Harold Brown

New Nuclear Realities

What factors influence nations to decide to develop and deploy nuclear weapons? What can be done to prevent or inhibit further proliferation? Can existing nuclear weapons stockpiles be reduced? Can they be made less dangerous, less likely to be used through "accident, or folly, or madness?" Would the world not be better off if we made nuclear weapons just go away? Can we do that? Why not just do it? The United States would be more secure in a world without nuclear weapons, and some former officials and presidential aspirants have called for the adoption of a nuclear weapons–free world as a concrete goal. Yet, the lessons of history warn that such an approach could instead divert from or distort counterproliferation efforts, harming U.S. and global security. Instead, U.S. policy should be directed at engaging the international security issues that underlie nuclear proliferation.

Nuclear Proliferation: The Lessons of History

During the summer of 1958, three different international conferences took place in Geneva. One, between U.S. and Soviet official delegations, was directed at seeking measures to avoid surprise nuclear attack, the possibility of which had become more worrying with the new prospect of ballistic missile deployment. Second, an Atoms for Peace conference sought to bring the benefits of nuclear power and nuclear medicine to the nations of the world while discouraging them from pursuing nuclear weapons. A third conference, comprising four delegations each from the NATO and Warsaw Pact nations, centered on detecting nuclear weapons tests.

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Although the discussions at the nuclear testing conference were technical on the surface, the political goal of government leaders on each side was principally to inhibit further nuclear weapons development by the three possessor nations—the Soviet Union, the United Kingdom, and the United States—but also, by example or further diplomatic efforts, to deter their acquisition by others. During the conference, King Feisal II of Iraq and his prime minister, Nuri as-Said, were killed, and the latter's dismembered body was dragged through the streets of Baghdad in the course of an army coup. That event was a reminder of the importance of limiting the membership in the nuclear weapons club to prevent their acquisition by unstable governments.

Nuclear weapons proliferation is just as dangerous as most people have always believed.

Soon thereafter, in December 1960, British scientist and novelist C. P. Snow asserted that a dozen nations would be capable of building atomic bombs within six years.[1] He added that if they did, it was "a mathematical certainty" that, within 10 years, some of those weapons would be exploded through "accident, or folly, or madness." Although calling it a mathematical certainty was irresponsible and novelistic rather than scientific, few could deny that nuclear proliferation was dangerous.

President Dwight Eisenhower had tried to reduce the risk of proliferation with the Atoms for Peace program, which offered U.S. help to other countries with the civilian uses of nuclear energy and discouraged the proliferation of nuclear weapons. In practice, it often worked against the latter goal by encouraging dissemination of reactor technology, the first step on one path to weapons-grade fissile material. Nonetheless, nuclear-weapon powers accumulated more slowly than the more apprehensive predictions had forecast, with France joining the club in 1960 and China in 1964. Those developments were rather consistent with the global power structure as then seen. Except for the anomalous position of Taiwan in China's UN seat, the permanent Security Council members were the possessors of nuclear weapons. In theory, this arrangement could produce stability, but in the event, the situation was less comforting. In the 1970s, India, Israel, and Pakistan acquired nuclear capabilities. The United States and the Soviet Union missed chances to act in ways that could have prevented, slowed, punished, and perhaps even reversed some of those developments. Still, the nonproliferation regime, though leaky, had not collapsed. Indeed, the successes suggest that countervailing forces are possible. Brazil, Argentina, and, much later, Libya backed away from incipient nuclear weapons programs, and South Africa dismantled a nuclear weapons capability. Following the demise of the Soviet Union, several of the break-

away republics—Belarus, Kazakhstan, and Ukraine—gave up not only nuclear weapons but ballistic missile delivery systems as well.

Nuclear Deterrence...

During the Cold War, the possession of massive nuclear arsenals by the United States and the Soviet Union worked to deter both sides from using those arsenals against each other in a direct attack, either by surprise or as an extension of conventional war. Paradoxically, perhaps, it also inhibited direct engagement of their conventional forces with each other, because of the concern that such an engagement would escalate to a nuclear conflict that would destroy both sides.

