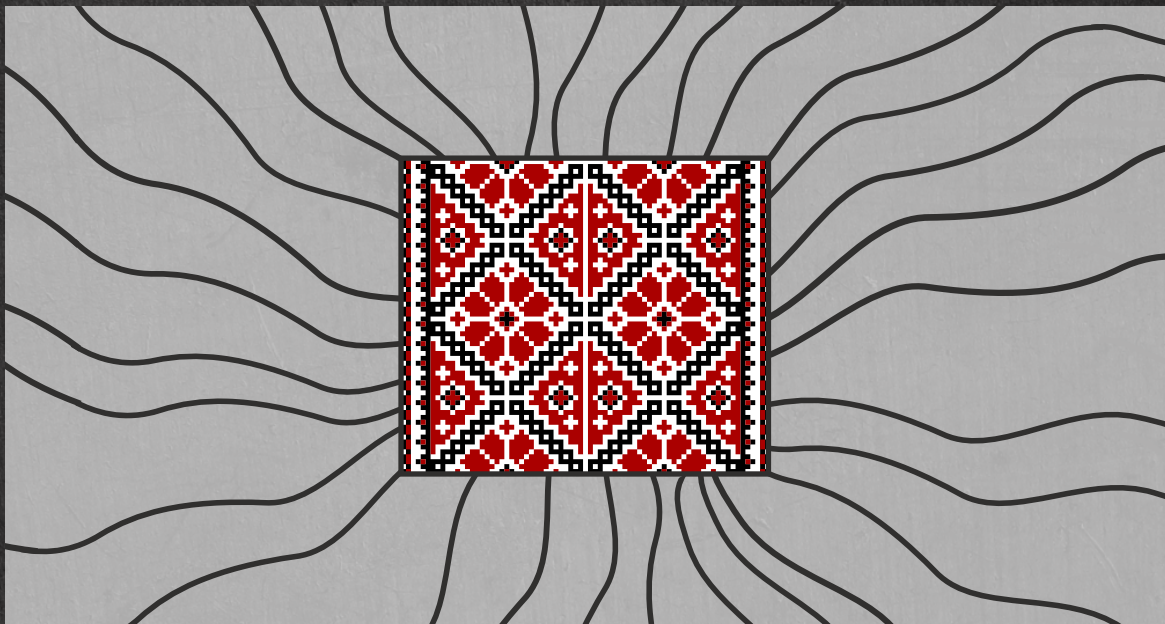


THE DISARMAMENT, ARMS CONTROL, AND NON-PROLIFERATION IMPLICATIONS OF THE INVASION OF UKRAINE



WHAT NEXT FOR REDUCING GLOBAL NUCLEAR DANGERS

LEWIS A. DUNN



UNIDIR

UNITED NATIONS INSTITUTE
FOR DISARMAMENT RESEARCH

ACKNOWLEDGEMENTS

Support from United Nations Institute for Disarmament Research (UNIDIR) core funders provides the foundation for all of the Institute's activities. This project is part of the activities of the Weapons of Mass Destruction Programme

ABOUT UNIDIR

UNIDIR is a voluntarily funded, autonomous institute within the United Nations. One of the few policy institutes worldwide focusing on disarmament, UNIDIR generates knowledge and promotes dialogue and action on disarmament and security. Based in Geneva, UNIDIR assists the international community to develop the practical, innovative ideas needed to find solutions to critical security problems.

CITATION

Dunn. L 2022. "The Disarmament, Arms Control, and Non-Proliferation Implications of the Invasion of Ukraine – and What Next for Reducing Global Nuclear Dangers". Geneva, Switzerland: UNIDIR. <https://doi.org/10.37559/WMD/22/DDAC/01>.

NOTE

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. The views expressed in the publication are the sole responsibility of the individual authors. They do not necessarily reflect the views or opinions of the United Nations, UNIDIR, its staff members or sponsors.

www.unidir.org | © UNIDIR 2022

CONTENTS

About the Author	IV
Foreword	1
Introduction	2
Putin's Order to Invade Ukraine	3
Implications for Pursuit of Nuclear Disarmament	5
Implications for the Perceived Utility of Nuclear Weapons	5
Balancing the Risks of a World with and a World without Nuclear Weapons	6
Implications for Strategic Arms Control	9
A Pause in Strategic Arms Control—but for How Long?	9
The Norm of Non-Use of Nuclear Weapons Holds	11
Pause in Nuclear Risk-Reduction via the P5 Process	12
A Modest Boost for US–Chinese Strategic Dialogue and Pursuit of Mutual Strategic Reassurance	13
Implications for Nuclear Non-Proliferation	15
Virtually all NPT Non-Nuclear Weapon States Will Remain So—but a Few Will Check their Nuclear Umbrellas	15
Possible Hedging in Some Middle East States of Proliferation Concern	16
Confirming a Historic Decision	17
Major Setback for the Tenth Review Conference of the Non-Proliferation Treaty	18
What Next for Reducing Nuclear Dangers?	19
Stand up for International Law	19
Emphasize Conventional, not Nuclear, Enhancements of the US/NATO Deterrence and Defence Posture	19
Do Not Give up Hope of Using the Tenth Review Conference to Pursue Nuclear Risk Reduction	20
Rally Around a Credible Interim Vision of the Nuclear Future	21
Launch an Official China–United States Strategic Nuclear Dialogue	22
Sustain and Press Ahead with Ongoing Multilateral Activities	22
Do Our Conceptual–Analytic Arms Control Homework	22
Do Not Forget Other Nuclear Dangers	23
Sustain the Norm of Non-Use of Nuclear Weapons in the Ukraine War	23
A Compendium of Comments	24
Comment by Anastasia Malygina	25
Comment by Tanya Oglivie-White	27
Comment by Brad Roberts	29
Comment by Dmitry Stefanovich	31
Comment by Amy Woolf	34
Comment by Tong Zhao	36

ABOUT THE AUTHOR



LEWIS A. DUNN was the United States of America's Ambassador to the 1985 Non-Proliferation Treaty Review Conference and is a former Assistant Director of the US Arms Control and Disarmament Agency. He now is an independent consultant on nuclear issues. He also serves on the UN Secretary-General's Advisory Board on Disarmament Matters. He holds a PhD from the University of Chicago. His recent publications include, with William Potter, "Time to Renew the Reagan-Gorbachev Principle" (Arms Control Today, March 2020); with John Borrie, "The Strategic Context for Nuclear Disarmament, Deterrence and Strategic Arms Control Dialogue" (UNIDIR, 2020); and "Reversing the Slide: Intensified Great Power Competition and the Breakdown of the Arms Control Endeavour" (UNIDIR, 2019).



FOREWORD

Nuclear armed States play a critical role in nuclear security governance. And the foreign policy choices of these States can generate ripple effects, with ramifications that often extend far beyond the intended outcomes. In this regard, the invasion of Ukraine by the Russian Federation was bound to produce major consequences across the international security spectrum. And we are only just beginning to grapple with what this means for nuclear disarmament, arms control, and non-proliferation.

Prepared for a UNIDIR workshop in June 2022, this report provides a foundation for assessing and debating the implications of the events in Ukraine for Disarmament, Arms Control, and Non-Proliferation. It elegantly addresses the many unknowns posed by the ongoing conflict through the identification of “surprise-free projections” and alternative outcomes in several important issues areas. It also offers specific ideas on reducing the resulting nuclear danger.

Like all contributions from external experts, the views of the author and the commentators are their own.

James Revill
August 2022



INTRODUCTION

The following essay explores the implications of the invasion of Ukraine by the Russian Federation and the ensuing war for nuclear disarmament, strategic arms control, and non-proliferation. Like a rock dropped into a pond, President Putin's decision and its aftermath will have important ripple effects across each of these areas. In exploring those ripple effects—and their impact on efforts to reduce global nuclear dangers—this essay first sets out some background. It then discusses possible implications in each of the three areas. A concluding section offers some propositions on 'what next' for reducing global nuclear dangers in light of the preceding analysis. Before continuing, four cautionary remarks are in order.

First, this essay's purpose is to help to provide a framework for and to stimulate discussion within the UNIDIR Disarmament, Deterrence, and Arms Control Dialogue. It is not a fully comprehensive, in-depth research paper. It also takes the invasion as its starting point; it intentionally does not litigate what led up to that invasion. Despite criticisms from some quarters—reflected in comments at the end of this volume—I stand by my decision not to do so. Whatever the claimed justification of the invasion, the clear violation of international law and the Charter of the United Nations has dramatically changed the global security environment in ways that are still unfolding. We need to focus on that impact.

Second, any attempt to consider the implications of the invasion of Ukraine across the three broad areas of nuclear disarmament, strategic arms control, and nuclear non-proliferation is inherently speculative. The outcome of the war in Ukraine remains to be determined—and depending on that outcome, the implications could be significantly impacted. The implications also depend on decisions yet to be made or fully made as leaders in many countries assess the invasion's implications for their own State's security. Thus, in exploring these implications, I will use a methodology for thinking about uncertain future developments that was used at the Hudson Institute by its founder, Herman Kahn.¹ Specifically, in each of the three broad areas, I will first set out several 'surprise-free projections'. A surprise-free projection is not a projection that a given course of events likely will happen. Nor is it an endorsement of that course of events. Instead, it is a projection of a course of future events whose occurrence *would not come as a surprise to me*. To complement these surprise-free projections, I also put forward some alternative outcomes as well as what might bring about those alternatives. Taken together, the surprise-free projections and the alternatives provide a good picture of the range of possible implications and, in turn, a solid basis for considering 'what next' for reducing global nuclear dangers.

Third, as also reflected in some of the comments included at the end of the essay, there clearly are a variety of views on implications of the invasion. In particular, some commentators believe my analysis is too optimistic or reflective of wishful thinking, even with the addition of some more pessimistic alternatives to the surprise-free projections. Here, only time will tell. That said, the essay still serves its primary purpose to trigger discussion and debate.

Finally, this essay was crafted in the early months of the invasion. The time that has passed and the events that have occurred – or not occurred – have in some instances tipped the balance between my surprise-free projections and their alternatives. I have not sought to strike my own new balance where doing so might be thought warranted. Instead, I continue to believe that the overall analysis offers a sound starting point for readers to assess on their own the implications for nuclear disarmament, arms control, and non-proliferation of the continuing conflict.

1 I became familiar with this approach during my time as a staff member of the Hudson Institute in the 1970s.

PUTIN'S ORDER TO INVADE UKRAINE

On 24 February 2022, President Vladimir Putin ordered the military forces of the Russian Federation to carry out what he termed a 'special military operation' against Ukraine—an invasion. His actions violated article 2(4) of the Charter of the United Nations which states that "All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state".² The invasion also violated the 1994 Memorandum on Security Assurances in Connection with Ukraine's Accession to the Treaty on the Non-Proliferation of Nuclear Weapons. Specifically, that memorandum states that "The Russian Federation, the United Kingdom of Great Britain and Northern Ireland, and the United States of America reaffirm their commitment to Ukraine ... to respect the independence and sovereignty and the existing borders of Ukraine".³ That commitment and the overall Memorandum contributed significantly to Ukraine's decision to give up former Soviet nuclear weapons deployed on its territory and to join the Treaty on the Non-Proliferation of Nuclear Weapons.

As additional background, among the most important developments since Putin's decision have been as follows.

1. A warning by President Putin in his speech of 24 February announcing his decision that "those who may be tempted to interfere in these developments from the outside ... the consequences will be such as you have never seen in your entire history".⁴
2. Evidence that Western powers understood the speech of 24 February as a threat to use nuclear weapons and their reminder to Putin that "the Atlantic alliance is a nuclear alliance".⁵
3. A decision by President Putin on 27 February 'to transfer strategic nuclear forces to a special mode of combat duty',⁶ officially translated publicly by the Kremlin as an order to "put the Russian Army's deterrence forces on high combat alert".⁷
4. No comparable change of the alert status of US nuclear forces. Indeed, Western nuclear powers and NATO decided not to engage in nuclear sabre-rattling, and the United States decided to first delay and then to postpone a Minuteman missile test.⁸
5. Heightened fears among experts, leaders, and publics in many countries of the risk of use of nuclear weapons, if not escalation to a global nuclear war.
6. Successful initial defence by Ukrainian military forces, leading to the failure of the military forces of the Russian Federation to achieve their initial objectives (including the seizure of Kyiv), significant losses for the Russian Federation in terms of lives and equipment, and a reorientation of the Russian Federation's attack to concentrate on seizing eastern Ukraine and the Donbas region.

2 Charter of the United Nations, www.un.org/en/about-us/un-charter/full-text.

3 *Treaty Series: Treaties and International Agreements Registered or Filed and Recorded with the Secretariat of the United Nations*, vol. 3007, 2014, p. 169, <https://treaties.un.org/doc/Publication/UNTS/Volume%203007/v3007.pdf>.


4 President of Russia, "Address by the President of the Russian Federation", 24 February 2022, <http://en.kremlin.ru/events/president/news/67843>.

