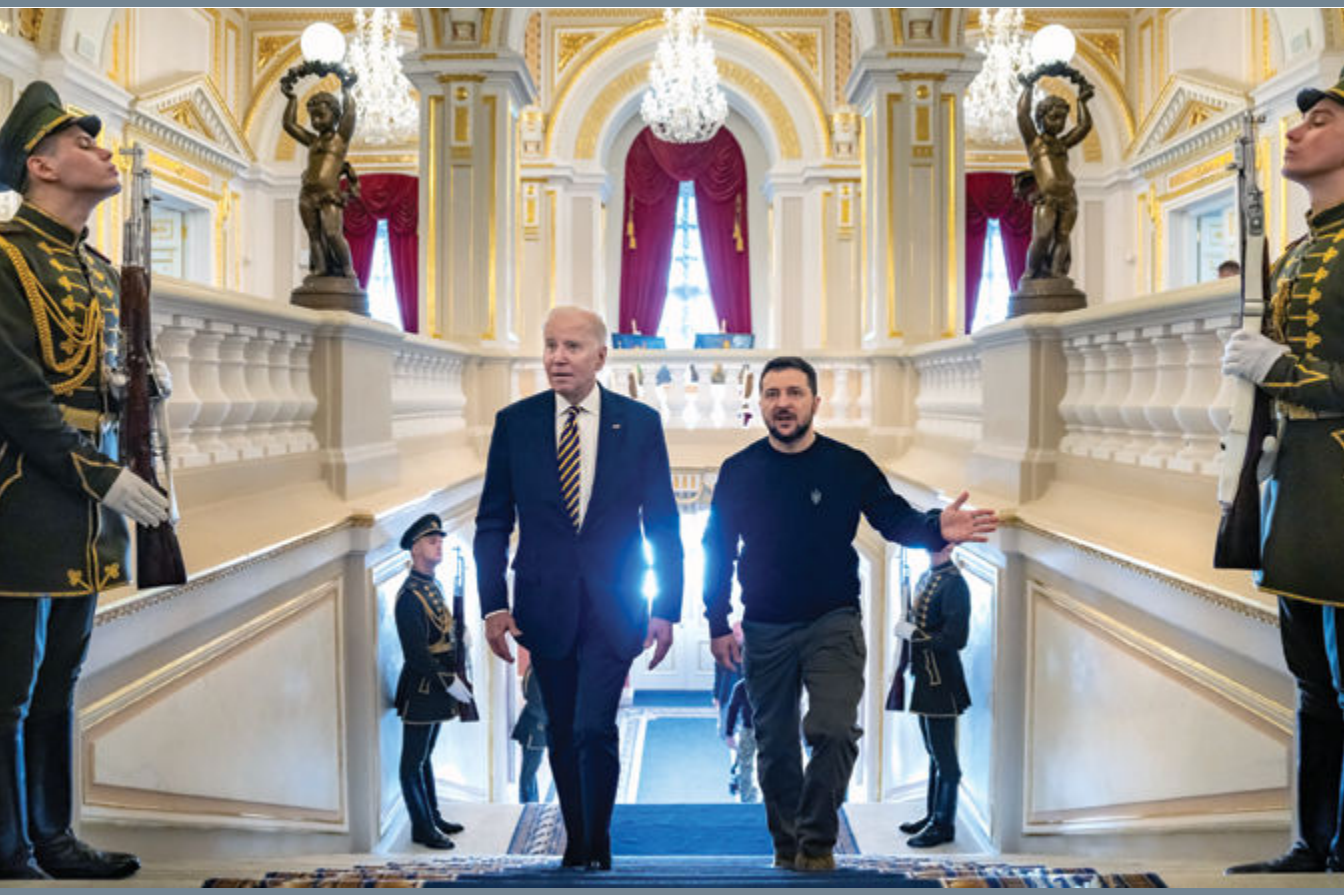
The Future of Nuclear Arms Control

and the Impact of the Russia-Ukraine War



Nadezhda Arbatova, George Perkovich,
and Paul van Hooft

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Contents

Executive Summary

The current global arms control regime is in disarray. Treaties that were once the pillars of the arms control regime have collapsed. The United States withdrew from the Intermediate-Range Nuclear Forces Treaty in 2019 after Russia violated the treaty, and from the Open Skies Treaty in 2020, which Russia left in 2021. President Vladimir Putin announced in 2023 Russia's suspension of New START, one of the last binding agreements between the United States and Russia. Given the turbulent state of international affairs, characterized by the ongoing Russia-Ukraine conflict, strategic competition with Russia and China, and expansion of military capabilities, including nuclear modernization programs, arms control is needed more than ever.

This publication explores the traditional nuclear arms control regime, how it has become fractured over time, and the ways in which it can be strengthened. Nadezhda Arbatova explores arms control from a European perspective and highlights the significance of arms control in light of the ongoing Russia-Ukraine conflict. She calls for the restoration of arms control treaties, such as New START, as well as greater Russian-Western collaboration on arms control to restore security in Europe. George Perkovich examines the difficulties of achieving arms control for the United States, Russia, and China and argues for the necessity of arms restraint. Paul van Hooft also explores arms control from a European perspective and argues Europeans ought to play a more prominent role in shaping the European and global arms control regime.

"European Security after the Ukraine Conflict: *Respice Finem*," by Nadezhda Arbatova

In her essay, Nadezhda Arbatova (Primakov National Research Institute of World Economy and International Relations at the Russian Academy of Sciences) discusses the origins and dilemmas of the 2022 Russia-Ukraine conflict, the opportunities for building a new European security architecture, and new approaches to arms control to counteract the disintegration of the arms control regime.

The Russia-Ukraine warfare, which symbolizes a breakdown of Russian-Western relations since the end of the Cold War as well as the collapse of the existing European security architecture, has three faces. First, because of the wider interpretations of the conflict's origins and its historical

context, the ongoing military confrontation demonstrates Russia's and the West's conflicting perceptions of their versions of a post–Cold War European security framework. Second, this crisis can be seen as a culmination of the rivalry between Russian-Western spheres of influence. Third, it can also be seen as stemming from the consequences of the collapse of the Soviet Union.

Arbatova discusses a number of key points pertaining to the conflict, including European public opinion, the risks of nuclear escalation, trends in the European security landscape stemming from the Ukrainian conflict, and scenarios that describe how the warfare in Ukraine may unfold. However, one topic worth considering in greater detail is Arbatova's discussion of new approaches to arms control. She notes that while arms control has been a key element in the current world order, it has experienced breakthroughs and setbacks. Prior to the Russia-Ukraine conflict, the arms control regime was noticeably deteriorating, which led to concerns of a new arms race. The durability of the regime was challenged during the Trump administration. The United States withdrew from the INF Treaty in 2019 and the Open Skies Treaty in 2020. Trump threatened to do the same with the Comprehensive Test Ban Treaty and considered letting New START expire. While the Biden administration (in contrast to the Trump administration) agreed to the Russian proposal to extend New START, Putin in two years announced Russia's suspension of the treaty in the context of acute confrontation with the West on the Ukrainian conflict. This action is significant as the suspension could potentially lead to an uninhibited strategic offensive arms race with Russia and may reinforce a likelihood of future withdrawals from other treaties.

