

A WORLD WITHOUT THE NPT REDUX

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List of Acronyms

AP	Additional Protocol
CSA	Comprehensive Safeguards Agreement
IAEA	International Atomic Energy Agency
NAM	Non-Aligned Movement
New START	new Strategic Arms Reduction Treaty
NNWS	non-nuclear-weapon State(s)
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NSG	Nuclear Suppliers Group
NWFZ	nuclear-weapon-free zone
NWS	nuclear-weapon State(s)
RevCon	Review Conference
SLC	State Level Concept
TPNW	Treaty on the Prohibition of Nuclear Weapons
WMD	weapons of mass destruction

Foreword

This year marks 50 years since the Nuclear Non-Proliferation Treaty (NPT) entered into force. Rightly, this treaty is widely regarded as the cornerstone of international efforts to curb the spread of nuclear weapons, and to ensure access to nuclear technology for peaceful uses, and for efforts towards the achievement of a nuclear-weapon-free world.

It is beyond question that in 2020 the NPT regime faces serious challenges to its effectiveness and perhaps ultimately to the Treaty's very survival. In view of this, UNIDIR initiated a series of dialogues and debates in Geneva from late 2019 to focus attention on NPT challenges and to encourage constructive discussion among multilateral diplomatic practitioners about achieving a successful outcome at its next five-yearly Review Conference. Related papers are published on our website (www.unidir.org).

That next NPT Review Conference was to have convened in late April 2020. Due to the COVID-19 pandemic it was postponed until early 2021 at the earliest—an unfortunate delay, but one that offers the NPT's Member States more time to find common ground with a view to a successful outcome, however that is defined.

The delay has also permitted UNIDIR the opportunity to publish this paper by Dr. Joseph Pilat, a long-standing commentator on the NPT and the keynote speaker from the first of the Institute's NPT events, held on 2 December 2019 at the Palais des Nations in Geneva. At that event, Dr. Pilat presented his perspective on what a world without the NPT would likely come to resemble, based in part on a now-classic chapter he wrote in the 1980s as States were considering whether to extend the NPT indefinitely (they eventually did). The analysis he presents here represents an evolution of those arguments and considers contemporary developments, although his conclusion is the same: the NPT remains vital and must be supported and, if possible, strengthened.

Like all the contributions in this series, the author's views are his own. However, at a time when the multilateral system is under unprecedented stress and strategic tensions between several nuclear-armed States have reached alarming levels, Joseph's paper is a forthright case for the NPT's value and a further prompt for constructive efforts to sustain it. As such, it sounds the alarm that this cornerstone of efforts to curb the spread of nuclear weapons requires the attention and support of the international community.

Renata Dwan
Director, UNIDIR

A World without the NPT Redux

In the late 1980s, with the upcoming 1995 decision on the extension of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) beginning to be discussed, I wrote an essay entitled “A World without the NPT?”.¹ In that piece, I attempted to think through the effects of a limited or no extension on the Treaty and regime, on nuclear non-proliferation, arms control and energy, and on the broader geopolitical landscape. The purpose was not to present a prediction, but a cautionary tale about the value of the Treaty. Now, 25 years after indefinite extension and 50 years after the NPT’s entry into force, the Treaty and the regime are facing serious challenges and the 2020 NPT Review Conference (RevCon), which has been postponed due to the COVID-19 pandemic, is expected to be contentious. The questions I addressed 30 years ago are worthy of new consideration.

1 The essay was published as a chapter in *The International Nuclear Non-Proliferation Regime in the 1990s*, edited by John Simpson (Cambridge, England: Cambridge University Press, 1986).

Challenges to the NPT

A decades-long debate has been waged on the value and fate of the NPT. In a world fundamentally different from that in which it emerged, the NPT and the broader international nuclear non-proliferation regime are challenged today by:

- new nuclear-armed States, which are not accommodated within the Treaty and which affect the views of key non-nuclear-weapon States (NNWS) and some nuclear-weapon States (NWS);
- withdrawal of the Democratic People's Republic of Korea from the Treaty without serious consequences—this has led to a debate over the NPT's article X, which provides for a State's withdrawal;
- continuing concerns about the Democratic People's Republic of Korea's and the Islamic Republic of Iran's long-term nuclear programmes, capabilities and intentions;
- the growing access of States to sensitive nuclear materials and technologies which could enable widespread State hedging and the rise of virtual weapon programmes, along with the prospective access of non-State actors, including black marketeers and potential nuclear terrorists;
- concerns about other non-compliance cases, including Syrian violations of its obligations under nuclear and chemical weapon agreements, and limited consensus on compliance enforcement;
- the emergence of new technologies that could open new proliferation pathways and affect the efficiency and effectiveness of safeguards, export controls, etc.;
- the tension between re-emerging commercial interest in the civil nuclear fuel cycle and non-proliferation, that are reflected in an intensified debate over article IV of the NPT; and
- the increasingly contentious article VI debate, involving frustration with the perceived lack of progress on arms control and disarmament, concerns about the direction of 'P5' (that is, the five NPT NWS) nuclear-weapon policies and postures, fears of a new arms race and, in large part as a consequence of these concerns, the conclusion of the Treaty on the Prohibition of Nuclear Weapons (TPNW).

