND THE WHITE BOMB.....	20
1.	Black Knights, Grassroots, and the Vulnerable Pariah	21
2.	Apartheid and the Security State	26
3.	The White Bomb	27
4.	Catalytic Nuclear Strategy	30
5.	Implication and Conclusions.....	34
III.	MUAMMAR’S WHITE ELEPHANT	39
A.	THE COLONEL’S SECRET RECIPE FOR DISASTER.....	39
B.	U.S. UNILATERAL SANCTIONS PART 1 (1978–1992).....	41
C.	UN MULTILATERAL SANCTIONS (1992–1999).....	43
D.	U.S. UNILATERAL SANCTIONS PART 2 (1999–2004).....	45
E.	LIBYA’S SECURITY SITUATION: A SELF-IMPOSED MESS	47
F.	THE WHITE ELEPHANT	49
G.	MUAMMAR’S BARGAIN AND THE IMPACT OF SANCTIONS.....	52
H.	IMPLICATIONS AND CONCLUSIONS: THE CARROT AND STICK WORKS.....	54
IV.	IRAQ: A MELANCHOLY BATTLE WON	57
A.	IRAQ: BUILT FOR VIOLENCE.....	57
B.	THE ORIGIN OF SADDAM’S BOMB	59
C.	IRAN AND SADDAM’S EDUCATION IN THE STRATEGIC UTILITY OF WMD	60
D.	THE MOTHER OF ALL SANCTIONS REGIMES.....	63
E.	THE UNFINISHED WAR	67
F.	AXIS OF EVIL.....	72
G.	IMPLICATIONS AND CONCLUSION: BEWARE ABSOLUTES	75
V.	EVALUATING THE CASE STUDIES: THE LESSONS FROM SANCTIONS AND COMBATING PROLIFERATION	79

VI. CONCLUSION: USING IRAN AND THE FUTURE OF SANCTIONS AS A NONPROLIFERATION TOOL	91
LIST OF REFERENCES	103
INITIAL DISTRIBUTION LIST	111

LIST OF ACRONYMS AND ABBREVIATIONS

ANC	African National Congress
CAA	Comprehensive Antiapartheid Act
CB	Chemical and Biological
CWC	Chemical Weapons Convention
BWC	Biological Weapons Convention
ESR	Economic Sanctions Reconsidered
EU	European Union
GDP	Gross Domestic Product
HEU	Highly-enriched Uranium
IAEA	International Atomic Energy Agency
ICBM	Intercontinental Ballistic Missile
ILA	Iraq Liberation Act
MPLA	Popular Movement for the Liberation of Angola
NPR	Nuclear Posture Review
NPT	Nuclear nonproliferation Treaty
NNPA	Nuclear Nonproliferation Act
OPCW	Organization for the Prohibition of Chemical Weapons
OPEC	Organization of the Petroleum Exporting Countries
PNE	Peaceful Nuclear Explosion
PSI	Proliferation Security Initiative
SADF	South African Defense Forces
WMD	Weapons of Mass Destruction
UN	United Nations

UNGA	United Nations General Assembly
UNITA	National Union for the Total Independence of Angola
UNMOVIC.	United Nations Monitoring, Verification, and Inspection Commission (
UNSC	United Nations Security Council
UNSCOM	United Nations Special Commission
UNSCR	United Nations Security Council Resolution
VX	Codename for a highly lethal nerve agent

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I would foremost like to thank my wife, Julie, and my children, Vivian and Zane, for their love and support. I wrote this thesis partially in hopes of creating a less dangerous world for them to live.

Secondly, I would like to thank the faculty and staff of the Naval Postgraduate School for their tireless efforts at both shaping this thesis and my intellect.

Finally, I would like to dedicate this work to the late Staff Brigadier General Ali Muheissin of the Iraqi Army. In 2009, I deployed to Iraq as part of a team working to bring Iraq into compliance with its WMD-related treaty obligations. sBG Ali was the Iraqi military representative to this effort, and I was proud to serve as his advisor in implementing the military aspects to Iraq's compliance with the Chemical Weapons Convention. He lived through every point described in the Iraq case study of this thesis, and he played a key role in bringing Iraq back into the international fold of responsible nations that do not seek WMD. He was assassinated outside his home in Baghdad in September of 2011, and I am thankful that he at least lived to finally see the sanctions against Iraq lifted. He is survived by his wife and two sons.

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I. THE QUESTION OF SANCTIONS AND PROLIFERATION

A. MAJOR RESEARCH QUESTION

The major research question of this thesis is whether sanctions designed to stop the proliferation of Weapons of Mass Destruction (WMD) an effective tool of national security strategy? I intend to study if sanctions work as a part of nonproliferation strategy and examine the applicability of sanctions theory to proliferation. I seek to answer if sanctions prevent states from seeking WMD or, if states have already embarked as proliferators, do sanctions effectively disrupt and degrade their efforts? Further, I intend to study how and when sanctions can be deemed successful and ultimately lifted. I also intend to study the hidden costs and consequences of sanctions and conceptually explore the point at which sanctions designed to stop proliferation might harm and degrade other national security goals. Finally, at what point does an unsuccessful sanctions regime culminate and do other options need to be explored? With these questions in mind, I seek to examine the utility on the future employment of sanctions as a nonproliferation tool.

B. IMPORTANCE

WMD holds a place of primacy in national security strategy. A review of the U.S. National Security Strategies from 1990–2010 reveals that stopping the spread of WMD has been a national priority across four administrations. The fear of WMD fueled the U.S. decision to invade Iraq and has placed the U.S. and Iran on a course of growing confrontation. There is an extensive literature on the effectiveness of sanctions that indicates they generally yield mixed results. Despite the inconclusiveness of the literature and actual results in practice, sanctions remain a primary tool for economic statecraft and coercive diplomacy. For example, from the period of 1992–1996, the U.S. sanctioned 35 different countries effecting 42 percent of the world’s population.¹ The interaction of the issues of WMD and sanctions is therefore worth consideration.

¹ Daniel W Drezner, *The Sanctions Paradox: Economic Statecraft and International Relations*. (Cambridge, UK: Cambridge University Press, 1999), 7.

There are circumstances where sanctions work in service of certain goals and some cases where they have played a role in the reversal of states' WMD ambitions. However, many politicians and pundits view sanctions as a weak compromise when they feel like they need to do something yet do not have the political will for military action. In other cases, sanctions are treated as a pro forma action in the process leading up to war—to purportedly “give peace a chance” while war plans are being refined.

The Obama administration believes that non-proliferation regimes can be strengthened, and that the United States can set the example when it comes to nuclear disarmament. This optimism has run headlong into Iranian nuclear ambitions and, once again, sanctions have been imposed in an attempt to coerce a state to abandon its WMD ambitions. All of this is happening against the backdrop of a lingering global economic crisis, more than a decade of war that has drained U.S. political credibility especially regarding military action against WMD, and shrinking military budgets. Sanctions have been viewed as a *meaningful* alternative to war, and given today's circumstances, they may be perceived as the only *affordable* alternative as well. However, despite their seeming utility there does not appear to be a consensus on evaluating the probability of sanctions creating the intended effects desired by sanctioning nations, especially concerning proliferation. If sanctions affect proliferation, how and why do they work or fail? The past can inform present and future policy decisions.

C. PROBLEMS AND HYPOTHESES

The major question I hope to evaluate is the overall effectiveness of sanctions as part of NP/CP strategy and to see how my findings apply to current U.S. national security challenges, such as Iran's nuclear program. First, I define sanctions as economic pressure brought to bear against a state to produce a political outcome. Sanctions can take several forms including weapons trade restrictions, financial restrictions, and trade embargoes. They may be unilateral or multilateral actions. Whatever form they take, sanctions are designed to coerce a result. Secondly, I define WMD to include nuclear

weapons as defined by Article I of the Nuclear Non-proliferation Treaty (NPT)², chemical weapons as defined by Article II of the Chemical Weapons Convention (CWC)³, and biological weapons as defined by Article I of the Biological and Toxic Weapons Convention (BWC)⁴. My research will not focus on the proliferation of delivery systems such as ballistic missiles, artillery, and bombs, as these are inherently conventional until armed with WMD. Further, the case studies will be primarily focused on nuclear proliferation as the most dangerous and destabilizing form of WMD.

With both sanctions and WMD defined, I intend to evaluate the effectiveness of sanctions as a NP/CP strategy in a qualitative assessment of case studies. My initial hypothesis is that sanctions, when combined with existing compliance and proliferation regimes, are somewhat effective at countering, but not ending, WMD programs. States that are determined above all things to acquire WMD can and will succeed, but their efforts can be severely disrupted and degraded by raising costs and extending timelines.

Sanctions appear somewhat less effective at coercing other behaviors beyond proliferation. When linked with other issues such as terrorism, human rights, or other internal state behaviors, sanctions become less effective. They lose all effectiveness when linked with regime survival. Once targets determine that regime survival is at stake, no amount of sanctions or other coercive methods will force compliance and abandonment of WMD programs. My initial hypothesis is that WMD sanctions are most effective when combined with incentives for compliance and assurances of regime survival. Further, linking WMD proliferation with other issues may degrade sanction effectiveness.

Concerning compliance and the lifting of sanctions, my initial hypothesis is that the lifting of sanctions and verification of compliance are problematic, especially when

² Treaty on the Non-Proliferation of Nuclear Weapons (The United Nations, 1968) accessed on May 30, 2012, <http://www.state.gov/t/isn/trty/16281.htm> .

³ *Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction* (Organization for the Prohibition of Chemical Weapons, 1992), accessed on May 30, 2012, <http://www.opcw.org/chemical-weapons-convention/>.

⁴ *Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological and Toxin Weapons and on Their Destruction* (New York: The United Nations, 1972), accessed on November 5, 2012, <http://www.unog.ch/80256EE600585943/%28httpPages%29/04FBBDD6315AC720C1257180004B1B2F?OpenDocument>.

WMD proliferation has been linked to other problems. Sanctions are often a method of punishment and the enemies of target states often have a stake in seeing that punishment continue. Further, at a certain point, sanctions can run the risk of creating problems, such as a humanitarian crisis bigger than the one they are trying to solve. There is a point where sanctions are no longer a prudent tool for national security. The United States possesses the military power to contain or deter any state regardless of whether it possesses WMD or not. Fewer WMD in the world is assumed to be better, yet there are points where strategies of containment or engagement may be more prudent when dealing with aspiring proliferators.

D. THESIS OVERVIEW

This thesis is organized into five chapters. Chapter I will be a statement of the initial problem, the framework of my hypothesis regarding the effectiveness of sanctions as a nonproliferation tool, and a literature review of sanctions theory and practice. Chapter II will be an introduction to the case studies and South Africa. Chapters III and IV are the Libya and Iraq case studies. Chapter IV is devoted to analyzing the lessons from the case studies. Chapter V will be a final assessment of the hypothesis and an examination of future policy recommendations especially with regards to ongoing the ongoing proliferation issue of Iran.

E. LITERATURE REVIEW

1. The Rise of Sanctions

In the 1990s as the Cold War ended, three issues came to the fore in international relations. The first was the problem of rogue states, and the second was the proliferation of WMD. In addition, the 1990s were also the so-called sanctions decade and saw a massive increase in the employment of economic sanctions as a coercive tool in international relations. A nexus quickly formed among the three issues. Rogue states desired WMD and sanctions were used to counter these desires. Sanctions were seen as a viable alternative to war; however, as the sanctions decade progressed, the international community became increasingly wary of their usefulness, which led it to adopt new way of thinking about sanctions. This literature review will explore the evolution in sanctions

theory and practice, touch on gaps in the literature, and assess the usefulness of the literature when dealing with the issue of proliferation.

The gap between sanctions theory and ultimate results are reminiscent of other debates in modern strategic history. Airpower theorist Giulio Douhet was the first theorist to outline the theory of strategic bombing. Central to his thesis were the ideas that modern warfare would make no distinction between soldier and civilian and that airpower could shatter countries, and destroy the morale of the population who would then force their governments to sue for peace.⁵ These ideas would be put to the test in the Second World War. It would take atomic bombs to force Japan to submit from the air, and this was only after years of total war that had all but destroyed the country. Before the atomic bombs were dropped, the issue was already decided. Japan was doomed—how was just a matter of accounting. Ever since, airpower has sought to produce more precise and potent results without the onerous moral burden of nuclear weapons. Realizing Douhet’s vision was just a matter of technological innovation. The iron bombs of WWII evolved into ultra-precise laser and satellite guided weapons. Thousand plane raids gave way to “shock and awe” and Predator drones. Yet, the results are the same. Populations and nations rarely allow themselves to be bombed into submission.

The evolution in the theory of sanctions follows much the same path of airpower in a constant quest for more precise, bloodless results. The Douhet equivalent of sanctions theory was actually a team of analysts from the Institute for International Economics composed of Gary Hufbauer, Jeffrey Schot, and Kimberly Elliot. First published in the 1980s and up to its third edition, their seminal work *Economic Sanctions Reconsidered (ESR)* concluded that economic sanctions were effective 36 percent of the time.⁶ It was the first “large N” study of sanctions and initially considered 103 cases. Further editions captured more cases that reinforced the idea that sanctions could achieve

⁵ David. MacIsaac, “Voices from the Central Blue: The Air Power Theorists,” in *Makers of Modern Strategy*, ed. by Peter Paret (Princeton, NJ: Princeton University Press, 1986), 630.

⁶ Gary Clyde Hufbauer, Kimberly Ann Elliot, and Jeffrey J. Schott, *Economic Sanctions Reconsidered: History and Current Policy*, second edition, volumes 1–3 (Washington D.C.: Institute for International Economics, 1985), 80.

results around a third of the time. With a record of accomplishment like that, sanctions could be seen as a cheap alternative to war.

Further, the each edition of the book contains nine recommendations for senders to follow that are widely cited and repeated in the literature. Summarized and paraphrased, the commandments in the third edition are:

1. “Don’t bite off more than you can chew.” Sanctions with modest goals work best and strong countries are harder to compel.
2. “Friends are more likely to Comply than Adversaries.” Sanctions against trading partners or friends were likely to work, but sanctions against adversarial nations were likely to fail.
3. “Beware Autocratic Regimes.” Economic coercion is unlikely to work on dictators, and conversely, has a better change of working on democracies.
4. “Slam the Hammer, Don’t Turn the Screw.” Sanctions that are implemented quickly are the best as they leave the target little time to react and adjust.
5. “More is Not Necessarily Merrier.” Large coalitions of sender countries do not necessarily make sanctions more likely to succeed.
6. “Choose the Right Tool for the Job.” Deploying sanctions along with military or covert actions against belligerents can serve to diminish military capacity but is unlikely to result in regime change or policy reversals with the target. Senders should be clear on their goals.
7. “Don’t Be a Cheapskate or Spendthrift.” Sanctions will have costs to both senders and the target. Senders deploying sanctions need to balance the cost of sanctions or risk eroding support for their actions. However, without inflicting some degree of economic pain, sanctions are unlikely to work.
8. “Look Before You Leap.” Sanctions can be a Pandora’s Box of hidden costs; therefore senders should think through both their means and objective before deploying sanctions.⁷

⁷ Gary Clyde Hufbauer, Jeffrey J. Schott, Kimberly Ann Elliot, and Barbara Oegg, *Economic Sanctions Reconsidered: History and Current Policy*, Third edition, (Washington D.C.: Institute for International Economics, 2007), 162–178.

In addition to the eight recommendations for senders to consider before deploying sanctions, the ESR study list four reason why sanctions will fail:

1. “Sanctions are Not up to the Task.” Often sanctions simply aren’t enough to change the behavior of a foreign country. An example in the ESR study is that sanctions are unlikely to end military adventures once they have begun. Senders cannot sanction their way to peace.⁸
2. “Sanctions Create Their Own Antidotes.” Sanctions may unify popular support for the government in the target country and send the target in search of economic alternatives.
3. “Black Knights.” Sanctions may prompt allies or conferees to assist the sender in off-setting the effects of sanctions. These alliances may be formed because of many interests ranging from ideological to commercial interests.
4. “Sanctions may Alienate Allies Abroad and Business Interests at Home.” All sanctions create some degree of economic pain. A country that is allied with a sanction sender may have interests in the target. Alternatively, business interests within the sender country may be effected by sanctions and may exert influence in domestic political processes.⁹

With the intellectual framework laid, and the Cold War ending, the world was primed for more multilateral cooperation, especially concerning the sanctioning powers vested in Chapter VII of the UN Charter.¹⁰ U.S. national security policy reflected this new ideal. The U.S. had just led the winning coalition against Iraq in Operation Desert Storm in 1991 and President George H.W. Bush articulated his vision for a “New World Order.” This would be enshrined in the 1991 *National Security Strategy* in which President Bush wrote, “we have within our grasp an extraordinary possibility that few

⁸ Ibid., 69.

⁹ Ibid., 7–8.

¹⁰ David Cortright and George A. Lopez, *The Sanctions Decade: Assessing UN Strategies in the 1990s* (Boulder: Lynne Rienner Publishers, 2000), 1.

generations have enjoyed—to build a new international system in accordance with our own values and ideals, as old patterns and certainties crumble around us.”¹¹

Thus began what David Cortright and George A. Lopez characterized as *The Sanctions Decade* in their 2000 book of the same title. Cortright and Lopez observed that in the first 45 years of its existence, the UN Security Council had only imposed sanctions twice, against Rhodesia in 1966 and South Africa in 1977.¹² While the secretive South African WMD programs had not been specifically targeted, the success of sanctions against the apartheid regime was viewed by the international community as the first major success at sanctioning a rogue state into major policy reversals. With this success behind it, the 1990s saw the UN imposing sanctions across the globe with a mixed record of success. In Yugoslavia and North Korea, sanctions helped force political settlements, although in the case of North Korea the settlement did not prove enduring. Sanctions helped compel Libya to turn the Lockerbie bombers over to an international tribunal. On the other hand, sanctions did nothing to end genocide and humanitarian crisis in places like Sudan, Haiti, Somalia, Rwanda, and Angola.

However, it was Iraq, where the UN imposed the longest running and most intrusive sanctions regime in the history of the world, which would become the test lab for sanctions theory and practice.¹³ It was ultimately viewed as a failed experiment—Saddam Hussein remained unbowed to the international community while the people of Iraq suffered unjustly. The suffering of the Iraqi people combined with Saddam Hussein’s perceived intransigence forced cracks into the intellectual framework of the sanctions decade.

In a counter-argument to the *ESR* study, Robert Pape argued in a 1997 article that sanctions had actually only succeeded in five of the 103 cases cited by Huffbauer and his team.¹⁴ Other scholars observed that unilateral U.S. sanctions from 1970–1997 were

¹¹ The National Security Strategy of the United States (Washington D.C.: The White House, 1991), v.

¹² Cortright and Lopez, *The Sanctions Decade*, 1.

¹³ David Cortright, and George A. Lopez. “Containing Iraq: Sanctions Worked,” *Foreign Affairs*, Vol. 83, No. 4 (Jul. - Aug., 2004), 91.

¹⁴ Robert A Pape “Why Economic Sanctions Do Not Work,” *International Security*, Vol. 22, No. 2 (Autumn 1997), 105.

only successful 13 percent of the time.¹⁵ Cortright and Lopez narrowed their scholarship to the cases in the 1990s. Their studies showed less than stellar results. Sanctions worked to achieve some post-war goals with Iraq but they had not forced it out of Kuwait. Nor had they compelled Saddam Hussein to comply completely with UN demands to disarm. The concessions wrung from Iraq were accompanied by the extensive use of military force.¹⁶ Additionally, the sanctions against Iraq created a humanitarian crisis, especially for children, and were attacked from the left and right as unjust and ineffective, respectively. In a 1999 *Foreign Affairs* article John and Karl Mueller characterized the international efforts against Iraq as “Sanctions of Mass Destruction.” They argued that the threat from rogue states and WMD was overblown and that the sanctions on Iraq may be responsible for killing more people than every nuclear, chemical, or biological attack since their entrance into the modern world.¹⁷ While the numbers are debatable, the point is well made. Sanctions were doing more harm than good.

Cortright and Lopez’s scholarship pointed out several flaws within the sanctions system. Foremost, economic success does not guarantee political success.¹⁸ Iraq was devastated economically yet was noncompliant in regard to WMD. Further, the UN system lacked the ability to administer sanctions, and there are tensions between the goals of the Security Council and those of member states.¹⁹ They also concluded that sanctions are sometimes used as an alternative or even as a prelude to war.²⁰ All of this was illustrated with Iraq. As early as 1994, U.S. officials had hinted that as long as Saddam Hussein was in power the sanctions would remain.²¹ Further, the modest goals called for

¹⁵ Robert Carbaugh, “Are Economic Sanctions Useful in Discouraging the Proliferation of Weapons of Mass Destruction?” *World Economics*, Vol. 9, No. 4 (2008), 197.

¹⁶ Cortright and Lopez, *The Sanctions Decade*, 205–207.

¹⁷ John Mueller and Karl Mueller, “Sanctions of Mass Destruction,” *Foreign Affairs*, Vol. 78, No. 3 (May/June 1999).

¹⁸ Cortright and Lopez, *The Sanctions Decade*, 3.

¹⁹ *Ibid.*, 5–6.

²⁰ *Ibid.*, 6.

²¹ Paul F. Horvitz, “Christopher Sees Sanctions in Place As Long as Saddam Stays in Power : U.S. Message to Iraq Move Troops or Else,” *The New York Times*, October 17, 1994.

by Hufbauer et al. were replaced by unlimited goals when President Clinton signed the Iraq Liberation Act in 1998 that made regime change official U.S. policy.²²

Political scientist Daniel Drezner also explored the sanctions decade in his book *The Sanctions Paradox*. He examined the interaction of cost on both the part of the sender and the target, combined with the threat of conflict. He concluded that heightened expectations of conflict between the sender and the target will lower sanction effectiveness.²³ Drezner also concluded that large asymmetries in cost between the sender and the target, combined with lowered expectations of conflict bring about the most significant concessions.²⁴ His conclusions mirrored that of the ESR study, especially concerning economic engagement and integration.²⁵ In short, Drezner concluded that countries that could maximize pain for gain would be the most successful at economic coercion. However, it was the question of who exactly was getting hurt as economic pain was traded for political gain that began caused shifts in thinking among analysts.

Some began to link sanctions to morality. In a 2003 article titled “Economic Sanctions and the Problem of Evil,” Adeno Addis concluded that sanctions don’t work at changing regime behavior, run counter to other international norms such as human rights, and merely served to reinforce authoritarian regimes’ grasp on power. He further discredited the idea that populations in targeted countries had any ability to influence their governments.²⁶ Instead, he argued that outlaw and pariah regimes were viewed as the states themselves. Populations that the international community meant to save from authoritarian regimes by imposing sanctions now were collateral damage, harmed from both within and without.²⁷ Addis concluded that the real purpose sanctions served was

²² Iraq Liberation Act of 1998, Public Law 105–338, The 105th Congress, accessed on October 28, 2012, <http://www.gpo.gov/fdsys/pkg/PLAW-105publ338/html/PLAW-105publ338.htm>.

²³ Drezner, *The Sanctions Paradox*, 5.

²⁴ Ibid.

²⁵ Ibid., 313.

²⁶ Adeno Addis, "Economic Sanctions and the Problem of Evil," *Human Rights Quarterly*, Vol. 25, No. 3 (August 2003), 584.

²⁷ Ibid., 605.

one of identity—separating the good self from the evil other. In terms of proliferation, this is counterproductive. Which is more important, punishing evil or getting rid of WMD?

2. The Evolution to “Smart Sanctions”

The failures of the sanctions decade sparked an intellectual searching that became known as the “Interlaken Process.” Convened by the Swiss government and worked in conferences in 1998 and 1999, this process sought to reform the sanctions theory and bring about a more refined approach of best practices for making sanctions more effective.²⁸ These practices came to be known as “smart sanctions” in which the regime and not the state would be the target. Arne Tostensen summarized the literature on smart sanctions in a 2002 article titled “Are Smart Sanctions Feasible?” Tostensen concluded that the idea of smart sanctions had merit, but that the literature points to just as many problems with the implementation of smart sanctions as dumb ones that had been designed to replace. Further, smart sanctions raised a host of new issues. Foremost, smart sanctions suffered the same problem of defining success, especially when the sender’s goals varied.²⁹ This proved problematic for proliferation as the sender’s agendas were often broader than just the elimination of WMD. Further, sanctions seeking to avoid humanitarian impact required a deeper understanding of the targeted state’s baselines.³⁰ A targeted *regime* could claim that the smart sanctions were causing a humanitarian crisis within the targeted *state*, and the international community might not be able to assess the validity of the regime’s claims. In addition, regimes had to be deeply understood and mapped in order to be adequately targeted by smart sanctions, and even with adequate target data, sanctions were unlikely to work against the most authoritarian regimes.³¹ This would indicate problems in targeting proliferators like North Korea. Further, the literature on smart sanctions indicated that the international community and the UN

28 Thomas J Biersteker, *Targeted Financial Sanctions: A Manual for Design and Implementation* (Providence, RI: Thomas J. Watson Jr. Institute for International Studies, Brown University, 2001), x.

29 Arne Tostensen, “Are Smart Sanctions Feasible?” *World Politics*, Vol. 54, No. 3, (April 2002), 387.

30 *Ibid.*, 378.

