

Viewpoint

New Approaches to Nonproliferation: Supplementing or Supplanting the Regime?

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The end of the Cold War brought many changes to international relations, but perhaps its most profound impact lies in the way countries were forced to rethink their foreign policy priorities and reconsider the effectiveness of foreign policy instruments. The process of interpreting the new international environment and adjusting foreign policy following an international transition allows domestic groups to challenge previous priorities, debate the effectiveness of different policy means, and reassess the costs and benefits of alternate policies.² Transition periods typically produce a confused debate about priorities, effectiveness, and costs as established priorities and policies come under attack and new ideas and goals struggle for acceptance. Ideas play a critical role in shaping understandings of the new international environment and in mobilizing support for new policies.

Three types of ideas are particularly important in the foreign policy debate: normative arguments, causal arguments, and cost arguments. *Normative arguments* prioritize particular foreign policy goals, help to frame policy issues, and define individual and group interests. Normative arguments can be thought of as shaping preferences

over foreign policy outcomes.³ *Causal arguments* define the effectiveness of particular foreign policy means and expectations about how other foreign policy actors will behave. They shape strategies for achieving foreign policy objectives. *Cost arguments* define the direct and indirect costs and benefits of following particular foreign policies. They also include both positive synergies and negative externalities that affect other foreign policy goals.

In the course of foreign policy debate and experimentation following an international transition, some arguments are rejected while others become accepted and institutionalized into foreign policy discourse. Because interpretation is politicized and success or failure is often defined by self-interested actors, institutionalization should not necessarily be thought of as "learning" in the sense of selecting the best or most effective policies.

This paper applies the framework sketched above to the American debate about arms control and nonproliferation in the post-Cold War era. One goal is to explain the shift in the relative priority of arms control and nonproliferation by focusing on normative arguments about

the relative priority of different threats. A second goal is to show how debates about the potential effectiveness of alternate nonproliferation measures have affected U.S. nonproliferation policy (and interest in ballistic missile defenses in particular). This section focuses on both causal arguments about effectiveness and cost arguments about the positive or negative externalities of U.S. nonproliferation policies that rely heavily on unilateral measures. The paper concludes with policy recommendations for the United States.

THE CHANGING PRIORITY OF NONPROLIFERATION AND ARMS CONTROL

The United States and the Soviet Union made arms control a relatively high priority during the Cold War (albeit mainly to prevent the other side from gaining undue advantage rather than to pursue genuine arms reductions).⁴ The improved bilateral relations that ended the Cold War robbed arms control of its previous urgency, while simultaneously expanding prospects for new arms control treaties and real reductions in strategic nuclear weapons. Major treaties negotiated during the Cold War endgame and aftermath include multilateral treaties, such as the Chemical Weapons Convention (CWC) and the Comprehensive Test Ban Treaty (CTBT), and bilateral agreements such as START II. Nevertheless, the low-key U.S. response to Russia's delay in ratifying START II; the Senate's refusal to reaffirm the Anti-Ballistic Missile (ABM) Treaty (a Russian condition for bringing START II into force); the Senate's rejection of CTBT; and the dismantlement of the Arms Control and Disarmament Agency (ACDA) all demonstrated the lower priority of arms control issues in the post-Cold War era. The George W. Bush administration's deliberate efforts to de-emphasize traditional arms control treaties and consider withdrawing from the ABM treaty further illustrate this trend.

Conversely, nonproliferation has become a higher priority. During the Cold War, the United States at times tacitly accepted efforts by allies such as Pakistan to develop nuclear weapons. So long as allies were useful in confronting the Soviet Union, proliferation concerns were at least partly subordinated to broader security interests. The U.S. failure to respond assertively to Iraq's use of chemical weapons in the Iran-Iraq War is another example of how more immediate security anxieties (in this case fears of Iranian hegemony in the Persian Gulf) could trump nonproliferation. However, revelations after the 1991 Persian Gulf War that Iraq's weapons of mass destruction (WMD)

programs had succeeded in developing chemical and biological weapons and ballistic missile delivery systems (and came close to developing nuclear weapons) dramatically illustrated that proliferation could threaten both American security interests and the stability of critical regions. These anxieties were reinforced with the discovery in the early 1990s that North Korea had secretly amassed sufficient plutonium for one or two nuclear devices and, later, that it was developing long-range missiles potentially capable of striking the United States. Iran's nuclear ambitions also became evident, and its production of chemical weapons and deployment of intermediate range missiles exposed U.S. allies and interests in the Middle East to potent new threats. Indeed, during the 1990s, the threat posed by WMD proliferation became one of the few security threats universally acknowledged by American politicians, security analysts, and the military.

Stopping efforts by potential adversaries (and especially so-called rogue states) to acquire WMD became a top priority for the United States. The discovery that a number of European firms had been witting or unwitting suppliers of technology for Iraqi WMD programs also prompted European efforts to tighten domestic export controls and to establish or strengthen international nonproliferation arrangements, such as the Missile Technology Control Regime (MTCR), the Australia Group, and the Nuclear Suppliers Group.⁵ Separately, concerns that the breakup of the Soviet Union might lead to the spread of fissile materials, missile technology, and weapons expertise to countries of concern or terrorist organizations prompted the United States and Russia to develop the multi-billion dollar Cooperative Threat Reduction program (also known as the Nunn-Lugar program, after its sponsors in the U.S. Senate) to address these dangers. China responded to the potential negative impact of proliferation on Asian regional security by joining or adhering to most of the key nonproliferation organizations and regimes. In general, the higher priority accorded to nonproliferation concerns in the post-Cold War era made nonproliferation a growth area in terms of international security cooperation.

Despite the greater potential for arms control to produce substantive accomplishments in the post-Cold War period, arms control has clearly become a lower priority compared to nonproliferation in American foreign policy. The Clinton administration did not initiate a single successful new arms control treaty, although it was successful in gaining ratification of the Chemical Weapons

Convention and in concluding negotiations on the CTBT.⁶ Officials in the George W. Bush administration and a number of Congressional critics argue that traditional arms control treaties have lost their utility in the post-Cold War world. Some make a normative argument that the United States should not accept any arms control treaties that might limit its global freedom of action.⁷ This view is especially prominent in debates about nuclear weapons, where the arms control goal of nuclear disarmament has been subordinated to a *de facto* policy of using nuclear weapons to deter attacks not only by nuclear weapons, but also by chemical and biological weapons.⁸ This shift in the relative priority of arms control and nonproliferation does not simply reflect changes in objective international conditions. Arguably the prospects for effective arms control treaties are much better than during the Cold War. Instead, the shift reflects a sense that proliferation of WMD to new countries hostile to the United States and its allies is a greater threat to U.S. national security than the nuclear weapons and ballistic missiles in existing arsenals.