Arbatova notes that the declining interest in keeping the arms control regime alive can be explained through the emergence of new technologies and the absence of new arms control methods to address them. However, the Russia-Ukraine conflict has demonstrated that Russia and the West have returned to a new Cold War, leading to a possible confrontation between states. Moreover, she also discusses an existing dilemma with respect to the nuclear strategic balance. Although radical reductions of nuclear weapons have strengthened strategic stability, the existing nuclear arsenals are still a threat. While new technologies and weapons systems do not compare to the devastating power of the current stockpile of nuclear weapons, the impact of new destructive technologies and weapons systems on the strategic balance should be further explored.

Arbatova concludes by discussing where we might go from here. She writes, "what has been destroyed will need to be rebuilt."[1] Restoring Russia's full participation in New START is a necessary condition to any arms control negotiations. Once New START has been restored, subsequent

negotiations can focus on important proposals, such as limits on tactical nuclear weapons or limits on ballistic missile defense systems.

Finally, in order to address the current crisis in Russian-Western relations due to the Russia-Ukraine conflict and the disintegration of the arms control regime, Arbatova emphasizes the importance of rebuilding trust through diplomatic negotiations and agreement, which would resemble the hard-earned trust in the late 1980s and 1990s. One possible way forward is through greater Russian-Western collaboration on the arms control regime in order to restore trust and security in Europe. Yet, efforts toward true European security must start with reconciliation between Russia and Ukraine.

"No Losers: Making Arms Control Work," by George Perkovich

In his essay, George Perkovich (Carnegie Endowment for International Peace) examines the topics of competition and arms control. He explores why the United States (and its allies), on the one hand, and Russia and China, on the other hand, compete for military gains as opposed to pursuing arms control. He argues that achieving stability will only be possible when domestic politics change enough to allow arms control to happen.

Perkovich develops his argument by first discussing the growing competition between the United States, Russia, and China, each of which are modernizing and, in China's case, expanding their military capabilities across a wide range of nuclear weapons systems. The growing risks to global peace and stability make military and arms restraint a more desirable approach. Perkovich suggests that seeking new norms of behavior could be a realistic initial approach.

He continues by discussing some of the political challenges associated with arms control and restraint. Russia, China, and North Korea have serious reservations about engaging in arms control with the United States, for these leaders fear that the United States may seek to limit their military power in order to enact regime change. The United States, conversely, assumes these adversaries will cheat on any agreement. Perkovich suggests signaling intent by embracing mutual vulnerability and negotiating limits on observable weapons that would threaten the second-strike deterrent of U.S. adversaries.

However, to actualize effective arms control, the United States must get its own house in order. Perkovich notes that "When American political actors are unwilling to compromise with one another at home they will generally be unable to compromise with foreign adversaries."[2] He advises overcoming the challenges of negotiating nuclear arms control and restraint by relying on secrecy and back channels to protect leaders from

domestic political opponents, much like what occurred during the resolution of the Cuban Missile Crisis at the height of the Cold War.

Perkovich also tackles the intersection between emerging technology and nuclear capabilities. All three major powers are developing techniques to hold at-risk targets, along with their command, control, and communication systems, with malware, kinetic, and nuclear payloads. To complicate matters even further, arms control rests on the capacity of states to quantify and verify nuclear weapons and related military assets. Emerging technology, such as artificial intelligence and cyber capabilities, are incredibly difficult to quantify and verify. Yet, Perkovich notes that "these emerging capabilities are not likely to diminish the priority of controlling the kinetic weapons that pose the greater threat to nuclear deterrents, and therefore to stability."[3]

Perkovich concludes by laying out some next steps worth exploring. Given the near impossibility of securing bipartisan Senate support for arms control treaties, he suggests that we must consider non-legally binding agreements. With respect to Russia, predicting a future arms control trajectory is nearly impossible while the Ukraine war ensues. Turning to China, President Xi would need to lay out the conditions under which he would be willing to consider nuclear restraint and arms control, as well as the goals and objectives that would guide China's approach. The United States can measure Chinese and Russian intentions by discussing possible limitations on missile defense interceptors, which, in any case, are not effective enough to stymie large attacks.

Perkovich emphasizes that the challenges of arms control "will need to focus ever more on states' behaviors and the targets and effects of operations rather than on hardware or software."[4] He adds that negotiated restraint is desirable among nuclear-armed states because it communicates an intent to avoid war, and will ultimately be safer and more cost-effective than unrestrained arms racing where advantages that might be gained by any side will be short-lived and illusory.

"Deter, Compete, and Engage: Europe's Responsibility within the Arms Control Regime after Ukraine, with or without the United States," by Paul van Hooft

In his essay, Paul van Hooft (Hague Centre for Strategic Studies) argues that Europeans should take a greater role in designing and shaping the European and global arms control regime. He notes that the current arms control regime that was first established during the Cold War has collapsed over the last few decades and that reestablishing arms control with Russia is not a priority in the United States or in most European states as long

as Russia's invasion of Ukraine persists. Moreover, the willingness to engage with Russia—even on a common interest such as arms control—varies within Europe, particularly between Western Europe, on the one hand, and Central and Eastern Europe, on the other. Yet, according to Van Hooft, while the difficulties of establishing arms control are high, the need for restraint in nuclear weapons and their missile defense delivery systems is greater than ever.

Van Hooft outlines two interpretations of strategic stability. Strategic stability (type 1) is a narrower definition and pertains to the dynamics between nuclear-armed great powers that directly relate to the types and quantities of nuclear weapons and their delivery systems. Strategic stability (type 2) highlights the dynamics of the international system and the tensions between status quo and revisionist states. Strategic stability (type 2) is more political and emphasizes "the tensions between nuclear-armed great powers that are satisfied or dissatisfied with the international status quo."[5] The two types of stability are not mutually independent, as strategic stability (type 1) can impact strategic stability (type 2). Moreover, Van Hooft states that the reinvigoration of arms control in and by Europe should consider the broader trends of the impact of both types of strategic stability. These trends include nuclear multipolarity, intensifying geopolitical competition, and technological developments. These trends are significant, as they "not only suggest the need for but also complicate efforts to reinvigorate the global arms control regime."[6]

Van Hooft also discusses the growing role and reliance on nuclear coercion and threat of Russian nuclear escalation. With respect to the former, Van Hooft, citing others, notes that Putin's threats to use tactical nuclear weapons in Ukraine was seen as a plausible avenue for the Russians to prevent the reversal of expected gain and to deter direct involvement with NATO. In terms of the threat of Russian nuclear escalation, he notes that many leaders fear that Russia's second-strike capability has been weakened, while the addition of new members to NATO has also brought closer NATO capabilities that threaten the second-strike.