These problems pose real challenges to the nuclear non-proliferation regime and have been seen in some quarters as portending the NPT's collapse or increasing irrelevance,² especially at a time when the foundations of the rules-based international order (of which the nuclear order is a keystone) are being shaken. To the extent that the events of the last several years, including the COVID-19 pandemic, have provoked nationalistic and xenophobic reactions, these problems could increase the tectonic pressures on the international order and its nuclear component. In this environment, the issues confronting the NPT could all be factors in the debate at the next RevCon, although article VI issues, especially the future of bilateral arms control and the extension of the new Strategic Arms Reduction Treaty (New START), will likely remain among the most contentious at the RevCon. The way the Parties address the TPNW and its relation to the NPT could become an issue, particularly if the Treaty enters into force before the RevCon actually convenes. Finally, the issue of prospects for a Middle Eastern zone free of weapons of mass destruction (WMD) has been central to the last three review cycles and will be contentious and difficult to address once again, despite the United Nations track that opened at a conference in late 2019.

All these issues are difficult to address, but is it possible to create something better? The nuclear non-proliferation regime continues to have such international support and consensus

as exists. However, this consensus on difficult issues and cases has limits and is increasingly being challenged across the three pillars of the Treaty. This new reality has raised questions about the future of the nuclear non-proliferation regime, but it also suggests that entirely new institutions would not necessarily be more effective in dealing with outstanding issues. It remains to be seen whether the nuclear non-proliferation regime will meet the challenges ahead; however, it is changing. As it has in the past—when, for example, the Indian so-called ‘peaceful nuclear explosion’ challenged the very fabric of the Treaty only four years after it entered into force and led to the creation of the Nuclear Suppliers Group (NSG) in response—the NPT regime is evolving as threats and expectations among Parties have changed. Given the direct challenges to and violations of safeguards, the International Atomic Energy Agency (IAEA) is developing a new approach to safeguards based on the strengthening measures developed in the 1990s, especially the Additional Protocol (AP). In addition to strengthening safeguards and other traditional regime elements such as export controls, initiatives to address new and emerging threats and unanticipated developments—from the end of the Cold War to the rise of terrorism—have been especially prominent since the early 1990s. Among these are critical initiatives involving threat reduction, detection and interdiction, including the Proliferation Security Initiative, the Global Initiative to Combat Nuclear Terrorism, and Security Council resolution 1540. Along with these and other concrete initiatives aimed at areas the NPT was not designed to address, including non-State actors, a number of old ideas are also being revived and pursued, including assurances of supply, international fuel banks and other multinational approaches and proliferation resistance.

Not all these new initiatives have been realized and none have altered the widely held perception that the NPT regime is threatened. It is extremely difficult but not impossible to imagine a catastrophic failure of the NPT. Developments that diminish the authority, legitimacy and effectiveness of the Treaty are far more plausible. As in the 1980s, without predicting the worst, which is certainly not the most likely outcome, I will explore the contours of a world in which the NPT was no longer in force or no longer effective. Such speculations are all the more justified since it is frequently argued that the NPT is not the non-proliferation regime, and that Parties’ interests in non-proliferation would survive the erosion or collapse of the Treaty, that IAEA safeguards would continue to be seamlessly applied and that the global nuclear landscape would not fundamentally change. This view assumes a homogeneity and strength of interest that is not obvious in today’s debate and that would be belied by the Treaty’s collapse. It also assumes a less than full realization of how much the regime and all its elements have been based on or tied to the NPT during the five decades the Treaty has been in force. As well, it assumes that those regime structures and principles that survive the collapse of the Treaty could endure indefinitely without the NPT as a foundation stone.

The Erosion of the Non-Proliferation Norm

The non-proliferation norm would likely erode if the NPT were lost. The perception of proliferation has changed profoundly during the nuclear age, at the beginnings of which it was expected that nuclear weapons would be pursued by a large number of States and that proliferation could possibly be inhibited but not prevented. This sense began to evolve after the 1962 Cuban missile crisis and the first Chinese nuclear test in 1964 highlighted the urgency of the problem. But it was the conclusion of the NPT and its entry into force in 1970 that changed the received wisdom.

It is undoubtedly true that the early years of the Treaty were precarious, with limited membership, a surge in civil nuclear power programmes that threatened to overwhelm the new undertaking, and the so-called Indian 'peaceful nuclear explosion' in 1974 that challenged the Treaty's fundamental premise and bargain. The Treaty and the incipient non-proliferation norm might have been lost at that time. However, the NPT survived and prospered, becoming the most widely adhered-to nuclear arms limitation treaty in history. As the NPT's authority grew, it has both reflected and furthered the global non-proliferation norm and reinforced the decision of the vast majority of States to forgo nuclear weaponry. In this manner, it has affected the attitudes and the behaviour of non-NPT as well as NPT States in this sphere.