ADDRESSING NEW PROLIFERATION CHALLENGES

If there is agreement that WMD proliferation is emerging as the major threat in the post-Cold War era, there is much less agreement about how to meet the challenge. International transitions make it easier for states to alter their foreign policy thinking, but they also create considerable uncertainty about how the new international environment will work and what means will be most effective. This uncertainty makes it easier to challenge old policies and to propose alternatives that may (or may not) be better suited to new conditions. The result is an outpouring of new policy ideas along with increased uncertainty about how to evaluate the relative effectiveness of old and new policies. Causal and cost arguments both play an important role in this debate. This section examines the debate about the relative effectiveness of possible responses to proliferation challenges.

There are five general categories of responses:

- (1) Multilateral nonproliferation and arms control treaties;
 - (2) Developed country cooperation to control the export of technology useful for WMD;
 - (3) Great power cooperation to respond to attempts to acquire or develop WMD;
 - (4) Security assurances to reduce demand for WMD;
- and

- (5) Unilateral nonproliferation and counterproliferation measures.

Although the end of the Cold War has produced agreement in the United States (and across the international community) that WMD proliferation is a major security challenge deserving greater attention, no similar agreement exists about the proper mix of means to deal with proliferation. China and Russia, for example, have emphasized multilateral treaties and great power cooperation (especially via the Security Council), while the United States has shown increasing interest in unilateral nonproliferation and counterproliferation measures. Disagreements between the United States and other concerned states about the effectiveness of different means in preventing proliferation and about how the different means interact with each other have become increasingly evident. Critics of traditional nonproliferation tools argue that multilateral treaties and export control regimes are unlikely to stop a country determined to acquire WMD. These critics argue that the United States must therefore use unilateral measures to defend itself against WMD use. Many international experts counter that the increasing American tendency to resort to unilateral measures will erode the effectiveness of traditional nonproliferation measures.⁹

This dispute over the effectiveness of alternate means is characteristic of international transitions. Uncertainty about the new international environment produces disagreement over the effectiveness of competing policies. One means of resolving this uncertainty and the resulting policy debate is to experiment with different policies and then assess their relative effectiveness. Unfortunately, in many cases effectiveness is difficult to measure (especially when success is measured in terms of what is prevented rather than what is accomplished). The criteria for judging the success of policies are seldom clear, and different criteria often lead to different conclusions. Arguments about the proper criteria for measuring success produce disagreement about which approaches to nonproliferation policy are best. Conservative critics in the United States have tended to judge the nonproliferation regime solely in terms of its effectiveness in dealing with states such as India, Pakistan, North Korea, Iran, and Iraq. As these states of proliferation concern moved to the top of the American security agenda in the mid-1990s, a number of critics concluded that the existing nonproliferation regime was ineffective in restraining their ambitions. Conversely, the success of the nonproliferation regime in persuading other countries with WMD potential not to develop WMD

has received much less attention. The question of appropriate criteria for judging nonproliferation success is important for weighing the costs and benefits of alternate policies. A narrow set of criteria focused exclusively on the “rogue state” proliferation threat can ignore potential costs in terms of damage to broader nonproliferation objectives.

The next section of the paper examines arguments about the effectiveness of different approaches to nonproliferation policy, highlighting the question of what criteria are appropriate for measuring success. The different approaches reflect different causal assumptions about how the world works and about which policies are most likely to be effective.

MULTILATERAL NONPROLIFERATION AND ARMS CONTROL TREATIES

One approach to evaluating the effectiveness of multilateral treaties is to examine the scope of arms control and proliferation activities they address, the universality of membership, and the effectiveness of associated verification measures. By these criteria, the effectiveness of multilateral arms control and nonproliferation treaties has arguably increased significantly since the end of the Cold War. Multilateral arms control treaties have produced several significant accomplishments.¹⁰ The Nonproliferation Treaty (NPT) was extended indefinitely in 1995 and the 2000 Review Conference exceeded (modest) expectations by adopting a consensus final document. The Comprehensive Test Ban Treaty (CTBT) has been signed by most key states, although the U.S. Senate’s rejection of the treaty and the reluctance of other key states such as India, Pakistan, and Israel to sign makes it doubtful that CTBT will enter into force in the near future. In terms of universality, some countries that had long stood outside the NPT have acceded to the treaty (e.g. South Africa, China, North Korea, Brazil, Argentina). Following Iraq’s near-success in developing nuclear weapons despite IAEA inspections, there have been significant improvements in verification. The IAEA has also improved its technical ability to detect cheating (as its 1992 inspections in North Korea demonstrated) and proposed a tougher verification regime. A whole class of WMD was banned via the CWC, which entered into force in 1997 and has broad membership and stringent verification measures. The CWC prompted India and South Korea to declare their covert chemical weapons capabilities and to agree to dispose of their chemical weapons stockpiles. Talks on adding a veri-

fication protocol to the Biological Weapons Convention (BWC) are currently stalled, but alternative measures are under discussion for strengthening the pact. In terms of scope, universality, and verification, there has clearly been significant progress in making the key arms control and nonproliferation treaties more effective.

Despite the progress noted above, a critical look using the same criteria could produce a more negative balance sheet. In terms of scope, there are still no multilateral treaties that address WMD delivery systems. American analysts have focused primarily on the threat posed by ballistic missiles, arguing that their lack of accuracy limits their effectiveness in delivering conventional munitions and makes them mainly suited for WMD delivery. However, cruise missiles and aircraft can also be used as WMD delivery systems. Although some countries have argued that a comprehensive approach that considers all potential delivery systems is necessary, the utility of cruise missiles and aircraft for conventional combat missions (they are true “dual-use” weapons) makes a ban unlikely. In terms of universality, although a number of countries of proliferation concern joined the major nonproliferation regimes in the late 1980s and early 1990s, several key countries remain outside the NPT-CWC-BWC framework. The nuclear weapons tests by India and Pakistan in 1998 reinforced the urgency of this issue, as did calls by a number of Middle Eastern states to address Israel’s status at the 2000 NPT Review Conference. North Korea has still not signed the CWC, is not in compliance with its NPT obligations, and is known to possess large stocks of chemical weapons (and is also suspected of developing biological weapons). In terms of verification, although IAEA inspections detected major discrepancies between North Korea’s declarations and the actual operating patterns of North Korean nuclear reactors, the IAEA has been unable to force North Korea to comply fully with its NPT obligations. The United States suspects Iran is continuing to pursue nuclear weapons, although IAEA inspections have to date turned up no evidence to support this claim. Nor has the United States used the challenge inspection provisions of the CWC to verify its claims that Iran possesses chemical weapons. Concerns about verification and the possibility of cheating played a central role in the Senate’s rejection of CTBT. Although the CWC has extensive inspection provisions, the BWC currently has no verification regime. As these contrasting views demonstrate, it is possible to view the nonproliferation regime as a glass half full or as a glass half empty.