Van Hooft explains that the European approach to arms control, which has rested mainly on multilateralism, is not well-suited to address these threats. Given the high stakes associated with Russia's hostilities in Ukraine, as well as its existing nuclear stockpile and missile defense systems, which are more likely to be directed at European targets, Van Hooft is critical of the European multilateral approach, noting that such an approach "is likely to be dead on arrival."[7] He contends that "Europeans could consider other, less-cooperative approaches to arms control and engagement with Russia as they reinforce their collective defense and deterrence capabilities through increased defense spending."[8]

He also describes three avenues that could point toward a greater European engagement with arms control and that would play a role in helping Europe secure its own security. First, with respect to the transatlantic relationship, Europeans should place greater prioritization on arms control and strategic stability. Given the U.S. pivot to the Indo-Pacific and greater preoccupation with China, "interests on both sides of the Atlantic would be served by a redistribution of existing burdens. A transatlantic redistribution of burdens would require the Europeans to take on greater responsibility for their own security."[9] Second, with respect to China, Europe can serve as a kind of interlocutor for Chinese arms control and strategic stability measures. This could pave the way for a more comprehensive arms control approach between the United States and China. Finally, with respect to Russia, Van Hooft notes that Europe needs to be prepared to engage directly with Russia, given that it has the most to lose from Russia's aggression in Ukraine. He writes, a "competitive European approach would be premised on using the increasing investments in defense already underway as a consequence of Russia's war in Ukraine to build capabilities that would further unsettle Russian confidence in the security of its second-strike capability."[10] In short, European investments in conventional deterrence might also incentivize Russia to engage with Europe, without ignoring the fears of Central and Eastern European NATO and EU member states.

Van Hooft ends by emphasizing that regardless of the actions Europe takes, it should be fully aware that Europeans needs to take greater responsibility for their own security in the new geopolitical environment, which includes engaging more in the European and global arms control regime.

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Endnotes

1. Nadezhda Arbatova, "European Security after the Ukraine Conflict: *Respice Finem*," in Nadezhda Arbatova, George Perkovich, and Paul van Hooft, *The Future of Nuclear Arms Control and the Impact of the Russia-Ukraine War* (Cambridge, Mass.: American Academy of Arts and Sciences, 2024), 21.

2. George Perkovich, "No Losers: Making Arms Control Work," in Arbatova, Perkovich, and Van Hooft, *The Future of Nuclear Arms Control and the Impact of the Russia-Ukraine War*, 41.

3. Ibid., 47.

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5. Paul van Hooft, "Deter, Compete, and Engage: Europe's Responsibility within the Arms Control Regime after Ukraine, with or without the United States," in Arbatova, Perkovich, and Van Hooft, *The Future of Nuclear Arms Control and the Impact of the Russia-Ukraine War*, 78.

6. Ibid., 81.

7. Ibid., 88.

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9. Ibid., 91.

10. Ibid., 93.

European Security after the Ukraine Conflict: *Respice Finem*

Nadezhda Arbatova

The Ukraine conflict marks the deepest crisis in Russian-Western relations since the end of the Cold War. It can also be viewed as the embodiment of the mistakes and missed opportunities of the former opponents, who intended to build a post-bipolar world order but had differing conceptions about its nature and security foundations. The origins of the Ukraine conflict are not directly related to the disintegration of the arms control regime, although this is an aspect of the current crisis. However, the future of the European security system will depend strongly on how and when the conflict in Ukraine ends. If Russia is part of this system, then arms control will be its central element, and to avoid the mistakes of the past, arms control will have to be more stringent and intrusive.

Introduction

The tragedy that began to unfold in Ukraine on February 24, 2022, marked a dramatic turning point in the evolution of post–Cold War European and global politics and reversed almost all positive trends of the previous thirty years. The devastating conflict dispelled any remaining illusions about a better world in Europe after the end of bipolarity and exposed the shortcomings of the existing European security architecture. The latter, as conflicts in Georgia, Ukraine, and the former Yugoslavia show, has not been adapted to resolve problems in the post-Communist space.[1] Many today are wondering if the various opportunities for escalation—whether in the course of hostilities in Ukraine or in the form of incidents involving armed collisions of Russian and North Atlantic Treaty Organization (NATO) ships and aircraft in the surrounding seas and airspace—will result in nuclear catastrophe. If this apocalyptic scenario is avoided, the future of European

security will depend on how and when the combat actions end and what lessons are learned, primarily, from the origins of the conflict. This paper focuses on the origins, dilemmas, and escalation lines of the Ukraine conflict, along with scenarios for a future European security architecture and new approaches to arms control.

Three Faces of the Ukraine Conflict

The Ukraine conflict can be analyzed from multiple angles, offering a wide variety of interpretations of its origins. One view suggests that the conflict did not start in February 2022 with the Russian special military operation, or in 2014 when Russia incorporated Crimea. Instead, its origins are rooted in the 1990s, and the conflict was as predictable as the course of a Greek tragedy.

In this interpretation, the Ukraine conflict has three faces. First, it can be viewed as a quintessence of the conflicting Russian and Western perceptions of the acceptable foundations of post-bipolar European security. Second, it can be presented as a culmination of the Russian-Western spheres of influence rivalry in the post-Soviet space. Third, it can be defined as the final phase of the protracted collapse of the USSR, a result of the uneven dissolution of the Soviet empire.

The First Face of the Ukraine Conflict

The end of the bilateral era immediately brought into question the institutional foundations of post-bipolar Europe. Military alliances usually last no longer than the threats they are created to deter, but the collapse of the Eastern bloc persuaded Western leaders they did not need to change anything in post-bipolar international relations. Nothing was introduced to replace the binary security system created during the Cold War.

NATO celebrated victory—it had outlasted its rival, the Warsaw Pact—and argued that, for this reason, the North Atlantic Alliance should be the basis of European security. The need for a new world order was not on the agenda of the United States, NATO, or the European Union (EU). Indeed, the Helsinki decalogue, the ten principles of the Helsinki Final Act whose observance had prevented new conflicts in Europe during the years of bilateral confrontation, came to be seen as an anachronism in Europe and the United States. For its part, the United States, which pretended to be the main victor in the defeat of the Soviet Union, proclaimed itself "the pole of democracy and freedom." American triumphalism after the Cold War had multiple versions, none of which set as a goal the restructuring of international relations in accordance with the new reality.[2]

The question of who lost and who won the Cold War has not only theoretical and philosophical implications but is directly linked with the evolution of post-bipolar international relations, above all relations between Russia and the main Western power centers—the EU and NATO/the United States. World wars—and the Cold War was a world war between the two systems—as a rule have ended with peace congresses at which the victorious countries establish a new world order. The Western countries, above all the United States, considered themselves, by default, to be the winners and Russia the loser in the Cold War. American historian John Lewis Gaddis believes that international détente extended the life of the Soviet Union.[3] This point is debatable. On the one hand, détente provided the USSR and its satellites with a measure of legitimacy recognized by the West, albeit with many reservations. On the other hand, détente started a process of disintegration of a stringent economic, political, and ideological Communist system, which encountered growing problems of self-justification after accepting even minor liberalization and openness to the outside world.