5 "France says Putin needs to understand NATO has nuclear weapons", *Reuters*, February 24, 2022, <https://www.reuters.com/world/europe/france-says-putin-needs-understand-nato-has-nuclear-weapons-2022-02-24>.

6 Translation provided by Pavel Podvig of UNIDIR.

7 President of Russia, "Meeting with Sergei Shoigu and Valery Gerasimov", February 27, 2022, <http://en.kremlin.ru/catalog/persons/90/events/67876>.

8 Phil Stewart and Idrees Ali, "Exclusive: U.S. cancels ICBM test due to Russia nuclear tensions", *Reuters*, April 1, 2022, <https://www.reuters.com/business/aerospace-defense/exclusive-us-cancels-icbm-test-due-russia-nuclear-tensions-2022-04-01>.

- 
7. A steady flow of conventional military assistance from NATO members to Ukraine to bolster defences, including particularly anti-tank and anti-aircraft weaponry as well as artillery, but stopping short of meeting Ukrainian requests for a US/NATO-enforced 'no-fly zone'.
 8. The imposition by the United States, Western European States, and others of an expanding and unprecedented set of economic, political, and other sanctions against President Putin and his family, as well as against the economy, officials, and other key figures of the Russian Federation.
 9. Repeated statements by President Biden and senior US officials explaining the limits of US/NATO military support to Ukraine and how direct US military intervention in the conflict would mean "World War III".⁹
 10. The veto by the Russian Federation of a Security Council resolution "Deplor[ing] in the strongest terms the Russian Federation's aggression against Ukraine in violation of Article 2, paragraph 4 of the United Nations Charter" and "Decid[ing] that the Russian Federation shall immediately, completely, and unconditionally withdraw all of its military forces from the territory of Ukraine within its internationally recognized borders".¹⁰
 11. The passage on 2 March of a General Assembly resolution demanding that the Russian Federation "immediately, completely and unconditionally withdraw all of its military forces from the territory of Ukraine within its internationally recognized borders", supported by 141 States, 5 opposed, and 35 abstentions.¹¹
 12. China's decision to abstain on both the Security Council and General Assembly resolutions condemning the invasion, while using its State-controlled media to support Moscow's arguments to justify the invasion.¹²
 13. Condemnation by Secretary-General Guterres that "We are dealing with the full-fledged invasion, on several fronts, of one Member State of the United Nations, Ukraine, by another, the Russian Federation—a Permanent Member of the Security Council—in violation of the United Nations Charter The war has led to senseless loss of life, massive devastation in urban centres, and the destruction of civilian infrastructure".¹³
 14. Concern over the brutality of the invasion, leading to the suspension of the Russian Federation from the Human Rights Council and a reference by the High Commissioner for Human Rights of "possible war crimes, grave breaches of international humanitarian law and serious violations of international human rights law".¹⁴

9 Aaron Blake, "Why Biden and the White House keep talking about World War III", *The Washington Post*, www.washingtonpost.com/politics/2022/03/17/why-biden-white-house-keep-talking-about-world-war-iii/.

10 United Nations, "Security Council Fails to Adopt Draft Resolution on Ending Ukraine Crisis, as Russian Federation Wields Veto," 25 February 2022, <https://www.un.org/press/en/2022/sc14808.doc.htm>; Security Council, S/2022/155, https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_2022_155.pdf.

11 General Assembly, A/ES-11/L.1, <https://undocs.org/A/ES-11/L.1>

12 Elizabeth Dwoskin, "China is Russia's most powerful weapon for information warfare," *The Washington Post*, 8 April 2022, <https://www.washingtonpost.com/technology/2022/04/08/russia-china-disinformation/>.

13 United Nations, "Secretary-General's remarks at the UN Security Council Meeting on Ukraine [as delivered]," 5 April 2022, <https://www.un.org/sg/en/content/sg/statement/2022-04-05/secretary-generals-remarks-the-un-security-council-meeting-ukraine-delivered>.

14 Office of the High Commissioner for Human Rights, "Comment by UN High Commissioner for Human Rights Michelle Bachelet on Bodies in Town of Bucha in Ukraine," 4 April 2022, <https://www.ohchr.org/en/state-ments-and-speeches/2022/04/comment-un-high-commissioner-human-rights-michelle-bachelet-bodies>.



IMPLICATIONS FOR PURSUIT OF NUCLEAR DISARMAMENT


Against the preceding backdrop of events so far, this section turns to possible implications of the invasion for the pursuit of nuclear disarmament. To do so, it explores first the broader implications for perceptions of the utility of nuclear weapons and then for assessments of the balance between the risks of a world with and without nuclear weapons. Each aspect has been a critical part of the ongoing global debate about nuclear disarmament.

IMPLICATIONS FOR THE PERCEIVED UTILITY OF NUCLEAR WEAPONS

From the start, the invasion has taken place under the shadow cast by nuclear weapons. Putin's allusions and those of other senior officials of the Russian Federation to the risks of nuclear war darkened that shadow. Biden's references to the need to avoid 'World War III' as well as other Western statements strongly suggest that the United States as well as NATO understood the danger that a direct military confrontation between US/NATO forces and those of the Russian Federation could escalate to nuclear conflict. In turn, that understanding almost certainly contributed to the constraints on the US/NATO response to the invasion, most exemplified by the refusal of the United States and NATO to impose a no-fly zone over Ukraine. Thus, one part of a surprise-free projection of the implications for perceptions of the utility of nuclear weapons would be that the invasion has demonstrated the utility of nuclear weapons as a deterrent umbrella—but in this case, an umbrella under which to wage an aggressive conventional war against a non-nuclear-weapon State while deterring direct military engagement by nuclear-weapon States and their allies.

Nonetheless, conventional military capabilities have determined the outcome of the conflict up until this point. The invading battle groups have not been able to achieve their objectives and have suffered significant losses in equipment and personnel. So viewed, another part of a surprise-free projection would be that the conflict so far has once again underlined the limited direct military utility and usability of nuclear weapons. Even for a State possessing a very robust nuclear arsenal, conventional military capabilities are the key to battlefield success, or failure.

At the same time, also part of this surprise-free projection is recognition that the invasion will likely reinforce ongoing efforts within the NATO alliance to buttress and to make more visible the nuclear dimension of NATO's overall deterrence and defense posture. In effect, support will grow for carrying through with earlier commitments to strengthen nuclear expertise within NATO staff, undertake explicit nuclear planning for a hypothetical conflict with the Russian Federation, include a visible nuclear dimension in future NATO exercises, and make necessary investments in equipment and personnel to sustain existing nuclear burden-sharing arrangements within the alliance. Heightened concerns about miscalculation by Putin in what will be heightened tensions between the United States/NATO and the Russian Federation after this crisis can be expected to provide ample motivation to do so. Indeed, the very reluctance of the United States and its NATO allies to confront the Russian Federation militarily would be seen as evidence of the deterrence value of nuclear weapons and justification for these actions.



However, the surprise-free projection would be that there is no fundamental change in NATO's nuclear doctrine or posture. Nuclear adaptation stops with NATO's taking care of 'old business'.¹⁵ Any nuclear adaptation likely does not include a shift away from NATO's 'last resort' nuclear doctrine, the extension of NATO nuclear sharing or deployments of US nuclear weapons to additional NATO members, or new US investments in systems providing limited nuclear options over and above those that already were underway. The greater importance of the types of deployments and investments in conventional deterrence and defence already being taken in response to the invasion, the goal of the Biden administration to reduce reliance on nuclear weapons, concern about provoking the Russian Federation, and political and budgetary considerations all would argue against a dramatic change of US/NATO nuclear doctrines and postures.

However, as an *alternative* to the surprise-free projection, it is conceivable, if less likely, that the invasion ultimately would result in just such dramatic changes of NATO's nuclear posture. Calls for reassurance from 'front line' NATO members, the difficulties of defending some 'front line' States, and, were it to occur, a collapse of Ukrainian resistance and successful expansion westward of the Russian Federation's border would be among potential drivers. Though not returning to the central place that they played in NATO's Cold War doctrine of 'flexible response', nuclear weapons in this alternative would take on much greater prominence in NATO's deterrence and defence posture. In practice, perhaps the most prominent element of such a shift would be the forward deployment of US nuclear weapons to the borders of the Russian Federation, including through nuclear sharing arrangements. Those deployments would be intended to signal and symbolize the US article V commitment. Their purpose also would be seen as a way to make clear the risks of aggression against NATO members in a way that only nuclear weapons are seen to do by deterrence practitioners.


BALANCING THE RISKS OF A WORLD WITH AND A WORLD WITHOUT NUCLEAR WEAPONS

At the core of the debate about nuclear disarmament and the pursuit of a world free of nuclear weapons is an assessment of comparative risks—the risks of a world with nuclear weapons compared to the risks of a world without nuclear weapons.¹⁶ The events associated with the invasion almost certainly will be seen both by advocates of the accelerated pursuit of a world without nuclear weapons and sceptics of nuclear abolition as validating their respective positions. Both groups, moreover, will be correct.

For advocates of abolishing nuclear weapons, multiple aspects of how the conflict has unfolded reinforce their argument about the importance of accelerated progress to eliminate nuclear weapons because of the risks of a world with nuclear weapons. One such aspect are legitimate questions over the ability of leaders to calculate rationally the costs and gains of their decisions. Such rational calculations are a fundamental premise of reliance on nuclear deterrence. In turn, as the conflict has unfolded, the demonstrated

15 I am borrowing this phrase from Brad Roberts, long both a NATO practitioner and a student of NATO's nuclear debates.

16 The fundamental importance of comparative risks was one of the points highlighted in the earlier UNIDIR Disarmament, Deterrence, and Arms Control Dialogue. It also figures prominently in various writings by advocates and sceptics of nuclear abolition.



overconfidence of the Russian Federation's General Staff in their conventional military planning and execution, as well as in their intelligence assessments, raises legitimate questions about comparable overconfidence in their ability to use and control nuclear escalation. The widespread fears that the conflict could escalate to a nuclear war, most likely because of some mixture of miscalculation, misinterpretation, and missteps on the part of the Russian Federation, the United States, and NATO reinforce all of the above concerns. Taken together, all of these aspects do underscore the dangers inherent in nuclear weapons and a reliance on nuclear deterrence for security for the foreseeable future.

By contrast, for sceptics of the goal of abolishing nuclear weapons, Putin represents a real-world validation of what most concerns many of them. Their worry is that in a world in which States have given up their nuclear weapons, one State will suddenly reveal that it had kept hidden and undetected from any verification regime a limited number of nuclear weapons. Then, backed by the threat to use those weapons, it will demand changes to achieve its goals. The result, sceptics fear, could be successful nuclear blackmail, or even unilateral use of nuclear weapons in the midst of a major conventional war if other States did not yield but instead resisted nuclear-backed aggression.¹⁷


Despite the fact that escalation has been so far avoided, the fears of nuclear-abolition sceptics can no longer be so readily set aside as imaginary speculation. Equally important, the inability of the United States, NATO, and other States—first acting jointly and then in the Security Council and General Assembly—to deter or reverse the invasion almost certainly will reinforce concerns about the grave difficulties of enforcement of compliance in a world without nuclear weapons.¹⁸ Indeed, sceptics of abolition can be expected to rightly view the response to the invasion of Ukraine as a failed test of the ability of the global community to stand up for international law, and to do so in a less dangerous situation than if faced with a single State that alone possessed nuclear weapons. Paradoxically, among the most prominent States sometimes standing on the sidelines and refusing to support the resolutions condemning the invasion also are some of the most prominent advocates of nuclear disarmament.

Balancing these considerations, a surprise-free projection would be that notwithstanding the nuclear dangers of the conflict in Ukraine, the case for pursuit of nuclear disarmament paradoxically will be significantly weakened in the eyes of leaders of nuclear-weapon States, their allies, and many publics. The risks will simply be seen as too high, measured in terms of security against the emergence of a nuclear-armed aggressor in a world which has supposedly abolished nuclear weapons.

Even so, it is important to briefly consider a different but *much less likely alternative* to the surprise-free projection above—a fundamental rethinking by the five NPT nuclear-weapon States of their reliance on nuclear weapons as means of security, and in turn, of their readiness to take more seriously the NPT's goal of a world without nuclear weapons. Though

17 For one version of this concern, see Brad Roberts, “Ban the Bomb? Or Bomb the Ban? Next Steps on the Ban Treaty?” European Leadership Network, *Global Security Policy Brief*, March 2018, esp. pp. 1–2.

