
# NAVAL POSTGRADUATE SCHOOL

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# THESIS

**FOSTERING COOPERATION IN NONPROLIFERATION ACTIVITIES**

by

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December 2007

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One of the greatest dangers the United States faces in the 21st century is the possible use of weapons of mass destruction (WMD) by a terrorist organization. The U.S. plan to combat WMD relies on both counterproliferation and nonproliferation activities. Since transnational terrorist groups operate across numerous states, these efforts require a broad multilateral effort to be successful. Therefore, there is a strong incentive to increase global participation in nonproliferation and counterproliferation activities. Understanding the conditions under which states will participate in these endeavors is vital to expanding state participation and denying terrorist access to WMD.

This thesis used both statistical and case study analysis to examine five variables which might positively influence international cooperation in the following nonproliferation/counterproliferation activities: the Proliferation Security Initiative, the Cooperative Threat Reduction program, and the Global Threat Reduction Initiative. The five variables were security assistance, alliances, international organizations, domestic politics, and economic freedom. The findings supported the importance of international institutions and the role domestic politics play in a state's decision to cooperate. In order to increase international cooperation in these programs, the U.S. should formally link the programs to an international organization and invest more resources in positively influencing foreign domestic populations.


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**FOSTERING COOPERATION IN NONPROLIFERATION ACTIVITIES**

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This thesis used both statistical and case study analysis to examine five variables which might positively influence international cooperation in the following nonproliferation/counterproliferation activities: the Proliferation Security Initiative, the Cooperative Threat Reduction program, and the Global Threat Reduction Initiative. The five variables were security assistance, alliances, international organizations, domestic politics, and economic freedom. The findings supported the importance of international institutions and the role domestic politics play in a state's decision to cooperate. In order to increase international cooperation in these programs, the U.S. should formally link the programs to an international organization and invest more resources in positively influencing foreign domestic populations.

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# I. INTRODUCTION

## A. PURPOSE

The purpose of this thesis is to study why states increase their participation in international nonproliferation activities. In particular, it examines under what conditions states will participate in the Cooperative Threat Reduction (CTR) program, Global Threat Reduction Initiative (GTRI) and the Proliferation Security Initiative (PSI). This thesis will use statistical analysis to examine cooperation across 46 states and use case studies to look in-depth at the governments of Russia, China, and India to determine why states participate in cooperative nonproliferation activities or decide not to. Although this thesis will not provide a definitive solution to why states increase participation in cooperative nonproliferation activities, it will provide a foundation for determining what conditions make cooperation more likely.

## B. IMPORTANCE

Preventing the proliferation of nuclear weapons has been a policy objective of the United States since the atom bomb was first created in 1945. However, the terrorist attacks on 9/11 highlighted an emerging transnational terrorist threat intent on causing mass casualties and gave a new focus to U.S. nonproliferation policy. Whereas prior to 9/11, the United States was primarily concerned about the spread of weapons of mass destruction (WMD) to other nations, the new concern was the potential use of WMD by a terrorist group. A report by the FBI's National Infrastructure Protection Center cautioned, "Al Qaeda and affiliated groups continue to enhance their capabilities to conduct effective mass-casualty chemical, biological, radiological, and nuclear (CBRN) attacks and that Al Qaeda possesses al least a crude capability to use CBRN weapons."[1] President George W. Bush further emphasized this threat by stating:

[1] John Parachini, "Putting WMD Terrorism into Prospective," in *Homeland Security and Terrorism*, ed. Russell Howard et al (New York: McGraw-Hill 2006), 31.

> 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.[2]

The U.S. plan to combat WMD relies on three pillars: counterproliferation, nonproliferation, and consequence management.[3] This thesis studies CTR and the GTRI as methods of nonproliferation and the PSI as a method of counterproliferation. Since transnational terrorist groups operate across numerous states, the first two pillars require a broad multilateral effort to be successful. Therefore, there is a strong incentive to increase global participation in nonproliferation and counterproliferation activities. Understanding the conditions under which states will participate in these endeavors is vital to expanding participation and denying terrorist access to WMD. After analyzing these conditions, this thesis will provide recommendations on strategies the U.S. can use to increase participation.

## C. LITERATURE REVIEW

This thesis builds on two bodies of academic literature. The first body of literature encompasses nonproliferation and, more specifically, the body of literature pertaining to CTR, GTRI, and PSI. The second body of literature this thesis addresses is international relations (IR), particularly with respect to security and cooperation.

### 1. Survey of Prior CTR Studies

The CTR program was created to assist the former Soviet Union states in dismantling their nuclear weapons and delivery systems, securing their nuclear warheads and fissile material, and converting defense industries to civilian use. The program also includes projects to destroy chemical weapon stockpiles and secure chemical and biological weapon storage sites. There has been a steady stream of literature written on the CTR program over the last 10 years. The vast majority of the literature agrees that

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[2] "National Security Strategy for the United States," National Security Council, http://www.whitehouse.gov/nsc/nss.html, last accessed October 2007, Introduction.

[3] "National Strategy to Combat Weapons of Mass Destruction," U.S. State Department, http://www.state.gov/documents/organization/16092.pdf, last accessed October 2007, 5.

the CTR program has been successful in reducing the proliferation threat to U.S. national security.[4] The supporters of the program highlight the many successes experienced to date. These include:

> 6883 nuclear warheads deactivated, 80% of Russian nuclear storage sites have been secured, 260 tons of fissile materials have been isolated, 275 metric tons of highly enriched uranium have been rendered useless for weapons, 35% of Russian chemical weapon sites have received security upgrades, 80 strategic border crossings have been outfitted with radiation detection equipment, and 58,000 former weapons scientists and engineers redirected to peaceful research.[5]

Other, more nebulous benefits include increased diplomatic cooperation and goodwill between countries. However, the detractors point to the lack of verifiable results and the use of funds for projects that do not directly increase U.S. national security.[6]

Another area of debate involves the merits of expanding the CTR program to additional countries versus continuing to use all of the funds in the former Soviet Union states. One argument is for the use of all the CTR funds in Russia where the majority of the world's WMD and fissile material now reside. On the other hand, the majority argues that the terrorist threat requires expansion of the CTR program to additional countries.[7]

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[4] Sharon Squassoni, *Globalizing Cooperative Threat Reduction: A Survey of Options* (CRS Report for Congress, October 2006); *Reshaping U.S.-Russian Threat Reduction: New Approaches for the Second Decade* (Carnegie Endowment for International Peace & Russian-American Nuclear Security Advisory Council, 2002); Robert J. Einhorn and Michele A. Flournoy, *Protecting against the Spread of Nuclear, Biological, and Chemical Weapons: An Action Agenda for the Global Partnership* (Center for Strategic and International Studies Press, 2003); William J. Durch, *Twenty-First Century Threat Reduction: Nuclear Study Results* (Advanced Systems Concepts report, 30 Nov, 2001); Lewis A. Dunn et al, *An Assessment of Preventative Threat Reduction* (Science Applications International Corp report, Febuary 2001).

[5] "The Nonproliferation Scorecard: Highlights," The Henry L. Stimson Center, www.stimson.org/ctr/?sn=ct20050308789, last accessed June 2007.

[6] Rich Kelly, *The Nunn-Lugar Act: A Wasteful and Dangerous Illusion* (CATO Institute, 18 Mar 1996), http://www.cato.org/pubs/fpbriefs/fpb-039.htm, last accessed June 2007; U.S. Government Accountability Office, *Cooperative Threat Reduction: DoD has improved its Management and Internal Controls, but Challenges Remain*, June 2005, report GAO-05-329, 23.

[7] *A Study for the Defense Threat Reduction Agency Advanced Systems and Concepts Office: The future of the Cooperative Threat Reduction Program* (DFI International/Sparta inc., March 2001); William J. Durch, *Twenty-First Century Threat Reduction: Nuclear Study Results* (Advanced Systems Concepts report, Nov 2001); Sharon Squassoni, *Globalizing Cooperative Threat Reduction: A Survey of Options* (CRS Report for Congress, October 2006).

### 2. Survey of Prior GTRI Studies

While the pentagon-led CTR program focuses on threat reduction at military sites, the Department of Energy-led GTRI was established in 2004 to recover and secure fissile material (highly enriched uranium (HEU) and plutonium) at civilian sites. The majority of the literature agrees that removing nuclear material, converting HEU reactors to low enriched uranium (LEU) reactors, and improving security at sites that cannot be converted are worthy efforts to keep highly dangerous material out of the hands of terrorists.[8] The dissent with these programs comes not from their applicability to reducing the threat but over the lack of funding and focused diplomacy, extended time-tables, and deficiency of personnel.[9]

### 3. Survey of Prior PSI Studies

The Proliferation Security Initiative was proposed by President Bush in 2003. The PSI is an agreement between like-minded countries to prevent the shipment of WMD, related material, and their delivery systems. It is an activity, not an organization, which focuses a state's attention on the problem of WMD proliferation and the practical aspects involved in conducting a successful interdiction. Since its inception, the PSI has garnered the support of over 80 countries and generated a fair amount of controversy. The majority of the literature praises the PSI as an innovative and flexible framework for conducting interdiction efforts against the evolving threat from highly adaptable, transnational terrorist organizations. However, the majority of the literature also points out the many problems associated with the initiative, ranging from the legal right to board vessels in international waters to the pitfalls of having no permanent organization or

[8] Alexander Glasser and Frank von Hippel, "Global Cleanout: Reducing the Threat of HEU-fueled Nuclear Terrorism," *Arms Control Today,* Jan/Feb 2006, 18; Paul Longsworth, *National Nuclear Security Administration Statement to House Committee on Energy and Commerce,* (Washington D.C.: May 2005); Matthew Bunn and Anthony Wier, *Securing the Bomb 2006* (John F. Kennedy School of Government, Harvard University, July 2006); George Perkovich et al., *Universal Compliance: A Strategy for Nuclear Compliance* (Carnegie Endowment for International Peace, 2005).

[9] Glasser, "Global Cleanout: Reducing the Threat of HEU-fueled Nuclear Terrorism;" Bunn, *Securing the Bomb 2006*; Perkovich, *Universal Compliance: A Strategy for Nuclear Compliance*.

budget.[10] While there has been much written on the successes and failures of the CTR program, GTRI and the PSI, there has been little attention given to the specific conditions which precipitate participation in these programs by individual states. Knowing the conditions will enable the U.S. to employ appropriate strategies to maximize participation in these efforts and improve the chances of preventing terrorist access to WMD.

## 4. Survey of Prior Research on International Cooperation

There have been many theories put forth over the past 30 years on why states cooperate. Of these,

> Liberalism and realism are the two bodies of theory which hold places of privilege on the theoretical menu of international relations. Most of the great intellectual battles among international relations scholars take place either across the divide between realism and liberalism, or within those paradigms.[11]

Realism can further be divided into offensive and defensive realism.

### *a. International System Theory*

Offensive realism, championed by Mearsheimer,[12] argues that all states strive to maximize their relative power and that the international system creates incentives for states to expand their power when the benefits outweigh the costs. Cooperation under this theory can be explained by one state using its power to impose its will on another state. One of the primary methods states use to impose their will is issue linkage. Hegemonic powers can tie access to natural resources, financial capital, or security assistance to political or economic cooperation.[13] Defensive realism, as defined

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[10] Joel Doolin, "The Proliferation Security Initiative: Cornerstone of a new International Norm," *Naval War College Review* (Spring 2006); Sharon Squassoni, *Proliferation Security Initiative* (CRS Report for Congress, Sep 2006); Mark Shulman, *The Proliferation Security Initiative as a New paradigm for Peace and Security* (April 2006), www.StrategicStudiesInstitute.army.mil, last accessed July 2007; Mark Valencia, *Proliferation Security Initiative: Making Waves in Asia* (Adelphia, 2005).

[11] John Mearsheimer, "Liberal talk, realist thinking," *University of Chicago Magazine 94,* no. 5 (February, 2002), http://magazine.uchicago.edu/0202/features/index.htm, last accessed July 2007.

[12] Ibid.

[13] Robert Gilpin, *War and Change in World Politics* (Cambridge: Cambridge University Press, 1981), 144-145.

by Waltz,[14] argues that states should pursue only moderate increases in power because large increases in power will result in states joining forces to "balance" against the side that is increasing its power. This balancing will often leave the state worse off than before it gained the additional power. Thus, the international system encourages states to maintain the current balance of power. In this system, cooperation would most often occur along the lines of an alliance.

Contrary to realism, liberalism argues that state preferences, instead of state capabilities, have the greatest influence on state actions. Preferences will vary from state to state and are shaped by such factors as culture, economic system, and type of government. The differences in these factors will form a set of state preferences that ultimately determine the state's behavior.[15] Many states share similar factors and liberalists would contend cooperation takes place because states want to cooperate on common interests. Nye further describes the factors of culture, values, and foreign policy as soft power. He believes soft power gives a state the ability to get what it wants through attraction rather than coercion or payment and is an important tool to gain international cooperation.[16]

Neoliberalism (also called neoliberal institutionalism) emphasizes the multifaceted interdependence among countries and the importance of international regimes. It emphasizes how reciprocity can encourage mutual cooperation in situations of continuing interaction.[17] Keohane argues that regimes, by linking issues together, create situations in which cooperation may be rational. The long-term benefits of cooperation will outweigh the short-term benefit of defection. "Social pressure, exercised through linkage among issues, provides the most compelling set of reasons for

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[14] Kenneth Waltz, *Theory of International Politics* (New York: McGraw-Hill, 1979), 102-110.

[15] John Mearsheimer, "Liberal talk, realist thinking," *University of Chicago Magazine 94,* no. 5 (February, 2002), http://magazine.uchicago.edu/0202/features/index.htm, last accessed Jul 2007; Andrew Moravcsik, "Taking Preferences Seriously: A Liberal Theory of International Politics: Erratum," *International Organization*, Vol. 52, No. 1. (Winter, 1998).

[16] Joseph Nye, "Soft Power and American Foreign Policy," *Political Science Quarterly* (Summer 2004):256-261.

[17] Robert Axelrod, *The Evolution of Cooperation* (Basic Books, 1984).

governments to comply with their commitments."[18] In other words, states will follow the rules because if they fail to do so, other states will observe their behavior and may retaliate. Similarly, Oye claims that mutuality of interest and the shadow of the future are two dimensions that help us understand cooperation. In his argument, international regimes play an important role in maintaining standards, providing collective enforcement, and linking the future with the present.[19] In this theory, cooperation would be greatest when states are significantly involved with international institutions.

### *b. Subnational Theory*

While realism and liberalism explain cooperation from the system level, several theories of international relations go to the subnational level. Solingen argues that political elites form domestic coalitions across different constituencies and the grand strategies of coalitions explain cooperation. Of the three types of coalitions−internationalizing, backlash, and hybrid−internationalist coalitions value regional stability, foreign investment, international trade, and arms control and are more receptive to great power inducements than other types of coalitions.[20] In another subnational theory, Putnam explains that international negotiations are a two-level game where at "the national level domestic groups pursue their interests by pressuring the government to adopt favorable policies and politicians seek power by constructing coalitions among those groups."[21] At the international level, governments seek to satisfy domestic pressures while minimizing the adverse consequences of foreign policy.[22] In Putnam's theory, cooperation occurs because two leaders are able to agree on a foreign

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[18] Robert Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton: Princeton University Press, 1984), 103-104.

[19] Kenneth Oye, *Cooperation Under Anarchy* (Princeton: Princeton University Press, 1986), 9-16.

[20] Etel Solingen, "Internationalization, Coalitions, and Regional Conflict and Cooperation," *Economic Interdependence and International Conflict,* ed. Edward Mansfield and Brian Pollins (Ann Arbor: University of Michigan Press, 2003), 62-68.

[21] Robert Putnam, "Diplomacy and Domestic Politics: The Logic of Two-Level Games," *Double-Edged Diplomacy: International Bargaining and Domestic Politics*, ed. Peter Evans, Harold Jacobson and Robert Putnam (University of California Press, 1993), 437-445.

[22] Ibid.

policy course that satisfies both of their respective domestic coalitions. In this theory, cooperation occurs when domestic political elites and interest groups support international engagement.

## D. MAJOR QUESTIONS AND ARGUMENT

Although a fair amount of literature has addressed both nonproliferation and international cooperation, there is a gap in the knowledge where these two bodies intersect. Neither the literature on nonproliferation nor the theories proposing explanations for cooperation address the conditions under which states participate in nonproliferation and counter-proliferation activities.

This thesis addresses the questions: "Under what conditions will states cooperate in threat reduction activities?" and "Under what conditions will states cooperate in the PSI?" This thesis assumes U.S. support for threat reduction and WMD interdiction activities and will focus mainly on the factors influencing a foreign state's decision to cooperate with the U.S. All of the theories on cooperation discussed earlier can be correct in different situations. Lisa Martin noted that:

> In order to understand the problem of cooperation among states, we have to acknowledge that international politics creates a wide range of cooperation problems and that explanations of how states cooperate will vary, depending on specific sets of interests.[23]

Narrowing the focus of international cooperation down to threat reduction and interdiction and drawing on the literature, two sets of variables can be proposed to help us understand when states will cooperate. One set of variables encompasses the external factors and the second focuses on the subnational factors.

### 1. International-Level Independent Variables

The international-level independent variables (IVs) are security assistance, alliances, and participation in international regimes. One theory of cooperation proposes the powerful states use issue linkage to obtain cooperation from weaker states. More

[23] Lisa Martin, *Coercive Cooperation: Explaining Multilateral Economic Sanctions* (Princeton: Princeton University Press, 1992), 30.

specifically, Gilpin argues that powerful states use security assistance as a link to obtain cooperation. Since "nonproliferation issues are 'at the very heart' of U.S. foreign policy,"[24] we would expect the U.S. to link security assistance to nonproliferation cooperation. Thus, higher levels of cooperation should occur among states receiving security assistance. The IV "security assistance" comprises the total dollar value, in 2006, of "peace and security" assistance, foreign military sales (FMS), and commercial exports approved under the Arms Export Control Act.

The realists supporting balance of power theory would expect to see states forming alliances and displaying the greatest amount of cooperation within those alliances.[25] Applying this theory, we would expect to see states cooperating with U.S. nonproliferation initiatives if they are in a defensive alliance with the U.S. The IV "alliances" will be a dichotomous variable signifying a defense alliance with the U.S. A defense alliance is considered to exist if a state has signed a formal defense agreement with the U.S., such as participation in NATO, or allowed the U.S. to base forces in their country. Conversely, since the current nonproliferation policies focus their greatest attention on "states of concern," we would expect to see the least amount of cooperation from major states allied with countries designated as sponsors of terrorism. The current list includes Cuba, Iran, North Korea, Sudan and Syria as state sponsors of terrorism.[26]

The last international-level IV measures participation in international organizations. Theory suggests that international organizations assist in linking issues and connecting the present with the future. States with heavy participation in international organizations should be more susceptible to issue linkage than states with little international participation. Additionally, states with heavy international participation should conform more closely with widely held norms. Since there is currently a strong international norm against the proliferation of WMD, we would expect greater cooperation from states participating in international organizations. This variable

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[24] Stephen Kaufman, "State Dept.: U.S. Officials Seek Stronger Relations with Argentina," *US Fed News* (HT Media Ltd, 15 Feb 2007), 2.

[25] Charles L. Glaser, "Realists as Optimists: Cooperation as Self-Help," *International Security* 19 (Winter, 1994): 50.

[26] U.S. Dept. of State, *Country Reports on Terrorism 2006* (Washington, Apr 2007), http://www.state.gov/s/ct/rls/crt/2006/, last accessed October 2007, 145-149.

will measure state participation in the World Trade Organization (WTO), International Monetary Fund (IMF), World Bank (WB), World Health Organization (WHO), Nuclear Supplier Group (NSG), Wassenaar arrangement (WA), Australia Group (AG), and the International Code of Conduct Against Ballistic Missile Proliferation (ICOC). These organizations were selected as a representative sample of international economic and nonproliferation-related organizations.

### 2. Subnational-Level Independent Variables

The subnational factors examined are domestic politics and the economy. The subnational IR theory suggests international cooperation relies on favorable domestic coalitions which are a combination of political elites, public opinion, and interest groups. The IV "domestic politics" will examine the opinion and attitude of foreign political elites and the foreign public toward the U.S. and nonproliferation in the case study countries. The IV "economy" will estimate the influence of economic interest groups using the 2007 Index of Economic Freedom.[27] This index measures 10 economic freedoms including business freedom, trade freedom, and investment freedom. States with high economic freedom scores should have more influential economic interest groups and will more closely resemble an internationalist coalition as defined by Solingen. We would expect the likelihood of cooperation to increase as the Economic Freedom score increases.

The IVs presented in this section form the basis for the following hypotheses which will be tested in this thesis:

- States are more likely to participate in a cooperative nonproliferation agreement if they receive U.S. security assistance.
- States are more likely to participate in a cooperative nonproliferation agreement if they are a defensive ally with the U.S.
- The likelihood of states participating in a cooperative nonproliferation agreement will increase as their activity in the international community increases.

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[27] Produced by the Heritage Foundation/*Wall Street Journal* and found at: http://www.heritage.org/index/, last accessed September 2007.

- States are more likely to participate in a cooperative nonproliferation agreement if their domestic political elites and public favor the U.S. and nonproliferation.
- The likelihood of states participating in a cooperative nonproliferation agreement will increase as their Economic Freedom score increases.

## E. METHODOLOGY AND SOURCES

### 1. Statistical Analysis

This thesis studies international cooperation in nonproliferation activities. The analysis is organized in two sections. The first section draws upon the international relations literature to postulate several hypotheses. These hypotheses are then tested against a group of 46 states that play a significant role in nonproliferation. The states include the 14 states with nuclear, biological, or chemical weapons programs (China, Russia, U.K., France, India, Pakistan, Israel, North Korea, Iran, Egypt, Syria, South Korea*, Libya*, Albania*),[28] the five states with suspected chemical weapons programs (Ethiopia, Myanmar, Saudi Arabia, Sudan, Vietnam)[29] and the 27 states with the potential ability to develop nuclear weapons (Algeria, Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Chile, Finland, Germany, Hungary, Indonesia, Italy, Japan, Mexico, Netherlands, Norway, Poland, Romania, Slovakia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine).[30]

This thesis will analyze the hypotheses using the logistic regression model, once for GTRI activities and a second time for PSI support. The dependent variable (DV) will be the state's participation in the nonproliferation activity (yes/no).

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[28] Joseph Cirincione et al, *Deadly Arsenals* (Brookings Institution Press, 2005), 22. Countries with a * represent countries with a chemical weapons program in the process of elimination under the Chemical Weapons Convention.

[29] Ibid., 81.

[30] Ibid., 55.