After the collapse of the USSR, the Russian leadership considered the Organization for Security and Co-operation in Europe (OSCE) to be conceptually better prepared for the new realities than NATO. The OSCE, after all, was the only collective security organization in Europe in which Russia had a full voice, which explains why the Kremlin preferred it as the main European security institution. Russia's efforts in the 1990s to enhance the role of the OSCE in Europe, to turn it into a "European UN," were largely prompted by disappointment in NATO's policy decisions in the post-Communist space. However, the reforms of the OSCE launched in the early 1990s (the creation of a few new bodies while preserving the former decision-making mechanism) failed to include any cardinal changes or to increase the organization's role in addressing specific European security problems, as witnessed by the first stage of the Yugoslavia crisis. Russia continued to insist on the consensus principle because it was afraid of being outvoted on issues that were important to its interests. The result was a vicious circle, with Russia opposing the implementation of a new OSCE model for which Moscow itself had advocated.

Russia lost all interest in the OSCE when the post-Communist space was divided between two security institutions: NATO, which became responsible for the former Communist states in Central and Eastern Europe, and the OSCE, which was responsible for the post-Soviet space. This immediately created in Moscow the impression that the OSCE was a second-rate institution for second-rate countries. Since the collapse of the Soviet empire, the West had displayed a condescending attitude toward the OSCE, which had played a key role in strengthening stability in Europe during the Cold War, and claimed that the role of this "loose conference of nations

could never be more than complementary."[4] Christoph Bertram, a prominent German political scientist, openly expressed the opinion predominant in NATO:

> As the walls tumbled all over Europe, there were many who hoped that now the Cold War alliances would be replaced by an all-European security framework—and few foresaw that this new framework would in the end have to be provided by NATO. But this is how it has turned out, not only because NATO*'s members continued to feel comfortable with their organization* but also because there was no other structure in place which could offer a realistic alternative to them as well as to the many other states now seeking a stable international environment on the continent.[5]

NATO was positioned as the main pillar of European security and given a new function—expansion to the East—which would give the organization a new raison d'être without requiring radical changes to the alliance's foundation. From NATO's viewpoint, relations with Russia had been settled by the signing of the 1997 Founding Act on Mutual Relations, Cooperation, and Security between NATO and the Russian Federation and the creation of the Permanent Joint Council, which failed to withstand its first serious test, the Kosovo crisis.[6] Later after Russia's contribution to the U.S. counterterrorist operation in Afghanistan, the Kremlin was offered a special structure—the NATO-Russia Council—that also did not survive its first crisis (Crimea). Russia feared that the open-ended character of NATO's eastward enlargement would inevitably lead the North Atlantic Alliance to the post-Soviet space. Leaving aside the question of whether a process can in principle replace a goal, NATO's decision to expand marked the triumph of traditional views on European security despite all the rhetoric about indivisible security in the post-bipolar world.

Russia initially viewed potential EU enlargement positively, an attitude that shifted after the leaders of NATO and the EU repeatedly stressed that the former's eastward expansion and the EU's enlargement were complementary. Lastly, the process of NATO's expansion created a new contradiction in the post-bipolar European security that did not exist in the Cold War era: nations' right to freely choose security alliances and their right to oppose those alliances' enlargement if they viewed them as a threat to their national security.

Despite its opposition to the expansion of NATO and its disappointment with the OSCE, the Kremlin waited until 2009 before presenting its vision of European security in the draft Treaty on Pan-European Security. The proposal was not taken seriously by the West, which had also ignored Vladimir Putin's Munich speech of 2007, in which Putin criticized

the United States' monopolistic dominance in global relations. Russia's treaty proposal, however, was a message addressed to the West, signaling Russia's deep dissatisfaction with the current state of affairs in European security. Later, many European experts acknowledged "that far too little consideration was given to Russian sensitivities, interests and residual capacity to influence events on the ground, particularly but of course not only in Ukraine."[7]

Looking back, we can say that relations between Russia and NATO were developing in accordance with the logic of self-fulfilling prophecies. The growth of anti-NATO sentiment in Russia was not lost even on Boris Yeltsin, who from time to time delivered angry "Russia will not allow" tirades against NATO and Washington, thus convincing the West that it had chosen the right path. That NATO openly ignored Russia's positions further fueled mutual suspicions, paving the way to a new confrontation.

The Second Face of the Ukraine Conflict

The post-Soviet space did not turn into one of the main arenas of international contradiction between Russia and the West (EU, NATO/United States) all at once. After the disappearance of the Communist bloc, EU/NATO strategies concentrated on the return of the Central and East European and Baltic states to their European roots and later on the accession of some of these states into the EU. This strategy was primarily based on security considerations. The war in Yugoslavia revealed the potential for conflict in the post-Communist countries. By integrating the former Communist states of Central Europe, the EU sought to neutralize that potential. The core of Europe would thus stabilize its Eastern neighbors by absorbing them and bringing their institutions in line with EU institutions. Russia, however, was left out of the EU/NATO regional strategies.

Practically from the moment the Commonwealth of Independent States (CIS) was created, Russia's integration efforts were closely watched by the West, which soon began to fear that a new Russian empire was emerging. Initially, the CIS was seen by the West mainly as a structure for solving the problems of the Soviet nuclear inheritance. After that issue was settled, however, Western leaders began to see centrifugal trends in the CIS as a source of democratization and a guarantee that the USSR would never be revived. NATO and the EU sought to push the CIS countries as far away from Russia as possible.[8]

When Russia managed to stabilize the CIS space (albeit in an often heavy-handed manner through the freezing of conflicts), the EU and NATO began to show an interest in involving the post-Soviet states (all except Russia) in their regional strategies. Obsessed with the idea of a revived

Russian empire, the EU/NATO emphasized the separation of the post-Soviet newly independent states from Russia as a guarantee against this negative scenario. Meanwhile, the Russian leadership was concerned about Western plans to oust Russia from its natural habitat—the space once taken up by the Soviet Union itself (but excluding the former Baltic republics).

Unlike the 2008 Caucasus crisis, which was from the outset a confrontation between Russia and NATO, the Ukraine conflict started as a clash between the EU and the Russian Federation—or rather, as the rivalry of their regional strategies: the EU's Eastern Partnership and Russia's Eurasian Union project.[9] The prospect of Ukraine signing an association agreement with the EU, which envisaged the creation of a free trade zone, met with a negative reaction from Moscow.

