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Crossing the Nonproliferation-Disarmament Divide¹

The debate surrounding the relationship of nuclear disarmament to nonproliferation is a hardy perennial within the community of nuclear weapon experts and policymakers. A central, and polarizing, question is whether progress on one determines progress on the other. Wrestling this question to ground is hardly academic, since states make assumptions about that relationship when setting national policies on the whole panoply of issues on the international nuclear agenda. This essay suggests that although the evidence linking disarmament steps to specific nonproliferation outcomes is thin,

decoupling the two as a matter of policy or strategy would be enormously counterproductive, precipitating a crisis of confidence in the nonproliferation regime and the role of arms control in stabilizing major-power relations. Because neither nuclear deterrence alone nor nuclear disarmament alone can guarantee international stability, the wider effort to address nuclear weapon risks requires updated strategies that hold each strand in balance. In a period of geopolitical transition, how well the United States and others rise to this challenge may well be a defining strategic issue of the next decade.

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ASSESSING THE NONPROLIFERATION-DISARMAMENT NEXUS

Does history support the claim that disarmament steps slow proliferation? A fair reading of the record is largely inconclusive and not terribly revealing. On one side of the ledger, during the 1990s and into the 2000s, Iran and North Korea, the two most significant proliferation cases of the last two decades, accelerated their covert nuclear and missile programs at a time when the United States and Russia, the two largest holders of nuclear weapons, were reducing their strategic nuclear stockpiles to levels not seen since the early years of the Cold War. This was also a period in which the A. Q. Khan network was peddling black-market nuclear technology and India and Pakistan conducted a series of nuclear weapon tests in May 1998, bringing their bombs out of the basement and ending proliferation reversal as a realistic policy option for South Asia.

On the other side of the ledger, the 1990s produced a series of major nonproliferation wins: indefinite extension of the Nuclear Nonproliferation Treaty (NPT), adoption of the Additional Protocol to International Atomic Energy Agency (IAEA) safeguards agreements to help detect covert proliferation programs, and the wholesale update of the Nuclear Suppliers Group policies and control lists to regulate exports of sensitive items and technologies. There was more good news. In 1991, South Africa dismantled nuclear weapons it had developed in secret and joined the NPT as a non-nuclear-weapon state, becoming the only nation in history to build and give up the atomic bomb. In the same year, Brazil and Argentina gave up their presumed nuclear weapon programs following the transition of each from military to civilian rule. And by 1995, Ukraine, Belarus, and Kazakhstan had returned nuclear weapons inherited after the collapse of the Soviet Union and joined the NPT as non-nuclear-weapon states.

One problem with making judgments about proliferation choices is that the sample size is so small (Sagan 2011, 227). Because only a handful of states have developed nuclear weapons, much more is understood about the reasons states have not done so. Nine states are known or thought to have nuclear weapons today, the same number

as 30 years ago. (South Africa dropped out of the club, and North Korea opted in.) This is a remarkable accomplishment given predictions in the 1960s that 20 to 25 states could soon have nuclear weapons. The proliferation literature enumerates a wide range of contributing factors, including widespread support for a nonproliferation norm and a set of rules to uphold it, major-power cooperation on nonproliferation, and the role played by US nuclear security guarantees extended to treaty allies. On occasion, US diplomatic pressure played an outsized role, for example, in turning off undeclared nuclear programs in South Korea and Taiwan in the 1970s and 1980s and conforming multilateral nuclear trade standards to the US Nuclear Nonproliferation Act of 1978.

For the handful of known proliferation cases, security considerations best explain state behavior. Pakistan and Israel fought multiple wars against regional adversaries and likely view nuclear weapons as necessary for national survival; India sought nuclear weapons to counterbalance Chinese power and keep Pakistan in check; and North Korea presumably sees nuclear weapons as providing protection from coercion or military attack. While Iran seems to have deferred a decision on whether to pursue nuclear weapons, its record of nonproliferation violations, paired with its regional aspirations, suggests security motivations are very much in play. Dynastic survival (North Korea), political legitimacy (Iran, Pakistan), and national or scientific prestige (India, Iran) also factor in these proliferation cases, but none can be explained in the absence of a security-based rationale or by failures to advance nuclear arms control or other disarmament-related actions.

