CHAPTER 1

Introduction and Rationale

Arms control, for decades a key tool of American foreign policy, is nearly moribund today. Its detractors denounce it as dangerous and outmoded, while its advocates often pin high hopes on its ability to fundamentally alter the international security environment. Most Americans, meanwhile, ignore what appears to be a shrill and unimportant debate. As a result, politicians largely avoid acquiring any detailed understanding of the subject.

This combination of factors—polarized debate among specialists, indifference throughout the population at large, neglect by political leaders—is unhealthy. Arms control is still important, because dangerous technologies abound and no practical strategy exists whereby one country or small group of countries can successfully safeguard them. Coordinated international effort to regulate the development, production, and use of the world's most threatening technologies—in other words, arms control—is imperative. But the old ways of pursuing arms control are mostly obsolete, and the very definition of the term requires refinement and reinterpretation. A new arms control framework designed for a new world is urgently needed.[1]

In the years that followed the fall of the Berlin Wall, traditional arms control did not die; indeed, for a moment, it appeared to flourish. The United States and Russia agreed to slash their strategic nuclear arsenals through the Strategic Arms Reductions Treaty (START) and made rapid

progress toward a follow-on, START II, while simultaneous unilateral declarations by presidents George H. W. Bush and Boris Yeltsin led to deeply reduced deployment of tactical nuclear weapons, particularly by the United States. South Africa destroyed its nuclear weapons and joined the Nuclear Non-Proliferation Treaty (NPT). Belarus, Ukraine, and Kazakhstan relinquished their shares of the former Soviet nuclear arsenal; Brazil and Argentina abandoned nuclear programs and joined the NPT as well. By 2004, only ten countries were believed to have nuclear weapons or well-advanced programs, in contrast with sixteen in the 1980s and twenty-one in the 1960s.[2] North Korea (the DPRK) and the United States negotiated the Agreed Framework, which constrained and aimed ultimately to end North Korea's nuclear capabilities. Russia acknowledged the existence of its clandestine biological weapons program and agreed to eliminate it, while the world's leading powers signed and ratified the Chemical Weapons Convention, banning chemical weapons worldwide. Nongovernmental organizations built support for a treaty banning land mines, and much of the world signed up.

These successes came on the heels of a host of cold war arms control accomplishments. The Limited Test Ban Treaty, Outer Space Treaty, and Antarctic Treaty had removed areas of possible military competition that could have been hard for either superpower to resist had the other not done so too. The Anti-Ballistic Missile (ABM) Treaty and a series of hotline agreements had helped reduce the danger of a crisis turning into a hot war, as their drafters intended, at a time when missile defense had little prospect of significantly reducing the damage from any potential nuclear conflict.[3] (Debate admittedly continues about whether Ronald Reagan's Strategic Defense Initiative—which would eventually have collided with the ABM Treaty—contributed to the fall of the Soviet regime.)[4] The Nuclear Non-Proliferation Treaty helped avoid runaway proliferation in the 1970s and 1980s.

During the cold war, taking part in arms control negotiations also allowed top U.S. and Soviet officials to develop personal ties at a time when tensions were high and finding alternative means of interacting was difficult. Both sides recognized that personal relationships could be useful for calming nerves and easing communication during crises. Some in the West put too much stock in these personal relationships and let down their guard against the potential Soviet threat, which did not disappear as a result of arms control and détente. And arms control had other impor-

tant shortcomings—it did little to meaningfully limit the number of nuclear and conventional arms deployed by the superpowers or to dampen low-level conflict in the developing world. But its accomplishments were important too. And the contacts it fostered were beneficial and recognized as such by most policymakers from both major American political parties.[5]

Yet whatever its cold war legacy and whatever momentum it carried into the 1990s, arms control began to founder as the century wound down. In 1998, India and Pakistan tested nuclear weapons, despite the existence of the Nuclear Non-Proliferation Treaty (these two countries were among the last holdouts) and the Comprehensive Test Ban Treaty, which was still open to new signatories. In that same year, North Korea fired long-range missiles, highlighting the absence of any formal multilateral restrictions on long-range delivery vehicles, and Iraq toyed with United Nations weapons inspectors searching the country for chemical and biological weapons, leading the inspectors to terminate the UN mission. Although the United States and Russia signed the START II treaty, successive delays in ratification prevented it from ever going into effect. The U.S. Senate rejected the Comprehensive Test Ban Treaty in 1999, and at the decade's end, the days of the Anti-Ballistic Missile Treaty were numbered (see the appendix for synopses of these and other treaties).