A collapse of the NPT would not immediately be followed by a decline of non-proliferation as a principle and predisposition. Undoubtedly voices would be heard denouncing non-proliferation in the wake of the Treaty's demise; however, we might expect that publicly voiced support for non-proliferation would be far louder in the event of the Treaty's decline or demise, at least for a time. Yet, the power of the non-proliferation principle has depended on its practical service to security and perceptions of security. Without the NPT there would be no adequate remaining means of affecting the reality or perceptions of the security of States: nuclear non-proliferation would increasingly be seen to decline as an important and consequential practical pursuit in the eyes of States, with corrosive impacts on the non-proliferation norm. It is not so much that non-proliferation would be seen by many as no longer valuable, but that other interests and objectives being promoted and pursued would rise in significance, eclipsing non-proliferation in the international commons.³

³ Even with the NPT, this danger cannot be ignored. However, the NPT's role in promoting international security is a critical bulwark against the realization of this kind of scenario.

The Impact on the IAEA and Safeguards

Just as the value of non-proliferation would not immediately disappear in the event of the collapse of the Treaty that has furthered it, neither would the primary organizational structure in support of the Treaty's objectives, the IAEA, inevitably or immediately decline. A pillar of the non-proliferation regime, the IAEA was established long before the NPT entered into force and commands authority in its own right. Although the Treaty and the IAEA are now intimately entwined on virtually all nuclear issues, it can rightly be assumed that the Agency would continue to have credibility, respect and support, and would remain in existence, if the NPT should fail.

All the Agency's missions, and especially its safeguards activities, however, would certainly be adversely affected by the NPT's loss. As they depend on the authority of the NPT as much as on the credibility of the Agency, safeguards would be in peril if the NPT were lost. Perhaps rapidly, but certainly over time, confidence in IAEA and other safeguards would begin to decline. Once this process began, it could progress to a level where safeguards would be seen to offer few benefits and be unlikely to allay suspicions of nuclear-weapon development among States that are pursuing civil capabilities.

If the NPT were to collapse, the obligations of NNWS party to the NPT under article III.1 and III.2 would be terminated, presumably along with safeguards agreements entered into under the Treaty, both Comprehensive Safeguards Agreements (CSAs) and APs. There may be fallback safeguards for imported materials and facilities placed under safeguards, as well as for subsequent generations of special nuclear materials derived from or produced in safeguarded items. For large amounts of nuclear materials currently under safeguards, such arrangements are not in place. Moreover, it is not clear that these arrangements would be credible and ensure confidence regionally and globally. They may not be enforceable and enforced, and they could be challenged on legal, political or other grounds. Only for non-NPT safeguards (INFCIRC 66/Rev. 2) is the issue of their continuation clear. The impact of a decline of the Treaty would not be as stark, but it would no doubt undermine the authority of, and confidence in, safeguards for Parties and non-Parties alike.

It is not clear that States would be willing to endow any post-NPT safeguards with the role and importance they now have, because these technical-political-legal creations depend upon the NPT's overarching rights and obligations for their legitimacy.

Without a viable NPT, some States would undoubtedly attempt to maintain existing IAEA safeguards and to extend them to new items. However, their activities would not change the fact that the IAEA's safeguards would be looked upon differently in a world without the NPT, to which they have become inextricably linked, where non-proliferation norms and related obligations were already undermined, or were on a path to being so. Any efforts to buttress Agency safeguards would likely be less than fully effective and might be futile. There is no way that the only obvious and practicable alternative—new or renewed bilateral or trilateral safeguards arrangements—could ever fulfill the function of IAEA safeguards backed by the political-legal commitments of the NPT, particularly regarding the detection of undeclared facilities.

In similar fashion, it might be argued that the TPNW provides a brake on the loss of IAEA safeguards, because it requires all States Parties to maintain CSAs (but not APs, unless they are already in place). However, despite this requirement, CSAs and APs are tied to the NPT and not the TPNW. Their authority comes from the provisions of the NPT and will be affected by its loss, whatever occurs with the TPNW. It seems unlikely the TPNW could assume this authority, either legally or politically. Although the TPNW is likely to enter into force—as early as 2021 based on the current rate of accessions—and expand its membership over time, its provisions are very different from those of the NPT, especially the NPT’s rights and obligations on the peaceful uses of nuclear energy. Moreover, the NPT Parties that have opposed the TPNW are not expected to accede, and the States among them account for most global nuclear activity under nuclear safeguards.

The impact of the loss of the NPT on safeguards would be especially fraught in current circumstances. For the last two decades, the IAEA has been transforming its safeguards system to address outstanding issues, including the burden of non-compliance. Central to the transformation is the AP, which is now over 20 years old.⁴ The AP is an important tool and needs to be universally accepted as the standard for safeguards and as a condition for exports. Implementing the AP’s new measures, as well integrating new and old safeguards measures, remains a work in progress. The new approach depends upon information acquisition, evaluation and analysis along with inspections, and is designed to provide an evaluation of the nuclear programme of a State as a whole and not just each of its declared nuclear facilities. This should allow the Agency to be more flexible, and to better allocate scarce resources to where they are needed most in countering proliferation risks.