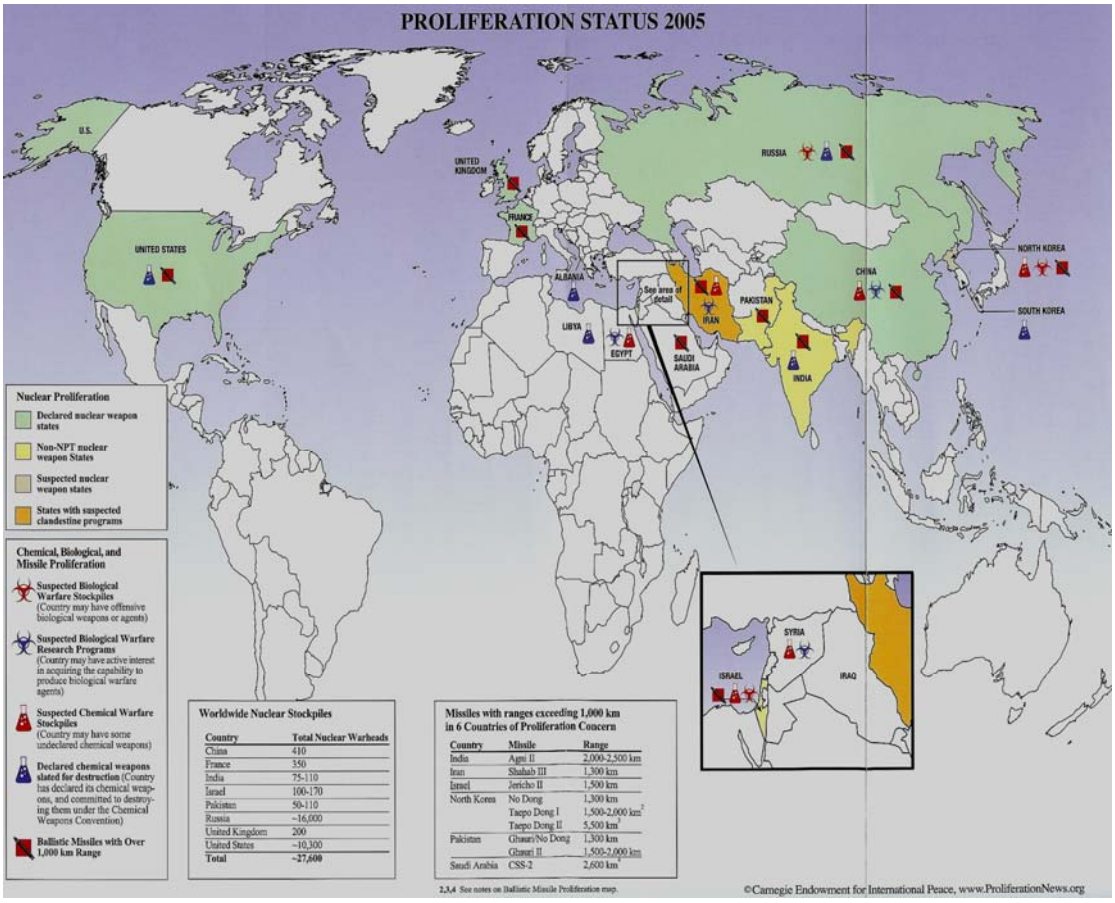


Figure 1. The World's Proliferation Status, from Deadly Arsenals[31]

## 2. Case Studies

While the statistical analysis will give us insight into the general importance of the IVs across a large number of states, it will not address the deeper political motivations involved in a decision to cooperate. The role of political elites, specific interests groups, and the public can only be understood through process tracing the political practices in several case studies. Therefore, the second section of this thesis examines the political process of three states−Russia, China, and India−with respect to nonproliferation activities over the past five years. These states were chosen because their diverse levels of participation and government types will provide useful insight into the conditions

[31] Joseph Cirincione et al, *Deadly Arsenals* (Brookings Institution Press, 2005), appendix.

leading to cooperation and because of their important role in regional or international politics. Of the three states, Russia has fully participated in the CTR, GTRI, and PSI, while China and India have only participated in GTRI. Each state has a different type of government with Russia having a partly democratized federation with increasing authoritarian elements, China a communist state, and India a democracy.[32]

## F. CONCLUSION

In the globalized world of the 21st century, transnational organizations operate without regard to international borders. Terrorist organizations are no exception as the attacks of September 11th, 2001, have shown. No country, even one as powerful as the United States, can combat the threat of transnational terrorist groups alone. As these groups recruit, plan, train, and attack in multiple countries, it requires the intelligence assets, operational forces, and legal powers of multiple governments to effectively track and defeat them. The possible use of WMD raises the stakes for all involved and makes countering that threat a top U.S. national security objective. Only through increased international cooperation can the U.S. expand critical programs to dismantle, secure, and interdict WMD and related material around the globe. As Chapter II of this thesis will show, the U.S. has worked to expand the CTR, GTRI, and PSI programs. However, additional expansion is vital to U.S. national security. Chapters III and IV of this thesis focus on examining the conditions that make cooperation more likely. As summarized in Chapter V, the research shows that international organizations and domestic politics are the two variables that most influence cooperation in nonproliferation activities. Recommendations in the chapter focus on increasing the role of international organizations and on methods to positively influence domestic elites, interest groups, and populations to support international nonproliferation cooperation.

[32] Central Intelligence Agency, *The World Fact Book* (Washington, 2007), https://www.cia.gov/library/publications/the-world-factbook/index.html, last accessed August 2007.

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# II. HISTORY

## A. INTRODUCTION

The development and advancement of nonproliferation programs is one element of the overall U.S. national strategy to combat WMD. There are many avenues the U.S uses to promote nonproliferation. These include bilateral arms control treaties (Strategic Arms Reduction Treaty), participation in global treaties (Nonproliferation Treaty), development of export control regimes (Nuclear Suppliers Group), and more recently, the use of threat reduction programs (Cooperative Threat Reduction and Global Threat Reduction Initiative). This thesis focuses on threat reduction as a means of nonproliferation. The key concept behind CTR and GTRI is to cut off access to WMD and fissile material at the source. It is much more cost effective to prevent terrorists from acquiring WMD and fissile material in the first place than it is to try and protect all possible targets from a WMD attack.

A second element of the U.S. strategy to combat WMD is counterproliferation. If a terrorist organization or rogue government manages to acquire WMD or related material, counterproliferation operations would include efforts to interdict the weapons or material prior to it reaching its final destination. This thesis examines the PSI as the main instrument for counterproliferation interdictions. This chapter looks at the history of CTR, GTRI, and PSI to establish a foundation for determining the conditions under which states cooperate in these programs.

## B. HISTORY OF CTR

In 1991, the Soviet Threat Reduction Act was passed by the U.S. congress as an initiative to assist the Soviets with their part of the START reductions. However, the official break-up of the Soviet Union in December 1991 raised serious issues of security and accountability of nuclear weapons and material in the states that comprised the former Soviet Union. Analyzing the potential effects of a break-up, many members of congress became concerned that the economic conditions in these states further enhanced the risk of nuclear proliferation. The threat existed of "an exodus of underpaid and/or

unemployed nuclear weapons specialists. Literally, tens, if not hundreds of thousands of scientists and engineers with experience in the design and manufacture of nuclear weapons and related technology worked in the huge Soviet nuclear weapons complex."[33]

In October of 1993, the Soviet Threat Reduction Act of 1991 was expanded and transformed, by sponsoring Senators Sam Nunn (D-GA) and Richard Lugar (R-IN), into the Cooperative Threat Reduction Act of 1993.[34] Also known as the Nunn-Lugar legislation, the Act was designed to aid in the storage, protection, and destruction of WMD in the former states of the Soviet Union.[35] This act authorized threat reduction activities in Russia, Ukraine, Kazakhstan, and Belarus, which were the four countries that inherited the Soviet strategic nuclear arsenal.

The Department of Defense (DoD) was the lead agency charged with implementing CTR programs. The DoD divided these projects into three categories:

> Destruction and dismantlement−projects designed to help with the elimination of nuclear, chemical, and other weapons and their delivery vehicles; chain of custody−projects designed to enhance the safety, security, and control over nuclear weapons and fissile materials; and demilitarization−projects encouraging countries to convert military efforts to peaceful purposes.[36]

Since the mid-1990s, the responsibilities for Nunn-Lugar legislation have expanded to include the Department of Energy (DOE) and the State Department. Each of these agencies brought additional funding and expertise to augment the initial CTR program. The DOE has taken on the lead role in securing nuclear weapon storage sites and in improving fissile material protection, control, and accountability (MPC&A) procedures at nuclear facilities. The State Department is primarily concerned with strengthening export controls, regulating dual use technologies, and providing commercial opportunities to former weapon scientists and engineers.

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[33] William C. Potter & John M. Shields, "Assessing the Dismantlement Process," *Dismantling the Cold War,* ed. William C. Potter & John M. Shields (Cambridge: The MIT Press, 1997), 4.

[34] Dunbar Lockwood, "The Nunn-Lugar program: No time to pull the plug," *Arms Control Today,* Washington, June 1995, Vol. 25, Iss. 5: 8.

[35] Nuclear Threat Initiative (NTI), "The Nunn-Lugar Cooperative Threat Reduction (CTR) Program," http://www.nti.org/db/nisprofs/russia/forasst/nunn_lug/overview.htm, last accessed March 2007.

### 1. CTR Successes

The CTR program has recorded many successes since its inception. Programs to consolidate the Soviet nuclear arsenal in Russia concluded with great accomplishment when Kazakhstan, followed by the Ukraine and then Belarus became non-nuclear weapons states. In December 2003, after 7 years of construction, the Mayak fissile material storage facility was completed. This facility will allow Russia to securely store 25 metric tons of plutonium.[37] In 2006, the U.S. and Russia signed an agreement extending the CTR umbrella agreement for an additional seven years. The overarching umbrella agreement provides a critical legal mechanism for the U.S. government and contractors to work in the host country. The umbrella agreement provides a framework for negotiating the practical problems, such as security clearances, encountered when implementing a program of this nature. There have been numerous other projects that have dismantled or secured Russian WMD and employed Russian scientists. Lisa Bronson, Deputy Under Secretary of Defense for Technology Security Policy and Counterproliferation, stated:

> Of the 62 CTR program areas Congress has funded since the program's inception, 51 of those areas are now complete. This reflects the large amount of former Soviet nuclear weapons inventory and infrastructures that CTR has helped eliminate or secure.[38]

All of these projects have contributed to nonproliferation and improved the security of the United States.

### 2. CTR Problems

Despite the many successes, there have also been cases of failure. The major problem the CTR initiative has encountered is periodic lack of cooperation from host

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[36] Amy F. Wolf, "Arms Control and Nonproliferation Activities: A Catalog of Recent Events" (CRS Report for Congress, January 2005), 23.

[37] Defense Threat Reduction Agency, "Cooperative Threat Reduction Fact Sheet," http://www.dtra.mil/newsservices/fact_sheets/display.cfm?fs=ctr, last accessed June 2007.

[38] Lisa Bronson, Deputy Under Secretary of Defense for Technology Security Policy and counterproliferation, testimony before the Senate Committee on Armed Services, Subcommittee on Emerging Threats and Capabilities, March 10, 2004, http://armed-services.senate.gov/statemnt/2004/March/Bronson.pdf, last accessed October 2007.

nations. This can come in the form of a failure to honor commitments, of security concerns, or of lack of political coordination and communication. Two examples of a lack of honoring commitments occurred when the Russian government failed to fund various parts of CTR projects. The Russian government paid neither its share of the $275 million required to fund the nuclear storage site at Mayak nor the upkeep costs of newly installed security equipment.[39] Another cooperation problem is the host nation desire for secrecy. There are some facilities in Russia that U.S. inspectors are not allowed to visit. One of the earliest criticisms of the CTR program was the funding of CTR projects at sites where the Russians did not allow inspectors access. This prevented the U.S. from obtaining objective evidence that the CTR money spent had the desired benefit accomplished. Later revisions of legislation mandated inspection and accountability as criteria for project funding. These new requirements have slowed the implementation of CTR upgrades to remaining Russian facilities.

> The remaining work will be very difficult because greater cooperation and trust are required to extend the program to the more sensitive facilities with large amounts of fissile material. Also, U.S. demands for strict accountability regarding expenditures of U.S. funds naturally conflict with strict Russian secrecy requirements.[40]

Two of the biggest CTR failures have occurred due to lack of communication and political coordination within the host government. The CTR program spent $106 million designing and building a liquid propellant (heptyl) disposition plant only to find out Russia had already used the liquid propellant in its commercial space launch program. In another example, the CTR program spent $100 million in design and initial construction of a solid rocket fuel elimination facility near the city of Votkinsk. The entire project was shut down after further construction was abruptly blocked by local Russian authorities.[41]

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[39] Joseph A. Christoff, Director, International Affairs and Trade, United States General Accounting Office, testimony before the Committee on Armed Services, U.S. House of Representatives, Mar 5, 2003, http://www.gao.gov/htext/d03526t.html, last accessed July 2007.

[40] Siegfried S. Hecker. "Thoughts about an Integrated Strategy for Nuclear Cooperation with Russia," *The Nonproliferation Review* (Summer 2001): 8.

[41] Bronson, testimony before the Senate Committee on Armed Services, March 10, 2004.

### 3. CTR Solutions

In an effort to address some of these criticisms and reduce the risk that projects will not meet national security objectives, the DoD has increased oversight staffing at the OSD level and implemented program manager training for those involved in managing the cost, schedule, and performance aspects of CTR projects.[42] A review board has been established to assess risks for a given project prior to implementation. Projects have also been broken down into three phases: development, execution, and maintenance. Each phase has clear entry and exit requirements which must be fulfilled prior to transitioning to the next phase of the project. According to a GAO report, "These improved controls cannot eliminate the risks inherent in the program, but the goal is to mitigate risk to an appropriate level given the circumstances."[43] In an attempt to prevent major project losses of the "heptyl" variety, the CTR program has increased the use of signed legal documents from high level officials. Large projects now require signature at the Russian Ministry of Defense level before moving forward.

### 4. Expanding the CTR Program

In 2004, Congress passed the Nunn-Lugar Expansion Act. This act gives the DoD the authority to use CTR funds outside of the former Soviet Union states. In addressing Congress, Senator Lugar stated:

> The experience of the Nunn-Lugar program in Russia has demonstrated that the threat of weapons of mass destruction can lead to extraordinary outcomes based on mutual interest. No one would have predicted in the 1980s that American contractors and DoD officials would be on the ground in Russia destroying thousands of strategic systems. If we are to protect ourselves during this incredibly dangerous period, we must create new nonproliferation partners and aggressively pursue any nonproliferation opportunities that appear.[44]

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[42] U.S. Government Accountability Office, "Cooperative Threat Reduction: DoD has improved its Management and Internal Controls, but Challenges Remain," Report to Congressional Committees, June 2005, report GAO-05-329, 12.

[43] Ibid 23.

[44] Senator Richard Lugar, Statements on introduced bills, Congressional Record: March 18, 2002, www.fas.org/irp/congress/2002_cr/s031802.html, last accessed June 2007.

There are numerous candidates for CTR expansion. The following countries have a suspected or confirmed nuclear weapons, biological weapons, or chemical weapons capability and have terrorist activity within their country: Algeria, Egypt, India, Indonesia, Israel, Pakistan, Saudi Arabia, Thailand, and Yugoslavia.[45] Although global terrorists will seek WMD from any state, the countries with both nuclear, chemical, or biological weapons capability and regular terrorist activity within their border represent an especially high risk.

### 5. Obstacles to CTR Expansion

In principle, the CTR program, after 15 years of developing experienced government personnel and contractors, lessons learned, and proven processes, could be exported to any other country. In realistic terms, there are political and legal constraints that need to be overcome prior to expanding the program. One requirement is the need for transparency, which is based on the principle of trust. Transparency requires the host nation to allow technicians, inspectors, and auditors into highly sensitive facilities to implement CTR measures and ensure CTR funds are being spent appropriately. It is highly unlikely, given the adversarial relationship that has developed between the U.S. and Iran or North Korea, that either nation would be amenable to opening up its most sensitive military sites to U.S. inspection. These countries are too worried about a U.S. military strike to share detailed knowledge concerning their nuclear programs. However, a third country, such as Russia or China, or an international organization, like the International Atomic Energy Agency (IAEA), might be more successful establishing a relationship of trust with one of these countries and could play the lead role in any CTR-type efforts. The U.S. could form a partnership with the lead party and provide process knowledge and some of the funding required to implement CTR programs. In this manner, a country like Iran, which already purchases military hardware from Russia, could agree to enter into a CTR agreement with Russia. Iran would grant Russia access

[45] Sharon Squassoni, "Globalizing Cooperative Threat Reduction: A Survey of Options" (CRS Report for Congress, October 2006), 7.

to its nuclear facilities and Russia would provide the material security and accountability process improvements required to ensure terrorist groups do not gain access to the fissile material.

Another obstacle to expanding the CTR program is legal obligations. These can come in the form of international law, through treaties, or through domestic law. The Nuclear Nonproliferation Treaty (NPT):

> Prohibits transferring weapons, assisting, encouraging, or inducing any other non-nuclear weapon state to manufacture or acquire weapons. In addition, the U.S. is prohibited from helping non-nuclear weapon states[46] 'control' nuclear devices.[47]

The term control is not defined and is the issue of contention. Some policy experts interpret CTR assistance in upgrading security at nuclear facilities as helping a country "control" their nuclear devices. To clear this legal hurdle, the U.S. would have to either interpret the treaty in a defined manner, and risk possible international criticism, or work on updating the treaty to include India, Pakistan, and Israel. There are also several domestic terrorism laws that might impede CTR assistance. The "State Sponsors of Terrorism List and the Foreign Assistance Act of 1961 both prohibit most assistance to countries which support or sponsor terrorism."[48] The State Department lists Cuba, Iran, North Korea, Syria, and Sudan as states which sponsor terrorism. In order for the U.S. to expand the CTR program into any of these five countries, the president would have to submit a waiver justifying the assistance as vital to U.S. national security.

### 6. The Future of CTR

The Nunn-Lugar program has grown from an initial annual funding level of around $400 million to the current level of approximately $1 billion annually and is projected to decline to approximately $350 million by 2009.[49] By then, all of the large infrastructure projects in Russia will be complete and it is estimated funding for projects

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[46] All states except U.S., Russia, China, France, and U.K.

[47] Squassoni, "Globalizing Cooperative Threat Reduction: A Survey of Options," 28.

[48] Ibid, 36.

[49] Nuclear Threat Initiative (NTI), "The Nunn-Lugar Cooperative Threat Reduction (CTR) Program," http://www.nti.org/db/nisprofs/russia/forasst/nunn_lug/overview.htm, last accessed March 2007.

outside of Russia will exceed funding for projects inside Russia for the first time. Joseph Benkert, Principal Deputy Assistant Secretary of Defense for Global Security Affairs, stated:

> The trend toward more CTR activity outside Russia reflects the realities of today. The Russian Federation has both the revived organizational capability as well as the resources to secure weapons of mass destruction inside its borders, and President Putin has committed to doing so. Indeed, with narrow exceptions, we anticipate that CTR will fulfill contracts and commitments already made in Russia, but not undertake any new work in the foreseeable future.[50]

The future of CTR relies on the program's flexibility to handle new threats in emerging countries. The CTR program has started a new biological security complex in Georgia and is negotiating a second facility in Azerbaijan. The new facilities will conduct defensive research and monitor the biological weapons threats in the area.[51] Several other emerging programs deal with border security and detection of radiological or biological agents. The CTR program area's of emphasis are elimination and security, both important tools in the nonproliferation toolbox, and U.S. security will be improved if it can expand the use of these mechanisms to additional countries which possess WMD and related material. The key to signing up new countries to participate in this program is close cooperation between states.

## C. HISTORY OF GTRI

In 1953, President Dwight D. Eisenhower created the "Atoms for Peace" program. The intent of this program was to provide nuclear materials, including highly enriched uranium (HEU) reactor fuel, and technology to other countries under the condition that they be used for peaceful purposes and not military research. In addition to the U.S., other exporters of HEU reactor fuel have included Russia, China, France, and

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[50] Joseph A. Benkert, Principal Deputy Assistant Secretary of Defense for Global Security Affairs, testimony before the Senate Committee on Armed Services, Subcommittee on Emerging Threats and Capabilities, April 11, 2007, http://armed-services.senate.gov/statemnt/2007/April/Benkert%2004-11-07.pdf, last accessed October 2007.

[51] Ibid.

the United Kingdom.[52] Speeding ahead five decades, the HEU and plutonium used in civilian research reactors and for medical isotope production has become a national security concern. Data collected in 2003 indicate there is:

> About 50 tons of HEU in civilian power and research programs in over 50 nations. Approximately 128 civilian research facilities have 20 kg or more of HEU stocks. Yet as little as 25 kg are needed to produce a nuclear weapon—some 40-60 kg are needed for a cruder nuclear device.[53]

A terrorist desiring to conduct a WMD attack must first gain the material need to produce a nuclear weapon.

As part of the nonproliferation strategy the U.S. is implementing to counter this threat, the Bush administration combined an array of separate programs into the Global Threat Reduction Initiative in May of 2004. Spencer Abraham, the U.S. Secretary of Energy in 2004, described the four goals of the program as:

- Repatriate all Russian-origin fresh high enriched uranium fuel, and accelerate and complete the repatriation of all Russian-origin spent fuel by 2010.
- Take all steps necessary to accelerate and complete the repatriation of all U.S.-origin research reactor spent fuel from existing locations, around the world, within a decade.
- Work to convert the cores of civilian research reactors that use high enriched uranium to use low enriched uranium (LEU) fuel, in the U.S. and around the world.
- Work to identify and secure other nuclear and radiological materials and related equipment that are not yet covered by existing threat reduction efforts including HEU of non-U.S. and non-Russian-origin and separated plutonium.[54]

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[52] Nuclear Threat Initiative (NTI), "Why Highly Enriched Uranium is a Threat," http://www.nti.org/db/heu/index.html, last accessed July 2007.

[53] Nuclear Threat Initiative (NTI), "Why Highly Enriched Uranium is a Threat," http://www.nti.org/db/heu/index.html, last accessed July 2007.

[54] Spencer Abraham, remarks at the Global Threat Reduction International Partners' Conference, Vienna, Austria, September 18, 2004.

### 1. GTRI Successes

The GTRI has had many successes in the last three years. Under the initiative, 6 research rectors have been converted to operate with LEU instead of HEU, 337 kilograms of HEU fresh fuel and 63 kilograms of HEU spent fuel have been returned to Russia, 100 kilograms of HEU fresh fuel and 190 kilograms of HEU spent fuel have been returned to the U.S., and physical protection upgrades have been completed at approximately 520 radiological sites in 40 countries.[55] In order to accomplish these feats, the Department of Energy applies a risk-based approach to prioritize threats to the United States. "This risk-based approach is informed by several criteria, including, but not limited to the type and quantity of material, security conditions at the site, and location of material."[56] However, because the GTRI is a voluntary program, it relies heavily on diplomatic agreements and international cooperation to achieve its objectives.