18 For a discussion of the crucial importance of enforcement of compliance for ensuring stability and security in a world without nuclear weapons, done by serious students of pursuit of a world without nuclear weapons, see George Perkovich and James Acton (eds), *Abolishing Nuclear Weapons: A Debate*, Washington D.C.: Carnegie Endowment for International Peace, 2009, pp. 99–115.



still very unlikely, as argued below, the least implausible trigger of such rethinking would be escalation to the use of nuclear weapons. The first use of a nuclear weapon in over seven decades would be an unprecedented global shock. Depending on the level of destruction and the extent of escalation, such a nuclear shock could graphically illustrate the dangers of nuclear weapons and dramatically shift the comparative risk calculus. Particularly if it failed to achieve its intended purpose, it also would reinforce all of the arguments previously discussed above for the greater military utility of conventional rather than nuclear weapons. That, too, would heighten the arguments favouring pursuit of nuclear disarmament.

Nevertheless, the immediate impact of such a shock could well prove limited. It is hard, for example, to see that effect in a Russian Federation still led by President Putin that had just used nuclear weapons, particularly if it did so ‘successfully’. It also is difficult to envision a President of the Russian Federation that had just used nuclear weapons as an acceptable partner in the eyes of Western nuclear-weapon States for new nuclear disarmament efforts. If so, leadership change in the Russian Federation following such use also would seem a necessary adjunct for the type of fundamental rethinking posited in this alternative. For that reason, as well, it seems considerably less likely to occur but still cannot be completely excluded.



IMPLICATIONS FOR STRATEGIC ARMS CONTROL

Strategic arms control is defined here as both formal *treaty-based* and less formal *non-treaty-based* efforts to regulate not only nuclear weapons of all types but also capabilities in those domains directly impacting nuclear relationships, such as missile defences, space, cyber, artificial intelligence, and conventional strike capabilities. The likely implications of the invasion range from a surprise-free projection of an extended pause in negotiations between the United States and the Russian Federation to one of a possible indirect push for strategic dialogue between the United States and China. The norm of non-use of nuclear weapons probably holds.


A PAUSE IN STRATEGIC ARMS CONTROL—BUT FOR HOW LONG?

Prior to the invasion of Ukraine, the New START Treaty had been extended, strategic dialogue had resumed, and, at least in principle, there was a possible comprehensive agenda for United States–Russian Federation strategic arms control. That agenda ranged from negotiations on a follow-on to the New START Treaty to regulate strategic and non-strategic nuclear forces, to a more modest resumption of military-to-military engagement to temper the risks of close interaction along European borders, from a focus on the traditional nuclear domain to the new domains of competition in space and cyberspace.¹⁹

Even prior to the invasion, it was clear that there were many challenges to achieving major arms control breakthroughs and the future especially of treaty-based arms control was in question. The very complexities of the issues—including the need to address new types of systems and new domains that do not lend themselves to ‘numbers-based’ agreements; the interacting narratives of Russian Federation memories of US withdrawal from the ABM Treaty and US concerns about violation by the Russian Federation of the INF Treaty; the need to find ways to bring China more fully into the global arms control process; and US Senate’s reluctance to ratify any new arms control agreement—were but a few of the factors limiting the prospects of arms control.

After the invasion of Ukraine, the surprise-free projection is for an extended pause of the traditional treaty-based arms control process between the United States and the Russian Federation, as well as of efforts to bring non-treaty-based approaches to bear in regulating that strategic relationship. From a US perspective, the invasion and the nature of the ensuing conflict have intensified all of the above constraints. Not least, the violations of international law with the initial invasion of Ukraine and later by its prosecution through large-scale attacks on civilians cannot but make it extremely difficult for any US President to believe in—let alone defend publicly or to Congress—Putin’s readiness to comply with future arms control agreements. Equally important, within the changed geopolitical landscape, there almost certainly will be growing pressures on the United States and its NATO allies not to constrain but to take advantage of new military capabilities—hypersonic strike systems, INF-range systems, space and cyber offence, and missile defences—to buttress deterrence in Europe. In some cases, moreover, buttressing deterrence could well be seen as reinforcing arguments for previously off-limits US deployments, not least space-based components to enhance regional and national missile defences.

19 The earlier discussions within the UNIDIR Disarmament, Deterrence, and Arms Control Dialogue explored opportunities for cooperative engagement between the United States and the Russian Federation. See “Identifying Collaborative Actions to Reduce Today’s Nuclear Dangers,” (Geneva, Switzerland: UNIDIR, 2021), <https://doi.org/10.37559/WMD/21/DDAC/03>.



Within this surprise-free projection, there are two important uncertainties: first, will the United States and the Russian Federation continue to implement the obligations of the New START Treaty, which does not expire until 2026; second, how long will such an arms control pause last?


Regarding implementation of the New START Treaty, a surprise-free projection would be that implementation will continue. Neither State is likely yet to take the step of withdrawal from the treaty or of stopping implementation of its residual verification obligations, for example notifications of treaty-related activities. For both States, the windows into each other's strategic activities provided by the New START Treaty would continue to be a stabilizing factor in a worsening political-military relationship. Plus, both States benefit from the numerical limitations of the New START Treaty.

As for the duration of an arms control pause, at the least, a surprise-free projection is that it will last as long as the war in Ukraine is going on. It even could last as long as Putin but also Biden are in power, not least given the Biden administration's characterization of Putin as a war criminal. That said, the lesson of the Cold War confrontation, however, is that the respective interests of both Washington and Moscow in regulating their strategic competition probably would ultimately lead at least to renewed strategic engagement—but not for some time.²⁰ So the surprise-free projection would be for an extended but not indefinite pause of several years. Plus, even then, the already existing constraints on treaty-based agreements would likely make pursuit of non-treaty-based approaches a more promising if still very difficult path to take.

An *alternative* but considerably less likely projection would be the resumption of a nuclear arms control process between the United States and the Russian Federation following a diplomatic resolution of the war in Ukraine in the months ahead. (This assumes that the war in Ukraine does not become a protracted low-level conflict without resolution in the foreseeable future). Such an unexpected resumption could be driven by mutual recognition of the need to reduce nuclear risks and to head off the most destabilizing outcomes of what will be increased tension between the United States/NATO and the Russian Federation. Budgetary considerations also could provide an incentive, not least given multiple competing demands in both countries. There is a slight precedent. After the November 1962 Cuban Missile Crisis, the United States and the Soviet Union moved quickly in June–July 1963 to negotiate the Limited Test Ban Treaty. They were motivated in large part by a desire on the part of both President Kennedy and General Secretary Khrushchev to signal to each other that they both understood the grave dangers that both their countries had experienced during that crisis.

So far, however, the dangers of this tension have remained manageable. Moreover, as long as Putin remains in power, with him and his military leadership accused of war crimes in Ukraine by Biden as well as other Western leaders, a leader-to-leader relationship comparable to that between Kennedy and Khrushchev no longer exists. Both factors could change—for example with a nuclear shock or with changes in leadership.

20 After the 1979 Soviet invasion of Afghanistan, arms control talks were on hold for several years, though partly as a result of the defeat of President Carter and the need of the new Reagan administration to sort out its arms control posture. Initial talks in the early 1980s collapsed in 1983 with the Soviet walkout following US/NATO deployments of INF missiles, but then resumed in 1985.



There is still another, again less likely, but very different alternative to the surprise-free projection: the invasion of Ukraine leads to the complete collapse of both treaty-based and non-treaty-based arms control. Recently, US Secretary of Defense Austin stated that the US goal is “Russia weakened to the point where it can’t do things like invade Ukraine”.²¹ The impact of this goal on prospects for arms control is likely to depend on how several different calculations play out. Historically, arms control was seen by US officials partly as a means to constrain the capabilities of the Russian Federation (and conversely by Russian Federation officials as a means to constrain US capabilities). From this traditional perspective, a resumption of arms control could be seen as a means to ‘weaken’ the Russian Federation. Quite differently, if the goal is to weaken the Russian Federation, then US officials could view a collapse of arms control that created dramatic new uncertainties and pressures for military spending by the Russian Federation—on top of the demands for rebuilding conventional military capabilities destroyed in the war—as very consistent with that goal. The historic analogy here is the impact of US pursuit of the Strategic Defense Initiative by the Reagan administration on the eventual collapse of the Soviet Union. For their parts, Russian officials probably have much the same calculation to make, whether arms control makes it easier or harder to rebuild the Russian Federation’s residual conventional military power after Ukraine by placing limits on competition in the non-conventional realm. Politically, however, the US goal of weakening the Russian Federation is very likely at the least to reinforce US voices arguing not to re-engage and to make the prolonged arms control pause even more prolonged.

Nonetheless, the surprise-free projection remains an extended arms control pause though not necessarily its complete demise. US and Russian Federation interests in avoiding some of the most potentially destabilizing outcomes of intensified strategic competition once again ultimately overcome the arguments against engagement and arms control. Even so, the difficulties that already limited the prospects for new treaty-based agreements prior to the invasion likely argue for eventual pursuit of more non-treaty-based approaches.

THE NORM OF NON-USE OF NUCLEAR WEAPONS HOLDS


Shifting from traditional arms control to nuclear norms, the surprise-free projection is that the most important non-treaty-based element of arms control holds—the non-use of nuclear weapons.²² Even while Putin initially used the nuclear shadow as part of his invasion strategy, Kremlin spokesmen soon after sought to do the opposite. Thus, one official stated after the invasion had become bogged down several weeks later:

*But any outcome of the operation (in Ukraine) of course is not a reason for usage of a nuclear weapon. We have a security concept that very clearly states that only when there is a threat for the existence of the state, in our country, we can use and will actually use nuclear weapons to eliminate the threat for the existence of our country.*²³

21 David E. Sanger, “Behind Austin’s Call for a ‘Weakened’ Russia, Hints of a Shift,” *The New York Times*, 25 April 2022, <https://www.nytimes.com/2022/04/25/us/politics/ukraine-russia-us-dynamic.html>.

22 The importance of the norm of non-use of nuclear weapons (along with the norms of no testing and non-proliferation) as an element of the nuclear arms control legacy is emphasized by Michael Krepon. He argues that sustaining that legacy is the most important challenge for arms control going forward; see Michael Krepon, *Winning and Losing the Nuclear Peace: The Rise, Demise, and Revival of Arms Control* (Stanford, CA: Stanford University Press, 2021), esp. pp. 493ff.

23 “Kremlin Spokesman: Russia Would Use Nuclear Weapons Only in Case of ‘Threat to Existence of State’”, *Reuters*, 28 March 2022, <https://www.reuters.com/world/kremlin-spokesman-russia-would-use-nuclear-weapons-only-case-threat-existence-2022-03-28>.



In turn, the United States and NATO have thus far sought to carefully calibrate their military support to Ukraine to avoid a direct military confrontation with the Russian Federation that could put at risk ‘the existence of the country’ and, thereby, escalate toward the nuclear threshold. Putin’s nuclear calculus could yet change given how the next phase of the war evolves, with an apparent attempt to seize additional parts of eastern Ukraine rather than all of the country. More recent Russian Federation statements also have again alluded to the danger of nuclear conflict.²⁴ But for now the surprise-free projection is that the norm of non-use holds.

PAUSE IN NUCLEAR RISK-REDUCTION VIA THE P5 PROCESS

Whether a continued readiness on the part of the five NPT nuclear-weapon States to use the P5 Process as a forum in which to discuss nuclear risk reduction should be considered a surprise-free projection or an alternative is an open question, though recent lack of contacts now points toward the latter. Prior to the invasion, the five NPT nuclear-weapon States had expanded their discussions of nuclear risk reduction and issued a statement, including a reaffirmation of the Reagan–Gorbachev principle that a nuclear war cannot be won and must never be fought. They did so in light of calls from many States for intensified P5 engagement on nuclear risk reduction, a recognition that ‘action’ could be one important area for agreement among NPT Parties at the Tenth Review Conference, and, not least, their shared interest in the NPT. Each of these factors still exists.

With the prospect of even greater tension between the United States/NATO and the Russian Federation whatever the outcome in Ukraine, there is now an even greater need for at least dialogue on nuclear risk reduction. With bilateral arms control between the United States and the Russian Federation on an extended hold, moreover, the P5 process remains a forum in which to address nuclear risk reduction as well as other actions to stabilize strategic interaction between the Western nuclear-weapon States and the Russian Federation, and the United States and China.

Nonetheless, the three Western NPT nuclear-weapon States (with the United States taking over as the chair of the P5 Process) can be expected to be very reluctant to make the P5 Process an exception to their efforts to isolate and impose costs on the Russian Federation. At most, they could be prepared for ad hoc and more technical engagement in the course of the Tenth Review Conference of the Non-Proliferation Treaty in August 2022. This reluctance could change once the war in Ukraine is over, especially if it ends in a way acceptable to Ukraine and to them. For its part, the Russian Federation also may be very reluctant to engage.²⁵ Balancing all of these considerations, a surprise-free projection would be that there likely is a significant pause in the P5 Process.

24 See for example, “Russia’s Lavrov: Do Not Underestimate Threat of Nuclear War”, *Reuters*, 25 April 2022, <https://www.reuters.com/world/russia-says-western-weapons-ukraine-legitimate-targets-russian-military-2022-04-25>.

