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The Outlook for the Nuclear Nonproliferation Treaty

The year 2020 marks the 50th anniversary of the entry into force of the Nuclear Nonproliferation Treaty (NPT). Parties to the treaty, all but five of the world's states, will gather at some point in 2021 for their delayed quinquennial meeting to assess the treaty, plan for its future, and celebrate its 50th year. This milestone, while a cause for celebration, will likely be overshadowed by the treaty's uncertain future.

THE SUCCESS OF THE NPT

Concerned that many additional states would pursue nuclear weapons, particularly after the Chinese nuclear weapon test in 1964, the United States and the Soviet Union began drafting the NPT in the mid-1960s. Other states, beginning with Ireland, had been calling for such an agreement since the 1950s, but it took the superpowers longer to make their strategic calculation about the risks of widespread proliferation. The final version of the treaty text acknowledged that some states already had nuclear weapons and obliged those states not to assist "in any way" the wider proliferation of nuclear weapons. All other states would join the treaty as non-nuclear-weapon states, obliged never to seek nuclear weapons or assistance in developing them. The treaty underscored the inalienable right to pursue peaceful nuclear energy and required non-nuclear-weapon states to conclude nuclear safeguards agreements with the International Atomic Energy Agency (IAEA). In a "watered down" response to calls for a commitment to nuclear disarmament, all states agreed to "pursue negotiations in good faith on effective measures relating...to nuclear disarmament" (Dhanapala 2010; Goldschmidt 1980).

Perhaps the NPT's greatest success has been in creating a robust norm against nuclear proliferation. While the norm may not be universal, there is evidence it matters and has become stronger with time. Regimes that have pursued proliferation activities in recent decades (North Korea, Libya, Syria, and Iran) are norm breakers in several arenas of global politics. Creating a nuclear weapon program is not an activity for norm followers. The ability of President Barack Obama to corral much of the international community behind his effort

ample, when the Soviets detected preparations for a nuclear test at Vastrap in the South African desert in the late 1970s, they alerted their US counterparts, and US leaders pressured Pretoria to stop the test (Bidgood 2018). US and Soviet diplomats engaged in regular consultations about nuclear nonproliferation concerns throughout most of the Cold War on issues including export guidelines, the nuclear fuel cycle, IAEA safeguards, limits on nuclear testing, and storage of fissile material (Potter 2018). During the Cold War, strategic interest in preventing proliferation trumped East-West differences.

address proliferators during the Cold War. For ex-

After the end of the Cold War, collaboration persisted for many years until Russia's incursion into Ukraine in 2014. There were signs of reduced cooperation before then, however. For example,

in 2012, at an IAEA technical meeting, Russia strongly questioned the agency's effort to improve and streamline its safeguards process (Rockwood 2014).

Over the next half century, reduced great-power cooperation, changing power dynamics, and persistent disagreement over the treaty's bargains will make the status quo difficult to maintain.

to repeatedly sanction Iran for its proliferation activities must be understood as an effort bolstered by more than just US material capabilities; the idea that Iran was taking inappropriate actions mattered too.

The NPT has made a significant contribution to international security in its 50 years. Over the next half century, reduced great-power cooperation, changing power dynamics, and persistent disagreement over the treaty's bargains will make the status quo difficult to maintain.

REDUCED COOPERATION AMONG THE NPT'S NUCLEAR WEAPON STATES

The strong normative sway of the NPT has required the cooperation of the nuclear weapon states, especially the two powers with the largest arsenals. Even though they were bitter adversaries, the United States and the Soviet Union were able to cooperate to promote the regime and

Russia's rejection of this attempt by the IAEA's Department of Safeguards to enhance effectiveness within a stagnant budget was surprising for two reasons: Moscow had earlier supported it, and the new safeguards process would not apply to Russia as an NPT nuclear weapon state. Anti-US sentiments may have driven this Russian response. Russia's policies on nuclear trade are another indicator of failure to support strengthening the safeguards system. The United States and its allies largely require their nuclear-trade partners to conclude an Additional Protocol, which provides IAEA inspectors broader access to a state's nuclear facilities, as a condition of nuclear supply. There is little evidence Russia and China are pushing their customers to abide by the strictest safeguards in exchange for their nuclear assistance. For example, Egypt has deals in place to receive assistance from China and Russia for its planned nuclear reactor at El Dabaa despite refusing to conclude an Additional Protocol.