Instead, the two superpowers engaged in armed conflict with others, sometimes with clients of the other side. Although not the only factor that kept the two military superpowers from a hot war with each other, nuclear deterrence worked at both levels. It was not a trivial achievement because it is difficult to find other examples during recent centuries of heavily armed, ideologically opposed major powers with conflicting interests that managed to avoid direct armed conflict.

Yet, the advantages of the nuclear balance of terror came with a price: mutual annihilation if mutual deterrence failed and a conventional war occurred, escalating to a massive nuclear exchange. The strategy of mutually assured destruction worked, at least in that case; and there was no better alternative realistically available, given the situation beginning in the 1950s. Opinions differ about how close it came to failing during the Cuban missile crisis. Nuclear deterrence seems to have worked also, at least so far, in the case of India and Pakistan, though not as well. They have engaged in sporadic conventional combat, although at a much lower level of violence than they did before they both had nuclear weapons.

...And Its Limits

Does this mean that nuclear proliferation will stabilize international relations, reducing the chances of war between adversary nations and of the use of nuclear weapons, exactly the opposite of Snow's prediction? That is more or less Kenneth Waltz's conclusion.[2] Yet, the stability of even the one-on-one case depends on the internal stability, rationality, and command-and-control arrangements of the respective regimes. Although even the most ruthless tyrants may find it difficult to enforce an order that those around him would expect to lead to the total destruction of their country and themselves, there are accidents and there are suicidal individuals.

Moreover, what works one on one does not necessarily work many on many. Additionally, the more nations that have nuclear weapons, the greater the possibility of leakage to nonstate actors, some of whom are not deterrable because there may not be any goods that they value that can be threatened to produce deterrence. Nuclear weapons proliferation is just as dangerous as most people have always believed.

Motives for Acquisition

Motivations for the acquisition of nuclear weapons vary from one prospective nuclear entity to another. For terrorist groups, the wish to be able to inflict maximum damage is enough of a reason. For nations, the situation is more complex, with a mixture of drivers of different weights. As McGeorge Bundy points out, international prestige played a significant role in the British and French decisions.[3] It provided what each wanted in the way of "a place at the table." Internal prestige can also play a role; elements of the Indian scientific community rather than the Indian military are believed to have led the push for India's nuclear weapons program to show that they could.

The overwhelming motive, however, is usually the belief that the possession of nuclear weapons will improve national security or that not having them will damage it. The rationale can take several forms. The ability to retaliate with nuclear weapons is seen as a deterrent to nuclear attack on the possessor. It is also seen as a deterrent to conventional attack, especially a conventional attack by an opponent considered to have an overwhelming advantage in conventional forces.

A version of this reasoning is surely part of the motivation behind the Iranian and North Korean programs. Although a nuclear exchange with the United States would not be symmetrically damaging, the prospective loss to the United States could well prompt second thoughts about whether an attempt at regime change was worth the risk. Those two states are not the first to have been so motivated. Israeli beliefs about conventional arms inferiority, whether justified or not, were behind its nuclear weapons program, as were Pakistani concerns about Indian conventional superiority and perhaps India's concern about China. Chinese concerns about conventional and nuclear attack by the Soviets and the United States played a role in China's decision. Some of the later arrivals and the newer prospects also see the value of a nuclear weapons arsenal for the purpose of intimidating, threatening, and influencing regional rivals and neighbors.

Iran is perhaps a more complex case. It fought a punishing war with Iraq that included missile and chemical warfare against civilians as well as troops. Iran is driven by regional animosities, prestige, its own ambitions, the existence of Israeli nuclear weapons, and the perception of an overwhelming U.S. conventional capability that might be used to overthrow the Iranian regime.

The U.S. nuclear weapons arsenal has not played a significant role in motivating Iranian nuclear weapons ambitions, although talk of using it to destroy Iranian nuclear facilities could change that.

Because it is their own security, as they see it, or their ambitions, as the United States sees it, that principally drives states toward nuclear weapons acquisition, U.S. nuclear weapons are in fact an excuse rather than a reason for such programs; it is more likely to be the perceived threat of U.S. conventional capability that does so. Thus, reducing U.S. nuclear weapons deployments and stockpiles, backing off from the hair-trigger readiness of U.S. nuclear forces, subscribing to test bans, and not designing new nuclear weapons will have little or no direct effect on the behavior of potential nuclear weapons states. Such policies and actions, however, can help gain international support for other measures that will. Moreover, there are other good reasons, such as strategic stability and the reduction in the chance of accident or theft, for adopting some or all of them.