Just as security drove US and Soviet acquisition of nuclear weapons in the 1940s, security considerations brought them to cooperate on nonproliferation two decades later. China's entry into the nuclear club in 1964 set off alarms, leading the Johnson administration to pivot from talks on transferring nuclear weapons to Europe for NATO defense to talks on a global treaty to prevent their further spread (Gavin 2012, 76). The benefits of barring German or Japanese nuclear armament were hardly lost on the Soviet leadership, bringing the superpowers together in multilateral talks just several years removed from the Cuban Missile Crisis. The draft treaty texts tabled by US and

Soviet negotiating teams contained no obligations relating to nuclear disarmament. That came later at the insistence of non-nuclear-weapon states who sought to balance a pledge of abstinence against a commitment to end the arms race and take steps that contribute to nuclear disarmament.

The priority and precise relationship of nonproliferation to disarmament in the NPT remains an unsettled issue even now, 50 years into the treaty. It is the source of intense debates that roil the NPT's political process, dividing parties into rigid camps whose disagreements on disarmament are legion. Some see spotty progress on disarmament as an indication of bad faith whereas others regard it as a function of major-power relations. Some anticipate that entry into force of a Comprehensive Nuclear-Test-Ban Treaty, a follow-on agreement to the New Strategic Arms Reduction Treaty (New START), or other such treaties will bear on the decision of states to pursue nuclear weapons or tighten nonproliferation rules, whereas others are less sure. Still others worry about

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backsliding on nonproliferation with the collapse of the Intermediate-Range Nuclear Forces (INF) Treaty, whereas others are less concerned.

Supporters of arms control are generally bullish on linkage, citing the potential to generate political support for nonproliferation reforms or coercive measures to confront proliferators. Arms control skeptics are far more bearish, dismissing these gains as wishful thinking or juice not worth the squeeze on the grounds that arms control constrains the very type of military power required to deter would-be proliferators (Knopf 2012/13, 93). How to account for these very different attitudes and conclusions on the question of linkage? To get at this, below are three takes on the nonproliferation-disarmament divide expressed as problems:

first, the problem of differing understandings of the NPT's legal requirements; second, the problem of "isms" and how states understand the world to operate; and third, the problem of hedging both by nuclear weapon and non-nuclear-weapon states. Each reveals sources of friction that say more about what separates states on this issue than what might bring them together.

The Legal Problem

Where one stands on arms control linkage largely tracks with assumptions made about the legal relationship of nonproliferation and disarmament under the NPT. One perspective treats these obligations as equivalent, meaning parties are not free to insist on total implementation of one (nonproliferation) while deferring work on the other (disarmament). According to this theory, the NPT's five nuclear weapon states (the United States, Russia, the United Kingdom, France and China) are obligated under Article VI of the treaty not only to *pursue* nuclear disarmament, but to *achieve* it.

A majority of the treaty's non-possessor states support this formulation, consistent with an advisory, nonbinding opinion of the International Court

of Justice in 1996 (Highsmith 2019, 9-29). Seen from this perspective, the nuclear powers not only lag far behind the non-nuclear weapon states in meeting their NPT commitments, but also risk hollowing out support for the treaty by failing to advance one of the treaty's principal requirements.

An alternative legal view holds that the two are indeed unequal obligations, as might be gleaned from the treaty's title – the Treaty on the *Non-Proliferation* of Nuclear Weapons. Disarmament from this perspective is best understood as a supporting element rather than the treaty's primary purpose; it is regarded as an aspirational target lacking anything near the operational precision written into the treaty's nonproliferation articles, a difference not explained by sloppy drafting (Ford

2. Article VI of the NPT reads as follows: "Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control."

2007, 403). Other than calling for negotiations to end the arms race, the treaty provides no guidance on how, when, with what verification or enforcement, and under what political conditions nuclear disarmament is to be achieved.