International cooperation in these efforts is so critical that the IAEA Director General Mohamed ElBaradei called it the hallmark of these security efforts. He further added:

> While nuclear security is and should remain a national responsibility, many countries still lack the programs and the resources to respond properly to the threat of nuclear and radiological terrorism. International efforts are focused on assisting these countries.[57]

The aspects of international cooperation can be broken down into two important areas. The first is cooperation among the nuclear weapon states that originally exported the HEU and the second is cooperation among the many nations that posses HEU-fueled research reactors and others sources of HEU and plutonium.

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[55] National Nuclear Security Administration (NNSA), "GTRI: More Than Two and a Half Successful Years of Reducing Nuclear Threats," http://www.nnsa.doe.gov/docs/factsheets/2007/NA-07-FS-03.pdf, last accessed July 2007.

[56] Paul Longsworth, Deputy Administrator for Defense Nuclear Nonproliferation, NNSA, U.S. Department of Energy, Statement to the House Committee on Energy and Commerce, Subcommittee on Oversight and Investigations, On NNSA's Global Threat Reduction Initiative, May 24, 2005.

[57] Dr. Mohamed ElBaradei, remarks at the Global Threat Reduction International Partners' Conference, Vienna, Austria, September 18, 2004.

### 2. U.S. and Russia Joint Efforts

By far the two largest exporters of HEU over the past 50 years have been the U.S. and Russia. Therefore, for any global threat reduction effort to be successful, it requires the participation of both of these countries in the program. In 2005, the Bratislava conference brought the leaders of these two nations together for a crucial meeting to cement cooperation on these issues. The successful conference ended with a joint statement from both President Bush and President Putin pledging:

> The United States and Russia will enhance cooperation to counter one of the gravest threats our two countries face, nuclear terrorism. We will continue to work jointly to return fresh and spent high-enriched uranium from U.S. and Russian-design research reactors in third countries and continue our cooperation on security upgrades of nuclear facilities.[58]

Although not part of this conference, China, France, and the U.K. are also responsible for exporting small amounts of HEU to a handful of countries. Efforts to bring them on-board need to occur to cover all of the HEU spread around the globe. This is important because the U.S. and Russian programs only take back U.S.-origin and Russian origin HEU respectively. The inclusion of these other countries will also be a source of additional funding for the global threat reduction efforts.

### 3. Expanding the GTRI

With the two main suppliers of HEU participating in the GTRI, the focus of international cooperative efforts has shifted to the states where the HEU reactors and fuel reside. Table 1 details the countries currently in possession of HEU and efforts to return that material to the country of origin. Although many countries are participating in "take back" programs, Australia, Brazil, Chile, Ghana, India, Iran, Japan, Nigeria, North Korea, Pakistan, and South Africa all have HEU that is not currently covered by these programs. While removing the HEU fuel is important, it is only one part of the problem. The other dilemma concerns the reactors themselves. The IAEA estimates, "currently about 130

[58] President George W. Bush and President Vladimir V. Putin, "Bush, Putin Pledge Enhanced Nuclear Security Cooperation," The White House Office of the Press Secretary (Bratislava, Slovak Republic), February 24, 2005.

research reactors around the world still run on weapons-grade HEU."[59] As long as these reactors run on HEU, they will require fresh HEU as fuel and produce spent HEU as a by-product. The transportation and storage of fresh and spent HEU represents a serious proliferation concern. Paul Longsworth, Deputy Administrator for Defense Nuclear Nonproliferation at the National Nuclear Security Administration, stated "a number of countries have not participated in GTRI programs because of concerns surrounding the potential economic, financial, or scientific impact of returning spent fuel or converting their reactor."[60] The U.S. needs to works with these states to convince them of the importance of converting their research reactors to LEU. In cases where a reactor cannot be converted, a work-around solution needs to be found so the reactors can be shut down and decommissioned.

The GTRI was created to reduce the threat of a terrorist organization obtaining the material required to make either a nuclear or radiological bomb. The initiative has made some noteworthy achievements but much work remains to be completed. Expanding the GTRI depends on the ability of the U.S. to obtain international cooperation. Only through cooperative efforts will the U.S. be successful in minimizing the risk posed by civilian HEU and plutonium.

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[59] "IAEA Promotes Research Reactor Safety," IAEA (March 8, 2004), http://www.iaea.org/NewsCenter/Features/ResearchReactors/security20040308.html, last accessed August 2007.

[60] Paul Longsworth, Statement to the House Committee on Energy and Commerce.

| Country (Non-Nuclear Weapon States) | Amount of HEU (in tonnes) | Enrichment Supplier | Involved in take-back program? |
|---|---|---|---|
| Argentina | 0.02 | USA | Yes, to USA |
| Australia | 0.35 | USA, UK | Yes, to USA |
| Austria | 0.005-0.02 | USA | Yes, to USA |
| Belarus | 0.25-0.37 | Russia | Yes, to Russia |
| Belgium | 0.7-0.75 | USA | Yes, to USA |
| Brazil | 0-0.001 | USA, China | Yes, to USA |
| Bulgaria | 0.006 | Russia | Yes, to Russia |
| Canada | 1.35 | USA | Yes, to USA |
| Chile | 0.005 | USA, France | Yes, to USA |
| Czech Republic | 0.08-0.14 | Russia | Yes, to Russia |
| DPRK | 0.042 | Russia | No |
| Georgia | 0-0.001 | Russia | Yes, to Russia |
| Germany | 1.4-2.7 | USA, Russia | Yes, to USA |
| Ghana | 0.001 | China | No |
| Hungary | 0.15-0.25 | Russia | Yes, to Russia |
| India | 0.005-0.01 | UK | No |
| Iran | 0.007 | USA, China | Yes, to USA |
| Israel | 0.034 | USA | Yes, to USA |
| Italy | 0.1-0.2 | USA | Yes, to USA |
| Jamaica | 0.001 | USA | Yes, to USA |
| Japan | 2 | USA, UK | Yes, to USA |
| Kazakhstan | 10.59-10.94 | Russia | Yes, to Russia |
| Latvia | 0.02-0.025 | Russia | Yes, to Russia |
| Libya | 0.025 | Russia | Yes, to Russia |
| Mexico | 0.012 | USA | Yes, to USA |
| Netherlands | 0.73-0.81 | USA | Yes, to USA |
| Nigeria | 0.001 | China | No |
| Norway | 0.004 | USA | No |
| Pakistan | 0.017 | USA, China | Yes, to USA |
| Poland | 0.49 | Russia | Yes, to Russia |
| Portugal | 0.007-0.008 | USA | Yes, to USA |
| Rep. of Korea | 0.002 | USA | Yes, to USA |
| Romania | 0.033-0.044 | Russia, USA | Yes, to Russia, USA |
| Serbia | 0.013 | Russia | Yes, to Russia |
| Slovenia | 0-0.005 | USA | Yes, to USA |
| South Africa | 0.61-0.76 | South Africa, USA | Yes, to USA |
| Sweden | 0.002 | USA | Yes, to USA |
| Switzerland | 0.005-0.01 | USA | Yes, to USA |
| Syria | 0.001 | China | No |
| Taiwan | 0.003-0.01 | USA | Yes, to USA |
| Turkey | 0.008 | USA | Yes, to USA |
| Ukraine | 0.16-0.25 | Russia | Yes, to Russia |
| Uzbekistan | 0.12 | Russia | Yes, to Russia |
| Vietnam | 0.0056 | Russia | Yes, to Russia |

Table 1. Major Holders of Civil HEU, by Country (end 2003)[61]

[61] David Albright and Kimberly Kramer, "Tracking Inventories of Civil Highly Enriched Uranium," *Global Stocks of Nuclear Explosive Materials* (Institute for Science and International Security, August 2005), http://www.isis-online.org/global_stocks/end2003/civil_heu_watch2005.pdf.

## D. HISTORY OF PSI

The current U.S. focus on WMD interdiction has its roots in the 2002 National Security Strategy and the follow-on National Strategy to Combat Weapons of Mass Destruction. These documents began implementing a new defensive concept known as a layered defense or defense in-depth. Its general idea is that no solitary layer, or capability, can provide adequate security against a determined terrorist adversary.

> Our challenge then is to improve our defenses – to add new 'layers' – on a continuous basis in such a way as to defeat terrorists employing novel tactics or seeking to exploit previous vulnerabilities.[62]

One of the layers the Bush administration has been keen on emphasizing, in addition to the more traditional nonproliferation tools such as the NPT and the export control regimes, is counterproliferation. The premise behind this layer resides in the belief that either through states cheating on their NPT obligations or black market networks, it was inevitable that some WMD or related material would get past the first line of defense and into the hands of rogue states or terrorist organizations. Developing the capability to interdict material or weapons that got by the first line of defenses would add a significant robustness to U.S. protection.

The first major test of the interdiction "layer" occurred in December 2002 when Spanish naval forces, working with the U.S., interdicted the *So San*, a North Korean ship. After searching the *So San*, Spanish forces found 15 Scud missiles which were in-route to Yemen. Although initially a major operational success, the missiles were later allowed to be delivered because the U.S. had no legal basis for confiscating the cargo. Less prominent interdictions followed including:

> In April 2003, the Australians detained the Pong Su, another North Korean ship, this time carrying $48 million worth of heroin. On June 22, the Baltic Sky was seized off the coast of Greece carrying several hundred tons of

[62] Thomas D. Lehrman, "Building a Layered Defense to Combat Weapons of Mass Destruction Terrorism" (Remarks to the NPT Conference, College of Law, American University, Washington D.C, February 9, 2006).

> explosives, which reportedly were bound for Africa. And just a few days later, on July 1, Spanish forces seized a ship carrying South Korean Daewoo rifles and 100-mm guns.[63]

These interdictions are examples of the types of activities President Bush envisioned when he announced the PSI, in Krakow Poland, on May 31, 2003.

The PSI is not an organization but an activity focused around a central statement of purpose. This purpose is to stop or impede the delivery of WMD and related material. The members of the PSI, now numbering in excess of 80 countries, all agree to support a common set of interdiction principles. In essence, it is a "set of partnerships that establishes the basis for cooperation on specific activities when the need arises. The focus is to establish greater coordination among partner states and a readiness to act effectively when action is needed."[64] Since the creation of the PSI, the efforts of the U.S. have centered on increasing operational effectiveness, gaining legitimacy for WMD interdiction, and expanding participation.

### 1. Operational Effectiveness

The operational effectiveness of the PSI is advanced mainly through closer cooperation between states. This is predominately carried out through more extensive intelligence sharing and operational exercises in which the military forces of several nations practice joint tactical interdictions. The most critical element of the PSI is intelligence. Looking for WMD shipments among the millions of tons of goods transported around the globe each year can be compared to the proverbial needle in a haystack. Good intelligence is needed to identify when, where, and how WMD or related materials are being transported. Once identified, intelligence allows political leaders to make informed decisions on whether to commit scarce resources and political capital to interdict a shipment. The key to improving our intelligence is sharing information with our PSI partners around the globe.

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[63] STRATFOR, "Asia: U.S. Initiative Sets Stage for Miscalculations, Clashes?" Strategic Forecasting Inc, July 9, 2003, http://www.stratfor.com/products/premium/read_article.php?id=219767, last accessed August 2007.

[64] United States Department of State, "The Proliferation Security Initiative," June 2004, http://usinfo.state.gov/products/pubs/proliferation/, last accessed July 2007.

### *a. The Importance of Intelligence*

The global nature of transnational terrorist organizations makes it impossible for any one country, regardless of size or power, to defeat the threat. Terrorists are not hindered by national sovereignty and take advantage of the gaps in cooperation that exist between nations to elude prosecution. In combating a transnational entity, intelligence needs to be gathered from many countries in order to construct a realistic picture of the organization.

The international community has recognized the importance of sharing intelligence and has taken some steps down this road. The G8 agreed to "pass legislation if necessary to ensure that terrorism information can be shared internally with police and prosecutors and externally with other countries."[65] However, the concern over compromising sources and methods often limits the extent of information sharing to a series of bilateral agreements between the U.S. and another country. The U.S. has made important strides in sharing intelligence with international partners and a continued focus on intelligence sharing will increase the effectiveness of the PSI.

### *b. Operational Exercises*

Once intelligence is gathered and a decision to act has been reached, the forces of one or more countries must be capable of effectively interdicting sea, air, or land transportation while minimizing injuries or damage to the carrier and its crew. In order for the forces of multiple countries to execute a complex tactical maneuver, it is vital they have practiced together to ensure communications and procedural obstacles have been overcome prior to the stress and danger of a real operation. To this end, the PSI has served as the coordinating mechanism for the conduct of 28 operational exercises hosted by 17 different nations.[66] The PSI exercises have:

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[65] "G-8 Ministers Want Intelligence Sharing," *Newsmax Wires*, 12 May 2004, http://www.newsmax.com/archives/articles/2004/5/11/225427.shtml, last accessed August 2007.

[66] United States Department of State, "PSI Calendar of Events" (June 2007), http://www.state.gov/t/isn/c12684.htm, last accessed July 2007.

> All been publicized, with media invited to observe some of the maneuvers. These public displays of military and law enforcement agencies' capabilities serve three purposes in support of the initiative: to build capability; to provide evidence to the public of a genuine political commitment; and to send a deterrent message to current and potential proliferators. At the very least, a consistent demonstration of increased will and capability may cause those involved in proliferation networks to change their patterns or to increase the money they demand from these transactions, making them more expensive and difficult.[67]

Terrorists, in deciding whether to use WMD in an attack scenario, weigh the costs and benefits versus the use of more traditional weapons. One goal of the PSI is to deter the proliferation of WMD by increasing the costs and thus altering the cost-benefit calculation. In this manner, terrorists might be deterred from attempting to use these weapons.

### 2. PSI Legitimacy

The legitimacy of the PSI, especially operations conducted on the high seas, has posed a daunting obstacle to the Bush administration's desire to implement an interdiction policy on a global scale. Legitimacy, as defined by the Merriam-Webster dictionary, refers to an action taken in accordance with the law or conforming to recognized principles or accepted rules and standards.[68] Since the inception of the PSI, the U.S. has worked diligently to expand the legal authorities of the PSI and to widen acceptance of the principles of WMD interdiction, intending that one day, seizure of WMD will become an international norm.

#### *a. Legal Considerations*

There are two important legal conditions that need to be met to successfully conduct a maritime PSI operation. The interdicting state needs to have legal authority to board and search a vessel and a separate legal authority to seize and capture the cargo.

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[67] Andrew C. Winner, "The Proliferation Security Initiative: The New Face of Interdiction," *The Washington Quarterly* (Spring 2005): 134.

[68] Merriam-Webster OnLine, "Legitimacy," http://www.m-w.com/cgi-bin/dictionary, last accessed August 2007.

There are two primary ways for a state to legally board and search a vessel. The first is by enforcing its customs laws within 24 miles of its coast and the second is by obtaining the consent of the nation the ship is flagged under.[69] One reason the U.S. has worked to expand the number of countries supporting the PSI is to increase the chances that a suspect ship will sail within a PSI partner's 24-mile searchable vicinity or be the flag carrier. Once this happens, the U.S. can work with that nation to share intelligence on the suspect shipment and coordinate a legal interdiction operation. Another method to get a ship within the 24-mile boundary, of a PSI partner state, is to get the owner of the ship to order that ship to dock in a certain port. This is in fact what happened in the case of the *BBC China,* the ship interdicted in 2003 and found to be carrying centrifuge parts from Pakistan to Libya. According to Stephen Rademaker, Assistant Secretary, Bureau of Arms Control, U.S. State Department:

> That ship was an Antiguan-flagged vessel, but it was owned by a German company. And the German government approached their citizens who owned the ship and asked them to direct the vessel into an Italian port, and Italian customs authorities then carried out the search, which discovered the centrifuge, which led to unraveling both of the covert Libyan nuclear program and the covert A.Q. Kahn nuclear proliferation network.[70]

As the U.S. expands participation in the PSI, the number of ships owned by companies in PSI partner nations will increase and thus the likelihood of obtaining cooperation from that ship's owner increases. In 2005, 68% of all ships and 70% of dead weight tons were transported on ships owned by PSI-supporting states.[71]

Alternatively, once consent of a flag nation has been obtained, the U.S. can search a ship sailing in international waters. Many ships fly a "flag of convenience" for various tax, environmental, and liability reasons. One goal of the U.S., under the PSI, is to sign boarding agreements with the "flag of convenience" nations. Since 2004, the

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[69] Joel Doolin, "The Proliferation Security Initiative: Cornerstone of a New International Norm," *Naval War College Review* (Spring 2006): 36.

[70] Stephen Rademaker, Assistant Secretary, Bureau of Arms Control, U.S. State Department, Hearing before the Subcommittee on Terrorism and Nonproliferation, International Relations Committee, House of Representatives, 109th Congress, First Session, June 9, 2005.

U.S. has signed boarding agreements with five of the six largest "flag of convenience" nations. These bilateral agreements put in place have expedited procedures to facilitate the boarding process. As of 2005, 62% of ships and 68% of dead weight tons were transported on ships flagged by PSI supporting nations.[72] Table 2 illustrates the progress made by the U.S. and presents opportunities for further expansion.

Once a ship has been boarded and searched, the interdictor needs legal authority to seize the cargo. The *So San* is an example where the Spanish authorities had the legal right to board the ship but did not have the legal right to confiscate the Scud missiles. The U.S. relies on the NPT, the Biological and Toxin Weapons Convention (BWC), and the Chemical Weapons Convention (CWC) as the legal authority to seize WMD. Joel Doolin, Lieutenant Commander, U.S. Navy Judge Advocate General Corps, explains:

> Normally, a treaty binds only nations that agree to it. However, the doctrine of customary international law holds that a well established and widespread practice is evidence of the existence of a duty binding all nations.[73]

Since the NPT has been signed by 188 states, the BWC by 156 states, and the CWC signed by 182 states, this doctrine arguably grants this U.S. legal authority to seize nuclear, biological, or chemical weapons. However, this does not give the U.S. the authority to seize ballistic missiles or conventional weapons.

#### *b. Building an International Norm*

In addition to expanding the legal basis for PSI interdictions, the U.S. is working to increase the acceptance of the principle of WMD interdiction. There are currently over 80 states now supporting the PSI. As the number of states supporting the PSI increases, the norm of counterproliferation strengthens and comes closer to global acceptance. As counterproliferation becomes the norm, it should become easier to pass stronger and more effective international treaties banning WMD proliferation. Already,

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[71] U.S. Dept of Transportation Maritime Administration, "World Merchant Fleet by Top 25 Country of Owner and Type, 2005", http://www.marad.dot.gov/MARAD_statistics/index.html, last accessed July 2007.

[72] Ibid.

[73] Doolin, "Proliferation Security Initiative: new International Norm," 44.

the EU has strongly endorsed the PSI as long as it is conducted within the realm of law. A further move to legitimize the PSI occurred when the U.N. Security Council passed Resolution 1540.

| Flag of Registry | No. | DWT | PSI Support | Flag of Registry | No. | DWT | PSI Support |
|---|---|---|---|---|---|---|---|
| Panama | 3,415 | 203,437,127 | Y | India | 201 | 12,440,711 | N |
| Liberia | 1,410 | 88,832,748 | Y | Germany | 277 | 12,147,563 | Y |
| Greece | 555 | 51,899,956 | Y | Italy | 248 | 10,210,585 | Y |
| Hong Kong | 721 | 48,739,763 | N | South Korea | 177 | 10,181,158 | N |
| Bahamas | 729 | 46,911,796 | N | Japan | 123 | 10,029,061 | Y |
| Marshall Is. | 644 | 46,028,621 | Y | Iran | 118 | 9,022,357 | N |
| Singapore | 699 | 44,619,141 | Y | United Kingdom | 208 | 8,740,406 | Y |
| Malta | 745 | 35,353,729 | Y | Danish Int'l | 134 | 8,585,386 | Y |
| Cyprus | 696 | 30,453,506 | Y | St. Vincent & G. | 216 | 7,341,117 | N |
| China | 803 | 27,496,237 | N | Belgium | 43 | 6,756,063 | Y |
| Norwegian Int'l | 370 | 18,883,291 | Y | Bermuda | 85 | 6,584,222 | N |
| Isle of Man | 177 | 12,977,297 | N | Malaysia | 122 | 6,412,884 | N |
| United States | 295 | 12,604,530 | Y | | | | |

Table 2. World Merchant Fleet by Top 25 Flag and Type, 2005[74]

While this resolution does not provide any enforcement authority, it does require:

> All states establish domestic controls to prevent the proliferation of WMD and means of delivery, in particular for terrorist purposes, including by establishing appropriate controls over related materials, and adopt legislative measures in that respect. Further to counter that threat, it called upon all States, according to their national legislation and consistent with

[74] U.S. Dept of Transportation Maritime Administration, http://www.marad.dot.gov/MARAD_statistics/index.html, last accessed July 2007.

> international law, to cooperate in preventing illicit trafficking in such weapons, means of delivery and related materials.[75]

Although this resolution does not specifically mention the PSI, it does go a long way towards establishing the illegality of trafficking in WMD and thus adds to the legitimacy of actions countering that traffic.

### 3. Expanding PSI Support

The PSI started out in 2003 with 11 like-minded states that worked together to create the founding principles. Initially, many states were critical of the PSI as an attempt by the Bush administration, notorious for its fondness for unilateral action, to target states of concern and to use its power to trample the sovereign rights of less powerful nations. The chief concern of most states was the legality of interdicting ships on the high seas. In response to this criticism, the Bush administration went to great lengths to assure the world that any boarding would be conducted within the realm of international law. A second concern was the ambiguity of the language involved with the PSI principles. The language gives the U.S. the flexibility to enforce the prohibition of WMD trafficking when it desires and to ignore it when that serves the administration's purpose. This is contrary to the normal rule of law in which the law would apply equally to everyone. Although the initiative does target states of concern and non-state actors, that has as much to do with the reality of having limited operational and intelligence resources, especially with the wars in Iraq and Afghanistan, than any desire to play favorites. Unfortunately, the political realities of the Global War on Terrorism (GWOT) do cause the U.S. to overlook the misdeeds of several states. Dr. Mark Shulman, Adjunct Professor of Law at Pace Law School, states:

> The best evidence suggests India, Pakistan, and Israel will not be targeted- at least for now. Eventually, the PSI must develop enough support that it can halt proliferation from all countries, including those that are powerful

[75] United Nations Security Council, "Security Council decides all states shall act to prevent proliferation of mass destruction weapons," Security Council 4956th Meeting Press Release SC/8076 (April 28, 2004), http://www.un.org/news/Press/docs/2004/sc8076.doc.htm, last accessed July 2007.