31 *Ibid.*

lacked the means to conduct the detailed assessments for smart sanctions to work.³² Finally, Tostensen concluded that smart sanctions are no less costly to enforce than conventional ones.³³

The genesis of smart sanctions soon collided with world events. The new administration of President George W. Bush was wary of multilateralism in the first place and was soon confronted by the attacks on September 11, 2001. The perceived nexus of rogue states, WMD, and terrorism assumed a top place in national security policy. In the 2002 *National Security Strategy* (published in September 2002, a year after the attacks), President Bush wrote, “The gravest danger our Nation faces lies at the crossroads of radicalism and technology. Our enemies have openly declared that they are seeking weapons of mass destruction, and evidence indicates that they are doing so with determination. The United States will not allow these efforts to succeed.”³⁴ A few months later, President Bush labeled North Korea, Iran, and Iraq the “axis of evil.”³⁵ Iraq, ever the poster-child for failed sanctions and multilateralism, was now squarely in the sites of the Bush administration’s Global War on Terror, and the invasion of Iraq for the reason of disarming Saddam Hussein’s WMD was soon underway.

Writing in 2004, after it became clear that Iraq did not have WMD, the team of David Cortright and George Lopez authored a *Foreign Affairs* article titled “Containing Iraq: Sanctions Worked.” They argued that the “unique synergy of sanctions and inspections” had eliminated Iraq’s WMD capability and eroded its military before the war.³⁶ Further, they argued the package of new smart sanctions enacted by the UN in 2002 against Iraq would have finally cemented a program structured for long-term success.³⁷ The authors argued that the intelligence community ignored the success of the

³² Ibid., 394.

³³ Ibid., 398

³⁴ *The National Security Strategy of the United States* (Washington D.C.: The Whitehouse, 2002).

³⁵,”President Delivers State of the Union Address,” January 29, 2002, The President George W. Bush White House Archives, accessed on December 15, 2011. <http://georgewbush-whitehouse.archives.gov/news/releases/2002/01/20020129-11.html>.

³⁶ David Cortright and George A. Lopez. “Containing Iraq: Sanctions Worked,” *Foreign Affairs*, Vol. 83, No. 4 (July/August 2004), 91.

³⁷ Ibid., 91.

sanctions against Iraq and saw Saddam Hussein's attempts at evasion and resistance as confirmation of their worst fears.³⁸ They admitted that Iraq was able to obtain billions from illicit sanctions evasion tactics, but that it was not enough to totally re-arm and rebuild the military, especially in light of the sanctions that prohibited Iraq from openly buying weapons. The illicit funds were just enough to maintain the military and regime.³⁹ The tragedy of Iraq demonstrated the complexity involved with coerced disarmament. How can enemies ever be sure?

The Bush administration was forced to admit that Iraq did not possess WMD. Further, the punishing sanctions regime imposed on Iraq prior to the invasion made reconstruction all that much harder and fueled the insurgency. The cost of the "yacht" of Iraq was almost too expensive for the U.S. to bear. The 2006 *National Security Strategy* blamed faulty intelligence on Iraq's WMD and stated that Saddam Hussein admitted, in post-capture interrogations, that he had been maintaining a posture of strategic ambiguity as a means of deterring Iran.⁴⁰ Despite the lack of WMD in Iraq, the Bush administration argued the war had a demonstration effect that had prompted Libya to give up its WMD programs. The 2006 *National Security Strategy* emphasized this by stating, "Saddam's strategy of bluff, denial, and deception is a dangerous game that dictators play at their peril."⁴¹ This appeared to be a game that Libya's Muammar Gaddafi was unwilling to play when he announced his willingness to give up his WMD in late 2003.

Cortright and George Lopez argued against what Representative Tom Lantos of California termed the "pedagogic value" of the Iraq war.⁴² They concluded that Gaddafi's disarmament was the result of a long-standing negotiations process. Writing in the *Mediterranean Quarterly*, Randall Newnham argued that a combination of carrot and stick approaches were what actually led to Libya's WMD disarmament. Once the U.S. quietly assured Gaddafi that regime change was no longer its goal and Gaddafi

³⁸ Ibid.

³⁹ Ibid., 98

⁴⁰ *The National Security Strategy of the United States* (Washington, D.C.: The White House, 2006), 23.

⁴¹ Ibid., 24.

⁴² Cortright and Lopez, "Containing Iraq: Sanctions Worked," 102.

demonstrated his discontinued support for terrorism, negotiations took place in good faith.⁴³

In a way, the sanctions against Libya can be characterized as proto-smart sanctions. In the 1990s the U.S. boycotted Libya's oil and called for the UN to do the same. Europe was largely dependent on Libyan oil and balked at an embargo.⁴⁴ Instead, a series of financial, travel, arms, and oil field equipment sanctions were adopted. The effects were not catastrophic at first, but fluctuations in oil prices and decay in the ability to produce oil began to have an effect. The quality of life dropped in Libya and Gaddafi faced the prospect of attempted coups, growing civil unrest, and rising Islamist activity.⁴⁵ Further, the newly created Proliferation Security Initiative (PSI) netted a major success when it intercepted a ship destined for Libya filled with nuclear centrifuge parts procured from the A.Q. Khan network.⁴⁶ Arguably, PSI is a smart sanction tool. Instead of a punishing total embargo, Libya was gradually squeezed into compliance, and precise targeting of illicit materials created more success than a more costly system like that imposed on Iraq. Newnham argued this was the final critical step in convincing Gaddafi that his proliferation efforts would not succeed.⁴⁷ Libya chose to come in from the cold.

The demonstration effect of Iraq did not appear to have an impact on other proliferators. North Korea conducted its first nuclear test in 2006, and Syria started construction on a North Korean-designed nuclear reactor that was bombed by Israel in 2007. Iran proceeded with its covert nuclear program. The Obama administration inherited this security landscape. In his 2009 Prague speech, President Obama signaled a

43 Randall Newnham, "Carrots, Sticks, and Bombs: The End of Libya's WMD Program," *Mediterranean Quarterly*, Vol. 20, No. 3 (2009), 78.

44 Cortright and Lopez, *The Sanctions Decade*, 112.

45 Newnham, "Carrots, Sticks, and Bombs," 85–86.

46 Nuclear Threat Initiative, *Country Profiles, Nuclear, Libya*, at: <http://www.nti.org/country-profiles/libya/nuclear/> (accessed May 25, 2012).

47 Newnham, "Carrots, Sticks, and Bombs," 91.

renewed emphasis on nonproliferation along with the goal of reduction in nuclear arsenals.⁴⁸

In a 2007 article published in the journal *Survival*, Rose Gottemoeller, now acting Under Secretary of State for Arms Control and International Security, argued that sanctions theory and practice had evolved to the point where the U.S. now had the tools necessary to pursue a true smart sanctions policy. She concluded that U.S. economic institutional power combined with financial provisions in the Patriot Act made smart sanctions feasible.⁴⁹ Further, the U.S. now had laws to force U.S. companies to divest from states like Iran, and new banking laws designed to fight terrorism could also be used to combat proliferation.⁵⁰ Her theories are now being put to the test as the U.S. is attempting to force Iran to give up its nuclear ambitions with a smart sanctions regime. WMD is featured prominently in the sanctions literature because WMD is a driver of international conflict and often one of the root causes of a sanctions regime. Writing in *World Economics*, Robert Carbaugh explored whether sanctions were useful in discouraging proliferation. His case studies of Iraq, Iran, North Korea, and Libya lead him to the same conclusions reflected in the rest of literature—sanctions don't usually work at persuading states to change policies.⁵¹ In this case, there is a 25 percent success rate for sanctions designed to stop nuclear weapons. Yet, the article does little to explain why sanctions fail to stop proliferation beyond the fact that sanctions generally fail anyway.

Michael Brozoska has examined the effectiveness of arms embargoes. While not a specific study of WMD, his examination of efforts to stop the proliferation of conventional weapons might be useful for the study of the spread of unconventional ones.

48 "Remarks By President Barack Obama, Hradcany Square Prague, Czech Republic," The White House, April 5, 2009, accessed on November 14, 2012, http://www.whitehouse.gov/the_press_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered.Fstate

49 Rose Gottemoeller, "The Evolution of Sanctions in Practice and Theory," *Survival*, Vol. 49 Issue 4, 2007), 103–104.

50 *Ibid.*, 107–108

51 Robert Carbaugh, "Are Economic Sanctions Useful in Discouraging the Proliferation of Weapons of Mass Destruction?" *World Economics*, Vol. 9, No. 4 (2008), 196.

Brozoska finds the same middling record of accomplishment for arms embargoes as other economic sanctions. They are often imposed yet rarely affect a policy reversal in targeted states.⁵² He also concludes that embargoes do not cause states to reverse nuclear policies, yet the argument can be made that the PSI interdiction against Libya was a type of “embargo” that succeeded although the literature cannot answer if Gaddafi would have continued along the nuclear path had the centrifuges been delivered. This exposes the key gaps in the literature. There are few specific examinations of WMD proliferation and sanctions. The central question of why have sanctions appear to have failed in most cases to stop proliferation and if will they continue to do so, especially in light of the new smart sanctions era, has not been adequately addressed in the literature. Smart sanctions and their role in proliferation have yet to be fully explored. Conclusion and Implications

In conclusion, sanctions theory has evolved in the past two decades yet there still exists a large gap between theory and practice. There is little consensus on the overall effectiveness of sanctions as a coercive tool, and the record of sanctions’ ability to stop the proliferation of WMD is mixed. The eight commandments and four precautions of the ESR study and Drezner’s conclusions in *The Sanctions Paradox* still hold explanatory and predictive power, yet for a variety of reasons they are often unheeded. The so-called smart sanctions era still presents myriad problems for the international community and some current sanctions regimes were inherited from the previous era. Trust and verification remain major problems, especially for countries that are already labeled pariahs as well as proliferators. Policy makers crafting proliferation strategies that include sanctions as a tool face both complex political and technical challenges. Clearly, diplomacy is a better alternative to war; however, in order for sanctions to work, diplomatic compromise must be part of the equation. Sanctions designed solely to punish are designed to fail.

⁵² Michael Brzoska, "Measuring the Effectiveness of Arms Embargoes," *Peace Economics, Peace Science and Public Policy*, Vol. 14, Issue 2 (2008), 14.

F. METHODS AND SOURCES

The analytical approach to this thesis will be the use of comparative case studies to examine the effectiveness of sanctions against WMD. The case studies I have chosen are South Africa, Libya, and Iraq. These three cases represent nonproliferation successes where sanctions played a role in ending proliferation. Further, each of these cases has a conclusion from which lessons can be drawn. For this reason, I have excluded cases like Syria and North Korea, which are both proliferators, but are also ongoing cases where, as of this writing, there is little potential for reversal beyond regime change.

All of these cases to some degree involve the pursuit of chemical, biological, and nuclear weapons but will focus on nuclear weapons as the most destabilizing and destruction type of WMD. The South African is an outlier case that was a target of sanctions that were not specifically designed to coerce it from giving up its secretive WMD programs yet they appear to have contributed to South Africa's decision to disarm. This disarmament included several fielded nuclear weapons.

I intend to examine the case studies against existing sanctions literature such as the ESR study and Drezner's conclusions. I will examine each country in the case study with regards to its diplomatic and security situation, the sanctions regime leveled against it, and the history of its proliferation. I will examine how each of these elements interacted and what caused each case to be a nonproliferation success. I will also examine what shortcoming or failures resulted from each case and then analyze the applicable lessons. Finally, I will apply the knowledge and conclusions from the case studies as they apply to future U.S. policy regarding using sanctions as a nonproliferation tool.

Regarding methods and sources, I will make use of the sources for sanctions theory described in my literature review and others listed in my bibliography. For my case studies, there is an extensive secondary literature available.

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II. INTRODUCTION TO THE CASE STUDIES AND SOUTH AFRICA'S WHITE BOMB

A. INTRODUCTION: THREE VICTORIES

The following three chapters will be devoted to the examination of three nonproliferation success stories—South Africa, Libya, and Iraq—and the role that economic sanctions played in reversing proliferation. Although chemical and biological weapons were a factor in all the cases, the studies will focus mostly on the nuclear issue as the most destabilizing and destructive aspect of WMD proliferation.

The case studies begin with South Africa. Although the South African proliferation case is one of the least studied in the literature it represents the biggest nonproliferation success story to date. South Africa deployed and then gave up a small nuclear arsenal. While its nuclear program was only tangentially targeted by sanctions, economic coercion played a large roll at ending apartheid ushering in what came to be known as “the sanctions decade.” Sanctions were also useful as an incentive to insure that South Africa did, in fact, dismantle its nuclear programs.

The next case study is Libya, which demonstrates the usefulness of sanctions to force states to moderate their behavior as well as stopping proliferation. Contrasted with the other cases, Libya was nowhere near being a successful nuclear proliferators and only managed to acquire a small chemical arsenal. Further, sanctions weren't the only factor that caused Gaddafi to give up his WMD programs, but they played a large role. Libya also demonstrates a model for how sanctions can work to achieve nonproliferation. The goals were limited and the senders of the sanctions were open to negotiation—a “carrot” and “stick” approach.

The final case study is Iraq, which is a pyrrhic nonproliferation victory. The sanctions regime against Iraq represents the end to the sanctions decade and ushered in the “smart sanctions” era that will be tested in Iran. Saddam Hussein Iraq's was the most dangerous and destabilizing of the cases. Iraq never fielded a nuclear weapon, but had Desert Storm not forced the end to its nuclear program, it would have been able to do so.

Further, Iraq fielded and used an extensive chemical arsenal against both internal and external enemies. It also had an extensive biological weapons program.

It took two wars and two decades of sanctions to put an end to the Iraq case. The struggle against Saddam Hussein's proliferation illustrates everything that can go wrong with sanctions. The goals of the senders split, Saddam Hussein's dictatorship proved resilient to economic coercion, and instead of being leery of negotiating with dictators, the U.S. ruled it out, deciding first to legislate regime change and then label Iraq as part of the axis of evil. Instead of constructing policy around the goal of putting an end to Saddam Hussein's proliferation, the U.S. adopted the goal of ending the dictator himself. The U.S. was able to easily seize Iraq, but the failure to find WMD followed by lingering insurgency that the U.S. limped away from damaged U.S. credibility in combating other proliferators.

B. SOUTH AFRICA AND THE WHITE BOMB

Long regarded as one of the most successful sanctions episodes in history, the multi-decade long struggle to reverse South Africa's racist apartheid policies paved the way for what became known as "the sanctions decade" in the 1990s. South Africa is also regarded as proliferation success story. It was the first nation to seek, acquire, and then give up nuclear, chemical, and biological weapons and is now regarded as a nonproliferation paragon. However, a closer examination of the South African case study reveals a mixed record regarding both sanctions and nonproliferation efforts. Despite arm embargoes, sanctions, and near total international isolation, South Africa was not only able to produce chemical and biological weapons; it fielded six operational nuclear weapons in almost total secrecy. South Africa's contradictory motives for acquiring these weapons and the potential scenarios for which the white government envisioned using them are also deeply troubling. This case study will focus on nuclear proliferation.

The net effects of sanctions and other means of economic coercion contributed to forcing Pretoria to reform and abandon apartheid. Sanctions and embargos had little impact on South Africa's decision to proliferate, and when added to a worsening security situation in the 1970s and early 1980s, seemed to have encouraged it. However, the

normative effects of nonproliferation regimes combined with an improving security situation in the late 1980s and South Africa's desire to end sanctions and return to normalcy proved valuable in encouraging Pretoria to give up its WMD as a sign of good faith with the desires of the international community. Sanctions didn't stop South African proliferation, but they were a useful incentive for ending it. The South Africa case also serves to illustrate how a smart sanctions regime could have ended both apartheid and proliferation more quickly than the haphazard, draw out manner in which the world coerced Pretoria to reverse its policies.

1. Black Knights, Grassroots, and the Vulnerable Pariah

South Africa was not always been a pariah. As part of the British Commonwealth, it had fought on the side of the allies during the First and Second World Wars and had strong ties with the West. The whites-only Nationalist Party took power following the Second World War and strengthened the segregationist policies that would come to be known as apartheid. South Africa left the commonwealth in 1961 and strengthened its repressive apartheid policies. The world reacted unfavorably. In 1964, the UN Security Council adopted United Nations Security Council Resolution (UNSCR) 181 that condemned apartheid and called for a voluntary arms embargo against South Africa. In 1970, the UN reaffirmed its condemnation of the apartheid regime with UNSRC 282 and renewed calls for an arms embargo. IN 1973, OPEC began an oil embargo of South Africa, and the voluntary arms embargo was made mandatory by UNSCR 418 in 1977.⁵³

The U.S. and Great Brittan complied with the arms embargo, but did not sever trade or impose wider sanctions. In response to the arms embargo, South Africa, with Israeli cooperation, developed a robust and profitable domestic arms production industry.⁵⁴ South African create the Armscor company that was able to produced sophisticated weaponry for both South African Defense Forces (SADF) and the export

⁵³ Philip I. Levy. "Sanctions on South Africa: What Did They Do?" *The American Economic Review*, Vol. 89, No. 2 (May, 1999), 415–420.

⁵⁴ John C. Scharfen, *The Dismal Battlefield: Mobilizing for Economic Conflict*. (Annapolis: Naval Institute Press, 1995), 107.

market. The South Africa WMD and missile programs grew out of the domestic arms industry.

By the late 1980s, the volume of international outrage against South Africa had grown to the point where a coalition of Western nations, including the United Kingdom and the United States, adopted severe economic sanctions against South Africa. However, these sanctions were far from perfect or comprehensive. The ESR study rates the sanctions episode against South Africa as a success where all the goals of the senders were met. However, the ESR study rates the influence of sanctions compelling changes in South African as middling.⁵⁵ They did affect Pretoria's behavior, but were far from delivering the killing blow to apartheid. In fact, despite its growing isolation and apparent vulnerability to a comprehensive sanctions regime, South Africa was able to grow its economy until the late 1970s when the South African government's murder of protest leader Steve Biko galvanized international reaction against apartheid.⁵⁶ Up until this point, South Africa's economy was able to thrive because of access to capital, availability of high-tech industry and knowledge, and overall profitability of international companies operating there. Apartheid may have been distasteful, but business in South Africa was good. Thus, the South African sanctions episode had a long list of both government and corporate "black knights" who were willing to overlook apartheid because of economic interests.

On the surface, South Africa seemed perfectly vulnerable to sanctions especially from the West with which it had close trading ties, which is one factor the ESR identifies as likely to create successful sanctions outcomes. However, a closer examination of the slow-moving sanctions regime targeting South Africa reveals a different story. The apartheid state was vulnerable, but not completely without friends. Further, in the geopolitical context of the apartheid era, the political costs of complete economic strangulation of and isolation of South Africa were high. South Africa was a strident anti-

⁵⁵ Hufbauer, Gary Clyde, Kimberly Ann Elliot, and Jeffrey J. Schott, *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, South Africa Case Study.

⁵⁶ David Cortright and George A. Lopez, *Economic Sanctions: Panacea or Peacebuilding in a Post-Cold War World* (Boulder, Colorado: Westview Press, 1996), 175–176.

communist capitalist state directly fighting communist incursions onto the African continent. Its economic ties with the West made it vulnerable, but its political alignment against communism mitigated some of this vulnerability.

The energy sector was one place where South Africa was particularly vulnerable. South Africa imported nearly all of its oil, but the OPEC embargo against it was not comprehensive. Iran ignored the boycott and continued to trade with South Africa. In addition to Iranian oil, U.S. companies accounted for 40% of South African oil imports.⁵⁷ In 1977, the UN General Assembly (UNGA) called for a total oil sales boycott of South Africa. The U.S. abstained from the vote, and the proposal died.⁵⁸ South African paid a large premium for the oil it did import, but managed to keep its economy moving.⁵⁹ The lack of domestic oil supplies also helped create South Africa's interest in nuclear power.

South Africa started to develop its nuclear infrastructure under the Atoms for Peace program and had a genuine interest in nuclear power throughout the apartheid period creating more vulnerability. It signed deals with the U.S. for nuclear reactors and fuel. Later, South Africa did not sign the NPT and did not agree to place its nuclear industry under IAEA safeguards. In response, the Ford administration cut off nuclear fuel shipments to South Africa's highly enriched uranium (HEU) fueled Safari 1 reactor that had originally been procured under the Atoms for Peace program.⁶⁰ The cutoff of nuclear fuel deeply affected the ability of South Africa to operate the Safari 1 reactor for a period, but never forced the reactor offline.⁶¹ The next year in 1978, as part of its implementation of the NPT and the larger nuclear non-proliferation, the U.S. passed the Nuclear Nonproliferation Act (NNPA). This act prohibited nuclear trade with countries that were not under IAEA safeguards. Because of this, the Carter administration permanently cut off fuel shipments to South African in 1980.

⁵⁷ Ibid. 176.

⁵⁸ Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, South Africa Case Study.

⁵⁹ Cortright and Lopez, *Economic Sanctions: Panacea or Peacebuilding*, 180.

⁶⁰ "South Africa Nuclear Chronology," The Nuclear Threat Initiative, accessed on August 22, 2012, http://www.nti.org/media/pdfs/south_africa_nuclear.pdf?_=1316466791.

⁶¹ Ibid.

However, South Africa was still able to import fuel from other sources in Europe.⁶² Because of growing international sentiment against it, South Africa had also started an indigenous enrichment program in 1971 and by 1981 had enriched enough fuel to supply its reactors. In effect, the nuclear fuel cutoff spurred proliferation by giving the South Africans incentive to master the nuclear fuel cycle.⁶³ Eventually HEU fuel supplies from Europe were also cut off, but South Africa was now able to supply itself. The overall net effect of cutting of HEU supplies to South Africa was to force it to divide its HEU between its bomb programs and civilian reactors. South Africa was not able to expand its civilian nuclear power industry as it desired, but it was still able build a limited number of bombs.

Against this backdrop, the international drive against apartheid began to gain momentum in the 1980s. Once prosperous South Africa began to struggle economically, but still kept its economy viable. The ESR study concluded that financiers and banks were more averse to dealing with nations struggling under sanctions than were goods traders. Traders make their money in the short term as goods and services are exchanged in the present; whereas, financiers must take a long-term outlook.⁶⁴ South Africa did not have a ready commodity like oil to trade in the short term and needed access to the global capital markets to thrive. These economic factors were about to play a large role in the reversal of apartheid.

A one-two punch was about to make South Africa a very unattractive place to invest. The first blow came from the grassroots divestiture campaign in which a wide variety of institutions like churches and unions threatened to remove their funds from financial institutions doing business in South Africa.⁶⁵ This expanded into boycott threats against companies doing business in South Africa, and famously forced Coca Cola to sell

62 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, South Africa Case Study.

63 Stephen F. Burgess, "South Africa's Nuclear Weapons Policies," *The Nonproliferation Review*, 13:3 (2006), 521–522.

64 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, 47.

65 Cortright and Lopez, *Economic Sanctions: Panacea or Peacebuilding*, 176–179.

its South African operations.⁶⁶ This combined with the continued unrest and a slowing economy made South Africa an unattractive place to invest. The divestiture campaign may have stripped up to \$20 billion out of the South African economy.⁶⁷ The second blow came with passage of the Comprehensive Antiapartheid Act (CAA) in 1986, which was originally vetoed by President Reagan but overridden by Congress. President Reagan believed in a policy of constructive engagement with South Africa compared to what he believed to be President Carter's moralizing. South Africa was fighting on the right side of the Cold War, and from 1981 to 1986 willingly turned a blind eye towards allied and U.S. interests assisting the South African arms industry.⁶⁸ The CAA changed all this and cut off all U.S. trade with South Africa making it an even less attractive place for the international finance system. A shift in the geopolitical context of the late Cold War combined with a grassroots movement that was less concerned with international relations than justice combined to end apartheid.

The ESR study concludes that the grassroots divestment campaign appears to have been equally effective as UN and state sponsored sanctions in disrupting South Africa's economy. In *The Sanctions Paradox*, Drezner concludes that economic engagement can create blocs within a country that favor change. South Africa went from a vibrant economy where prestigious companies like Union Carbide proudly advertised their presence to a pariah faced with an unsustainable system.⁶⁹ Trade and engagement had created a large enough bloc among white South Africans to force hardliner apartheid President Botha from office. Reformer F.W. de Klerk assumed office and began the process of ending apartheid.

66 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, South Africa Case Study.

67 Cortright and Lopez, *Economic Sanctions: Panacea or Peacebuilding*, 178.

68 Helen E. Purkitt and Stephen F. Burgess, *South Africa's Weapons of Mass Destruction* (Bloomington, Indiana: Indiana University Press, 2005), 106.

69 Cortright and Lopez, *Economic Sanctions: Panacea or Peacebuilding*, 179.

2. Apartheid and the Security State

The struggle to end apartheid did not occur in a vacuum. South Africa also faced serious internal and external security threats, which gave rise to the South African security state. The nuclear program began when South Africa was relatively secure, but in the 1970s the security situation began to deteriorate which drove WMD acquisition.⁷⁰ South Africa faced a “brush fire” insurgency in its protectorate of Namibia. South Africa also became involved in civil wars in Angola and Mozambique. Newly elected President Carter further distanced the U.S. from South Africa, while the conflict in Angola escalated when Cuban troops with Soviet support directly intervened on behalf of the Marxist government. The Cubans were able to defeat South African backed National Union for the Total Independence of Angola (UNITA) forces and Fidel Castro later hinted at a broader offensive.⁷¹ Soviet-supplied weaponry combined with the lingering effects of the arms embargo, which especially hurt the SADF air forces, stunted South African’s efforts against the Popular Movement for the Liberation of Angola (MPLA) in the Angolan Civil War, and hindered the SADF’s ability to destroy insurgent forces in Namibia during the mid-80s.⁷² The SADF were more than adequate to defeat any incursion into South Africa proper, but Pretoria was isolated, paranoid, and unable to decisively defeat its enemies.⁷³ Ronald Reagan’s election and policy of cooperative engagement mitigated some of this, but South Africa concluded it was alone and acted accordingly.

In this atmosphere of isolation, Pretoria began to fear a “total onslaught” of communist supported blacks would overwhelm the minority whites while the West stood by and watched.⁷⁴ In the wake of the 1976 Soweto Uprising, the apartheid government also feared an internal “black tidal wave” that it would eventually look to chemical and

⁷⁰ Peter Liberman, “The Rise and Fall of the South African Bomb,” *International Security*, Volume 26, Number 2, Fall 2001, 60.