25 Efforts by US military leaders to engage their Russian Federation counterparts to reduce the risks arising out of the Ukraine conflict have apparently been rejected. See John Hudson, “Top Russian Military Leaders Repeatedly Decline Calls from U.S., Prompting Fears of ‘Sleepwalking into War’”, *The Washington Post*, 23 March 2022, <https://www.washingtonpost.com/national-security/2022/03/23/russia-us-military-leaders-communication>.



A MODEST BOOST FOR US–CHINESE STRATEGIC DIALOGUE AND PURSUIT OF MUTUAL STRATEGIC REASSURANCE

Prior to the invasion, Chinese officials and experts had signaled in different ways China's readiness to initiate an official strategic nuclear dialogue with the United States.²⁶ For their part, US officials and experts had long argued that such an official dialogue was necessary to help to identify practical measures that the two States could take to manage their increasingly competitive strategic relationship. At best, such a dialogue could be a stepping stone to agreement on measures of mutual reassurance; at the least, it could lessen the risk of miscalculation and missteps based on a false assessment of each other's intentions, programmes, and plans.²⁷ The possibility that the invasion could give a small but still useful boost to efforts to overcome the obstacles to official US–Chinese strategic dialogue and mutual reassurance is another surprise-free projection for arms control. There are many different reasons for thinking so. But there also is a compelling alternative which holds to the contrary.

For the United States, a need to concentrate its attention on addressing the demands of increasingly dangerous tensions with the Russian Federation—whatever the outcome in Ukraine—could create new incentives to explore ways to use strategic dialogue to temper its competitive relationship with China. In turn, by dramatically demonstrating the uncertainties of war, the Russian Federation's military failures in Ukraine highlight the risks and underscore the advantages for China of peaceful means in achieving its objectives vis-à-vis Taiwan Province of China. In so doing, it likely alleviates one potential source of military confrontation between the United States and China.


At the same time, the invasion will create pressures for development of new US military capabilities, some of which are very likely to have indirect impacts on China's nuclear deterrent posture. Some specific possible examples of such spillovers include heightened pressures from US allies for a more visible US nuclear presence in Asia (reflecting the argument that had Ukraine been a nuclear power, Putin would not have made the decision to invade); enhanced US investments in hypersonic systems and longer-range strike capacities to buttress its strike capabilities in a European conflict; and buttressed investments in theatre missile defence options, accompanied by possible renewed debate about augmenting US missile defences to provide protection against a limited strike targeting the US domestic territory. A dialogue about how to manage such disruptive spillovers could serve not only US but also Chinese interests. The expected slowing of China's economy, partly due to the shutdowns arising from its 'zero-COVID policy', could reinforce the economic case for exploring how to restrain Chinese–US military competition.

Very differently, China's standing aside from international sanctions against Putin—and indeed, using its State-controlled media to relay the Russian Federation's message to the world—could create a political incentive for taking steps to signal it is a 'responsible' global actor. One way to do so would be to agree to official strategic dialogue.²⁸

26 This judgment is based on my own participation in a number of forums with senior Chinese officials or retired officials.

27 For a review of past semi-official dialogue from US and Chinese perspectives, see Brad Roberts (ed.), "Taking Stock: U.S.-China Track 1.5 Nuclear Dialogue", *Center for Global Security Research*, 2020, https://cgsr.llnl.gov/content/assets/docs/CGSR_US-China-Paper.pdf.

28 For a discussion of opportunities in the US–Chinese strategic relationship, see Lewis A. Dunn, "Adversarial Strategic Competition between China and the United States: Understanding and Mitigating Its Risks", *China International Strategy Review* 3 (2021):1–19, <https://doi.org/10.1007/s42533-021-00070-2>.



Nonetheless, here too there is a very different and much more pessimistic alternative to the surprise-free projection. In that alternative, the invasion and especially the US response reinforce the steady slide toward an increasingly adversarial US–Chinese political–military relationship, including the risk of conflict over Taiwan Province of China.²⁹ In this alternative, US support for Ukraine and the now stated goal of a ‘weakened’ Russian Federation likely reinforce the belief among the Chinese public, experts and officials that, whatever US officials say, the ‘real’ US goal is to undermine and weaken China. In turn, despite its initial defeats, should the Russian Federation eventually seize eastern Ukraine and the Donbas region, that success could reinforce the belief that Chinese military success would ultimately be attainable in any conflict over Taiwan Province of China. The prospect of the United States now being forced to concentrate on a ‘new Cold War’ with the Russia Federation, moreover, could be seen to provide an opportunity to move against Taiwan Province of China. Chinese voices making such arguments already exist. The key question is whether they shape official Chinese thinking, not least that of President Xi Jinping. The answer is not yet known.³⁰ But some readers may believe that this alternative should be the surprise-free projection.

29 The description of this alternative draws on analysis by Paul Haenle, Tong Zhao. “How China Has Handled Its Strategic Dilemma Over Russia’s Invasion”. *Carnegie Endowment for International Peace*. April 12, 2022. <https://carnegieendowment.org/2022/04/12/how-china-has-handled-its-strategic-dilemma-over-russia-s-invasion-pub-86875>. Also see Tong Zhao’s comments on this essay.

30 Ibid.



IMPLICATIONS FOR NUCLEAR NON-PROLIFERATION

The invasion of Ukraine has led to considerable speculation about its non-proliferation spillovers. The surprise-free projections that follow, however, suggest that the implications for non-proliferation could be more limited than might be feared or speculated by some persons.³¹

VIRTUALLY ALL NPT NON-NUCLEAR WEAPON STATES WILL REMAIN SO— BUT A FEW WILL CHECK THEIR NUCLEAR UMBRELLAS


Ukraine's decision to give up control of former Soviet nuclear weapons on its territory and to adhere to the NPT in 1994 needs to be the starting point for discussion of the non-proliferation implications of the invasion. That decision—and debate about whether Putin would have made the decision to invade a nuclear-armed Ukraine—will be in the background as the leaders of many different States assess their own security postures, including any nuclear dimensions. Nonetheless, the surprise-free projection is that the invasion has little corrosive impact on the decision not to possess nuclear weapons on the part of States that are now party to the NPT. But at least a few of these good faith adherents to the NPT may seek to adapt their status at the margin, in ways consistent with their NPT obligations.

More specifically, for the overwhelming majority of NPT non-nuclear-weapon States, their good faith adherence reflects a variety of contexts: recognition that their security would not gain and may well be decreased by acquisition of nuclear weapons (including because of an alliance nuclear guarantee); moral and political opposition to nuclear weapons as well as support for the goal of a world without nuclear weapons; internal constraints on their freedom of action (including having undertaken legal obligations not to acquire nuclear weapons by adherence to either or both the NPT and the Treaty on the Prohibition of Nuclear Weapons); external constraints on their freedom of action (including concern about adverse political, economic, and military responses by other States); and limits on their technological capabilities. Given these factors, virtually no NPT States Parties are likely to change their basic non-nuclear status and seek to acquire nuclear weapons.

Nonetheless, also part of this surprise-free projection is that at least some of the NPT non-nuclear-weapon States will seek to strengthen their nuclear alliance relationships with the United States. Some US NATO allies, for example, can be expected to become less reluctant to sustain traditional nuclear burden-sharing arrangements, while others may seek a greater role in the nuclear dimension of the alliance. Outside of NATO, political momentum in both Japan and the Republic of Korea for greater involvement in nuclear-deterrence planning is almost certain to become more intense. It also is likely to be accompanied by some calls for US deployment of nuclear weapons or NATO-like nuclear sharing arrangements, as exemplified by former Japanese Prime Minister Shinzo Abe's statement—rejected by the current Prime Minister Fumio Kishida—that Japan consider nuclear sharing arrangements with the United States, or similar statements by some politicians in the Republic of Korea.³² Particularly in Asia, this surprise-free projection assumes that other

31 See the comments on this essay by Tanya-Ogilvie White.

32 See Isabel Reynolds, "Japan PM Opposes Sharing U.S Nuclear Weapons After Abe Proposal," *Bloomberg*, 28 February 2022, <https://www.bloomberg.com/news/articles/2022-02-28/japan-pm-opposes-sharing-u-s-nuclear-weapons-after-abe-proposal>; Toby Dalton, "How Washington and Seoul Can Get on the Same Page to Deter North Korea", *War on the Rocks*, 4 April 2022, <https://warontherocks.com/2022/04/how-washington-and-seoul-can-get-on-the-same-page-to-deter-north-korea>



cooperative actions by the United States and its allies to adapt and to sustain the US alliance relationship (including the nuclear deterrence dimension) will prove sufficient for allies' reassurance.³³ The choice of reliance on the United States is likely to be reinforced, moreover, especially in Japan by legal and domestic constraints and in Taiwan Province of China by the clear statement by China that pursuit of nuclear weapons by the former would be a *casus belli*.

By contrast, a possible if less likely alternative is that the perceived 'lesson of Ukraine' tips the balance for pursuit of nuclear weapons by the Republic of Korea. Even prior to the invasion the long-running debate in the Republic of Korea about acquiring nuclear weapons had greatly intensified. Now, public opinion polling indicates that a very significant percentage of the population supports acquiring nuclear weapons not only as a deterrent to the Democratic People's Republic of Korea but also because of the perceived prestige associated with nuclear weapons.³⁴ The recent resumption of testing of ballistic missiles by the Democratic People's Republic of Korea, with the possibility of resumed nuclear testing as well, is another reason for concern. For his part, the newly-elected President of the Republic of Korea, Yoon Suk-yeol, has called for US actions to strengthen deterrence, including nuclear deterrence. It remains to be seen how the Biden administration responds, though tensions can be expected given the administration's broader nuclear agenda. Nonetheless, there are credible options to strengthen alliance cooperation, including its nuclear dimension, between the United States and the Republic of Korea. Moreover, unlike France in the 1950s, the Republic of Korea cannot assume that it will be able to acquire nuclear weapons and continue to have the alliance protection of the United States. If not, its choice could leave it more and not less vulnerable to both the Democratic People's Republic of Korea and China. For both reasons, such a decision by the Republic of Korea is considered as an alternative to the surprise-free projection.³⁵

POSSIBLE HEDGING IN SOME MIDDLE EAST STATES OF PROLIFERATION CONCERN


Aside from the Republic of Korea, the two most-often cited States of proliferation concern today are the Islamic Republic of Iran and Saudi Arabia. Following the Trump administration's decision to withdraw from the Joint Comprehensive Plan of Action (JCPOA), the Islamic Republic of Iran gradually stopped adhering to many of the JCPOA's restraints. As a result, it has steadily moved closer to being able to manufacture a nuclear weapon, were a decision made to do so. Even assuming that the current negotiations between the United States and the Islamic Republic of Iran to restore the JCPOA are successful, the latter will remain months away from possession of sufficient highly enriched uranium for a nuclear weapon. For its part, Saudi Arabia has repeatedly signaled that it would seek its own nuclear weapons were the Islamic Republic of Iran to acquire them.³⁶

33 Though Taiwan Province of China is no longer party to the NPT, it once ranked among States of proliferation concern. For its leadership, the failures of the invasion of Ukraine likely reinforce its emphasis on the importance and potential pay-offs of a robust conventional defence that takes advantage of its geography. The US emphasis on 'defending every inch of NATO territory' distinguished from a non-ally Ukraine seems unlikely to change that calculation. But efforts by Taiwan Province of China to tie the United States more closely to itself within the existing non-treaty based defence relationship can be expected.

34 On the current state of the debate, and US options to continue to influence it, see Toby Dalton, Karl Friedhoff, and Lami Kim, "Thinking Nuclear: South Korean Attitudes on Nuclear Weapons", 2022, *The Chicago Council on Global Affairs*, <https://www.thechicagocouncil.org/sites/default/files/2022-02/Korea%20Nuclear%20Report%20PDF.pdf>.

35 See, for example, Toby Dalton, "How Washington and Seoul Can Get on the Same Page to Deter North Korea", *War on the Rocks*, 4 April 2022, <https://warontherocks.com/2022/04/how-washington-and-seoul-can-get-on-the-same-page-to-deter-north-korea>.

36 See, for example, Kingston Reif, "Saudi Arabia Threatens to Seek Nuclear Weapons," *Arms Control Today*, June 2018, <https://www.armscontrol.org/act/2018-06/news/saudi-arabia-threatens-seek-nuclear-weapons>.



The surprise-free projection is that the invasion of Ukraine and how it has unfolded reinforce activities already underway in each State but do not lead to any decisive change of posture. For the Islamic Republic of Iran, the clearly evident constraints on the US/NATO response could strengthen the argument that possession of nuclear weapons offers protection against US military intervention and possibly a more leak-proof umbrella under which the Islamic Republic of Iran can pursue regional ambitions. But at the same time, the invasion underscores a point already evident to the Islamic Republic of Iran, that is, successful pursuit of its regional ambitions depends on conventional and subconventional capabilities as well as being seen as at the threshold of possessing nuclear weapons. Moreover, Putin's great miscalculation of the risks of military action against Ukraine also may provide a somewhat cautionary lesson for Iranian leaders as they assess the risks as well as the political and economic costs of making a decision to move from a threshold capability to actual weaponization and deployment of nuclear weapons. For the Islamic Republic of Iran, a comparable miscalculation would be to miscalculate whether and at what point Israel or Israel and the United States would take additional preventive measures to block the Islamic Republic of Iran's access to nuclear weapons. Balanced together, the result is much more likely to be additional cautious hedging by Iranian leaders rather than a dramatic policy shift—either within or absent a restored JCPOA.