The U.S. nuclear weapons arsenal has not played a significant role in motivating Iran.

New Instabilities

Snow's 1960 prediction was not fulfilled over the following 40 years, but the prospects for the next 40 look less encouraging. The 1990s and especially the 2000s have seen an escalation in proliferation activities and concerns. Why has the likelihood of proliferation increased after several decades during which the most alarming predictions of the size of the nuclear club failed to materialize?

Declining Security Ties with Allies

To some extent, the predominance in international security matters of the rivalry between the two military superpowers during the Cold War froze the process or at least inhibited it. Their respective allies or clients depended on those two for their ultimate existential security. That was the case even for France and the United Kingdom, the only two countries to become nuclear powers until 1964. Furthermore, in the case of China the drive for nuclear weapons was the principal occasion of the split with the Soviets.

Both the United States and the Soviet Union discouraged members of their respective blocs from pursuing nuclear arms. Japan may not have needed much discouragement, but some in Germany, not entirely sure of the efficacy of extended deterrence, were offered a substitute for an indigenous nuclear

weapons capability in the form of the proposed Multilateral Nuclear Force, to be operated jointly with NATO allies, which in any event never materialized.

In at least two cases, South Korea and Taiwan, the United States forced a discontinuance of fledgling nuclear weapons programs by threatening to withdraw security commitments if the programs continued. For the non-Soviet Warsaw Pact members, the issue of a national nuclear weapons capability could never have arisen, given Soviet control and mistrust. The Soviets also had considerable influence on the so-called nonaligned countries, which in practice actually aligned against the United States in most cases.

U.S. nuclear weapons are in fact an excuse rather than a reason for proliferation.

There were exceptions. Israel resisted sporadic U.S. attempts to dissuade it from acquiring its publicly unacknowledged nuclear weapons stockpile. India and Pakistan, respectively associated with the Soviet Union and the United States, proceeded to engage in their own nuclear arms race. To have discouraged each of those three in the run-up and taken punitive action in the event so as to discourage other aspirants would have required a substantial degree of U.S.-Soviet cooperation and a willingness to punish friendly countries that was probably beyond both of them, even if the superpowers had been more attentive to the danger. Short-term considerations in the Cold War rivalry weighed too heavily.

The Atmospheric Test Ban of 1963 and the Nuclear Non-Proliferation Treaty (NPT) of 1968 helped to inhibit some countries. The latter, however, suffers from a major deficiency: Nothing in it prevents a signatory from producing weapons-grade fissile material and exploring the non-nuclear components of a weapons program within the rules of the NPT, then leaving the treaty within three months under its own withdrawal clause (Article X) and producing the weapons within months. In fact, that was the North Korean pattern. The intention to produce nuclear weapons is prohibited by the NPT but is not easily verified, only inferred, as the Iranian case shows.

With the end of the Cold War, the ability of the superpowers to suppress proliferation among the allies and clients of each decreased as their respective umbrellas became less necessary and their corresponding security influence fell. As a result, the decades following the end of the Cold War have seen increasing regional instability in southeastern Europe, the Caucasus, the Horn of Africa, Central Asia, and above all the Middle East and Persian Gulf. The end of Communist dictatorships in some cases removed an iron hand that had held together ethnic groups despite various grievances.

At the same time, the evident ability of the United States to project power globally against those it considered dangerous, without having to be as con-

cerned by Russian or Chinese reactions, as shown by the Persian Gulf War, caused potential targets of U.S. military action to value the possible deterrent effect of nuclear weapons of their own more highly.

Transnational Terrorists: The Undeterrable

Nations are deterrable, at least with regard to nuclear attacks on the United States. This notion applies even to totalitarian states with a charismatic, all-powerful leader. It takes more than one person to launch a nuclear attack, and the prospect of lethal retaliation and personal extinction is likely to inhibit the execution of the ordered attack by some in the chain. Even if Washington decided that nuclear retaliation was not the most appropriate response to a nuclear attack on one or two U.S. targets, the regime that launched it and those responsible would not survive. Nonetheless, a Hitler with nuclear weapons, facing a lost conventional war, would not leave one entirely confident about that line of reasoning to assure deterrence.