The latest manifestation of this effort is the State-Level Concept (SLC). Based on the AP and other authorities, the use of a State-level approach seeks to differentiate but not discriminate among States. A key objective is to direct safeguards resources, not only on the basis of nuclear material quantities but also on the presence of inconsistencies in a State’s nuclear programme. It requires balance to avoid the risk of being seen as discriminatory. The implementation of the SLC is addressing this and other issues, but the SLC is nonetheless being criticized by key States and would likely falter with the decline of the NPT, affecting all the strengthening efforts of the last two decades.⁵

Any problems with the IAEA and its safeguards would reverberate through other structures of the non-proliferation regime, to the extent to which they depend upon IAEA safeguards. The Latin American nuclear-weapon-free zone (NWFZ) established by the Treaty of Tlatelolco, and all other extant NWFZs, would be confronted with difficult challenges and choices if the IAEA safeguards that are central to their verification were not perceived as credible. So too would the Zangger Committee’s and the NSG’s activities be adversely affected by any lowering of confidence in IAEA safeguards on which they depend. However, unlike NWFZs, the Committee and the Group would also be directly affected by the impact on the peaceful uses of nuclear energy for power production in a world without the NPT.

⁴ See <https://www.iaea.org/topics/additional-protocol>.

⁵ For a discussion of the criticism of the SLC, see Laura Rockwood, “The IAEA’s State-Level Concept and the Law of Unintended Consequences”, *Arms Control Today*, August 2018, <https://www.armscontrol.org/act/2014-08/iaea%E2%80%99s-state-level-concept-law-unintended-consequences>. See also John Carlson, Vladimir Kuchnov and Thomas Shea, “The IAEA’s Safeguards System as the Non-Proliferation Treaty’s Verification System”, Nuclear Threat Initiative, May 2020, <https://www.nti.org/analysis/reports/the-iaeas-safeguards-system-as-the-non-proliferation-treatys-verification-mechanism/>.

The Prospects for Nuclear Energy and Nuclear Supply

The erosion of the NPT regime would undoubtedly affect the prospects for nuclear energy globally. Whatever the long-term impact of the 2011 Fukushima civil nuclear accident on global interest in nuclear power, and it remains uncertain at present, even sustaining current levels of nuclear power production, as well as any expansion in the future, depends on the architecture of the NPT, with its norms and legal-administrative controls, especially IAEA safeguards and standards for nuclear safety and security. Without this framework, traffic in nuclear technology would look very different and be seen to pose higher risks of nuclear proliferation and terrorism. The dangers might move some States to reconsider the benefits of nuclear power generation, and perhaps effectively cede the market to States with questionable intentions.

To the extent this occurred, it would undoubtedly affect the NSG, “a group of nuclear supplier countries that seeks to contribute to the non-proliferation of nuclear weapons through the implementation of two sets of Guidelines for nuclear exports and nuclear-related exports”.⁶ Along with the NPT, the NSG guidelines reflect such supplier consensus as exists. However, the approaches of States to nuclear supply are also shaped by their differing attitudes towards proliferation dangers, which reflect divergent security, economic and political interests and perspectives. There are differences in the way these States implement their nuclear supply undertakings. The requirements for licensing nuclear exports and the nature of their nuclear export licensing review process vary widely, and reflect differing political and legal systems, policy perspectives, economic and political pressures and industry–government relationships. In this environment, the prospects for continuing harmonious relations among the nuclear suppliers could be lessened. The supply consensus has already been challenged by commercial competition, differing perspectives on trade with non-NPT States, and adoption of the AP as a condition of significant nuclear trade. Moreover, as we have seen in the debate over the Islamic Republic of Iran in the last two decades, questions of nuclear supply, and of supplier State policy, have often appeared at the forefront of the narratives about proliferation and non-proliferation policy.

These potentially profound differences among the established nuclear supplier States have frequently been minimized. It is frequently argued international market conditions do not portend troubling trade issues in the future. We are faced with a possible return to the market of the late 1970s through the end of the last century, which was characterized by a decline in orders for nuclear power stations, and some subsequent slowing of the spread of nuclear equipment, technologies and materials. It may be argued with some validity that if the world nuclear market stagnates again, and nuclear trade recedes to a trickle in coming decades, supply problems may become less and less important, irrespective of the fate of the NPT.

In another view—an opposing one—the uncertain market situation has not necessarily diminished the danger of proliferation. If under-utilization of nuclear reactor production and uranium enrichment capacity worsens, there would be growing pressures to export, even to States with questionable non-proliferation credentials. It would appear that the nuclear market slump, as well as existence of established ‘rules of the game’, enshrined in the NPT–

⁶ See: www.nuclearsuppliersgroup.org.

IAEA regime and the NSG's guidelines, have served to reduce these pressures and ameliorated potential problems of nuclear trade for the last few decades. However, a collapse of the NPT, and with it the diminished credibility of IAEA safeguards, would throw nuclear trade relations into disarray. This situation would probably make a mockery of the informal, voluntary agreement embodied in the NSG and could effectively end those arrangements that serve the suppliers and have thus far received their support. Without these established (if also not legally binding) rules, the confidence of supplier States that others were not seeking unfair advantage would deteriorate rapidly. The resultant loss of confidence would likely exacerbate existing differences among the suppliers. The current NSG could collapse, although there might be an effort to revive it to fulfill the functions lost with the NPT and Zangger Committee. Unfortunately, given the limits of the NSG consensus and its underpinning in the NPT-IAEA regime, any such effort would likely be stillborn.