> or that have special influence as allies in the GWOT. Granting free passes runs contrary to the basic principles of the rule of law.[76]

### *a. Engagement from the Top*

The Bush administration has made the war on terrorism the primary focus of U.S. foreign policy and, as one of the pillars of U.S. strategy to combat WMD, the PSI plays a central role. Therefore, it is not surprising to find high-level political figures involved in efforts to expand the PSI. In a 2006 speech, President Bush urged all responsible states to join the global effort to end the WMD proliferation trade[77] and in 2007, Secretary of State Condoleezza Rice identified the "greatest threats of our time as global terrorism and the proliferation of weapons of mass destruction."[78] This high level of attention has paid off with the PSI growing quickly from an initial 11 states to approximately 60 states by the end of 2004 and over 80 states by 2007. Even with this impressive growth, there are still major geographic gaps in the PSI network. U.S. Under Secretary of State for Arms Control and International Security Robert Joseph stated:

> Significant percentages of global commerce transit through such key strategic areas as the Straits of Malacca, the Suez Canal, the Middle East and Gulf regions, as well as major air routes which crisscross the globe. The participation by these states adds an important element to our efforts to deny proliferators access to maritime and air routes. We continue to engage with states in Asia, an important region for enhancing our cooperation, as well as in Latin America and Africa. We should increase our efforts to gain more PSI partners from each of these key regions.[79]

The participation of states in key geographic areas or with substantial influence in areas of concern, such as the Asian Pacific, is critical to making the PSI an effective tool.

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[76] Shulman, *Proliferation Security Initiative as a New Paradigm*, 7.

[77] President George W. Bush, "President's Statement on Proliferation Security Initiative," remarks made at PSI meeting, Warsaw, Poland, June 23, 2006, http://www.whitehouse.gov/news/releases/2006/06/20060623.html, last accessed July 2007.

[78] Secretary Condoleezza Rice, "Remarks With The Honorable Michael Frendo, Minister of Foreign Affairs of the Republic of Malta During Signing Ceremony" (Washington D.C., March 15, 2007).

[79] Robert Joseph, "Broadening and Deepening our PSI Cooperation," remarks at the PSI Conference in Warsaw, Poland, June 23, 2006.

### *b. Cooperation and Coercion Mixed*

The importance of expanding support for the PSI has resulted in the U.S. employing issue linkage, in several cases, using both positive and negative incentives to bring states on-board. The signing of boarding agreements with the flag of convenience states was a major goal which required the U.S. to apply significant pressure to obtain support. In the case of Panama, a boarding agreement was only reached after the U.S. accused Panama of failing to comply with U.S. anti-terrorism measures. Taken to the extreme, this could have resulted in Panamanian-flagged ships being barred from U.S. ports which would have significantly damaged Panama's shipping industry and cut off a major source of government revenue.[80] Although it is unlikely the U.S. would have fully carried through with this threat, even the potential loss of a significant source of income for a small state was enough to obtain its cooperation. The Panamanians can now reap positive political benefits from the relationship with the U.S. and advertise to their ship owners that there is no fear of them getting shut out of American ports. During a House of Representative Subcommittee meeting, Congressman Brad Sherman stated:

> I can think of no better way for a country to demonstrate friendship to the United States than to work with us on nonproliferation issues. Those countries that do should receive our gratitude, and those who hinder our efforts should become known to this Congress formally or informally.[81]

As further evidence of using the carrot-and-stick approach to gaining PSI support, Congressman Sherman indicated, later in the hearing, that participation in the PSI might affect congressional approval of the Central American Free Trade Agreement. When notified that Egypt was hindering efforts to promote the PSI at a recent conference in New York, he stated:

> I know that, later this year, we will have a chance to see whether we should reduce aid to Egypt, and that is not something I have ever been

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[80] Mark Valencia, *Proliferation Security Initiative: Making Waves in Asia* (Adelphia, 2005), 59.

[81] Congressman Brad Sherman, "PSI*:* An Early Assessment," Hearing before the Subcommittee on Terrorism and Nonproliferation, International Relations Committee, House of Representatives, 109th Congress, June 9, 2005.

> willing to do before, but this is—it is very hard to frustrate our efforts here and then try to be the number two recipient of United States aid.[82]

After Argentina expressed support for the PSI, "a top U.S. diplomat expressed optimism that U.S. relations with Argentina will improve 'quite significantly' in the coming months."[83] Although the U.S. does not explicitly state what positive or negative inducements were used to elicit support for the PSI, it can be reasoned that the U.S. often employs political and economic incentives to persuade states to cooperate in this initiative. However, given the lack of PSI support in many key geographic areas, this method of extracting support is not a panacea to all the issues involved in gaining international cooperation in counterproliferation activities.

## E. CONCLUSION

A terrorist organization will not attack the strongest link in the nuclear chain but the weakest. It is paramount the U.S. and its allies make a determined effort to shore up the security of every nuclear site in order to raise the overall security of the "weakest link." Only in this manner will terrorists be deterred or prevented from attempting to acquire WMD. The CTR program and the GTRI are the means by which the U.S. plans to eliminate and secure both military and civilian sources of WMD and material around the globe. If this nonproliferation layer fails, the U.S. plans to use the PSI to interdict the weapon or material before it reaches its final destination. With WMD and related material in many states and with the trend for terrorist organizations to operate globally, the need for international cooperation to counter the terrorist WMD threat has never been greater. Chapters III and IV of this thesis will examine the conditions under which states cooperate. Chapter V will make recommendations on methods the U.S. can use to increase cooperation in these efforts and thus improve our national security.

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[82] Congressman Brad Sherman, "PSI*:* An Early Assessment."

[83] Kaufman, "U.S. Officials Seek Stronger Relations with Argentina," 1.

# III. MEASURING COOPERATION

## A. INTRODUCTION

The first chapter outlined five independent variables that should theoretically have an impact on cooperation between states in the area of nonproliferation activities. This chapter discusses the independent and dependent variables in more depth and presents some descriptive statistics of the variables. The descriptive statistics provide a useful starting point in the effort to understand any empirical explanations for nonproliferation cooperation. The chapter concludes by testing the independent variables using a logistic regression model. This method of testing will provide insight into the effects of the variables across a large number of cases.

## B. OPERATIONALIZING THE VARIABLES

There is an abundance of literature on international cooperation. Most theories are tested through a case study approach because it is difficult to quantitatively measure cooperation. This chapter uses data from multiple sources to model nonproliferation cooperation across a large number of cases to discover patterns behind the decision to cooperate or not. The five independent variables outlined in Chapter I are security assistance, alliances, involvement in international organizations, domestic politics, and economic freedom. The dependent variables are the decision to cooperate in the PSI and/or in the GTRI. The CTR program is not being tested because the program has been focused on a very small number of states to date.

### 1. PSI and GTRI Support

The dependent variables are cooperation in the PSI and cooperation in the GTRI. The hypotheses developed in Chapter I will be tested once against cooperation in the PSI and once against cooperation in the GTRI. For the PSI, a state is coded with a value of 1 if it is listed on the Department of State list of PSI participants,[84] and coded with a value

[84] The list is located at http://www.state.gov/t/isn/c19310.htm, last accessed September 2007.

of zero if it is not listed. For the GTRI, a state is coded as participating if it has participated in any GTRI programs including converting HEU research reactors and/or removing or protecting nuclear or radiological materials. Any state listed as a global partner in the National Nuclear Security Administration's Office of Global Threat Reduction Strategic Plan for 2007 is coded with a one and any country not listed is coded with a value of 0.[85] States codes with a value of one are considered to cooperate with the initiative and those coded with a value of zero are not cooperating. Of the 46 states studied, 27 states support the PSI and 40 states participate in the GTRI. The range of states participating is mixed with almost 50% participating in just one program and almost 50% participating in two programs as can be seen in table 3.

| Number of Programs in which State is Participating | 0 | 1 | 2 |
|---|---|---|---|
| Number of States | 2 | 22 | 22 |

Table 3. States Participating in GTRI and/or PSI

Since both of these programs are considered nonproliferation activities, it seems intuitive that they should be positively correlated with each other. A state valuing nonproliferation would not just participate in one program but would participate in all programs. However, the correlation coefficient between PSI support and GTRI participation is -.06 which reveals there is only a very slight negative correlation between states cooperating in the two programs. One explanation for this divergence is the nature of the two programs. While both fall under the broad umbrella of nonproliferation activities, the PSI, as a counterproliferation program, is inherently offensive and thus much more aggressive than the GTRI, which is a defensive program and more passive. It is likely to be politically more tenable, for some states, to participate in a defensive program than an offensive one. This aspect will be examined further in the case studies.

[85] Located at http://www.nnsa.doe.gov/Na-20/docs/GTRI_Strategic_Plan_2007.pdf, last accessed September 2007.

### 2. Security Assistance

The United States provides security assistance to many countries for many different reasons. Our hypothesis predicts that U.S. security assistance will positively effect the decision to cooperate. Because national governments deal in large budgets, it would take a significant amount of security assistance to influence the decision to cooperate and thus it can be predicted that as security assistance increases, so too will its ability to influence cooperation. The data for this variable is taken from the Congressional Budget Justification for Foreign Operations, Fiscal Year 2008. This document provides the "actual" dollars provided to foreign countries in 2006. Of the 46 states outlined in Chapter I, 41 states received at least $10 million in security assistance in 2006. The amount of security assistance ranged from a low of zero dollars for the states of Iran, North Korea, Libya, and Syria to a high of over $9 billion for Japan. In all, the mean amount received was $865 million while the median amount received was $80 million. In Figure 2 it can be seen that while the U.S. does give security assistance to many countries, meaningful amounts of assistance, which might be expected to factor into a decision to cooperate, appears to be given to only a handful of the 46 states examined.

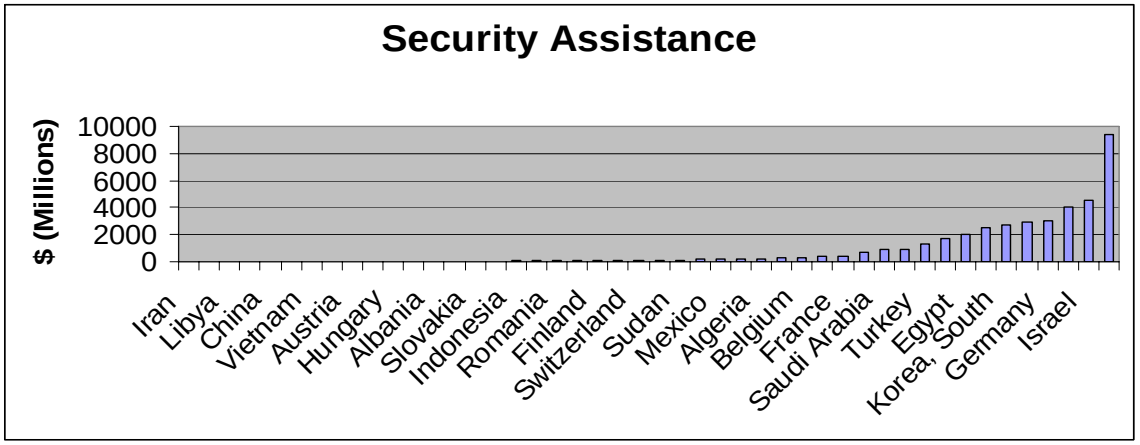


Figure 2. Security Assistance by Country

### 3. Alliances

The United States exhibits defensive cooperation with states through several means such as joint exercises, officer exchanges, and military training. However, this variable codes only countries with a formal defense treaty, such as members of the North Atlantic Treaty Organization (NATO) or the security treaty between the United States, Australia, and New Zealand (ANZUS), as having an alliance with the United States. A state with an alliance is coded with a value of one while a state without an alliance is given a value of zero. Since an alliance often arises from a desire to counter a mutual security threat, it makes intuitive sense that these states would share a similar view on the threat of WMD and cooperate in initiatives to counter that threat. As seen in Figure 3, 18 of the 46 states have an alliance with the United States. Of those 18 states, 94% cooperate in the PSI and 89% cooperate in the GTRI. Of the 28 states that do not have an alliance, 57% cooperate in the PSI and 85% cooperate in the GTRI. These numbers provide an indication that an alliance with the U.S. might have some influence on cooperation with the PSI but not the GTRI.

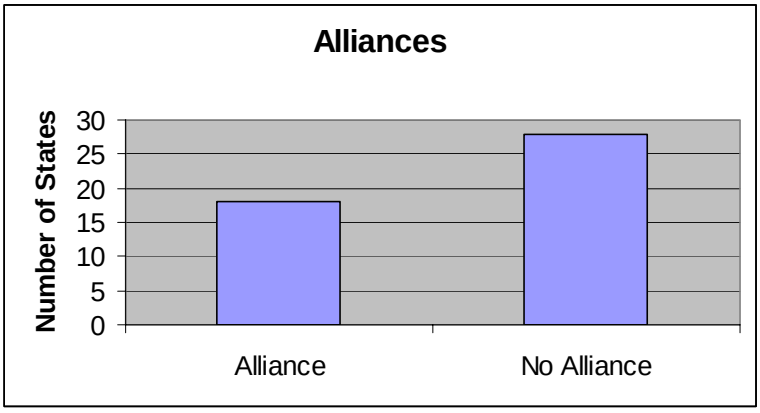


Figure 3. Number of States in Alliance with United States

### 4. International Organizations

There are hundreds of international organizations that states participate in. Theory predicts that as states become more involved with international organizations, the benefits of acting in a responsible manner and the costs of not conforming to global norms become more meaningful. This variable, called international, combines data from

a representative sample of international economic and nonproliferation-related organizations to measure participation. The data for participation in the World Trade Organization (WTO) comes from the WTO web site. If a state is listed as a member then it receives a value of one for participation and if not it receives a value of zero.[86] The data for participation in the International Monetary Fund (IMF) come from the IMF web site.[87] A country is given a value of one for participation in the IMF if it has a voting power of one-half of a percent or greater of the total voting power based on the member's quota. A country is given a value of zero if it has less than one-half of a percent voting power. The data for participation in the World Bank comes from the World Bank web site.[88] A state is given a value of one if it participates in at least four of the five of the World Bank institutions. States that participate in three or less institutions are given a value of zero. The data for the World Health Organization (WHO) comes from the WHO web site.[89] A state listed as a member on the WHO web site is given a value of one while states not listed are given a value of zero. Data for participation in the Nuclear Suppliers Group (NSG) comes from the NSG web site.[90] States listed as members are given a value of one while states not listed are given a value of zero. Data for participation in the Wassenaar Arrangement (WA) comes from the WA web site.[91] States listed as members are given a value of one while states not listed are given a value of zero. Data for participation in the Australia Group comes from the Australia Group web site.[92] States listed as participants are given a value of one while states not listed are given a value of zero. Data for membership in the International Code of Conduct Against Ballistic

[86] WTO member information located at: http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm, last accessed May 2007.

[87] IMF data found at http://www.imf.org/external/np/sec/memdir/members.htm, last accessed May 2007.

[88] WB member information found at http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/0,,contentMDK:20103870~menuPK:1697011~pagePK:51123644~piPK:329829~theSitePK:29708,00.html, last accessed May 2007.

[89] WHO information found at http://www.who.int/countries/en/, last accessed May 2007.

[90] NSG member information found at http://www.nuclearsuppliersgroup.org/member.htm, last accessed May 2007.

[91] WA member information found at www.wassenaar.org, last accessed May 2007.

[92] Australia Group participant information found at www.australiagroup.net/en/agpart.htm, last accessed May 2007.

Missile Proliferation (ICOC) comes from the State Department Bureau of Nonproliferation web site.[93] States listed as subscribing to the ICOC are given a value of one while states not listed are given a value of zero.

The range of INTERNATIONAL participation ranges from a low a one organization to a high of eight organizations as shown in Figure 4. The mean participation is 5.7 organizations and the median participation is seven organizations. The high median participation provides evidence that participation in international organizations, at least in the sample selected, is more the norm than not. High participation lends strength to the norms theory behind the influence of these organizations on cooperation. States that do not follow the global "norm" of high participation in international organizations might also not follow the norm of nonproliferation. High participation also gives more weight to the issue linkage theory. The more states participating in an international organization allows for a greater number of issue links to come into play.

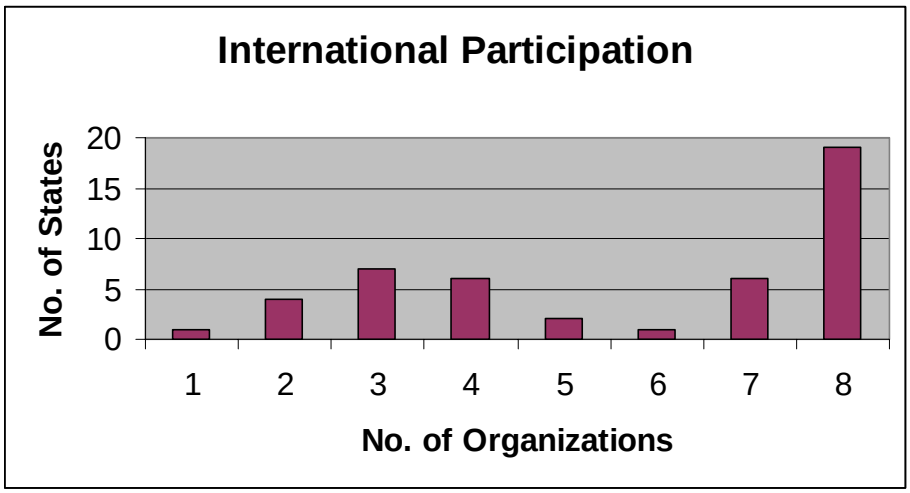


Figure 4. Amount of Participation in International Organizations

### 5. Domestic Politics

The role domestic politics plays in a state's decision to cooperate is a complex one. The interaction of elites, interest groups and the public occurs within state-specific

[93] ICOC member information found at http://www.state.gov/t/isn/rls/fs/27799.htm, last accessed October 2007.

political systems that allow for varying amounts of influence from domestic politics. While data can be found for some aspects of this variable, as a whole, it is not easily measured by quantitative means. Due to its complexity, this variable will be examined solely in the case study chapter.

### 6. Economic Freedom

The economic freedom (EF) score measures data from 10 economic freedom categories and equally blends the results to produce an economic freedom score. The scores are compiled through a joint effort of the *Wall Street Journal* and the Heritage Foundation and rank 161 countries to produce the Index of Economic Freedom. Our theory, from Chapter I, predicts that higher economic freedom scores indicate a more open economy where economic interest groups influence decision makers to pursue globally responsible policies that further integrate the state into the world market place. Since the U.S. is one of the largest economic markets in the world, it is in most countries' economic interest to cooperate on issues important to the United States. A higher economic freedom score should result in higher levels of cooperation with U.S. nonproliferation programs. The data for this variable comes from the Heritage Foundation's Index of Economic Freedom web page and is shown in Figure 5.[94]

One country, Sudan, did not have an economic freedom score, so this variable measures the influence of economic freedom across 45 countries. The EF scores range from a low of 3 for North Korea to a high of 82.7 for Australia. The mean score is 61.8 and the median score is 62.4. If our theory holds true, countries with higher scores should cooperate with the United States in nonproliferation activities. Given that more than half of the countries participate in both the PSI and the GTRI, an EF score above 62 should predict cooperation.

[94] Economic Freedom data found at http://www.heritage.org/research/features/index/index.cfm, last accessed April 2007.

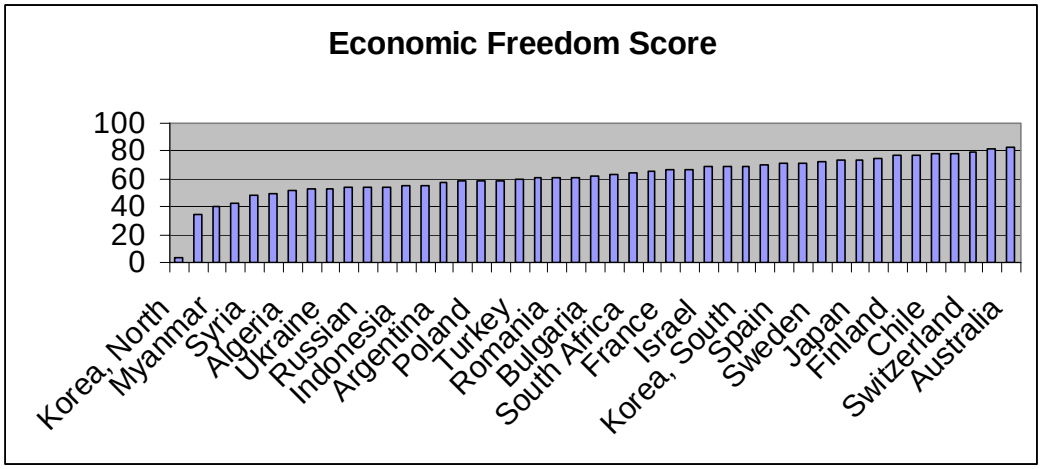


Figure 5. Economic Freedom Score by Country

## C. MODEL RESULTS

The dependent variable, either PSI or GTRI participation, is a dichotomous variable coded either one for cooperation or 0 for not cooperating. The appropriate method of testing a model with a dichotomous dependent variable uses logistic regression (or a similar alternative) instead of the more common linear regression technique. This section subjects the hypotheses from Chapter I to a statistical test.

### 1. Evaluation of PSI Support Model

The results of the logistic regression, which estimates the probability of a certain event occurring, are shown in Table 4. In this model, the one statistically significant variable, at the .05 level, is International Organizations. The coefficient is positive which indicates that cooperation in the PSI increases with more participation in international organizations. With this result, we can say that participation in international institutions facilitates state cooperation in nonproliferation efforts. The variables Alliance, Security Assistance, and Economic Freedom are all positive, as expected, but are not statistically significant. This suggests that involvement in alliances with the United States, using security assistance as a method of influencing cooperation, and the openness of states economic systems do not have a measurable effect on the level of cooperation in the PSI.

| Variable | Coefficient | Std. Error | t statistic | Significance |
|---|---|---|---|---|
| Constant | -5.87 | 3.23 | -1.82 | 0.04 |
| International | 0.70 | 0.33 | 2.13 | 0.02 |
| Alliance | 0.30 | 0.76 | 0.40 | 0.48 |
| Security Asst. | 0.00 | 0.00 | 0.09 | 0.46 |
| Economic Freedom | 0.04 | 0.05 | 0.88 | 0.19 |

N=46

Table 4. Logistic Regression Results; PSI as Dependent Variable

### 2. Evaluation of GTRI Support Model

The results of the logistic regression for the GTRI model are shown in Table 5. As expected, the coefficients of International Organizations and Security Assistance are positive. However, neither variable is statistically significant at the .05 level. This indicates that involvement in international organizations and the use of U.S. Security Assistance does not have a measurable effect on participation in the GTRI. The coefficient for the variables Alliance and Economic Freedom are negative and neither is statistically significant at the .05 level. This result implies that state alliances with the U.S. and the openness of a state's economic system do not have an effect on participation in the GTRI. In fact, the negative coefficient even implies less cooperation with this program if states are in an alliance with the U.S. or have an open economic system. The results provide a strong argument against looking at alliances or economic freedoms as a method of increasing cooperation in the GTRI program.

| Variable | Coefficient | Std. Error | t statistic | Significance |
|---|---|---|---|---|
| Constant | 3.55 | 2.55 | 1.39 | 0.09 |
| International | 0.02 | 0.31 | 0.07 | 0.47 |
| Alliance | -0.08 | 0.60 | -0.13 | 0.45 |
| Security Asst. | 0.00 | 0.00 | 0.99 | 0.16 |
| Economic Freedom | -0.04 | 0.05 | -0.79 | 0.22 |

N=46

Table 5. Logistic Regression Results; GTRI as Dependent Variable

## D. CONCLUSION

This chapter looked at measuring cooperation with nonproliferation programs by using statistical analysis to test the hypotheses developed in Chapter I against the

behavior of 46 states. The results support the hypothesis that participation in international organizations increases the level of cooperation in nonproliferation programs. However, this finding is weakened by the fact that international institutions proved significant in only one of the two nonproliferation programs. The influence of institutions on international cooperation is complex and can result from such factors as facilitating communication, increasing reciprocity, imparting legitimacy, and linking issues. The next chapter will focus on the domestic political variable but will also take a deeper look at the impact of institutions to examine what aspect of institutions increase cooperation.