Amid this decline, President George W. Bush entered office accompanied by advisers who were overwhelmingly opposed to most forms of traditional arms control. Such complete lack of nostalgia for cold war treaties helped them dismiss approaches that appeared to have outlived their usefulness. In the president's first year in office, he abandoned negotiations on START III and committed the United States to withdrawing from the ABM Treaty. In 2002, he signed the Moscow Treaty, requiring the United States and Russia to cut their deployed strategic nuclear arsenals to between 1,700 and 2,200 warheads by the end of 2012, but the treaty was notable for its lack of detail and of binding, monitored provisions. President Bush also chose to reject the Ottawa Convention banning land mines and the Comprehensive Test Ban Treaty, while shunning further negotiations on the monitoring protocol of the Biological Weapons Convention. As the president took these actions, his administration worked to develop a spirit of partnership with the government of President Vladimir Putin of Russia, especially after the September 11, 2001, terrorist attacks. In this way, Bush attempted to demonstrate that, at least

in many aspects, U.S.-Russian relations had reached a point where arms control negotiations and treaties were no longer needed to facilitate diplomatic interaction or to ensure cooperation.[6]

In that, the president was right. But the Bush administration did not develop a new framework to replace the old one. It did show leadership on a few specific and important issues. Most creatively, it promoted a loose coalition known as the Proliferation Security Initiative, which aimed at interdicting shipments of materials used in developing weapons of mass destruction (WMD), particularly in the coastal waters of participating countries. And it proposed prohibiting access to nuclear power technologies that could also be used in nuclear weapons programs by any countries not already possessing those technologies.

However, given the small size of much dangerous weaponry and equipment and thus the difficulty of finding and tracking it, attempts at interdiction alone are insufficient to meet the massive and mounting threat of WMD proliferation. And the administration's approach to tightening access to nuclear-related technologies asks a great deal of less developed countries without offering much in return. While unobjectionable if it could be realized, the proposal seems unlikely to be acceptable to much of the world and thus unlikely to be particularly effective.

Most controversially, the Bush administration adopted the option of preventive war for thwarting the proliferation of weapons of mass destruction—often promoted as a doctrine of preemption. But preventive war, while occasionally appropriate, is a tool that can do as much to spur proliferation as to contain it. The administration's doctrine also appears to have weakened Washington's ability to build strong international coalitions to deal with security problems like proliferation.

The United States and the world thus still need a new strategy for controlling dangerous technologies in an age of terror. The tragic events of September 11 awoke Americans to the arrival of that age and put an emphatic end to the transition period between the end of the cold war and whatever strategic era was to come next. This does not appear to be, as some had predicted, an age dominated by U.S.-Chinese rivalry. Nor is it the "End of History," when large-scale violence and strong ideological struggle are mostly confined to the developing world. It will also not be the age of world government or global confederation. Some of these possibilities may have their day decades in the future, but not yet. The current period in American and broader Western foreign policy must first be

one of controlling terrorists, rogues, and the technologies that can make them so dangerous.

Still, to develop broad international support, which is needed to maximize cooperation and reduce the number of problem cases, a new arms control framework must serve the interests of other countries as well as those of the United States. In particular, to the extent possible it should address civil conflict. Severely exacerbated by small arms and financed by illicit resource trading from Africa to Latin America to Central and Southeast Asia, such conflict continues to take hundreds of thousands of lives each year and creates a breeding ground for terrorists and their financiers. Arms control alone will not solve this problem; indeed, it is at best a secondary and supporting instrument of policy. But it can help. If the United States shows a commitment to use this and other policy tools—such as military training, humanitarian assistance, diplomacy, and, in extreme cases, multilateral armed intervention—to address the security needs of non-Western countries, it will attract broader support for America's overall arms control agenda. Given the role that failed and warring states play in global terrorism, it will also directly benefit U.S. security.