Although, the decline or demise of the NPT would have significant effects on nuclear trade throughout the globe, the most profound effects would likely appear between the nuclear 'haves' and 'have-nots'. Despite uncertain market projections, it does seem likely that we will continue to be confronted with contentious supply issues in the foreseeable future. Focused on the Islamic Republic of Iran's nuclear programme over nearly two decades, the war of words on international trade in nuclear materials, equipment and technology continues to be waged between North and South, between nuclear 'haves' and 'have-nots', and could result in a full-scale reemergence of past politicized nuclear trade issues. These differences, which could worsen even with the NPT, would be far more likely to do so if the Treaty collapsed and IAEA safeguards became less credible.

The NPT's demise would be particularly worrisome with respect to the behaviour and attitudes of the non-NPT States and the emerging suppliers. Even though the NPT regime does not and is unlikely ever to have universal adherence, I believe it has exerted an influence on the behaviour of non-Parties, constraining their behaviour by safeguards, nuclear export controls and, more vaguely but no less genuinely, by its moral suasion. In the absence of the NPT, as suggested, the Treaty obligation for States Parties to require IAEA safeguards on all of their nuclear exports would be terminated, and in time the moral and political principles upon which the supply regime was based could be expected to significantly erode. Should this occur, the positive effects on the behaviour of the non-NPT States would be expected to diminish and be more aggressively at odds with traditional regime principles. Those concrete interests of these States that currently foster behaviour supportive of the regime could be expected to change, however gradually, and repugnance for the 'discriminatory' regime could more freely sway behaviour.

Without the formal and informal supply structures that all depend to greater or lesser extent on the NPT and IAEA safeguards, it is not clear how the behaviour of the emerging suppliers would align with recognized non-proliferation principles. Of course, these States do not constitute a bloc. They have different histories, cultures and interests, and are in regions with very different security environments. Consequently, these States do not necessarily perceive proliferation dangers in the same manner as either the United States or the other Western suppliers. As the Russian Federation and China aggressively pursue nuclear exports, they hold the interdependencies created by international commerce, including nuclear commerce, to be crucial instruments in managing their relations with other States.⁷ Of particular relevance to nuclear supply and non-proliferation policy are the special strategic trade relationships between each of these States and various States and regions of the developing world. Other

⁷ See, for instance, James Dobbins, Howard J. Shatz and Ali Wyne, "Russia is a Rogue, Not a Peer; China is a Peer, Not a Rogue: Different Challenges, Different Regimes", RAND Corporation, 2019, <https://www.rand.org/pubs/perspectives/PE310.html>; and Michael J. Mazarr et al., "Understanding the Emerging Era of International Competition: Theoretical and Historical Perspectives", RAND Corporation, 2018, https://www.rand.org/pubs/research_reports/RR2726.html.

emerging suppliers see themselves as the victims of the non-proliferation policies of the nuclear-supplier States. Some of these States have expressed a principled opposition to restrictions on any transfers of nuclear technologies. It is not clear that all emerging suppliers see the preservation of the existing regime as a matter of concrete economic or political interest.⁸ Indeed, some of these States might welcome its collapse, hoping to prosper amid conditions in which nuclear commerce was perceived as extremely dangerous by the established suppliers even as it was declining overall.

Most of the emerging suppliers have few or no military–strategic interests beyond the region in which they are located, although some may aspire to the status of global power. Essentially, this means that they perceive the proliferation danger in regional terms. If the emerging suppliers are likely to be more responsible in their own regions, with or without the influence of the NPT–IAEA regime, there are few concrete inhibitions to irresponsible trade with extraregional States except the constraints of the regime. To be sure, these States might be influenced by the political reactions of the NWS and other advanced nuclear States, with whom they might also have military, diplomatic and trade relations. But it is unclear that the great powers would react in unison, or at all, to nuclear trade they deemed dangerous and irresponsible. The record of the past is not especially reassuring, and the situation would worsen in the absence of the NPT. Further, most emerging suppliers have ties to international groups of States, including the Non-Aligned Movement (NAM) among others. While none are monolithic, participation in such blocs could influence the supplier’s behaviour either through expectations of disapproval and possibly other, more concrete reactions, or because of an unwillingness to diminish their preponderance in the bloc by trading away an area of clear superiority. However, membership in such groups might facilitate some types of nuclear transfer, a concern reflected in reports of possible Pakistani assistance to the nuclear ambitions of Saudi Arabia.⁹

All in all, the effects of the loss of the NPT would mean that the universal and inalienable rights embodied in article IV would become less relevant as responsible nuclear commerce declined without the foundations of the NPT–IAEA regime and as any remaining nuclear assistance and exports came more and more to depend on the greed, good will or grand strategy of the suppliers. In this environment, indigenous development of nuclear energy would be slower, costlier, less efficient and more difficult.

⁸ Potential indicators of interest in preservation of this regime include acceptance of the AP as the standard of safeguards and as a condition of supply, restrictions on exports of enrichment and reprocessing facilities and technologies and adherence to United Nations-mandated sanctions imposed on States for non-compliance with their non-proliferation obligations.

⁹ See, for example, Michael Young, “Does Saudi Arabia Intend to Develop a Nuclear Weapons Capability?”, Carnegie Middle East Center, March 2018, <https://carnegie-mec.org/diwan/75723>; and Simon Henderson, “Money for Missiles? Reassessing the Saudi Visit to Pakistan”, Washington Institute for Near East Policy, 29 January 2019, <https://www.washingtoninstitute.org/policy-analysis/view/money-for-missiles-reassessing-the-saudi-visit-to-pakistan>.