The turning point occurred in 2012 with Putin's return to the Russian presidency. Moscow then shifted the direction of its post-Soviet evolution from Europe to Eurasia, and it did not want Ukraine to be on the other side of the divide. Domestic enthusiasm for a Russian turn to Eurasia seems to arise whenever the country faces uncertainty over its modernization. The 2008 economic and financial crisis in the West led Putin to the conclusion that Russia should no longer solicit modernization guidance from the weakened EU. From his point of view, Europeans were in no position to lecture other countries on good governance and democracy. Putin decided that Russia should modernize its economy without looking to European technological innovations and should instead adopt a new industrialization plan based on modern national technologies and the Eurasian Economic Union. As former Russian Prime Minister Yevgeny Primakov explained, a modernization strategy does not imply mere adoption of Western countries' achievements. Russia was not yet ready to become a postindustrial society, renouncing industrial production in favor of science and services. Instead of leaping straight to a postindustrial state, Russia would have to adopt not only Western technological and scientific achievements but also the breakthroughs and positive trends of Soviet science that had been unjustly forgotten.[10] Ukraine was supposed to be a pearl in the Eurasian Economic Union crown.

The Russian leadership began to suspect that the EU's Eastern Partnership was a smokescreen to cover up NATO expansion into the CIS space. Some among the Russian elite believed that, after Moscow's tough reaction to the Caucasus crisis, the West had decided to change its tactics and prioritize the EU by offering the Eastern Partnership program, which would pave the way for NATO to create its sphere of influence in the post-Soviet space. As early as 2009, when asked whether Ukraine should join NATO so it could eventually join the EU, U.S. Ambassador to Ukraine William Taylor replied that Ukraine should decide for itself whether to join the EU or NATO first.[11]

Russia's setbacks on the path to democracy also rekindled its neighbors' feelings of uncertainty and fear. Russia has only itself to blame for failing to formulate a realistic new concept of European security in a timely manner. The Russian leadership is to blame for failing to build new relations with the former Soviet republics and slipping into a counterproductive model of relations based on the exchange of economic bonuses for political loyalty. The euphoria over the dissolution of the USSR in 1992 gave way to a sense of loss and defeat in 1993—defeat not on the far approaches but in the immediate surroundings. In the end, mistrust and suspicion of each other's true intentions turned the CIS into a zone of rivalry between Russia and the West. That this rivalry could spill over from economic and political spheres into military confrontation between the leading powers and their alliances soon became evident.

The Third Face of the Ukraine Conflict

The uneven dissolution of the USSR, with its uneven reforms and their uneven implementation, created an explosive potential. The USSR was dissolved with the stroke of a pen without serious discussion of the problems the newly independent states would inherit: territorial and border disputes, problems of national minorities, common infrastructure, and so on. This circumstance went a long way to determining Russia's relations with its closest neighbors, cemented differences with the West, and ultimately fed the nostalgia of a large part of Russian society for the lost empire and former great-power status.

The collapse of the USSR opened up for Russia the prospect of economic and political modernization and a return to Europe as a modern prosperous state. Unfortunately, these opportunities were not pursued by the 1990s reformers. Moreover, their miscalculations in the choice of economic model largely discredited—in Russian eyes—the concepts of market, democracy, and cooperation with the West. Believing that its coming to power meant the triumph of democracy, the new leadership, for all its good intentions, set about ruling the country by essentially the same authoritarian methods. In creating a market economy at all costs (shock therapy), the reformers hoped that the invisible hand of the market would transform the political foundation of post-Soviet Russia. Having taken a step toward a parliamentary system, to be on the safe side they put the institution of the presidency above the separation of powers and created a hybrid form of state with elements of autocracy and undeveloped democracy. The imperative for the consistent Europeanization of Russia was supplanted by a naive-pragmatic calculation that "the West will help us."

Both the United States and Europe, in spite of their support of the Russian democratic reformers, took a condescending, and sometimes dismissive, attitude toward post-Soviet Russia. The West perceived Russia as a weak and dependent state that had lost its superpower status. As American political scientist Michael Mandelbaum stresses,

> This Western approach to Russia was not, as during the Cold War, one of active, principled hostility. Indeed, the two major Western initiatives were not, on the whole, aimed at Russia at all. On the basis of NATO and EU initiatives, however, neither could the Western approach to Russia be described as one of active embrace. Six years after the end of the Soviet Union, the door to the West was not closed to Russia; but neither was it flung wide open. Post-communist Russia was not, in any case, yet in a position to walk confidently through that door. *When and if it is ready to do so, however—and indeed even before that—Russian foreign policy would not, and will not, be determined by Russia alone.*[12]

In Europe, British political scientist Lawrence Freedman summed up this view most bluntly when he wrote, "There is now no particular reason to classify Russia as a 'great power' . . . It cannot therefore expect the privileges, respect and extra sensitivity to its interests normally accorded a great power."[13]

The failures of the Yeltsin reformers, most significantly their economic policy, which impoverished the Russian population, coupled with the West's disdainful attitude toward "a weak Russia," fueled nostalgia for the Soviet Union in Russian society. The USSR had collapsed in 1991, but its democratic transformation never become final and irreversible.

The collapse of empires is in principle a painful process often accompanied by wars. Even the British Empire ended with a fight. Over several decades, Britain withdrew from its colonial possessions with one exception, the miniscule Falkland Islands in the South Atlantic, where in 1982 the United Kingdom fought and won a brief war with Argentina—its victory a kind of imperial consolation prize.[14]Apparently, Russia, contrary to expectations, was unable to escape the fate of all disintegrating empires, which cannot justify the tragedy in Ukraine.

Justice versus Peace or Cease-Fire versus Escalation?

From the beginning of Russia's special military operation in Ukraine, European public opinion overwhelmingly supported Ukraine and put the bulk of responsibility for the conflict on Russia, which helped to solidify Europe's political response. Before the Ukraine conflict, Europeans have

often appeared reluctant to coordinate their foreign, security, and defense policies, instead preferring to "go it alone." The Ukraine crisis, however, has elicited a strong, unified response from the EU, NATO, and their member states.[15]

However, several months into the war a pan-European opinion poll conducted by the European Council on Foreign Relations showed that clear divisions had emerged. Voters were asked whether Europe should seek to end the war as soon as possible—even if it meant Ukraine making concessions—or whether the most important goal was "to punish Russia for its aggression" and to restore the territorial integrity of Ukraine—even if such a road prolonged the conflict and caused more human suffering.[16] The first option defined the so-called peace camp; the latter, the justice camp, including not only Ukrainians, Europeans, and Americans but also expatriate Russian opposition political figures who want Putin's Russia to be defeated by any means.