While they often contain valuable ideas, too many of the more prominent proposals for arms control would ignore these basic realities and thus lead the United States down the wrong path. Assessing them provides a useful way to begin constraining future arms control choices.

At one extreme, some argue explicitly that the procedures and substance of U.S.-Soviet cold war arms control should be resuscitated. Debate over the 2002 Moscow Treaty on strategic offensive arms reflected this desire, as many critics lamented what had become of superpower arms control. Though the critiques of the treaty differed, their common theoretical underpinning was concern that, in contrast with previous nuclear weapons accords, this treaty would provide little future predictability regarding stockpile size and composition. For example, the never-ratified and now defunct START II Treaty had contained detailed limitations on missiles with multiple warheads and strategic bombers, while the Moscow Treaty contained only an aggregate limit. Some argued that the new ambiguity would force both the United States and Russia to hedge, resulting in larger and more menacing arsenals.[7] Such arguments, however, rest on the assumption that each nation's decisions about sizing and structuring its nuclear arsenal are based directly on the size and structure of the other's arsenal. This type of sizing is increasingly

less prevalent, as the end of the cold war permeates both countries' bureaucracies. Rather than assuming that the shape of one side's forces determines the shape of the other's and investing efforts in more detailed U.S.-Russian arms control, further efforts should be directed at shaking up the nuclear planning establishments, breaking them of their residual cold war habits.

If some would return to cold war arms control, others would abandon arms control altogether. Indeed, some arms control critics dismiss not only cold war paradigms, but also the entire enterprise of negotiating controls on dangerous weapons and technologies. This is a mistake. It ignores the seriousness of the global threats that arms control attempts to address while overestimating the universal applicability of other policy tools, such as military force or unilateral sanctions. Indeed, whatever their rhetoric, even most critics of arms control implicitly recognize that fact. For example, few openly dismiss the value of establishing supplier cartels for sensitive technologies, banning the possession of weapons of mass destruction by other states, or disarming radical regimes by targeted efforts that leverage international taboos against chemical and biological arms.

The alternatives to some sort of arms control—interdiction, blockades, and military action, carried out unilaterally or by coalitions of the willing—are not up to the task of controlling dangerous arms. Each of these activities may be necessary at some point, but alone—and even as a group—they will be insufficient. Limited attacks to disarm countries will often prove impossible because of insufficient intelligence about the location of key enemy assets.[8] All-out invasions to overthrow offending regimes are hugely difficult and risky; in some cases they would be even more so than in Iraq in 2003.[9]

More fundamentally, were the set of countries pursuing advanced weapons of mass destruction to significantly expand, even the United States and its close allies would not have the financial, human, or political capital necessary to forcibly restrain them. Coercive instruments of policy can work only in a rather small number of cases, given the diplomatic and military difficulty of employing them. Arms control cannot provide absolute guarantees that countries will not acquire or sell dangerous materials. But it can provide disincentives to such actions, make it more difficult to carry them out, and make it easier to detect illicit activity. By doing so, it can also help to establish predicates, if necessary, for coercive action. Indeed, arms control can and should be viewed as a complement to coercive action, not as a substitute for it.

Cooperative controls on dangerous technologies and weapons might not be needed were the world clearly and permanently separated into two classes, incorrigible bad actors and well-intentioned good states. In such a world, arms control might indeed have little relevance. When they could, good states would simply be compelled to forcibly deny bad actors access to nuclear and advanced biological weapons. This clarity of vision is useful for confronting the world's worst regimes.[10] The world, however, also has many far more complex cases. During the last twenty years, countries like Brazil, Argentina, Sweden, Egypt, Taiwan, and South Korea have all explored and rejected the option of building nuclear weapons. For many if not most, the benefit of remaining or becoming members in good standing of the international community through accession and adherence to the NPT was an important influence on their decision.

Universal standards have important effects. They do not directly dissuade extremist states from pursuing weapons of mass destruction, but they can help the United States and the international community confront them when they do and make it harder for them to succeed. For example, it is striking that, despite the discord over how to deal with Saddam Hussein in 2003, world leaders were united in considering his possession of weapons of mass destruction unacceptable—and in having similar views toward North Korea's and Iran's nuclear programs. Internationally accepted standards and values can also affect the internal debates of countries such as India, South Africa, and Ukraine, at least at the margin. In a close call, that marginal difference can be important in leading them not to pursue, or not to use, capabilities such as nuclear weapons.