A Decline in International Security

It has been the NPT regime and the passage of time that have served to dispel doubts that we are moving towards life in a “nuclear-armed crowd”.¹⁰ Without the Treaty and the regime, especially the safeguards and export control obligations it required, in time this perception could, and probably would, re-emerge. However, the world without the NPT would not necessarily bristle with new NWS, at least not immediately. We would not necessarily find ourselves amid nuclear anarchy. Whatever the importance of the international non-proliferation regime, ultimately a decision by a State to acquire nuclear weapons is based on perceived national interests, with a key factor being an internal assessment of whether or not national security would be served or harmed by possession of nuclear weapons.¹¹ For the great majority of States, such considerations have driven decisions to forgo nuclear weapons, but these decisions could be revisited should the NPT be undermined or even destroyed in the future.

The collapse of the NPT would affect security perceptions within regions and across the globe. For some regions, the threats posed by proliferation are real today, and would be worsened by the collapse of the NPT. In this context, the Middle East and Northeast Asia could be affected more rapidly and deeply than other regions by the loss of the NPT. Saudi Arabia, Egypt, Turkey, the Republic of Korea, Japan and other States might immediately cause concern for their neighbours if they were suddenly released from such obligations as the NPT requires. This concern would be based on their expected efforts to hedge against the Democratic People’s Republic of Korea or the Islamic Republic of Iran. Other States may also hedge against a breakdown of the regime. On the other hand, concern might be diminished for a time by considerations such as the limited technological prowess or the costs of nuclear weapons for these States, and the anticipated pressures from the United States, the European Union and possibly the Russian Federation and China. Yet there is little doubt that the security of all regions, and of the world, would eventually deteriorate, as confidence among non-nuclear-weapon States that regional adversaries were not undertaking weapon programmes—never absolute under the NPT—would decline without this most impressive of all confidence-building measures.

The political stability of a region could deteriorate relatively rapidly in this situation, where States were unsure of the nuclear intentions of friends and foes alike. The prospect of armed attacks on other States’ nuclear facilities could increase, with disastrous humanitarian and economic consequences, along with an adverse impact on nuclear power programmes within the region and around the world. Whether or not preventive or pre-emptive military actions were undertaken, the shifting security situation could result in reassessments by all parties of their need to hedge, to covertly or openly develop nuclear arms or, perhaps, to opt for more readily attainable chemical and biological weapons or other asymmetric capabilities with which they might attempt to deter perceived existing or imminent nuclear threats. Military contingency plans would have to be adapted to take the new situation into account, with

10 Albert Wohlstetter et al., *Moving Toward Life in a Nuclear Armed Crowd? Final Report to the US Arms Control and Disarmament Agency*, 1976.

11 Although security appears to be the most persistent indicator of nuclear-weapon proliferation over time, other causes have been identified, including status or prestige and domestic politics. See Scott D. Sagan, “Why do States Build Nuclear Weapons? Three Models in Search of a Bomb”, *International Security*, vol. 21, no. 3, Winter, 1996–1997, pp. 54–86, <https://www.jstor.org/stable/2539273>; and Jacques Hymans, *The Psychology of Nuclear Proliferation: Identity, Emotions and Foreign Policy*, 2006.

the possibility that preparations—including new weapon acquisitions, changes in operational doctrine and the like—could appear so threatening to an adversary as to increase its interests in acquiring the capability that was originally feared in a self-fulfilling threat–response interaction of a very troubling kind.

Even if the number of NWS should increase, nuclear disasters do not necessarily or immediately follow, of course. Arguments about the establishment and stabilizing effect of regional deterrence situations as a result of proliferation are frequently ethnocentric and ahistorical, and more popular among academics than governmental officials.¹² However, the proliferation of nuclear weapons could increase the risk of nuclear use in the long term, whether through miscalculations during crises or escalation in the fog of war.¹³ Unless the NPT's collapse was accompanied by the immediate nuclearization of some States, there is no certainty that a gradual increase in nuclear weapons in and of itself would dramatically increase the risks of a nuclear conflict. Nevertheless, should a conflict occur, nuclear weapons could be used if they were available. The use of chemical weaponry in the Syrian conflict should reduce glibly expressed certainties that WMD, including nuclear weapons, if acquired, would be unusable.

12 Kenneth Waltz, *The Spread of Nuclear Weapons: More May be Better*, Adelphi Paper no. 171, International Institute for Strategic Studies, 1981. For a discussion of this perspective, see Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: A Debate Renewed*, 2nd ed., 2001.

13 Scenarios that involve great power nuclear exchanges in response to regional nuclear use as a result of a deliberate escalation or a miscalculated reaction are highly unlikely in the author's view.

The Rivalry of the Great Powers

Not only would the NPT's decline or demise affect international security, both regionally and globally, it would profoundly affect international relations, creating or worsening tensions and divergent interests among States in different regions, or at differing levels of technological advancement or prosperity. Without the international regime, the great powers—especially China, the Russian Federation and the United States—could in principle decide to go beyond their post-Cold War efforts to cooperate on non-proliferation. They might believe they could re-establish a more or less effective regime based upon their common interests and the prospect of coordinated, concerted action. Such a great power condominium would probably not be attractive to the great majority of States and be seen by them as a step backwards. In practice, however, such great power nuclear condominium would not likely be forthcoming or, if it were, be fully effective in most imaginable scenarios.