A different set of criteria would focus on the effectiveness of multilateral treaties in preventing the spread of WMD and their delivery systems. Here again, the balance sheet is mixed. The fact that a number of states with active nuclear weapons programs eventually chose to abandon them suggests that nonproliferation treaties have been relatively successful. Brazil, Argentina, South Korea, and Taiwan are among the states that eventually abandoned their nuclear ambitions.¹¹ South Africa developed nuclear weapons but later destroyed its stockpile and joined the NPT as a non-nuclear weapons state. States such as Japan and Germany have the technical capability to develop nuclear weapons, but have renounced the nuclear option for political reasons. This is an impressive record of success, especially considering predictions in the 1950s that dozens of states would eventually develop nuclear weapons. However critics argue that multilateral treaties do not deserve credit for these successes. They claim that American pressure was the critical factor in persuading many of these countries to restrain their nuclear ambitions, and that the NPT alone would have been insufficient. They also note that nonproliferation treaties have not been successful in preventing determined states from acquiring WMD. India, Pakistan, Israel, and South Africa all acquired nuclear weapons capabilities despite near-universal adherence to the NPT. Critics argue there is little reason to expect that multilateral treaties will prevent North Korea, Iran, Iraq, or other determined states from developing WMD and delivery systems, although the jury is still out on this question. In the United States, stopping determined states from acquiring WMD is increasingly viewed as the key measure of nonproliferation effectiveness. Measured against this standard, the significant successes nonproliferation treaties have achieved appear less impressive to many observers.

EXPORT CONTROLS

During the Cold War, the United States and its allies used export controls on technology with military application for both national security and nonproliferation purposes. Although disputes between allies over technology sales were common, CoCom proved to be a reasonably effective means of controlling the spread of dual-use technology with military applications to the Soviet Bloc.¹² Export controls also covered technology that could be used to develop WMD and delivery systems, as mandated by the guidelines of the Nuclear Suppliers Group, the Australia Group, and the Missile Technology Control Regime. The Soviet Union exercised less control over the diffu-

sion of technology to its allies and client states (especially in the area of ballistic missiles), but still exercised restraint in the technology it was willing to provide (notably in the area of nuclear weapons). The end of the Cold War and the collapse of the Soviet bloc eventually removed both the justification and political support for broad export control restrictions intended to deny numerous countries access to technology with conventional military applications. Moreover the higher priority of economics in the post-Cold War era encouraged a general relaxation of export controls as governments sought to promote exports and economic growth. Collectively, these changes and the rising influence of business groups in foreign policymaking created strong pressures to dismantle Cold War export control systems.

While the general trend has been toward liberalization, there have been some conflicting pressures. Revelations that Iraq's nuclear, ballistic missile, and CBW programs relied heavily on equipment and technology imported from European countries sparked interest in an export control regime focused on WMD and delivery systems. As a result, new export control organizations have been created to control technology with WMD applications and several existing export control organizations have been strengthened. For example, in 1992 the Nuclear Supplier Group established guidelines restricting transfers of nuclear related dual-use equipment, material, and technology and requiring full-scope safeguards as a condition for supply of some items. The MTCR was formally established in 1987, but since the end of the Cold War its membership has expanded to 32 states and its scope has expanded to include missiles capable of delivering CBW as well as nuclear weapons. The Australia Group was established in 1985, but revelations about the Iraqi biological warfare program and the passage of the CWC prompted efforts to expand the Australia Group's coverage to include production equipment for chemical weapons precursors and dual-use equipment with CBW applications. Although CoCom was abolished in March 1994, the Wassenaar Arrangement was created in 1996 to promote transparency and responsibility about the transfer of arms and dual-use technology.

In general, the broad trends in export control since the end of the Cold War can be summarized as an end to blanket restrictions on dual-use technology exports, a narrowing of the range of dual-use military technology governed by export controls, efforts to balance economic and security interests, and greater focus on technology that

could be useful for development of WMD and delivery systems. Most of the advanced industrialized nations participate in the key export control organizations. Important technology suppliers, such as Russia and China, have also improved their export control systems and have either joined additional export control organizations or agreed to abide by many of their standards. Despite the partial integration of Russia and China into export control regimes, the United States still has concerns about whether both countries are in full compliance with their export control commitments.¹³ China in particular has expressed a number of objections to export control organizations, including their inherently discriminatory nature. Moreover a number of developing countries outside the export control system have emerged as potential suppliers for states seeking to acquire WMD or ballistic missiles. North Korea's export of missile technology to Pakistan, Iran, and Libya is perhaps the best-known example.¹⁴

Although efforts to focus export control organizations more narrowly on WMD and ballistic missile technology have arguably improved their effectiveness, a consensus has emerged among international experts that export controls can slow but not stop proliferation. Much of the technology to build nuclear weapons, ballistic missiles, and chemical/biological weapons is 40-50 years old.¹⁵ The combination of commercial pressures, uncertain adherence to export control standards by some key countries, and the emergence of new second-tier suppliers limits the potential effectiveness of export controls in preventing proliferation. Many states seeking to acquire WMD technology have developed sophisticated covert procurement networks to evade export control systems. Moreover, even when countries have strict export control laws, implementation can be problematic due to corruption, inadequate monitoring, and the ever-increasing flow of trade in a globalized economy. Although efforts are continuing to upgrade both the export control legislation and the implementation of export controls in countries around the world, expectations for the impact of these improvements are limited. Export controls can hamper states seeking to acquire WMD and ballistic missile technology, but are unlikely to stop them.

GREAT POWER COOPERATION

Many hoped that the end of the Cold War might result in increased great power cooperation to deal with common security threats such as WMD proliferation. The new international environment offered an opportunity for the

UN Security Council, hamstrung by superpower rivalry during the Cold War, to finally play the role envisioned in the UN charter. In particular, the Security Council (or informal great power cooperation) might take on the critical role of responding to countries that violate their nonproliferation treaty commitments or make determined efforts to acquire WMD outside the nonproliferation regime framework. Many viewed the three sets of means (multilateral treaties, export control regimes, and great power cooperation) as a complementary approach to nonproliferation. Multilateral nonproliferation treaties would ban some classes of weapons (chemical and biological weapons), stigmatize efforts to acquire WMD, and provide means of verifying compliance. Export controls would make it harder for states outside the nonproliferation regime or those willing to violate their treaty commitments to acquire WMD or WMD technology. Great power cooperation would become the enforcement mechanism to punish or deter states that seek to violate nonproliferation norms and evade export controls.

Since the end of the Cold War there have been four major tests of the ability of the great powers and the UN Security Council to deal with states determined to acquire WMD and delivery systems. The key tests include Iraq, North Korea, Iran, and the response to India and Pakistan's 1998 nuclear tests. Despite a fair amount of cooperation and policy coordination, the collective response of great powers to nonproliferation challenges has had only limited effectiveness. Security cooperation requires common security interests and perceptions, willingness to cooperate on individual issues for the sake of broader relationships, or the use of pressure or side-payments to induce cooperation. Variations in these factors may explain variations in the success of great power cooperation in the cases discussed below. However the four cases reviewed below will be evaluated according to whether great power cooperation was able to achieve U.S. nonproliferation objectives.