⁷¹ Ibid., 50.

⁷² Cortright and Lopez, *Economic Sanctions: Panacea or Peacebuilding*, 180, and Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, South Africa Case Study.

⁷³ Liberman, “The Rise and Fall of the South African Bomb,” 59.

⁷⁴ Purkitt and Burgess, *South Africa's Weapons of Mass Destruction*, 92.

biological weapons to counter.⁷⁵ South Africa decided that WMD were the answer to its security problems. The initial wave of sanctions and embargoes did not end apartheid nor discourage South African from following this course. Instead, economic coercion reinforced the decision to proliferate, and the arms embargo had already created a sophisticated defense industry capable of building WMD.⁷⁶ An isolated South Africa became more dangerous.

The security conditions that encouraged proliferation evaporated in the late 1980s. Cuban and Soviet troops withdrew from Africa in exchange for Namibian independence.⁷⁷ The Berlin Wall came down, and the Soviet Union began to contract and break apart. The white political leadership came to realization that they would have to negotiate some kind of power sharing agreement with the blacks. The threat of “total onslaught” was gone taking with it the *raison d’être* for the South African security state and any hopes that Western powers might rush to assist a collapsing South African state. White leadership began to realize that preserving apartheid meant destroying South Africa. In the meantime, South Africa sought and acquired WMD.

3. The White Bomb

South Africa did not start out as a nuclear proliferator. As noted above, it participated in the Atoms for Peace program, and it was a member of the IAEA. South Africa also played a role in the British and U.S. nuclear programs because it had large stocks of uranium that it sold to both the U.S. and the UK.⁷⁸ In compliance with the growing set of global nuclear norms, it signed the 1963 Limited Test Ban Treaty.⁷⁹ The international condemnation over apartheid had not yet affected its nuclear dealings with the outside world, and starting with the Atoms for Peace deal and moving forward in the early 1960s, the South African nuclear program began as a commercial venture aimed at power generation. The government embarked on a plan to develop its natural resources,

75 Ibid. 94 and 101.

76 Ibid. 50.

77 Burgess, “South Africa’s Nuclear Weapons Policies,” 523.

78 Ibid.

79 Ibid.

human capital, and nuclear infrastructure.⁸⁰ South Africa began research into uranium enrichment as part of its commercial nuclear power industry.⁸¹ This also meant that South Africa had the first step required for nuclear proliferation—access to nuclear material and the ability to master the nuclear fuel cycle.

While the full history of South Africa's decision to go nuclear is still shrouded in conjecture, on the surface South Africa's nuclear weapons efforts appear to have originated in the idea of commercial uses for so-called peaceful nuclear explosions (PNEs).⁸² The South African government approved research into PNEs in 1971 that reflected the norms at the time. Both the U.S. and Soviet Union had PNE programs and PNEs were permitted in the Nuclear Nonproliferation Treaty.⁸³ However, the decision to pursue PNEs proved fateful and provided the foundation for a military nuclear weapons program.

The decision to shift to nuclear weapons began as the bush wars heated up, and South Africa drifted further and further away from the international community. South Africa claimed its rejection of the NPT was born out of fears of exposing its uranium enrichment trade secrets to the outside world.⁸⁴ Then, the furor over the 1974 Indian test of its alleged PNE indicated a shift in international norms.⁸⁵ Assuming the true nature of South Africa's nuclear program had been peaceful from the start, then the investment of resources would prove wasted as the world turned its back on PNEs. It also created organizational incentives to move forward with its nuclear program since human and resource capital were already in place.⁸⁶

The South African PNE program was a closely guarded secret. In 1974, a team of South African researchers successfully tested the design of a gun-type device, which

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² Liberman, "The Rise and Fall of the South African Bomb," 49.

⁸³ Ibid., 50.

⁸⁴ Ibid.

⁸⁵ Ibid., 51.

⁸⁶ Ibid., 49.

could be used for PNEs or nuclear weapons.⁸⁷ That same year, South Africa began to dig two nuclear test shafts in the Kalahari Desert.⁸⁸ In 1977, Soviet satellites discovered the Kalahari test site creating an international firestorm.⁸⁹ This development combined with the rejection of the NPT put it at odds with the United States, which would pass the Nuclear Nonproliferation Act in 1978 forbidding nuclear trade with non-NPT members.

South Africa was willing to ignore the nuclear norms shifting around it because of their linkage to apartheid.⁹⁰ Apartheid was non-negotiable. It would stay; therefore, there was nothing to be gained from nuclear policy reversal. In this light, Pretoria saw little benefit from joining the NPT. Because of apartheid, it would be sanctioned anyway, so why bother?⁹¹

However, this period, especially after the Kalahari incident, is a missed opportunity to stop South African nuclear proliferation. The Nuclear Suppliers Group, formed in 1975 as a response to the Indian “peaceful” test, was designed to prevent the sale of sensitive nuclear technology to non-nuclear power. It could have been used orchestrate a comprehensive nuclear embargo that might have stripped South Africa of the ability to both fuel its reactors and enrich HEU. This would have forced to choose in a confirmable way. Shutting down the Safari 1 reactor would have been proof that Pretoria was choosing nuclear weapons. At the very least it could have signaled to Pretoria that the West would not tolerate its nuclear weapons program.

Instead, after a series of demarches and threats stemming for the Kalahari incident, the West, minus the U.S., backed away from a total nuclear embargo.⁹² South Africa was still able to benefit from outside support. South Africa was able to continue to invest in its already robust nuclear infrastructure and continued its collaborative

87 Purkitt and Burgess, *South Africa's Weapons of Mass Destruction*, 41.

88 Ibid.

89 Donald L. R. Goodson, “Catalytic Deterrence,” *Politikon: South African Journal of Political Studies*, Vol. 39, Issue 2 (August 2012), 210.

90 Liberman, “The Rise and Fall of the South African Bomb,” 68–69.

91 Ibid., 50.

92 Ibid., 69–70.

relationship with Israel, another non-NPT country.⁹³ Sanctions provided more incentive for South Africa to master the nuclear fuel cycle and had already prompted the creation of an indigenous arms industry. The sanctions had also convinced South Africa that, minus some external prompt, they had been abandoned by the West and would face the communists alone. Against this backdrop, South Africa shifted its PNE program towards weaponization.

4. Catalytic Nuclear Strategy

Because of the insular, paranoid nature of decision-making, and the post-apartheid recalcitrance of many of those involved, there is not a consensus in the literature of the exact moment when the decision was made for South Africa to acquire nuclear weapons. Further, the actual utility of these nuclear weapons is clearly debatable. Former Minister of Defense and Prime Minister, P.W. Botha stated that the nuclear weapons were “diplomatic weapons,” but the strategy surrounding their utility was half-articulate at best.⁹⁴ What is clear is that circumstances provided South African with the means, motives, and opportunity to proliferate.

The decision to acquire a nuclear weapons capability can best be pinpointed to after the 1977 Kalahari episode. After the test-site was discovered, then Prime Minister Vorster ordered a cancelation of the PNE program and the test site was closed.⁹⁵ Vorster then ordered that a secret nuclear deterrent capability be constructed. He turned to Minister of Defense P.W. Botha to develop the weapons. Botha then turned to the SADF chief of plans, Brigadier General John Huyser, to develop a study for how to move forward. Huyser’s study outlined three options for moving forward—secret development, covert disclosure, or overt disclosure.⁹⁶ Huyser recommended the third option—South

93 Burgess, “South Africa’s Nuclear Weapons Policies,” 521–522.

94 Liberman, “The Rise and Fall of the South African Bomb,” 59.

95 Ibid., 53.

96 Ibid.

Africa should openly become a nuclear power.⁹⁷ Botha approved the document, but demurred from openly joining the nuclear club.

In 1978, P.W. Botha became Prime Minister and moved forward with the nuclear program. He formed a secret planning group to administer the development of nuclear weapons and a “credible nuclear deterrent.” Armscor, the indigenous weapons manufacturing company created in part as a response to UN arms embargoes, was given the task of developing the actual warheads themselves.⁹⁸ By 1982, Armscor delivered the first nuclear bomb with an additional non-deliverable weapon available for testing purposes.⁹⁹ By 1989, Armscor delivered six nuclear bombs, and had even gone as far to explore an ICBM deliverable weapon in conjunction with the Israelis.¹⁰⁰

The logic of South Africa’s “credible” nuclear deterrent was atypical of traditional nuclear calculus. South Africa was not faced with a nuclear rival on the continent, and it did not have the means with which to threaten the Soviet Union, which was backing its enemies. A nuclear strike against Soviet or Cuban forces operating in Africa could have led to annihilation. South Africa’s security situation was deteriorating but manageable in the mid-1970s when it made the decision to go nuclear.¹⁰¹ Isolation and deepening Soviet and Cuban involvement in Africa degraded South Africa’s situation, and Pretoria became worried about military defeat, which further drove its nuclear acquisition. However, South Africa was largely isolated from the Cold War, and therefore, did not understand the limitations in Soviet military capabilities or its policy goals.¹⁰² There was little chance of an actual Soviet invasions, and the SADF was more than capable of defeating a Cuban incursion into South African proper.¹⁰³ Further, the SADF was left out of much of the nuclear decision-making and did not have a doctrine

97 Ibid.

98 Ibid., 53.

99 Ibid. 54.

100 Ibid.

101 Ibid, 58.

102 Ibid. 60.

103 Ibid.

for the employment of nuclear weapons in a battlefield scenario.¹⁰⁴ There is evidence of military reluctance over the nuclear program because it consumed resources that could have otherwise been used for acquisition of more usable conventional assets.¹⁰⁵ The SADF may have accidentally created the oversold the communist “Total Onslaught” threat in order to guarantee funding.¹⁰⁶ As defense budgets shrank in the twilight of the apartheid era, the SADF was willing to give up nuclear weapons that were cutting into conventional spending.¹⁰⁷

Military utility was not the main purpose of South Africa’s nuclear weapons. The logic of South Africa’s credible nuclear deterrent appears to have existed almost completely within P.W. Botha and his inner circle. In 1978, Botha adopted a three phase catalytic nuclear strategy that would be implemented in South Africa faced an existential threat.¹⁰⁸ The first phase would be one of strategic ambiguity where South Africa maintained opacity regarding its nuclear capacity. The second phase would be a quiet revelation to once friendly governments like Great Britain and the United States. If this quiet revelation did not prompt these powers to intervene, the third phase would be implemented where South Africa would publicly declare its nuclear capability with a nuclear test as an optional additional measure. Therefore, South Africa’s nuclear deterrence was completely unique and non-traditional.¹⁰⁹ It was not designed to prevent action, but to compel it—namely a Western intervention on its behalf.¹¹⁰

Botha believed in the utility of this logic. In 1986 or 1987 the Kalahari test site was covertly re-opened to be ready for a nuclear test as required.¹¹¹ Botha was quoted as saying “if we set this thing off, the Yanks will come running.”¹¹² The reasoning, in part,

104 Ibid., 66.

105 Burgess, “South Africa’s Nuclear Weapons Policies,” 524–525.

106 Liberman, “The Rise and Fall of the South African Bomb,” 67–68.

107 Purkitt and Burgess, *South Africa's Weapons of Mass Destruction*, 130–131.

108 Goodson, “Catalytic Deterrence,” 212–213.

109 Ibid., 213.

110 Ibid. 224.

111 Liberman, “The Rise and Fall of the South African Bomb,” 57–58.

112 Ibid. 60.

was informed by South Africa's perception of Israel's behavior in the 1973 Yom Kippur War. The South Africans believed that Israeli moves towards nuclearization of the conflict promoted U.S. assistance.¹¹³ The more troubling aspect of this strategy is its lack of a fourth phase. If the other phases failed, would this force South Africa to use a nuclear weapon? This fact prompted South African collaboration with Israel on an ICBM.¹¹⁴ Taken to its logical conclusion, South Africa's catalytic strategy would have been to compel Western intervention or risk general nuclear war. It is doubtful that South Africa could have developed a ICBM capability on par with Cold War numbers or that Botha was all that interested in developing a fourth phase to the strategy. He rejected Armcor's proposals to develop more advanced warheads because they would "never" be used offensively therefore the expense wasn't worth it.¹¹⁵ Whether or not the Pretoria's nuclear weapons would be used in anger is unknowable; however, the idea of a micro-deterrent strategy with a few nuclear warheads aimed at a superpower is chilling to contemplate.

The late apartheid period led to a quick end to the South African nuclear weapons program. In 1989, newly elected Prime Minister F.W. de Klerk ordered a review of military spending with an eye towards drastically cutting the defense budget and freeing up money for reform programs. As Pretoria began to shift away from apartheid, the U.S. government, having long suspected South Africa of proliferating, began pressuring de Klerk to dismantle the nuclear program lest it fall to the ANC, which at the time was still suspect.¹¹⁶ De Klerk saw the NPT as a way of normalizing relations with the world and in 1990, he ordered that the nuclear program and its supporting infrastructure be dismantled.

The actions surrounding getting rid of the nuclear weapons were surprisingly mundane. The drive to acquire the weapons had almost solely rested with Botha, and now that he was out of office the weapons had few advocates. The military was not heavily

¹¹³ Ibid. 62.

¹¹⁴ Purkitt and Burgess, *South Africa's Weapons of Mass Destruction*, 74–76.

¹¹⁵ Liberman, "The Rise and Fall of the South African Bomb," 57.

¹¹⁶ Burgess, "South Africa's Nuclear Weapons Policies," 523.

invested in the program and had no nuclear warfighting doctrine or plans. The SADF Buccaneer bomber, which was the only system capable of delivering the nuclear bombs, ended its service life in 1990 so, even if South Africa had retained its weapons, it would not have the means to deliver them.¹¹⁷ Therefore, getting rid of the weapons would not create a gap in capability, and the SADF wanted to spend money elsewhere. Further, none of the players wanted the weapons in the hands of the ANC. In effect, South Africa had nothing to lose by giving up its nuclear weapons but much to gain.

With the military onboard and under strict government supervision, the nuclear weapons were disassembled and the HEU recast for fuel. The Kalahari test shafts were permanently sealed, and the documentation of the nuclear weapons program destroyed.¹¹⁸ South Africa acceded to the NPT in 1991, and by 1992, the dismantlement process was complete. In 1993, de Klerk went public with the nuclear programs, and by 1994 the IEA confirmed that all of the nuclear weapons had been dismantled.¹¹⁹ South Africa's CB programs were also dismantled in a similar fashion. The world's first case of unilateral nuclear disarmament was success, but it was not necessarily a success of the nonproliferation regime.

5. Implication and Conclusions

The world felt good about punishing apartheid. The sanctions against South Africa satisfied domestic audiences in sender countries and created the perception of doing something. However, South Africa was able to endure the sanctions, and it was not until the divestiture campaign stripped it of financial access did economic coercion really begin to work.¹²⁰ The sanctions against South Africa were not successful by themselves because several factors listed in the ESR study were present.

First, the sanctions created their own antidotes. This is especially true with the arms embargo. South Africa was able to create a domestic arms industry sophisticated

117 "South Africa Nuclear Chronology."

118 Purkitt and Burgess, *South Africa's Weapons of Mass Destruction*, 119–121.

119 Ibid. 121.

120 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, 54.

enough to produce nuclear weapons. Secondly, South Africa had several “black knights” that were will to continue to work with the apartheid regime. Finally, the sanctions against South Africa risk alienating certain domestic audiences in the sender countries, especially with the energy and financial sectors. The grassroots divestiture campaign made the cost of doing business with South Africa high enough to choke South Africa’s economy, but absent this campaign, the apartheid regime might have been able to hold on longer.

Economic coercion also had nothing to do with the improved security situation. South African leaders were able to reform because they no longer threatened from the outside. However, the reverse might a have been true as well, a harder hitting sanctions regime could have force South Africa to reform in order to be able to continue to defend itself against external threats. The slow, haphazard nature of the sanctions allowed South Africa to evade and even thrive for a period. Had the sanctions been quick and comprehensive, especially given South Africa’s vulnerability in energy and finance, they might have forced a resolution faster. Instead, the sanctions created incentives for South Africa to proliferate WMD while doing little to target the means.

Shortly after the transition from apartheid Nelson Mandela appealed to the world that the sanctions be quickly lifted, which for the most part they were. But outside powers like the U.S. and UK still needed proof that South Africa’s WMD programs were gone. This required confidence building measures. In the case of South Africa, Mandela was a revered and popular leader on the world stage. With apartheid defeated, the world could agree to end sanctions quickly. But, had de Klerk not ordered unilateral WMD disarmament and post-apartheid South African been “born” WMD-capable, would the case been the same? Would Mandela have retained as much global popularity if he had retained South Africa’s WMD? This counterfactual is unanswerable, but it raises questions for future policy as WMD armed states make transitions.

Finally, regarding sanctions as a specific tool for fighting WMD proliferation, South Africa is a troubling case that illustrates the difficulty of coercing state behavior. The UN sponsored sanctions and arm embargos were targeting at ending apartheid and South African occupation of Namibia. These efforts created the incentive to proliferate

while failing to take concrete steps to stop it even when the risks of nuclear proliferation were clear after the discovery of the Kalahari test site. The U.S. CAA prevented the U.S. from selling nuclear materials to South Africa, but did nothing to punish others who did.

Further, South African nuclear proliferation illustrates several flaws with the nuclear nonproliferation regime. Foremost, the promotion of nuclear power came before the NPT and was enshrined within it. South Africa was able to exploit the dual use paradox. It developed a domestic nuclear capability before deciding to develop nuclear weapons, and started its programs before the advent of nonproliferation measures like the Nuclear Suppliers Group, which wasn't formed until 1975. The successful evasion of the arm embargo that created a sophisticated domestic industry combined with access to nuclear technology and uranium made South Africa resilient sanctions targeted at nuclear weapons programs. Assuming that South African willingness to bear the costs of nuclear acquisition no matter how high and given that it had domestic access to uranium and had mastered the fuel cycle, there was little the NPR could have done to stop South Africa from acquiring nuclear weapons. However, the rapid dismantlement of South Africa's nuclear program and lack of internal resistance to the dismantlement, indicate that there was not a large demand for nuclear weapons beyond Botha and his inner circle. Therefore, economic coercion might have prevented proliferation had it been better executed. Just as they might have ended apartheid more quickly, smart sanctions that targeted South Africa's access to financial markets, energy, and access to nuclear materials and technology could have forced Pretoria to give up its nuclear programs by raising the cost of proliferation to unacceptable levels. South Africa was able to exploit a lag in the establishment of the global nonproliferation regime, but it was still vulnerable. It did not have enough capacity to supply fuel to both its nuclear power and weapons programs, and it needed conventional military capability to fight the brush fire wars. Smart sanctions would have strangled the SADF as well.

Beyond speculation of how sanctions might have ended apartheid and proliferation sooner, they did have one notable use in providing the incentive for South African to demonstrate its willingness to return to international norms. If apartheid had to end to save South Africa, WMD disarmament and compliance with the NPT, BWC, and

CWC were good confidences building measures during the transition. In this case, sanctions and the NPR were useful tools and speeding the transition away from apartheid.

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III. MUAMMAR'S WHITE ELEPHANT

Libya is an oil-rich country that resides in a relatively stable area of North Africa with a close geographical proximity to European markets. Home to some of the world's best oil reserves, Libya is a nation that should have fully reaped the benefits of its geography and natural resources. Instead, the course of the last forty years has left Libya economically backwards, isolated, and wracked by civil war and unrest. Libya's woes stem from the decision making of one man--the late Colonel Muammar Gaddafi who's military adventurism, support for terrorism, and attempts at WMD proliferation led to a lengthy sanctions campaign against Libya. Gaddafi took power in a military coup, led Libya into pariah status, and then led it back into some degree of normalcy until he was killed by Libyan rebels in 2011. Economic coercion played a large role in forcing Gaddafi to reverse his policies, including the pursuit of WMD, and there is evidence that Libya's proliferation could have ended quicker had the West been more open to negotiation. Additionally, changes to the international political climate played a significant role in Libya's reversal, and unlike South Africa successful nuclear proliferation, Libya never achieved fruition with its WMD programs beyond a basic chemical arsenal. In effect, WMD became a white elephant that cost Libya more than it could possibly hope to gain. Gaddafi was able to sell his white elephant for a fair price—the complete lifting of sanctions and diplomatic reintegration.¹²¹

A. THE COLONEL'S SECRET RECIPE FOR DISASTER

From almost its first moments, the regime of Colonel Muammar Gaddafi was on a collision course with the rest of the West. Gaddafi was an officer in the Libyan military and steeped in the Nasserite Pan Arab movement of the time. Humiliated by the Arab performance against Israel during the 1967 "Six Day War" and longing for Arab unity to oppose Israel, Gaddafi, along with a group of fellow officers, deposed the Libyan royal

¹²¹ Robert E. Hunter, "The Iran Case: Addressing Why Countries Want Nuclear Weapons," *Arms Control Today*, Vol. 34 (December 2004), accessed on September 28, 2012, http://www.armscontrol.org/act/2004_12/Hunter.

family in a bloodless coup in 1969 and assumed the role of head of state. He immediately adopted a strident anti-Western and anti-Israeli tone and expelled British and U.S. air force personnel from bases within Libya. Gaddafi began to govern his country with a brand of socialism espoused in his famous “Green Book.” Gaddafi structured the Libyan economy on a state command model that became riddled with corruption and inefficiency. Gaddafi’s proliferation ambitions began almost immediately, and he reportedly sought to purchase a nuclear weapon from China in 1970.¹²² Later, he reportedly attempted to purchase one again, but this time from India in 1978.¹²³

Despite the expulsion of Air Force personnel, the Nixon Administration initially adopted a “wait and see” approach to Gaddafi thinking that he might be a useful tool to fight communism in North Africa.¹²⁴ However, relations with the U.S. soon degraded as Gaddafi nationalized Libya’s oil fields and began to oppose the U.S. role in brokering peace between the Arabs and Israelis. Gaddafi’s Libya soon began behaving like other “revolutionary states” of the time. Gaddafi’s philosophical leanings prompted him to support terrorist organizations fighting against whom he perceived as his enemies.¹²⁵

Gaddafi’s behavior led to what can be characterized as three phases of sanctions. The first was largely comprised of U.S. unilateral sanctions that began in 1978. This period lasted until 1992 when the UN imposed multilateral sanctions because of Libya’s involvement in the bombings of two passenger airliners. The multilateral sanctions lasted until 1999 when the UN suspended them after the extradition of the Libyan intelligence officers responsible for the bombings. The third phase of sanctions was the continuation of ongoing U.S. unilateral sanctions that lasted from 1999 to 2004. The ESR Libya case study concludes that both the unilateral and multilateral sanctions campaigns were a

122 Joseph Cirincione with Jon Wolfstahl and Miriam Rajkumar, *Deadly Arsenal: Tracking Weapons of Mass Destruction* (Washington, DC: Carnegie Endowment for International Peace, 2002), p. 307

123 Clyde R. Mark, *CRS Issue Brief for Congress: Libya* (Washington, D.C.: Congressional Research Service, April 10, 2002), 4.

124 Gawdat Bahgat, *Proliferation of Nuclear Weapons in the Middle East* (Gainesville, Florida: The University of Florida Press, 2007), 141.

125 *Ibid.*, 142.

complete success with all sender goals met.¹²⁶ It assesses that sanctions significantly contributed in forcing Libya to comply with sender goals.¹²⁷ The three phases will be discussed in more detail below.

B. U.S. UNILATERAL SANCTIONS PART 1 (1978–1992)

Because of terrorist support and the beginnings of Libyan military adventurism in Chad, the U.S. began unilateral sanctions in 1978, that starting with an arms embargo. This soon expanded to a set of congressionally mandated export controls.¹²⁸ In 1981, the U.S. closed the Libyan diplomatic mission in Washington DC. This was soon followed by the Gulf of Sidra incident where U.S. aircraft, operating in international waters that Libya claimed as its own and responding to Libyan provocation, shot down two Libyan Air Force fighters.

Relations between the United States and Libya spiraled downward from there. The U.S. began an embargo of the Libyan aviation industry and ordered all U.S. citizens to leave Libya.¹²⁹ The U.S. embargoes quickly expanded to oil field equipment and President Reagan placed a restriction on the import of Libyan crude oil products.¹³⁰ The U.S. expanded the oil embargo in 1985 to cover all petroleum products, and in 1986, President Reagan ordered a complete trade ban with Libya. That same year, a bomb exploded in a West Berlin disco frequented by U.S. service members killing three and wounding 150. In retaliation, President Reagan ordered the bombing of Libya, and later the U.S. orchestrated the G7 industrial countries agreement to ban sales of arms to countries involved in terrorism, especially Libya.¹³¹ The bombings killed one of Gaddafi's adopted daughters, but did change his misbehavior.

¹²⁶ Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, Libya Case Study.

¹²⁷ Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, Libya Case Study.

¹²⁸ Ibid.

¹²⁹ Ibid.

¹³⁰ Meghan L. O'Sullivan, *Shrewd Sanctions: Statecraft and State Sponsors of Terrorism* (Washington D.C.: Brookings Institute Press, 2003), 178.

¹³¹ Ibid.

Although it was not evident at the time, the next step in the U.S. unilateral sanctions campaign probably did the most long-term damage to the Libyan economy. In 1986, the U.S. Treasury Department forced all U.S. oil companies still operating in Libya to leave.¹³² In effect, combined with the ban of oil field equipment sales, this action left the Libyan petroleum industry frozen in time for the better part of two decades. Libya was able to find other sources for some petroleum equipment, but the U.S. sanctions, combined with Gaddafi's erratic behavior, made Libya an unattractive place for outsiders to invest. Libya lacked the expertise to develop its oil fields on its own, and the oil industry stagnated.¹³³ Libya could sell the oil it could already produce, but it could not expand its market share. Libya was stuck with a fixed income that Gaddafi chose to spend poorly.