It is true that, through most of the nuclear age, the great powers have recognized their mutual interests in non-proliferation and played the most prominent roles in developing, implementing and enforcing non-proliferation norms and policies. For some, such as the United States, the provision of extended nuclear security through Cold War alliances, along with other offered security assurances, were factors in such decision-making.

For the great powers, these norms and policies have been very important. As significant as these mutual interests have been, however, the most effective and enduring cooperation among the great powers has involved technical matters within the purview of the IAEA. Political–military issues, including those involving nuclear-weapon aspirations of allies or friendly States have, with few exceptions, been contentious.

In these and other cases, non-proliferation has competed with other foreign policy and defence priorities. At times, the great powers have opted for other objectives than non-proliferation, with more or less serious consequences for non-proliferation and arms control norms and policies. Today, the downturn in great power relations is worsening these problems. More broadly, heightened great power tensions have serious implications for non-proliferation. Great power support for, and cooperation on, non-proliferation is eroding. The sense of mutual interest has waned, and non-proliferation has too often become a matter of contention among the United States, the Russian Federation and China at least. For example, the Russian Federation is openly and aggressively challenging the institutions that are central to the nuclear non-proliferation regime, including the IAEA and its safeguards system.¹⁴ The impact of great power tensions is evident in the Security Council. It is increasingly difficult to reach agreement on critical proliferation problems, and there are growing questions about compliance with sanctions and other provisions of existing resolutions. Clearly, as suggested, the hopes that the great powers could manage the threat as the superpowers had during the Cold War are no longer as bright as they appeared in the early 1990s. This may have significant implications for the future, but it remains the case that the NPT is the foundation of those common interests that have endured among the great powers.

¹⁴ For example, see “Statement by the Head of the Delegation of the Russian Federation, Ambassador-at-Large Grigory Berdennikov at the Symposium on International Safeguards Linking Strategy, Implementation and People, Vienna, October 20–24, 2014”, <https://armscontrollaw.com/2014/10/21/statement-by-russian-representative-to-the-iaea-grigory-berdennikov/>; and Christopher Ashley Ford, “The Challenge and Potential of U.S.–Russian Nonproliferation Cooperation, Remarks at the International Advisory Council Meeting, James Martin Center for Nonproliferation Studies, Washington, D.C., October 22, 2018”, <https://www.state.gov/remarks-and-releases-bureau-of-international-security-and-nonproliferation/the-challenge-and-the-potential-of-u-s-russian-nonproliferation-cooperation/>.

Absent the NPT–IAEA regime, the activities of allies and other States regarded as potential proliferators would remain politically sensitive and largely outside the scope of any great power cooperation that might be preserved. Indeed, the more controversial issues would probably come to dominate great power relations in this sphere as proliferation issues become more politicized. If the non-proliferation efforts of the United States or its allies were opposed for any reason by the Russians or the Chinese, or if proliferation appeared inevitable in a region, the Russian Federation or China might attempt to take advantage of the situation either to increase nuclear trade or to try to weaken the United States and its allies geopolitically. To the extent that they could do so while minimizing risks to themselves, they may pursue this path, the more so because the benefits provided by the international non-proliferation regime would not continue as a countervailing influence as potent as it was when the NPT existed. While trade questions per se might not provoke excessive friction in great power relations, they could do so. Moreover, they would not in that case be without problems, particularly as the Russians or Chinese are entering the international market more aggressively. Such geopolitical shifts could further worsen international relations.

The Impact on Arms Control and Disarmament

These seismic shifts in the security environment and great power relations are troubling. In the absence of the NPT, they would ensure that the prospect of nuclear 'democracy' suggested, if not explicitly demanded, by provisions on peaceful uses of nuclear energy (article IV) and on arms control and disarmament (article VI) would become even more distant than it is at present.

As noted, NPT article IV could become largely meaningless if nuclear power production declined significantly around the world. If article IV erodes, as it would without the Treaty and a well-regulated nuclear energy market, the steps undertaken by the NWS to assume safeguards and other obligations agreed by the NNWS, now limited, could come to a halt. With respect to the specific obligations and expectations associated with NPT article VI, the downturn in great power relations at present has had profound consequences. The dramatic reductions in nuclear weapons of the past 30 years, which were possible to a large degree because of enhanced post-Cold War security and the existence of the NPT, are threatened today. Indeed, there is talk today of the prospective end of 50 years of bilateral arms control, along with a consequent new arms race.

The bilateral US–Soviet and US–Russian arms control architecture is under challenge. The Intermediate Nuclear Forces Treaty came to an end in 2019 when the United States withdrew after its charges that the Russian Federation had violated the agreement could not be addressed diplomatically.¹⁵ As long as the United States charges (along with other Russian non-compliance issues) are not resolved, it will raise questions about New START's future as well. It is unlikely that either side will withdraw from New START, and its extension remains possible.¹⁶ Negotiations on extension began in June 2020, but their prospects are uncertain. Even if the Treaty is extended, we would face its end in 2026. Despite this bleak picture, there is little reason to believe we are approaching arms racing like that done at the height of the Cold War. Without the NPT, however, this bad situation would be worsened as the nuclear order collapsed, tensions grew, and new NWS emerged.