With regard to Saudi Arabia, there are of course great differences for the United States between the risks of a military conflict with the Russian Federation and those of a conflict with a nuclear-armed Islamic Republic of Iran. Nonetheless, Saudi leaders can be expected to draw their own lessons from the limits of US support to Ukraine—and how Biden has repeatedly emphasized the US readiness to defend 'every inch of NATO'. It would reinforce already existing concerns about US disengagement from the region, while creating a belief that in the absence of a treaty-based defence alliance—or at least, much more solid assurances—direct US military intervention would be uncertain in a future conflict between a nuclear-armed Islamic Republic of Iran and Saudi Arabia. Even with President Biden's visit to Saudi Arabia, the difficulties of today's US–Saudi political relationship would make it easier for Saudi officials to draw such a lesson. Here too the result would be to reinforce arguments for additional Saudi nuclear weapon hedging ranging from public nuclear fuel cycle choices through ballistic missile programs even to future pursuit of secret studies of nuclear weapon design.

CONFIRMING A HISTORIC DECISION

Elsewhere in the Middle East, Israel has never confirmed or denied having acquired nuclear weapons. But it is publicly assumed to have done so.³⁷ Initially, that decision appears to have been undertaken as a last-resort hedge against conventional military defeat. As time passed, Israel's nuclear-weapon capability remained a hedge against uncertainty—in effect, a means to provide “warm comfort on cold nights”.³⁸ The invasion can be expected to reinforce the thinking underlying that approach. Perhaps equally important within this surprise-free projection, the failed response of international institutions to violations of international law by the Russian Federation—enforcing compliance—cannot but reinforce

37 See, for example, “Israel Nuclear Overview”, *Nuclear Threat Initiative*, 2014, <https://www.nti.org/analysis/articles/israel-nuclear>.

38 This phrase was used by a former Israeli official in explaining to me the ultimate logic behind Israel's nuclear capability.



the existing Israeli belief in self-reliance in ensuring its security as well as scepticism about the effectiveness of non-proliferation regimes and the utility of pursuit of a Middle East zone free of nuclear weapons and other weapons of mass destruction to prevent or effectively respond to such situations.

MAJOR SETBACK FOR THE TENTH REVIEW CONFERENCE OF THE NON-PROLIFERATION TREATY

The long-postponed Tenth Review Conference of the Non-Proliferation Treaty is currently underway. The surprise-free projection begins with the high likelihood that condemnations of the invasion of Ukraine, the prosecution of the war by the Russian Federation, and very divergent assessments of its implications for nuclear disarmament and non-proliferation will figure prominently in the formal speeches as well as corridor conversations at the conference. In turn, unless the conflict has been settled on terms acceptable to all involved, political confrontation between the three Western NPT nuclear-weapon States and the Russian Federation will spill over into the conference. The United States and its Western European allies are very likely to use the conference to further isolate and condemn the Russian Federation—to which it would respond. Animated by the nuclear dimension of the invasion, the supporters of the Treaty on the Prohibition of Nuclear Weapons can be expected to use the conference to press their argument for nuclear disarmament—to which the nuclear-weapon States would respond. The sheer practicalities of finding common ground on the many issues that define traditional NPT debates would remain an obstacle to compromise and agreement. Thus, collapse of the Review Conference must be part of the surprise-free projection.

Nonetheless, there is an alternative that should not be discounted out of hand. The shock of the invasion, the failure of international institutions to respond, and heightened fears of use of nuclear weapons all could create pressures among both Western nuclear-weapon States (and China) and non-nuclear-weapon States (including members of the Non-Aligned Movement) to make a last-ditch effort to avoid collapse. The stakes of a ‘failed conference’ would be seen as too high at a time when international institutions are under stress, actions to reduce nuclear risks are needed, the NPT’s legitimacy and effectiveness are being questioned, and there may be growing proliferation pressures for some NPT Parties. Not least, a recognition that, in ways discussed below, the Review Conference still is an opportunity to reduce global nuclear dangers also could add to voices calling for not giving up on achieving a constructive outcome. In effect, the core of any such outcome could be agreement on a limited set of practical nuclear risk reduction actions.

Assuming that momentum builds in the closing days to rally to the NPT as an island of stability and to make an effort to avoid a conference collapse, the Russian Federation’s posture will be essential. A desire to lessen its international isolation, its traditional and continuing stake in the NPT, and its own security interests all could provide reasons to join efforts to avoid a conference collapse. But this alternative also would require US and Western readiness to pivot from using the conference as a forum for public diplomacy to condemn and isolate the Russian Federation to seeking to pursue practical actions among the P5 to reduce nuclear dangers. Perhaps not least, a way would need to be found to bring Ukraine into any such a process.



WHAT NEXT FOR REDUCING NUCLEAR DANGERS?

With some exceptions, the preceding exploration of the implications for nuclear disarmament, arms control, and non-proliferation of Putin's decision to invade Ukraine (and how it has unfolded) is disheartening. But it also suggests some important actions to reduce nuclear dangers, whether to lessen the adverse impacts of the invasion or to avoid missteps, to pursue limited but important opportunities, or to lay the foundation for later action in a better political-military environment. By way of conclusion, this section very briefly puts forward some propositions, partly tracking the issues raised in the three sections above, on what next for reducing nuclear dangers.


STAND UP FOR INTERNATIONAL LAW

The imposition of sanctions, the support for United Nations actions, and ultimately independent investigation and, if justified, pursuit of alleged war crimes by the Russian Federation military will not change the battlefield outcome in Ukraine. But the readiness of nearly three-quarters of the Membership of the United Nations to repeatedly condemn the actions of the Russian Federation and its violations of international humanitarian law (with only a handful of States voting in support of the Russian Federation) sends a necessary if still insufficient signal. It is a necessary signal because it shows the readiness of at least a great majority of the States that make up the so-called 'international community' to stand behind the Charter of the United Nations, international law, and international norms. It is an insufficient signal because of the important States that for their own reasons have chosen to stand on the sidelines in the midst of the most destructive act of aggression since the Second World War. Even with greater support, moreover, the response to the invasion will not suffice to overcome sceptics' conclusion that lack of any mechanism to ensure compliance remains a fundamental weakness of the pursuit of nuclear disarmament. But standing up for international law and holding Putin accountable for the decision to invade may become a starting point for other actions to slowly build necessary confidence that compliance can be enforced in a world without nuclear weapons.

EMPHASIZE CONVENTIONAL, NOT NUCLEAR, ENHANCEMENTS OF THE US/NATO DETERRENCE AND DEFENCE POSTURE

The United States and its NATO allies have already begun to take actions to buttress NATO's deterrence and defence posture. As the Alliance moves forward, it will be especially important to strike the right balance between enhanced conventional capabilities and deployments, including in the now front-line States; already agreed steps to buttress NATO's nuclear deterrence posture; and new actions to signal that nuclear weapons are the ultimate contributor to robust deterrence. In striking that balance, many sometimes conflicting considerations will need to be weighed:

- the lesson of the invasion that conventional forces matter most.
- the historic contribution of nuclear burden-sharing in tying NATO States together.
- the role of nuclear weapons in compensating for the uncertainties of conventional deterrence and the geographical location of front-line States.
- the risks inherent in nuclear deployments and even more so in any attempted 'limited use' of nuclear weapons.
- the importance of US/NATO limited nuclear options to be used only in response to first use of nuclear weapons by other parties.
- and political realities in the United States and NATO.



Suffice it to propose three possible guidelines. First, continue to tilt towards less not more reliance on nuclear weapons within NATO's overall deterrence and defence posture. Second, carry out NATO's 'old nuclear business' needed to sustain the credibility of its nuclear posture as a last resort deterrent. Third, tilt towards less not more new adaptations of existing US/NATO nuclear doctrine, posture, and capabilities. In addition, in ways discussed below, the United States and its NATO allies should make clear their readiness when engagement again is possible to pursue opportunities for nuclear risk reduction with the Russian Federation and do their arms control 'homework'.

DO NOT GIVE UP HOPE OF USING THE TENTH REVIEW CONFERENCE TO PURSUE NUCLEAR RISK REDUCTION


Prior to the invasion, the P5 issued a joint statement on "Preventing Nuclear War and Avoiding Arms Races".³⁹ At the Review Conference, like-minded States from across the NPT should take this statement as their starting point to put forward their own proposals for action by the NPT nuclear-weapon States on nuclear risk reduction. Delegation and Group statements, conversations in the corridor, and eventually efforts to craft a consensus final document all could be used to seek agreement on a small set of achievable next steps to reduce nuclear risks. Their successful pursuit could well unexpectedly become possible, if as argued above a broad movement emerges to 'rally around the NPT' next August.

Specifically, many ideas for risk reduction have already been put forward in the period during which the Tenth Review Conference was on hold—and prior to the invasion. One set of possible priorities would be commitments by all nuclear-weapon States that could be undertaken unilaterally given the breakdown of engagement among all of them—for example, to avoid nuclear rhetoric and threat-making; to ensure robust human-in-the loop nuclear decision-making and to limit any use of artificial intelligence for nuclear command and control; and to avoid actions in space or cyberspace intended to test capabilities or to prepare hidden options for degrading nuclear command and control of other nuclear-armed States. In addition, the Review Conference could call on the nuclear-weapon States to re-engage within the P5 Process and report back to each of the Preparatory Committee meetings for the 2025 Review Conference on specific risk reduction actions. There is a broad agenda of possible actions that have already been put forward by experts and working groups.⁴⁰

Let us assume, however, that for reasons already set out above it proves impossible to gain a consensus among the NPT Parties, including among the nuclear-weapon States, on a set of nuclear risk reduction measures. In that situation, it still would be possible for as many nuclear-weapon States and non-nuclear-weapon States as possible to sign on to a joint statement calling for specific actions. To have a practical rather than only a rhetorical impact, however, it will be essential to craft such a statement in a way that rallies support among as many as possible nuclear-weapon States, non-nuclear-weapon States that are

39 Joint Statement of the Leaders of the Five Nuclear-Weapon States on Preventing Nuclear War and Avoiding Arms Races," 3 January 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/03/p5-statement-on-preventing-nuclear-war-and-avoiding-arms-races>.

40 For US, Russian Federation, and Chinese perspectives respectively by Andrey Baklitskiy, Tong Zhao, and Lewis A. Dunn, see *Major Power Rivalry and Nuclear Risk Reduction: Perspectives from Russia, China, and the United States*, Brad Roberts (ed.), Center for Global Security Research, Lawrence Livermore National Laboratory, 2020; see also Wilfred Wan (ed.), "Nuclear Risk Reduction: Closing Pathways to Use," (Geneva, Switzerland: UNIDIR, 2020), <https://doi.org/10.37559/WMD/20/NRR/01>.



supporters of the Treaty on the Prohibition of Nuclear Weapons, and non-nuclear-weapon States that continue to be part of nuclear alliances. There is at least one important precedent for a group of NPT Parties speaking out in favour of a particular course of action. As part of the 1995 Review and Extension Conference, Canada circulated a resolution calling for the indefinite extension of the Treaty. Ultimately, well over a majority of NPT Parties became sponsors of that resolution. In so doing, they sent a strong signal of support for indefinite extension—and that if necessary the votes were there to extend the NPT by majority as article X(2) provides. Agreement on a comparable statement on nuclear risk reduction by a great majority of NPT nuclear-weapon States and non-nuclear-weapon States would send an equally strong signal, provide an agenda for unilateral action (and P5 action when it again is possible), and help to alleviate the damage to the credibility of the NPT.⁴¹

RALLY AROUND A CREDIBLE INTERIM VISION OF THE NUCLEAR FUTURE

None of today's competing visions of the nuclear future is sufficient. The invasion of Ukraine and the failure of existing international institutions to respond effectively has further undermined the credibility of nuclear abolition; that invasion as well as the complexities of multi-domain strategic competition has undermined the sufficiency of Cold War-era arms control's pursuit of continuing nuclear reductions; and the credibility of concerns about escalation to a conflict between two nuclear powers have undermined the belief that nuclear deterrence always will work to prevent a nuclear catastrophe. There is need for an interim vision.