Beyond hobbling Libya's long-term prospects for economic growth, the period of U.S. unilateral sanctions did little to alter Libya's behavior. Whatever oil trade was lost with the U.S. was made up for by other regions. In 1980, the U.S. accounted for 35% of all Libyan exports, mainly oil.¹³⁴ By 1987, Europe had absorbed most of this market.¹³⁵ Libya was able to import goods it could no longer get from the U.S., minus many oil and aviation items, from other venues. The weapons embargo did little to affect Libya as it found a ready "black knight" with the Soviet Union. From 1979–1983, Libya purchased more than \$12 billion in military equipment from the Soviet bloc.¹³⁶ These weapons were used in Libya's military interventions in Chad, and Gaddafi's terrorist support continued unfettered. During this period Libya began its path to proliferation, and acquired a nuclear research reactor from the Soviets.¹³⁷ The U.S. sanctions did little to stem the flow of money, arms, and nuclear technology into Libya.

132 Ibid.

133 Ibid., 192–193.

134 Ibid., 190.

135 Ibid.

136 Ibid., 206.

137 "Country Profiles, Nuclear: Libya," The Nuclear Threat Initiative, accessed May 25, 2012, <http://www.nti.org/country-profiles/libya/nuclear/>.

However, three events were about to put Libya on a collision course with the UN. The first was the collapse of the Soviet Union. This resulted in Libya losing geopolitical top cover in the UN and its main supplier of armaments. The newly formed Russian Federation inherited Libya's weapons sales debt from the USSR that Gaddafi would soon be unable to service, hardly the foundation for a continued collaborative relationship.¹³⁸ The U.S. was able to cajole other countries into not selling arms to Libya and weapons imports virtually ceased.¹³⁹ The second was the move of Arab states to begin to accept Israel as a permanent entity, putting Gaddafi at odds with the rest of the Arab world.¹⁴⁰ The final factor was Gaddafi's complete overreach in support to terrorism. Up to this point, the world had been willing to tolerate Gaddafi's misdeeds, but all of this changed in 1988 when Pan Am Flight 103 exploded over Lockerbie Scotland.

C. UN MULTILATERAL SANCTIONS (1992–1999)

Libyan operatives were directly involved in the bombings of Pan Am Flight 103 and later in the 1989 Bombing of French Union des Transports Aériens (UTA) Flight 772 that exploded over Niger. Gaddafi's transgressions now took center stage in global affairs. In 1991, the UK, France, and the U.S. identified several Libyan intelligence officials who collaborated in both bombings and demanded their extradition. Libya arrested two men implicated in the bombings, but failed to extradite them. The UK began calls in the UN for sanctions against Libya, and Libya responded by offering to turn over the bombing suspects to an international tribunal. The UN rejected this offer, and in 1992, passed UNSCR 748 that imposed a total air and arms embargo.

As the case continued, the UNSC voted to ban the sale of petroleum equipment to Libya but fell short of U.S. calls for a total embargo of Libyan crude oil. Europe now imported a good bit of its oil from Libya and was only willing to sacrifice so much to punish Gaddafi. U.S. calls for tougher sanctions were resisted because many saw this

¹³⁸ O'Sullivan, *Shrewd Sanctions*, 212.

¹³⁹ *Ibid.*, 206.

¹⁴⁰ *Ibid.*, 138.

strictly as an issue among the U.S., UK, France, and Libya.¹⁴¹ In effect, the U.S. unilateral sanctions against Libya, which caused Europe to absorb the oil that the U.S. had once bought, created its own partial antidote mitigating some of the sting from multilateral sanctions.

During this period, the U.S. also passed a series of tougher laws aimed at punishing Libya.¹⁴² Libya was still able to export oil, and the sanctions had a modest, but not crippling, impact resulting in \$18 billion in total losses directly attributable to the sanctions.¹⁴³ However, the ignored calls for wider, tougher sanctions did have one positive effect. By staying narrow, they did not trigger a humanitarian, and therefore, proved sustainable.¹⁴⁴

The UN also imposed a series of financial sanctions that Libya was able to avoid in the short term because the implementation was slow.¹⁴⁵ This is a case where the ESR study's recommendation to slam the hammer, not turn the screw, proved relevant. These financial sanctions were only able to tie up under a billion dollars in Libyan assets.¹⁴⁶ However, the financial sanctions did further impede Libya's ability to secure long-term credit.¹⁴⁷ Libya also stockpiled foreign currency reserves out of uncertainty over how far the sanctions would go.¹⁴⁸ Combined with the inability to access credit, these factors prevented Libya from making long-term developmental investments especially with exploitation and exploration of its oil reserves.¹⁴⁹

Fluctuations in oil prices during the late 1990s also hurt Libya's oil-dependent economy, leaving it further weakened economically. Gaddafi had been able to use oil to

141 Cortright and Lopez, *The Sanctions Decade*, 112–113.

142 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, Libya Case Study.

143 Cortright and Lopez, *The Sanctions Decade*, 114–115.

144 O'Sullivan, *Shrewd Sanctions*, 211.

145 *Ibid.*, 196.

146 Cortright and Lopez, *The Sanctions Decade*, 115.

147 O'Sullivan, *Shrewd Sanctions*, 197.

148 *Ibid.*, 199.

149 Cortright and Lopez, *The Sanctions Decade*, 114–115.

buy off large segments of the population in a political economic system rife with corruption and cronyism.¹⁵⁰ However, because it was dependent on the single commodity of oil that it could not fully exploit, Gaddafi was vulnerable.¹⁵¹ The effect of the sanctions combined with the drop in oil revenues forced the dictator to begin economic reforms in the late 1990s. Libya opened its economy along the lines of the Chinese model—economic liberalization could occur as long as the regime retained political control.¹⁵²

These reforms were illustrative of the impact that sanctions and economic mismanagement were having on Libyan internal politics. Gaddafi's economic policies and failed foreign adventures created turbulence in the Libyan population. Gaddafi implemented a series of crackdowns on Islamist parties that had risen, in part, due to economic hardship. The sanctions hastened a domestic political crisis and forced Gaddafi to adjust both internal and external regime behavior.¹⁵³ Yet, internal politics also hampered Gaddafi's ability to get out from under the sanctions. The accused terrorists were from powerful families, and hints that Gaddafi might extradite them led to an attempted military coup in 1993.¹⁵⁴ Gaddafi crushed the coup, but was forced to deal with the factors dragging his country down. In 1999, Gaddafi handed the Lockerbie bombers to The Hague for trial.

D. U.S. UNILATERAL SANCTIONS PART 2 (1999–2004)

Starting in 1999, the UN suspended but did not lift the sanctions against Libya. The suspension of the sanctions corresponded with rising oil prices and Libya saw an uptick in its GDP to \$33.9 billion from its low point of \$25.5 billion in 1995 at the height

150 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 139.

151 *Ibid.*, 140.

152 *Ibid.*

153 O'Sullivan, *Shrewd Sanctions*, 210–211.

154 Cortright and Lopez, *The Sanctions Decade*, 113.

of the multilateral sanctions period.¹⁵⁵ At this point, UN and U.S. policy goals regarding Libya began to clash. The UN's goals had been narrowly focused on the terrorism issue, but the U.S. also wanted to diminish Libya military capacity, especially its suspected WMD programs.¹⁵⁶ During the multilateral sanctions period, the U.S. had implemented restrictions on companies that sold dual use technology to Libya, and had orchestrated the 1996 formation of the Wassenaar Arrangement to restrict the sales of dual-use technology to countries like Libya.¹⁵⁷ These measures remained in place. By that time, Libyan military capacity was already diminished. Military equipment imports had all but ceased. However, the question of WMD remained, and Libya was still actively seeking chemical and nuclear weapons.

The UN sanctions, combined with continued U.S. efforts, created a “magnification effect” that still existed after the multilateral period.¹⁵⁸ Libya was still seen as a risky place to do business. Short-term capital flowed into the country, but long-term investment and development were still problematic. Libya was living paycheck to paycheck. Gaddafi was looking for a way out and approached the Clinton administration in the late 1990s.¹⁵⁹ He reportedly placed his WMD on the negotiating table as part of this attempted opening.¹⁶⁰ This set the groundwork for a series of negotiations that concluded in 2003, which resulted in Libya publicly giving up its WMD and the final lifting of U.S. sanctions in 2004. By 2008, Libya had increased its GDP from \$25.75 in 2004 billion to \$93.2 billion.¹⁶¹ This period also corresponded with an increase in global oil sales, especially to the emerging Chinese market, and Libya was now able to develop its oil infrastructure to start to meet this demand.

155 “Gross Domestic Product: Libya,” *Google Public Data*, Source: The World Bank, accessed on November 14, 2012, https://www.google.com/publicdata/explore?ds=d5bncppjof8f9_&met_y=ny_gdp_mktp_cd&idim=country:LY&dl=en&hl=en&q=libya%20gdp.

156 O'Sullivan, *Shrewd Sanctions*, 205.

157 Cirincione et al., *Deadly Arsenals*, 307.

158 *Ibid.*, 218.

159 *Ibid.*, 319.

160 Newnham, “Carrots, Sticks, and Bombs,” 89.

161 “Gross Domestic Product: Libya,” *Google Public Data*

E. LIBYA'S SECURITY SITUATION: A SELF-IMPOSED MESS

The late Colonel Gaddafi had no real threats to its external security beyond those that Gaddafi's actions created. Libya had no regional rival to prompt its proliferation and was never seriously threatened by an outside power.¹⁶² Instead of structuring his military around existing threats, Gaddafi engaged in military adventures that made his country appear reckless and aggressive. Libyan troops engaged in two border clashes with Egypt, and Gaddafi even sent a small contingent of troops to fight in Lebanon in the 1980s. He continuously meddled in the affairs of his neighbors, which steadily diminished his standing in the Arab and Muslim world.

The most notable of these adventures was a series of interventions in Libya's neighbor to the south, the beleaguered Republic of Chad. A former French Colony, Chad engaged in a series of civil wars that lasted throughout from the mid-1960s through the early 1980s. In the late 1970s, Gaddafi intervened and began a series of interventions in Chad's taking sides his neighbor's internal disputes to further his own goals. Gaddafi's interests included the possible annexation of part or all of Chad into Libya or at the very least creating a Libyan client state.¹⁶³ He also was interested in supporting ethnic Arabs and Muslim coreligionists.¹⁶⁴

In 1973, Libya seized a mineral rich portion of northern Chad known as the Aouzou Strip.¹⁶⁵ This area reportedly has large deposits of natural uranium although there is no indication that Gaddafi ever made an effort to extract the uranium in support of his nuclear programs. By 1983, Libyan had spent \$4.2 billion in arms, or 26.6% of the government's budget, on the military, in large part to fortify his hold over the occupied Aouzou Strip.¹⁶⁶ A series of offensives and counter-offensive involving support from the U.S., France, and the USSR evolved throughout the 1970s and 1980s until Algeria finally

¹⁶² Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 146.

¹⁶³ Mario Azevedo, *Roots of Violence: A History of War in Chad* (Charlotte, North Carolina: University of North Carolina Press, 1998), 151

¹⁶⁴ Ibid.

¹⁶⁵ Clyde R. Mark, *CRS Issue Brief for Congress: Libya* (Washington, D.C.: Congressional Research Service, April 10, 2002), 8.

¹⁶⁶ Azevedo, *Roots of Violence*, 151.

brokered a peace deal between the two nations, but Libya remained in the . Aouzou Strip. In 1990, the two sides in submitted the matter to International Court of Justice, which ruled in favor of Chad. The UN monitored the withdrawal of Libyan forces that was completed in 1994.¹⁶⁷ Gaddafi had spent billions with nothing to show for it beyond making his regime appear reckless and aggressive, putting him further at odds with the West. Further, if Gaddafi's goals were to exploit the uranium in the Aouzou strip, then sanctions played a role in inhibiting this. Gaddafi was choked from the capital required for long-term development projects like uranium mining and processing. In the end, Libya spent its money holding onto a resource it could not use.

Beyond military adventurism, Gaddafi engaged in international intrigue as well. He openly supported movements like the Palestinian Liberation Organization, the Red Brigades, and Irish Republican Army. Libyan supported organizations were implicated in a series of terrorist acts that increasingly put it at odds with the West. Libyan backed terrorist groups conducted a series of attacks in Europe targeting several countries. In 1986, three Libyan intelligence officers conducted a bombing in a Berlin Disco that killed two U.S. service members, and Ronald Reagan ordered a bombing raid on Libya in retaliation. The U.S. also reportedly supported Libyan opposition movements that had the goal of overthrowing the Gaddafi regime. In short order, Gaddafi faced military strikes, sanctions, and covert actions because of the positions he adopted and actions his government carried out.

The global political climate began to shift away from Gaddafi. His anti-colonial message lost power as the post-colonial period ended. The Arab world began to normalize relations with Israel and pan-Arabism died. The Soviet Union collapsed, evaporating whatever usefulness Gaddafi might have had as a Cold War foil in North Africa. European revolutionary terrorist groups like the Red Army Faction faded into oblivion. The multilateral sanctions period saw Gaddafi's Libya being punished for participating in a conflict that no longer existed. Ultimately, Gaddafi took responsibility for his terrorist actions and shifted his attention to Africa, where his oil money was able

¹⁶⁷ Mark, *CRS Issue Brief for Congress: Libya*, 8.

to purchase higher standing. He extradited the Lockerbie bombers to Scotland and paid restitution for other actions. The multilateral sanctions were suspended, but during this period, Gaddafi had adopted another course that kept him at odds with the West—the proliferation of WMD.

F. THE WHITE ELEPHANT

From almost the beginning of his regime, Gaddafi sought a nuclear capability. He viewed this as an Arab obligation to counter the undeclared Israeli nuclear arsenal.¹⁶⁸ Beyond attempt to purchase nuclear weapons, Libya also embarked on a program to develop its own nuclear capability. Libya sought to enter into nuclear collaboration arrangements with various other countries, and finally in 1981, the Soviets built a small research reactor for the Libyans.¹⁶⁹ In this sense, Libya followed a similar proliferation pattern as other countries. They were supplied with nuclear technology for outwardly peaceful purposes that ended up creating a dual-use dilemma.

Like other proliferators, Libya kept up the appearance of adhering to international norms. In 1971 Libya became a party to the 1925 Geneva Protocol banning the use of chemical and biological weapons in war.¹⁷⁰ Libya signed the BWC in 1982 and ratified the NPT in 1975 that had been signed by the deposed king.¹⁷¹ Along with other Arab nations, Libya refused to sign the CWC to protest Israel's failure to sign the NPT.¹⁷² Libya also supported the 1996 African Nuclear Weapon Free Zone Treaty.¹⁷³ Libya also placed Soviet supplied research reactor that came online in 1983 under IAEA safeguards.¹⁷⁴

Beyond outward appearances, however, Libya began work on acquiring the means to produce nuclear weapons in the late 1970s and early 1980s. Libya was

168 Ibid., 4.

169 Ibid.

170 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 128.

171 Cirincione et al., *Deadly Arsenals*, 321.

172 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 128.

173 Cirincione et al., *Deadly Arsenals*, 322.

174 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 129.

scientifically backwards and did not have a readily available supply of uranium so it had to rely on foreign sources for both technological support and fuel.¹⁷⁵ From 1978 to 1991, Libya imported more than 2,263 metric tons of yellowcake uranium.¹⁷⁶ Libyan scientists also began small-scale work on converting yellowcake into uranium hexafluoride for use in centrifuge isotope separation in the early 1980s.¹⁷⁷ These experiments apparently ended in 1989 but resumed for a period in 1994 when Gaddafi sought to reinvigorate his nuclear programs.¹⁷⁸ The Libyans ordered a uranium hexafluoride production facility from a foreign vendor, but it never went into operation because key components of the facility were never received.¹⁷⁹ Beyond receiving small batches of uranium hexafluoride for experiments, Libya was never able to mount a large-scale uranium gaseous diffusion effort, a key step in enriching uranium for bombs or for use as nuclear reactor fuel to create plutonium.¹⁸⁰ Additionally, Libya reportedly never received the required fabrication equipment to make fuel for reactors.¹⁸¹

Libya also acquired centrifuge technology from foreign sources, including the notorious AQ Khan network in Pakistan, and experimented with building centrifuge enrichment cascades. However, the largest cascade Libyan scientists managed to construct was composed of nine centrifuges.¹⁸² It takes hundreds, if not thousands of centrifuges, linked together to enrich uranium on an industrial scale. Libyan scientists also received training in enrichment techniques from foreign sources, and collaborated with North Korea in uranium gaseous diffusion technology.¹⁸³ In 2003, a ship loaded with enrichment equipment manufactured in Malaysia by the AQ Khan network was seized under the auspices of the U.S. sponsored Proliferation Security Initiative. Even if

175 Ibid.

176 Cirincione et al., *Deadly Arsenals*, 322.

177 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 130.

178 Ibid.

179 Cirincione et al., *Deadly Arsenals*, 322.

180 Ibid.

181 Ibid.

182 Ibid.

183 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 131.

Libya had ever been able to produce uranium hexafluoride on the required scale, it now no longer had the centrifuges required to enrich it.

Apart from its nascent efforts at enriching uranium, Libya managed to acquire an outdated Chinese nuclear warhead design from the AQ Khan network for the reported price of \$50 million.¹⁸⁴ However, there is little evidence that Libya acted to turn these designs into an actual weapon. Libyan nuclear scientists did not collaborate with its missile scientists or create any facilities devoted to developing and testing nuclear weapon components.¹⁸⁵ Libya's ability to deliver a warhead that it had yet to build was also problematic. Its missile arsenal consisted mostly of short range SCUD-Bs with a 175-lb payload and a few North Korean SCUD-Cs with a 1500-lb payload.¹⁸⁶ By comparison, the U.S. "Little Boy" atom bomb, the type Libya could most easily develop with the technology it sought, weighed 9,700 lbs. The Libyans were developing a bigger indigenous missile, but this project was hampered by the sanctions regime against it.¹⁸⁷ Therefore, even if the technologically backwards Libyans had been able to build a bomb, they did not possess a missile to deliver it without first managing to make a very advanced lightweight warhead. The Libyans did operate a few Soviet made T-22 bombers capable of carrying a 20,000-lb payload, which could have been used to deliver nuclear bombs, but there is no evidence the Libyan Air Force took steps to make these bombers nuclear capable.

The best way to describe Libya's efforts to acquire nuclear weapons is that it dabbled in proliferation. In 2004, then Libyan Foreign Minister Rahman Shalgam seemed to confirm this when he stated, "We had the equipment; we had the material and the know-how and the scientists. But we never decided to produce such weapons. To have flour, water and fire does not mean that you have bread."¹⁸⁸ How able the Libyans were to cook their nuclear "bread" is debatable, but the nuclear efforts never looked very

184 Cirincione et al., *Deadly Arsenals*, 323.

185 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 131.

186 Ibid., 128–129.

187 Ibid., 129.

188 "Nuclear Threat Initiative. Country Profiles, Nuclear, Libya," The Nuclear Threat Initiative, accessed on May 25, 2012, <http://www.nti.org/country-profiles/libya/nuclear/>.

serious, especially when compared with countries like South Africa and Iraq. Libya was able to achieve some success in acquiring chemical weapons and manufactured 23 metric tons of mustard agent and approximately 3,000 chemical warheads.¹⁸⁹ Again, when compared to the 760 tons of chemical weapons including the highly complex agent VX that UN inspectors destroyed in Iraq after the Gulf War, Libya's proliferation efforts look meager.¹⁹⁰

G. MUAMMAR'S BARGAIN AND THE IMPACT OF SANCTIONS

Sanctions didn't stop Gaddafi from proliferating, but they did, when combined with fluctuations in oil prices and changes in Libya's place on the world's stage, influence his decision to give up his WMD. As stated in the literature review, there are two competing narratives regarding Gaddafi's decision to reverse his proliferation. The first, as advocated by the Bush administration, was the "pedagogic" value of the Iraq War. The logic of this argument is that dictators with WMD were put on notice that their violations would not be tolerated, and Gaddafi blinked. In light of the WMD debacle in Iraq and the subsequent lingering insurgency, the Bush administration was clearly looking for good news. A Libyan proliferation reversal by way of Baghdad neatly fit the Bush administration's narrative.

The competing narrative is that sanctions and diplomacy provided the incentive for Gaddafi to come in from the cold. This narrative adheres closer to the facts. Sanctions left Libya isolated and stunted. The multilateral sanctions against Gaddafi actually worked very quickly because shortly after they were imposed, he offered up the suspected terrorists to an international tribunal. The Western senders rejected this, but seven years later, the extradition deal that was worked out was very similar to what Gaddafi had originally offered.¹⁹¹ The final unilateral phase of U.S. sanctions still had an impact, and Gaddafi was looking for a way out from under them. Further, Gaddafi had

¹⁸⁹ Cirincione et al., *Deadly Arsenals*, 324.

¹⁹⁰ Ibid., 343.

¹⁹¹ Cortright and Lopez, *The Sanctions Decade*, 199.

quietly offered to give up his WMD during the Clinton Administration; however, this offer was entangled in the Lockerbie affair. The deal was never negotiated further.¹⁹²

The events of September 11, 2001, presented Gaddafi an opportunity to realign with the West.¹⁹³ He had internal struggles with Islamist organizations within his own borders, and saw that he now had a common enemy with the U.S.. Gaddafi was a Muslim but not necessarily an Islamic fundamentalist. His government was secular—officially a *socialist* vice *Islamic* republic.¹⁹⁴ He quickly renounced the attacks and Al Qaeda, and he began a collaborative intelligence relationship with the West.¹⁹⁵ After the end of multilateral sanctions, U.S. analysts concluded that Gaddafi had curtailed his support to international terrorism, but the U.S. still officially label Libya as a state sponsor of terror.¹⁹⁶ Denouncing and collaborating against al Qaeda made an improved Libyan relationship with the U.S. feasible, but WMD remained a key issue with Western policy makers.

To that end, the U.S. and UK began a series of secret negotiations with Gaddafi which lasted from 2001 to 2003. Economic sanctions played a key role in these negotiations.¹⁹⁷ U.S. sanctions remained and the UN sanctions had been suspended but not lifted. If the WMD issue could be resolved, the sanctions from all senders might be lifted for good. Gaddafi desired to once again be a player on the international stage and greatly desired an end to his nation's isolation and economic stagnation.¹⁹⁸ The U.S. quietly offered the dictator a security guarantee, and the deal was struck.¹⁹⁹ The U.S. began to lift sanctions, and the UN permanently lifted its own. The Libyan economy

192 Newnham, "Carrots, Sticks, and Bombs," 89.

193 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 144.

194 Newnham, "Carrots, Sticks, and Bombs," 91.

195 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 144.

196 Newnham, "Carrots, Sticks, and Bombs," 88.

197 Ibid., 89.

198 Ibid.

199 Ibid., 78.

surged, resulting in \$66.1 billion in exports during 2008, a figure almost ten times 1998's total of \$6.8 billion.²⁰⁰

The end to Libya's WMD programs was quick and un-dramatic. Teams of inspectors from U.S. and UK agencies along with the IAEA and OPCW descended on Libya. U.S. and British officials immediately removed the most sensitive components of the WMD programs including the nuclear weapons designs acquired from AQ Khan.²⁰¹ After this, the long process of dismantling Libya's nuclear infrastructure and proliferation network began. Libya declared its chemical stockpiles to the OPCW, which led the destruction effort. Libya then sought approval to convert its chemical weapons production facility to a pharmaceutical plant.²⁰²

Gaddafi's WMD dabbling was soon over.

H. IMPLICATIONS AND CONCLUSIONS: THE CARROT AND STICK WORKS

Both Western and international officials were amazed at the level of cooperation from Libya. Like South Africa, it went from a WMD pariah to a paragon in short order. And like South Africa, sanctions played a role but were not necessarily decisive in forcing Libya to change course. Gaddafi's shifts in interests and the global geopolitical shift towards the U.S. at the end of the Cold War played a role as well. Notably, multilateral sanctions, when applied, worked quickly against Libya. Gaddafi was eager to deal with the senders who, in turn, did not at first accept his terms. Further, during the multilateral sanctions period, shrewder diplomacy could have done more to end Gaddafi's proliferation while concurrently ending his support of terrorism. It was a missed opportunity that the Clinton administration could have exploited had it been able to bear the political cost.

In this way, the Libya case presents several implications for policy makers. The first is the unsavory nature of diplomatic dealings with dictators and rogue regimes. The

200 Ibid., 92.

201 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 126.

202 Cirincione et al., *Deadly Arsenals*, 324.

costs of negotiating with Gaddafi may have been too high for the already wounded Clinton administration. Keeping U.S. sanctions against Libya in place was politically more expedient than going before an already antagonistic Congress and asking for the lifting of U.S. laws prohibiting trade with Libya. Additionally, there was no demand from the international community for the U.S. to lift the sanctions. There was no lingering humanitarian crisis like the one unfolding in Iraq at the same time to prompt the world to demand action.

Further, negotiating with Gaddafi was politically risky in itself. He had already demonstrated himself untrustworthy in the West's eyes. The narrow focus of the multilateral sanctions period to the extradition of terrorists meant that compliance was easily verifiable despite the climate of mistrust. The suspension vice lifting of the multilateral sanctions meant that further Libyan misbehavior could be quickly punished. The WMD issue presented a thornier problem for negotiations. When the deal was finally struck, the rigorous inspection and verification efforts demonstrated a good model of working with disagreeable regimes. However, all this hinged on Gaddafi's openness and willingness to cooperate. In this sense, Libya also presents a good example of delinking regime change with other issues like WMD. The security guarantee extended to Gaddafi facilitated both sides negotiating in good faith. Gaddafi could feel that he was not giving up his one trump card against the threat of the U.S. Marines returning to the shores of Tripoli. In this sense, Bush was able to do something politically that Clinton couldn't. After toppling the Taliban and invading Iraq, no one could assail Bush politically for being soft on terror or rogue states. But the "pedagogic" lesson of the Iraq invasion was better suited for U.S. domestic political audiences.