Iraq is an interesting case, partly because it fits Russia and China's preferred model of great power cooperation (i.e. cooperation organized and approved by the Security Council). Although it was Iraq's invasion of Kuwait that prompted the original Security Council resolutions authorizing the use of force, the ceasefire agreement included provisions calling for Iraq to give up its WMD capability. The UN Special Commission on Iraq (UNSCOM) was established in 1991 to eliminate Iraq's WMD and ballistic missile capabilities and to ensure that Iraq did not reac-

quire those capabilities. UNSCOM and the IAEA fielded more than 250 inspection missions, which discovered and destroyed key elements of Iraq's nuclear, chemical and biological weapons and ballistic missile programs.¹⁶ However, Iraq's obstruction of inspections and refusal to comply with Security Council resolutions caused UNSCOM to withdraw its personnel from Iraq in December 1998. A successor organization, the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC), was established in 1999. China, Russia, and France all abstained from the resolution establishing UNMOVIC, illustrating the extent to which great power consensus on dealing with Iraq had dissolved. At present Iraq remains out of compliance with key Security Council resolutions, UN sanctions remain in place, and UNMOVIC has been unable to conduct any inspection missions. While UNSCOM succeeded in destroying significant portions of Iraq's CBW, nuclear weapons, and ballistic missile programs, the lack of UNMOVIC inspections has raised strong concerns that Iraq has been able to reconstitute its chemical and biological weapons programs and advance its work on developing nuclear weapons. Moreover the model used in Iraq has proved unsatisfactory to all the major powers. The United States and Britain believe that the need to maintain Security Council consensus has reduced the pressure on Iraq and allowed it to evade efforts to force compliance. Russia, China, and France are dissatisfied with the open-ended nature of UNMOVIC and the humanitarian impact of continued sanctions. Iraq has successfully played on these divisions among the five permanent members of the UN Security Council (China, France, Russia, the United Kingdom, and United States, known as the "P-5"). Despite significant accomplishments in destroying Iraqi capabilities as they stood in 1991, it is unclear how long UN efforts to eliminate Iraq's WMD and ballistic missile programs will last. This ambiguous outcome has produced dissatisfaction among the great powers and criticism of the Security Council's weak response.

Great power cooperation in dealing with North Korea has also produced ambiguous results. Although the Security Council considered the issue of North Korea's non-compliance with IAEA inspections, China's opposition to any military action or sanctions constrained possible responses. Instead, great power cooperation has taken the less formal form of policy coordination. U.S. officials have consistently stated that China and Russia have been "helpful" in encouraging North Korea to comply with IAEA inspections and to abandon its WMD and ballistic missile programs. (However some U.S. officials believe compa-

nies in both countries may be supplying technology useful for North Korea's missile program).¹⁷ The Agreed Framework froze work on North Korea's known nuclear facilities in return for the provision of two light water reactors by an international consortium including the United States, South Korea, Japan, and the European Union. While China and Russia are not participants in the consortium, they have generally supported it despite some reservations. Russian President Putin has also attempted to serve as an intermediary between North Korea and the United States, conveying North Korean President Kim Jong-Il's proposal to abandon the ballistic missile program in exchange for access to satellite launch services. Clinton administration officials were able to build on this opening to gain North Korea's acceptance of a ban on flight tests of long-range missiles, but were unable to reach an agreement curtailing Pyongyang's missile exports before leaving office. In May 2001, North Korean President Kim Jong-Il told a visiting European Union delegation that North Korea would maintain the flight-test ban until 2003.¹⁸ However other facets of North Korea's missile development efforts are continuing.

To sum up, there has been substantial great power cooperation in countering North Korea's efforts to acquire WMD and long-range ballistic missile capabilities. This cooperation has produced a freeze on North Korea's nuclear weapons potential, but has not succeeded in enforcing IAEA inspection requirements that would establish whether North Korea separated sufficient fissile material to build a nuclear device (and thus whether the North has a nuclear weapons capability). Similarly, international cooperation has produced some progress in curtailing the North's ballistic missile program (e.g. the missile flight test ban), but has not curtailed existing North Korean missile deployments or missile exports to Iran and other states of concern. Some critics suggest that U.S. efforts to cooperate with China and Russia have weakened the ability of the United States to pressure North Korea into making concessions, but given the U.S. lack of leverage this argument is not persuasive. The overall balance sheet is positive, yet great power cooperation has not succeeded in eliminating American concerns about North Korean WMD and missile programs. Some fear that North Korea is simply playing for time and seeking financial concessions with no intention of ever giving up its WMD programs. Because North Korean negotiating leverage rests on ambiguity about its precise capabilities, it is impossible to disprove this argument.

In the case of Iran, great power cooperation has been markedly less successful. It is by no means clear that China or Russia share the U.S. belief that Iran has a covert program aimed at developing nuclear weapons.¹⁹ Nor do they appear to share fully U.S. fears that Iran's ballistic missile program could foster regional instability or lead to an interruption in the flow of oil from the Middle East. These differing perspectives on whether Iran poses a proliferation threat account for the lack-luster cooperation among the great powers in preventing Iran from acquiring WMD and developing ballistic missiles. China and Russia point out that Iran's nuclear facilities are under IAEA safeguards and that the IAEA has not found violations of Iran's commitments. Although China has responded to U.S. concerns by agreeing not to provide Iran with ballistic missile or anti-ship missile technology and by curtailing nuclear power cooperation, this was clearly a response to U.S. pressure and a desire to improve bilateral relations rather than an indication that China shares U.S. concerns. Russia has continued with plans to supply Iran with light-water nuclear reactors, and is said by the Bush Administration to be supplying more sensitive nuclear technology despite American objections. Russian companies have also transferred technology to Iran's ballistic missile program.²⁰

The response to India and Pakistan's nuclear tests is an example of close great power policy coordination. China took the lead in drafting a Security Council resolution condemning the tests, and in general the P-5 worked closely in fashioning a common diplomatic response. Although the close diplomatic cooperation produced widespread condemnation of the nuclear tests, it has not produced any substantive achievements in rolling back nuclear weapons capabilities in South Asia. Indeed, the United States appears to have abandoned that goal as unrealistic, and now seeks merely to encourage both sides to exercise restraint in operationalizing their nuclear deployments. The United States decision to lift most sanctions on India and Pakistan after only a brief period and President Clinton's decision to travel to India and Pakistan have been criticized as sending mixed signals.²¹ U.S. efforts to gain Indian and Pakistani support for the war against terrorism after September 11, 2001 led to the lifting of all remaining nuclear-related sanctions, further diluting U.S. nonproliferation efforts in the region.²² While the great powers have agreed that India and Pakistan will not be admitted to the NPT as nuclear weapons states, policy coordination appears unlikely to roll back nuclear weapons programs in South Asia. China's November 2000 statement

that it would not supply missile technology or assistance and that it would improve export controls on missile technology are positive signs, but will not roll back current capabilities. Moreover there are reports that Chinese missile technology cooperation with Pakistan has increased over the last year, despite specific commitments to the United States to limit transfers. The prospect of a South Asian arms race involving both nuclear weapons and ballistic missiles cannot be ruled out.