Even if governments, however problematic their behavior and intentions, can with considerable confidence be deterred from using nuclear weapons, with the possible exception of their behavior in the face of total military defeat and prospective loss of national existence, there remains the problem and prospect of acquisition of nuclear weapons by nonstate actors. Some of these entities, with transnational character and motivations that go beyond normal political goals, have shown a willingness to employ any available weapon to cause maximum damage to civilian targets. There is no reason to believe that they would balk at the use of nuclear weapons (or biological ones, which have less predictable, less immediate, and less controllable effects).

These groups have few assets to be held at risk of retaliation, though in the case of religiously motivated groups there may be shrines or centers that could serve that purpose. It has been suggested that the threat to destroy religious centers sacred to the extremists might work. The effect on relations with the rest of their nonterrorist coreligionists, however, would make that deterrent less than convincing.

The possibility of nuclear weapons acquisition by transnational terrorists creates dangers of a new dimension. Acquisition might occur through deliberate transfer from a state for its own ends, through transfer from some group within a fractured state, by theft of bombs or of fissile material of a sort that can be made into a bomb with modest technical and industrial facilities, or, much less feasibly, by building a bomb from scratch. That argues for greatly increased efforts to prevent to the extent possible further proliferation and to safeguard existing stocks of fissile material.

Fortunately, the chance of such groups developing and constructing nuclear weapons from scratch themselves is low. Although the information revolution and the global growth of open and black markets have put critical technologies in reach of many new actors, the major technical and industrial facilities required are beyond terrorist groups' means. This is not the case, however, for chemical or even some biological agents. Yet, they may be able to obtain nuclear weapons or fissile material, much of which is less well-guarded, by purchase, transfer, or leakage from states that have them. A few critical masses of weapons-grade uranium can be turned into a nuclear bomb with modest technical facilities, whereas plutonium takes more advanced facilities to make into a bomb. In either case, characteristics of the fissile material or of the nuclear debris from an exploded bomb could provide evidence of the source, if we had assembled a library of such characteristics.[4]

In sum, the demonstrated diffusion of potential and actual nuclear weapons capability to additional states, the cascade effect likely to result as neighbor emulates neighbor, and the possibility of leakage to undeterrable nonstate actors make nonproliferation of nuclear weapons a higher priority than ever. That includes preventing the acquisition of nuclear weapons by states that do not now have them, rolling back existing capabilities to the extent feasible, and safeguarding existing stockpiles from transfer or leakage. The strongest possible measures to inhibit acquisition of nuclear weapons by nonstate actors are surely justified.

Inhibiting Proliferation

In some cases, nations have abandoned programs to develop nuclear weapons or even given up existing deployed nuclear weapons. This has been the result either of the provision of material incentives or security assurances or a realization that being a nuclear-weapon state neighbor to another nuclear-weapon state can be less secure than both being non–nuclear-weapon states.

Brazil and Argentina backed away from nuclear programs on the latter grounds. Several of the former Soviet republics gave up not only nuclear weapons but also missile delivery systems in return for a combination of security and economic promises. South Africa reversed its nuclear-weapon status when the post-apartheid regime decided it was not in danger, as its predecessor had believed itself, from outside attack. These are each particular cases in atypical situations, but they suggest that multiplication of nuclear-weapon states need not always be a one-way street.

There are three ways to prevent, inhibit, or delay the creation of new nuclear-weapon powers: preventing the intentional or unintentional spread of weapons and technology, employing sanctions, and offering economic and security incentives. First, a set of nations engaged in nonproliferation can seek

to prevent the transfer of nuclear weapons themselves, fissile material, and the relevant technology and manufacturing capabilities for the fissile material and for the weapons design. Knowledge of the design of fission weapons is widespread, so aside from nuclear weapons themselves, the fissile material is the key missing ingredient.