Another implication for policy makers is one that is beyond the scope of this thesis but useful for consideration. Given the limited nature of Gaddafi's proliferation, were continued U.S. unilateral sanctions after the multilateral period prudent? Economic woe fueled the firestorm of the Arab Spring. Libya was a tinderbox of economic problems that sanctions, combined with Gaddafi's policies, helped create. The Arab Spring lit the spark that burned down Gaddafi's regime. The aftermath of the Libyan civil war has been instability that claimed the life of the U.S. ambassador to Libya and seen

the spread of Islamist groups that Gaddafi himself feared. The Libyan Civil War sucked NATO and the U.S. into another military intervention in the Middle East, and created a conventional weapons proliferation risk from items like shoulder fired surface to air missiles. However, given the fact that Libya was a nuclear proliferator the answer must be yes, the sanctions should have stayed in place in order to stop Gaddafi's nuclear ambitions. The threats spawned by the Libyan Civil War are much more manageable without the added factor of nuclear weapons. In the end, Gaddafi's demise was his own doing, and the West prevented the potential horrific consequences of loose nuclear weapons in a raging civil war.

IV. IRAQ: A MELANCHOLY BATTLE WON

The sanctions episode against Iraq began and ended with war. Starting with a limited U.S. embargo of chemical sales in 1984 and lasting until officially lifted by the UN in 2010, sanctions against Iraq present a tragic bookend to the sanctions era that the victory over apartheid began. The Iraq case represents a proliferation victory in the sense Saddam Hussein was stripped of his WMD, but it was a pyrrhic victory for the senders and a tragedy for the Iraqi people. Uncertainty about proliferation prompted the U.S. to invade Iraq, and despite the absence of WMD, many still believe the Iraq case discredits the utility of sanctions as a nonproliferation tool. Further, the humanitarian impact on the people of Iraq demonstrated the consequences of economic coercion with the Iraqi people suffering the whims of both sides. The humanitarian impact of the Iraq episode created the impetus for the implementation of so-called smart sanctions, which as of this writing, are being put to the test in Iran.

The perceived failure of sanctions in Iraq also creates the impetus for military action against Iran as the only “sure” solution to end Iranian nuclear ambitions. However, as the cases of South African and Libya demonstrated, sanctions can be a useful tool for ending proliferation as long as a viable political solution for all sides is available. With Iraq, there was little room for compromise, and the perceived failure of sanctions to disarm Saddam Hussein were as much a function of internal politics on both sides as they were a proliferation issue. The truth is that Saddam Hussein disarmed, as will be discussed later in this case study, well before Secretary of State Colin Powell’s infamous 2002 address to the UN about Iraq’s illicit arsenals but the dictator was politically unable to admit it until the very end. The Bush administration chose to invade rather than wait for verification of disarmament—a decision that would drag the U.S. into a lingering insurgency and cost it much of its credibility regarding proliferation issues.

A. IRAQ: BUILT FOR VIOLENCE

Iraq is a nearly land locked artificiality carved from the post-First World War remains of the Ottoman Empire. The borders of Iraq encompass roughly 168,000 square

miles of territory with only 36 miles of coastline.²⁰³ Almost from its inception, Iraq's access to the Persian Gulf has been threatened, a contributing factor in two of Iraq's wars. Additionally, Iraq is surrounded by powerful rivals and its borders sit astride cultural and religious fault lines that pull it apart from within and without. Within this context, the *state* of Iraq does not reflect anything that can be accurately called the *nation* of Iraq. It is little wonder that anyone trying to govern it resorts to brutality and violence both on its neighbors and populace.

The artificiality of Iraq led to the lack of institutionalization, which in turn drove a series of violent changes of power.²⁰⁴ Iraq's system of political violence began in the 1930s when military coups targeted the monarchy that the British had installed in the 1920s.²⁰⁵ Iraqi nationalists who had attempted to overthrow the Monarchy clashed with the British Army in 1941. In 1958, a military coup led by General Abd al-Karim Qasim overthrew the monarchy and immediately began to clash with the Ba'ath party over support Nasser's Pan Arab ideas, which the Ba'athist supported.²⁰⁶ Eventually, the military overthrew General Qasim, which in turn set motion another series of power struggles for control of Iraq. The Ba'athists eventually consolidated power and took control.²⁰⁷

Against this backdrop, Saddam Hussein came to power, first as a presidential deputy and later as President. Upon assuming role as President, Hussein violently consolidated power and his rule lasted from 1979 until 2003 when he was ousted by the U.S. led invasion of Iraq.²⁰⁸ Saddam's Ba'athism was a mix of Arab nationalism and socialism that evolved into a personality cult and patronage network designed to keep

203 "CIA World Factbook: Iraq," Central Intelligence Agency, accessed on October 28, 2012, <https://www.cia.gov/library/publications/the-world-factbook/geos/iz.html>.

204 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 139.

205 Ibid., 45.

206 Charles Tripp, *A History of Iraq*, Second Edition (Cambridge: Cambridge University Press, 2000), 149, 152, 153.

207 Ibid., 196

208 Tripp, *A History of Iraq*, Second Edition, 222.

him and his inner circle in power.²⁰⁹ He built Iraq's economy on a state planned model, and viewed Iraq as a natural leader in Middle Eastern affairs. In the 1970s, Iraq's oil revenues skyrocketed which facilitated military expansion.²¹⁰ It was in this period that Iraq began to seek nuclear and chemical weapons.

Regional rivalries and the desire for power fueled Saddam Hussein's pursuit of WMD. He viewed Iraq's proper place as the dominant power in the region, and WMD was a way to insure Iraq's dominance over regional rivals.²¹¹ Further, two regional rivals, Israel and Iran, already had nuclear programs to go along with a history of regional tensions. Iraq had participated in the failed Arab campaigns against the Israelis, and like Gaddafi, Saddam Hussein rejected Nasser's peace with Israel viewing confrontation with Jewish state as an opportunity to assert himself in the Arab world.²¹² In Iran, the Shah had started the Iranian nuclear program that Saddam Hussein felt compelled to match.²¹³

B. THE ORIGIN OF SADDAM'S BOMB

Like many other proliferators, Iraq's nuclear program had its origins in the Atoms for Peace program in the 1950s. Iraq received initial assistance from the U.S., and then later from the Soviet Union. In 1967, a Soviet-built 2-megawatt reactor began operation at the Tuwaitha site in Iraq.²¹⁴ Iraq signed the NPT in 1968 and ratified it in 1969.²¹⁵ In the interim, the Ba'athists seized power.

Iraq began a covert program pursuing a nuclear weapon in 1971 while maintaining the outward look of compliance by placing its nuclear activities under IAEA safeguards.²¹⁶ In 1973, the French agreed to build the Osirak nuclear reactor in exchange

209 Ibid., 226.

210 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 54.

211 Cirincione et al., *Deadly Arsenals*, 331.

212 Tripp, *A History of Iraq*, Second Edition, 123, 188, 210.

213 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 54.

214 "Iraq Nuclear Chronology," The Nuclear Threat Initiative, accessed on October 28, 2012, http://www.nti.org/media/pdfs/iraq_nuclear.pdf?_=1316466791.

215 Ibid.

216 Ibid.

for oil concessions.²¹⁷ At the same time, Saddam Hussein ordered the Iraqi intelligence services to penetrate the IAEA in order to learn how to subvert the inspection process.²¹⁸ Iraq continued to seek training and outside assistance for its nuclear engineers and scientists who over time built the required expertise to run a nuclear weapons program. Construction on the Osirak reactor began, and Iraq began seeking import sources of yellowcake and other nuclear materials.²¹⁹ The region became unsettled over the reactor and many correctly interpreted it as a clear sign that Iraq was seeking a nuclear capability. In fact, the region had good reason for this concern because Iraq planned to use the reactor to produce plutonium for nuclear weapons.²²⁰

C. IRAN AND SADDAM'S EDUCATION IN THE STRATEGIC UTILITY OF WMD

The Iranian revolution presented both a strategic threat and opportunity for Saddam Hussein. There was already strategic tension between the two nations. In 1971, after the British withdrew the last of their troops from the Persian Gulf region, the Iranians had seized two strategic islands, Greater and Lesser Tunbs, at the mouth of the Persian Gulf. This exacerbated Iraqi fears of being shut out of their already limited access to water and shipping lanes.²²¹ In a further geographical complication, Iraq was unsatisfied with the OPEC brokered 1975 Algiers Accords that had settled the border dispute between Iran and Iraq in the Shatt-el-Arab waterway at the head of the Persian Gulf.²²² Geography and demographics combined to form the final strategic threat to Iran generated by the Iranian revolution. Iraq's southern oil fields and its diminutive strip of

217 Ibid.

218 Ibid.

219 Ibid.

220 Cirincione et al., *Deadly Arsenals*, 338.

221 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 54.

222 Kevin Woods, Williamson Murray, Elizabeth Nathan, Laila Sabara, and Ana Venegas, *Saddam's Generals: Perspectives of the Iran-Iraq War* (Alexandria, Virginia: Institute for Defense Analysis, 2010), 10.

coastal access is dominated by Shias. If the revolution spread to this population, as Khomeini had already agitated for, Iraq could lose control of these vital areas.²²³

However, the Iranian military was reeling from the revolution, and Saddam Hussein sensed opportunity within the risks. Iraq had an opportunity to expand its access to the Persian Gulf, further assert itself the region, and improve relations with the West, especially the U.S..²²⁴ Diplomatic relations between Iraq and the U.S. had soured after Iraq's involvement in the 1967 war against Israel, but Saddam saw that he now had a mutual enemy with the U.S. in Iran. In September 1980, rather than wait for the revolution to spread into his border, Iraq attacked.

Iran feared Iraq's nuclear programs, and just after the start of the Iran-Iraq war in 1980, the Iranians attempted to bomb the Osirak reactor but failed.²²⁵ Later in June of 1981, the Israelis destroyed the Osirak reactor in a precision bombing raid. The raid on Osirak did not stop Iraq's nuclear ambitions. It forced the Iraqis to shift their emphasis from plutonium to HEU, and Iraq invested in every viable method of uranium enrichment ranging from centrifuges, electromagnetic separation, and laser isotope separation.²²⁶

Beyond the setback of the raid on Osirak, Saddam's instinct that the Iranian Army was in flux in the wake of the revolution proved correct, and the Iraqi attack send the Iranians reeling. However, Saddam failed to establish strategic and operational goals for his Army. The Iranians recovered from the initial shock of the invasion and the war quickly devolved into a primitive war of attrition, which as it dragged out threatened to topple Saddam's Ba'athist regime from power.²²⁷ Harkening back to the brutal stalemate of the First World War, Saddam turned to unconventional weapons to break the stalemate against Iran.²²⁸ Iraq used chemical weapons extensively against the Iranians. The Iranians developed their own chemical weapons program in response that they

223 Tripp, *A History of Iraq*, Second Edition, 204.

224 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 49 and 51.

225 "Iraq Nuclear Chronology," The Nuclear Threat Initiative.

226 Cirincione et al., *Deadly Arsenals*, 338.

227 Woods et al., *Saddam's Generals: Perspectives of the Iran-Iraq War*, 10.

228 Cirincione et al., *Deadly Arsenals*, 331.

quickly abandoned after the war, but not before demonstrating the utility of unconventional weapons to both sides.²²⁹

The war also saw both sides use of missile strikes to target each other's cities. The war would last until 1988 when the UN brokered a cease-fire. Iraq made no gains in territory and incurred a heavy cost in both lives and treasure.²³⁰ In fact, for a period during the war, Iraq's fears of being landlocked were realized when an Iranian offensive cut off Iraq's Persian Gulf access.²³¹ Instead of becoming the Arab leader of the region, Saddam had to rely on other nations like Kuwait and Saudi Arabia for access to the Gulf, and borrowed over \$20 billion from Kuwait to finance the war with Iran.²³²

As much as the Iraqi military adventure into Iran proved to be a failure, Saddam's political instincts about the U.S. proved correct. The U.S. removed Iraq from the State Sponsors of Terror list in 1983.²³³ Diplomatic relations between the two nations were restored in 1984, and the U.S. provided intelligence about Iran to Iraq.²³⁴ The U.S. was largely willing to ignore Iraqi misbehaviors during this period. The U.S. Congress advocated sanctions against Iraq because of its chemical weapons use against Iran and the Iraqi Kurds. In another instance similar to the South Africa case, the geopolitical situation of the day trumped proliferation concerns. President Ronald Reagan had the proposed sanctions legislation amended to give him the power to enact them, and during this period, no economic sanctions were placed on Iraq.²³⁵ The only steps the U.S. took against Iraq's burgeoning chemical warfare programs were to an embargo on the sale chemical weapons precursors.²³⁶

229 Ibid., 296.

230 Tripp, *A History of Iraq*, Second Edition, 248.

231 Ibid., 241

232 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, Iraq Case Study.

233 Ibid.

234 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 51.

235 Ibid.

236 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, Iraq Case Study.

Beyond the minor impediment of chemical sales, U.S. tolerance of Saddam's misbehavior extended to even when American lives were at stake. In 1978, during the so-called Tanker War period of the Iran-Iraq War, a case of mistaken identity caused Iraqi warplanes to bomb the *USS Stark* killing dozens of U.S. sailors. The U.S. did not punish Iraq over this but instead blamed Iran for creating the tension in the Persian Gulf that led to the attack.²³⁷

The U.S. and Iraq weren't exactly allies, but relations weren't bad either. President George H.W. Bush decided to follow a policy of constructive engagement with Baghdad after the Iran-Iraq War ended. Iraq became the ninth largest importer of U.S. agricultural goods.²³⁸ The immediate period after the war saw Iraq's GDP grow to \$48 billion, nearly what it had been in 1979 prior to the war and its subsequent crash to \$32 billion in 1981.²³⁹ Despite this improvement, Saddam's ambitions were not satisfied, and turned his eyes south to Kuwait.

D. THE MOTHER OF ALL SANCTIONS REGIMES

The drumbeats to Iraq's invasion of Kuwait began soon after the war with Iran ended. Iraq had a disputed border with Kuwait, and accused Kuwait of taking advantage of the Iran-Iraq war to covertly pump oil in Iraqi territory using slant drilling techniques.²⁴⁰ Iraq also accused Kuwait and other countries of exceeding their OPEC oil production quotas and keeping oil prices artificially low, which in turn forced Iraq to borrow more money from Kuwait.²⁴¹ The Saudis hosted a series of talks between Kuwait and Iraq in hopes of resolving the situation.

237 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 51–52.

238 Ibid., 52.

239 "Gross Domestic Product: Iraq," Google Public Data, Source: The World Bank, accessed on November 14, 2012, https://www.google.com/publicdata/explore?ds=d5bncppjof8f9_&met_y=ny_gdp_mktp_cd&idim=country:IRQ&dl=en&hl=en&q=iraq%20gdp.

240 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, Iraq Case Study.

241 Ibid.

In the interim, the thawing relations between Baghdad and Washington began to chill. Iraq's nuclear proliferation continued, and Iraqi nuclear scientists were working on creating a small arsenal of HEU implosion weapons by April of 1991.²⁴² The Iraqi nuclear program did not deliver the bombs on time, but the Bush Administration began to have concerns over Iraq's nuclear programs. In one of several similar incidents, British customs inspectors had seized U.S. made components bound for Iraq that could be used in nuclear bomb triggers.²⁴³ In response, the U.S. imposed export controls over sensitive nuclear technology.²⁴⁴ In July of 1990, the U.S. Congress passed legislation limiting agricultural export credit benefits to sales of countries accused of human right violations, proliferation, and terror sponsorship. Iraq was on the list of violators, and the legislation would have cost Iraq \$1 billion in annual import credits.²⁴⁵

The Saudi Arabian led attempts at diplomacy failed, and Kuwait refused to meet Iraqi demands. The talks collapsed on the eve of the invasion, and on August 2, 1990, Iraq invaded Kuwait. Saddam Hussein's brazenness shocked the world into action. In an operation that would soon be dubbed Operation Desert Shield, the U.S. quickly went into action by mobilizing a broad coalition and dispatching forces to Saudi Arabia to prevent Iraq from attacking further south. The UN moved quickly, and four days after the Iraqi invasion, the UNSC passed UNSCR 661 demanding the Iraqi withdrawal from Kuwait and imposing a near total trade, oil, and financial embargo.²⁴⁶ As the sanction tightened over the coming months, the UN hoped that they would force a political solution to Iraq aggressiveness without a war to eject it from Kuwait. Prominent U.S. senators argued that Iraq could be economically bludgeoned into submission.²⁴⁷

On the surface, Iraq was vulnerable to sanctions. Like Libya, its economy was depended on oil with 95% of its foreign currency earnings and 60% of its GDP derived

242 Cirincione et al., *Deadly Arsenals*, 338–339.

243 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, Iraq Case Study.

244 Ibid.

245 Ibid.

246 Cortright and Lopez, *The Sanctions Decade*, 40.

247 Ibid., 43.

from oil revenue.²⁴⁸ Iraq's economy quickly collapsed and its GDP plummeted.²⁴⁹ However, chances of the sanctions' success were impeded by two factors identified in the ESR study. Dictatorships are often extremely resilient to economic hardship, and sanctions rarely work at ending military adventures. Iraq remained in Kuwait, and Saddam Hussein's rhetoric grew more defiant. On November 29, 1990, the UNSCR 678 authorized member states to liberate Kuwait if Iraq did not withdraw by January 15, 1991.²⁵⁰

Sanctions did not force Iraq from Kuwait. The UN deadline passed, and a broad U.S.-led coalition launched Operation Desert Storm that would deliver a crushing defeat to Iraq and quickly liberate Kuwait. On February 28 1991, coalition forces halted their advance and an informal ceasefire went into effect. The UN passed UNSCR 686 outlining the terms of Iraqi compliance with a formal ceasefire to which Iraq agreed.²⁵¹ In short order, the Shias in southern Iraq and the Kurds in the north, encouraged by U.S. calls to rise up against Saddam Hussein's regime, were in open revolt. His military in disarray, Saddam's Hussein's days in power seemed numbered.

During the war, WMD were a rhetorical factor, but not a military one. Iraq had grown to see CB weapons as "strategic" in nature for use against cities in nearby countries.²⁵² During the war, Iraq reportedly armed some of its missiles with CB warheads, and dispersed them with orders for use only if Baghdad was threatened.²⁵³ President Bush responded by putting Iraq on notice that the use of CB weapons was a red line that would cause massive retaliation. The war passed without the employment of unconventional weapons by either side. However, as will be discussed, later in this case study, the post-war period revealed the extent of Iraq's WMD efforts and precipitated a long-term crisis that would ultimately lead to the U.S. invasion of Iraq in 2003.

248 Ibid.

249 Ibid.

250 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, Iraq Case Study.

251 Ibid.

252 Joseph Cirincione et al., *Deadly Arsenals*, 343.

253 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 54.

A month after the end of the conflict, the UN passed UNSCR 687 that formally outlined the terms of the ceasefire and set eight conditions for the lifting of sanctions. UNSCR 687 demanded the following:

- Formal recognition of UN demarcated borders with Kuwait.
- The establishment of a demilitarized zone with UN peacekeepers along the Iraq-Kuwait border.
- Elimination of Iraq's CB weapons and long-range missile programs and the acceptance of UN monitors to insure compliance.
- Elimination of Iraq's nuclear programs under IAEA supervision.
- The return of stolen Kuwaiti property.
- Iraqi acceptance of war damage liability and a compensation fund to be managed by the UN.
- Repatriation of all Kuwaiti and third party nationals.
- An Iraqi commitment not to support acts of international terrorism.²⁵⁴

Iraq accepted the UN's terms yet remained defiant, labeling UNSCR 687 as an assault on its sovereignty.²⁵⁵ In the meantime, Saddam Hussein went about ruthlessly preserving his regime. The remnants of his military that had withstood the punishing allied assault, especially the elite Republican Guards units that had been able to escape Kuwait, reconstituted and began to put down the rebellious Iraqi population. In response, the U.S. and UK implemented Operations Northern and Southern Watch which included "no-fly" and "no-drive" zones for the Iraqi military in hopes of averting an outright civilian slaughter. Under the protection of allied air cover, the Kurds in the north were able to carve out autonomous bits of territory that they were able to hold until the fall of the regime in 2003. The Shias in the south did not fare as well, and their rebellion was suppressed. Most importantly to Saddam Hussein, the regime retained control of Iraq's northern and southern oilfields.

With the uprisings put down or at least contained, Saddam set about re-tightening his grip on power. The bombing campaigns of Operation Desert Storm had crippled Iraqi

²⁵⁴ Cortright and Lopez, *The Sanctions Decade*, 42.

²⁵⁵ Ibid.

infrastructure, and the sanctions prevented importing of goods required to rebuild it.²⁵⁶ The regime stayed in power by taking care of the elites in Baghdad and stripping other areas of parts to repair the capital's infrastructure.²⁵⁷ Repair in rebellious areas was ignored, and Saddam was able to further placate Baghdad elites. Further, he appealed to Iraqi nationalism and convinced the Sunni's that he had saved them from the Shia uprising and the specter of Iran.²⁵⁸

The sanctions deeply affected the Iraqi economy, but the population had grown used to privation as it struggled through the Iran-Iraq War.²⁵⁹ Iraq's lack of economic sophistication also helped Saddam stay in power. Because Iraq's economy was oil-dependent and undiversified, there was no manufacturing or business contingent like what had existed in South Africa to placate.²⁶⁰ The Iraqi population viewed Saddam as ruthless and the elites were placated enough to hold onto power.²⁶¹ Western policy makers had expected Saddam Hussein to fall and expected sanctions to speed this along.²⁶² Yet, the dictator proved a survivor.

E. THE UNFINISHED WAR

Against this backdrop, the UN began the implementation of UNSCR 687, and weapons inspectors from the IAEA and United Nations Special Commission (UNSCOM) entered Iraq to begin the work of dismantling its WMD programs. UNSCR 687, combined with sanctions, and the actions of the IAEA and UNSCOM deserve credit for ending most of Iraq's proliferation, especially its nuclear activities. The IAEA dismantled Iraq' nuclear capacity and either removed or safeguarded sensitive nuclear

256 Ibid., 47–48.

257 Cortright and Lopez, *Economic Sanctions: Panacea or Peacebuilding*, 126.

258 O'Sullivan, *Shrewd Sanctions*, 112–113.

259 Cortright and Lopez, *Economic Sanctions: Panacea or Peacebuilding*, 127

260 Ibid., 129.

261 Ibid., 130.

262 O'Sullivan, *Shrewd Sanctions*, 129.

materials.²⁶³ UNSCOM was able to account for and dismantle much of Iraq's CB and missile programs. The import restriction placed on Iraq under UNSCR 687 prevented Iraq from replacing these items. Further, the former UNSCOM director Rolf Ekeus concluded that sanctions were important at pressuring the Iraqis to accept UN inspectors.²⁶⁴ Military and diplomatic pressure also played a role, but the crush of the sanctions influenced Baghdad's decision-making.²⁶⁵

For the most part, Iraq complied with the implementation of UNSCR 687, but as time passed, it grew defiant. This defiance soon began to escalate setting the stage for continued confrontations with Iraq. The confrontations would eventually lead to war compelling many to conclude that sanctions had failed. This is not the case.

In the *Sanctions Decade*, Cortright and Lopez argue that the UNSCR 687 sanctions were more successful than given credit. Iraq, they argue, complied at least in part to all but one of the UN demands.²⁶⁶ The only UNSCR 687 demand that Iraq failed to meet was a denunciation of international terrorism.²⁶⁷ The ESR study echoes this. Sanctions had failed to eject Iraq from Kuwait, but they kept Iraq from rearming.²⁶⁸ Yet, the rhetoric of U.S. policy makers never reflect this.

In *The Sanctions Decade*, Cortright and Lopez argue that the UNSCR 687 sanctions ultimately failed to produce conclusive results because the senders failed to follow a bargaining model.²⁶⁹ Iraq's partial compliance with UNSCR 687 should have merited an easing of sanctions. In the mid-1990s, France and Russia began to argue this

263 Iraq Nuclear File: Key Findings, International Atomic Energy Agency, accessed on October 28, 2012, <http://www.iaea.org/OurWork/SV/Invo/factsheet.html#3>.

264 Cortright and Lopez, *The Sanctions Decade*, 54.

265 Ibid.

266 Ibid., 55.

267 Ibid.

268 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, Iraq Case Study.

269 Ibid, 54–55.

point.²⁷⁰ Of course, both countries had economic interests in Iraq, and Iraq remained out of compliance with UNSCR 687. However, the

In the meantime, the sanctions precipitated a humanitarian crisis that Saddam deftly exploited. Unemployment, inflation, and child mortality skyrocketed.²⁷¹ The rise in food prices made most families dependent on government rationing programs, which helped further solidify the regime's control over society.²⁷² Saddam Hussein had also constructed what amounted to an internal embargo.²⁷³ Rebel areas were denied resources making the humanitarian crisis look that much worse while taking care of Baghdad. Instead of falling from power, Saddam Hussein proved a cunning survivor. He turned his sights on fracturing the coalition against him.