Adding to the legal turbulence, Article VI marks out two pathways to nuclear disarmament – a stand-alone agreement or as part of a treaty on general and complete disarmament. Neither is

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remotely attainable at this point in history (the latter even less so), but partial steps along the way are – evidenced by the massive cuts to nuclear forces achieved over the last 20-plus years. To the five NPT nuclear weapon states and others, these and a laundry list of other meaningful arms control steps are evidence of implementation of Article VI (P5 2015). Those prioritizing the disarmament obligation welcome such steps, but generally regard them skeptically as partial, reversible, or lacking in urgency or imagination (Kmentt 2013).

Unfortunately, such legal quarrels reveal little about the effect of disarmament on nonproliferation. Upswings or downturns in nuclear arms control tend to track with successful or failed NPT review conferences held every five years (success defined as the parties reaching consensus on a final document). However, there is no direct evidence of such upswings or downturns affecting the proliferation behavior of states or generating the political support necessary to repair cracks in the foundation exposed by North Korea, Iran, and their illicit supply networks.

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commitments on disarmament. Because of this, sensible proposals to strengthen nonproliferation – for example, establishing the Additional Protocol as a legal standard for verification or nuclear trade, discouraging abuse of the treaty's withdrawal clause, or restricting the further spread of the most sensitive civilian nuclear technologies – remain on the shelf after years of futile debate. Opposition takes the form of a grievance: that non-nuclear-weapon states should not be asked

to take on added nonproliferation obligations until they see a deeper commitment to disarmament. It arises from a perception of uneven implementation of the NPT's non-proliferation and disarmament aims,

but also a conviction that disarmament actions are open to negotiation by all states, not just the possessors. This speaks to very different conceptions about how the world works and the place of nuclear weapons in it.

The Problem of “Isms”

Is nuclear deterrence essential to prevent major-power conflict, or does it pose unacceptable risks to the rest of the world? Is slow progress on disarmament a reflection of the security environment or a failure of political will and imagination? Has proliferation been held in check because of the force of a rules-based nonproliferation system or for other reasons? International relations theories are of little help here, providing vastly different answers depending on whether one favors constructivism, realism or liberalism. Under a constructivist approach, a peaceful and just world order can be shaped by broad acceptance of ethical and legal standards; under realism, states do not seek peace or justice but merely power and political survival; and under liberalism, principles and collective action are key components (Snyder 2009).

A constructivist approach is the intellectual home for the Treaty on the Prohibition on Nuclear Weapons (or “ban treaty”), which was completed in 2017

at the initiative of Mexico, Austria, and a spirited civil-society campaign to abolish nuclear weapons. Of the 80 or so state signatories of the ban treaty, none possesses nuclear weapons or sits under the US nuclear umbrella (by virtue of a treaty alliance). This seems unlikely to change for the foreseeable future, meaning that the ban treaty will not result in nuclear reductions or alter nuclear deterrence policies. However, this may not be how supporters measure success. Rather, drawing on an earlier campaign to outlaw anti-personnel landmines, it seems the aim is to delegitimize nuclear weapons on humanitarian and legal grounds, emphasizing their indiscriminate, destructive power and the incompatibility of nuclear use with the law of armed conflict. Supporters likely anticipate that the number of ban treaty signatories will grow over time, powered by a new ethic and social value that rejects nuclear weapons as a basis for human or military security.

The realist critique is generally skeptical of arms control on the grounds that it inhibits nuclear deterrence and freedom of action and may undermine the power relationships that make war less likely (Maurer 2018, 10). In the United States, arms control realists shed no tears over the collapse of the Anti-Ballistic Missile Treaty in 2002 or the INF Treaty in 2019. They warn against the dangers of arms control becoming an end in itself, producing “unsatisfactory treaties that have channeled strategic arms competition in ways that have proven inimical to US security interests” (Joseph and Edelman 2019). The nonproliferation benefits of arms control are also largely discounted. As Republican

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Senator Jon Kyl from Arizona said in 2010 during floor debate on New START, US and Russian nuclear cuts have “had no discernible effect on nuclear proliferation. We have had more proliferation since, after the Cold War, we began to reduce these weapons” (*Congressional Record* 2010). The NPT blends elements of both realism and

liberalism. By not setting a deadline for nuclear abolition, the NPT acknowledges that nuclear deterrence may be around for some time, a nod to realism’s emphasis on military strength to preserve peaceful relations among states. And yet, by lowering the salience of nuclear weapons, the NPT embraces liberalism’s appeal to international institutions, rules, and collective action for security. In a sense, the treaty is a reconciliation of multiple traditions, drawing in states that rely on nuclear weapons for security and value the NPT’s role in blocking the emergence of nuclear-armed challengers, but also those states that prioritize disarmament and value the treaty’s energy and technology benefits and the predictability of a rules-based system.