These four cases suggest a mixed record of the accomplishments of great power nonproliferation cooperation. Iraq's WMD and ballistic missile programs have been dismantled, but could probably be reconstituted within a relatively short time period if sanctions ended. North Korea's nuclear program has been frozen, but there is no guarantee that it is not pursuing a covert nuclear weapons capability. Moreover North Korea is working to develop a long-range ballistic missile capability, despite its current freeze on missile launch tests. There has been little international agreement on the threat posed by Iran's WMD and ballistic missile programs; what cooperation has occurred has mainly been the result of U.S. bilateral pressure. Despite greater agreement on proliferation issues in South Asia, policy coordination has not produced concrete steps to reverse or contain India and Pakistan's nuclear programs. Despite some substantial accomplishments, this record does not give much grounds for confidence that the past level of great power cooperation can produce joint action that will stop a state determined to acquire nuclear weapons. Moreover, increasing strains between the United States, China, and Russia through the summer of 2001 raised doubts about the level of future cooperation in enforcing nonproliferation norms. China opposed U.S. efforts to use force in 1994 to enforce the IAEA's right to conduct inspections in North Korea (which arguably would have been a very dangerous course of action). Both China and Russia have expressed concerns about U.S. intervention policy (especially in the case of Yugoslavia) and appear unlikely to permit (much less participate in) future Security Council efforts to enforce nonproliferation norms via sanctions or force. It remains to be seen whether the new spirit of cooperation among these three countries fostered by the tragedy of September 11, 2001 will manifest itself in the area of nonproliferation. An early test will be whether Beijing, Moscow, and Washington can put aside previous differences and work together to restart UN inspections in Iraq.

SECURITY ASSURANCES TO REDUCE DEMAND FOR WMD

Although some multilateral nonproliferation treaties include security assurances—i.e. pledges by treaty parties to come to the aid of other parties that are attacked with the weapon of mass destruction that is the subject of the treaty—and can be considered part of a demand-side approach to nonproliferation, more specific bilateral or regional security assurances could also be used to reduce the demand for WMD. Nuclear weapons free zones are one type of regional security assurances that have won grudging American support. Nuclear-weapon-free-zone treaties are typically accompanied by protocols under which possessors of nuclear weapons provide a “negative” security guarantee by pledging not to use such weapons against members of the zone. The United States has been willing to provide “positive” security guarantees — i.e. pledges to use nuclear weapons to protect its allies—through the NATO alliance and separate security treaties and arrangements with Japan and South Korea. These assurances have served as a potent nonproliferation tool. But security assurances have not played a prominent role in American nonproliferation policy toward the “hard cases” that dominate the American debate about proliferation.²³ There are several reasons for the relative neglect of security assurances. First, the “rogue state” construct discourages any attempts to address the security needs of countries like Iran, Iraq, and North Korea.²⁴ A circular logic is often employed: states are classified as rogues because they pursue WMD and they are assumed to pursue WMD due to their nature as rogues. The “rogue state” label implies that it is impossible for these states to moderate their behavior (unlike the original formulation of containment, which implied the possibility of a “melting” of Russia behavior over time). Second, rogue states are assumed not to be motivated by legitimate security interests that might be satisfied by security assurances. Their WMD programs are assumed to be offensive in nature and aimed at territorial conquest or expanding their regional influence. This assumption may be correct, but it should be tested rather than assumed *a priori*.²⁵ The antagonistic relationship countries like Iran, Iraq, and North Korea have with the United States, the most powerful country in the world, creates its own security challenges. Third, American domestic politics make it difficult to argue for addressing Iraqi or North Korean security concerns. As Chinese foreign policy analyst Gu Guoliang points out, North Korea’s nuclear and missile programs were the only reason the United States was willing to deal

directly with North Korea. Managing the relationship solely from a proliferation perspective limits U.S. policy options to defuse security concerns on both sides.²⁶ Political competition to be tough on potential adversaries is not conducive to confidence-building measures or security assurances. (South Asia, where neither India nor Pakistan is regarded as a potential adversary, is one area where the United States has encouraged the use of confidence-building measures (CBMs) and mutual security assurances between India and Pakistan as nonproliferation tools). Security assurances are certainly not a panacea for dealing with proliferation threats, but they can sometimes be a useful part of the diplomatic toolbox.

UNILATERAL NONPROLIFERATION AND COUNTERPROLIFERATION MEASURES

Despite the significant accomplishments produced by multilateral treaties, export controls, and great power cooperation since the end of the Cold War, there has been a growing sense in the United States that these measures are insufficient to deal with proliferation threats. There has been a call for greater reliance on U.S. unilateral efforts to prevent the spread of weapons of mass destruction and to deter or defend against possible WMD use. Unilateral measures are distinguished by their emphasis on action by a single country rather than international cooperation. Unilateral nonproliferation measures focus on preventing other countries from acquiring WMD. They can include diplomatic pressure, incentives (such as provision of conventional arms or access to technology), security guarantees (such as alliances or extended deterrence), interdiction of WMD shipments or components, and military strikes against facilities to prevent countries from developing WMD. Unilateral counterproliferation measures focus on deterring or defending against WMD use. They include passive defense measures such as civil defense and vaccination of troops against biological agents, active defense measures such as ballistic missile defenses, conventional counter-force attacks on an adversary’s WMD capabilities and delivery systems, and offensive military forces (conventional and nuclear) that can deter WMD use.²⁷

Advocates of unilateral nonproliferation measures argue that U.S. diplomatic, economic, and military actions deserves much of the credit for nonproliferation success stories. Multilateral treaties, export controls, and great power cooperation have been most effective when they have been reinforced by U.S. power and diplomacy. They

correctly note that the United States played a critical role in persuading South Korea and Taiwan to abandon their nuclear weapons programs and constrain their ballistic missile development programs. U.S. alliances and security guarantees are an important reason that Germany and Japan have agreed to foreswear nuclear weapons. The U.S. military victory in the Gulf War curtailed Saddam Hussein's WMD programs, not United Nations resolutions. U.S. sanctions, diplomatic pressure, and inducements have also pushed China and Russia to improve their nonproliferation behavior and upgrade their export control systems.

Although U.S. actions deserve substantial credit for these successes, unilateral nonproliferation measures have significant limitations. Many of these successes involve provision of economic inducements, conventional arms or security guarantees to substitute for WMD capabilities. These measures have not been effective in dealing with countries like Pakistan, where, during the 1990s, the United States was unwilling to provide security guarantees or conventional weapons that could satisfy its security needs. The United States is equally unlikely to provide similar assistance or security guarantees to the rogue states that dominate the current U.S. nonproliferation debate.