Of course, arms control can go too far, if it constrains American power in a way that limits the ability of the United States to act alone when genuinely necessary. Some have advocated arms control as a way of promoting the general spread of global governance. By constraining the power of the state, including that of the United States, they hope to transform the nature of sovereignty, reduce military expenditures, reduce the likelihood of war, alleviate pressures for proliferation, and establish a more cooperative international climate in which many global problems can be handled internationally.[11] Others advocate using arms control as a mechanism to improve American overseas relationships—especially in light of the harm that the war in Iraq has done to those relationships—without thinking clearly about whether a proposed treaty makes sense on security grounds.[12] But when arms control becomes strategically unrealistic or

focused more on diplomatic process than on technical substance, it can be downright dangerous. In a worst case, it can fail just as spectacularly as it did after World War I, when impractical accords could not stop the rise of Nazi Germany (and may even have helped blind the international community to the stark challenge it presented). Less terribly but still dangerously, arms control could lead to unrealistically heightened expectations followed by great disappointment—just as when U.S.-Soviet détente, whatever its benefits, could not stop the Soviet military buildup and assertiveness of the 1970s or the temporary deterioration in superpower relations that followed.

To be sure, the nature of state sovereignty is changing in important ways. States already interact today in ways that are much different from those of the past, and their interaction will change in the future.[13] For example, issues of human rights, the environment, and public health within states are of much greater concern in a world characterized by large populations, extremely powerful technologies, shrinking resource bases, economic globalization, and rapid, easy travel and communications.[14]

But disarming or straitjacketing sovereign states too much can harm global stability, which still depends on a strong United States (and other powers) to prevent war; it can also harm American strategic interests.[15] Weakening or constraining the military forces of liberal democracies in inappropriate ways—such as by attempting to abolish nuclear weapons or by placing broad caps on great power deployments of conventional weapons—can reduce the kind of great power stability that the world generally benefits from today.[16] Perhaps civilization has advanced beyond the point where major countries would compete for influence and control if there were no clearly predominant power, as they did before the world wars and at many other times in history. But it hardly seems worth the risk of finding out by severely weakening the United States. Many countries criticize the United States, often with cause. But they also tend to want to ally with it; in the end, most have faith in its system of government and its broad role in the world. These realities have led to an unprecedented "bandwagoning" of the modern democracies onto a U.S.-led system of alliances involving close military and political collaboration.[17] This system has contributed enormously to peace among the great powers. In that way, it has accomplished a goal of arms control that Thomas Schelling has recently reemphasized—not simply eliminating arms or preventing their acquisition, but also preventing their use.[18]

Foundations for Arms Control

An enduring and effective arms control strategy must steer clear of these pitfalls while zeroing in on America's greatest security challenge: defending itself and others against catastrophic terrorism. Arms control can do that best by focusing on the world's most dangerous technologies, nuclear and biological arms, to prevent their spread to its most dangerous actors, extremist states and terrorist organizations. To do that, arms control must focus on three critical needs. It needs to provide early warning of when and where outlaw regimes might acquire dangerous weapons. It must integrate coercive enforcement action more intimately into its structure, to respond to situations in which extremist regimes or terrorist groups are detected pursuing illicit weaponry—and to deter them from doing so in the first place, where possible. And it must be harmonized with broader American foreign policy to help most states, particularly nonaggressive and democratic ones, feel greater confidence in their own security. This will reduce their inclination to seek dangerous arms and increase their willingness to stop countries that are so inclined. This last need will be successfully addressed not by nuclear disarmament, as envisioned in the NPT, but rather by means such as providing NATO-like security guarantees to states that might otherwise slide to the nuclear or biological brink. We elaborate on each of these ideas below.

Arms Control Needs Priorities

Modern arms control should, as its central organizing principle, attempt to prevent the spread of nuclear materials and biological pathogens. Most other purposes are secondary at best.