One alternative interim vision around which leaders, experts, and civil society could rally, as I have argued elsewhere, would be to pursue the 'strategic elimination of nuclear weapons'. That is, to gradually move those weapons into the back room of statecraft where they no longer would be day-to-day instruments of power. A closely related interim vision, set out by Michael Krepon, would be to continue to sustain the norms of non-use of nuclear weapons, no testing of nuclear weapons, and non-proliferation. Both visions would take as their beacon 2045, 100 years after the first use of nuclear weapons, to sustain non-use and advance toward strategic elimination.⁴² Based on such an interim vision, it then would be possible once engagement resumes to identify, reach agreement on, and pursue achievable objectives to reduce nuclear dangers in the two decades ahead—and possibly to provide a more solid foundation for the ultimate elimination of nuclear weapons.

41 As highlighted by the Global Enterprise to Strengthen Nonproliferation and Disarmament project of the Nuclear Threat Initiative, it also would be possible to pursue comparable agreement on nuclear risk reduction actions as a "Joint Voluntary Commitment" adhered to by like-minded States working together. See, "Global Enterprise to Strengthen Nonproliferation and Disarmament Joint Voluntary Commitments (JVCs)," 2021, https://www.nti.org/wp-content/uploads/2021/10/JVCs_Compiled-Short-Version_FINAL.Oct-28_2.pdf.

42 See, respectively, Lewis A. Dunn, "The Strategic Elimination of Nuclear Weapons: An Alternative Agenda for Nuclear Disarmament," *The Non-Proliferation Review* 24:5–6, 2017; and Michael Krepon, *Winning and Losing the Nuclear Peace: The Rise, Demise, and Revival of Arms Control* (Stanford, CA: Stanford University Press, 2021), esp. pp. 493ff.



LAUNCH AN OFFICIAL CHINA–UNITED STATES STRATEGIC NUCLEAR DIALOGUE

Bilateral Chinese–US strategic nuclear dialogue at multiple levels is a necessary part of next steps in reducing global nuclear dangers. Such a dialogue is even more necessary if the more pessimistic projection is correct of the implications of the invasion for China's perceptions of US intentions and policies. For reasons already argued, the time may finally be ripe enough to launch an official dialogue. The possible agenda is a broad one. The two States could begin by jointly assessing the risks to both States of an increasingly adversarial strategic relationship and why it is coming about. Doing so would be a first step to exploring possible options, at best to reverse the slide into such a relationship, and at least to mitigate its risks in a manner that meets both States' concerns. Efforts to reduce mutual uncertainties about each other's strategic intentions and capabilities would be a key part of the agenda. In addition, an official strategic nuclear dialogue should explore options to address the potential unwanted spill-over effects on US–Chinese strategic stability of US actions to buttress European deterrence and defence in the years ahead. Given China's scepticism about traditional bilateral treaty-based arms control as a Cold War artifact, that model should initially be set aside. Instead, attention should focus most on negotiated parallel unilateral actions to reduce strategic uncertainties, to lessen the possibility of miscalculation and missteps, and to provide mutual reassurance about each other's intentions and capabilities.

Assuming that it does not prove possible to launch an official US–Chinese strategic dialogue, it will be even more important to relaunch and sustain non-official dialogue. That dialogue can build on limited track 2 efforts in recent years. It also could renew joint study efforts by US and Chinese experts.⁴³


SUSTAIN AND PRESS AHEAD WITH ONGOING MULTILATERAL ACTIVITIES

The prospect of an extended pause in bilateral United States–Russian Federation arms control makes it all the more important to sustain and press ahead with existing multilateral activities. Particular attention should be focused on advancing the work under United Nations working groups to strengthen norms and to avoid destabilizing activities in space and cyberspace. In addition, sustaining momentum remains important both within the United Nations Group of Governmental Experts on nuclear disarmament verification as well as within the International Partnership for Nuclear Disarmament Verification. These latter efforts can contribute to putting in place needed conceptual and technical understanding for verifying future agreements when the time again becomes ripe for action.

DO OUR CONCEPTUAL–ANALYTIC ARMS CONTROL HOMEWORK

Past experience suggests that the United States–Russian Federation arms control process eventually will resume because it can still serve both States' security interests by helping to manage their strategic relationship. As already noted, however, the strategic issues and relationships that eventually will need to be confronted are considerably more complex than once was so. Similar complexity is evident in thinking about the possible role of arms control across a new Cold War divide in Europe. The arms control pause offers an opportunity for officials of all concerned States to think through the complexities of seeking to regulate competition and to enhance stability across multiple interacting domains (conventional–nuclear, ground–air–space–cyber). It also offers time for officials to think about new ways of doing so other than traditional treaty-based arms control.

43 This proposal tracks with that of Tong Zhao in his comment on this essay and reflects the past record of both joint analyses and periodic track 2 workshops.



This conceptual-analytic homework also should be done at the expert level. As already suggested, experts in the United States can engage with Chinese experts on China's part in an overall global process of arms control and mutual reassurance. It also will be important to sustain ongoing track 2 exchanges on these matters between Russian Federation experts and their American and European counterparts. More broadly, governments, experts, and civil society in many countries all can play a part.

DO NOT FORGET OTHER NUCLEAR DANGERS

Not unexpectedly, attention has been focused on the war in Ukraine. Efforts have continued to address some 'legacy' challenges (e.g. renewing the JCPOA with the Islamic Republic of Iran), while other challenges have again reared up and demanded attention (e.g. renewed testing of ballistic missiles and possibly yet of nuclear weapons by the Democratic People's Republic of Korea). There are still other challenges not already covered in the preceding overview that also need to be addressed, including how to encourage a tri-party confidence-building dialogue to lessen risks arising out of the ongoing transformation of the India-Pakistan-China nuclear triangle; defuse heightened proliferation pressures in the Republic of Korea and possibly in Saudi Arabia; sustain momentum behind global efforts to ensure the physical security of nuclear materials; and sustain at least technical engagement to lay the groundwork for eventual negotiation of a fissile material cut-off treaty.

SUSTAIN THE NORM OF NON-USE OF NUCLEAR WEAPONS IN THE UKRAINE WAR

It is far beyond the scope of this essay to speculate on how the war in Ukraine will unfold over the next months and how it ultimately will end. So far, despite periodic allusions by top officials of the Russian Federation to the danger of nuclear conflict, the possibility of use of nuclear weapons has remained only a dark shadow overhanging the war. Suffice it only to make one assertion: whether it is a question of the future of nuclear disarmament, prospects for arms control, or sustaining non-proliferation, all States, including the Russian Federation, have a vital interest in ensuring that the historic record of the non-use of nuclear weapons since Hiroshima and Nagasaki is sustained. Otherwise, what has arguably been the most important barrier that the world has had to keep at bay the nuclear demon unleashed in 1945 no longer will exist. The leaders of all States, acting independently, through regional and alliance groupings, and within United Nations bodies, should take every opportunity to make this point to President Putin and the political and military leadership of the Russian Federation. It is the final, perhaps most important, answer to the question of what next for reducing global nuclear dangers in light of that invasion.



A COMPENDIUM OF COMMENTS

As part of UNIDIR's Disarmament, Deterrence and Strategic Arms Control Dialogue, the Institute invited written, informal comments from among the initiative's participants in advance of a by-invitation online meeting held on June 9, 2022.

The purposes behind inviting these comments were to create a focus on issues of substance in advance of the meeting, kick-start its discussion, and ensure that diverse viewpoints were covered. As such, the comments that follow (included with permission of the commentators) were offered in advance of the final version of this paper, which was revised to reflect some of this feedback.

In addition, the commentators offered their viewpoints in their own personal capacities and their comments should not necessarily be interpreted as reflecting their official positions or affiliations.


The paper authored by Lewis Dunn contains several contradictory assumptions thus complicating the search for solutions. The causes of the Ukrainian crisis are rooted in the events of the 1990s and 2000s. It is critical to recognize that Ukraine, the Russian Federation, the United States, and the European Union are all responsible for the hostilities that have been lasting for more than eight years. Dunn blames the current situation in Ukraine solely on the Russian Federation. However, the present security crisis in Europe is the result of the consistent policy of moving a high-power military infrastructure closer to the central regions of the European part of the Russian Federation which has been going hand in hand with other destructive changes such as pushing the Russian Federation out of different areas of international cooperation, blocking or suffocating communication channels, and—as a kind of grand cadenza—peremptory refusal of the United States and its NATO allies to meaningfully discuss with the Russian Federation its key security concerns and vital geopolitical interests in December 2021–January 2022.

On the whole the Ukrainian crisis has aggravated the environment around the NPT and added more troubles for the Treaty and its future. The United States and its allies have been step by step surrounding the Russian Federation and China with military coalitions and alliances. At the same time, these strengthened or newly built coalitions with significant power projection capabilities show little appetite for arms control. In 2001, the United States withdrew from the ABM Treaty which was essential for realization of article VI of the NPT. Thus, the collapse of the ABM Treaty launched the domino effect in development of defensive and offensive strategic arms both in the United States and the Russian Federation which in its turn provoked a nuclear arms race.

In the context of the Ukrainian conflict, the United States and its allies are acting as if the pursuit of mutually acceptable solutions which will end hostilities in Ukraine is not their priority. This is very different in terms of priorities from previous conflicts in which the great powers were involved. The West is determined to confront the Russian Federation by all means, even at the expense of the constructive conduct of the upcoming Non-Proliferation Treaty Review Conference which for a number of other reasons was already promising to be extremely difficult. To put it bluntly: overtaking the Russian Federation seems more important for the West than saving the NPT. Even in the times of the Cold War when the US–Soviet confrontation was extremely severe, the antagonists considered the cessation of the nuclear arms race, the prevention of nuclear war, and securing nuclear non-proliferation to be more important than the struggle for geopolitical superiority.

States in Africa, Asia, South America and Oceania are watching how the United States and its allies are currently trying to squeeze the Russian Federation out of the decision-making organs of international organizations, and other multilateral forums and formats. This policy of canceling everything which is Russian at all possible levels sends a clear message to the rest of the world including the majority of the NPT States Parties—the message is that the West will put cross-domain and multi-sectoral pressure on any States, which will dare to

⁴⁴ Dr. Anastasia Malygina is an Associate Professor at the School of International Relations at St. Petersburg State University



have a critical mindset against the approaches pursued by the United States and its key allies. The unwillingness of the West to recognize the destructive character of its Ukrainian policy since the second half of the 1990s is harmful to the current global security architecture.

The essay, which attempts to analyse various aspects of the Russian Federation approach to such key issues as nuclear war, and use and non-use of nuclear weapons, contains references to the statements of Russian Federation leadership made in late February. However, this is not enough to understand policy on the issue of nuclear weapons use. Some explanations and clarifications have been recently given. For example, Foreign Ministry Spokeswoman M. Zakharova stated:

Russian approaches are based exclusively on the logic of deterrence, including in the current situation, where the NATO member countries, which have provoked the aggravation of the Ukrainian crisis, unleashed a hybrid war against Russia, and proclaimed themselves a 'nuclear alliance,' are balancing precariously on the brink of a direct armed conflict with our country. Like it or not, the logic of deterrence, as long as nuclear weapons are in existence, remains an effective way of preventing a nuclear clash and large-scale wars.⁴⁵

The same week the Russian Federation, together with other members of the BRICS group, pronounced:

We reaffirm our commitment to a world free of nuclear weapons and stress our strong commitment to nuclear disarmament and our support to the work on this subject during the session of 2022 of the Conference on Disarmament. We note the Joint Statement of the Leaders of the People's Republic of China, the French Republic, the Russian Federation, the United Kingdom of Great Britain and Northern Ireland, and the United States on Preventing Nuclear War and Avoiding Arms Races on 3 January 2022, in particular the affirmation that a nuclear war cannot be won and must never be fought.⁴⁶

Lastly, a week later Russian President V. Putin remarked that the Russian Federation is open for dialogue on sustaining strategic stability, preserving WMD non-proliferation regimes, and improving the situation in the field of arms control.⁴⁷

Although officials continue to repeat that the Russian Federation has never made any 'nuclear threats', intentional misinterpretations and insinuations continue to replicate and seed anxiety among political elites and the general public. Allegations concerning the Russian Federation's 'nuclear blackmail' in the context of the Ukrainian conflict undermine the foundations of the NPT. The roots of the problems that the NPT regime is facing at present days spread far beyond the dynamic of the Ukrainian crisis. Therefore, possible solutions for further strengthening the NPT stand out in the Ukrainian context. However, it is essential to work out all possible scenarios for the upcoming Review Conference to compensate for the negative effect that the increased United States-Russian Federation confrontation may have on the NPT.

45 "Comment by Foreign Ministry Spokeswoman Maria Zakharova on the Completion of the First Meeting of the States Parties to the Treaty on the Prohibition of Nuclear Weapons," 24 June 2022, https://www.mid.ru/ru/foreign_policy/news/1819461/?lang=en.

46 "XIV BRICS Summit Beijing Declaration", 23 June 2022, <http://en.kremlin.ru/supplement/5819>.

47 V. Putin, "Address to the Participants of the X St. Petersburg International Legal Forum," 30 June 2022, <http://en.kremlin.ru/events/president/news/68785>.