Great-power cooperation is critical to bolstering the nuclear nonproliferation regime today.

Building a stronger consensus that the Additional Protocol is the safeguards standard for all NPT parties requires not just the United States and its allies, but also Russia and China. The United States sometimes has promoted unpopular actions for the sake of nuclear nonproliferation, while China and Russia do little or even obstruct the process. Of course, Russia and China can point to US actions more recently to destroy the strong cooperation among the five nuclear weapon states, plus Germany, on the Joint Comprehensive Plan of Action (JCPOA) - the so-called Iran nuclear deal. (The group of countries that negotiated with Iran was known as the P5+1 because the nuclear weapon states also are the five permanent members of the UN Security Council.) The unraveling of the Iran nuclear deal will further undermine great-power cooperation in this area and will likely make it more difficult to solve nuclear challenges diplomatically in the future because would-be proliferators will not trust that deals will remain in place. Finally, great-power collaboration will be needed to strengthen responses to actions that are seen as an abuse of the NPT's withdrawal clause so that states are deterred from taking North Korea's path of obtaining "peaceful" technology only to exit the NPT and use the technology for its growing nuclear-weapon program. Deterring withdrawal is especially important at the time when leaders in Iran, Saudi Arabia, and Turkey – all NPT members – have recently hinted at the possibility of leaving the treaty or developing their own nuclear weapons (Rouhi 2020; Kalin and Hafezi 2018; Sanger and Broad 2019).

CHANGING POWER DYNAMICS

While no one should long for a return to the Cold War's ubiquitous nuclear terror, the nuclear non-proliferation regime benefited from the two superpowers' joint commitment to nuclear nonproliferation during that era of bipolarity. Today, global power is shifting, and changing power dynamics could negatively affect the well-being of the NPT and the broader nuclear nonproliferation regime.

Here it may be useful to consider the fate of the nuclear nonproliferation regime in the context of the broader crisis of global governance. During the Cold War, the liberal order led by the United States and supported by its network of mostly democratic allies competed with the Soviet-led communist order. This liberal order became the liberal international order with the dissolution of the Soviet Union and the discrediting of its state ideology (Gaddis 2006). Scholar G. John Ikenberry suggests that "the seeds of crisis were planted at this moment of triumph," because now the liberal order was not simply made up of the United States and its allies. It was global, with a more diverse group of states and more issues to address (Ikenberry 2018). Along with those changes came the rise of nationalism and xenophobia and the disappointment that globalization has led to rising income equality rather than an improved quality of life for all – all factors that inhibit multilateral cooperation. Amid these challenges, US President Donald Trump (and to a lesser extent, President George W. Bush before him) has rejected multilateralism, weakening US global leadership and creating a more challenging environment for leaders in the future.

In 2020, the world lacks strong leadership for global governance at a time when the challenges to leadership are almost certainly going to become more difficult. The relative material power of the United States and its allies will likely continue to decrease as other states rise. In a true multipolar system, cooperation becomes more complicated as decisions must be made by three, four, five, or more nations working in tandem. Diverse interests, complex bilateral relationships, and a lack of practice working together hamper cooperation among so many states. This difficulty is evident in the 11-year-old "P5 process," whereby the five nuclear weapon states in the NPT meet regularly to assess the treaty's implementation. It would seem that nonproliferation should be a common area of interest among the five countries. Rhetorically it is, but there has been little in terms of real action today to shore up weaknesses in the regime (Hoell 2019).

In the coming decades, countries such as Japan, Brazil, and Indonesia may gain influence without acquiring nuclear weapons, and countries outside the NPT with nuclear weapons, such as India, might also gain influence. Leading the nuclear nonproliferation regime will become more chal-

lenging because these potential great powers may have different ideas about nuclear weapons. For example, Indonesia and Brazil participated in the negotiations for the Treaty on the Prohibition of Nuclear Weapons (TPNW), which rejects all activities related to nuclear weapons, including production, possession, and threatened use. In the future, if the current great powers continue their reliance on nuclear weapons, it is possible the emerging powers may decide that they too will seek nuclear weapons, as the weapons remain symbols of prestige and great-power status.