Attacks against WMD-related facilities are the most extreme form of unilateral nonproliferation, but the results of U.S. and Israeli strikes against Iraq's WMD programs have been inconclusive at best. Israel's attack on Iraq's nuclear reactor only delayed the Iraqi nuclear weapons program for a few years (and forced the program into less vulnerable underground facilities). Due to insufficient intelligence, U.S. air strikes during the Gulf War inflicted only marginal damage on Iraqi WMD programs. United Nations inspections ultimately had much more impact in destroying Iraqi WMD capabilities and curtailing efforts to reconstitute them (although UN inspections would have been impossible without the U.S. military victory in the Gulf War). U.S. unilateral nonproliferation efforts have usually been employed to encourage compliance with international norms and multilateral treaties. Although this makes unilateral nonproliferation efforts likely to reinforce other nonproliferation tools rather than undercut them, it also makes it difficult to assess their effectiveness independent of those norms.

The argument for greater reliance on unilateral counterproliferation measures is that even the most effective nonproliferation efforts are unlikely to stop determined countries from developing WMD. If proliferation is inevitable, U.S. leaders would be remiss if they did not

explore potential means of preventing WMD from being used and of mitigating the potential consequences of their use. Unilateral counterproliferation encompasses both means of preventing WMD use (such as counter-force attacks, deterrence, and ballistic missile defenses) and means of mitigating the consequences of WMD use (such as civil defense, CBW detection equipment and protective gear, and the development of vaccines). Because U.S. efforts to improve passive defense capabilities have raised few international concerns, this section focuses on three active forms of unilateral counterproliferation: conventional counter-force attacks, deterrence, and missile defenses.

Counter-force attacks against WMD capabilities are the highest risk form of counterproliferation. Counter-force attacks require accurately locating an adversary's WMD capabilities and delivery systems so they can be targeted, requirements that have proven difficult for U.S. intelligence to meet in the past. The essential dilemma is that unsuccessful efforts to destroy an adversary's WMD capability might prompt the adversary to use WMD (by creating a "use it or lose it" situation). The same sense of threat that prompts consideration of the use of force against an adversary's WMD capabilities also increases the potential consequences of failure. U.S. consideration (and ultimate rejection) of air strikes against North Korea in 1994 suggests that counter-force attacks are a high-risk option with very limited applicability, not a tool that can be regularly or reliably employed. Although the diplomatic costs of counter-force targeting would be reduced once a military conflict broke out, the risk of triggering a WMD attack in response would be heightened.²⁸

The national missile defense debate has raised questions about deterrence in the post-Cold War era. Given the U.S. ability to deliver massive conventional and nuclear strikes against any potential adversary, missile defense advocates must make the case that deterrence might not work in order to justify massive spending on missile defense systems. BMD advocates have repeatedly used the argument that the post-Cold War international environment is fundamentally different than the Cold War to challenge continued reliance on traditional deterrence. For instance, President Bush's May 2001 speech at National Defense University called for "new concepts of deterrence that rely on both offensive and defensive forces." Bush argued "We need a new framework that allows us to build missile defenses to counter the different threats of today's world."²⁹ This case rests mainly on theoretical claims that cultural differences, asymmetric stakes, or irrationality

make deterrence more likely to fail than in the U.S.-Soviet case.³⁰ There is little empirical evidence to support claims that developing countries that acquire WMD and delivery systems will behave less cautiously than other nuclear weapons states or that U.S. conventional and nuclear superiority will not deter them from using WMD. But the very lack of empirical evidence makes it possible to argue that countries like Pakistan, Iran, North Korea, and Iraq might behave differently. A more serious argument for BMD is that U.S. freedom of action to intervene in regional conflicts might be reduced if a potential adversary possesses WMD capabilities. Even if deterrence would probably work, fear of suffering a WMD attack might prevent the United States from intervening in a regional conflict where its interests were limited. U.S. "self-deterrence" might encourage potential enemies to use WMD capabilities as a shield to enable offensive attacks. Advocates argue that ballistic missile defenses might reduce the risk of an adversary successfully using WMD against the United States enough to overcome "self-deterrence" and remove the risk of WMD blackmail.

The emergence of ballistic missile defense as the "preferred" solution to the WMD proliferation threat illustrates how interest groups can use the opening up of foreign policy debate during an international transition to promote their interests. The missile defense program established as part of the Reagan strategic defense initiative had a bureaucratic base in the Pentagon, a political constituency in Congress, and active support from defense contractors. This allowed technologies and programs originally intended to negate Soviet missiles to be transformed into the solution for defense against rogue state WMD attacks. Opinions differ on the technical feasibility of the missile defense systems currently being developed, but technical advances produced by tens of billions of dollars of R&D hold out at least the possibility that defenses might be effective against the limited capabilities that North Korea, Iran, or Iraq might field in the next fifteen years. Nevertheless, key questions about cost, effectiveness, and reliability remain unanswered. These questions are most pronounced for national missile defense systems, where the high re-entry speeds of missile warheads and the possibility of decoys and counter-measures greatly increase the technical challenges of building a reliable interception capability. The technical hurdles for theater missile defenses are somewhat lower. Development and deployment of TMD to help protect U.S. forces deployed overseas is relatively uncontroversial, but there are still significant questions

about whether providing U.S. allies with TMD systems will increase or decrease their overall security.³¹

CONCLUSION: UNILATERAL VERSUS MULTILATERAL MEANS

Over the last decade, the U.S. nonproliferation debate has been characterized by the increased priority of nonproliferation at the expense of arms control and by growing interest in unilateral counterproliferation measures. Much of the current debate revolves around the relative effectiveness of particular unilateral counterproliferation measures, their potential impact on the international security environment, and whether they will enhance or undercut other nonproliferation measures. The proliferation threat is real, and advocates of unilateral counterproliferation measures are correct to point out that existing arms control and nonproliferation measures may be inadequate to stop countries determined to acquire weapons of mass destruction and ballistic missiles. Policymakers must consider how to use the full range of tools to combat the spread of weapons of mass destruction, to deter the use of WMD, and to mitigate the consequences if WMD are used. The key policy question is whether unilateral counterproliferation measures such as counter-force attacks and ballistic missile defense will complement traditional nonproliferation tools, or whether they are likely to erode the effectiveness of the existing nonproliferation regime. In terms of the theoretical framework presented above, the question is whether specific unilateral policies have positive externalities that will reinforce traditional nonproliferation tools or negative externalities that will undermine them. The answer may depend partly on context and on the skill with which these tools are used.

The Bush administration argues that "active nonproliferation, counterproliferation, and defenses" are all needed to prevent determined states from acquiring and using WMD.³² Counterproliferation and ballistic missile defenses are viewed as necessary complements to traditional nonproliferation measures. Some advocates envision a layered defense against proliferation, with international regimes stigmatizing possession and use of WMD, export controls increasing the cost and difficulty of developing or acquiring WMD, great power cooperation enforcing WMD norms, U.S. nuclear weapons deterring WMD attacks, and counter-force attacks and missile defenses serving as final defenses against WMD use. This perspective views unilateral nonproliferation and counterproliferation

measures as reinforcing and supplementing traditional nonproliferation approaches. For example, advocates argue that sanctions should be used to deter states from acquiring WMD and to punish suppliers of WMD and missile technology, thereby reinforcing existing nonproliferation norms and improving compliance with export control regimes. Some missile defense advocates argue that missile defenses might substitute for acquisition of WMD or ballistic missiles, reducing incentives to develop the offensive capabilities needed to establish deterrence. Japan's interest in developing missile defenses rather than developing ballistic missiles of its own is cited as an example.