Whether the NPT’s reconciliations are sustainable under the shadow of major-power competition and an international order stretched to the breaking point is an increasingly urgent problem. It is one that risks unsettling barriers to proliferation that the world relies on to keep the number of nuclear-armed states down and interest in arms control up. Amid such uncertainty, the temptations of states to hedge their nuclear bets is almost certain to rise.

The Problem of Hedging

Hedging is hardly a new phenomenon in the nuclear sphere. It has been a part of the nuclear order going back decades and is woven into the fabric of the NPT. States with nuclear weapons tend to look unfavorably on options that may minimize the military value of these weapons, just as

states without them hesitate to forgo development of civilian nuclear-fuel production technologies that also have military applications. For nuclear possessors, hedg-

ing can be seen in nuclear postures, deployments, and modernization campaigns and support or rejection of arms control proposals. For non-nuclear-weapon states, it is most often associated with pursuit of the full nuclear fuel cycle – enrichment of uranium and reprocessing of spent nuclear fuel. Enrichment and reprocessing (ENR) can be

used for production of fissile material for nuclear energy or nuclear bombs. Both types of hedging affect the nonproliferation-disarmament divide: the prospect of more proliferation drives nuclear deterrence requirements and tends to dampen enthusiasm for arms control, just as hedging by the nuclear powers may stimulate proliferation or hasten a loss of faith in the NPT system.

US hedging on nuclear weapon policy has a long pedigree. It colored Cold War debates on nuclear deterrence strategy and it helps explain why more far-reaching options to reduce nuclear weapons or delivery platforms were set aside in the Clinton, Bush, and Obama Nuclear Posture Reviews. Those reviews were conducted in a relatively benign security environment, with Russia reeling after the Soviet collapse and China still focused inward on economic growth. The appeal of hedging is greater today after a decade of Russian and Chinese nuclear and missile buildups and aggressive behavior by these countries in their regions, and with North Korea's emergence as a blustering, nuclear-capable state. As Brad Roberts explains, each has developed a "theory of victory" to prevail against the United States in a local military conflict by escalating to the nuclear level without inviting retaliation (Roberts 2020). The most recent US Nuclear Posture Review sought to close this gap in deterrence through deployment of precise, lower-yield nuclear weapons that are proportionate to the threat of use by adversaries (US Department of Defense 2018).

It is too soon to know whether increased reliance on nuclear deterrence will help or harm efforts to reduce nuclear risks. On one hand, US allies in Europe and Asia generally welcome steps to strengthen extended nuclear deterrence; they worry about Russia, China, or North Korea and seek options for defense other than developing their own nuclear weapons. It is also possible that upgrading nuclear deterrence would allow the United States and allies to negotiate new strategic agreements with Russia or China from a position of strength. On the other hand, pursuit of new nuclear capabilities arguably risks triggering the very action-reaction dynamic that drove the Cold War nuclear arms race. Russian and Chinese advances, for example, in hypersonic and intermediate-range ballistic missiles elicit calls in the United States for matching capabilities or strategic fixes that may require a decade or more

to deploy. Under these conditions, each country is likely to make worst-case assumptions about the forces it will face in the future, leaving arms control to wither on the vine as the nuclear powers adjust to this new military reality.