Assuring security of existing stockpiles is central. Perhaps the greatest achievement so far in limiting proliferation was the successful effort during the Clinton administration to persuade the governments of non-Russian former republics of the Soviet Union to transfer their nuclear weapons to the new Russian state. The security and economic carrots, such as the NATO Partnerships for Peace and prospects for trade, offered to obtain those actions provide a useful lesson for future attempts to limit or reverse nuclear weapons programs. Another program that has been at least partially successful in reducing proliferation risks is the Nunn-Lugar Cooperative Threat Reduction program, aimed at removing or safeguarding fissile materials that are not parts of weapons and improving the security of weapons stockpiles themselves.

The 1990s and 2000s have seen an escalation in proliferation activities and concerns.

Vertically integrated nuclear power programs, which include fuel production and reprocessing, have the potential to provide what is needed to acquire the weapons-grade fissile material. To respond to nations claiming to need nuclear-generated electricity, it would be possible to do uranium enrichment and fuel reprocessing at internationally controlled facilities.

Various other arrangements, if agreement can be reached among the states that possess or seek the relevant capabilities, would inhibit the acquisition of weapons-grade fissile material by new aspirants. Among others, these include agreements to stop producing weapons-grade uranium, to stop separating plutonium produced in reactors from the accompanying fission products for use in breeder-reactor cycles, and to control the production and operation of high-technology centrifuges that are the easiest uranium separators to hide.

The second general approach to denying nuclear weapons to new aspirants is to employ sanctions to punish nations that embark on nuclear weapons programs to make them stop. Sanctions can range from resolutions of disapproval to trade and financial penalties to blockades to attacks on nuclear facilities or even, although it is now somewhat discredited, regime overthrow. Their flaw, as is also the case with some of the technical and logistic methods described above, is that nonmilitary sanctions work poorly unless practically all potential supplier nations subscribe to the denial, whether of investment, financial flows, trade, or nuclear-related material.

The history of the effectiveness of such sanctions is mixed at best. They played a major role in the change of regime in South Africa and perhaps a significant one in Libya's renunciation of its nuclear program. There have been many failures, however, in attempts to use sanctions to pressure states to change policies less central to them than a determination to acquire nuclear weapons.

A third approach is to add carrots, such as trade or financial incentives, or to use them rather than sticks. For example, if one of North Korea's reasons for a nuclear program is to trade it for material benefits, carrots could work, although extortionists tend to retain their threats so as to produce an annuity. If the most important reason for nuclear weapons programs is the belief that they improve national security, as is likely the case, the best carrot is an alternative provision of security that the recipient sees as preferable. This may be difficult to provide, but its feasibility can be determined only by trying to negotiate such a deal.

In effect, that is what the Bush administration finally is attempting to do in the six-nation talks with North Korea, six years after jettisoning the Clinton administration's earlier incentives-based approach that had produced a freeze of North Korean plutonium extraction. A corresponding approach with Iran is worth trying. What would be required in the way of trade, financial, and above all security commitments (perhaps an assurance of no regime overthrow) would differ in each of those and other cases. Moreover, whether such a deal could be reached on terms acceptable to the United States is unclear. Iran's idea of "respect for Iran," as Kenneth Pollack has suggested, may involve more than any U.S. administration could stomach,[5] but the workability of such an approach will become clear only if the United States gives it a try.

A World without Nuclear Weapons?

Where does this situation take us in formulating U.S. nuclear strategy? If, by some miracle, all fissionable material disappeared and nuclear weapons were not possible, the United States and the world would be better off. In fact, the United States, the world's dominant possessor of conventional military power, would benefit disproportionately, an effect not likely to go unnoticed by others. U.S. predominance in conventional military capability would not then be undercut by the possible use of nuclear weapons against it, although other, less intimidating unconventional weapons and asymmetric opposing strategies would remain. Other countries that now have or seek nuclear weapons to deter or intimidate their neighbors would have to find different strategies. This might not result in more stable conditions as compared with continued nuclear proliferation. Yet, if and when the instability resulted in conflict, the nuclear cloud would not appear.