Any significant and worthwhile arms control effort will require a sustained high level of attention from at least the secretaries of state and defense and perhaps the president, not to mention much of the Congress. It is therefore important not to overload the agenda. Even if many accords on secondary issues could be marginally useful, it would often require a great deal of intellectual and political effort to assess and promote them. Given the host of other issues that policymakers must confront, expecting them to focus on scores of new arms control initiatives would be unwise. Indeed, it could be counterproductive, making arms control an excessive and unwelcome intrusion into the work of busy

policymakers and fostering an image of arms control as a means of constraining legitimate and necessary state power.

The need to have a clear set of technological priorities should drive arms control analysts to focus primarily on the problem of nuclear and biological weapons. Of any class of arms, existing or foreseen, nuclear and biological weapons pose the greatest direct threats to American security. A single first-generation nuclear weapon with a yield of twenty kilotons, detonated at ground level in Manhattan at midday, could kill upward of 500,000 people.[19] Larger thermonuclear weapons could kill millions. An attack with biological agents might kill even more than a single first-generation weapon—for example, if effective civil defense is lacking, an attack on Washington, D.C., with 100 kilograms of high-grade anthrax spores could cause more than a million deaths.[20] And because of the revolution in biotechnology, the technology needed to engineer pathogens to be more virulent, more robust, and more lethal is becoming widely available.

In contrast, a well-executed attack with 1,000 kilograms of sarin gas, a relatively effective chemical weapon, would kill several thousand at most.[21] A radiological weapon would be unlikely to kill many more than those hit by the conventional blast used to disperse radioactive materials, even including deaths from cancer, and would kill hundreds at most.[22] Different delivery vehicles—cruise and ballistic missiles or advanced combat aircraft—are certainly threatening, but without being mated to powerful weapons of mass destruction they generally offer enemies little ability to directly threaten Americans. Space and information weapons might provide military leverage in the future, but unless coupled to lethal technologies like nuclear weapons they have little prospect of causing mass carnage (assuming certain homeland security efforts are made).

To prevent terrorists and extremist states from gaining dangerous technologies, an arms control agenda must continue to stanch the spread of extremely dangerous technologies and arms to all states. Following India's nuclear test in 1974, strategic analysts worried about a world in which scores of countries would possess nuclear weapons—what Albert Wohlstetter termed the "nuclear-armed crowd."[23] Similar worries abound today not only of a world widely armed with nuclear weapons, but also of one in which sophisticated biological weapons are widely proliferated. Such a world would be far more prone to catastrophe than the world we live in now, no matter which states possessed such arms. Some have argued that the carefully managed spread of massively destructive

weapons would be stabilizing.[24] This argument is unpersuasive. Any state that acquires nuclear weapons must confront the prospect of nuclear errors—including the theft of nuclear weapons by terrorists—which are far more likely in a state with a nascent nuclear arsenal than an established one.[25] Moreover, while possession of a nuclear arsenal might provide a state some measure of protection against external attack, its vulnerability while it sought nuclear weapons could invite the external attack its desired arsenal was designed to deter, especially in a crisis. A similar analysis applies to biological arms.

Indeed, proliferation must be stopped or rolled back whenever possible, including even in friendly states. And the growing talk in some quarters that countries such as Germany or Japan should consider their nuclear options in the future should be challenged forcefully. As Joseph Nye noted more than two decades ago, "The great danger is the exponential curve of 'speculative fever'—an accelerating change in rate. In such a situation, general restraints break down and decisions to forbear are reconsidered because 'everyone is doing it.'"[26] The fact that past proliferation has not set off such a chain reaction provides little comfort; merely because the world has been lucky does not mean it should again take the risk of setting off a future speculative fever. In recent years, the only states openly suspected of advanced attempts to acquire nuclear weapons—Iran, Iraq, and North Korea—were widely viewed as backward countries. But if a country like Germany or Japan were to acquire nuclear weapons, the example would change. (Indeed, the nuclear tests of India and Pakistan in 1998 have already exacerbated the danger.) Germany and Japan provide "examples of countries achieving significant status in world politics without nuclear weaponry."[27] Were such countries to pursue nuclear weapons, many weak, unstable states might decide that to be players on the world stage, they too must acquire nuclear weapons.