FAILING BARGAINS

The final challenge to the longevity of the regime is the perception among NPT non-nuclear-weapon states that the bargains undergirding the NPT are imbalanced. While nonproliferation has been continually strengthened, the pursuit of nuclear disarmament and the provision of peaceful nuclear technology have, at best, progressed slowly and fitfully. Expectations for nuclear disarmament, high since the end of the Cold War and the 1995 indefinite extension of the NPT, have been dashed by extensive nuclear modernization programs by most states holding nuclear weapons and the unraveling of both multilateral and US-Russian bilateral nuclear arms control. The US modernization plan, for example, anticipates fielding nuclear weapons through the 2080s (Panda 2017). The Comprehensive Nuclear Test Ban Treaty (CTBT), despite its signature more than 20 years ago, has not yet entered into force; negotiations to stop producing fissile material for nuclear weapons have been at a standstill for 25 years; and states with nuclear weapons have all rejected the TPNW. On top of this, the United States has withdrawn from the Anti-Ballistic Missile Treaty, the Intermediate-Range Nuclear Forces Treaty, and the Open Skies Treaty and has jeopardized the future of the New Strategic Arms Reduction Treaty (New START), completing the picture of crumbling arms control architecture between the United States and Russia. In short, nuclear deterrence is up against calls for disarmament and the NPT is stuck in the middle.

Nuclear modernization, the creation of new weapons, and overt nuclear threats directly undermine

disarmament efforts, but these trends also undermine nonproliferation by illustrating to non-nuclear-weapon states that these are desirable weapons - weapons that are militarily useful and symbolic of status and prestige. While some states may reject the idea that nuclear weapons are associated with prestige, others may see US and Russian leaders bragging about their nuclear capabilities and wish they had these weapons as well. Turkey's President Recep Erdogan illustrated the frustration over these circumstances in the summer of 2019 when he stated, "Some countries have missiles with nuclear warheads, not one or two. But (they tell us) we can't have them. This, I cannot accept" (Toksabay 2019). While Erdogan may be unique in 2019 in making a public statement that undermines the NPT by attacking the seemingly permanent two-tiered system of nuclear haves and have-nots, this type of rhetoric will likely increase as leaders from non-nuclear-weapon states grow frustrated with the status of the NPT disarmament bargain. Moreover, the US-led effort to make progress on disarmament, "Creating an Environment for Nuclear Disarmament," took as an operating assumption that disarmament can be achieved only when the international environment becomes more benign (US State Department 2019).

The loss of arms control, traditionally advertised by the United States and Russia as evidence of their efforts to fulfill Article VI of the NPT, will further alienate NPT countries deeply frustrated over disarmament. In 2020, the Trump administration demanded that China, with its estimated 300 nuclear weapons, must be at the table with the United States and Russia, which have more than 4,000 nuclear weapons apiece, in order to extend New START. For China this is a nonstarter. Holding arms control hostage to a demand to widen the circle of participants means no arms control and no way for the United States and Russia to credibly illustrate their continued commitment to eventual disarmament. Losing the constraints and the transparency provided by arms control agreements could lead to arms racing, further damaging the NPT. Moreover, in this environment it will be more difficult for the United States to secure cooperation on nonproliferation initiatives from NPT states that prioritize nuclear disarmament. Overall, it is difficult to see how the NPT regime can remain viable for the next 50 years if the five nuclear weapon states do

not make significant and meaningful progress on disarmament.

Another at-risk NPT bargain is enshrined in Article IV of the treaty – the promise of peaceful nuclear technology for all members. The IAEA does a great deal of work in helping developing countries harness nuclear technology for uses in medicine, agriculture, and nuclear power. In the early years of the NPT, interest in peaceful uses of nuclear energy helped bring several states into the treaty (Gibbons 2020). In other words, Article IV helped widen initial participation in the NPT and likely has been one of many factors keeping states within the regime. It is not clear how much further nuclear power will spread among devel-

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oping countries, particularly in light of perennial issues of cost, safety, waste, and public opinion. A declining interest in nuclear power, however, could be one more reason the NPT has less value to those developing states. This is not to say that an increased desire for nuclear power would save the regime, only that reduced interest provides one more reason that these states would see the NPT as not worth the burdens it imposes on them.