The "peace versus justice" dilemma, which is presented as a choice between "surrender or revenge," in practice means a different alternative: "a cease-fire agreement versus escalation." Supporters of the justice approach oppose not only peace talks between Ukraine and Russia but also a cease-fire agreement. As Jake Johnson, an American journalist, has pointed out, UK Prime Minister Boris Johnson's position in June 2022 "was that the collective West, which back in February had suggested Zelenskyy should surrender and flee, now felt that Putin was not really as powerful as they had previously imagined. Johnson, too, has publicly dismissed the prospect of an imminent diplomatic resolution to the conflict."[17]

They proceed from several premises. First, they say that Ukrainians alone are entitled to decide their future, and they refer to the November statement of President Volodymyr Zelenskyy: "There will be no peace talks between Ukraine and Russia as long as Vladimir Putin remains Russian leader."[18]

Second, the justice camp compares the Ukraine war with past wars and claims that in those conflicts the winning sides were always ready to go to the bitter end. Perhaps this is true, but it ignores the fact that military luck is changeable and that none of the sides in past European wars possessed the destructive potential of nuclear weapons. The aggregate destructive potential of the world's nuclear arsenals, 80 percent of which is controlled by Russia and the United States, is sixty thousand times greater than the destructive power of the atomic weapons dropped on Hiroshima and Nagasaki. A global nuclear catastrophe today would have no winners, no losers, no right and wrong sides.

Third, the justice camp argues that Putin will use a cease-fire as a respite to regroup Russian forces and prepare new offensives. But a respite

could also be used by the EU and NATO to rearm Ukraine. For instance, the agreed EU plan envisions military assistance to Ukraine in the form of a "security compact"; security assurances that would respond to renewed Russian aggression; economic support, giving Ukraine access to the EU's single market; and help to secure Ukraine's energy supply.[19] Russian Foreign Minister Sergey Lavrov referred to this argument in his June 2023 briefing, which focused on a wide range of international issues: "Recently, *Foreign Affairs* published an article by Richard Haass and Charles Kupchan, who described exactly this scenario: achieving a cessation of fire and having a respite. Of course, Russia will also get a respite but Ukraine has the entire West behind it. So, they argue, the West will make Ukraine much stronger and then they will continue to achieve the goals stated in Vladimir Zelenskyy's 'peace formula.'"[20]

Last but not least, the justice camp opposes a cease-fire agreement because the Russian president, who cannot be trusted, wants it. As the French editor Nicolas Tenzer wrote in his article "There Can Be No Peace With Russia," "Ukrainian leaders have rightly made it clear that they cannot talk to the Russian regime as long as Putin is in power. Western leaders must adopt this position too. There can be no peace with Russia . . . unless they want to facilitate the Kremlin's devious work, which also involves a fake discourse of peace."[21]

In Russia, opponents of a cease-fire agreement want President Putin to escalate the war, use more devastating weapons, and hit Ukrainians even more mercilessly.

As the fighting in Ukraine continues, as cities are being destroyed and people are dying, the question inevitably arises whether all the possibilities of the Minsk Agreements have been fully exhausted or whether they were doomed from the beginning as a result of the differing policies, preferences, and ambitions of the politicians involved in this process.[22] Recently, former German Chancellor Angela Merkel[23] and former French President François Hollande[24] exposed the true intentions of the West in the Minsk process by saying that the Minsk Agreements had been signed with the aim of giving Ukraine time to get stronger—a position that seems tailor-made to confirm the Kremlin's justification of its "special military operation." According to the Russian president,[25] the Minsk Agreements were killed by the current Kyiv authorities long before Russia recognized the Lugansk and Donetsk People's Republics.[26] Still, the greatest weakness of the Minsk process appears not to have been imperfections in the text of the Minsk Agreements but the absence of any mechanism to establish a stable cease-fire under international control.

The argument most frequently repeated by opponents of a peacekeeping operation in a buffer zone is the assertion that it would freeze the

conflict. However, in the absence of a mutually acceptable solution to the conflict, "freezing" the status quo is not the worst option if the conflict is frozen properly in accordance with a United Nations mandate and on a multilateral basis.

If the Minsk Agreements had provided a stable and reliable cease-fire—dividing the warring parties by an international peacekeeping contingent equipped with heavy weapons under the mandate of the UN Security Council—today's conflict in Ukraine could have been avoided. As Jean Arnault, a French diplomat, points out,

> concern over the agreement's imperfections in terms of wording, feasibility or legitimacy should be weighed against the paramount need to maintain the momentum of the overall transition. Ambiguities, lacunae, even stark impossibilities are acceptable costs. Over time ambiguities will be lifted, lacunae will be filled, amendments will be made to take account of impossibilities and, most importantly, the relevance of seemingly intractable issues will erode as the parties gradually learn to value accommodation over confrontation. Implementation, in that sense, not only cannot, but should not, be expected to be a mirror image of the original agreement.[27]

There are many historical examples in which politicians were forced to sign unfair peace agreements that looked like a defeat, but in the long run turned out to be a win because they saved entire nations and brought durable peace. The Camp David Accords between Israel and Egypt brokered by the United States and signed on September 17, 1978, are a classic example of this kind. In line with the "land for peace" formula, Israel agreed to withdraw its armed forces from the Sinai Peninsula. The Camp David Accords paved the way for the 1993 Oslo Accords between the Israelis and Palestinians, which in turn opened the door to the 1994 treaty between Israel and Jordan. Despite the fact that the agreements brought peace to the Middle East, many in both the Arab world and Israel considered them unfair. There are also opposite examples. Tsarist Russia during World War I did not want to make concessions to Germany and in turn lost everything. Those who prefer justice to peace get neither.

A cease-fire agreement is only the first (necessary) step in a long and difficult peace process. The only realistic alternative to endless slaughter is "a cease-fire without preconditions" that will stop mass killing and bring the fighting to an end. Ukraine's demand that Russia withdraw all its troops before a cease-fire agreement is established seems impossible, because the Russian leadership will not agree to it. The military has its own rules for the cessation of hostilities.

A cease-fire line can be established along existing fronts and should be extended to Russian and Ukrainian strikes against each other's cities from within their own territories. The goal is simply to stop hostilities. The numerous remaining controversial matters—including "Russia's withdrawal from the occupied territories" and Ukraine's membership in NATO—should be the subject of negotiations after a cease-fire.

In "How to Avoid Another World War," Henry Kissinger draws parallels between the current conflict in Ukraine and World War I: "Because no conceivable compromise could justify the sacrifices already incurred and because no one wanted to convey an impression of weakness, the various leaders hesitated to initiate a formal peace process."[28] A cease-fire agreement is often confused with peace talks. However, the distance between them is huge. Without a cease-fire, peace talks cannot be started. True, a military truce does not itself guarantee the success of peace talks, but it offers a chance for peace and helps to prevent the next round of escalation.

Risks of Nuclear Escalation

The academic community in Russia and abroad disagrees on the possibility of nuclear escalation of the Ukraine conflict. Many concerned analysts say that the international community should take the risks of escalation seriously rather than talking about a Ukrainian victory and Russian defeat. Others argue that the irresponsible calls of some Russian politicians and experts to use tactical nuclear weapons in Ukraine are no more than a bluff and that Russia will never use nuclear weapons in the Ukraine conflict because doing so would be suicidal.[29] They cite the example of wars between nuclear and nonnuclear states that did not lead to a nuclear conflict, such as the U.S. war in Vietnam and the Soviet war in Afghanistan. But those were peripheral theaters whose importance cannot be compared with the existential challenge of the Ukraine conflict for Russia or the Cuban Missile Crisis for the United States.