Arms Control Should Produce Transparency and Early Warning

Like so much else in a rapidly globalizing world, dangerous technology can spread more quickly and more quietly than before. Instead of requiring a new Manhattan Project to develop nuclear arms, a state might now buy much of the necessary technology from rogue states or freelance vendors, as underscored by the sales over more than a decade of Pakistani nuclear secrets to Libya, North Korea, and Iran. Instead of requiring a massive, deliberate mobilization of scientific and engineering resources,

production of biological organisms of increased virulence and lethality can be done covertly—or even inadvertently. This acceleration of weapons acquisition leaves the world with little time to react and fewer options once a proliferation-related development is detected—and with an associated reduction in the chance of reversing the advance.

One goal of arms control, then, should be to enable early detection of dangerous developments. Whether cooperative or coercive tools are used for achieving compliance with restrictions, early warning—and hence possible early action—will make them more likely to be effective.

Outside the realm of cooperative arms control, technical means for detecting proliferation activities need to be improved. But the potential of technology will be limited, given the small physical signatures of properly contained biological operations as well as of shielded nuclear materials. As a result, demands on countries for active transparency—through inspections and intrusive monitoring, for example—will need to be increased. As the technical capacity of states to hide proliferation activities (especially in the biological realm) outpaces the capabilities of outside states to detect them, the burden of opening up and demonstrating the absence of illegal activities must shift to the state of concern.

Arms control will also have to face the problem of intent—even when a state is known to have certain dangerous equipment, it may be impossible to tell whether that equipment is for peaceful or illicit use until it is too late. To confront this danger, arms control will have to constrain more tightly the proliferation of dual-use technologies, no matter what their stated application—not normally banning them but often strongly regulating or limiting their use and availability.

Arms Control Should Be a Complement to Military Force

In its cold war conceptualization, arms control was necessarily viewed as a means of avoiding war among great powers. It was one element of a strategy designed explicitly as an alternative to war. Yet in the new era of advanced technology and terrorism, war among great powers is no longer the greatest security threat to the United States or many other countries. Moreover, there may now be situations in which, paradoxically, war in the near term is preferable to an illusory peace—and in which arms control can help establish the legal, moral, and strategic predicates for taking coercive steps, including military action. This is particularly true for war against relatively small, extremist states violating their international obligations not

to engage in proliferation of dangerous technology. The costs of war to both the United States and the world are often less than they would have been in any U.S.-Soviet war, and the risks of allowing dangerous regimes to remain in power may be greater. In other words, the use of military force to destroy illicit weapons or overthrow a regime may be both more practical and more desirable than it would have been during the cold war.

This is not by any stretch meant as a blanket endorsement for preemptive or preventive military strikes by the international community. Nor should military force be the first coercive instrument to which nations turn when confronting a dangerous state. It should generally be a last resort—or at least a resort turned to only when other possible measures are unpromising or when waiting would be too dangerous.

But with these caveats noted, the central point—that enforcement must be integral to arms control—remains valid. States that refuse to provide the transparency described earlier and to refrain from unacceptably dangerous or ambiguous behavior must be held to account. That is true whether their offending behavior extends over a long period or whether they suddenly seek to abandon previous nonproliferation commitments, for example, by withdrawing from the NPT. Nor should participation in key accords be seen as optional; it is critical that the United States and other countries promote and reaffirm the generally prevailing belief that nonproliferation of weapons of mass destruction is an obligation on all states, not a choice. The details of how to respond to any violators should be determined by the likely costs and benefits of the situation at hand. But all options, up to and including regime change, should be on the table in extreme cases.[28] Arms control should thus serve both to establish high standards of transparency and behavior and to allow ample time for the international community to confront a noncompliant regime before it can obtain or use the most dangerous weaponry. By agreeing on those standards in advance, the international community is far more likely to be able to agree on when coercive enforcement has become necessary. If it can convey its resolve to potential proliferators, arms control can have the even more desirable effect of deterring proliferation in the first place.