While the commitment to eventual disarmament and the promise of nuclear technology matter for the future of the NPT, so too do the assurances that non-nuclear-weapon states provide each other. Prior to the NPT, a 1962 inquiry by the United Nations into reasons that states without nuclear weapons would adopt a notional nonproliferation treaty suggested that reciprocity was a driving force (United Nations 1970). If NPT members become disillusioned with the NPT over stalled nuclear reductions and find they have little interest in nuclear power, they could register their deep frustration with the treaty by withdrawing, while still making a nonproliferation commitment to

their neighbors and the international community by other means. Many of them could signal their commitment not to develop nuclear weapons through continued membership in nuclear-weapon-free zones and adherence to the TPNW. In other words, most of these states would still be able to have the most important benefit from the NPT – the knowledge that their neighbors and potential adversaries will not acquire nuclear weapons – while being able to take a significant political stand over their disappointment with the failed bargain in the NPT.

Today, mass political withdrawals are unlikely – especially as supporters of the TPNW must constantly push back against the criticism that the

new treaty undermines the NPT – but there are those who have suggested the option (Pretorius and Sauer 2019). If arms control continues to stall and nuclear weapons remain prominent in the national defense policies of the five nuclear weapon states, one can

imagine nationalistic leaders of non-nuclear-weapon states or members of their foreign ministries making the case that the NPT has been an unfair treaty and it is time to get out. Certain leaders may wager that the domestic political benefits of standing up to the great powers in this way may outweigh continued participation in the treaty.

MAINTAINING THE NPT FOR THE NEXT 50 YEARS

The prognosis outlined above is dire. What must be done to change course so the NPT will be celebrating its centennial in 2070?

New Leadership

The single most important factor in the longevity of the treaty is far-sighted, global leadership that values multilateralism. The state with the most experience in leading in this arena is the United States. US leadership was vital to drafting the NPT, creating the Nuclear Suppliers Group, pushing for

a stringent Model Additional Protocol, and achieving the indefinite extension of the treaty in 1995 (Gibbons 2016). In fact, the many tasks involved in sustaining the regime, persuading states to join, addressing noncompliance, and leading adaptation when weaknesses became evident suggest

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the regime may not last without leadership from prominent dominant states.

The task of providing leadership in this area will be made more difficult in an era of multipolarity, but it is not impossible. US leaders will have to persuade their counterparts in other powerful countries, especially Russia and China, that nonproliferation is not just a US goal, or a goal of the West, but a policy that serves the security interests of all states. Today there are many venues for state cooperation in existing multilateral institutions, but leaders must value these institutions and, just as importantly, they need to maintain and expand habits of cooperation within these institutions. To do this, powerful states, especially the United States, must continue to send delegations and funding to institutions and provide leadership in terms of agenda setting, information sharing, and goal setting. When conflicts arise within extant organizations, leaders should send delegations to address the problems and look for compromises. Withdrawing from organizations should be a rare step after all other diplomatic options are explored.

For the NPT to survive, global leaders at the highest levels of government will have to take on the issue of the NPT themselves and not relegate it to their foreign ministries. Maintaining the NPT in the long term will require sustained attention at the top levels of government.

New Bargains

An NPT that exists in 2070 will almost certainly be the result of new bargains among states. One of the most difficult potential bargains must address expanding the regime to include current holdouts, especially India. While increasing the number of countries that the NPT designates as nuclear weapon states is difficult to imagine, as the treaty specifies that nuclear weapon states are those that exploded a nuclear device before Jan-

> uary 1, 1967, a nonproliferation regime that does not include one of the most powerful states in the system will lack legitimacy and sustainability. Should India achieve recent projections that it will

become a leading global economy (Singh 2019; PwC 2017), the regime would need to consider how to integrate a state that has openly criticized the treaty and its supplier controls as discriminatory. The idea of including India will not be popular among most nuclear nonproliferation experts and officials, though it is an idea that has been explored by several nonproliferation experts (Nielsen 2007). Nuclear supplier states have not yet seen fit to allow India to join the Nuclear Suppliers Group after the United States in 2008 forced an exception to NSG guidelines for New Delhi. It is reasonable to argue that India, an NPT outsider, does not deserve inclusion. But if India combines its nuclear weapon arsenal with significant economic strength and a massive population, previously dominant states might find it useful to bring India into the regime both for its commitment to seek eventual disarmament and for its help in promoting nuclear nonproliferation globally. Moreover, if a global regime is missing one of the top economic powers in the world, it may begin to loss legitimacy; a similar concern is often expressed about the UN Security Council, where its permanent membership has become mismatched with global power dynamics (Patrick 2015). Because the task of amending the treaty would be so difficult, India could be brought into a new political agreement with the five nuclear weapon states whereby it agrees to abide by the provisions of the NPT. If, after a period of time, the NPT parties consider this arrangement to be successful, they might consider bringing in the other current nuclear-armed states as well, with the goal of establishing truly universal commitments to nonproliferation and disarmament.