Because the United States would be better off in such a world, it is sometimes proposed that the United States should simply give up nuclear weapons. Yet, that is not the same thing as having nuclear weapons disappear. A world without them is attractive; a world where the United States abandons them as part of an agreement that others also will is much more problematic. Even if there were no nuclear weapons, the knowledge of how to make them would remain. Thus, to be sure that none could be quickly produced would require the safeguarding or denaturing of many hundreds of tons or more of fissionable material.

A different global political and social order is necessary to make a nuclear-free world possible.

Moreover, assuring than none of the tens of thousands of nuclear weapons that now exist had survived the agreed destruction of existing stockpiles would be impossible in a world not universally governed by an all-powerful and all-intrusive regime. North Korea may have six to eight nuclear weapons now, and it would be impossible to know exactly how many they have and whether they were all destroyed. Because some nuclear weapons will remain, the United States ought to continue to have them, have a rationale for having them, and inevitably have a doctrine for their use as a deterrent, which in turn implies a doctrine for their possible use in retaliation.

A case can be made that committing fully to the abolition of all nuclear weapons and making that goal a driving force in every national security and diplomatic decision is one way to a more peaceful and orderly world. Although success in antiproliferation efforts and in deemphasizing the role of nuclear weapons in international security would help progress toward such a world, that case has it backwards. Rather, a peaceful and orderly world is a prerequisite for the abolition of nuclear weapons. As to which comes first, a peaceful and orderly world or one with no nuclear weapons, it may be instructive to compare two historical analogues.

In 1928 the Kellogg-Briand Treaty "outlawed" war. More precisely, it committed its 15 signatories, including Germany, Italy, Japan, and the United States, to "renounce it [war] as an instrument of national policy." The United States, in the process of Senate ratification, reserved the right of self-defense and denied any obligation to take action against violators. Although the false promise of peace and security suggested by the treaty was by no means the only cause of the failure to deal with aggressors during the 1930s, it did contribute to a sense that because war was counterproductive for all, it would not happen. To some extent, the treaty became a substitute for difficult actions or an excuse for not taking them.

In June 1947, Secretary of State George Marshall proposed a program for European reconstruction, including what became a U.S. commitment, in 2007 terms, of $100 billion. Motivated in large part by concern that a devastated and impoverished Europe would be easy prey to a Communist takeover, this program was implemented with specific goals and put major responsibility on the western European countries—Joseph Stalin forbade the Soviet-dominated Eastern Europeans from participating—to cooperate with each other, as well as for helping to use the aid effectively.

Distortion is inevitable when a practical impossibility is adopted as a goal.

The Marshall Plan was a great success. One of its effects was to help bring to an end the wars that had characterized relations among western European nation-states since their establishment in the fifteenth and sixteenth centuries. Yet, peace was an effect; cooperation among the Europeans was a required condition, not a goal. If it had been set forth as the reason for the Marshall Plan, it would have made approval of the plan not more but less likely. Had it been seen as a program to create a European superstate, it would have gotten nowhere.

Peace, like an end to nuclear weapons, is the result rather than the cause of the security condition of a regional or global international community. It will take a global political and social order quite different from the current situation to make a world without nuclear weapons possible. One example would be an international order rather like mid–twentieth-century Denmark or Sweden, writ large. Those were rather homogeneous and unitary polities, functioning under the rule of law and with a law-abiding, egalitarian citizenry. A quite different example is seventeenth-century Japan, where firearms were suppressed after having been extensively used during the previous century's wars. That society was hierarchical, highly disciplined, and extremely intrusive. Neither of those models is at all like the current nature of international relations. Moreover, the assertion that we intend to abolish nuclear weapons is likely to gain less in goodwill and cooperation in nonproliferation programs from others than it will lose when it becomes clear that there is no believable program or prospect of doing so.

Such a backlash has already occurred in the case of Article VI of the NPT, which commits the nuclear powers to "pursue negotiations in good faith … to nuclear disarmament" and also to "general and complete disarmament." The fact that nuclear disarmament has not been achieved during the 37 years since the commitment entered into force continues to provide proliferators with a rationalization to their own publics for proliferation and an excuse for others to avoid cooperation with U.S. nonproliferation efforts. The elevation of a

zero-nuclear-weapons goal to a driving force would intensify those effects. By drawing attention to the failure to achieve the (unrealistic) goal of abolishing nuclear weapons, it would strengthen that excuse.