According to threat analysis specialist Cynthia Grabo, threat assessment does not emerge from a compilation of "facts," nor does it flow from a majority consensus. A threat assessment results from a focused and exhaustive research effort and is expressed in probabilities instead of certainties.[30] A nuclear threat assessment is thus a specialized area of expertise that requires understanding of a wide range of issues, including escalation lines and even the place of analogies in political and military thinking. So, the issue is not whether "I believe escalation is likely" but whether a probability of escalation exists. If you are walking down the street, the probability that a brick will fall on your head is very small. But if you are walking on a construction site, the probability will be much higher, and you should wear

a safety helmet. How serious the escalation of the Ukraine conflict looks for Russia and the world is confirmed by the recent revolt of the merciless field commander Yevgeny Prigozhin, the leader of the Russian mercenary group Wagner. Fortunately, we can only guess what he would have done to end the war if he had seized power.

Russia's military operation in Ukraine has affected the state's approach to nuclear weapons.[31] President Putin, like other proponents of nuclear weapons in Russia and elsewhere, generally argues that they are a deterrent factor and thus important for ensuring peace and security worldwide, since they saved humanity from the threat of World War III.[32] Nowadays this thesis is undergoing a severe test in Ukraine.

Addressing the Security Council of the Russian Federation in February 2022, President Putin presented a detailed interpretation of a threat to "the very existence of the Russian state." Speaking about NATO's possible expansion into Ukraine, he pointed out that "for the United States and its allies, it is a policy of containing Russia, with obvious geopolitical dividends. For our country, it is a matter of life and death, a matter of our historical future as a nation. This is not an exaggeration; this is a fact. It is not only a very real threat to our interests but to the very existence of our state and to its sovereignty. It is the red line which we have spoken about on numerous occasions. They have crossed it."[33] Putin's statement, which allows for a broader interpretation of nuclear deterrence, should be viewed not so much as evidence of Russia's intention to start a nuclear war but as a warning against actions Putin finds undesirable, including NATO's provision of military aid to Ukraine. This posture creates a dangerous linkage: the greater the military success of the Ukrainian armed forces, the higher the risk of nuclear escalation.

Despite Ukraine's territorial gains, the war is not likely to end with the full restoration of Ukrainian territorial integrity, as President Zelenskyy demands. Russia's staying power is more substantial than Ukraine's. Thus, despite economic difficulties and military problems, Russia is not likely to submit to Ukraine's conditions. However, Russia cannot win a quick victory in a conventional war either, and at a certain point this increases the risk of using tactical nuclear weapons. According to Joris Van Bladel, a military expert in the Egmont Royal Institute, "Russia possesses the world's biggest stockpile of nuclear weapons and a highly proactive nuclear strategy. Thus, Russia remains a world power even in its most vulnerable and weakest state. The danger of such an unbalanced power status is that the escalation ladder is steep and quick."[34]

Four potential lines of escalation seem most plausible. First, stakes would increase exponentially if Ukraine were to launch missile strikes against Moscow and St. Petersburg, especially if the strikes involved

long-range weapons provided by the United States (or developed indigenously by Ukraine, which still possesses significant technical knowledge and skill). According to Alexey Arbatov, head of the Center for International Security at the Primakov National Research Institute for World Economy and International Relations, this scenario is associated with

> the planned deliveries of American M207 and M142 HIMARS multiple rocket launchers to Ukraine; in addition to rockets, they can launch ATACMS or PrSM tactical-guided ballistic missiles with a range of 300 and 500 km respectively (similar to Russia's 9M723 Iskander M systems). Moscow warned that such systems would pose a threat to Russia's territory, which might lead to a dangerous conflict escalation. Washington responded by saying it would for the time being abstain from delivering these missiles to Ukraine, confining itself to only supplying rocket shells (with a range of up to 80 km).[35]

Second, because Crimea—especially the military base in Sebastopol—holds special, almost sacred, meaning for the Kremlin, a Ukrainian assault on Crimea would cross a "real red line" for Russia and likely risk an escalation of the war. Former U.S. Defense Secretary Robert Gates acknowledges that reclaiming Crimea would be "an exceptionally difficult fight" because President Putin has attached so much importance to it.[36]

Third, a collapse of the front could lead to a repeat of Russia's experience in World War I, when the "poorly motivated and provisioned Russian army collapsed, helping bring down an out-of-touch czar."[37] Vladimir Putin, who portrays himself as a strong and successful leader, cannot afford to lose this war. In the event of the collapse of the front, he will take extreme measures, including the use of tactical nuclear weapons.

Fourth, Russia's tactical nuclear deal with Belarus could lead to an "extremely dangerous escalation."[38] Psychological factors also need to be taken into account. The Russian military likes to draw analogies to the past, particularly to past U.S. experiences. Using such analogical thinking, some Russian leaders might seek lessons in the U.S. use of nuclear weapons in Hiroshima and Nagasaki to achieve decisive victory over Japan in World War II.

Sixty years ago, the diplomatic efforts launched by Moscow and Washington after the peaceful resolution of the Cuban Missile Crisis, which nearly brought about nuclear disaster, marked a turning point in the Cold War. Hopefully, an agreed cease-fire in Ukraine will once more move the world away from the threat of nuclear disaster. Ukraine's demands should then be discussed and agreed to in the format of peace talks. Although Western interests overlap with Ukraine's, they are broader and include

nuclear stability with Russia and the ability to influence the trajectory of the Iranian and North Korean nuclear programs.

Uncertain Future

Until the current conflict can be resolved, any discussion of the details of a post-conflict European security architecture will necessarily be speculative. Much will depend on the post-conflict domestic evolution of Russia and Ukraine, as well as the outcome of the next U.S. presidential election. However, the Ukraine conflict has already had serious security implications and highlighted the most important trends in the European security landscape.