A key consideration in accepting new NPT nuclear weapon states must be their support for the disarmament provisions in Article VI of the treaty. Otherwise, adding nuclear weapon states as "grandfathered" could lead to the dissolution of the treaty. Before inviting in new nuclear-armed members – a controversial step – the five recognized weapon states first must work together to set out a more credible path toward nuclear reductions. As many have argued before, this likely means another round of US-Russian reductions before the other three nuclear weapon states - China, France, and the United Kingdom - can join. Inviting these three countries to observe some or all of the bilateral negotiations would provide knowledge and experience that would aid larger and more challenging negotiations down the road. Beyond these steps, the five should set out a time-bound plan to further reduce their nuclear arsenals. Entry into force of the CTBT and a Fissile Material Cutoff Treaty are also necessary steps. The leaders of the nuclear weapon states must start on this path to reductions and achieve some success in this process before undertaking efforts begin to bring

New Ideas

Finally, if the NPT is still operational in 2070, it may be because new ideas have taken hold in the international community. Fifty years can seem like an eternity when it comes to societal ideas changing. Consider that in the early nuclear age it was assumed that all technologically capable states would build their own nuclear arsenals.

There are a number of scenarios in which nuclear-armed states make significant progress on disarmament during the coming decades. For example, there could be more widespread adoption of the idea that nuclear weapons are inappropriate to possess. This message animates the TPNW, whose supporters use a humanitarian frame to emphasize the devastating effects of nuclear weapons. In a nutshell, they argue that because possession of these weapons makes their use more likely and use of nuclear weapons in most instances would be inconsistent with humanitarian international law, nuclear weapons therefore should be banned. If this campaign is able to shape the thinking of populations and their leaders through their grassroots

activities, then perhaps it will be easier for the nine nuclear-armed states to significantly reduce their arsenals.

How might that happen? Today grassroots activists are promoting the norm of nuclear non-pos-

session in several ways: by supporting resolutions in favor of the TPNW in municipalities around the world, by educating people about the effects of nuclear weapons, and by promoting divestment from companies involved in the production of nuclear weapons. These weapons may be far from the minds of most citizens around the world today, but certain events could galvanize the population into considering them. A return to nuclear testing, something the Trump administration has explored (Hudson and Sonne, 2020), or a renewed arms race (Landay and Mohammed 2020) could increase the salience of nuclear weapons and make the public more open to the arguments of those promoting nuclear disarmament.

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India, Pakistan, Israel, and North Korea to the table. Being invited to this table would require that these states commit to the same plan for disarmament established by the five states.

In addition to a bargain surrounding the expansion of the regime to reflect changing power dynamics – a long-term effort—the five nuclear weapon states may need to find bargains to entice the non-nuclear-weapon states to remain patient and within the treaty for another few decades. Providing more funding to the IAEA for peaceful uses of nuclear technology may be one useful method, but bilateral side payments, such as economic or military aid, and political pressure may be necessary.

A second set of changing ideas surrounds conceptions of prestige. Today, possession of nuclear weapons and plans for their modernization by the nuclear weapon states encourage the idea that these weapons are a source of status and prestige. The rhetoric of these countries' leaders often reinforces that idea. Over the next 50 years, there will be countless innovative technologies developed. Some may become important sources of status for states, eclipsing the prestige of a decades-old technology. Global leaders should work to enhance sources of prestige in the international system that are not related to weapons. Examples would include technologies that solve societal problems, such as those addressing climate change and fighting the world's worst diseases. Leaders can imbue these innovations with prestige though increased funding, acclamatory rhetoric,

and public celebration of relevant individuals and attainment of key milestones. If powerful states treat these innovations as prestigious, other nations will follow.

The NPT and the broader nuclear nonproliferation regime have bolstered international security for 50 years. But the NPT's longevity cannot be taken for granted amid significant global change. Survival until the treaty's centennial will require strong leadership from multiple powerful states, new bargains, and perhaps new ideas about nuclear weapons. But 50 years is a long time, and big changes are possible. After all, it was only about 50 years before the Trinity test that the ideas that would lead to nuclear fission were beginning to enter the human imagination. ■

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