Moreover, if it is more than a slogan, the zero-nuclear-weapons commitment would skew specific decisions that should indeed be influenced but not completely decided by nuclear proliferation considerations. Two examples are the readiness of nuclear forces and the proposed U.S. nuclear agreement with India. A strengthened explicit commitment to the abolition of nuclear weapons would argue strongly against a cooperative deal with a state that is augmenting its nuclear weapons program and strongly for an extreme reduction in nuclear weapons readiness. This is not to say where the balance of national security considerations should otherwise come out in such cases, only that zero nuclear weapons as a central commitment severely distorts the debate. Such distortion is inevitable when a practical impossibility is adopted as a goal. To deal with proliferation threats today, addressing the security concerns of potential nuclear states provides a more accurate and germane focus for U.S. policy than the more tangential issues of the size or status of U.S. nuclear programs. Those security concerns are often driven by U.S. conventional military capabilities and the stated or implied threat of U.S. military action.

More Realistic Goals

The various proposals for improving the security of existing stockpiles, internationalizing control of uranium-enrichment and fuel reprocessing technologies, limiting the degree of enrichment, and globally halting production of fissile material for weapons all would be helpful steps in reducing possible leakage from state to nonstate actors.[6] Negotiating such agreements will pose a difficult diplomatic challenge. Intensive and extensive inspections will be needed. The states of most concern will be unlikely to subscribe, but bringing suppliers around should be easier.

The Bush administration's Proliferation Security Initiative and the U.S.-Russian Global Initiative to Combat Nuclear Terrorism are also a useful start. A comprehensive nuclear test ban would be mostly symbolic but could facilitate sanctions against successful proliferators that felt a need to demonstrate a capability, even if they had not signed up.

Reducing U.S. deployed nuclear weapons, say, to 1,000, preferably as part of an agreement with Russia, as well as sharply cutting reserve stockpiles and increasing launch delay times, are steps justifiable on other grounds, such as reducing the chance of accidental or unauthorized launch. As in the case of the test ban, they act more to remove an excuse for proliferation than they do to re-

duce the real forces that drive it and thus are likely to be marginal, though positive, in reducing proliferation incentives in potential proliferating states. The greater value lies in helping to persuade other nuclear and supplier powers to go along with various measures against proliferation by indicating U.S. good faith.

The same is true in reverse of the ill-advised push by elements in the current administration to field new, low-yield nuclear weapons and new nuclear designs of penetrating "bunker busters." They would provide further excuses for aspiring nuclear-weapon states and alienate those whose cooperation is sought while providing no significant and perhaps negative security gains. Shaking the U.S. nuclear stick at adversaries probably encourages proliferators.

Addressing Contemporary Proliferator Risks

Although a world free of nuclear weapons is not a foreseeable prospect, impeding proliferation is an important consideration in U.S. national security policy. Yet, to the extent that fear of the United States motivates proliferation, the real drive for nuclear weapons capability in Iran and North Korea, as it was in Libya, does not come from fear of U.S. nuclear capability or the content of U.S. nuclear policy. It will not be eased by reductions in or the downplaying of U.S. nuclear capability, justified as such actions are.

Rather, it comes from U.S. conventional power-projection capability and the concern that it may be used to intimidate, attack, or overthrow regimes, as it has done before. Since the end of the Cold War, the United States has been the sole superpower. Inevitably, that state of affairs has led others to balance against the United States. U.S. behavior since 2000 has enhanced that tendency, and the United States has seen much of its nonmilitary dominance eroded. Yet, because the United States remains the sole military superpower, that power projection capability is not going away, however much the appetite for using it may have been reduced by the events of the last four years and by the appreciation that asymmetrical warfare may be available to the side inferior in conventional arms.

In the post–World War II world, deployment of nuclear arms and the threat of their first use have been the approach of the actual or potential combatant that considered itself inferior in conventional military capability in a given theater of war. That is why the United States deployed nuclear arms in Europe in the 1950s against a Soviet force seen as greatly superior to those of NATO in conventional capability. Eisenhower had threatened to use nuclear weapons to end a politically unacceptable stalemate of attrition in Korea against numerically superior Chinese forces. It is notable that Russia and China, in a state of mutual nuclear deterrence with the United States, now talk of potential first use of tactical nuclear weapons against a superior conventional

military power—the United States—just as the United States used to do in the 1950s, 1960s, and 1970s against the Soviet Union.