Hedging by non-nuclear-weapon states is also not a new phenomenon. Because of the inherently dual-use nature of ENR technologies, limiting their spread has been central to the nonproliferation mission from the earliest days of the nuclear age. That so few states have ENR technology or programs today is a major nonproliferation win, even if the reasons for that success are not perfectly understood. High financial cost, efficacy of multilateral and national export controls, national preferences, and the negative political attention that would accompany acquisition of these capabilities have likely all played a role to one degree or another. Possession or interest in ENR technology is not necessarily a predictor of proliferation, but it naturally raises a red flag. Intent must also be judged. It is more useful, therefore, to assess non-weapon-state hedging as the interplay of technical and political barriers to proliferation. For Japan, a country that possesses both uranium enrichment and plutonium separation plants, the technical barriers to proliferation are low, but, as a treaty ally of the United States and a state in good standing in the NPT, the political barriers are high. Of course, that could change if Tokyo had reason to doubt the US commitment to Japan's defense. For Iran, a country that built uranium enrichment plants in secret before being outed, the technical and political barriers to proliferation are low, and certainly lower today with the 2015 Joint Comprehensive Plan of Action having all but collapsed.

Non-weapon-state hedging affects nonproliferation and disarmament in a number of important ways. At a strategic level, for example, Iran's acquisition of nuclear fuel cycle capabilities drives the interest of others in the region to match it. It should therefore come as no great surprise that successive US administrations have failed to condition bilateral nuclear trade agreements with Saudi Arabia and Jordan on a legal commitment to forgo ENR technology. Arab states or Turkey are unlikely to accept a position of technical inferiority should Iran accelerate its uranium enrichment or make a dash for a nuclear weapon (Lynch 2019;

Johnson 2019). Nor do such conditions bode well for Israeli interest in arms control.

There are also effects at a national level, as seen from South Korea's interest in matching Japan in ENR technology. As one of the world's leading users of nuclear energy, South Korea bristles at US reluctance to grant it prior consent to reprocess spent fuel, as was done for Japan in the early 1980s. A recent renewal of the US-South Korea bilateral nuclear trade agreement essentially papered over differences on the issue of consent,

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though it is certain to resurface in the coming years (Squassoni 2015). And once South Korea breaks the ENR barrier, others in Asia could follow, whether for reputational reasons or strategic need as a hedge against China.

Finally, hedging affects NPT politics and debates over treaty rights and responsibilities. Amplifying an argument made by Iran, the nonaligned bloc of treaty parties – the majority of members – insist that the right under Article IV of the NPT to peaceful nuclear energy extends to a right to possess ENR technology. Others are not convinced, noting that the treaty makes no reference to such a specific right, only to the use of nuclear energy for peaceful purposes in conformity with the treaty's nonproliferation requirements. This dispute generates diplomatic contortions in the NPT process. Non-nuclear-weapon states protect a fuel cycle "right" that, if exercised, would dramatically complicate the achievement of nuclear disarmament, while those seeking strict limits on the fuel cycle invite the resistance of the states whose support is needed to enact nonproliferation reforms (Miller 2012, 3).

A couple of points are worth highlighting in this smorgasbord of frictions. First is evidence of a shared and abiding interest in preventing the further spread or next use of nuclear weapons, notwithstanding differences on how best to secure those

goals. This is good news, as it suggests that options to advance both nonproliferation and arms control remain within reach, even in the absence of consensus on the contribution one goal makes to the other. The bad news is that efforts to mobilize international cooperation on the nuclear agenda will become more difficult if the divide on priorities deepens.

Second is a pronounced disagreement over means and ends, in particular whether military or political instruments are best suited to prevent proliferation or the outbreak of a nuclear conflict. The

disarmament and deterrence camps make very different assumptions about the requirements for security in a nuclear-armed or nuclear-capable world. One side credits the role of military alliances and extended deterrence with keeping proliferation

in check, while the other gives greater weight to international agreements and norms. Sequencing is another point of significant disagreement. One side seeks disarmament to make the world safe, whereas the other believes the world must first be made safe for disarmament.

STRATEGIES FOR NUCLEAR RISK REDUCTION

Where should policy go, given such differences on the fundamentals of the nuclear issue? This is a challenge in three dimensions – supporting nonproliferation, securing major-power cooperation, and encouraging broad international support. It is a nuclear-policy version of a Rubik's cube. Three alternatives are compared below: a disarmament approach centered on the ban treaty, an option centered on nuclear deterrence, and a course that integrates deterrence, arms control, and nonproliferation.