There was some evidence found in the descriptive statistics section to support the role of alliances increasing cooperation in the PSI program. However, in our regression analysis, there was no evidence to support this finding resulting in very weak support for the hypothesis that states are more likely to cooperate in nonproliferation programs if they are an ally of the United States. There is an element of intuitive sense to this finding when measuring initiatives that aim for high global participation. The number of states the U.S. has a formal defensive treaty with stays fairly constant from year to year and remains at a low number relative to the number of states in the world. Thus as global cooperation increases and participation goes from 11 states to over 80, as in the case of the PSI, the effect of a static influence like alliances will experience diminishing explanatory power. A further avenue of study would be to look at cooperation over time to see if alliances influence early cooperation in a nonproliferation initiative.

Finally, there is no support for either the hypothesis that states are more likely cooperate if they receive U.S. security assistance or that the likelihood of cooperation increases as a state's Economic Freedom score increases. There could be many explanations for the lack of influence these variables have. The small amount of security assistance given to most states is likely not enough to influence a government's decision either for or against cooperation. A case like Egypt, where it receives a significant amount of assistance (almost $2 billion/year) but still do not cooperate in the PSI, provides further support for the weakness this variable displays in predicting cooperation. The absence of support for the economic freedom score could either be a failure in the

index or more likely points toward the weakness in relating the theory behind the influence of economic interest groups to matters which can be considered to fall in the national security realm. Economic interest groups likely have more success influencing domestic decisions rather than foreign policy.

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# IV. CASE STUDIES

## A. INTRODUCTION

This thesis now moves from a statistical examination of cooperation to a case study approach. This chapter focuses on the policies of three countries in order to understand the underlying dynamics involved in the decision to cooperate in nonproliferation activities over the past five years. In particular, it examines the subnational independent variable "domestic politics." The three domestic actors examined in detail consist of the political elites, interest groups, and the public. The three countries studied, Russia, China, and India, all have taken different views on cooperation with the United States. Although the three states were chosen to test the hypothesis on domestic politics, other factors discovered, which influence cooperation, will be discussed also. Thus the case studies suggest additional leads for future research in the area of international cooperation and nonproliferation.

## B. RUSSIA

The Russian government is considered a federal republic with President Vladimir Putin filling the role of the head of state. The executive branch of the government is headed up by a prime minister who is appointed by the president. Legislative authority resides in the Federal Assembly, which consists of the State Duma and the Federal Council. Although the Russian system of government has elements that are theoretically democratic, President Putin has implemented numerous changes during his seven year tenure resulting in consolidation of governmental power "in the hands of the president and in the agencies of the executive branch, while the influence of the legislative branch is limited."[95] The primary executive branch organization involved with nonproliferation is the Ministry for Industry and Energy (MIE), which has control over the nuclear,

[95] Ksenia Yudaeva, "The Russian Political System and Economic Growth," *Post-Soviet Economies in Transition* (Moscow Carnegie, March 2004), http://www.carnegie.ru/en/pubs/briefings/70011.htm, last accessed August 2007.

biological and chemical weapons programs. Russia has participated in the CTR program, since its creation in the early 1990s, and has participated in both the PSI and GTRI since 2004.

According to the global intelligence service Strategic Forecasting (STRATFOR), the three factions influencing the state's decisions are:

> The St. Petersburg brigade, which consists of western leaning technocrats from Putin's hometown, the state oligarchs, who are billionaires and leaders of state controlled assets in key policy positions, and the *siloviki*, which is mostly made up of former KGB members focused on national security.[96]

In addition to analyzing the political elites, considered the St. Petersburg brigade and the *siloviki*, and the interest groups, composed of the military, oligarchs, and the executive agencies, this section will also examine the views of the public.

### 1. Political Elites

While there are numerous political elites in Russia, Putin has consolidated power to the point where the regime can almost be considered authoritarian. He won reelection as President in March 2004 with 71% of the vote and is the "unchallenged master of the Russian political scene today with no credible political rivals."[97] Among the three domestic political groups considered, he far and away has the most power to influence the direction of the state and decisions on cooperation in nonproliferation activities. Therefore, this section of the thesis will focus mainly on Putin as most of the significant political elites owe their positions to him and generally support his decisions. The one additional group mentioned is the *siloviki* who have enough influence to merit analysis.

Vladimir Putin was elected president in 2000 and took the reins of a country that had suffered through losing the cold war followed by a decade of economic disaster where almost every element of Russian power and influence declined. Stuart Goldman, of the Congressional Research Service, claims "from the Day Putin became President to

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[96] STRATFOR, "Russia's Fading Siloviki," Strategic Forecasting, July 10, 2007, http://www.stratfor.com/products/premium/read_article.php?id=291902, last accessed July 2007.

[97] Stuart Goldman, "Russian Political, Economic, and Security Issues and U.S. Interests" (CRS Report for Congress, May 2007), 1.

the present time, he has insisted that Russia's most urgent need and his top priority was the reconstruction and revitalization of the economy."[98] Putin understood that good relations with the West would be vitally important to achieving his goal and restarting the Russian economy. His grand strategy involved restoring Russia's great power status through economic development enabled by further integration with the West. One important part of this strategy was entry into the WTO, which would facilitate Russian integration into the global economy. Acceptance into the WTO was only possible with U.S. and Western European support. Due to this philosophy, Putin was very amenable towards cooperation with the West on numerous issues including nonproliferation.

#### *a. Views on Security*

The Russian experience in Chechnya and the attacks of Chechen terrorists in Russia have greatly impacted Putin's current view on terrorism. The U.S. and Russia share similar views on terrorism and WMD with slight but important differences. Even before the attacks of September 11th, Putin was proposing the idea of Russia-U.S. cooperation against terrorism.[99] "For Putin, the key threats do not come from the United States, but from terrorist activities and those nations falling behind economically."[100] The attacks of September 11th gave Putin the chance to make great strides in advancing U.S.-Russia cooperative efforts. During the U.S. invasion of Afghanistan, Russia facilitated U.S. efforts to establish temporary bases and operate out of former Soviet Union states in Central Asia. During a 2003 speech to the United Nations, Putin said:

> Terrorism is a challenge to security and to the economic future of our planet and a serious remaining challenge of today is the proliferation of weapons of mass destruction and the possibility that they might get into the hands of terrorists.[101]

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[98] Stuart Goldman, *Russian National Security Policy after September 11* (CRS Report for Congress, Aug 2002), 8.

[99] Ibid., 19.

[100] Andrei Tsygankov, "If Not by Tanks, then by Banks? The Role of Soft Power in Putin's Foreign Policy," *Europe-Asia Studies* 58 (November 2006): 1082.

[101] Vladimir Putin, Statement by Russian President at the 58th Session of the General Assembly of the United Nations, September 25, 2003.

Although the U.S. and Russia share similar views on the threat of terrorism, "Moscow does not view terrorism as a state-based phenomenon and would prefer that interstate cooperation, not regime change, be the basis for dealing with it."[102] Thus, Russia did not support the 2003 invasion of Iraq and the different approaches to nonproliferation remain an area of friction between the two countries.

### *b. Views on Nonproliferation*

Russia is a member of the NPT and a strong supporter of the IAEA. There is a long history of arms control and a commitment to the idea of nonproliferation embedded within the state. Putin supports the use of international treaties as a way to control proliferation and wants international institutions to play the primary role in controlling the spread of nuclear weapons. It is not in the strategic interest of Russia to see the spread of nuclear weapons or the spread of other forms of WMD. In fact, most of the new nuclear weapon states are in close proximity to Russia and pose a greater potential threat to Russia than to the United States. However, with Russia's differing view on the threat of the state, comes a different preference for dealing with the problem of proliferation.

> Russia favors achieving nonproliferation through economic compensation and security guarantees while the U.S. prefers unrelenting coercive diplomacy, including sanctions and threat of military action, until the proliferating state gives in.[103]

This important difference in viewpoint has led Russia and the U.S. to treat cases of potential proliferation, such as North Korea and Iran, differently. In the case of Iran, Russia does not see any problem with Iran developing a nuclear power industry as long as it conforms to IAEA protocols. In fact, the Russians have a $1 billion interest in building a nuclear power plant in Bushehr, Iran. This reactor project is an important part

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[102] Andrei Tsygankov, "New Challenges for Putin's Foreign Policy," *Orbis* (Foreign Policy Research Institute, Winter 2006), 158.

[103] Yong-Chool Ha and Beom-Shik Shin, *Russian Nonproliferation Policy and the Korean Peninsula*, Strategic Studies Institute (December 2006), http://www.strategicstudiesinstitute.army.mil/, last accessed July 2007).

of Russia's plan to build its export industry and is covered in more detail later in this chapter. These different views might also account for the fact that Russia did not initially support the PSI.

### *c. Views on PSI*

The philosophical differences between Putin and Bush on the appropriate methods to curb proliferating states can account for the reason Russia did not initially support the PSI. Given the Bush administration view of Iran as an "axis of evil" country, Putin had a real concern that the U.S. would use the PSI to interfere with the Russian nuclear program in Iran. Putin's primary objection to the PSI was that it might not comply with international law. As long as the PSI conformed to international law, it would not interfere with legitimate commercial nuclear activity between Russia and Iran. Once assured by the Bush administration that the PSI would follow international law, diplomatic sources in Moscow said the "program's objectives are in line with Russia's interests."[104] A second reason Putin eventually came around to supporting the PSI was because the Russian-U.S. relationship, including the various aid programs, is extremely important to Putin. He wanted to show his good will by supporting one of President Bush's principal foreign policy objectives in the nonproliferation arena. Although Russia has publicly pledged to support the PSI, and is a regular attendee at annual meetings, it has shown little interest in participating in operational exercises or becoming significantly involved in the effort.

### *d. Views on CTR*

Although increasing natural resource pricing has greatly benefited the Russian economy, it still has a long way to go before the economic turn-around can be considered successful. The U.S. aid programs, started after the collapse of the Soviet Union, were a crucial source of funds for Russia. The Russian defense budget suffered substantial cutbacks during the 1990s and the only way Russia could afford to downsize its costly nuclear forces was through U.S. aid. In total, "the United States supplied $14

[104] BBC News, "Russia taking its time to think about US nonproliferation initiative," Interfax news agency, January 30, 2004, http://www.acronym.org.uk/docs/0306/doc14.htm#02, last accessed July 06.

billion to encourage democracy and market reform, for humanitarian aid, and for WMD reduction in Russia."[105] These funds provided a life-line to Russia as it sought to improve its fiscal position. In fact, when the U.S. proposed expanding nonproliferation efforts into additional countries, Russian diplomats expressed concern about losing funds and said "It is important to first fulfill the original intent of the Global Partnership − securing $20 billion in nonproliferation funding for Russia by 2012 − before considering an expansion of the effort."[106]

Now that the Russian economic picture has improved, the U.S. funding for CTR projects is going to be more fully shared. Since much of the early U.S. funding went to American businesses providing support in Russia, this will result in more funds going to Russian businesses and should increase the support for these projects among the general population. Another crucial factor in cooperation was that the downsizing of the nuclear forces was in line with Russia's strategic vision. Putin was an advocate for strategic nuclear arms reduction, and cooperation with the U.S. allowed Russia to use CTR funds to make the reductions required by both the START treaty and its reduced defense budget.

#### *e. Views on GTRI*

In a 2003 interview with the BBC, Putin said:

> We should always remember that the problem of proliferation of nuclear and other weapons of mass destruction is closely related to the threat of terrorism, because terrorists attempt to acquire certain means of mass destruction.[107]

These words further emphasize Putin's view on terrorism as the preeminent threat facing Russia. Putin's support for the GTRI program comes from the belief that terrorists will try to acquire the means to cause mass destruction. Russia has experienced the dangers

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[105] Goldman, "Russian Political, Economic, and Security Issues and U.S. Interests," 1.

[106] Mike Nartker, "United States Supports Expansion of G-8 Nonproliferation Effort," Global Security Newswire, April 27, 2004.

[107] BBC News, "Interview with the President of the Russian Federation, Vladimir Putin by the British BBC television and radio company," Moscow, June 22, 2003, http://www.acronym.org.uk/docs/0306/doc14.htm#02, last accessed July 2006.

involved with radiation contamination first hand with the Chernobyl disaster and has no desire to see terrorists acquire the materiel for a radiological bomb. The limiting factor to date has been the cost involved with implementing such a program. Although Putin would agree that radiological sources at civilian sites pose a threat, the priority for funds has gone to other initiatives. Over the past decade, the military sources of fissile material, not to mention actual nuclear warheads, posed a much greater risk than the civilian sites. Now that the military sites have attained a certain level of security, and the Russian government is running a budget surplus, Putin will likely start to put more resources into this program. Any funds received through cooperation with the U.S. would be added incentive to accelerate the program.

#### *f. The Siloviki*

The *siloviki* are former members of the military, security, or police forces that hold prominent positions in Putin's government. They favor nationalist policies and want to see the return of Russia as a great power. They do not favor cooperation with the U.S. and still see the Russian-U.S. relationship as adversarial. They favor centralization of national resources such as oil, gas, and ores. While the pro-Western policies of Putin are not to the liking of the *siloviki*, Putin has given control of key resources to them and has advocated expansion of the Federal Security Service and Foreign Intelligence Service. These moves have retained the *siloviki* support but have fallen short of giving them enough power to change Putin's overall strategy of integrating more thoroughly with the West. Putin is careful to move out *siloviki* members who have the potential of becoming political rivals before they attain enough power to be a true threat.

### 2. Interest Groups

Putin has long had a strategy of balancing the competing interests in Russia. He balances the military, oligarchs, and *siloviki* to ensure none gain too much power while placing people loyal to him into key positions.[108] In his first two years in power, "Putin instituted major personnel changes in the military high command, removing a number of

[108] STRATFOR, "Russia: Mixing Oil and Politics," Strategic Forecasting, March 27, 2007, http://www.stratfor.com/products/premium/read_article.php?id=286446, last accessed Jul 2007.

outspoken advocates of anti-western, anti-U.S. military policies."[109] He also removed the oligarch Mikhail Khodorkovsky, the head of oil giant Yukos and the richest man in Russia, and prosecuted him for tax evasion. Later, Putin arranged for the assets of Yukos to be split up with some going to another oligarch who more fully supported him and some becoming state controlled. While interest groups in Russia have an influence on state policy, it is limited due to the strength of Putin's rule.

### *a. The Military*

Military support for cooperation with the U.S. has increased since Putin removed a number of key leaders. Prior to that, support for the CTR program was strong in the segments of the military that received funding and benefited from projects. Although some did not like having U.S. personnel in sensitive sites, the Russians also benefited from the interaction of personnel in the CTR program. "The parties often obtained more information about each other's WMD-related capabilities and policies than they acquired through formal arms control accords."[110] Since the budget and force reductions of the 1990s, the Russian military has lost much of its influential power. "Their previously privileged position in the allocation of resources has been broken, as has their almost sacrosanct status in official ideology and propaganda."[111] Therefore, military elites have less influence in determining whether Russia cooperates with the U.S. than they did during the cold war years. Putin has also retained the support of the military by increasing defense spending by double-digit percentages for seven years in a row.[112] As spending ramps back up, equipment and training improve, as does the pride of the Russian armed forces.

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[109] Goldman, "Russian National Security Policy after September 11," 7.

[110] Richard Weitz, "Russian-American Security Cooperation after St. Petersburg: Challenges and Opportunities", Strategic Studies Institute (April 2007), http://www.strategicstudiesinstitute.army.mil/, last accessed Jul 2007, 22.

[111] Goldman, "Russian Political, Economic, and Security Issues and U.S. Interests," 14.

[112] STRATFOR, "The Return of Russia," Strategic Forecasting, July 26, 2007, http://www.stratfor.com/products/premium/read_article.php?id=292904&selected=Analyses, last accessed July 2007.

### *b. The Oligarchs*

The oligarchs are the billionaire business leaders of powerful industrial sectors of the economy. They gained power in the 1990s and consolidated many lucrative business sectors through often corrupt means. Their immense wealth leaves them unpopular with the public and Putin's government, if they do not support Putin. Since 2003, Putin has been centralizing control of the energy sector to take back some of the profits that have flowed into oligarch hands. Any oligarch with political ambitions who runs contrary to Putin's desires faces the possibility of imprisonment and confiscation of all assets as happened to Yukos. According to Strategic Forecasting,

> The Yukos dismemberment achieved a number of Moscow's goals. First, it destroyed the political career of former Yukos CEO Mikhail Khodorkovsky. Second, it removed Yukos from the Russian economic scene, destroying a tool that otherwise would have been used to launch a political program in opposition to the Kremlin.[113]

Third it sent a powerful message to all of the oligarchs to stay out of politics and in Putin's favor. Although it is likely the oligarchs would support greater cooperation with the United States, as a means to expand their business interests, the oligarchs are not seen as a group with significant impact on Russian political cooperation with the West.

### *c. The Executive Agencies*

The Ministry for Industry and Energy (MIE) is the executive agency that is the primary organization involved with nonproliferation efforts. It contains the previously independent Federal Agency for Atomic Energy (Rosatom), which plays the lead role in nuclear nonproliferation activities and construction of nuclear power plants. The MIE has been a supporter of CTR as the funds provided by this program have been indispensable in securing and converting nuclear sites and transitioning several of Russia's nuclear cities from weapon development to peaceful research. They also

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[113] STRATFOR, "Russia: The Yukos Lesson and the Attack Mentality," Strategic Forecasting, December 09, 2004, http://www.stratfor.com/products/premium/read_article.php?id=240630, last accessed July 2007.

support the GTRI but lack adequate funding to carry out the program. In cases where they can receive international funding, they have fully participated in reactor conversion and recovery of HEU.

However, in regards to the PSI, the MEI has serious concerns over interference in its civilian nuclear export program. The nuclear industry is one of the few areas where Russia is still a global leader and nuclear technology exports provide vital funding for the MEI. During the 1990s, Rosatom was regularly under-funded due to the massive economic turmoil the Russian economy experienced and the huge cost of dismantling the vast nuclear infrastructure that was created to support the arms race during the cold war.

> The income derived from foreign shipments has become an extremely important means for keeping this colossal infrastructure of sites and the people connected with them going. Extra-budgetary income from foreign contracts with China, India, Iran, and other countries has become indispensable for life support of this immense social and technological organism.[114]

The reliance on nuclear exports has given rise to a policy that potentially puts business before nonproliferation concerns. The MEI does not scrutinize the motives or track-record of purchasing countries too closely. Efforts by the U.S. to promote nonproliferation are seen as having an ulterior motive. "The Russian government broadly shares its national atomic energy agency's view that the U.S. aims to take Russia out of nuclear energy cooperation with Iran and North Korea, so as to undercut Russia's position on the world civilian nuclear technology market."[115] In all, the MEI supports cooperation with the U.S. in nonproliferation activities as long as it is profitable and there is no hindrance to its export business.

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[114] Pavel Kamennov, Elina Kirichenko and Vladimir Pyryev, "The Russian Federation," in *Nuclear Deterrence and Non-Proliferation*, ed. Alexei Arbatov and Vladimir Dvorkin (Carnegie Moscow Center, 2006), 20.

[115] Dimitri Trenin, *Russia's Nuclear Policy in the 21st Century Environment*, Ifri Security Studies Department (autumn 2005), http://www.ifri.org/files/Securite_defense/prolif_paper_Trenin.pdf, last accessed July 2007.

### 3. The Public

Putin's strategy to balance all of the competing interests relies on his leadership ability to maintain the domestic coalition. Dmitri Trenin, deputy director of the Carnegie Moscow Center, asserts:

> Putin's way of dealing with the oligarchs alienated many business elites, while his military reforms are straining his relation with the military. The more he presses forward, the more likely he is to lose support of the elites, leaving him reliant on the support of the general public.[116]

Luckily for Putin, he enjoys strong support from the public. Compared to the 1990s, life in Russia is better. Specifically, Russians enjoy a higher standard of living and more domestic security, albeit with less freedom. Putin's reign has coincided with the rise in world oil and gas prices which have helped boost the Russian economy. Economic performance has remained relatively strong since 2000 with "yearly increases in GDP averaging 6.7% annually. During this time, poverty has declined steadily and the middle class has continued to expand."[117] The recovery in Russia's economy has enabled the country to once again become assertive in world politics and has rekindled national pride. Although the Russian public's view of the U.S. has dropped from 61% favorable in 2002 to 41% favorable in 2007, more than 84% of Russians still say they have confidence in Putin's approach to world affairs.[118] Putin's willingness to cooperate with the West on certain policies does not seem to be enough of an issue to damage his public support, even with the growing anti-U.S. sentiment of the Russian people. As long as this backing remains high, he will have an easier time continuing his cooperation with the United States in areas of nonproliferation.

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[116] Andrei Tsygankov, "New Challenges for Putin's Foreign Policy," Orbis (Foreign Policy Research Institute, Winter 2006), 164.

[117] CIA World Fact Book, "Russia," Updated 19 July 2007, https://www.cia.gov/library/publications/the-world-factbook/print/rs.html, last accessed August 2007.

[118] Pew research Center, "47-Nation Pew Global Attitudes Survey," June 27, 2007, http://pewglobal.org/reports/display.php?ReportID=256, last accessed July 2007, 16.