Arms Control Must Address the Security of Nations That Do Not Have Weapons of Mass Destruction

For several decades, the world's nuclear powers have understood that they must offer other states incentives not to pursue nuclear arms of their

own. The 1968 Nuclear Non-Proliferation Treaty encoded such a bargain; the nuclear powers offered other states access to nuclear energy technology and also committed themselves to their own eventual nuclear disarmament.

Whatever their merits during the cold war, however, neither incentive is sufficient today. The nuclear powers need not rescind their pledge of eventual nuclear disarmament; perhaps in the very distant future complete disarmament might be desirable and feasible. But fulfilling that pledge is not a realistic objective for the coming decades. If the world's great powers were to abolish their nuclear weapons, it could weaken deterrence and invite unwanted instability while not even addressing most of the security pressures that might make states seek nuclear weapons. And economic incentives can never substitute for robust national security incentives. Few governments in the world can put any other issue ahead of protecting the physical well-being of the state; certainly no American government ever could. If the United States seeks to deny countries certain arms and technologies in the interest of bolstering its security, it needs a serious strategy to help other countries ensure their own. Otherwise, too many states will seek dangerous arms for their own protection, and the enforcement scheme described above will be overwhelmed.

To prevent this, arms control must be explicitly linked to broader American security policy. The United States and its allies should offer to create new security guarantees and in some cases perhaps even new alliance systems, tailored to specific circumstances, for democratic, peaceful countries in other parts of the world. Under some circumstances it can and should offer security guarantees to states that fall somewhat short of that description. These would have to be broad and public assurances, promising U.S. and other allied assistance in repelling any unprovoked external assaults against a country's territorial integrity.

Security assurances like those offered by Russia, the United States, and the United Kingdom to Ukraine when it gave up its nuclear weapons may sometimes be adequate. Those countries promised not to attack Ukraine and further pledged to seek immediate U.N. Security Council action to provide assistance to Ukraine if it ever were attacked.[29]

A more recent example is the Bush administration's stated willingness to offer North Korea a form of security assurance in exchange for denuclearization. Offering this type of accord to a pariah state with a recent history of egregiously oppressing its own people is a more delicate matter, in that it would deprive the United States of the option of using force

for humanitarian or other purposes and could place arms control ahead of all other American foreign policy objectives. Such an approach, poorly constructed, may even undermine broader arms control goals, potentially encouraging other states to develop nuclear programs in order to extract security pledges from the outside world. However, in situations where no good preemptive or coercive options exist, such an accord may make the best of a bad situation—as long as it is carefully conditioned on the behavior of the country in question.

In other cases, security assurances that go much further and provide a more binding NATO-like pledge by the United States and others to treat an attack on a given country as an attack on themselves may be appropriate and required. If the United States is to continue to argue that it needs nuclear weapons and massive military power for its own security, it must offer a vision of equal security to any other nation that respects human rights and avoids violence.

This concept is broad—but it is not radical. Although inconsistently applied in the past, it has been at the core of U.S. security policy since World War II. From that time onward, the United States has formed alliances or close security partnerships (of admittedly varying strength and success) in Europe, Latin America, East Asia, the Pacific, and the Middle East. Today, it has close security partnerships with some seventy countries. The difference is that during the cold war, such alliances were designed to provide extended deterrence (using conventional and if necessary nuclear means) against a global communist threat. Today they are important for a set of more diffuse security challenges, varying from region to region and country to country. But a key thread running through them all is the American sense of realism that acknowledges other countries' legitimate security interests and attempts to address them using security guarantees.

This policy need not be adopted everywhere at once or in the same way. NATO's criteria for admitting a new member require the applicant country to be a democracy and to have a civilian-controlled military and a nonaggressive foreign policy; the country also must commit itself to contributing to the common defense. That a country comply with these NATO requirements should be a goal, though not a strict condition, of any new security arrangements. Several of the countries that may need security assurances in the coming years, such as a number of Persian Gulf monarchies, are not democracies. Ideally, in such cases security assurances would be given on the condition that countries at least make

progress toward participatory governance. Also, as a practical matter the United States would have to handle certain cases very carefully, such as countries bordering Russia (where, if recent history is a guide, Russia might resist). It should also partner with other strong states in offering these relationships to reduce the American burden and to minimize political vulnerability.