The Ban Treaty

The ban treaty is an illustration of a disarmament-first approach to nuclear-weapon issues. Supporters aim to build a community of interest that rejects nuclear weapons as the basis for security, aiming ultimately to establish that nuclear weapons are illegal as a matter of international law

(Highsmith 2019, 13). The campaign targets in particular countries that benefit from US extended nuclear deterrence but in which public support for disarmament tends to be strong.

An approach centered in the ban treaty is unrealistic and unlikely to generate wins on nuclear disarmament and nonproliferation where the NPT has failed (Scheinman 2019). Because no nuclear possessor will join, the treaty will not lead to the elimination of a single nuclear weapon. It will not end the arms race in South Asia; it will not reverse or freeze North Korea's nuclear program; and it will not create new or better opportunities to deal

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with nonproliferation violations. Supporters of the ban treaty may believe these problems will disappear once states agree to get rid of their nuclear weapons, but such a leap of faith fails to explain how the security drivers that led states to pursue nuclear weapons in the first instance are to be resolved. The implication that disarmament can be divorced from the wider security context is a serious misjudgment.

Nuclear Deterrence

The antipode to a ban treaty is an approach centered on nuclear deterrence. Under this approach, the United States would do what Russia and China are doing: modernize and increase reliance on nuclear weapons to improve its competitive position. According to this view, US military superiority is thinning due to the Russian and Chinese buildup of conventional and nuclear-capable systems over the last decade, in turn impacting the credibility of US assurances to allies. The United States therefore requires new nuclear weapon capabilities and operational concepts to help dispel ideas percolating in Moscow and Beijing (and perhaps Pyongyang) that these countries can pull off a *fait accompli* in a local military conflict in Europe or Asia without risking a US nuclear response (Colby 2018, 145). As two US experts put it, Washington "must retain and modernize its lowest-yield and

most accurate weapons" if nuclear deterrence is to remain credible (Lieber and Press 2011). This camp would not welcome more proliferation by US treaty allies, but may accept it as either inevitable or tolerable if it improves the US security position in Europe or Asia (Colby 2014).

As noted, allies facing rising nuclear threats may welcome enhancements to US extended deterrence, including the current administration's decision to deploy low-yield nuclear options. On balance, however, an approach reliant principally on deterrence to the exclusion of nonproliferation or arms control is unsustainable and can do more harm than good. It would risk alienating US treaty allies, such as Germany, the Netherlands, Japan, and Australia, which play a bridging role in the NPT to keep faith with the NPT's disarmament goals. A deterrence-centered

approach would also generate new pressures for arms racing, leaving little space for arms control as a tool to foster stability or cooperation on nuclear weapon issues. Additionally, such an approach makes overly confident (and thankfully untested) judgments about the prospect of controlling escalation in a limited nuclear conflict. It also fails to explain why a deterrence-centered approach would achieve better results on nonproliferation than current regimes or why the United States should not double down on advanced conventional capabilities rather than nuclear weapons to offset the *fait accompli* scenario described above.

Implied in this strategy is a decoupling of nonproliferation from arms control and disarmament. This could prove enormously counterproductive. Given that a broad majority of UN member states support arms control and the NPT's ultimate disarmament goals, relegation of arms control to the policy boneyard would serve only to alienate states whose support is needed to sustain the nonproliferation system. It would also reduce the bargaining power of possessor states on the proliferation agenda, supply political oxygen to the ban treaty, and ultimately create a crisis of confidence in the NPT as an instrument for nuclear restraint. It may also reveal a regrettable lack of imagination on the various formal and informal

ways that arms control can be applied, even in a tumultuous security environment (Brooks 2020).

Between Disarmament and Deterrence – A Three-Legged Stool

A third approach would aim to integrate nuclear deterrence, arms control, and nonproliferation, advancing each simultaneously. This would acknowledge the essential and particular roles that military and political instruments play across the spectrum of nuclear threats. Deterrence is needed to prevent major-power crises from escalating to nuclear war while assuring allies that attempts at nuclear coercion will fail; arms control helps stabilize deterrence by correcting imbalances in nuclear forces and guarding against a race for strategic superiority while also signaling support for the NPT's disarmament goals; and nonproliferation limits the number of fingers on the nuclear trigger and erects a barrier between peaceful and military use of the atom. No single element is sufficient to meet the aims of the others; each is best understood as a load-bearing leg of a three-legged stool with the sum being greater than its parts.