Unfortunately, arguments that the United States can easily increase its reliance on unilateral counterproliferation measures without eroding the effectiveness of other nonproliferation tools are unpersuasive. The Bush administration's approach to dealing with WMD threats has combined a strong emphasis on deploying ballistic missile defenses with conscious efforts to downgrade the role of multilateral arms control and nonproliferation treaties. This approach is illustrated by the administration's determination to go beyond the limitations of the ABM Treaty, negative attitude towards the CTBT, and rejection of the draft protocol to the BWC. Bush administration officials appear to believe they can practice "à la carte" multilateralism based on a narrow definition of U.S. interests without damaging other parts of the nonproliferation regime (such as the NPT).³³ This attitude may have unanticipated consequences. Most importantly, countries that have previously given up their WMD programs may reconsider their decisions if they see the United States rejecting all new arms control treaties because they do not satisfy U.S. security needs. The Bush administration's disdain for multilateral treaties and its narrow focus on rogue states may wind up undermining the broader nonproliferation regime.

A second concern is the impact of U.S. ballistic missile defense deployments on future nuclear arms reductions. President George W. Bush has called for reductions in the U.S. nuclear arsenal along with the deployment of missile defenses. China and Russia have argued that the ABM Treaty (which bans national missile defenses) is the cornerstone of international strategic stability and that national missile defense (NMD) deployment would stimulate arms races and destroy prospects for future strategic arms reductions. NMD would clearly have a negative impact on the credibility of China's nuclear deterrent and

would likely prompt China to increase the size of its strategic nuclear forces and to deploy countermeasures.³⁴ Bush administration officials have repeatedly denied any connection between NMD deployment and China's strategic modernization, arguing that Chinese modernization will occur regardless of U.S. missile defense deployments. They are correct about the qualitative modernization of Chinese ICBMs, but ignore the point that the ultimate size of China's ICBM force will rest heavily on the perceived effectiveness of U.S. missile defenses. Recent press accounts suggest that some senior officials privately recognize the linkage.³⁵ The expanded nuclear arsenal that China would develop in response to U.S. NMD deployment may also prompt countries such as India to build larger strategic forces. The potential for the United States to expand a limited NMD system into a system with significant capability against Russian strategic forces would probably also put a floor on Russia's willingness to reduce its nuclear arsenal.³⁶ The bottom line is that NMD deployment would result in more Chinese nuclear weapons aimed at the United States and a slower rate of Russian nuclear reductions than would otherwise be the case. This negative impact may be balanced by the benefits of defenses against rogue state missile threats, but the Bush administration needs to make this case directly rather than pretend that NMD will have no impact on Chinese and Russian nuclear force levels.

The Bush administration recognizes that NMD deployment without Russian agreement will have significantly higher costs, and has tried to persuade Russia to move beyond the ABM Treaty. However the vagueness of the proposed "new strategic framework" and the Bush administration's reluctance to consider binding limits on the ultimate scale of NMD will make agreement difficult. Moreover the Bush administration is not prepared to offer China similar political assurances. If China and Russia conclude that NMD is aimed against them, they will be less willing to cooperate in enforcing nonproliferation treaties and norms, notwithstanding their new spirit of cooperation with the United States after September 11th. This has the potential to weaken the effectiveness of both export controls and great power cooperation and might also have broader strategic consequences, including pushing China and Russia into an alliance explicitly aimed against the United States. NMD advocates have tended to brush aside these potential consequences by focusing narrowly on the need to defend against supposedly "undeterable" rogue states. On the other hand, if China and Russia hope

to reverse the unilateral trend in American foreign policy, they must make existing nonproliferation tools more effective. This should include improvements in national export control systems, better compliance with existing nonproliferation obligations, and more willingness to cooperate in dealing with the hard cases of countries determined to acquire ballistic missiles and WMD.

A final concern is that NMD deployment may damage the effectiveness of deterrence and U.S. security commitments. U.S. willingness to spend tens of billions to defend itself against WMD threats carried on ballistic missiles reinforces the perception that WMD capabilities are an effective means of deterring U.S. intervention. This weakens nonproliferation norms and increases incentives for states politically opposed to the United States to seek WMD. The Bush administration's obsession with missile defense suggests a lack of confidence in deterrence that might actually weaken the credibility of U.S. security commitments. Missile defenses can be interpreted as an effort to substitute technology for will. They reflect an assumption that U.S. leaders are unwilling to accept risks in a crisis, but rather will be "self-deterred" by WMD threats against the United States. The need to spend tens of billions of dollars on missile defenses to reinforce the credibility of U.S. commitments may ultimately have the opposite effect. As the September 11, 2001 terrorist attack demonstrated, determined states and groups do not need missiles to attack the United States. Missile defenses cannot produce a risk-free world.

Several specific policy recommendations for the Bush administration flow from this analysis. An overarching recommendation is that rather than denying that unilateral counterproliferation measures have negative side effects and pursuing policies that aggravate these consequences, the Bush administration should recognize the negative externalities and seek ways to mitigate them. If missile defenses really are necessary, then the Bush administration should be able to persuade the American public that their benefits outweigh their direct costs and negative side effects. A second recommendation is to pursue a broader policy that does not focus so narrowly on deploying missile defense in response to rogue state WMD threats. The Bush administration claims to be taking a broad approach to addressing proliferation, but its public rhetoric has focused single-mindedly on NMD, to the exclusion of other important elements of a comprehensive policy to address WMD threats. The administration should employ other tools (including multilateral treaties) and pay

attention to other proliferation threats (including the possibility of defections from the nonproliferation regime). A third recommendation is to recognize that a new strategic framework for relations with Russia is unlikely to transcend deterrence, especially if the United States continues to pursue unlimited national missile defenses. Unrestrained freedom of American action is a chimerical goal. Even under a new strategic framework, Russia and China will seek to maintain a nuclear deterrent that forces the United States to refrain from actions that damage their vital interests. It will be impossible to transcend deterrence, and it might be dangerous to try.

Finally, the Bush administration's view that flexibility—exemplified by *a la carte* commitment to multilateral treaties—is necessary to deal with an uncertain future neglects the U.S. role as the dominant power in the international system. Efforts to maximize U.S. flexibility by avoiding binding commitments create uncertainty for other countries and encourage them to look for means of restraining the United States. This may ultimately increase efforts to acquire weapons of mass destruction and create a less stable and more dangerous world.

¹ The author would like to thank Amy Sands, Evan Medeiros, Jing-dong Yuan, Leonard Spector, Scott Parrish, and an anonymous reviewer for helpful comments on earlier drafts of this paper. Stephanie Lieggi provided research assistance.