But as a vision for future security relations, this collective security concept holds out a cogent and intellectually consistent alternative to the unrealistic goals of abolishing nuclear weapons or making unequal security arrangements. It allows the United States to do what it must, which is to maintain a substantial stockpile of nuclear weapons and its overwhelming military strength, without hypocritically, and thus ultimately unsustainably, demanding that other countries accept a lower standard of national security.

Arms Control Criteria for Today's World

Four decades ago, Thomas Schelling and Morton Halperin set forth the principles that would dominate the arms control consensus for the duration of the cold war. In their seminal book, *Strategy and Arms Control*, they defined arms control as "all the forms of military cooperation between potential enemies in the interest of reducing the likelihood of war, its scope and violence if it occurs, and the political and economic costs of being prepared for it."[30] With these three goals as guides, they set out to find the concrete forms arms control should take in their bipolar world. Their resulting analysis focused on ways to prevent accidental nuclear war and to slow or stop the then accelerating arms race.

Today, the United States faces a decidedly different world. The United States is the world's predominant military power, with any potential peer competitor at least decades away from challenging it. Almost all of America's greatest immediate threats come not from the strength of another state, as they did during the cold war, but from relatively weak states and terrorist organizations. Arms control needs to accept these new realities and work within them to enhance American security. That does not mean Schelling and Halperin are now wrong, only that the geostrategic foundation on which they—and American policymakers—built their construct for arms control is gone. It makes sense to emulate their approach, which explicitly subordinated arms control strategy to broader security strategy. But that approach needs to be adapted to today's circumstances, not used

as an excuse for clinging to decades-old conclusions or, conversely, for rejecting arms control altogether.

It should be clear already that the goals of arms control must change—and that so must the conception of acceptable methods of control. Halperin and Schelling's restrictive requirement that arms control must involve "military cooperation between potential enemies" made sense during the cold war. Such a formulation was automatic for a program conceived during the height of the superpower conflict, when aggressive confrontation with the enemy, Russia, was unthinkable. In contrast, today military confrontation in the pursuit of arms control is indeed thinkable and in some cases possible—the 2003 war in Iraq is but one example. The United States now pursues arms control with Russia, not because it suspects that the Russians have ill intent toward the United States, but to keep Russia's weapons out of the hands of terrorists. Arms control, then, must encompass not only cooperative arrangements among adversaries, but also cooperative arrangements among friends. Most of all, it must be an integral part of a strategy toward especially dangerous enemies that establishes transparent criteria for coercive action, and hence the predicate for action, when those enemies violate international principles or engage in other dangerous behavior.[31] Often, this approach will deter proliferation before it occurs.

Certain situations may still call for cold war–style arms control. For example, as we discuss later, confidence-building measures might be pursued between India and Pakistan and conventional arms control might work on the Korean Peninsula. Nonetheless, U.S. arms control strategy needs new foundations and new guidance. In summary, we propose three new goals to guide future arms control efforts:

—Prevent the spread of the world's most dangerous technologies, focusing on terrorists and states that might aid them.

—Create political predicates for coercive action to contain, manage, or reverse proliferation should it occur.

—Improve security from war and terrorism for peoples and states not actively hostile to the United States.

The first goal leads naturally to a focus on nuclear and biological technologies, because they are the world's most dangerous. It also means that preventing proliferation of weapons to terrorists or weak states will normally take precedence over constraining great power arsenals, in the rare instances that those two goals are in conflict. The second goal directs the United States to integrate coercive action and arms control in new ways.

It also leads to an emphasis on transparency, which will be needed to determine which states should be targeted for coercive action. The third goal points out that arms control will not succeed unless all peaceful countries possess a viable vision for enhancing their security.

The days of cold war arms control are gone for good. The future of arms control must be based on the clear understanding that today's strategic environment is characterized more by the problem of weak states and dangerous nonstate actors than by competition among the great powers. Arms control should harness American military power as a force for good that should not, as an end, be constrained by treaty, although it should be wielded very carefully. In the past, fully formed arsenals were the primary danger; today, dangerous enabling technologies are the greatest worry. These are new and fundamental changes. They mean that the organizing principles of the business of arms control, and the priorities of policymakers, need a fresh focus for the age of terror.