A comparative advantage is its appeal to a broad cross section of states. At a political level, support for nonproliferation unites the major powers with the rest of international community (with the possible exception of North Korea). Similarly, support for arms control links the disarmament interests of non-possessors to the war avoidance aims of the nuclear powers. At a military level, this approach would best limit the competitions that give rise to nuclear arms racing and would reserve options for new agreements, cooperation, and dialogue on strategic stability and proliferation dissuasion, both generally and in the critical cases of Iran and North Korea.

As argued above, security considerations rather than disarmament actions drive countries' decisions on whether to acquire nuclear weapons. From that determination, it follows that the best way to dissuade countries from going nuclear and, more broadly, to reduce nuclear risks, is through a strategy that holds deterrence, arms control, and nonproliferation in balance and draws on both military and political instruments.

Widening the lens further, the United States and like-minded partners should consider ways in

which strategies to prevent nuclear proliferation and avoid a next use of nuclear weapons can be nested in the broader project to repair the global order and manage its increasingly multilateral form. It is instructive to recall that the greatest nuclear security gains of the first nuclear age – arms control agreements and reductions, limited proliferation, and the absence of a major-power war – materialized on account of US-Soviet (then Russian) cooperation. It is still too soon to know what form a second nuclear age will take, but it is almost certain to follow the trajectory of major-power relations. How the United States, China, and Russia compete for power and geopolitical influence will determine the pace of and possibilities for nuclear risk reduction. A return to zero-sum competition will naturally crowd out such possibilities. But those possibilities would multiply if the major powers also were to direct their energies toward options to reduce mutual suspicions and strengthen regional security and cooperation in Europe and Asia. As Henry Kissinger said in the early 1980s, “[W]e must have confidence in ourselves [that] we can solve both the arms control problem and...the political problem that is created by the deliberate creation of tensions in the world” (Riches 2016).

CONCLUSIONS

For all the political and academic ferment on the question of disarmament's effect on nonproliferation, the fact is that little more is known today than when the NPT entered into force half a century ago. Because so few states have acquired nuclear weapons, or even stepped close to the line, the empirical record is thin. Arms control may *contribute* to the goals of nonproliferation, but there is no evidence it is a *cause* of it. For this reason, many observers run to opposite ends of the line to argue either in favor of a disarmament- or deterrence-centered approach to nuclear weapon issues. Both fail to persuade, as suggested above. With some modesty, one might conclude there is no *a priori* pathway to safety in a world in which states possess nuclear arms, even if it at significantly reduced levels, and that the best option is to rely on a mix of strategies, even when elements are in tension with one another. After all, good, practicable strategies often involve trade-offs among objectives. ■

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BIOGRAPHY

Adam M. Scheinman is a career member of the Senior Executive Service and DOE Faculty Chair at the National War College as of June 2017. From September 2014 through January 2017, he served as Special Representative of the President for Nuclear Nonproliferation, with rank of Ambassador, at the State Department, where he led U.S. diplomacy on the Nuclear Non-Proliferation Treaty. Prior to this, he served as Senior Advisor to Assistant Secretary for International Security and Nonproliferation at the U.S.

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From 1999 to 2009, Ambassador Scheinman held a number of positions in the Department of Energy's National Nuclear Security Administration, including Assistant Deputy Administrator in the Office of Nonproliferation and International Security (a career SES position); Director in the Office of Export Control Policy and Cooperation in the Office of Arms Control and Nonproliferation; and Senior Advisor to the Assistant Secretary for Nonproliferation and National Security. From 1995 to 1999, he served as Foreign Affairs Analyst in the Office of International Policy and Analysis Division at the Department of Energy. From 1990 to 1995, he was a policy analyst and program coordinator for several non-governmental organizations that focus on arms control and nonproliferation matters. He is an alumnus of Cornell University (B.A. 1987) and the George Washington University's Elliot School of International Affairs (M.A. 1990). He, his wife and three children live in Falls Church, VA.