The full accounting of WMD became the focal point of the UN and the West's struggles against Iraq; however, the same factors that had caused Iraq to proliferate remained. Iraq nearly landlocked geo-political position had not improved, its military was now shattered and humiliated, and it was being strangled by sanctions. The regime was forced to project an aura of power and ruthlessness to hold onto power, and deter further revolts or Iranian action. The regime viewed WMD as strategic weapons so giving them up had to be accompanied by relief. If the regime were to survive, it had to see an economic way out before giving up a key tool in keeping power. From the outside, it looked as if Saddam Hussein would sacrifice anything to hold onto his WMD.²⁷⁴ Given the regime's record of aggressive behavior, this was a reasonable conclusion even if, as Cortright and Lopez conclude, there should have been more focus on bargaining with Iraq.

In 1994, Saddam Hussein saw that no progress was being made towards his goals. He decided to escalate the situation and massed troops along the Kuwaiti border.²⁷⁵

270 O'Sullivan, *Shrewd Sanctions*, 114.

271 Cortright and Lopez, *The Sanctions Decade*, 46.

272 Ibid.

273 Cortright and Lopez, *Economic Sanctions: Panacea or Peacebuilding*, 127.

274 Cirincione et al., *Deadly Arsenals*, 331.

275 O'Sullivan, *Shrewd Sanctions*, 114.

France, Russia, and the UN's Kofi Annan intervened to defuse the crisis. Saddam realized that each provocation further frayed the coalition against him and continued to escalate his rhetoric and actions. He demanded a timetable for the lifting of sanctions and continued the harassment of the UNSCOM inspectors.²⁷⁶ The back and forth between the UN and Iraq over WMD and inspections continued throughout the 1990s. In 1995, Iraq accepted the UN oil for food program where Iraqi oil revenue would be used to provide aid for its civilian populace, and the program soon evolved into the largest humanitarian relief operation in history.²⁷⁷ This staved off internal political and economic turmoil allowing continued defiance from the regime.²⁷⁸

Initially, the ongoing UNSCOM crisis had created a rift in the coalition of senders by exposing differences in goals towards Iraq. However, the senders were unwilling to tolerate Saddam's continued defiance at the expense of the Iraqi people. Those that intervened to defuse previous crisis felt humiliated and betrayed.²⁷⁹ President Clinton had taken office seeking to engage with Iraq, but now his views had shifted to the belief that Iraq would never comply with UNSCR 687 as long as Saddam Hussein stayed in power.²⁸⁰ In 1995, Hussein Kamel, Saddam Hussein's son-in-law and Minister of Military Industries, defected to Jordan claiming extensive knowledge of Iraq's WMD programs. His cooperation with UNSCOM led the U.S. to believe that Iraq had not fully revealed the extent of its WMD programs, which further escalated the crisis.²⁸¹

The idea that Saddam's removal was the only way to disarm Iraq gained momentum. Secretary of State Albright in a 1997 speech at Georgetown hinted at the idea that as long as Saddam stayed so would sanctions.²⁸² On October 31, 1998, President Clinton signed the Iraq Liberation Act of 1998 (ILA) that formally declared, "It

²⁷⁶ Ibid., 115.

²⁷⁷ Cortright and Lopez, *The Sanctions Decade*, 37.

²⁷⁸ O'Sullivan, *Shrewd Sanctions*, 115.

²⁷⁹ Ibid., 116–117.

²⁸⁰ Ibid., 118.

²⁸¹ Ibid., 114–115.

²⁸² Ibid., 118.

should be the policy of the United States to support efforts to remove the regime headed by Saddam Hussein from power in Iraq and to promote the emergence of a democratic government to replace that regime.”²⁸³ The act also called for the establishment of war crimes tribunals against Saddam Hussein and his inner circle.²⁸⁴ The political impasse was now official policy. In December 15, 1998, after a month of final political wrangling with Iraq, the UN declared the Iraq inspections a failure and formally withdrew UNSCOM inspectors.²⁸⁵ The next day the U.S. and UK launched a four night bombing campaign against Iraq dubbed Operation Desert Fox.

The backlash against the attacks was almost immediate. France, Russian, and China balked at not being consulted before the launch of military operations, and protests over the attack spread throughout the Arab world.²⁸⁶ The rift among the senders was now dramatically exposed. The U.S. wanted to continue the pressure against Iraq, and Iraq responded in kind by beginning more frequently targeting of aircraft enforcing Operations Southern and North Watch. The U.S. modified the rules of engagement for the missions that allowed more extensive strikes in response to Iraqi aggressiveness. The result was almost daily bombings that further enraged the Arab world and continued to fracture the coalition against Iraq.²⁸⁷ As the 1990s ended, much of the world favored loosening the sanctions, and some countries began pursuing normalized trade relations.²⁸⁸

UNSCOM was disbanded by the UN in late 1999 and replaced under UN Resolution 1284 by the UN Monitoring, Verification, and Inspection Commission (UNMOVIC). Resolution 1284 stated that 120 days of Iraqi cooperation with inspectors would result in the suspension of sanctions and allow the resumed imports, except military and dual-use items such a biological fermenters or certain chemical only useful

283 Iraq Liberation Act of 1998.

284 Ibid.

285 Cirincione et al., *Deadly Arsenals*, 332.

286 O'Sullivan, *Shrewd Sanctions*, 117.

287 Ibid., 121.

288 Ibid., 120.

in manufacturing chemical weapons.²⁸⁹ Russia, China, and France abstained from voting on UNSCR 1284, and Iraq rejected the terms of the resolution.²⁹⁰ In 2000, the Iraq-Syria oil pipeline re-opened, and an emboldened Iraq began to impose a “surcharge” that went directly into the Iraqi treasury on each barrel sold under the oil for food program.²⁹¹ Not only had Saddam Hussein survived the decade following Desert Storm, it looked like he might be winning.

F. AXIS OF EVIL

President George W. Bush inherited the Iraq mess from the Clinton administration, and at first, it looked as if the U.S. policy might change. Early in the Bush administration, Secretary of State Collin Powell sought to modify the sanctions regime and liberalize trade while restricting dual-use items.²⁹² Powell hoped these modifications would mitigate the humanitarian crisis and heal the rift among the sender coalition. The U.S. expended significant political capital in negotiating changes to the sanctions and was opposed by countries like Russia, which had significant commercial interests in the full lifting of sanctions.²⁹³ In the wake of the September 11, 2001 attacks, the U.S. gained enough political room to negotiate a restructuring to the sanctions against Iraq, and impose a “smart sanctions” regime with UNSCR 1409 that sought to contain Iraqi military capability while allowing the resurrection of the Iraqi economy.²⁹⁴

However, the same event that facilitated Powell’s restructuring of the sanctions dramatically shifted the U.S. approach to foreign policy, which became much more aggressive in the wake of the September 11th attacks. Iraq was soon labeled as part of the axis of evil. The classified 2002 *Nuclear Posture Review* made specific mention of

289 Ibid.

290 Ibid., 120–121.

291 Ibid., 121.

292 Ibid., 121–122.

293 Ibid., 122.

294 Ibid.

nuclear contingencies involving Iraq.²⁹⁵ Collin Powell was soon back before the UN insisting that Iraq's WMD were now a renewed threat and that Iraq was covertly re-arming. National Security Advisor Condoleezza Rice worried aloud that proof of Iraq's WMD programs might take the form of a mushroom cloud.²⁹⁶ Iraq was accused of attempting to buy yellowcake uranium from Niger. In response to U.S. pressure, the UN passed UNSCR 1441 that renewed the call for Iraqi compliance with UNSCR 687.²⁹⁷ This new resolution did not change the terms of the UN demands from Iraq, but made a final demand for compliance. WMD disarmament remained the goal; however, the United States seemed on the verge of invading Iraq in order to topple Saddam Hussein.

In November of 2002, Saddam Hussein agreed to allow IAEA and UNMOVIC inspectors to enter Iraq. Under the threat of military action, the Iraqis cooperated with this new round of inspections, and in early March of 2003, the UN reported its preliminary results. The IAEA inspectors concluded that Iraq had not resumed its quest for a nuclear weapon, had not imported yellowcake from Niger. (In fact, 550 metric tons of yellowcake was already in Iraq left over from previous nuclear efforts. It was later removed by a secret U.S. task force in 2008.²⁹⁸) Iraq's industrial and scientific capacity had withered in the last decade.²⁹⁹ UNMOVIC inspectors found a few old chemical shells that had been manufactured prior to Desert Storm, but did not find any evidence that Iraq had renewed its chemical warfare program.³⁰⁰ The inspectors found discrepancies in Iraqi

295 Hans Kristensen, "Nuclear Posture Review Report [Reconstructed]," Federation of American Scientists, January 8, 2002, accessed on December 15, 2011. http://www.fas.org/blog/ssp/united_states/NPR2001re.pdf

296 "Top Bush officials push case against Saddam," September 8, 2002, The Cable News Network, accessed on November 8, 2012, http://articles.cnn.com/2002-09-08/politics/iraq.debate_1_nuclear-weapons-top-nuclear-scientists-aluminum-tubes?_s=PM:ALLPOLITICS.

297 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy, Third Edition, Iraq Case Study*.

298 "Secret U.S. Mission Hauls Uranium from Iraq," The Associated Press, July 5, 2008 accessed on October 28, 2012, http://www.msnbc.msn.com/id/25546334/ns/world_news-mideast_n_africa/t/secret-us-mission-hauls-uranium-iraq/#.UH3BJqOJmSo.

299 Cirincione et al., *Deadly Arsenals*, 340.

300 *Ibid.*, 345.

documentation of the destruction of its biological warfare program but no evidence of renewed activity.³⁰¹

This lack of evidence did not convince the Bush administration. Instead, the minor discrepancies seemed to indicate that there had to be something more sinister that Saddam Hussein was hiding. The U.S. had concluded a large military buildup in the region as the UN inspectors presented their initial findings. The Bush administration remained unconvinced, and on March 17, 2003, President Bush gave Saddam Hussein and his sons 48 hours to leave Iraq or face military action.³⁰² Saddam remained defiant, the U.S. and the “coalition of the willing” invaded. Three weeks later Baghdad fell to U.S. forces.

Behind the invasion forces, specialized teams of U.S. troops scoured the Iraqi desert for evidence of Iraq’s hidden WMD programs. They found none. Saddam’s resistance over WMD had all been a bluff designed to deter internal and external threats while buying time to have the sanctions lifted.³⁰³ In the wake of the invasion, U.S. officials concluded that Saddam retained the desire to acquire WMD, but had unilaterally destroyed himself what the UNSCOM inspectors had not.

David Kay, head of the Iraq Survey Group tasked with finding Iraq’s WMD, told Congress in October of 2003 that there was no indication that Iraq had taken any step to renew its nuclear weapons programs.³⁰⁴ He stated that Iraq had an “interest” in renewing its program but had not acted on them. Later, Charles Duelfer, who replaced Kay as the head of the Iraq Survey Group confirmed these findings, and concluded that Iraq had no formal plans to reconstitute its nuclear weapons programs in the year prior to the invasion.³⁰⁵ He echoed Kay’s assertions about Saddam’s desires for WMD, but these

301 Ibid., 348.

302 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, Iraq Case Study.

303 *The National Security Strategy of the United States* (Washington, D.C.: The White House, 2006), 23.

304 Cirincione et al., *Deadly Arsenals*, 341.

305 Ibid.

desires had not translated into action.³⁰⁶ Other post-war findings about Iraq's CB programs mirrored the conclusions regarding the nuclear program. Saddam desired CB weapons, but did nothing to acquire them after Desert Storm. Iraq was a nonproliferation success, but one that took a war to finally expose.

Shortly after the invasion, Iraq erupted into a bloody insurgency in part fueled by the inability of the coalition to restore basic services like water and electricity. The sanctions that had contained Iraq's military and WMD capacity at the expense of rebuilding its infrastructure now proved a lethal driver of instability. In the wake of the invasion, the UN passed UNSCR 1483 that lifted the non-military sanctions on Iraq and reaffirmed the need to confirm WMD disarmament.³⁰⁷ A later resolution in 2007 formally disbanded UNMOVIC and called on the new Iraqi government to continue to work with the UN and IAEA to confirm the final disposition of its WMD programs.³⁰⁸ In 2010, the UN voted to lift all sanctions on Iraq.³⁰⁹ It had taken two decades of sanctions and two wars to end Iraq's WMD threat.

G. IMPLICATIONS AND CONCLUSION: BEWARE ABSOLUTES

The post-Saddam Hussein Iraqi government has moved to comply with international proliferation norms. In 2008, Iraq signed the Comprehensive Test Ban Treaty. Then in 2009, Iraq acceded to the CWC. It had already ratified the BWC as part of the Desert Storm cease-fire agreement, and was already a signatory to the NPT. The Iraqi constitution adopted in 2005 formally banned the acquisition of WMD. In 2009, the Iraqi parliament began considering a series of non-proliferation laws that would firmly cement the country in compliance with its treaty obligations. These efforts led to the formal lifting of all UN sanctions against Iraq in 2010. Iraq is now fully back in the

³⁰⁶ Ibid.

³⁰⁷ United National Security Council Resolution 1483, 22 May, 2003, The United Nations, accessed on October 28, 2012, <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N03/368/53/PDF/N0336853.pdf?OpenElement>.

³⁰⁸ United Nations Security Council Resolution 1762, June 29, 2007, The United Nations, accessed on October 28, 2012, <http://www.un.org/depts/unmovic/new/documents/resolutions/s-res-1762.pdf>.

³⁰⁹ Shashank Bengali, "Saddam-era U.N. Sanctions Lifted on Iraq After 20 Years," McClatchy Newspapers, December 15, 2010, accessed on October 28, 2012, <http://www.mcclatchydc.com/2010/12/15/v-print/105359/saddam-era-un-sanctions-lifted.html>.

international fold regarding WMD. However, a brutal path led to this point. A combination of sanctions, diplomacy, inspections, and force worked in disarming Iraq and keeping it disarmed.

Clearly, sanctions worked at disarming Iraq, but when they were combined with other policy goals, they created a political impasse. Daniel Drezner in *The Sanctions Paradox* states that non-negotiable demands and sanction do not mix.³¹⁰ Thus, sanctions, when combined with U.S. calls for regime change, created the gridlock that Drezner predicted. Saddam Hussein was never going to negotiate his regime out of power, but as evidenced by his signals to the UN that he wanted a timeline for the lifting of sanctions and his own final unilateral disarmament, he was willing to cede some ground to the UN. In the end, sanctions achieved almost all of the UN's goals in Iraq, and they are not to blame for the failures that followed them.

There are three key failures of American politics and policy in the Iraq case that created the conditions for failure. First, the U.S. mostly ignored Iraqi proliferation and chemical weapons use as long as it suited U.S. purposes, mainly vengeance against Iran. Iraq used these weapons with impunity and then developed a strategic understanding of their utility. This utility was reinforced by the Iraqi experience in Desert Storm where, at least in Iraq's internal regime calculations, WMD had helped keep the U.S. out of Baghdad. Had the U.S. opposed Iraq's chemical weapons use more firmly in the beginning, it could have helped limit Saddam Hussein's view of their strategic utility. Saddam Hussein never got a clear signal that WMD were more trouble than they were worth until it was already part of his regime survival strategy.

Second, the signing of the ILA by President Clinton was a diplomatic blunder that legislated the schism in goals between the senders. UNSCR 687 compliance had nothing to do with regime change, and by vowing to support the same resistance organizations that Saddam Hussein needed the threat of WMD to deter, the ILA created a political impasse that neither side could escape. Even had Saddam explicitly complied with every element of UNSCR 687, the policy of the United States, minus a formal Congressional

³¹⁰ Drezner, *The Sanctions Paradox*, 48.

reversal, would have still been regime change. Clearly, Congress has a role in implementing a legal framework to U.S. sanctions policy. However, in this case Congress over-reached, and President Clinton should not have signed the act.

The third and final failure of U.S. politics was the huge amount of international political capital that President Bush invested and then lost in the idea that Iraq had rearmed and that the struggle against Saddam Hussein must be seen in terms of good versus evil. This illustrates the argument against sanctions made by Adeno Addis' "Economic Sanctions and the Problem of Evil" article. Instead of looking at the problem as one that was just a few steps away from being solved, the Bush administration, in a continuation of Clinton administration policies, used the whole episode as a way of marking identity in the emerging Global War on Terror—you're either with us or against us. It staked the credibility of its administration and the revered warrior-statesman Colin Powell on faulty intelligence, and then conducted a threatening military buildup along Iraq's borders. This military threat influenced Saddam to allow UNMOVIC back into Iraq, but it also raised the political stakes for the U.S.. On the eve of the invasion, UNMOVIC inspectors had concluded that Iraq seemed to be in compliance with UNSCR 687. Under the terms of UNSCR 1284, these findings, combined with 120 days of cooperation, would have paved the way for the suspension of the sanctions.

The suspension of sanctions with U.S. troops massed on his border could have been a political victory for Saddam Hussein. He would have been able to play both the victim and the victor. If Saddam Hussein did, in fact, plan on someday reinvigorating his WMD programs this would have provided him the political capital to do so. The next time the U.S. came knocking with evidence of an Iraqi WMD buildup all Saddam would have needed to do was point to Powell's discredited testimony before the UN. By elevating the stakes too high and conflating Iraq's intransigence with nuclear attack on an American city, the Bush Administration gave Saddam Hussein political opportunity.

Assuming that the Bush administration wanted to avoid war and as the world's sole superpower could weather ceding a political victory to Saddam Hussein, it already had a peaceful way out. The U.S. was already negotiating with Gaddafi so cutting a deal with a dictator was not beyond what the U.S. was prepared to do, although Iraq was much

more of an issue than Libya. UNSCR 1284 had already established a mechanism to prevent the import of military and dual-use items, and Powell's efforts had shown that smart sanctions were diplomatically viable. The threat of force legitimated in UNSCR 1441 brought Iraq back to the negotiating table, and UNSCR 1284 could have provided a carrot-and-stick approach to pave the way for Iraq's long-term compliance. The key to this would have been to balance the threat posed by Iraq's WMD with the rhetoric of good versus evil, which elevated a contained regional nuisance into an existential threat.

As with the case of Libya, the suspension of sanctions versus the lifting of sanctions could have also provided the incentive for continued Iraqi compliance. Sanctions had already worked at disarming Iraq, and there was a mechanism for a peaceful final resolution to Iraq's proliferation. Instead, the U.S. ignored the success of sanctions, and chose to invade Iraq only to find, at the expense of thousands of U.S. and Iraqi lives, that the issue had already resolved itself. There is good news in this case. Iraq has come back into compliance with international proliferation norms. However, the U.S. limped out of Iraq damaged and struggling to admit that it had won the proliferation battle in Iraq before the first shots were fired.

V. EVALUATING THE CASE STUDIES: THE LESSONS FROM SANCTIONS AND COMBATING PROLIFERATION

Each of the case studied in the previous chapters provides a variety of lessons for the interaction of sanctions, proliferation, and policy. The recommendations and cautions of the ESR study discussed in the first chapter of this thesis have explanatory power in each of the case studies. To review, the eight policy recommendations of the ESR study were:

1. “Don’t bite off more than you can chew.” Sanctions with modest goals work best and strong countries are harder to compel.
2. “Friends are more likely to comply than Adversaries.” Sanctions against trading partners or friends were likely to work, but sanctions against adversarial nations were likely to fail.
3. “Beware Autocratic Regimes.” Economic coercion is unlikely to work on dictators, and conversely, has a better chance of working on democracies.
4. “Slam the Hammer, Don’t Turn the Screw.” Sanctions that are implemented quickly are the best as they leave the target little time to react and adjust.
5. “More is Not Necessarily Merrier.” Large coalitions of sender countries do not necessarily make sanctions more likely to succeed.
6. “Choose the Right Tool for the Job.” Deploying sanctions along with military or covert actions against belligerents can serve to diminish military capacity but is unlikely to result in regime change or policy reversals with the target. Senders should be clear on their goals.

7. “Don’t Be a Cheapskate or Spendthrift.” Sanctions will have costs to both senders and the target. Senders deploying sanctions need to balance the cost of sanctions or risk eroding support for their actions. However, without inflicting some degree of economic pain, sanctions are unlikely to work.
8. “Look Before You Leap.” Sanctions can be a Pandora’s Box of hidden costs; therefore senders should think through both their means and objective before deploying sanctions.³¹¹

The factors that might cause sanctions to fail were:

1. “Sanctions are not up to the Task.” Often sanctions simply aren’t enough to change the behavior of a foreign country. An example in the ESR study is that sanctions are unlikely to end military adventures once they have begun. Senders cannot sanction their way to peace.³¹²
2. “Sanctions Create Their Own Antidotes.” Sanctions may unify popular support for the government in the target country and send the target in search of economic alternatives.
3. “Black Knights.” Sanctions may prompt allies or conferees to assist the sender in off-setting the effects of sanctions. These alliances may be formed because of many interests ranging from ideological to commercial interests.

311 Gary Clyde Hufbauer, Jeffrey J. Schott, Kimberly Ann Elliot, and Barbara Oegg, *Economic Sanctions Reconsidered: History and Current Policy*, Third edition, (Washington D.C.: Institute for International Economics, 2007), 162–178.

312 Ibid., 69.

4. “Sanctions may Alienate Allies Abroad and Business Interests at Home.” All sanctions create some degree of economic pain. A country that is allied with a sanction sender may have interests in the target. Alternatively, business interests within the sender country may be effected by sanctions and may exert influence in domestic political processes.³¹³

Each case study contains factors present in the ESR that affected the eventual outcome. While each case study was a nonproliferation success, South Africa and Libya were both nonproliferation and political successes where both countries gave up WMD and changed unacceptable behaviors. Iraq was a nonproliferation success, but a bloody political failure. In effect, sanctions won almost all the battles, but policy lost the war. However, like in war, the success of sanctions was not assured from the start.

For instance, in all three cases there was a black knight present. With South Africa, the U.S. was initially the black knight, willing to ignore apartheid in light of the Cold War context. Israel served as an even more potent black knight in South Africa by aiding its nuclear proliferation. In Libya, the Soviet Union served as a black knight willing to supply Libya with arms and support. In Iraq, the U.S. once again was an early black knight and all but ignored Iraqi proliferation as long as the Iranians were punished. In Iraq and Libya, oil was a major black knight that gave both countries continuous access to money and incentives for outsiders to lift or limit sanctions in order to have access to oil. With Iraq, the smart sanctions regime advocated by Collin Powell early in the Bush Administration could have mitigated Iraqi oil by limiting its access to weapons and technology.

In all three cases, sanctions “created their own antidotes.” In South Africa, the arms embargo was the genesis of the capable South African arms industry that became sophisticated enough to build nuclear weapons. In Libya, the initial round of U.S.

³¹³ Ibid., 7–8.

sanctions caused the Libyans to turn to the European marketplace to sell their oil. Later, this stunted the effects of the multilateral sanctions phase as many Europeans were hesitant to punish the Libyan too severely and jeopardize cheap oil prices. However, this may have had a bonus effect of keeping the economic pressure on Libya low enough not to create a humanitarian crisis. This made the sanctions against Libya sustainable over long periods, and mitigated the risk of alienating domestic audiences in sender nations.

In two of the case, sanctions were “the right tool for the job.” In South African and Libya, sanctions were not combined with military or covert actions that threatened the governments of either country. In Iraq, the opposite was true: sanctions were the right tool but used for the wrong job. U.S. policy makers hoped that sanctions would speed along Saddam Hussein’s demise. This was contrary to both the UN goals and the utility of sanctions stated in the literature. Sanctions should be a tool of coercion, not regime change.

The literature review in the first chapter of this thesis compares sanctions literature to the air power theories of Giulio Douhet. The quest for the precise application of attacks to devastating effects follows similar paths in both sanctions and air power policy. However, looking deeper into military theory might provide better explanatory result. The Prussian military theorist Carl Von Clausewitz defined war as an extension of policy by other means.³¹⁴ With this definition in mind, sanctions are essentially a tool of economic warfare. One economist, playing off the characterization of economics as “the dismal science,” titled his book on economic warfare *The Dismal Battlefield*.³¹⁵

In this sense, Clausewitz’s writings on war hold explanatory power even when analyzing sanctions. They argue that war is a balance among the remarkable trinity of violence and passion; uncertainty, chance, and probability; and political purpose and effect.³¹⁶ In the case of Iraq, the trinity was unbalanced when the passionate enmity that the U.S. had for Saddam Hussein and his regime derailed the political purpose and effect

314 Peter Paret, “Clausewitz,” in *Makers of Modern Strategy*, ed. by Peter Paret (Princeton, NJ: Princeton University Press, 1986), 200.

315 Scharfen, *The Dismal Battlefield*.

316 Peter Paret, “Clausewitz,” in *Makers of Modern Strategy*, 201

of sanctions against Iraq. Once the ILA was signed, sanctions became not just a tool of economic warfare but weapons in an outright unlimited war against Iraq. This does not mean that sanctions and economic warfare don't have a place in waging war, but then they are no longer a nonproliferation tool, and any judgment of their effectiveness as one should be divorced from the waging of an actual war.

A new round of smart sanctions and the use of a bargaining model with Iraq could have rebalanced Clausewitz's trinity. Smart sanctions could have affected the ability to reduce the cost of sanctions to the senders, kept the coalition together, and allowed for the continuation of U.S. nonproliferation goals. Russia, China, and France all wanted resumed trade with Iraq, which, minus weapons sales, a smart sanctions regime would have allowed. Of course, it is impossible to predict how Saddam Hussein would have behaved under a smart sanctions regime. He may have continued his economic exclusion of the Kurds and Shias; however, at this point it would clearly have been his doing and not the sanction senders. This fact could have allowed the WMD sanctions containing Iraq to extend indefinitely or have provided incentives to conform to international norms and build trust and collaboration. The smart sanctions regime does nothing to mitigate the security threats that Saddam Hussein faced from within and without, and Powell's smart sanctions did nothing to change the ILA. However, the scorecard serves to illustrate the potential for sanctions in even the toughest cases.