### 4. Conclusion

In Russia, the domestic politics variable does not appear to have a strong influence on the decision to cooperate with the U.S. in nonproliferation efforts. Putin's power is so dominant that negative views from some political elites regarding cooperation with the West, and disfavor from many business and military elites over how he's treated them, are not enough to alter Russia's course in this regard. Even the public's generally unfavorable view of the U.S. was not enough to change their overall view of Putin's foreign policy. Russia has received a lot of monetary assistance from the U.S. and there is evidence that this played a significant role in the decision to cooperate in the CTR, GTRI, and PSI programs. Although this thesis primarily focuses on the last five years, there is evidence indicating financial incentives involved with the CTR program were a major factor in influencing Russia's decision to initially cooperate in the early 1990s. However, the evidence also shows that these programs were aligned with Russia's grand strategy. This is important as there is no evidence to indicate the aid in the 1990s would have influenced Russia had nonproliferation not been in its interest. Finally, there is evidence to support the role of international institutions in the decision to cooperate. Russia is a strong advocate for using international institutions to combat WMD proliferation and fully backs the international norms against the spread of WMD. In 2006, Russia signed a trade agreement with the U.S. which paved the way for entry into the WTO after 12 years of negotiation.[119] This agreement was a major incentive for Russian cooperation with the U.S. on various issues including nonproliferation. This further highlights the role of international institutions linking issues and connecting current events with future consequences. In this case, Russian cooperation in international nonproliferation regimes and programs helped secure entry into the WTO and future economic benefits. Another reason Russia supports international institutions is due to their ability to restrain the actions of its members. Russia is currently focusing the majority of its efforts on recovering some of the power and influence it lost when the Soviet Union broke apart. The U.S. does not have this problem and is relatively freer and

[119] BBC News, "US paves way for Russia WTO entry," November 19, 2006, http://news.bbc.co.uk/2/hi/business/6163008.stm, last accessed July 2007.

much more capable to globally project power. Russia, as a member of the U.N. Security Council, has veto power over U.N. actions. Further incorporation of nonproliferation activities into the U.N. would give Russia the means to curtail nonproliferation efforts which do not align with Russian interests.

## C. CHINA

The Chinese government is considered a communist government with the Chinese Communist Party (CCP) existing as the sole political party. China's chief of state is President Hu Jintao and the executive branch of the government, called the State Council, is headed up by Premier Wen Jiabao. The country is composed of 23 provinces, five autonomous regions and four municipalities. The National People's Congress (NPC) is composed of representatives from all of these areas as well as the military and is the highest body of power in China. Although China is an autocratic government which exercises national control, "decentralization in both the political and economic arenas"[120] has made the provincial leaders a political force with strong incentives to promote local interests. This "localism" poses a challenge to the central government in that it constrains its ability to impose national solutions and makes national integration more difficult.

The primary executive branch organizations involved with nonproliferation are the Ministry of Foreign Affairs (MFA) and its Department of Arms Control and Disarmament, which is active in international treaties and regimes, and the State Commission on Science, Technology, and Industry for National Defense (COSTIND), which overseas the production of the defense plants. This case study will analyze the political elites, the interest groups−composed of the military, industry, and the executive agencies−and the views of the public.

### 1. Political Elites

The CCP, headed by President Hu, maintains strict political control throughout the country. While there is divergence in political goals between the central and local

[120] Barry Naughton and Dali Yang, *Holding China Together: Diversity and National Integration in the Post-Deng Era* (Cambridge: Cambridge University Press, 2004), 35.

levels, the CCP maintains total control as a party and sets the rules for political promotion. The CCP sets the direction for the country, but the provinces execute these plans in a fairly autonomous manner. It is in the execution of centralized policy where conflict in the area of nonproliferation can occur.

The central government makes the national decisions on cooperation in nonproliferation programs. However, local economics can create incentives for lower-level political leaders to stress production and export over strict control of certain technologies. This has created numerous instances where the central government has verbally supported nonproliferation but the U.S. has caught specific companies proliferating WMD technology. The economic incentives to proliferate certain technologies can create internal political pressure from the provinces against nonproliferation. These incentives will be further explored in the section focusing on interest groups. Given that there is one-party rule in China, this section will focus on the predominant views of the CCP.

One of the greatest challenges facing the CCP is sustaining economic growth. China has approximately 1.3 billion people and economic expansion is required to continue creating jobs and improving the standard of living. "The overriding objective of Chinese foreign policy is to serve the CCP's goal of sustaining rapid economic growth (a critical pillar of its political survival)."[121] In this regards, China is very similar to Russia in that maintaining good relations with the West is important due to internal economic goals. One important difference between the two countries is China's economic performance which, over the last two decades, has been much better than Russia's. As a result, the economic interdependence between the U.S. and China is much greater. Taken together, China has a strong economic incentive to cooperate with the West, including nonproliferation activities, but it is also in a stronger position to resist Western pressure.

#### *a. Views on Security*

Although the Chinese have been the victim of terrorist attacks as recently as the 1990s, they do not consider terrorism to be as significant and pervasive a threat as

[121] Minxin Pei, "Assertive Pragmatism: China's Economic Rise and its Impact on Chinese Foreign Policy," IFRI Security Studies Department (Fall 2006), 9.

the U.S. does. After September 11, "Beijing said it offered 'unconditional support' in fighting terrorism."[122] However, the reality is that there has been little terrorism cooperation between the U.S. and China. As Minxin Pei notes, "The Chinese ruling elites tend to view the outside world with an unusual degree of wariness and insecurity brought about by their realist views."[123] These views influence the way the Chinese perceive U.S. actions and tend to make them suspicious of the motives behind U.S. security initiatives. China sees many of the U.S. actions as a means to either extend U.S. power or to limit the power of developing nations, such as itself.

### *b. Views on Nonproliferation*

The CCP primarily views nonproliferation efforts as a way to enhance China's image, a means to increase its security, and a bargaining tool to gain concessions from the United States. Part of China's drive to become an emerging great power is cultivating an image as a responsible power. Its acceptance in world institutions depends to a degree on their adherence to international norms. In this regard, they do not want to be viewed as an obstacle to global nonproliferation efforts. Their concern about image is one factor behind their entry into the NPT in 1992. They are also a strong supporter of the IAEA and an advocate for the use of civilian nuclear power. Dr. Jing-Dong Yuan, Senior Research Associate at the Monterey Institute's Center for Nonproliferation Studies, explains:

> China has acceded to most international treaties that are broadly based with universal membership and has by and large complied with their norms and rules but it has been critical to the largely Western-initiated, supply-sided multilateral export-control regimes.[124]

China also has a security stake in nonproliferation which underlies its support of the NPT. As one of the five NPT-recognized nuclear weapon states, China has an interest in maintaining the NPT regime. As long as states adhere to the current treaty,

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[122] Shirley Kan, "U.S.-China Counterterrorism Cooperation" (CRS Report for Congress, June 2006), 1.

[123] Pei, "Assertive Pragmatism: China's Economic Rise and its Impact on Chinese Foreign Policy," 6.

[124] Jing-Dong Yuan, "The Evolution of China's Nonproliferation Policy since the 1990s: progress, problems, and prospects," *Journal of Contemporary China* 11:31 (May 2002), 217.

regional powers such as South Korea and Japan will not acquire nuclear weapons. One of the main reasons China participates in the Six-Party Talks, to shut down North Korea's nuclear weapons program, is the fear that a nuclear-armed North Korea, or one with a larger arsenal, will provide the impetus for other countries in the region to pursue nuclear weapons. The breakdown of the NPT regime would result in a decrease in China's overall security.

A third reason China participates in nonproliferation activities is to gain a bargaining tool with the United States. "Beijing is increasingly linking fulfillment of its nonproliferation commitments to changes in US policies in arms sales to Taiwan and missile defense."[125] Since the U.S. views proliferation as a higher security threat than do the Chinese, the Chinese use issue linkage to tie nonproliferation efforts to areas they see as greater security concerns. In using this tool, China must balance its own security concerns with proliferation against concessions it might gain in other areas of concern, such as the independence movement in Taiwan.

#### *c. Views on PSI*

One of the most crucial states the U.S. hopes to bring into the PSI is China. As one of the five permanent U.N. Security Council members, China's support is vital to passing resolutions supporting WMD interdiction. As a rising global power, China's support will add to the legitimacy of the effort and likely bring along other regional actors. In fact, the reason Vietnam has resisted U.S. pressure to join the PSI is due to the fear of "annoying its giant northern neighbor,"[126] which currently opposes the PSI. China is a leading regional power in the Asian Pacific, one of the regions of greatest proliferation concern, and its cooperation would be invaluable in conducting interdiction missions and in containing North Korea's nuclear program.

China has so far refused to join the PSI because of its own experience with U.S. interdiction, its view on civilian nuclear power, and its geopolitical goals in the

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[125] Yuan, "The Evolution of China's Nonproliferation Policy since the 1990s: progress, problems, and prospects," 210.

[126] Roger Mitton, "Vietnam under pressure to join anti-terror initiative," *The Straits Times*, March 29, 2007.

region. In 1993, the U.S. suspected a Chinese vessel, the *Yinhe,* of carrying precursor chemicals, needed to make chemical weapons, to Iran. The U.S. contacted China with its allegations and requested to board the vessel. The Chinese did not agree with the U.S. request or with its assessment of the cargo. After several weeks of dialogue, and pressure from Washington, the Chinese agreed to divert the ship to a Saudi harbor for inspection. After it turned out the ship was not carrying the suspected chemicals, the Chinese demanded an apology and compensation for the delayed carrier. The U.S. refused both requests. This event generated a "long-lasting negative and emotional reaction to U.S. interdiction"[127] that creates a psychological barrier to support of the PSI.

China, like Russia, also has concerns the PSI will be used to target legitimate shipment of civilian nuclear technology. The Chinese view their nuclear exports as an important source of foreign income and a means to influence strategically important countries. They view peaceful use of nuclear energy as a right that the IAEA guarantees to developing countries and they view Washington's effort to curtail this use as a means to hold back certain nations. The practice of exporting sensitive technologies as a means to gain influence goes beyond civilian nuclear power. China practices this same strategy with weapons exports. Strategic Forecasting predicts "Beijing – for geopolitical reasons – will continue to disseminate critical nuclear and missile technologies to a select few countries."[128] One such country is Pakistan. China will continue to support Pakistan as a counterbalance to the growing power of India. Although China does not want a nuclear-armed neighbor in North Korea, it will probably continue to support North Korea out of a desire to prevent a united Korea that heavily favors the United States and to prevent a breakdown of the regime which might create a huge flow of refuges into China. Lastly, China will also likely help out select countries in the Middle East and Africa to ensure a supply of oil for its energy-hungry industries. As long as it is in China's strategic interest to proliferate some materials, it is doubtful it will support the PSI.

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[127] Shirley Kan, "China and Proliferation of WMD and Missiles: Policy Issues" (CRS Report for Congress, January 2007), 38.

[128] STRATFOR, "Chinese Proliferation Will Continue for a Strategic Few," Strategic Forecasting, February 18, 2004, http://www.stratfor.com/products/premium/read_article.php?id=228241, last accessed August 2007.

### *d. Views on CTR*

The People's Liberation Army (PLA) maintains tight control over the nuclear forces of China. However, the security lacks technological sophistication which could pose a problem should insiders ever desire to steal nuclear material. The closest the U.S. and China have come to a CTR program occurred in the 1990s when a lab-to-lab program was implemented to increase cooperation on technology sharing for nuclear security and accountability. However, unrelated allegations of Chinese theft of nuclear secrets and broader political problems in overall U.S.-Chinese relations resulted in the elimination of the program.

In looking at the security trade-off between accepting Western help to improve nuclear force security and potentially giving away important intelligence on its forces, China decidedly stands on the side of secrecy. One of the fundamental requirements of a CTR program is transparency into how the funds are used. This requires access to the sensitive sites where nuclear, chemical, or biological work would be occurring. This is a requirement that is highly unlikely to ever be met. The Chinese views on "military transparency measures typically run counter to those of the West and emphasize the potentially destabilizing effects that transparency can generate under certain conditions."[129] The best scenario the U.S. is likely to encounter is to bring China on-board as a supporter of the effort for either financial contributions or as a third-party initiator. As a third party, China might be more successful implementing CTR-type programs in countries, such as Iran, that would not be amenable to a U.S. presence.

### *e. Views on GTRI*

The GTRI program is a Russian-U.S. program to take back Russian/U.S. origin HEU fuel and to convert HEU research reactors to LEU fuel. China, as a nuclear weapon state, is not eligible for the HEU take-back program even though it has Russian-origin HEU. The CCP has shown interest in participating in the parts of the program where China is eligible. In 2005, China added nine of its research reactors to the Reduced

[129] Bates Gill and Evan Medeiros, "Foreign and Domestic Influences on China's Arms Control and Nonproliferation Policies," *The China Quarterly* 161 (March 2000), 70.

Enrichment for Research and Test Reactors (RERTR) Program to convert these rectors to use LEU fuel.[130] The funding to convert these reactors is provided by the U.S. and there are no state secrecy issues involved with the civilian reactors. To the CCP, there appears to be little downside to participating in this programs while it gains the benefits of removing a potential terrorist danger and the public relations appeal of contributing to this nonproliferation effort. However, due to the lower threat perception shared by members of the CCP regarding nuclear terrorism, the CCP is not expanding on this initiative and proposing a take-back program of its own. There is currently no program to recover the small amount of Chinese-origin HEU from any of the six countries where it currently resides.

### 2. Interest Groups

Since its inception, the CCP has experienced a slow transition from strict one-man rule to a more consensus style of rule. This has resulted in more factions being involved in state decisions and has increased the influence of interest groups. The three interest groups examined in this section are the military, the business community, and the executive agencies.

#### *a. The Military*

The military enjoys strong influence in the decision making process to include holding seats in the NPC. The military is highly defensive of its turf and is against any initiative that reduces the capability of its forces. The military, combined with the members of the defense industrial base, strongly opposed China's signing of the Comprehensive Test Ban Treaty (CTBT) in 1996.[131] They do not support the CTR program because they think they have good control of their WMD arsenal and they do not wish to provide the West with any information on their forces.

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[130] Charles Ferguson, *Preventing Catastrophic Nuclear Terrorism* (Council on Foreign Relations, March 2006), 28.

[131] Medeiros, "Foreign and Domestic Influences on China's Arms Control and Nonproliferation Policies," 87.

> The PLA historically emphasized the importance of shrouding capabilities as a form of deterrence and China's military leaders persist in their reluctance to share information for fear of what it might reveal about PLA strengths and weaknesses.[132]

Their opposition to the PSI is not as great but they have little desire to share intelligence or participate in combined military exercises with the United States for the same reasons.

### *b. The Business Community*

The importance of economic development to China's rise in power cannot be overstated. Economic power provides the means to achieve military power and those two elements combine to form national power. Thus the goal of the CCP is continued economic expansion for both the good of the country and the good of its people. In light of this, it is no surprise that the Chinese business community exerts a tremendous amount of influence over members of the CCP. In addition, the business community exerts influence at the personal level through economic partnerships with local political leaders and monetary incentives, such as bribes and kickbacks. In fact, in July 2007, two high ranking members of the State Food and Drug Administration were sentenced to death for accepting huge bribes and gifts in exchange for favorable treatment.[133] In the area of nonproliferation, the business sectors involved with the exportation of nuclear technology, dual-use chemicals, and missile technology oppose efforts that promote nonproliferation and might restrict their sales. Many businesses are also dependent on shipping for their export-driven business models and do not support the PSI due to its possible role in disrupting Chinese shipping.

### *c. The Executive Agencies*

In the area of nonproliferation, the executive agencies that usually butt heads are the MFA and COSTIND. Leading up to the signing of the CTBT, the MFA supported entry into the treaty and COSTIND was opposed to entry. Their positions

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[132] Medeiros, "Foreign and Domestic Influences on China's Arms Control and Nonproliferation Policies," 74.

[133] David Barboza, "China Sentences Official to Death for Corruption," *The New York Times*, July 6, 2007, http://www.nytimes.com/2007/07/06/world/asia/06cndchina.html?ex=1341374400&en=4f6ff26857fc9eb9&ei=5088&partner=rssn, last accessed August 2007.

reflect their mission. The MFA interacts in the international arena and can advance state interests by participating in international regimes. COSTIND has a more local outlook and usually takes a position similar to the business elites with which they regularly interact.

> Strong and pervasive financial and technical motives (external sales validate the technical achievements of certain institutes) for arms exports persist and they will continue to complicate the MFA's involvement in arms export control decisions.[134]

COSTIND opposes the PSI due to the possibility of interdictions being aimed at Chinese exports of weapons or sensitive technology falling under its purview.

### 3. The Public

Although the CCP rules China without any significant domestic opposition, any leader ruling a country of 1.3 billion people must take the mood of the population into account. Two of the most important factors governing the relationship between the people and the central government, and underpinning the government's legitimacy, are China's economy and growing nationalism. The Chinese economy, measured on a purchasing power parity basis, is the second largest in the world behind the United States. GDP growth has averaged approximately 10% per year over the last decade.[135] This phenomenal growth has been achieved through economic reforms and decentralization and has served to keep the majority of the population satisfied with the performance of the government. According to the 2007 Pew Global survey, 93% of the Chinese people view their country favorably which is up from 88% in 2005.[136]

However, while the majority of people view their government positively, the favorable view of the United States has dropped from 42% in 2005 to just 34% in

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[134] Medeiros, "Foreign and Domestic Influences on China's Arms Control and Nonproliferation Policies," 93.

[135] CIA World Fact Book, "China," Updated 16 August 2007, https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html, last accessed Aug 2007.

[136] Pew research Center, "47-Nation Pew Global Attitudes Survey," June 27, 2007, http://pewglobal.org/reports/display.php?ReportID=256, last accessed July 2007, 41.

2007.[137] The unfavorable view of the U.S. has the potential to negatively impact relations between China and the United States. The heart of this problem lies with Chinese nationalism. "The rise of the CCP was inseparably associated with Chinese nationalism and they have grown increasingly dependent on using nationalism as a source of political legitimacy."[138] The CCP uses the state-controlled media to frame issues in ways that portray the United States, and other countries such as Japan, negatively. This framing generates feelings of nationalism and directs the emotions of the people away from problems with the state and focuses them on problems "created" by foreign powers. The force of nationalism has been an effective tool used by the CCP but it is a tool that cuts both ways, and the CCP must walk a fine line between the rhetoric it generates and the foreign policy it crafts. The CCP leaders need to look no further than the last century when, as Susan Shirk notes, "mass movements, united by nationalism, accused leaders of failing to defend against foreign aggression and brought down the Qing Dynasty in 1911 and the Republic of China in 1949."[139] The need to maintain this balance between nationalistic sentiments and foreign policy hinders strategic interaction with the U.S. and impedes cooperative efforts.

### 4. Conclusion

In China, the domestic politics variable does appear to have an influence on the decision to cooperate with the U.S. in nonproliferation efforts. While the CCP dominates the political landscape, the trend toward consensus rule, the power of bureaucratic and economic constituents, and the nationalistic views of the people all combine to create a headwind restraining strategic cooperation with the United States. These forces are by no means all-powerful and, when they conflict directly with the grand strategy of the country, they can lose out. Such a case occurred when China joined the NPT and signed the CTBT. The need to be seen as a responsible power, supporting global norms and

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[137] Pew research Center, "47-Nation Pew Global Attitudes Survey," June 27, 2007, http://pewglobal.org/reports/display.php?ReportID=256, last accessed July 2007, 13.

[138] Pei, "Assertive Pragmatism: China's Economic Rise and its Impact on Chinese Foreign Policy," 7.

[139] Susan Shirk, "China's Premier in Japan: Melting Ice or Stoking Fire?," *Washington Post*, on-line edition, http://newsweek.washingtonpost.com/postglobal/needtoknow/2007/04/chinas_premier_in_japan_meltin.htm, April 11, 2007, last accessed August 2007.

institutions, outweighed the influences of the interest groups. However, when looking at mainly U.S. dominated programs, such as the CTR and PSI, they create obstructions toward cooperation. There is evidence to support the role of international institutions in the decision to cooperate. China appears to favor cooperation in nonproliferation activities that are founded on international norms and backed fully by the international community. Since the PSI and CTR programs are predominately U.S.-led initiatives, their lack of cooperation fits with this hypothesis. However, their cooperation in the GTRI program, another mainly U.S. program, poses a contradiction to this theory which might be explained by the low profile this program receives and the lack of domestic opposition this program generates. Finally, Chinese leaders are focused on increasing participation in the international economy. Cooperation in international programs, such as nonproliferation, creates good will which can be leveraged for further integration into the international community.

## D. INDIA

With a population exceeding one billion, India is the world's largest democracy. It is a regional power in South Asia with aspirations of becoming a great power and improving its status in the international system. The government is a federal republic where the majority of executive branch power rests with the Prime Minister, Manmohan Singh, and his cabinet. The legislative branch consists of the 250-seat Council of States and the powerful 543-seat People's Assembly, where the representatives are elected by popular vote from the country's 28 states and seven union territories. The top three parties in the People's Assembly are the Indian National Congress (INC), 145 seats, the Bharatiya Janata Party (BJP), 129 seats, and the Communist Party and its allies with 60 seats. India consists of a diverse mixture of ethnicities, cultures, and languages, which generates internal instability. The power of the government is maintained through a series of regional alliances and multi-party coalitions that act to constrain the actions of the Prime Minister.

On the economic front, the market reforms implemented in the 1990s have paid big dividends for India's economy but further reforms and public company privatization have been stalled by opposition in the People's Assembly. The large and growing

population continues to be the country's biggest economic problem. This case study will first analyze the security situation India finds itself in and the country's views on nonproliferation. It will then analyze the views of the political elites, interest groups, and the public toward cooperation with the United States in nonproliferation efforts.

### 1. National Security Situation

India faces both internal and external challenges to its security. It has suffered from numerous terrorist attacks over the last two decades committed by different tribal, ethnic, and religious movements. India, like the United States, is concerned with the growth of radical Islam and the threat it represents. Externally, India borders marginally stable states like Myanmar and Bangladesh, as well as sharing its borders with two nuclear-armed neighbors, China and Pakistan, with which it has fought border wars. Perhaps the single greatest challenge for India involves the disputed region of Kashmir. India has fought many skirmishes with Pakistan over this border region and accuses Pakistan of sponsoring terrorism and regularly inciting violence in this area.

The history of terrorism has led India to consider the "pursuit of counterterror issues, at every possible multilateral and bilateral forum, a national priority."[140] The threat perception of India is remarkably similar to the U.S. after 9/11. Both countries view transnational terrorists and failed states as a threat to their security. In 2000, India and the U.S. established a joint working group on counterterrorism and after the 9/11 attacks, India offered the U.S. full cooperation and the use of its bases for counterterrorism operations.[141] Although the bases were never used due to objections from Pakistan, India has provided intelligence, logistical support, and maritime escorts to assist U.S. efforts in the "war on terror."

Even with similar threat perceptions, India and the U.S. do have some differences in their views on terrorism. India's initial overwhelming support for the U.S. led war on terror has cooled as it has become evident the U.S. does not plan on waging war on all terrorist groups in South Asia and instead is focuses almost entirely on Al Qaeda and the

[140] C. Christine Fair, *The Counterterror Coalitions: Cooperation with Pakistan and India* (Rand Corporation, 2004), 79.