Even though the state of US–Russian and US–Chinese relations limits prospects for further near-term progress on arms control, there are already several initiatives designed to extend, expand or create dialogue on disarmament issues. For example, the 'P5 process' involving the five NPT NWS, the US-inspired initiative on Creating the Environment for Nuclear Disarmament, and other ongoing efforts are needed and can be helpful now and in the future. Along with existing efforts to address verification, especially the International Partnership for Nuclear Disarmament Verification and the 'Quad,' these dialogues can create building blocks for future arms control and allow progress when the environment is more promising.

¹⁵ These concerns had been raised since the US administration of President Obama.

¹⁶ The Russian Federation has raised the issue of extension for some time but had conditioned it on the United States addressing Russian concerns about New START implementation, especially submarine conversion. It no longer appears to demand such conditions. Until recently, the Trump administration had not stated its position on extension or renewing negotiations, although it argued that China should be involved in future negotiations (See Christopher Ashley Ford, "U.S. Priorities for 'Next-Generation Arms Control'", US Department of State, International Security Papers, vol. 1, no.1, 6 April 2020, <https://www.state.gov/arms-control-and-international-security-papers/>). However, it has stated that extension is possible. In any case, Russian non-compliance on other treaties complicates the matter in the United States, even though New START extension does not require action from the US Senate.

Whatever the fate of arms control, now and in the foreseeable future, the NPT is the only legally binding, near-universal instrument that obligates the major nuclear powers to pursue disarmament. Without the NPT's existence or effective functioning, however, any realistic hopes for progress in the foreseeable future on arms control and ultimately on disarmament would be dramatically reduced, even from the unpromising situation today. As recognized in the Irish United Nations resolutions of the late 1950s and early 1960s that gave birth to the NPT,¹⁷ the uncertainties created by the existence or prospect of new NWS could be expected to inhibit movement among established nuclear powers to further limit, let alone to eliminate their nuclear arsenals. It remains true today, as it was at the time the NPT was concluded, that effective efforts to manage or prevent horizontal proliferation are important for efforts to address vertical proliferation.

Many States Parties of the NPT support the TPNW and view it as a response to lack of recent progress on nuclear disarmament. The text of the TPNW clearly states that it is not meant to be an alternative to the NPT in the arms control, disarmament and non-proliferation arenas, but a complement to a treaty that has shaped the nuclear order.¹⁸ However, several States view the TPNW as a threat to the NPT. Whatever one feels about the TPNW and its impact on the NPT, it cannot replace the NPT in these arenas as it seems unlikely that it will ever garner support anywhere near the level of that for the NPT. There are many reasons for this, but the most important is the very different approaches of the two treaties to security. While the NPT was based on the realities of the 1960s security environment—realities that are to some extent still present today—the TPNW has little appreciation of these security issues and has not been supported by States with nuclear weapons or those that depend on extended deterrence.

17 See <https://nsarchive.gwu.edu/briefing-book/nuclear-vault/2018-10-29/60th-anniversary-irish-resolution-forerunner-npt>.

18 See, for instance Tytti Erasto, "The NPT and the TPNW: Compatible or Conflicting Nuclear Weapons Treaties?", Stockholm International Peace Research Institute, 6 March 2019, <https://www.sipri.org/commentary/blog/2019/npt-and-tpnw-compatible-or-conflicting-nuclear-weapons-treaties>.

Conclusions

I concluded in the 1980s and argue again today that the world we have experienced since the NPT entered into force in 1970 has not been the best of all possible worlds; a world without the NPT might not be the worst of all possible worlds. However, at a time the NPT is facing serious challenges, the collapse or erosion of the Treaty would undoubtedly undermine the non-proliferation norm it was largely responsible for creating, disrupt the framework on which the peaceful cooperation on nuclear energy occurs, diminish future prospects for further arms reductions and disarmament and weaken the security of all States alike, whether or not they possess nuclear weapons.

Given these possibilities, and the stakes at play, it is clear that the principal lesson of the 50-year history of the NPT is that the Parties of the Treaty held the agreement to be in their national interest, and have not to date been prepared to see it destroyed or undermined. After 50 years, the NPT remains indispensable as the centerpiece of the international nuclear order, undergirding the non-proliferation regime, enabling responsible nuclear energy cooperation and constituting the only treaty commitment of NWS to pursue disarmament. Nonetheless, the NPT is being challenged, and this assessment of a world without the NPT may underscore the importance of affirming a pro-NPT consensus in the future and preserving a world in which this essential Treaty and the regime that has evolved around it continue to contribute to international peace and security.

A World Without the NPT Redux

Twenty-five years after the indefinite extension of the Nuclear Non-proliferation Treaty (NPT), Joseph Pilat revisits the question of what a world without this cornerstone agreement would come to look like. Today, the Treaty and the NPT regime face serious challenges and its next Review Conference is expected to be contentious. Pilat argues that the NPT regime is not perfect, but the entire world has a stake in the regime's continued implementation.

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