In this light, five lessons emerge from the case studies that are important in evaluating the potential for sanctions in combating proliferation. They are:

1. *Beware Dragon Slaying*. This is an expansion of the ESR study's first rule of not biting off more than you can chew. As stated in the literature review, stopping WMD proliferation has held a place of primacy in U.S. national security strategy for more than two decades. In the South Africa and Libyan case, the goals of sanctions were relatively modest. Ending apartheid was a large shift for Pretoria, but one that was inevitable. The world demanded political reform, not exile for the whites. The goal was not to destroy South Africa but to, in effect, save it from itself. Ending apartheid would also mean a permanent end to rationale for South Africa's proliferation. Complying with the West's

nonproliferation demands was good evidence that South Africa did intent to carry out deep political reforms.

With Libya, the goals remained modest as well. The senders wanted an end to Libyan support to terrorism and proliferation. Given that these two aspects of regime behavior were no longer primary drivers in its conduct in international affairs and that regime change was not a policy goal for the U.S., there was room for negotiation. A deal could be reached.

With Iraq, the goal became dragon slaying, and the sanctions served as part of a strategy to punish Saddam Hussein. Instead of getting rid of the dictator, the sanctions created a humanitarian crisis in Iraq that facilitated the fracturing of the sender coalition. This illustrates the importance of choosing between fighting evil and ending proliferation. Ending Iraq's proliferation and returning it to normalcy were desirable goals for all parties. Regime change—slaying the dragon—was a high price for the U.S. to pay to end proliferation that was already dead on the arrival U.S. troops in Baghdad.

2. *Blind Eyes Lead to Blind Alleys.* In two of the cases, the U.S. ignored proliferation as long as it suited the geopolitical needs of the day. With South Africa, Reagan preferred “constructive engagement” instead of punishing Pretoria. With Iraq, Reagan also did nothing to counter Iraqi proliferation and use of chemical weapons. While a policy of allowing the Iranians to bleed may have been satisfying at the time, it facilitated expanded Iraqi proliferation. By not taking a stand in the beginning, the U.S. encouraged Saddam Hussein. To dig further into the Iraq case, one of the original drivers of Iraq's desire for nuclear weapons was Iran's nuclear program under the Shah who was a U.S. client and ally.

There are two other proliferators that the U.S. ignores that played a factor in the cases—Israel and Pakistan. The unacknowledged Israeli nuclear program contributed to both Libya's and Iraq's desire for a nuclear weapon for the Arabs. In the case of South Africa, Israel collaborated with the apartheid regime's nuclear programs. Israel is not a signatory to the NPT or the BWC, and is therefore unconstrained by international norms. Yet Israel remained in 2010 the second largest recipient of U.S. foreign aid dollars, which

totaled \$2.2 billion.³¹⁷ In the 1990s, when the indefinite extension of the NPT was being deliberated, several Arab countries, including Libya, wanted Israel to enter the NPT in exchange for their vote to extend the treaty.³¹⁸ Israel countered by offering to agree to a Middle East nuclear-weapons-free zone but only upon the implementation of a comprehensive peace accord with all countries in the region including Iran.³¹⁹ This comprehensive peace accord never materialized, and the unacknowledged Israeli nuclear arsenal and staunch alliance with the U.S. remain.

The same can be said for Pakistan, which is also not a signatory to the NPT.³²⁰ Pakistan has a small but growing nuclear arsenal, which the U.S. has largely ignored because of Pakistan's importance in prosecuting the Global War on Terror. In 2010, Pakistan was the third largest recipient of U.S. foreign aid raking in a total of \$1.8 billion.³²¹ Additionally, Pakistan also gave rise to the notorious AQ Khan proliferation ring that spread nuclear technology to Iran, Libya, and North Korea.³²² The AQ Khan network operated for decades, and it wasn't until 2004 that Khan confessed his crimes and was placed under house arrest.³²³ Khan's revelations did nothing to disrupt the U.S. alliance with Pakistan, which effectively was granted a free pass after failing to control nuclear proliferation to two members of the "axis of evil."

As stated in the literature review, the idea of nonproliferation has primacy in U.S. policy rhetoric; however, the execution of this policy has been inconsistent and at times shortsighted. The inconsistencies in how the U.S. implements its nonproliferation policy complicate its execution; therefore, U.S. nonproliferation strategy must address or at least understand these inconsistencies in order to mitigate their effects.

317 Curt Tarnoff and Marian Leonardo Lawson, *Foreign Aid: An Introduction to U.S. Programs and Policy* (Washington D.C.: Congressional Research Service, 2011), 14.

318 Cirincione et al., *Deadly Arsenals*, 267.

319 Ibid.

320 Ibid, 239.

321 Tarnoff and Lawson, *Foreign Aid: An Introduction to U.S. Programs and Policy*, 14.

322 Cirincione et al., *Deadly Arsenals*, 247.

323 Ibid, 248.

3. *Don't Give Them a Reason.* States desire WMD for a variety of reasons, but the U.S. should be cautious that its policies don't add to them. South Africa proliferated because it felt abandoned and thought that its catalytic strategy would force the West to support it should it face the "black tidal wave." This does not mean that the U.S. should have tolerated apartheid but illustrates how policy can influence proliferation in unexpected, paradoxical ways. South Africa was vulnerable to Western sanctions because of its alignment. In turn, severing this alignment encouraged South Africa to acquire nuclear weapons.

Iraq is another case where U.S. policy influenced proliferation decisions in unexpected directions. Beyond the "blind eye" factors listed above, the U.S. policy of encouraging regime change in Iraq served to entrench Saddam Hussein's bluff. The ILA vowed support to the same groups that the dictator wished to deter with the specter of WMD. Further, the 2001 Nuclear Posture Review (NPR) labeled Iraq as one of the "chronic military problems" that the U.S. faced, which created the perception that the U.S. saw nuclear weapons as a viable option for dealing with Iraq.³²⁴ If Saddam Hussein's strategic calculus reasoned that CB weapons were the deterrent that had kept the U.S. out of Baghdad, it stood to reason that opacity regarding their final disposition would suit his needs. U.S. policy set the conditions for its own failure.

This contrasts with Libya. It was also called out in the 2001 NPR but was not named as part of the "axis of evil."³²⁵ The willingness of the U.S. and the UK to negotiate with Gaddafi mitigated whatever mixed signals the 2001 NPR might have sent. However, had Bush been more strident in his tones with Libya, this could have created a heightened demand for nuclear weapons where there really was none before.

4. *Resources are Black Knights.* In all three case studies, the availability of resources influenced the effectiveness of sanctions. In the South Africa case, the lack of

324 Kristensen, "Nuclear Posture Review Report [Reconstructed]" and "President Delivers State of the Union Address," The President George W. Bush White House Archives, January 29, 2002, accessed on December 15, 2011. <http://georgewbush-whitehouse.archives.gov/news/releases/2002/01/20020129-11.html>

325 "President Delivers State of the Union Address," The President George W. Bush White House Archives, January 29, 2002, accessed on December 15, 2011. <http://georgewbush-whitehouse.archives.gov/news/releases/2002/01/20020129-11.html>

oil reserves made South Africa vulnerable to embargoes that starved it of oil, but South Africa also had deposits of uranium that it could exploit to provide fuel for its nuclear programs. South Africa had enough resources to fuel its commercial reactor and build a small nuclear arsenal. Unfettered access to uranium was a factor in South Africa's successful proliferation. In the case of Libya and Iraq, neither country had a ready domestic access to uranium, which made its programs vulnerable to sanctions.

However, Iraq and Libya both have extensive oil reserves, which provide a steady stream of income and a demand for integration into the global economy. Oil is a black knight in and of itself. In both the cases of Libya and Iraq, oil affected the way that sanctions were implemented. The sanctions against Libya were constrained because it had become a major exporter of oil to Europe, especially after the first phase of U.S. unilateral sanctions. The demand for access to Iraqi oil caused the coalition of senders to fracture and enabled the oil for food program that Saddam Hussein was able to exploit with the "surcharge" placed on Iraqi oil in the later stages of the program.

5. *Congressional Caution.* Congress has a role in constructing the legal framework for sanctions against target countries. With South Africa, the legislation was the Comprehensive Anti-apartheid Act of 1986, which was passed when President Reagan's veto was overridden.³²⁶ Libya was sanctioned in the Iran and Libya Sanctions Act of 1996, and the Libyan portion of this act was repealed once an accord was struck over WMD.³²⁷ Iraq's invasion of Kuwait led to the *Iraq Sanctions Act of 1990*, which was finally suspended by President George W. Bush in 2003 shortly after the Iraq invasion.³²⁸

In each case, Congress passed a comprehensive set of sanctions against the target countries. The laws clearly outlined the reasons why the target was being subjected to sanctions, and in each act, the mechanism for lifting sanctions is identified. In each case,

³²⁶The Comprehensive Anti-apartheid Act of 1986, Public Law 99-440, The 99th Congress, accessed on October 28, 2012, <http://thomas.loc.gov/cgi-bin/bdquery/z?d099:HR04868:@@L&summ2=m&>.

³²⁷Iran and Libya Sanctions Act of 1996, Public Law 104-172, The 104th Congress (accessed on October 28, 2012), <http://www.gpo.gov/fdsys/pkg/PLAW-104publ172/html/PLAW-104publ172.htm>

³²⁸The Iraq Sanctions Act of 1990, Public Law 108-11, The 108th Congress (accessed on October 28, 2012) <http://www.gpo.gov/fdsys/pkg/PLAW-108publ11/html/PLAW-108publ11.htm>

the President was granted the prerogative certify that the target has complied with the demands of the sanctions and grant their suspension. All three acts prudently balance presidential prerogative with congressional responsibility.

However, with the case of the ILA, Congress abandoned all prudence. Not only did the act vow support for Iraqi opposition groups, it called for war crimes tribunals against Saddam Hussein and his inner circle.³²⁹ Further, the act ignored Iraq's history of political violence and assumed that the fall of Saddam Hussein would lead to a democratic transition in Iraq that the U.S. would then support.³³⁰ The insurgency and sectarian violence that followed the Iraq invasion served as a stark contrast to the wishful thinking in the ILA. The fatal flaw in the ILA is that there was no process for reversal, no granting of presidential prerogative for its lifting. In this sense, it contradicted the Iraq Sanctions Act, which created a mechanism for the lifting of sanctions with two possible contingencies—regime change or improved regime behavior. The Iraq Sanctions Act made no judgment about which outcome Congress preferred, but merely outlined the mechanism for responding to two possibilities. With the ILA, Congress overreached making a successful diplomatic outcome unlikely.

There has never been a pure case of sanctions that were imposed solely to stop proliferation, but in final analysis, sanctions can have played a large role in ending these proliferation cases and possess the potential to stop future proliferators. Sanctions ended apartheid that in turn ended South Africa's WMD programs. Sanctions did nothing to stop Iraq's initial proliferation efforts, but prevented it from re-arming after Desert Storm. Whatever other failures that were generated by U.S. policy towards Iraq, the fact remains that sanctions had already prevented Condoleezza Rice's hypothetical mushroom cloud before she had ever uttered the statement. Finally, regardless of whatever instability results from its civil war, Libya provides an excellent example of how the "carrot" and "stick" approach to sanctions and proliferation can work if both sides are willing to negotiate in good faith. With this in mind, the final chapter of this thesis will examine the

³²⁹ Iraq Liberation Act of 1998.

³³⁰ Ibid.

future role for sanctions and nonproliferation, especially in light of evolving U.S. policy towards Iran.

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VI. CONCLUSION: USING IRAN AND THE FUTURE OF SANCTIONS AS A NONPROLIFERATION TOOL

The question that this thesis sought to answer is whether sanctions designed to stop the proliferation of WMD were an effective tool of national security strategy. My initial hypothesis was:

“that sanctions, when combined with existing compliance and proliferation regimes, are somewhat effective at countering, but not ending, WMD programs. States that are determined above all things to acquire WMD can and will succeed, but their efforts can be severely disrupted and degraded by raising costs and extending timelines.”

Further, my initial findings were that:

“sanctions appear somewhat less effective at coercing other behaviors beyond proliferation. When linked with other issues such as terrorism, human rights, or other internal state behaviors, sanctions become less effective. They lose all effectiveness when linked with regime survival.”

Because there has never been a pure case of sanctions designed solely to stop WMD proliferation, the three case studies show mixed results when compared to my original hypothesis. However, each case study clearly demonstrates the potential for sanctions as a nonproliferation tool. They can be used to build trust, induce policy reversals, and if needed, enforce long-term constraint on military potential and the ability to procure goods needed to proliferate. Iraq shaded much of my initial hypothesis, but even there sanctions were successful at keeping WMD from getting back into Saddam Hussein’s hands. However, the assessment of the risk of linking sanctions, proliferation, regime survival or other issues such as support to terrorists is confirmed as illustrated with Iraq.

Moving forward, nuclear nonproliferation remains a top priority in U.S. policy, and sanction remain a tool to be used towards that end. This examination of sanctions as a nonproliferation tool leads to the final assessment of whether they can work with Iran. Early in his administration, President Obama’s Prague Speech reaffirmed the U.S. commitment to nuclear disarmament and the continuation of the goals spelled out in the

NPT.³³¹ President Obama inherited several ongoing proliferation problem, Iran being the most prominent and potentially damaging to the stability of the Middle East.

Iran's suspected nuclear proliferation is an ongoing crisis in international relations. As of this writing, the consensus is that Iran does not have nuclear weapons, but seems to be actively pursuing them. Iran has been a member of the NPT since 1970 as a non-nuclear-weapons state, and remains for now a member of the IAEA. It has an extensive nuclear technology infrastructure³³² that includes the ability to mine, mill, convert, and enrich uranium.³³³ Iran's nuclear efforts began under the U.S. Atom's for Peace program during the 1950s.³³⁴ Under the Shah, Iran developed an ambitious long-term plan to master the nuclear fuel cycle and develop a large network of nuclear power reactors.³³⁵ The program was canceled by the Ayatollah Khomeini after the revolution but resumed in 1984 when Iran began to seek partners to complete construction the nuclear power plant started under the Shah.³³⁶ Throughout its history, Iran's nuclear program has been a source of regional tension. As illustrated in the Iraq case study, longtime regional rival Iraq regarded Iran's nuclear programs under the Shah as a threat, which provided motivation for the beginnings of Iraq's nuclear programs.³³⁷ Most recently, the West has been at odds with Iran over its pursuit of uranium enrichment programs that will allow Iran to produce HEU, a critical step in a fledgling nuclear arsenal. During the last decade, the IAEA has also been at odds with Iran about its compliance with IAEA safeguards and standards. In a series of reports on Iran, the IAEA spells out the suspicion that Iran has diverted material from its nuclear program to

331 "Remarks By President Barack Obama, Hradcany Square Prague, Czech Republic."

332 Cirincione et al., *Deadly Arsenals*, 295.

333 "Country Profile: Iran," The Nuclear Threat Initiative, accessed on November 14, 2012, <http://www.nti.org/country-profiles/iran/>.

334 Ibid.

335 Ibid.

336 Cirincione et al., *Deadly Arsenals*, 298.

337 Bahgat, *The Proliferation of Nuclear Weapons in the Middle East*, 54.

weapons research and has acquired technology, such as explosive bridge wire detonators that are only suitable for nuclear weapons.³³⁸

The strategic context of Iran's suspected nuclear proliferation is a combination of regional ambition and the desire to deter the U.S..³³⁹ Iran has the largest population in the Middle East and is home to the world's third largest oil reserves and second largest natural gas reserves.³⁴⁰ Because of its history, geography, resources Iran sees itself as a natural leading power in the region.³⁴¹ Some factions of the Iranian leadership regard the acquisition of nuclear weapons as a critical component of a strong state, especially one with regional ambitions like Iran.³⁴² These leaders see nuclear weapons as a key means of deterring the U.S., especially in light of the invasions of Iraq and Afghanistan.³⁴³ Iran is also cut off from access to Western arms sales so Iran views nuclear weapons as a way to deter its Arab neighbors who are able to purchase the latest U.S. weapons systems. From 2002 to 2006, U.S.-aligned Gulf Arab states, with diminutive populations compared to Iran, spent more than \$150 billion on weapons purchases compared to Iran's \$31 billion.³⁴⁴ Some Iranian leaders view nuclear weapons as a way to mitigate its limited conventional military capability.³⁴⁵ History plays a role here as many Iranian leaders felt that Iraq's use of chemical weapons was decisive during the Iran-Iraq War. Therefore, an unconventional deterrent of Iran's own would be useful.³⁴⁶

338 "Implementation of the NPT Safeguards Agreement and relevant provisions of Security Council resolutions in the Islamic Republic of Iran," The International Atomic Energy Agency, November 8, 2011, accessed on November 14, 2012, <http://www.iaea.org/Publications/Documents/Board/2011/gov2011-65.pdf>.

339 Mohsen Milani, "Tehran's Take: Understanding Iran's U.S. Policy," *Foreign Affairs*, Vol. 88, Issue 4 (July/August 2009), 46

340 Cirincione et al., *Deadly Arsenals*, 296.

341 Ibid.

342 Ibid., 296-297

343 Ibid., 297

344 Milani, "Tehran's Take: Understanding Iran's U.S. Policy," 4.

345 D Cirincione et al., *Deadly Arsenals*, 297

346 Ibid., 298

Iran's desire to deter the U.S. can also be viewed in light of other factors. The U.S. has sought to constrain Iran with sanctions since the Iranian revolution³⁴⁷, and the two nations have had military clashes in the past. Iran can correctly point out that no one came to its aid when Iraq attacked with chemical weapons, and that the U.S. all but encouraged it.³⁴⁸ Iran was named as part of President Bush's axis of evil, and the leaked 2001 Nuclear Posture Review Report identified Iran as possible contingency in which nuclear weapons might be used.³⁴⁹ This is in stark contrast to international norms against nuclear powers threatening to use nuclear weapons against non-nuclear powers. In 2007, presidential candidate and Senator John McCain jokingly sang about bombing Iran.³⁵⁰ Inflammatory policy and rhetoric can be viewed as a driver of Iranian proliferation.

However, Iran's nuclear proliferation is in some ways more complex than other case studies in this thesis. In addition to being an aspiring regional power, Iran is a theocracy, which also serves to influence Iran's proliferation decisions. In October 2003, Supreme Leader Ali Khamenei issued a fatwa, or religious finding, that forbade the production and use of WMD in any form.³⁵¹ This type of fatwa is not without precedent. During the Iran-Iraq War, Iraq used chemical weapons extensively against Iran. At first, Iran did not respond in kind because the Ayatollah Khomeini considered chemical weapons prohibited by Islam.³⁵² Khomeini later reversed this decision when Iranian cities were under threat of chemical attack. Iran began a chemical weapons program but quickly dismantled it upon ratifying the CWC after conclusion of the Iran-Iraq War.³⁵³ Therefore, if Iran feels threatened, security concerns can trump religious ones, but proliferation is not a given under Iran's theocracy.

347 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, Iran Case Study.

348 Ibid., 298

349 Kristensen, "Nuclear Posture Review Report [Reconstructed]."

350 Don Gonyea, "Jesting, McCain Sings: 'Bomb, Bomb, Bomb' Iran," National Public Radio, April 20, 2007, accessed on November 14, 2012, <http://www.npr.org/templates/story/story.php?storyId=9688222>.

351 Michael Eisenstadt and Mehdi Khalaji, "Nuclear Fatwa: Religion and Politics in Iran's Proliferation Strategy," *The Washington Institute for Near East Policy, Policy Focus #115*, September 2011, ix

352 Ibid.

353 "Country Profile: Iran," The Nuclear Threat Initiative.

The Obama administration came into office both seeking reverse the damage done to the global nuclear nonproliferation regime by the Bush administration and hoping to open negotiations with Iran. President Obama's Prague speech outlined his goal of strengthening the NPT and nuclear disarmament. Shortly after his election, the president reportedly sent a letter to Supreme Leader Ali Khamenei seeking to establish a constructive dialogue, and he sent a goodwill message directly to the Iranian people in celebration of the Persian New Year in March of 2009.³⁵⁴ This clearly set the tone that the Obama administration favored engagement and diplomacy over military conflict with Iran. However, hopes of establishing this dialogue quickly evaporated as Iranians took to the streets in the summer of 2009 to protest the disputed results of their presidential election which returned hardliner President Mahmoud Ahmadinejad to power over reform candidate Mir Hussein Moussavi. The protests were violently suppressed, and under Ahmadinejad, Iran's nuclear program continued. The U.S. outreach to Iran went nowhere, and the IAEA continued to have concerns over Iran's nuclear activities.³⁵⁵

Beyond the Iranian protests derailing his outreach to Tehran, President Obama inherited a government seemingly at odds with his peaceful goals for Iran, and further refinements in policy have seemed more a continuation of the past than a new direction. For example, in the 2008 *National Defense Strategy* left over from the Bush administration has a section titled "Win our Nation's Wars," which lists Iran as a rogue state that might need to be defeated in a military conflict.³⁵⁶ This document was not updated until 2011 when the *Military Strategy of the United States of America* supplanted it. The new document still lists Iran as the most dangerous threat in the Middle East whose proliferation could set off a regional nuclear arms race.³⁵⁷ The document then

354 Tabassum Zakaria and Caren Bohan, "Obama's Olive Branch to Iran Turned into Sanctions Hammer," Reuters, January 13, 2012, accessed on November 14, 2012, <http://www.reuters.com/article/2012/01/13/us-obama-iran-idUSTRE80C26V20120113>

355 "Implementation of the NPT Safeguards Agreement and relevant provisions of Security Council resolutions in the Islamic Republic of Iran," The International Atomic Energy Agency, August 30, 2012, accessed on November 14, 2012, <http://www.iaea.org/Publications/Documents/Board/2012/gov2012-37.pdf>

356 *The National Defense Strategy*, (Washington D.C.: The Defense Department, 2008), 3.

357 *The Military Strategy of the United States of America* (Washington D.C.: The Defense Department, 2012), 11.

details that the U.S. would maintain a military presence in the region to assure its allies and prevent Iran from obtaining nuclear weapons.³⁵⁸

However, President Obama backed away from the provocative 2001 NPR and extended a “negative security assurance to non-nuclear powers in compliance with the NPT in the 2010 NPR extends the negative security assurance to non-nuclear states. But it also calls for reversing the nuclear ambitions of countries like North Korea and Iran.³⁵⁹ Echoing this the 2010 *National Security Strategy* made holding Iran “accountable” for its nuclear activities a top national priority, and that the U.S. would present a “clear choice” to Iran in order to prevent it from developing nuclear weapons.³⁶⁰ Despite backing away from much of the Bush administrations more inflammatory rhetoric, these documents still utilize language that hardly seems like the foundation for a diplomatic effort. Obviously, given the tensions that already exist in the region, military conflict with Iran is a clear possibility; however, with Iraq as a guide, a conflict that stays militarized has less chance for peaceful resolution.

One policy document, the inaugural 2010 Quadrennial Diplomacy and Development Review, took a different approach. It argued that the U.S. had underutilized diplomatic tools to combat proliferation, and that the State Department had used the President’s Prague speech as a launch pad for new vigor in nonproliferation diplomacy.³⁶¹ With outreach to Iran dead on arrival and worries about Iran’s proliferation growing, the Obama administration and the U.S. turned to sanctions to reverse Iran’s nuclear proliferation.

The U.S. has sanctioned Iran since the 1978 revolution.³⁶² In response to this latest concern, Congress passed a series of acts that have tightened trade and financial

358 Ibid., 11–12.

359 *The Nuclear Posture Review Report* (Washington D.C.: The Defense Department, 2010), vi

360 *The National Security Strategy* (Washington D.C.: The White House, 2010), 4 and 23

361 *The Quadrennial Diplomacy and Development Review* (Washington D.C.: The Department of State, 2010), 43–44

362 Hufbauer, et al., *Economic Sanctions Reconsidered: History and Current Policy*, Third Edition, Iran Case Study.

restrictions with Iran.³⁶³ These acts parallel international efforts such as UNSCR 1929 adopted in June of 2010, which imposed new UN-mandated sanctions on Iran in hopes of curbing its nuclear proliferation.³⁶⁴ The European Union, which accounts for a third of all Iran's exports, followed suit and adopted similar trade restrictions.³⁶⁵ In July of 2012, the EU, along with some other Asian countries, agreed to embargo Iranian crude oil imports.³⁶⁶

Iran is no stranger to conflict with the West, and following the EU oil embargo, Supreme Leader Ayatollah Ali Khamenei stated that the various rounds of sanctions against Iran since the revolution had "vaccinated" it against this new round, and that Iran would come back "100 times stronger" from them.³⁶⁷ However, the tougher sanctions had a deep effect, and the Iranian currency soon collapsed.³⁶⁸ As of this writing, the Iranian nuclear issue has yet to be resolved, and a military conflict between the U.S. and Iran or Israel and Iran may yet materialize over the issue.

Beyond war, Iran has much to lose from the sanctions. Even if the oil black knight causes the coalition of sender to fray, the U.S. can still hurt Iran through banking and financial sanctions. Libya is a good illustration of how even a single sender can impede economic growth if the target is perceived by international financial institutions as a long-term credit risk. Iran still faces a conventional arms race in the Middle East that it is already losing and cannot hope to win with a hobbled economy. If Iran's nuclear

363 "Iran Sanctions: Statutes," The United States Department of State, Accessed on November 14, 2012, <http://www.state.gov/e/eb/tfs/spi/iran/statutes/index.htm>.

364 United Nations Security Council Resolution 1929, June 9, 2010, The United Nations, accessed on November 14, 2012, http://www.iaea.org/newscenter/focus/iaeairan/unsc_res1929-2010.pdf.

365 "Countries and Regions: Iran," The European Union Commission on Trade, accessed on November 14, 2012, <http://ec.europa.eu/trade/creating-opportunities/bilateral-relations/countries/iran/>.