COMMENT BY TANYA OGLIVIE-WHITE⁴⁸

I would arrive at a less optimistic assessment than Lewis Dunn of the impact of the war in Ukraine on nuclear disarmament, arms control and non-proliferation, and especially its consequences for proliferation dynamics in East Asia. I am also less sanguine than Dunn about the United States' capacity to influence these dynamics and the ability of the non-proliferation regime to withstand them—unless States work together to strengthen the United Nations system and to reverse destructive trends.

There are at least three reasons why I suspect most of Dunn's 'surprise-free' outcomes paint a rosier future than the one we are likely to face (that is, unless we recognize the full extent of the problem and address it urgently and cooperatively). The first relates to the ever-closer Russian Federation–China strategic partnership, which stepped up another level in the weeks before the Russian Federation invaded Ukraine. Combined with the war, this partnership changes the international order in ways that are yet to fully crystallize in the Asia–Pacific but that are already increasing insecurities. Whereas in Europe, the Russian Federation's invasion of Ukraine prompted a rush to expand NATO and to bolster NATO unity and resolve, here in the Asia–Pacific it could accelerate a trend that was already observable before the war—the push for greater military self-reliance. Before February 2022, US allies in the Asia–Pacific might have been more willing to rely on reaffirming or strengthening US security assurances, including through extended deterrence, but the war in Ukraine combined with the closer Russian Federation–China strategic partnership increases the likelihood that they will quietly prepare for the failure or weakening of the United States' Indo-Pacific strategy. These quiet preparations could include explorations of the practicalities of pursuing nuclear breakout options, including developments that would not comply with the NPT—a possibility I would categorize as surprise-free in relation to the Republic of Korea, and also potentially surprise-free in relation to Japan and Taiwan Province of China if certain contingencies arise.

The second major development that might already be influencing the war in Ukraine and its consequences for the nuclear non-proliferation regime is the retreat to parochialism caused by the global pandemic. The past few years have seen a shift to self-help by States and an intensification of individualism among publics, contributing to a rise in parochialism that is detrimental to the concept of the global commons, global citizenship and global community-focused leadership. This trend could be leading States to draw different lessons from the war in Ukraine than they would have if the pandemic had not occurred. The health of long-standing international institutions, such as the NPT, is more at risk as parochialism takes hold, as is the resilience of global norms, including the non-use of nuclear weapons. This is because pandemic-induced parochialism combined with the war in Ukraine have increased cynicism towards collective security mechanisms and could also be desensitizing leaders and publics to mass suffering. Unless political leaders work together to reverse these trends, nuclear dangers—including the deliberate use of nuclear weapons—are likely to grow.

48 Dr. Tanya Ogilvie-White is APLN Research Advisor and ANU Senior Fellow



The third reason I am less optimistic than Dunn about the international community's ability to resist the more negative implications of the war in Ukraine for non-proliferation and disarmament stems from the relative decline of US power and influence, including in the wake of the 2003 war in Iraq. The latter might seem controversial given the US-led invasion took place nearly 20 years ago, but the war was widely regarded as illegitimate and continues to influence how many States perceive US international leadership—and challenges to it—today. Lingering legitimacy questions limit the United States' capacity to rally States to uphold international law and are contributing to the international community's failure to fully unite against the aggression of the Russian Federation. It also makes the nuclear proliferation dynamics that have been exacerbated by the Russia Federation–Ukraine war more difficult to manage, as there is insufficient trust in US leadership, especially on nuclear issues, and no other State in the international system appears to be willing or able to assume an effective leadership role. The United States' waning power and influence in the international system, combined with questions over the resilience and relevance of elements of the existing rules-based order, add to this problem.

Seen in the context of these broader dynamics—the changing world order, widespread pandemic parochialism, and the limits of US non-proliferation leadership—the war in Ukraine could generate a set of more dangerous consequences than those Dunn identifies as 'surprise-free' in his essay. Above all else, the war has undermined already shaky security assurances, and with the international community divided, inward-looking and lacking effective leadership, this could lead to further cases of breakout from the NPT, increase nuclear dangers, and make nuclear disarmament an even more distant and unlikely prospect. For these and other reasons, States need to end the horrific war in Ukraine, recognize the costs of divisive bloc politics, commit to ending parochialism and rebuilding trust, and reinvest in collective security. Collaborating to uphold the NPT, including via its review process, is an important part of this, as is the even bigger challenge of strengthening the United Nations system.



COMMENT BY BRAD ROBERTS⁴⁹


Lewis Dunn's fine essay provides a very useful map of the potential implications of the Russia Federation's aggression against Ukraine for the effort to reduce global nuclear dangers. From my perspective, there is more to be said about the impact of the Russian Federation's aggression and nuclear sabre-rattling on the thinking about nuclear deterrence of States party to the North Atlantic Treaty. President Putin's actions over the last year have opened a major new chapter in NATO's nuclear discourse. Where it will lead is contingent to a significant degree on whether the remaining phases of the Russian Federation's aggression against Ukraine will prove to be free of surprises.

The first impact is on the perception of nuclear danger to NATO members, and to the alliance as such, emanating from the Russian Federation. For the last decade, NATO members have been wary of developments in Russian Federation nuclear strategy and posture. They debated whether or not the Russian Federation had adopted an 'escalate to de-escalate' strategy and how to respond to its violations of the INF Treaty. But only a few allies perceived an acute threat. This has changed. In the lead up to the invasion, the depth of President Putin's opposition to the existing European security order was made abundantly clear. His move against Ukraine swept aside any lingering post-Crimea hopes that he was unwilling to use force to change international borders. His efforts to bully the alliance by nuclear means only reinforced the assessment of new danger. Once the war unfolded and the depth of his political and military miscalculations became clear, nuclear anxiety in Western capitals went up even further, as such miscalculation is the only plausible pathway to nuclear war.

The second impact is on judgments about the possibility of a renewal of arms control in Europe. NATO has long sought a political dialogue with Moscow aimed at a renewal of European arms control and at reinforcing success on the bilateral United States–Russian Federation strategic track. The draft treaty proposed by the Russian Federation last December, which called for a string of major concessions by NATO without compensatory restraint on the part of the Russian Federation, brought home the zero-sum nature of the current Russian political strategy in Europe. Moreover, the Biden administration's commitment to renew US leadership of the arms control process and to lead by example have so far paid no dividends for Europe. In the wake of the Russian Federation's aggression and alleged war crimes, those Europeans who can envision political agreement and new arms control measures with current Russian Federation leadership are a tiny minority. These developments have lowered even further already low expectations for arms control success.

The third impact is on NATO's nuclear posture, broadly defined. Since declaring in its 2010 Strategic Concept that NATO would remain a nuclear alliance so long as nuclear weapons remain, alliance leaders have made a number of decisions to ensure that the alliance's nuclear posture remains 'fit for purpose'. These include decisions to modernize the alliance's nuclear sharing arrangements, to strengthen those arrangements and to increase

49 Dr. Brad Roberts is the Director of the Center for Global Security Research at Lawrence Livermore National Laboratory



participation, to exercise those arrangements in a way that demonstrates the capability and resolve to employ nuclear weapons if required to do so, to ensure the needed planning capabilities are in place and exercised, and to improve NATO's 'nuclear IQ'—that is, to raise throughout the alliance the level of understanding of the role, requirements, and limits of NATO's nuclear policy and posture. This is the alliance's 'old business' to which Lewis Dunn has referred. The alliance's actual progress in implementing these tasks has been slower than expected, as each step is controversial and as leaders have been distracted by other challenges. But it has accelerated over the last half year as the situation with the Russian Federation eroded. The process of agreeing to the text of a new NATO Strategic Concept for the Madrid summit has helped to define the needed pathway forward on this 'old business'.

The fourth and final impact is on the debate about the future of NATO's nuclear policy and posture—what might be called 'new business'. Put simply, are the new nuclear dangers to the alliance from the Russian Federation dealt with adequately by the measures already agreed by the alliance before those new dangers came into sharp focus? Will they ensure that the alliance's deterrence posture is fit for purpose against a Russian Federation even more reliant than before on nuclear weapons? And if not, what more is needed? Should the sharing arrangements be dramatically reconceived? Are new or different nuclear capabilities needed by the alliance? Is there more that the alliance's three nuclear-armed members can and should do to bring more effectiveness and credibility to the alliance's nuclear posture? This 'new business' has been thrust upon the alliance as it is coming to terms with the failure of its overall strategy towards the Russian Federation and crafting its new Strategic Concept, meaning that answers to these questions will be found in an entirely new context.

NATO's pursuit of this 'new business' will bring it face to face with one of Dr. Dunn's recommendations: that NATO continue to reduce the role of nuclear weapons in its overall deterrence and defence posture. For more than 30 years, NATO has taken steps in that direction. For at least 20 of those years, the Russian Federation has taken steps to increase the role of nuclear weapons in its political and military strategies (as compensation for conventional weakness). It seems destined to redouble these efforts after its poor military showing in Ukraine. The question for NATO is sharper than ever: does it reduce the nuclear dangers it faces through continued unilateral efforts to reduce the nuclear role or do such actions increase those dangers by signaling to Moscow a lack of nuclear resolve? The record of the last 20 years strongly suggests the latter.

The views expressed here are those of the author and should not be attributed to his employer or its sponsors.



COMMENT BY DMITRY STEFANOVICH⁵⁰

The essay by Lewis Dunn is a great effort in understanding what is going on with nuclear arms control and where can we go under current dramatic circumstances, and credit to the author and to UNIDIR is well deserved. However, some critique is necessary, and there is nothing personal with that. The major concern is that a lot of conclusions and ideas are based on rather biased, one-sided data, and sometimes the analysis gets too emotional—which is understandable today, but hardly helpful.

The intention “not to litigate what led up to that invasion” is a wrong framework for analysis, from my perspective, as the Russian Federation military joining the warfighting in Ukraine on the current scale is hardly the first “rock dropped into a pond” (p. 3) we are trying to make sense of. If we consider Ukraine a focal point in everything (personally, I consider it a symptom rather than a source of the disease we are struggling with), then the global community should have pressed Kyiv much harder to implement ‘Minsk-2’ in the first place.

Everyone can agree that better translations of the statements by Russian Federation officials with nuclear ‘flavour’ are crucial. However, just mentioning the problem is not enough—formal requests for clarification would not hurt either and, as far as my understanding goes, Nuclear Risk Reduction Centres were originally established for that purpose as well.


Speaking about increased activities of nuclear forces, while it is true that for some time the United States did quite the opposite (Minuteman-3 ICBM test postponed, etc.), France conducted tests of modernized weapons, increased the scale of SSBN operations and, probably, even full-scale exercises of the air leg of their nuclear triad. Anyway, now we have also seen a relatively massive Trident-II test launch sequence by a US SSBN in the Pacific, so this whole issue of nuclear restraint and nuclear ‘sabre-rattling’ comparison should not be explicitly linked with the ongoing crisis.

Fears of nuclear use in Ukraine originally were not that high among experts, so the role of the media and members of legislative bodies (in many countries) should be mentioned. The norm of non-use should definitely hold, and it might be good for the Russian Federation to make a statement on that matter. But will it be enough to limit the hysteria around this issue?

Limited-use scenarios make very little sense, even an argument for a single nuclear strike to keep other powers out of the Ukrainian ‘sandbox’ can be stronger, but the worst outcome anyhow would be that the sky did not fall after nuclear use.

Understanding the situation on the ground in Ukraine itself is a challenge for observers, as most of us see only the tip of the iceberg, if not its reflection. ‘Significant’ and ‘successful’ results and events regarding the situation should be assessed in real terms, not relative terms. Claims like “the invading battle groups have not been able to achieve their objectives and have suffered significant losses in equipment and personnel” (p. 5) are based on insufficient data, and we obviously do not know the intelligence assessments of the Russian Federation General Staff.

50 Mr. Dmitry Stefanovich is a Research Fellow at the Center for International Security at The Primakov Institute of World Economy and International Relations of the Russian Academy of Sciences



Regarding international humanitarian law, its breaches by the Ukrainian side should not be discounted. If justified, pursuit of alleged war crimes by the Ukrainian military and paramilitary is equally important. Without it the prosecution process cannot be considered a support of international law.


Acceptable terms of how everything ends in Ukraine is a domain where more flexibility should be demonstrated by everyone. The Russian Federation already played its part back in March in Istanbul, but the result was the opposite—it was seen as a demonstration of weakness (as usual, unfortunately), and now the only narrative is that Ukraine must win and engage in negotiations from the position of strength. This is a path to further escalation.

Anyway, in the mid-term Russian Federation conventional forces will become stronger, not weaker. Conventional enhancements of the NATO posture should be viewed from the Russian Federation perspective as well, and especially through the lens of the Basic Principles of State Policy on Nuclear Deterrence. Conventional deployments have been provoking the Russian Federation for some time already, with a notable example of conventional US bomber flights over Ukraine. On the other hand, the Strategic Defense Initiative was hardly an important factor in the collapse of the Soviet Union. At the same time, voices in the United States and elsewhere that argue for weakening the Russian Federation will contribute to further escalation more than anything, as well as undermining the Russian Federation appetite for arms control, among other negative effects.