[141] K. Alan Kronstadt, "India-U.S. Relations" (CRS Report for Congress, April 2006).

Taliban. This leaves Pakistan and pro-Pakistani groups, which India sees as a greater terrorist threat, excluded from direct U.S. action. Further protecting Pakistan is its status as an essential U.S. ally in the war on terror due to its key geographic location. This close relationship has frustrated India in that the U.S. has not been able to pressure Pakistan into discontinuing its cross-border terrorism.

### 2. Views on Nonproliferation

India is one of three countries that did not sign the NPT and which went on to develop nuclear weapons. This puts them in an unusual status. They possess nuclear weapons but are not recognized as an official nuclear power. As such, they do not submit to IAEA inspections and are barred from receiving any assistance that would further their nuclear weapons program. Although India is not part of the NPT, there has been no evidence they have assisted in the proliferation of nuclear weapons.

Due partially to this record of nonproliferation, the Bush administration has gone against 20 years of nonproliferation tradition in signing an agreement to share civilian nuclear technology with India. As part of this historic agreement, India must separate its civilian and military nuclear facilities to ensure U.S. assistance does not aid the Indian nuclear weapons program. Also, India will place approximately 65% of its nuclear capacity under IAEA safeguards, assist international efforts to prevent the spread of enrichment technologies, and improve its export control mechanisms.[142]

In the three areas of nonproliferation cooperation examined in this thesis, India has shown only limited cooperation. India has participated in the GTRI through the conversion of one civilian research reactor from HEU to LEU. It has not participated in the CTR program partly due to U.S. legal and treaty issues involved with assisting a non-NPT state and partly because India does not want to be seen as needing outside assistance. India has not joined the PSI even after repeated attempts by the U.S. to bring it on board.

[142] Sharon Squassoni, "India's Nuclear Separation Plan: Issues and Views" (CRS Report for Congress, December 2006), 20.

### 3. Political Elites

As a democracy, India is more susceptible to the forces behind the domestic politics model than either Russia or China. Its multi-party system, with no dominant political party, requires coalition building to successfully get legislation passed. By its nature, coalition building consists of making compromises and concessions to other parties to gain their support. This section will analyze the three leading political parties: the INC, BJP, and the Communist or leftist group.

#### *a. Indian National Congress*

The INC is the party with the most seats in the People's Assembly. The two most prominent party members are Prime Minister Manmohan Singh, who is a Western-educated economist, and INC party leader Sonia Ghandi, who "wields considerable influence over the ruling coalition's policy decision-making process."[143] Although the INC party is pressing for the civilian nuclear deal with the U.S., it has traditionally supported the non-aligned movement, which consists of a group of countries neither for nor against any of the great powers. In supporting the nuclear deal, they have had to go to great lengths to show that the deal does not make them beholden to or controlled by the United States. Their grand strategy includes improving the economy, gaining a permanent seat on the U.N. Security Council, formal recognition as a nuclear power, and settlement of regional issues such as the Kashmir dispute. All of these goals can be furthered by a closer relationship with the United States, which provides a powerful incentive to cooperate with the U.S. and to be seen as a responsible power.

#### *b. Bharatiya Janata Party*

The BJP is the main opposition party to the INC. It is a party strongly influenced by the spirit of nationalism and identification with the Hindu religion. The BJP "views a strong relationship with the U.S. as essential to its plans for developing India and securing it from external threats."[144] Even with this view, the BJP opposes any

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[143] Kronstadt, "India-U.S. Relations," 6.

[144] Amit Gupta, *The U.S.-India Relationship: Strategic Partnership or Complementary Interest* (Strategic Studies Institute, February 2005), 22.

U.S. efforts, including the civilian nuclear deal, which they think puts too many constraints on Indian national power. The BJP's most recent foreign minister, Yashwant Singh, has criticized the nuclear deal as "giving America too much," even as the deal is criticized in the U.S. as being heavily in favor of India.[145] On another front important to the U.S., India and Iran are in talks to build a natural gas pipeline between the two countries. The Bush administration is strongly against this project, but the BJP and the leftist parties support the pipeline because it is in "India's own national interest."[146]

### *c. Communist Party and Leftist Allies*

The leftist parties consist of the Communist Party and three smaller parties encompassing 60 total votes in the People's Assembly. They, along with the INC, form the foundation for the ruling coalition in power. The goals of the left can be summed up as the advancement of the common man through massive social outlays and an independent foreign policy. As the swing vote on many issues, they have more power than their pure numbers might first suggest. As evidence, they were able to block a set of economic reforms in 2005 when they derailed the Prime Minister's plan to sell a number of state-owned companies. They've also come out strongly against the civilian nuclear deal saying it "compromises India's sovereignty and imposes American hegemony" and they have "threatened the government with 'serious consequences' if it did not give in."[147]

### *d. Views on PSI*

The INC government's strong desire to counter terrorism makes it a supporter of cooperative nonproliferation efforts, but its nonaligned core view means it has to balance its desire to combat terrorism with the perception that it is aligning too closely with the United States. This makes participation in predominately U.S.-led

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[145] "Leaders: A Price too high; America, India, and the China Bogey," *The Economist* 384, August 4, 2007, 12.

[146] K. Alan Kronstadt, "U.S-India Bilateral Agreements and 'Global Partnership'"(CRS Report for Congress, March 2006), 23.

[147] Y.P. Rajesh, "Nuclear truce cools Indian government crisis," *Reuters News* (New Delhi), August 31, 2007, http://www.reuters.com/article/topNews/idUSDEL436220070831, last accessed September 2007.

initiatives, such as the PSI, more difficult than support of international regimes. India initially declined to join the PSI due to perceptions that the two-tiered structure, consisting of the core group and the rest, discriminated against non-core group members. To ease this concern, the Bush administration disbanded the core group in 2005. However, India has still not joined the PSI. Indian political journalist Raja Mohan thinks the reason behind this is that the "government appears frightened to cross the left which thinks the PSI is not in conformity with international law."[148] When the question is put to the military, Chief of the Naval Staff Admiral Arun Prakash stated the Indian Navy is ready and willing to participate in the "United States-sponsored PSI 'provided the Government decides that it is in consonance with our national interest' to do so."[149]

### *e. Views on CTR*

One of the original goals of the CTR program was to assist Russia in dismantling parts of its nuclear arsenal. India exists in a regional power structure that would make it extremely difficult to convince it to dismantle its WMD. The CTR expansion efforts most likely to succeed in India would be technology projects to assist it in securing its WMD arsenal. The hurdle to this initiative is convincing the government that it is in its national interest to receive U.S. assistance. India has a significant amount of national pride tied to its nuclear weapons program. None of the political parties would want to lose prestige by publicly admitting they needed assistance securing either their weapons or material. In addition, since they rely on nuclear weapons as a guarantee of regional security, they would be reluctant to take any action that might be interpreted by other regional actors as a weakness in their nuclear strike ability. CRS researcher Sharon Squassoni nicely summarizes the difference between Russia and India:

> Threat reduction measures aimed at an outside/terrorist threat may conflict with nuclear deterrence. For example, making materials and weapons safe from theft or espionage may logically lead to consolidating material and weapons at as few sites as possible. However, that consolidation could

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[148] C. Raja Mohan, "Atomic Adolescent," *Indian Express* (Bombay), October 11, 2006, http://www.indianexpress.com/story/14410.html, last accessed August 2007.

[149] P.S. Suryanarayana, "Proliferation Security Initiative: New Delhi discussing reservations with Washington," *The Hindu* (Madras), May 22, 2005.

> increase one's vulnerability to a preemptive strike by an adversary. In the case of Russia, the risk of a preemptive strike did not weigh into calculations of risk. For India, however, the fear of a preemptive strike is prominent.[150]

Given the difficulty the current coalition has had with lining up support for the civilian nuclear deal, it is unlikely Prime Minister Singh could back a deal giving the U.S. access to its most sensitive military sites for the purpose of upgrading security.

#### *f. Views on GTRI*

India participates in the part of the GTRI program that it is eligible for. In its quest for recognition as a nuclear power, India wants to demonstrate that it is a responsible nuclear power. It became a party to the Convention on the Physical Protection of Nuclear Material in 2002 and its development of export controls and participation in the GTRI further enhance this image. The conversion of a single research reactor allows India to claim participation in the program without cooperating to the degree which would raise domestic opposition. India has several fast-breeder research reactors which have not been considered for conversion under the GTRI program.

### 4. Interest Groups

Interest groups have the opportunity to influence the decision-making process in India's democratic system. The three interest groups examined in this section are: the military, the business community, and the executive agencies.

#### *a. The Military*

The size of the Indian military exceeds one million and it is considered the dominant military force in South Asia. The military has participated in many joint exercises with the U.S. over the last five years. Despite this closer cooperation, CRS researcher Alan Kronstadt states:

[150] Squassoni, "Nuclear Threat Reduction Measures for India and Pakistan," 6.

> Indian military officers voice frustration at what they see as inconsistent U.S. policies and lack of U.S. credibility. Several have expressed concern that the U.S. is a 'fickle' partner that may not always be relied upon.[151]

The Indian military desires a reliable and consistent supply of advanced technology items. The military supports closer cooperation with the U.S. if it can gain access to better technology without the constraint of U.S. policy. It sees itself as sufficiently capable to not need U.S. CTR assistance but supports the PSI effort. It already provides maritime escorts to U.S. ships transiting the Straits of Malacca; further integration of maritime assets would be easily achievable.

### *b. The Business Community*

The size of India's population makes continued economic expansion a priority for the government. The Indian business community is strongly in favor of closer cooperation with the United States. The U.S. is currently India's largest export market with approximately $18 billion in exports to the United States in 2006.[152] While the Indian business community supports cooperative ventures with the U.S., it most likely would reserve its lobbying efforts for economic-related initiatives instead nonproliferation-related ones. The Indian nuclear industry is run by the state so the private business community would not have a strong motivation to support or hinder nonproliferation initiatives.

### *c. The Executive Agencies*

The Department of Atomic Energy and India's Nuclear Power Corp of India (NPCIL) are the primary agencies involved with nonproliferation. India is projected to build more than 30 nuclear reactors to provide power to it growing economy. The U.S. estimates the build-out could generate U.S. business worth $100 billion by

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[151] Kronstadt, "U.S-India Bilateral Agreements and 'Global Partnership'," 14.

[152] CIA World Fact Book, "India," Updated 6 September 2007, https://www.cia.gov/library/publications/the-world-factbook/geos/in.html, last accessed September 2007.

2030.[153] The energy agencies want the advanced technology and competitive bids an Indian-U.S. nuclear deal would bring and are strongly in favor of the deal. However, they have been pushing hard to have the IAEA inspection requirements reduced as part of the final negotiation. They would prefer not to have any IAEA inspections.[154] This stance provides insight into how they view the CTR and GTRI programs. These agencies do not desire any outside interference in their agencies and would not support CTR or GTRI programs which would interfere in the operation of their nuclear sites. They would have no objection to the PSI since it would not impact their operations as they do not export WMD technology.

### 5. The Public

The Indian government is elected by the people and thus must craft policies that engender public support. Through expanded liberalization of the Indian economy, the government has expanded GDP by approximately 7% per year and reduced poverty by 10 percentage points over the last decade.[155] A major component of this economic success, produced by the large English-speaking population, is a significant boom in software and related service exports to the United States. This influence can be seen in the 2007 Pew Global survey. While the favorable view of the U.S. has declined since the start of the Iraq war, 59% of those surveyed still hold a favorable view of the United States.[156] This favorable view of the U.S. should positively affect the efforts of the government when entering into cooperative agreements with the United States. However, as the nonaligned views of the ruling party are also reflected in the views of the population, any cooperative nonproliferation agreements would have to be perceived as having a negligible impact on India's independence.

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[153] Siddharth Srivastava, "India on power trip as nuke deal advances," *Asia Times,* June 29, 2006, http://www.atimes.com/atimes/South_Asia/HF29Df02.html, last accessed September 2007.

[154] Glenn Kessler, "Administration Moves to Expedite Indian Nuclear Talks," *Washington Post,* April 20, 2007, A27.

[155] CIA World Fact Book, "India," Updated 6 September 2007.

[156] Pew research Center, "47-Nation Pew Global Attitudes Survey," June 27, 2007, http://pewglobal.org/reports/display.php?ReportID=256, last accessed July 2007, 41

### 6. Conclusion

In India, the domestic politics variable does appear to have a strong influence on the decision to cooperate with the U.S. in nonproliferation efforts. There are many reasons for India to participate in the PSI, from a strategic interest to prevent proliferation to the benefits of solidifying a closer relationship to the United States. However, despite the ruling party's desire to form a closer relationship with the U.S., as evidenced by the negotiation of the civilian nuclear power deal, they face considerable resistance from parties that fear India will become a stooge of the United States. It appears the main reason India's INC dominant government has not joined the PSI is due to a concession to its coalition leftist partner along with the opposition of the BJP. The case isn't so clear for the CTR. India's status as a nuclear weapon state outside of the NPT creates legal difficulties which currently overshadow any possible CTR effort. Additionally, it is not apparent India would be interested in any form of CTR assistance due to the national prestige they have tied to their nuclear weapon program. This analysis of the domestic situation does lend support to the role of international institutions in the decision to cooperate. The perception of being nonaligned would more easily be compatible with cooperative nonproliferation efforts if these efforts were headed by an international institution instead of mainly backed by the United States. Given the national view on counterterrorism, the opposition to cooperation in efforts like the PSI would be greatly weakened if they were not viewed as U.S.-led initiatives.

## E. CONCLUSION

This chapter examined the domestic political situations in Russia, China, and India to see how much influence this variable had on cooperation with the U.S. in the CTR, GTRI, and PSI programs. The results were mixed with the domestic politics variable influencing the decision to cooperate in the cases of China and India but appearing to have little effect in Russia. In all three cases, a necessary condition to cooperation in nonproliferation programs was that cooperation had to be in the national interest of the country. This seems fairly intuitive, as cooperation is a method of voluntarily influencing another country as opposed to other strategies such as coercion or

compellence. A state would not voluntarily participate in an initiative unless it furthered its grand strategy. In the case of India, cooperation in the CTR program does not currently align with its grand strategy of gaining recognition as a nuclear power. Finally, there is evidence that the involvement of international institutions influences the decision to cooperate in nonproliferation programs. In all three cases, the involvement of an international institution positively impacted the decision to cooperate. In the cases of China and India, the two countries that have decided not to participate in the PSI, the evidence suggests that the involvement of an international organization might be the difference between cooperation or not. For these two countries, one of the barriers to cooperation is the fact that the PSI is perceived as a U.S.-led initiative, which has negative domestic repercussions that would likely be absent if the PSI were seen as the product of an international institution. Additionally, in the cases of Russia and China, the desire for inclusion in international economic organizations provided an incentive to cooperate. These states wish to be seen as responsible powers to further their integration into the international economy. Supporting global nonproliferation norms and activities provides one method of advancing this goal.

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# V. CONCLUSION

## A. INTRODUCTION

This chapter reviews the research results regarding why states cooperate in nonproliferation activities and the implications of this research for U.S. foreign policy options. The first part of this chapter analyzes the hypotheses presented in Chapter I using both the quantitative results from Chapter III and the qualitative results from Chapter IV. The results show support for some hypotheses while clearly not supporting others. The second part of the chapter looks at strategies the U.S. might employ to increase cooperation in nonproliferation programs.

## B. EXPLAINING COOPERATION IN NONPROLIFERATION PROGRAMS

This thesis examined three international level variables and two domestic level variables which, based on IR theory, might be expected to influence international cooperation in nonproliferation programs. These variables were used to form the hypotheses tested in Chapters III and IV. These hypotheses related to: linking cooperation with security assistance; whether alliances could predict cooperation; whether involvement in international organizations positively influenced cooperation; the economic freedom of a state; and the role of domestic politics in the decision to cooperate. The evidence showed mixed degrees of support for the different variables.

### 1. No Support for Hypotheses

#### *a. Alliance Hypothesis*

There was no empirical or case study support for the alliance hypothesis. Realist balance of power theory predicted states would be more likely to cooperate with the U.S. if they were an ally. If this theory had held, we should have seen greater cooperation among allied states than among non-allied states. While there was some early indication of this in the descriptive statistics for the PSI program, it did not prove to be statistically significant. Both the PSI and GTRI programs have fairly high global

participation. This might indicate participation in these programs transcends balance of power politics. Another possibility is that balance of power logic is still at work but is functioning through informal state alliances with the U.S. against global terrorism.

The CTR program includes only a small number of countries and was originally focused on states the U.S. opposed during the cold war. Even with the end of the cold war, none of the states participating in the CTR program were U.S. allies at the time the agreements were enacted. The fact that a state is a formal ally of the U.S. does not tell us much about the level of cooperation in nonproliferation programs.

### *b. Economic Freedom*

The second hypothesis with no quantitative or qualitative support suggested that the likelihood of cooperation would increase as economic freedom scores increased. The theory behind this predicted economic interest groups and the government would both be more likely to support international cooperation as the economy opened up and became more interdependent with the rest of the world. If this theory held, we should have seen little cooperation from states with low EF scores. However, some of the countries with the lowest EF scores, such as Libya and Syria participated in the GTRI and several states with relatively low scores, such as Russia and the Ukraine, participated in all three of the nonproliferation programs examined in the study. Our theory did hold at the high end as the top five highest-scoring states participated in both the PSI and GTRI programs. Overall, the evidence indicates there is no meaningful correlation between economic freedom scores and the likelihood a state will cooperate with the U.S. in areas of nonproliferation.

Although there is no connection between the openness of the economy and nonproliferation cooperation, there appears to be a connection between political elites' desire to further integrate their state into the global economy and international cooperation. The desire to join international economic organizations provides an incentive to support international nonproliferation norms and to be seen as a responsible power.

### *c. Security Assistance*

There was little evidence supporting our hypothesis linking security assistance to cooperation in nonproliferation programs. IR theory suggests the U.S. could impose its will on another state to coerce cooperation through the linkage of security assistance with the decision to cooperate. A state that did not cooperate would face the possibility of having its security assistance cut off. If this theory held, states receiving large amounts of assistance would cooperate rather than lose the assistance. Applying this theory to nonproliferation resulted in little support for security assistance issue linkage. States receiving small amounts of security assistance, like China and Vietnam, participated in the GTRI while states receiving large amounts of security assistance, such as Egypt, Pakistan, and South Korea, all receiving in excess of $2 billion a year, did not cooperate in the PSI. Whether it is the case of the receiving country not bowing to the threat, or more likely, the U.S. not making the threat to begin with for other geopolitical reasons, security assistance does not seem to influence the decision to cooperate.

## 2. Moderate Support for Hypotheses

### *a. International Organizations*

There was solid evidence supporting the hypothesis on international organizations. Our theory predicted increasing cooperation as state involvement in international institutions increased. A host of reasons, ranging from the fact that international institutions lower transaction costs and make reciprocity more likely to increased legitimacy, form the foundation of this theory.[157] If this theory works in the area of nonproliferation, there should be more cooperation from states heavily involved with international organizations than those only marginally involved. There were mixed quantitative results for this hypothesis. In the PSI model, this was the only hypothesis supported with statistically significant results. However, the results were not statistically significant when the data was tested in the GTRI model. The mixed statistical results

[157] Robert Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton: Princeton University Press, 1984).

might indicate a fundamental difference in the PSI and GTRI programs which necessitates breaking them out from the nonproliferation umbrella.

In addition to the quantitative evidence, there was moderate case study evidence supporting the role of international organizations in the decision to cooperate. In these cases, the legitimacy conferred by a prominent international organization, like the United Nations, overseeing the program would increase the appeal of cooperation. In the cases of both China and India, one of the main reasons neither country supported the PSI is due to its close association with the United States. International institutional sponsorship of this program would decrease the negative domestic consequences of supporting a U.S.-centric initiative and thus increase the chances of cooperation.

In all three of the case studies, the states are trying to increase their global and regional influence. All three states want to be seen as responsible world powers. Russia wants admission to the WTO, China wants to increase its soft power, and India wants acceptance as a nuclear power as well as a permanent seat on the U.N. Security Council. Cooperating in international organizations and upholding international norms are requirements for gaining responsible power status. China, in particular, has a history of only supporting nonproliferation efforts after they have become global norms. U.N. backing for programs such as the PSI would accelerate the acceptance of counterproliferation as a global norm and would increase the levels of cooperation in the program.

#### *b. Domestic Politics*

The results of the international organization variable correspond well with the domestic politics hypothesis. There was moderate case study support for the role domestic politics play in the decision to cooperate in nonproliferation programs. This was the only hypothesis not statistically tested. Of the three cases examined, domestic politics played a role in influencing the decision to cooperate in the cases of China and India but not in the case of Russia. In India, a delicate ruling coalition exists which has mixed feelings about close cooperation with the United States. The opposition vocally objects to any cooperative efforts which might put India unduly under the influence of the U.S. and it is supported by elements of the ruling coalition. This alignment of domestic

political parties makes cooperating with U.S. initiatives difficult. The fact that the PSI aligns very closely with Indian national strategy gives further support to the significance of both international institutions and domestic politics. The opposition's argument against the PSI rests mostly against aligning India too closely with the United States. If the PSI program were a U.N. initiative, the argument would be nullified and domestic opposition to the program would be significantly reduced.

In the case of China, there is similar domestic pressure against cooperation with the United States. Chinese pressure comes not from different political parties but from the public. The Chinese government has used feelings of nationalism to stay in power and they have directed these emotions against the U.S. by manipulating the media. The Chinese cannot maintain anti-U.S. propaganda and then be seen to closely cooperate with U.S. security initiatives. Like India, this pressure would be significantly reduced if the PSI were an internationally sponsored program and not seen as a U.S. initiative. The China case study support for this hypothesis is slightly weaker than the Indian support because the goals of nonproliferation do not line up as closely with Chinese grand strategy as they do with Indian grand strategy.

### 3. Additional Findings

The empirical analysis and case studies focused on the hypotheses presented in Chapter I. However, in the process of researching these variables, some further themes arose that deserve comment. In conjunction with the alliance variable, the timing at which states cooperate merits further research. At the point in time which the data for the dependent variables was analyzed, both the PSI and GTRI had numerous participants. As the number of participants grows, a bandwagoning effect might be seen that further increases cooperation. Allies might play a key role in gaining an initial base of support for cooperative nonproliferation initiatives. Other factors included the use of financial assistance and the national interests of the target state.

#### *a. Financial Assistance*

The variable security assistance provided the only means to measure the potential effects of an incentive-type payment to influence a state towards cooperation.

However, this variable includes foreign military sales and thus is not a great proxy for measuring the effect of financial incentives on cooperation. In the case of Russia, there is strong evidence that the financial incentives associated with the CTR program played a major role in achieving Russian cooperation. In the 1990s, when the CTR program was created, Russia was experiencing severe financial hardship and could not afford to maintain the military structure created during the cold war. The money provided through the CTR program gave Russia a means to secure its strategic forces and some breathing room to get its economy straightened out. The dire circumstances in Russia and the offer of U.S. assistance gave Russia the incentive to cooperate with its former cold war adversary. Although this example might not be applicable to most states, its important to note that financial incentives can provide a powerful motivation to cooperate under the right circumstances.