As to new or aspiring cases, North Korea and Iran are not going to be nuclear peers of the United States. The North Koreans do not even aspire to dominate Northeast Asia, although the Iranians' aspirations for the Middle East are an element in their nuclear goals. Both want to deter U.S. conventional military action against them. In these cases (or in that of Egypt or Saudi Arabia or Turkey, which might follow them down the proliferation trail), however, their security situation principally drives or will drive their nuclear policies. If they are to renounce or not seek nuclear weapons, they would have to decide that they are more secure without them, in some combination of an existential (survival of the state) and a strategic (survival of the regime) sense.

> Reducing U.S. deployed nuclear weapons, say to 1,000, is justifiable on other grounds.

To that end, some combination of positive and negative reinforcements is needed. The former may include economic benefits, diplomatic acceptance, regional security arrangements, and security guarantees. Some sticks may include isolation, diplomatic and economic sanctions, military threats, and actions across a spectrum of force levels. Only direct and comprehensive negotiation can reveal whether success and what level of restraint is possible. It worked with Libya. It may conceivably be in the process of working to some degree with North Korea. In retrospect, it seems that it might have been working with Iraq. It could potentially work with Iran, but it surely will not work if the United States proceeds unilaterally, without the cooperation of the other big powers and all of the advanced industrial nations as well as some of the more problematic ones.

Is There a Future?

The outlook is dark but not despairing. Iran could well produce nuclear weapons during the first half of the next decade. That development is likely to generate pressure on others in the region, such as Egypt, Saudi Arabia, and Turkey, to follow suit. It is doubtful whether a U.S. security guarantee, even if offered and accepted by those nations, would then be seen as a sufficient substitute for a nuclear weapons capability of their own. The Middle East is not Western Europe, Iran is not in a global struggle with the United States as was the Soviet Union, and 2010 is not 1950.

The situation in Northeast Asia appears less ominous, even if current indications of a North Korean willingness to halt further nuclear weapons pro-

duction fail to materialize. Japan and South Korea have long-standing U.S. security guarantees. China and Russia are motivated to constrain North Korea rather than use it to disturb the United States. Yet, North Korea does have a history of selling arms and weapons technology to sustain its wretched economy. Failure to halt the North Korean nuclear weapons program would reopen the prospect of such programs in Japan and South Korea, both of which have the technical and industrial capability to acquire nuclear weapons within a few years of an affirmative decision.

In the light of these factors, nuclear weapons could well be used some time before 2020 in a regional war or leaked to a nonstate group that uses one against a first-world city. In either case, the casualties would be horrific. Yet, the major powers would then be sufficiently motivated by self-preservation to create a real international security regime, as the UN Security Council was originally intended to be, to deal with the national, sectarian, economic, and other conflicts and conditions that produce such disasters.

Even this silver lining would be somewhat tarnished. The vulnerability of modern urban society to the catastrophic effects of weapons of mass destruction would dictate that such an international security regime impose pervasive surveillance and inspections, a loss of individual privacy, and suppressive actions. The risk is that the resulting world order would resemble mid–twentieth-century Denmark less than it would an authoritarian seventeenth-century Japan. In seeking to escape such a future scenario, a redoubled effort to reduce the probability of a nuclear-armed Iran is more relevant that adopting a zero-nuclear-weapons goal.

Notes

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3. McGeorge Bundy, *Danger and Survival* (New York: Vintage Books, 1988).
4. Caitlin Talmadge, "Deterring a Nuclear 9/11," *The Washington Quarterly* 30, no. 2 (Spring 2007): 21–34.
5. Kenneth M. Pollack, *The Persian Puzzle: The Conflict Between Iran and America* (New York: Random House, 2005), pp. 396–397.
6. Sidney Drell, "The Challenge of Nuclear Weapons," *Physics Today* 60, no. 6 (June 2007): 54–59.