The language used in some parts of the paper can be corrected as well—it is correct to speak about the Russian Federation’s alleged violation of the INF Treaty and the United States’ withdrawal from the INF Treaty (also after alleged violations by the United States, which to some extent were proven by immediate events after the withdrawal), as well as the United States’ withdrawal from the Open Skies Treaty (p. 9). The bigger question is if there are any real concerns with regard to the Russian Federation’s compliance with the remaining arms control regimes now?

Chinese “peaceful means” vis-à-vis Taiwan Province of China (p. 15) depend a lot on actions by Taipei and Washington, not by Moscow and Kyiv. Now the situation moves in the opposite direction, the military one. Nevertheless, US–China dialogue on strategic stability and arms control can be beneficial for everyone, including the Russian Federation.

Ukraine had no chance of remaining, or rather becoming, a nuclear-weapon State. This is the ultimate reality, and this should be repeated tirelessly. Unfortunately, the vague comments to this regard made by different officials from Kyiv were used by the Russian Federation to construct the counterproliferation narrative. But it also means that other non-nuclear-weapon States might think twice. The whole topic of nuclear hedging is indeed very important, but it should be addressed with increased caution and with an explicit link to possible counterproliferation efforts.



Other topics that should be accounted for within the issue under discussion: the role of Kazakhstan, the CTBT, and especially challenges associated with the military uses of space assets. The US Space-Based Infrared System is, reportedly, being used to monitor launches of Russian Federation missiles in and around Ukraine, and US and NATO assets are used to target Russian Federation forward command posts. The Russian Federation might eventually react with rather clear escalatory consequences.

The situation we are facing is extremely challenging, but it also calls for thorough analysis and ambitious initiatives. UNIDIR is a natural leader for such process.



COMMENT BY AMY WOOLF⁵¹


Lewis Dunn's analysis essentially views the Russian Federation's invasion of Ukraine as a possible inflection point for arms control, non-proliferation and disarmament. This provides interesting insights into the possible path forward in these areas, but can prove limiting in understanding how we might get back on track after the current conflict. Instead of asking "Where might we go from here?", I would ask "Has the conflict changed the trajectory in these policy areas?". If the answer is yes, then future policy choices may focus on ways to restore the prior trajectory. If the answer is no and the prior trajectory was moving towards acceptable goals, then the goal may be to 'wait out' the crisis then restore progress on the previous path. Finally, if the answer is no and the previous path was not productive even before the conflict, then the goal must also address possible alternative paths forward.

For example, the current crisis could alter the trajectory and affect outcomes at the Tenth Review Conference and within the P5 Process. As the paper notes, the P5 had begun to address risk reduction measures in 2021 and had issued a statement (with some caveats) reaffirming the idea the nuclear war cannot be won and must not be fought. The Review Conference would likely see these steps as a positive indication of the P5's willingness to advance the agenda on risk reduction and disarmament. But, while the conflict in Ukraine continues, it seems far less likely that the P5 will continue to speak with one voice (or even engage with each other) on these issues. As the paper notes, the "political confrontation between the three Western NPT nuclear-weapon States and the Russian Federation will spill over into the conference" (p. 19). The Parties will have to balance the need to call out the Russian Federation for its nuclear threats with the need for Russian Federation cooperation in reaching agreement in other areas of the review.

This could result in a trajectory for the Review Conference that undermines support for the broader risk reduction agenda. The essay suggests that the Review Conference could avoid this outcome by reinforcing and re-engaging on many of the risk reduction measures already under consideration. But this may not be enough. The risk reduction agenda focuses, to a large degree, on steps that could minimize the risks of miscalculation and inadvertent escalation; it does little to address concerns—evident in the current conflict—that a nuclear-armed State might consciously and intentionally employ nuclear threats to achieve political and military goals. Thus, the conflict in Ukraine has expanded the scope of nuclear dangers and should alter the content of the nuclear risk reduction agenda so that it can also consider steps that might reduce the risk—or deter—intentional nuclear threats and nuclear use.

On the other hand, the conflict in Ukraine has not affected the trajectory of arms control negotiations between the United States and the Russian Federation. The essay notes that there is likely to be an "extended pause negotiations", but states that "at least in principle, there was a possible comprehensive agenda for United States–Russian Federation strategic arms control" before the conflict (p. 6). This leads to the projection that the United States and the Russian Federation will eventually resume their dialogue and move forward on arms control. It identifies "the complete collapse" of arms control as a possible alternative but declares that this is "less likely" (p. 9).

51 Ms. Amy Woolf is a Non-Resident Consultant at UNIDIR



The collapse of arms control may, however, be a more likely alternative, even with the talks staying on the same trajectory. The essay notes that the Strategic Stability Dialogue faced a long and complex list of challenges, but it seems to assume the parties were on a path to addressing those challenges. But the meetings in 2021 had made mostly superficial progress. The two sides had agreed to divide the issues into two working groups, but they had essentially identified competing agendas for the working group addressing issues to include in a future treaty. The US agenda (as highlighted in speeches by Bonnie Jenkins and Mallory Stewart) was to maintain limits on forces covered by the New START Treaty after it expired, to impose limits on the Russian Federation's new types of strategic systems, and to introduce limits on non-strategic nuclear weapons. The Russian Federation's agenda called for a 'new strategic equation' that would include limits on all types of offensive, defensive, and non-nuclear strategic systems and would capture British and French nuclear forces. When the talks paused in early 2022, the two sides had not yet explored mechanisms to bridge this divide.

Thus, even if one believes that the conflict in Ukraine just delayed the trajectory of United States–Russian Federation arms control talks, one can conclude that the resumption of these talks will not resolve the differences in their positions when they resume. But a full collapse in arms control is not the only possible alternative. The two sides could resume their discussions but end up with a partial collapse in arms control. If they cannot resolve all the issues on their competing agendas, they will not be able to sign a follow-on to the New START Treaty. But they could continue to explore some types of cooperative engagement on transparency, crisis communications, and risk reduction.


The challenge, however, may be like the challenge facing the risk reduction agenda in the NPT context. If the goal of the dialogue is to reduce the risk of nuclear use by mitigating the risks of miscalculation or escalation, the agenda will fail to address the sources of risk evident in the current conflict. Deterrence, or the threat of unacceptable consequences, may be seen as necessary to prevent future conflicts where a nuclear-armed State intentionally introduces nuclear risk to achieve its goals. Thus, if the United States and the Russian Federation resume their arms control dialogue, they are likely to face a new security equation and a new relationship between nuclear deterrence and nuclear arms control. They will have to ask new questions and find new answers to restore and regain progress in this area.

For progress in arms control and disarmament we need to consider the broader context. Of critical importance in this regard are the fundamental political differences among major powers that increase nuclear risks. One of the downsides of the nuclear deterrence relationship is that it gave great powers a false sense of relative security in past decades when they relied on the belief that they do not need to resolve political disputes because nuclear weapons would ensure peaceful coexistence. Not deeply motivated to face up to and address their political disagreements, the major powers allowed themselves to live in their respective comfort zones. Some of them block the free flow of information in the hope to wish political problems away. Therefore we ended up today living in parallel universes where we genuinely do not understand each other and do not have shared facts. The critical political disagreements among major powers are increasingly growing to an unresolvable level. At this current juncture, this creates a real risk of war through direct military confrontation that could potentially escalate beyond the nuclear threshold.

It is important to understand how recent events are perceived differently around the world. Beijing interprets the war in Ukraine from a fundamentally opposite perspective than the West; China really believes that this war is caused by Western States because they have broken international norms before the war. China and the Russian Federation see themselves as operating against Western imperialist powers and on the ‘right side of history’. One example is that the majority of Chinese experts genuinely believe the claim that the United States is running biological weapons research at laboratories in Ukraine; therefore they conclude that the West is capable of committing the most egregious crimes, has no moral principles, and cannot be trusted. A major challenge to arms control is the emergence of these parallel factual universes where people not only have divergent views on policies, but also divergent understandings of basic facts—including contemporary and historical facts. With irreconcilable understandings of facts, it is hard to talk effectively with each other, including on security and nuclear weapon issues.

In some sense, the war in Ukraine is a product of a geopolitical perception gap between the Russian Federation and the West. The information and perception gap between China and the West, however, is even greater, and it is a ticking time bomb that we need to diffuse before it leads to physical conflict. This is compounded by the fact that China seems to be drawing lessons from the war in Ukraine that reinforce the belief in Beijing that China cannot rely on international law or norms but rather on its own hard power—including nuclear weapons—to defend its national interests. It is also notable that many Chinese security analysts believe that the Russian Federation’s masterful and clever nuclear signaling during the war has helped to achieve Russian Federation security objectives. If Chinese leaders believe that the flexible use of nuclear signaling could help to dissuade enemies and make them behave more carefully during a conventional conflict, it would not bode well for current international efforts to limit and reduce the role of nuclear weapons.

⁵² Dr. Tong Zhao is a Senior Fellow at the Carnegie Endowment for International Peace. He is also a Visiting Research Scholar at Princeton University’s Science and Global Security Program

A decorative graphic at the top of the page consisting of a network of red lines and dots of varying sizes, resembling a molecular structure or a complex web, extending across the top edge.

Nuclear risk reduction is the least we need to do, but we still need to agree on the source of risk. Parallel worlds in the expert community complicate this. For example, Chinese experts believe the risk of military incidents and escalation comes from the deliberately hostile intent from the West to contain China, including by seeking to interfere in regional affairs that affect China's security. From the mainstream Chinese view, the risks are not caused by misperception or technicalities, but a result of intentional policies of the United States-led West. Therefore, China believes the ball is solely in the United States' court to reduce risks—and in order to force the United States to change its behaviour, China thinks it may have to take greater military risks. This explains the lack of strong incentive to take concrete action even in nuclear risk reduction.

In terms of moving forward, first, the epistemic community that consists of policy experts from rival States should not continue to erode. Despite the dire geopolitical environment, we need to ensure at least that expert communities from the major powers can remain relatively well informed and be more or less on the same page in terms of developing shared perspectives about what has happened and why. In this regard, in addition to track 1 talks, track 2 dialogues can help to contain misunderstandings about each other's technical capabilities, operational-level policies, future developmental plans, and strategic intent. Also, it will be important for Western States to understand the existence of this perception gap and its impact. China's nuclear growth is driven by a self-preserving 'siege mentality' to defend its perceived interests. Not knowing this could lead to wrong reactions by Western States and contribute to a stronger siege mentality in Beijing, making deterrence even less effective and stability harder to maintain.

In the aftermath of the war in Ukraine, nuclear scholars and experts from the major powers could jointly explore the possibility of developing a shared understanding about what nuclear activities may be too dangerous to conduct during an ongoing conventional military crisis, such as the testing of nuclear delivery systems or ad hoc military drills involving nuclear weapon systems, because of the possibility of causing serious misunderstandings. Shared views about high-risk nuclear activities could contribute to international norms about responsible military practices during crisis.

THE DISARMAMENT, ARMS CONTROL, AND NON-PROLIFERATION IMPLICATIONS OF THE INVASION OF UKRAINE WHAT NEXT FOR REDUCING GLOBAL NUCLEAR DANGERS

In this publication, the eighth in UNIDIR's nuclear dialogue series, former US Ambassador Lewis Dunn explores the implications of the Russian invasion of Ukraine and the ensuing war for nuclear disarmament, strategic arms control, and non-proliferation. It first sets out some background, it then discusses possible implications for nuclear disarmament, strategic arms control, and non-proliferation and concludes with propositions on "what next" for reducing global nuclear dangers. The publication also includes commentaries from a variety of experts that participated in the 2022 edition of the Disarmament, Deterrence and Arms Control (DDAC) Dialogue convened by UNIDIR.

UNIDIR NUCLEAR DIALOGUE SERIES

UNIDIR, *Identifying Collaborative Actions to Reduce Today's Nuclear Dangers* (2021)

UNIDIR, *Restoring Confidence Across Today's Nuclear Divides: Symposium Report* (2021)

Rakesh Sood, *Revitalizing Pursuit of Nuclear Disarmament* (2021)

Lewis A. Dunn, Andrey Baklitskiy and Tong Zhao, *Some Thoughts on the Logic of Strategic Arms Control: Three Perspectives* (2021)

Tanya Ogilvie-White, *The Logic of Nuclear Deterrence* (2020)

George Perkovich, *The Logic of Nuclear Disarmament* (2020)

John Borrie and Lewis A. Dunn, *The Strategic Context for Nuclear Disarmament, Deterrence and Strategic Arms Control Dialogue* (2020)



UNIDIR UNITED NATIONS INSTITUTE
FOR DISARMAMENT RESEARCH