Another situation where financial assistance might play a role occurs in states that have neither a strong motivation for or against an initiative. In the case of China, it does not view nuclear terrorism as nearly as great of a threat as does the United States. Therefore, it sees no need to allocate scarce state resources to convert civilian research reactors from HEU to LEU. It is not against this but it is just not high enough on the priority list to get funded. In cases such as this, the externally funded GTRI program provides the financial incentive to cooperate. By cooperating, the Chinese gain the advantage of having a low-priority threat eliminated and it does not cost them anything to do it. These two cases provide evidence that financial incentives can tip the balance between cooperation and not. The use of a more direct financial payment to "buy" cooperation might also be a way to influence the decision to cooperate and provides a question for possible further research.

#### *b. Grand Strategy/National Interest*

A state's grand strategy plays an important role in its decision to cooperate. While this is fairly intuitive, it is important to note the role strategy, or national interest, plays in the decision to cooperate. The evidence suggests that national interest is a necessary, but not sufficient, condition for cooperation. In other words,

before cooperation can occur, the nonproliferation effort must align with the overall strategy of the states involved. No variable will entice cooperation if it is first not in the interest of the state involved to promote nonproliferation. In the case of India, it is not in its national interest to receive U.S. assistance securing its nuclear arsenal. The benefits of upgrading security do not outweigh the perceived costs of admitting it needs U.S. help to secure its weapons and to opening up these sites. Therefore, even though India could benefit from several of the CTR programs, it will not cooperate out of a fear this will show a weakness in its capabilities.

## C. STRATEGIES TO IMPROVE COOPERATION

The United States currently uses many tools to influence international cooperation in nonproliferation programs. These tools include diplomatic pressure as well as positive and negative issue linkage. The number of participants in the GTRI and the PSI attest to the effectiveness of these tactics. As a superpower, the U.S. has the means to convince numerous states to cooperate in international efforts. In addition, nonproliferation is in the national interest of most states, which lowers the barrier to achieving cooperation. The research in this thesis suggests focusing efforts on international organizations and a state's domestic politics, supplemented by selective use of economic incentives, as a means to further increase cooperation in nonproliferation programs.

### 1. Going International

The Bush administration has a preference towards unilateralism and a dislike for international bureaucracy, which has heavily shaped the current methods of influencing cooperation. While the U.S. does engage multilaterally, with the EU and the U.N. to name some examples, it is clear the favorite policy option is to use bilateral agreements as the means of gaining cooperation in nonproliferation programs. Although bilateral programs have achieved a certain amount of success to date, the key to further expanding cooperation in nonproliferation programs lies in multilateral efforts. The research in this thesis points to the use of international institutions as the most effective means of increasing international cooperation. The states not currently cooperating, some of

whose participation is vital to our long-term efforts, have the ability and incentives to resist cooperation in U.S.-centric programs. Only through multilateral initiatives can the United States break down the barriers currently impeding cooperation. A program such as the PSI should be established as a formal agreement under an international organization such as the U.N. or the IAEA. The organization would have to be funded and fully supported by intelligence and military assets to be effective. The force on standby for counterproliferation missions could be composed in a similar manner to a U.N. peacekeeping force. For the U.S., there would be both costs and benefits attached to this type of organization.

The costs of making nonproliferation programs truly multilateral reside mostly from the constraints such an action would put on the use of U.S. power. If the PSI were managed by an international organization, the U.S. would lose the ability to act unilaterally and might not be able to convince an international body of the necessity to interdict a particular vessel. In a multilateral organization, the intelligence required to kick off an interdiction would likely have to be of higher quality due to the need to convince more than one party of the necessity for action. The new organization would also succumb to some bureaucratic inertia which might reduce the effectiveness and flexibility of the initiative. Last of all, a multilateral effort would have to follow the rule of law and treat all parties equally. This could hamper U.S. efforts to target specific states.

The benefits of transitioning nonproliferation programs from U.S. control to an international institution are many and seem to outweigh the costs. As shown in this thesis, international organizations have a greater ability to positively influence cooperation. Many of the negatives currently used to justify not cooperating would be eliminated. These include the following perceptions that: these programs are tools to increase U.S. power; the programs are unfair and targeted at certain states; and the programs are aimed at decreasing global competition in the civilian nuclear industry. Internationalizing the efforts would also go a long way towards further solidifying nonproliferation and counterproliferation as global norms. Once these concepts are norms, the international community will positively reinforce good behavior and punish

violators. Finally, a robust international coalition will provide the commitment needed to create a strong deterrent effect to would-be proliferators.

### 2. Leveraging Domestic Politics

Another option the U.S. can use to increase international cooperation is to further develop foreign policy programs designed to influence domestic politics in a particular state. This is not a new concept but it is difficult to implement, especially in the more closed societies such as China. However, the case studies provide evidence that this "back-door" method of influencing state behavior has worth. In Chapter I, the concept of soft power was defined. The same types of programs recommended to increase soft power, such as educational exchanges, cultural outreach, and humanitarian programs, like HIV/Aids assistance and the Peace Corps, can increase the attractiveness of the United States to foreign populations. As our attractiveness grows, it will be easier for domestic coalitions favoring cooperation with the U.S. to gain traction; domestic opposition to U.S. efforts should diminish. Related to this, the U.S. needs to commit more resources to a public image campaign. The U.S. does a lot of good things but it does little to improve our attractiveness if nobody knows about them or the good efforts are overshadowed by negative press.

## D. CONCLUSION

The United States is engaged on many fronts to oppose terrorism and increase our national security. Of these, the nonproliferation efforts to prevent terrorists from acquiring WMD are some of the most important. Our current efforts have influenced a large number of states to participate in programs aimed at preventing WMD proliferation. However, in a globalized and interdependent world, the U.S. needs to further increase this coalition and strengthen the global norms against proliferation. This study lends support to the important role international institutions play in influencing cooperation. The U.S. needs to move toward multilateral cooperative programs to positively influence states to collaborate in nonproliferation programs. Likely, the best course going forward involves moving towards international regimes while still implementing unilateral foreign policy initiatives tailored towards the specific states we are trying to influence.

With these efforts, the U.S. can further decrease the probability of a terrorist using WMD against the United States and, hopefully, other nations as well.

# LIST OF REFERENCES


Albright, David and Kimberly Kramer. "Tracking Inventories of Civil Highly Enriched Uranium." *Global Stocks of Nuclear Explosive Materials*. Institute for Science and International Security, August 2005.

Axelrod, Robert. *The Evolution of Cooperation.* Basic Books, 1984.

Barboza, David. "China Sentences Official to Death for Corruption." *The New York Times*, July 6, 2007, http://www.nytimes.com/2007/07/06/world/asia/06cndchina.html?ex=1341374400&en=4f6ff26857 fc9eb9&ei=5088&partner=rssn, last accessed August 2007.

Bates, Gill and Evan Medeiros. "Foreign and Domestic Influences on China's Arms Control and Nonproliferation Policies." *The China Quarterly* 161 (March 2000).

BBC News. "Interview with the President of the Russian Federation, Vladimir Putin by the British BBC television and radio company." Moscow, June 22, 2003, http://www.acronym.org.uk/docs/0306/doc14.htm#02, last accessed July 2006.

BBC News. "Russia taking its time to think about US nonproliferation initiative." Interfax news agency, January 30, 2004,http://www.acronym.org.uk/docs/0306/doc14.htm#02, last accessed July 2006.

BBC News. "US paves way for Russia WTO entry." November 19, 2006, http://news.bbc.co.uk/2/hi/business/6163008.stm, last accessed July 2007.

Benkert, Joseph. Principal Deputy Assistant Secretary of Defense for Global Security Affairs. Testimony before the Senate Committee on Armed Services, Subcommittee on Emerging Threats and Capabilities, April 11, 2007, http://armed-services.senate.gov/ statemnt/2007/April/Benkert%2004-11-07.pdf, last accessed October 2007.

Bronson Lisa. Deputy Under Secretary of Defense for Technology Security Policy and counterproliferation. Testimony before the Senate Committee on Armed Services, Subcommittee on Emerging Threats and Capabilities, March 10, 2004, http://armed-services.senate.gov/statemnt/2004/March/Bronson.pdf, last accessed October 2007.

Bunn, Matthew and Anthony Wier. *Securing the Bomb 2006.* John F. Kennedy School of Government, Harvard University, July 2006.

Central Intelligence Agency. "Russia." *The World Fact Book,* https://www.cia.gov/library/publications/the-world-factbook/index.html, last accessed August 2007.

Central Intelligence Agency. "China." *The World Fact Book,* https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html, last accessed August 2007.

Central Intelligence Agency. "India." *The World Fact Book*, https://www.cia.gov/library/publications/the-world-factbook/geos/in.html, last accessed September 2007.

Christoff, Joseph. Director, International Affairs and Trade, United States General Accounting Office. Testimony before the Committee on Armed Services, U.S. House of Representatives, March 5, 2003, http://www.gao.gov/htext/d03526t.html, last accessed July 2007.

Cirincione, Joseph, Jon Wolfsthal, and Miriam Rajkumar. *Deadly Arsenal.* Brookings Institution Press, 2005.

Defense Threat Reduction Agency. "Cooperative Threat Reduction Fact Sheet." http://www.dtra.mil/newsservices/fact_sheets/display.cfm?fs=ctr, last accessed June 2007.

DFI International/Sparta inc. "A Study for the Defense Threat Reduction Agency Advanced Systems and Concepts Office: The future of the Cooperative Threat Reduction Program." Report for Defense Threat Reduction Agency, March 2001.

Doolin, Joel. "The Proliferation Security Initiative: Cornerstone of a new International Norm." *Naval War College Review*, Spring 2006.

Durch, William J. "Twenty-First Century Threat Reduction: Nuclear Study Results." Advanced Systems Concepts, November 2001.

Dunn Lewis A., Lara Cantuti, Emery Chase, Gregory Giles, Kristie Ralston, Carl Stoiber, and Michael Wheeler. "An Assessment of Preventive Threat Reduction", Science Applications International Corp, Feb 2001,http://www.globalsecurity.org/ wmd/library/report/2001/prevent.doc, last accessed October 2007.

Einhorn, Robert J. and Flournoy, Michele A. "Protecting against the Spread of Nuclear, Biological, and Chemical Weapons: An Action Agenda for the Global Partnership." Center for Strategic and International Studies, 2003.

Fair, Christine. *The Counter terror Coalitions: Cooperation with Pakistan and India*. Rand Corporation, 2004.

Ferguson, Charles. *Preventing Catastrophic Nuclear Terrorism*. Council on Foreign Relations, March 2006.

"G-8 Ministers Want Intelligence Sharing." *Newsmax Wires,* 12 May 2004, http://www.newsmax.com/archives/articles/2004/5/11/225427.shtml, last accessed August 2007.

Gilpin, Robert. *War and Change in World Politics*. Cambridge University Press, 1981.

Glasser, Alexander and Frank von Hippel. "Global Cleanout: Reducing the Threat of HEU-fueled Nuclear Terrorism." *Arms Control Today,* Jan/Feb 2006.

Glaser, Charles. "Realists as Optimists: Cooperation as Self-Help." *International Security* 19, Winter 1994.

Goldman, Stuart. *Russian Political, Economic, and Security Issues and U.S. Interests.* CRS Report for Congress, May 2007.

Goldman, Stuart. *Russian National Security Policy after September 11.* CRS Report for Congress, August 2002.

Grams, Stacy A. "Evaluating the Accomplishments of the Cooperative Threat Reduction Program." MA Thesis, NPS, December 2000.

Gupta, Amit. *The U.S.-India Relationship: Strategic Partnership or Complementary Interest*. Strategic Studies Institute, February 2005, 22.

Ha, Yong-Chool and Beom-Shik Shin. *Russian Nonproliferation Policy and the Korean Peninsula*. Strategic Studies Institute, December 2006, http://www.strategicstudiesinstitute.army.mil/, last accessed July 2007.

Heckler, Siegfried. "Thoughts about an Integrated Strategy for Nuclear Cooperation with Russia." *The Nonproliferation Review*, Summer 2001.

International Atomic Energy Agency. "IAEA Promotes Research Reactor Safety." March 8, 2004, http://www.iaea.org/NewsCenter/Features/ResearchReactors/security20040308.html, last accessed August 2007.

International Maritime Organization. "Status of Conventions." http://www.imo.org/Conventions/mainframe.asp?topic_id=247, last accessed July 2007.

Kamennov, Pavel, Elina Kirichenko and Vladimir Pyryev, *Nuclear Deterrence and Nonproliferation*, Edited by Alexei Arbatov and Vladimir Dvorkin. Carnegie Moscow Center, 2006.

Kan, Shirley. "China and Proliferation of WMD and Missiles: Policy Issues." CRS Report for Congress, January 2007.

Kan, Shirley. "U.S.-China Counterterrorism Cooperation." CRS Report for Congress, June 2006.

Keohane, Robert. *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton University Press, 1984.

Kessler, Glenn. "Administration Moves to Expedite Indian Nuclear Talks." *Washington Post,* April 20, 2007, A27.

Kronstadt, K. Alan. "India-U.S. Relations." CRS Report for Congress, April 2006.

Kronstadt, K. Alan. "U.S-India Bilateral Agreements and 'Global Partnership'." CRS Report for Congress, March 2006.

"Leaders: A Price too high; America, India, and the China Bogey." *The Economist* 384, August 4, 2007, 12.

Lockwood, Dunbar. "The Nunn-Lugar program: No time to pull the plug." *Arms Control Today,* Washington, June 1995, Vol. 25, Iss. 5.

Lugar, Richard. United States Senator, statements on introduced bills, Congressional Record: March 18, 2002, www.fas.org/irp/congress/2002_cr/s031802.html, last accessed June 2007.

Martin, Lisa. *Coercive Cooperation: Explaining Multilateral Economic Sanction*. Princeton University Press, 1992.

Mearsheimer, John. "Liberal talk, realist thinking," *University of Chicago Magazine 94,* February 2002.

Mitton, Roger. "Vietnam under pressure to join anti-terror initiative." *The Straits Times*, March 29, 2007.

Mohan, C. Raja. "Atomic Adolescent," *Indian Express* (Bombay), October 11, 2006, http://www.indianexpress.com/story/14410.html, last accessed August 2007.

Moravcsik, Andrew. "Taking Preferences Seriously: A Liberal Theory of International Politics: Erratum." *International Organization* 52, Winter 1998.

National Nuclear Security Administration. "GTRI: More Than Two and a Half Successful Years of Reducing Nuclear Threats."

Http://www.nnsa.doe.gov/docs/factsheets/2007/NA-07-FS-03.pdf, last accessed July 2007.

Naughton, Barry and Dali Yang. *Holding China Together: Diversity and National Integration in the Post-Deng Era*. Cambridge University Press, 2004.

Nuclear Threat Initiative. "The Nunn-Lugar Cooperative Threat Reduction (CTR) Program." http://www.nti.org/db/nisprofs/russia/forasst/nunn_lug/overview.htm, last accessed March 2007.

Nuclear Threat Initiative (NTI). "Why Highly Enriched Uranium is a Threat." Http://www.nti.org/db/heu/index.html, last accessed July 2007.

Nye, Joseph. "Soft Power and American Foreign Policy." *Political Science Quarterly* (Summer 2004).

Oye, Kenneth. *Cooperation Under Anarchy*. Princeton University Press, 1986.

Parachini, John. "Putting WMD Terrorism into Prospective." In *Homeland Security and Terrorism*, edited by Russell Howard, James J.F. Forest, and Joanne C. Moore, 31. McGraw-Hill, 2006.

Pei, Minxin. "Assertive Pragmatism: China's Economic Rise and its Impact on Chinese Foreign Policy." IFRI Security Studies Department (Fall 2006).

Perkovich, George, Jessica T. Mathews, Joseph Cirincione, Rose Gottemoeller, and Jon B. Wolfsthal. *Universal Compliance: A Strategy for Nuclear Compliance*. Carnegie Endowment for International Peace, 2005, http://www.carnegieendowment.org/files/ UC2.FINAL3.pdf, last accessed Oct 2007.

Pew research Center. "47-Nation Pew Global Attitudes Survey." June 27, 2007, http://pewglobal.org/reports/display.php?ReportID=256, last accessed July 2007

Potter, William & John M. Shields. Assessing the Dismantlement Process," *Dismantling the Cold War*. Edited by William C. Potter & John M. Shields. Cambridge: The MIT Press, 1997.

Putnam, Robert. "Diplomacy and Domestic Politics: The Logic of Two-Level Games," *Double-Edged Diplomacy: International Bargaining and Domestic Politics*. Edited by Peter Evans, Harold Jacobson and Robert Putnam. University of California Press, 1993.

Rajesh, Y.P. "Nuclear truce cools Indian government crisis." *Reuters News* (New Delhi),August 31, 2007, http://www.reuters.com/article/topNews/idUSDEL436220070 831, last accessed September 2007.

"Reshaping U.S.-Russian Threat Reduction: New Approaches for the Second Decade." Carnegie Endowment for International Peace & Russian-American Nuclear Security Advisory Council, 2002.

Shields, John M. and William C. Potter. *Dismantling the Cold Waar: U.S. and NIS Perspectives on the Nunn-Lugar Cooperative Threat Reduction Program*. MIT Press, 1997.

Shirk, Susan. "China's Premier in Japan: Melting Ice or Stoking Fire?" *Washington Post*, on-line edition, http://newsweek.washingtonpost.com/postglobal/needtoknow/ 2007/04/ chinas_premier_in_japan_meltin.htm, April 11, 2007, last accessed August 2007.

Shulman, Mark. *The Proliferation Security Initiative as a New paradigm for Peace and Security.* Strategic Studies Institute, 2006.

Solingen, Etel. "Internationalization, Coalitions, and Regional Conflict and Cooperation." *Economic Interdependence and International Conflict*. Edited by Edward Mansfield and Brian Pollins. University of Michigan Press, 2003.

Squassoni, Sharron. "India's Nuclear Separation Plan: Issues and Views." CRS Report for Congress, December 2006.

Squassoni, Sharron. "Globalizing Cooperative Threat Reduction: A Survey of Options." CRS Report for Congress, October 2006.

Squassoni, Sharron. "Nuclear Threat Reduction Measures for India and Pakistan." CRS Report for Congress, February 2005.

Squassoni, Sharon. "Proliferation Security Initiative." CRS Report for Congress, September 2006.

Spear, Daniel P. "U.S. and Russian Cooperation on Issues of Nuclear Nonproliferation." MA Thesis, NPS, June 2005.

STRATFOR. "Asia: U.S. Initiative Sets Stage for Miscalculations, Clashes?" Strategic Forecasting, July 9, 2003, http://www.stratfor.com/products/premium/read_article .php?id=219767, last accessed August 2007.

STRATFOR. "Russia: Mixing Oil and Politics." Strategic Forecasting, March 27, 2007, http://www.stratfor.com/products/premium/read_article.php?id=286446, last accessed July 07.

STRATFOR. "Russia: The Yukos Lesson and the Attack Mentality." Strategic Forecasting, December 09, 2004, http://www.stratfor.com/products/premium/read_article.php?id=240630, last accessed July 2007.

Srivastava, Siddharth. "India on power trip as nuke deal advances." *Asia Times,* June 29, 2006, http://www.atimes.com/atimes/South_Asia/HF29Df02.html, last accessed September 2007.

Suryanarayana, P.S. "Proliferation Security Initiative: New Delhi discussing reservations with Washington." *The Hindu* (Madras), May 22, 2005.

The Henry L. Stimson Center, "the Nonproliferation Scorecard: Highlights," www..stimson.org/ctr/?sn=ct20050308789, last accessed June 2007.

Trenin, Dimitri. *Russia's Nuclear Policy in the 21st Century Environment.* Ifri Security Studies Department, Fall 2005, http://www.ifri.org/files/Securite_defense/prolif_paper_Trenin.pdf, last accessed July 2007.

Tsygankov, Andrei. "If Not by Tanks, then by Banks? The Role of Soft Power in Putin's Foreign Policy." *Europe-Asia Studie* 58 (November 2006).

Tsygankov, Andrei. "New Challenges for Putin's Foreign Policy." *Orbis* (Foreign Policy Research Institute, Winter 2006).

United Nations Security Council. "Security Council decides all states shall act to prevent proliferation of mass destruction weapons." Security Council 4956th Meeting Press Release SC/8076, http://www.un.org/news/Press/docs/2004/sc8076.doc.htm, last accessed July 2007.

United States Dept of Transportation, Maritime Administration. "World Merchant Fleet by Top 25 Country of Owner and Type, 2005", http://www.marad.dot.gov/MARAD_statistics/index.html, last accessed July 2007.

United States Department of State. "Country Reports on Terrorism 2006." Washington, April 2007, http://www.state.gov/s/ct/rls/crt/2006/, last accessed October 2007.

United States Department of State. "National Strategy to Combat Weapons of Mass Destruction." December 2002, http://www.state.gov/documents/organization/16092.pdf, last accessed October 2007.

United States Department of State. "PSI Calendar of Events." Http://www.state.gov/t/isn/c12684.htm, last accessed July 2007.

United States Department of State. "The Proliferation Security Initiative." June 2004, http://usinfo.state.gov/products/pubs/proliferation/, last accessed July 2007.

United States Government Accountability Office. "Cooperative Threat Reduction: DoD has improved its Management and Internal Controls, but Challenges Remain." Report to Congressional Committees, June 2005, report GAO-05-329.

Valencia, Mark. *Proliferation Security Initiative: Making Waves in Asia*. Adelphia, 2005.

Waltz, Kenneth. *Theory of International Politics*. New York: McGraw-Hill, 1979.

Weitz, Richard. *Russian-American Security Cooperation after St. Petersburg: Challenges and Opportunities.* Strategic Studies Institute, 2007, http://www.strategicstudiesinstitute.army.mil/, last accessed July 2007.

White House. "National Security Strategy for the United States." National Security Council (September 2002). Http://www.whitehouse.gov/nsc/nss.html, last accessed October 2007.

Winner, Andrew C. "The Proliferation Security Initiative: The New Face of Interdiction." *The Washington Quarterly* (Spring 2005).

Wolf, Amy F. "Arms Control and Nonproliferation Activities: A Catalog of Recent Events." CRS Report for Congress, January 2005.

Yuan, Jing-Dong. "The Evolution of China's Nonproliferation Policy since the 1990s: progress, problems, and prospects." *Journal of Contemporary China* 11:31 (May 2002).

Yudaeva, Ksenia. "The Russian Political System and Economic Growth." *Post-Soviet Economies in Transition*. Moscow Carnegie, March 2004, http://www.carnegie.ru/en/ pubs/briefings/70011.htm, last accessed July 2007.

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