² See Phillip C. Saunders, "Foreign Policy and International Transitions: A Case for Foreign Policy Paradigms," paper presented at the 1999 International Studies Association annual convention, February 16-20, 1999, Washington, DC.

³ For the distinction between preferences over outcomes and preferences over actions, see Robert Powell, "Anarchy in International Relations Theory: The Neorealist—Neoliberal Debate," *International Organization*, Vol. 48, No. 2 (Spring 1994), pp. 318-321.

⁴ The Conventional Forces in Europe (CFE) and Intermediate Nuclear Forces (INF) treaties are exceptions to this general trend; both came in what are now recognized as the closing stages of the Cold War.

⁵ A useful reference to the state of international nonproliferation organizations and regimes is *Inventory of International Nonproliferation Organizations and Regimes: 2000 Edition* (Monterey, CA: Center for Nonproliferation Studies, 2000).

⁶ The Chemical Weapons Convention was negotiated by the Bush administration, the U.S. Senate has not ratified the CTBT, and discussions of a verification protocol for the BWC have not produced an acceptable agreement.

⁷ See "Rationale and Requirements for U.S. Nuclear Forces and Arms Control," National Institute for Public Policy, (Washington, DC: January 2001).

⁸ For a critique, see Scott D. Sagan, "The Commitment Trap: Why the United States Should Not Use Nuclear Threats to Deter Biological and Chemical Weapons Attacks," *International Security*, Vol. 24, No. 1 (Spring 2000), pp. 85-115.

⁹ See George Perkovich, "Five Propositions on Nonproliferation," in Michael Barletta, ed., *Proliferation Challenges and Nonproliferation Opportunities for New Administrations*, Occasional Paper No. 4, Center for Nonproliferation

Studies, Monterey Institute of International Studies, September 2000, pp. 17-21.

¹⁰ Although export control regimes and great power cooperation to enforce nonproliferation norms are technically multilateral measures, they differ from multilateral treaties by excluding the targets of export controls and sanctions. In addition, multilateral export control systems are typically parallel unilateral undertakings by the participating governments rather than formal treaties.

¹¹ See Mitchell Reiss, *Bridled Ambition: Why Countries Constrain their Nuclear Capabilities* (Washington, DC: Woodrow Wilson Center Press, 1995).

¹² Michael Mastanduno, *Economic Containment: CoCom and the Politics of East-West Trade* (Ithaca, N.Y.: Cornell University Press, 1992).

¹³ See Central Intelligence Agency, "Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions, 1 July Through 31 December 2000," September 2001 at <http://www.cia.gov/cia/publications/bian/bian_sep2001.htm>.

¹⁴ See William C. Potter and Harlan W. Jencks, eds., *The International Missile Bazaar: The New Suppliers' Network* (Boulder, Colorado: Westview Press, 1994).

¹⁵ See Peter Zimmerman, "Proliferation: Bronze Medal Technology Is Enough," *Orbis*, Vol. 38, No. 1 (1994), pp. 67-82.

¹⁶ "UNSCOM Main Achievements," at <http://www.un.org/Depts/unscom/Achievements/achievements.html>

¹⁷ See Central Intelligence Agency, "Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions, 1 July Through 31 December 1999," August 2000 at <http://www.cia.gov/cia/publications/bian/bian_aug2000.htm>.

¹⁸ Doug Struck, "North Korea Extends Missile Test Halt," *Washington Post*, May 4, 2001, p. 1.

¹⁹ For U.S. assessments, see the testimony of the Deputy Director of the DCI Nonproliferation Center, A. Norman Schindler, "Statement on Iran's Weapons of Mass Destruction Programs to the International Security, Proliferation and Federal Services Subcommittee of the Senate Governmental Affairs Committee," September 21, 2000 and Central Intelligence Agency, "Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions, 1 July Through 31 December 2000," September 2001.

²⁰ Central Intelligence Agency, "Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions, 1 July Through 31 December 2000," September 2001.

²¹ Both China and Russia also exchanged high-level visits with Indian leaders in 2000.

²² Karen DeYong, "Bush Seeks Power to Lift Arms Curbs: Waiver Would Allow Military Assistance to Once-Shunned Nations," *Washington Post*, September 24, 2001, p. A1.

²³ The American withdrawal of nuclear weapons from the Korean peninsula as a means to reassure North Korea is a notable (and significant) exception, although the United States did not accompany the withdrawal with a pledge not to use nuclear weapons against North Korea in the event of a conflict on the Korean Peninsula.

²⁴ Robert S. Litwak, *Rogue States and U.S. Foreign Policy: Containment After the Cold War* (Baltimore: Johns Hopkins University Press, 2000).

²⁵ State interests can also change with circumstances. One factor behind South Korea's "sunshine policy" toward the North was a shift in South Korean preferences away from rapid German-style reunification toward a more gradual, negotiated transition.

²⁶ Gu Guoliang, "Success or Failure? – Clinton Administration's Policy and Approach in Handling North Korea's Nuclear and Missile Programs," unpublished paper, Center for Nonproliferation Studies, November 2000.

²⁷ These definitions of unilateral nonproliferation and counterproliferation measures do not match the Defense Department's definitions, which tend to conflate nonproliferation and counterproliferation. For the DoD definition, see Chairman of the Joint Chiefs of Staff Counterproliferation Charter, 3 September 1996.

²⁸ This logic also applies to deployment of Theater Missile Defense capabilities in a regional conflict. If TMD systems are effective, adversaries have incentives to launch pre-emptive missile strikes before they are fully deployed in the region.

²⁹ See George W. Bush, "Address to the National Defense University," Washington, D.C., May 1, 2001. <http://www.whitehouse.gov/news/releases/2001/05/text/20010501-10.html>

³⁰ Keith B. Payne, *Deterrence in the Second Nuclear Age* (Lexington: The University Press of Kentucky, 1996).

³¹ For an overview of the potential impact in Asia, see Evan S. Medeiros, rapporteur, *Ballistic Missile Defense and Northeast Asian Security: Views from Washington, Beijing, and Tokyo* (Monterey, CA: Center for Nonproliferation Studies, April 2001).

³² Bush, "Address to the National Defense University."

³³ The phrase was coined by State Department Director of Policy Planning Richard Haass.

³⁴ For one assessment of the impact, see Phillip C. Saunders and Jing-dong Yuan, "China's Strategic Force Modernization: Issues and Implications for the United States," in Barletta, ed., *Proliferation Challenges and Nonproliferation Opportunities for New Administrations*, pp. 40-46. http://cns.miiis.edu/cns/projects/eapn/conf/op4_sjd.pdf

³⁵ David E. Sanger, "U.S. to Tell China It Will Not Object to Missile Buildup," *New York Times*, September 2, 2001, p. 1.

³⁶ However Russia is likely to unilaterally cut its nuclear forces anyway due to budget constraints, reducing the urgency of this objection.