366 Kenneth Katzman, *Iran Sanctions* (Washington D.C.: The Congressional Research Service, October 15, 2012), 46–49.

367 Marcus George, "West 'vaccinated' Iran Against Sanctions: Khamenei," Reuters, July 11, 2012, accessed on November 14, 2012, <http://www.reuters.com/article/2012/07/11/us-iran-sanctions-idUSBRE86A0MF20120711>.

368 Thomas Erdbrink, "Iran's President Ties Recent Drop in Currency to U.S.-Led Sanctions," The New York Times, October 2, 2012, accessed on November 14, 2012, http://www.nytimes.com/2012/10/03/world/middleeast/iran-president-mahmoud-ahmadinejad-ties-currency-drop-to-sanctions.html?_r=0.

proliferation sets off a regional arms race, the U.S. propensity for turning a blind eye to the proliferation of its allies should give Tehran pause. Are the Iranians really prepared for both a conventional and unconventional arms race with the better-financed Gulf Arabs? As bad as this menu of choices may seem, current policy may actually drive Iran in this direction.

This leads to the driving question of this thesis: can sanctions work in stopping Iran's nuclear proliferation? The answer is yes, but only if they are combined with genuine efforts at diplomacy that moves quickly and includes the extension of a U.S. negative security guarantee to Iran. An examination of the factors in the ESR study amplify this.

The senders "slammed the hammer" on Iran with the EU oil embargo, and the sanctions have not yet "bitten off more than they can chew" by combining nuclear nonproliferation with regime change. However, the broad coalition of senders is unlikely to hold together in light of the presence of the oil black knight. The world is unlikely to tolerate sanctions causing a rise oil prices that threaten economic recovery. Although a drop in oil prices may make things even worse for Iran by mitigating some of the oil as black knight effect.

However, Supreme Leader Ayatollah Ali Khamenei's rhetoric about U.S. sanctions "vaccinating" the Iranian people against echoes the ERS study's cautions about sanctions "creating their own antidotes." As in South Africa, the Western arms embargo against Iran prompted it to create its own domestic arms industry capable of building long-range missiles.³⁶⁹ As with the Libyan case study, the EU oil embargo may push Iranian oil further into other markets like China that resist Western calls for embargo. This fits with the "resources are black knights" conclusion from the case studies. A fractured coalition of senders that allows Iran oil revenue without a solid resolution to the nuclear issue could create the same conditions that led to conflict with Iraq.

Additionally, other conclusive factors identified from the analysis of the case studies are present in Iran. While the U.S. has back away from much of its incendiary

³⁶⁹ Milani, "Tehran's Take: Understanding Iran's U.S. Policy," 49.

language against Iran, there still appears to be a hint of dragon slaying in U.S. policy, which devotes much of its emphasis to what the U.S. expects from Iran but little to what Iran gets in return. As demonstrated with the Libya case, there has to be both a carrot and a stick in negotiations. The U.S. position must extend beyond the idea that the only carrot on the table is that the U.S. won't bomb Iranian nuclear facilities or that it might ease sanctions. If the primary goal towards Iran is to end its nuclear proliferation, then Iran needs good reason to give up on the idea of possessing a nuclear deterrent. U.S. policy has few incentives for this. There is no guarantee that if Iran gives up its nuclear programs that the U.S. won't continue to sanction it over other issues such as human rights. This lack of incentives, combined with the historical toxicity in U.S.-Iran relations, gives Iran reason to proliferate, especially given the conventional inferiority of the Iranian military.

Further, the U.S. has turned a blind eye to other proliferators in the region that has fueled Iranian proliferation. One U.S. ally (Israel) and one U.S. friend (Pakistan) operate outside of international proliferation norms, and Iraq, nominally an emerging ally, attacked Iran with chemical weapons. It is unlikely that the U.S. will be able to reverse Israeli and Pakistani proliferation, but it at least can try to address Iran's security concerns. The Iraq and Libya case demonstrate how deeply the Israeli nuclear program influences proliferation in the region. If the U.S. were to signal its understanding of this issue by renewing the drive for a nuclear-weapons-free Middle East, it could provide a trust-building message to the Iranians.

Finally, U.S. congressional caution has begun to slip regarding Iran, which as the Iraq case illustrated, can produce disastrous results. The first instance of congressional imprudence is contained in early versions of the Iran Threat Reduction and Syria Human Rights Act of 2012, which was drafted by the House of Representatives in 2011. In a pattern similar to the ILA, this early version called for expanded contact with Iranian resistance groups while at the same time using language that would restrict U.S. government officials from meeting with Iranian officials without prior notification to

Congress.³⁷⁰ The final version of this bill did not contain this language, but clearly, some members of Congress supported this overreach.

The second instance of congressional recklessness occurred in September of 2012 when Senators Lindsey Graham introduced Senate Resolution 380, a non-binding resolution on Iran's nuclear programs.³⁷¹ In language echoing the ILA, the resolution seeks to express the sense of the Senate regarding the crisis with Iran. The resolution "expresses support for the universal rights and democratic aspirations of the Iranian people" and "rejects any United States policy that would rely on efforts to contain a nuclear weapons-capable Iran."³⁷² Finally, it "urges the President to reaffirm the unacceptability of an Iran with nuclear-weapons capability and oppose any policy that would rely on containment as an option in response to the Iranian nuclear threat."³⁷³

Thus, the sense of the Senate is that negotiations and sanctions have their limit and that goading the President into adopting provocative foreign policy language is a congressional prerogative. While sanctions against Iran may fail or reach a limit to their usefulness, the Iraq case study provides an interesting counterpoint. Negotiations and sanctions reached their limit resulting in Operation Desert Fox that was, in part, directed against the suspected remnants of Iraq's WMD programs. However, even with the crippling UN sanctions and military action, the U.S. was never sure that Iraq's WMD had been eliminated until after Baghdad fell. The same can be said for Iran. If the U.S. attacks Iran's nuclear programs, how can it ever be sure that everything has been eliminated? In this light, continued sanction would amount to a containment strategy. In effect, by rejecting containment, the logical conclusion to Senator Graham's resolution is a ground war in Iran. Given, the U.S. experience in Iraq, the actions that may result from resolutions like this ought to give policy-makers pause.

370 "Iran Threat Reduction Act of 2012," 112th Congress, 1st Session, The United States House of Representatives, May 13, 2011 accessed on November 14, 2012, http://rules.house.gov/Media/file/PDF_112_1/Suspension%20bills/HR19051209.pdf.

371 Senate Resolution 380, 112th Congress, 2nd Session, February 16, 2012, accessed on November 14, 2012, <http://thomas.loc.gov/cgi-bin/query/z?c112:S.RES.380>:

372 Ibid.

373 Ibid.

This is where Clausewitz again comes into play. Like regular warfare, economic war is an extension of policy by other means, and the U.S. and its allies have embarked in an economic war with Iran over nuclear proliferation. What is not clear from this policy is the path that leads to achieving the goal of ending Iran's nuclear proliferation. The case studies of South Africa and Libya demonstrate that when senders of sanctions are clear in their intention and the desired outcome of their policies—and the target's security is not threatened—political resolution is possible. Iraq demonstrates that when the senders of sanctions are at odds over policy goals a dangerous political impasse will likely result. The history of Iran's chemical weapons program demonstrates that nuclear proliferation is not a given, and that at least some Iranian leaders think Iran should proliferate only when threatened. This means that there is room for negotiation.

The key factor in all the cases is trust. South Africa and Libya could trust that the senders of the sanctions did not want to destroy their targets. With Iraq, the opposite became true as the U.S. chose to legislate and then effect regime change even when its nonproliferation goals had been reached. As with Iraq, the same toxic atmosphere of mistrust clouds the strategic goals of the U.S. and its allies towards Iran. Creating a policy towards Iran that provides more incentives to end its nuclear program than to keep it is critical for even the potential for success to exist. The U.S. had made clear what Iran stands to lose with its nuclear programs, but it has never been clear on what it can gain and how to get there. South Africa and Libya's compliance with nonproliferation norms provide a good example of how trust can be built.

Clausewitz understood that all war is the realm of chance, and economic warfare contains the same uncertainties. However, the driving force behind using sanctions is the idea that they are a better tool than war for managing conflicts between states. In order for them to prevent war, they have to give a chance to success, and like war, a lasting framework for economic peace between both sides on the conflict must be enacted in order for sanctions to work. Thus, sanctions are a useful tool but only if they serve clear goals that *reduce* the chance of conflict, not escalate it. This is the enduring lesson of the potential for sanctions as a nonproliferation tool.

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LIST OF REFERENCES

- Addis, Adeno. "Economic Sanctions and the Problem of Evil." *Human Rights Quarterly*, Vol. 25, No. 3, (August 2003): 573–623.
- Allison, Graham, Herve de Carmoy, Therese Delpech, Pierre Goldschmidt, Chung Min Lee, and Henry A. Kissinger, *Nuclear Proliferation: Risk and Responsibility*. Washington D.C.: The Trilateral Commission, 2006.
- Azevedo, Mario, *Roots of Violence: A History of War in Chad*, Charlotte, North Carolina: University of North Carolina Press, 1998.
- Bahgat, Gawdat. *Proliferation of Nuclear Weapons in the Middle East*. Gainesville: University of Florida Press, 2007.
- Bengali Shashank, "Saddam-era U.N. Sanctions Lifted on Iraq After 20 Years," McClatchy Newspapers, December 15, 2010, accessed on October 28, 2012, <http://www.mcclatchydc.com/2010/12/15/v-print/105359/saddam-era-un-sanctions-lifted.html>.
- Biersteker, Thomas J. *Targeted Financial Sanctions: A Manual for Design and Implementation*. Providence: The Thomas J. Watson Jr. Institute for International Studies, 2001.
- Brzoska, Michael. "Measuring the Effectiveness of Arms Embargoes." *Peace Economics, Peace Science and Public Policy*, Vol. 14, Issue 2 (2008): 1–31.
- Burgess, Stephen F., "South Africa's Nuclear Weapons Policies," *The Nonproliferation Review*, Vol. 13 Issue 3 (2006), 521–522.
- Burgess, Stephen F. and Helen E. Purkitt. *The Rollback of South Africa's Chemical and Biological Warfare Program*. Maxwell: The USAF Counterproliferation Center: 2001.
- Burgess, Stephen F. and Helen E. Purkitt. *South Africa's Weapons of Mass Destruction*. Bloomington and Indianapolis: Indiana University Press, 2005.
- Carbaugh, Robert. "Are Economic Sanctions Useful in Discouraging the Proliferation of Weapons of Mass Destruction?" *World Economics*, Vol. 9, No. 4 (2008): 181–200.
- Cha, Victor D. and David C. Kang. *Nuclear North Korea: A Debate on Engagement Strategies*. New York: Columbia University Press, 2003.

- Cirincione, Joseph with Jon Wolfstahl and Miriam Rajkumar, *Deadly Arsenals: Tracking Weapons of Mass Destruction*, Washington, DC: Carnegie Endowment for International Peace, 2002.
- Mark, Clyde R., *CRS Issue Brief for Congress: Libya*, Washington, D.C.: Congressional Research Service, April 10, 2002.
- Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction*. Organization for the Prohibition of Chemical Weapons, 1992. Accessed on May 30, 2012 at <http://www.opcw.org/chemical-weapons-convention/>
- Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction*. Organization for the Prohibition of Biological Weapons, 1972. Accessed on May 30, 2012 at ([http://www.unog.ch/80256EDD006B8954/%28httpAssets%29/66E5525B50871CAEC1257188003BDDD6/\\$file/BWC_Text_Additional_Understandings.pdf](http://www.unog.ch/80256EDD006B8954/%28httpAssets%29/66E5525B50871CAEC1257188003BDDD6/$file/BWC_Text_Additional_Understandings.pdf)).
- Cortright, David and George A. Lopez. *Economic Sanctions: Panacea or Peacebuilding in a Post-Cold War World*. Boulder: Westview Press, 1996.
- Cortright, David and George A. Lopez. *Smart Sanctions: Targeting Economic Statecraft*. Lanham: Rowman and Littlefield Publishers, 2002.
- Cortright, David and George A. Lopez. *The Sanctions Decade: Assessing UN Strategies in the 1990s*. Boulder: Lynne Rienner Publishers, 2000.
- Cortright, David and George A. Lopez. "Containing Iraq: Sanctions Worked" *Foreign Affairs*, Vol. 83, No. 4 (Jul. - Aug., 2004): 90–103.
- Davis, Lynn E, Jeffery Martinin, Kaye Nader, Dassa Dalia, James T. Quinlian, and Paul Steinberg. *Iran's Nuclear Future: Critical U.S. Policy Choices*. Santa Monica: RAND, 2011.
- Delpech, Therese. *Iran and the Bomb: The Abdication of International Responsibility*. Translated by Ros Schwartz. New York: Columbia University Press, 2006.
- Drezner, Daniel W. "How Smart are Smart Sanctions?" *International Studies Review* (2003): 5, 107–110.
- Drezner, Daniel W. *The Sanctions Paradox: Economic Statecraft and International Relations*. Cambridge: The Cambridge University Press, 1999.

- Eisenstadt, Michael and Mehdi Khalaji, "Nuclear Fatwa: Religion and Politics in Iran's Proliferation Strategy," *The Washington Institute for Near East Policy*, Policy Focus Number 115, September 2011.
- Ellis, Jason D. and Geoffrey D. Kiefer. *Combating Proliferation: Strategic Intelligence and Security Policy*. Baltimore: The Johns Hopkins University Press, 2004.
- Erdbrink, Thomas, "Iran's President Ties Recent Drop in Currency to U.S.-Led Sanctions," *The New York Times*, October 2, 2012, accessed on November 14, 2012,
http://www.nytimes.com/2012/10/03/world/middleeast/iran-president-mahmoud-ahmadinejad-ties-currency-drop-to-sanctions.html?_r=0.
- George, Alexander L. and William E. Simons. *The Limits of Coercive Democracy, second edition*. Boulder: Westview Press, 1994.
- George, Marcus, "West 'vaccinated' Iran Against Sanctions: Khamenei," *Reuters*, July 11, 2012, accessed on November 14, 2012,
<http://www.reuters.com/article/2012/07/11/us-iran-sanctions-idUSBRE86A0MF20120711>.
- Gonyea Don, "Jesting, McCain Sings: 'Bomb, Bomb, Bomb' Iran," *National Public Radio*, April 20, 2007, accessed on November 14, 2012,
<http://www.npr.org/templates/story/story.php?storyId=9688222>.
- Goodson, Donald L. R., "Catalytic Deterrence," *Politikon: South African Journal of Political Studies*, Vol. 39, Issue 2 (August 2012), 209–230.
- Gordon, Joy. *Invisible War: The United States and the Iraq Sanctions*. Cambridge: Harvard University Press, 2010.
- Gould, Chande and Peter I. Folb, "The South African Chemical and Biological Program: An Overview," *The Nonproliferation Review*, Fall/Winter 2000.
- Google Public Data, "Gross Domestic Product: Iraq," Source: The World Bank, accessed on November 14, 2012,
https://www.google.com/publicdata/explore?ds=d5bncppjof8f9_&met_y=ny_gdp_mktp_cd&idim=country:IRQ&dl=en&hl=en&q=iraq%20gdp.
- Google Public Data, "Gross Domestic Product: Libya," Source: The World Bank, accessed on November 14, 2012,
https://www.google.com/publicdata/explore?ds=d5bncppjof8f9_&met_y=ny_gdp_mktp_cd&idim=country:LYB&dl=en&hl=en&q=libya%20gdp
- Gottemoeller, Rose. "The Evolution of Sanctions in Practice and Theory." *Survival*, Vol. 49 Issue 4 (2007): 4, 99–110.

- Horvitz Paul F. "Christopher Sees Sanctions in Place As Long as Saddam Stays in Power : U.S. Message to Iraq Move Troops or Else." *The New York Times*, October 17, 1994.
- Hovi, Jon. "When Do (Imposed) Economic Sanctions Work?" *World Politics*, Vol. 57, No. 4 (July 2005): 479–499/
- Hufbauer, Gary Clyde, Kimberly Ann Elliot, and Jeffrey J. Schott, *Economic Sanctions Reconsidered: History and Current Policy, second edition, volumes 1–3*. Washington D.C.: Institute for International Economics, 1985.
- Hufbauer, Gary Clyde, Kimberly Ann Elliot, Barbara Oegg, and Jeffrey J. Schott, *Economic Sanctions Reconsidered: History and Current Policy, third edition*. Washington D.C.: Institute for International Economics, 2007.
- Hunter, Robert E., "The Iran Case: Addressing Why Countries Want Nuclear Weapons," *Arms Control Today*, Vol. 34 (December 2004), accessed on September 28, 2012, http://www.armscontrol.org/act/2004_12/Hunter.
- Huseby, Robert. "When Do (Imposed) Economic Sanctions Work?" *World Politics*, Vol. 57, No. 4 (July 2005): 479–499.
- Joseph, Robert G. *Countering WMD: The Libyan Experience*. Fairfax: National Institute Press, 2009.
- Katzman, Kenneth, *Iran Sanctions*, Washington D.C.: The Congressional Research Service, October 15, 2012.
- Kristensen, Hans, "Nuclear Posture Review Report [Reconstructed]," *Federation of American Scientists*, January 8, 2002, accessed on December 15, 2011. http://www.fas.org/blog/ssp/united_states/NPR2001re.pdf
- Levy, Philip I., "Sanctions on South Africa: What Did They Do?" *The American Economic Review*, Vol. 89, No. 2 (May, 1999), 415–420.
- Liberman, Peter, "The Rise and Fall of the South African Bomb," *International Security*, Vol. 26, No. 2, Fall 2001, 45–86.
- MacIsaac, David. *Voices from the Central Blue: The Air Power Theorists*. In *Makers of Modern Strategy*, edited by Peter Paret, 624–647. Princeton: The Princeton University Press, 1986.
- Milani Mohsen, "Tehran's Take: Understanding Iran's U.S. Policy," *Foreign Affairs*, Vol. 88, Issue 4, July/August 2009.
- Military Strategy of the United States of America*, Washington D.C.: The Defense Department, 2012.

- Mueller, John and Karl Mueller. "Sanctions of Mass Destruction." *Foreign Affairs*, Vol. 78, No. 3 (May/June 1999): 43–53.
- National Defense Strategy*, Washington D.C.: The Defense Department, 2008.
- Newnham, Randall "Carrots, Sticks, and Bombs: The End of Libya's WMD Program." *Mediterranean Quarterly*, Vol. 20, No. 3 (2009): 77–94
- O'Sullivan, Meghan L. *Shrewd Sanctions: Statecraft and State Sponsors of Terrorism*. Washington D.C.: Brookings Institute Press, 2003.
- Pape Robert A. "Why Economic Sanctions Do Not Work." *International Security*, Vol. 22, No. 2 (Autumn, 1997): 90–136.
- Paret, Peter, "Clausewitz," in *Makers of Modern Strategy*, ed. by Peter Paret, Princeton, NJ: Princeton University Press, 1986.
- Quadrennial Diplomacy and Development Review*, Washington D.C.: The Department of State, 2010.
- Remarks of President Barack Obama*, Hradčany Square Prague, Czech Republic April 5, 2009.
- Scharfen, John C. *The Dismal Battlefield: Mobilizing for Economic Conflict*. Annapolis: Naval Institute Press, 1995.
- Shen, Dingli. "Can Sanctions Stop Proliferation?" *The Washington Quarterly*, Vol. 31, No. 3 (2008): 89–100.
- Tarnoff, Curt and Marian Leonardo Lawson, *Foreign Aid: An Introduction to U.S. Programs and Policy*, Washington D.C.: Congressional Research Service, 2011.
- Taylor, Brendan. *Sanctions as Grand Strategy*. New York: Routledge, 2010.
- The 99th Congress, *The Comprehensive Anti-apartheid Act of 1986*, Public Law 99–440, accessed on October 28, 2012, <http://thomas.loc.gov/cgi-bin/bdquery/z?d099:HR04868:@@L&summ2=m&>.
- The 104th Congress, *Iran and Libya Sanctions Act of 1996*, Public Law 104–172, accessed on October 28, 201, <http://www.gpo.gov/fdsys/pkg/PLAW-104publ172/html/PLAW-104publ172.htm>.
- The 105th Congress, *Iraq Liberation Act of 1998*, HR 4655, Congressional Record, Vol. 144, 1998, accessed on October 28, 2012, <http://thomas.loc.gov/cgi-bin/query/z?c105:H.R.4655.ENR:>.

- The 108th Congress, *The Iraq Sanctions Act of 1990*, Public Law 108–11, accessed on October 28, 2012 <http://www.gpo.gov/fdsys/pkg/PLAW-108publ11/html/PLAW-108publ11.htm>
- The 112th Congress, 1st Session, The United States House of Representatives, “Iran Threat Reduction Act of 2012,” May 13, 2011 accessed on November 14, 2012, http://rules.house.gov/Media/file/PDF_112_1/Suspension%20bills/HR19051209.pdf.
- The 112th Congress, 2nd Session, “Senate Resolution 380,” February 16, 2012, accessed on November 14, 2012, <http://thomas.loc.gov/cgi-bin/query/z?c112:S.RES.380>:
- The Associated Press, “Secret U.S. Mission Hauls Uranium from Iraq,,” July 5, 2008 accessed on October 28, 2012, http://www.msnbc.msn.com/id/25546334/ns/world_news-mideast_n_africa/t/secret-us-mission-hauls-uranium-iraq/#.UH3BJqOJmSo.
- The Cable News Network, “Top Bush officials push case against Saddam,” September 8, 2002, accessed on November 8, 2012, http://articles.cnn.com/2002-09-08/politics/iraq.debate_1_nuclear-weapons-top-nuclear-scientists-aluminum-tubes?_s=PM:ALLPOLITICS.
- The Central Intelligence Agency “CIA World Factbook: Iraq,” accessed on October 28, 2012, <https://www.cia.gov/library/publications/the-world-factbook/geos/iz.html>.
- The European Union Commission on Trade, Countries and Regions: Iran,” accessed on November 14, 2012, <http://ec.europa.eu/trade/creating-opportunities/bilateral-relations/countries/iran/>.
- The International Atomic Energy Agency, “Implementation of the NPT Safeguards Agreement and relevant provisions of Security Council resolutions in the Islamic Republic of Iran,” November 8, 2011, accessed on November 14, 2012, <http://www.iaea.org/Publications/Documents/Board/2011/gov2011-65.pdf>.
- The International Atomic Energy Agency, “Implementation of the NPT Safeguards Agreement and relevant provisions of Security Council resolutions in the Islamic Republic of Iran,” August 30, 2012, accessed on November 14, 2012, <http://www.iaea.org/Publications/Documents/Board/2012/gov2012-37.pdf>.
- The International Atomic Energy Agency, “Iraq Nuclear File: Key Findings,” accessed on October 28, 2012, <http://www.iaea.org/OurWork/SV/Invo/factsheet.html#3>
- The National Security Strategy of the United States*. Washington D.C.: The White House, 1990, 1991, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2002, 2006, and 2010.
- The Nuclear Posture Review Report*, Washington D.C.: The Defense Department, 2010.

- The Nuclear Threat Initiative, “Country Profile: Iran,” accessed on November 14, 2012, <http://www.nti.org/country-profiles/iran/>.
- The Nuclear Threat Initiative. “Country Profiles, Nuclear, Libya,.” accessed on May 25, 2012. <http://www.nti.org/country-profiles/libya/nuclear/>.
- The Nuclear Threat Initiative, “Iraq Nuclear Chronology,” accessed on October 28, 2012, http://www.nti.org/media/pdfs/iraq_nuclear.pdf?_=1316466791.
- The Nuclear Threat Initiative*, 1 “South Africa Nuclear Chronology,” accessed on August 22, 2012, http://www.nti.org/media/pdfs/south_africa_nuclear.pdf?_=1316466791
- The President George W. Bush White House Archives,” President Delivers State of the Union Address,” January 29, 2002, accessed on December 15, 2011. <http://georgewbush-whitehouse.archives.gov/news/releases/2002/01/20020129-11.html>.
- The United Nations, “United National Security Council Resolution 1483,” May 22, 2003, accessed on October 28, 2012, <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N03/368/53/PDF/N0336853.pdf?OpenElement>.
- The United Nations, “United Nations Security Council Resolution 1762,” June 29, 2007, accessed on October 28, 2012, <http://www.un.org/depts/unmovic/new/documents/resolutions/s-res-1762.pdf>.
- The United Nations, “United Nations Security Council Resolution 1929,” June 9, 2010, accessed on November 14, 2012, http://www.iaea.org/newscenter/focus/iaeaairan/unsc_res1929-2010.pdf.
- The United States Department of State, “Iran Sanctions: Statutes,” Accessed on November 14, 2012, <http://www.state.gov/e/eb/tfs/spi/iran/statutes/index.htm>.
- Tostensen, Arne. ”Are Smart Sanctions Feasible?” *World Politics*, Volume 54, Number 3, (April 2002): 373–403.
- Tripp, Charles, *A History of Iraq*, Second Edition, Cambridge: Cambridge University Press, 2000.
- Treaty on the Non-Proliferation of Nuclear Weapons. The United Nations, 1968. Accessed on May 30, 2012, <http://www.state.gov/t/isn/trty/16281.htm>.
- Woods, Kevin and Williamson Murray, Elizabeth Nathan, Laila Sabara, and Ana Venegas, *Saddam’s Generals: Perspectives of the Iran-Iraq War*, Alexandria, Virginia: Institute for Defense Analysis, 2010.

Zakaria ,Tabassum and Caren Bohan, “Obama’s Olive Branch to Iran Turned into Sanctions Hammer,” *Reuters*, January 13, 2012, accessed on November 14, 2012, <http://www.reuters.com/article/2012/01/13/us-obama-iran-idUSTRE80C26V20120113>

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