Trends

Ukraine has emerged as a major state in Eastern Europe. Its army is the most efficient in the region for the first time in modern history. Regardless of formalities, it is already viewed as a de facto part of the Euro-Atlantic world, effectively a ward of the EU and NATO. As Belgian analyst Sven Biscop points out, "the independent Ukraine that is fighting for survival already today is a member of the Western security architecture. The EU underscored that by according the country candidate status in June 2022 (though that decision seems to have been motivated more by emotions than by conscious strategic thinking)."[39]

The Ukraine conflict has become a catalyst for the strategic autonomy of the EU and has sharply raised in Brussels the question of the EU's capabilities in ensuring territorial defense. In March 2021, the EU created the European Peace Facility (EPF), "an off-budget funding mechanism for EU actions with military and defense implications" that will allow the EU to deliver lethal weapons to non-EU countries.[40] Through the EPF, the EU has already provided €1.5 billion in financial support to Ukraine's military, with an additional €500 million promised. EU leaders also agreed on the need for more effective defense spending (a €2 billion investment), which will spur defense innovation while reducing industrial fragmentation in coordination with NATO's Defense Innovation Accelerator for the North Atlantic and the newly created Innovation Fund. Even Ireland, a neutral island with no geographical or commercial proximity to Russia, is doubling its relatively low military spending.[41]

At the start of the Ukraine conflict, NATO activated its Response Force, a highly capable, technologically advanced multinational force of forty thousand troops that can be deployed quickly in response to an emerging crisis. The alliance also extended its borders in Europe by embracing formerly neutral states Finland and Sweden. The Biden administration has

used these developments to demonstrate that the United States remains an indispensable partner to its European allies. Although a return to the traditional Atlanticism of the Cold War is no longer possible due to U.S. interests in the Indo-Pacific region, the American presence in Europe has, for the time being, been extended and strengthened. However, politicians come and go, and U.S. foreign policy changes with them. Therefore, "Europeans must not simply hope they can accommodate potentially dramatic shifts in U.S. policy in the coming years, but should instead take steps now to enhance and protect their own position in the world."[42]

Russia has embarked on a path of fierce competition with the West and the search for allies in the South and East. "In the face of the perceived frontal onslaught of EU and NATO enlargement into Eastern Europe, Putin has been turning [to] Europe's flanks. Russia has forged a special relationship with Turkey; it has intervened successfully in Syria, safeguarding its naval base in Tartus; and it has established a military presence from the shores of the Mediterranean to Central Africa."[43]

In reality, Russia's Eurasian pivot began much earlier than February 24, 2022. The publication of Putin's article "A New Integration Project for Eurasia: The Future in the Making" in *Izvestia* on October 3, 2011, officially marked Russia's departure from Europe and from the West more generally.[44] The Western sanctions imposed after Russia's incorporation of Crimea persuaded Putin that he was on the right track. The Kremlin now views China as the most important of the non-Western states, making it a significant factor in European security for the first time in its modern history. The Kremlin tries to be on equal terms with China, but at the same time it recognizes China's role in international relations, which makes it a particularly valuable ally.

Although China portrays itself as Russia's strategic partner, it is playing its own game, keeping a balance between all international actors to make the best of its position and upgrade its role in the international arena. Turkey is Russia's "second best," although it plays a controversial role in the Ukraine conflict. Ankara supports Kyiv politically and militarily while maintaining close ties with Moscow and participating in the extension of the grain deal. Taking into account Ankara's diplomatic balancing game since Russia started its "special military operation" in Ukraine on February 24, 2022, Turkey can be viewed as a situational but important partner for Russia. Iran, given its general anti-Western orientation, is a more unambiguous partner for Russia. The war in Ukraine has led to unprecedented levels of Russian-Iranian cooperation in the military, economic, and political spheres. The rise of anti-Western hardliners in both Moscow and Tehran means that this cooperation is likely to continue and to intensify, despite the differences between them.[45]

Despite Russia's activity in the southern European periphery, first and foremost in Serbia and the Republika Srpska in Bosnia, its capabilities have significantly decreased as a result of the special military operation in Ukraine, drastically changing its position in the Black Sea region. During the Cold War, most of the littoral states in the region were allied with the USSR, the only exception being NATO member Turkey. Now the situation is the opposite. Ukraine is at war with Russia, the other littoral states have troubled relations with the Kremlin, and Turkey, although still a NATO member, is now Russia's situational partner. With the accession of Finland and Sweden to NATO, the alliance's area of responsibility has expanded, and the Baltic Sea—with the exception of the areas around Kaliningrad and St. Petersburg—has become a de facto NATO sea.

Current trends in international relations thus point to the continuation of a multipolar world. Will it remain so the day after the Ukraine conflict ends? The answer will depend on how and when that end comes.

Scenarios

There are many scenarios describing how the course of the war in Ukraine might play out. Most are intellectually exciting but give only a speculative or static picture and do not account for the multivector dynamics of the conflict or the time frame. For instance, the long grind scenario described by analysts with the Center for European Policy Analysis (CEPA) contemplates the war continuing in its current form for years, with each side taking wins and losses along the way but with neither side achieving a decisive victory.[46] According to these analysts, this low-intensity warfare will be similar to what the Soviet Union experienced during its long war in Afghanistan and would risk destabilizing Russia. The parallel between the Ukraine and Afghanistan conflicts seems to be artificial, however. The Afghan conflict was a secondary theater of military operations for the USSR, while the Ukraine conflict has existential meaning for Russia. Similarly, the stalemate/low-level conflict scenario in which the war grinds on with lengthy trench warfare—the experience of World War I—seems anachronistic in the twenty-first century.

Regardless of how the Ukraine conflict evolves, the outcome will determine the future architecture of European security. If we discard the most dramatic scenario of a nuclear conflict, the range of options is not wide. Given deep divides between Russia and the West, at present two models of Europe could feasibly emerge from the Ukraine conflict.

One model is akin to *Europe in the Berlin crisis era of 1948–1949*; that is, a newly divided Europe, with Ukraine playing the role of Cold War Berlin. This outcome could result if a cease-fire does not lead to a peace treaty.

During the Cold War, Berlin was the site of numerous crises, leading Europe to the verge of global conflict in 1961. As political scientist Steven Miller notes of this period, "Serious dialogue between the great Cold War protagonists was virtually nonexistent. States were unconstrained by arms control agreements. There were few norms or tacitly agreed codes of conduct. To the extent that order existed at all, it emerged from the uncoordinated unilateral steps and choices of states acting on the basis of their own perceived self-interest."[47] Thus, if this model were replayed today in Ukraine, the expected outcomes would include the end of Russian-Western cooperation on pressing international issues and the likely stationing of American nuclear weapons on Ukrainian territory.

The role of international organizations, primarily the OSCE, would also be nullified. Moscow might systematically block consensus, which would paralyze the OSCE, severely obstruct the work of its autonomous institutions, and force the closure of its field operations. In turn, the Western states would join together to sideline Russia, leading to Moscow's withdrawal from the OSCE and the loss of the organization's raison d'être. Once it became just another international organization that excludes Russia, the OSCE would likely collapse.

The second model—*Europe of the Berlin agreement of 1972*—is more optimistic. The agreement opened a window for settling the most urgent issues in Europe and led to the Helsinki Final Act of 1975. In this scenario, Russia and the West achieve a peaceful coexistence and limited cooperation on European security, with the OSCE again adopting an inclusive nature and framework. In the best-case scenario, participating states would compromise to preserve the OSCE as a multilateral platform for broader cooperation on European security. Eventually, a European forum would need to be held to determine a new order for Europe, work that would have to include security guarantees for Ukraine and the other East European countries. Instead of membership in NATO, they could be offered bilateral security agreements with the NATO states. Such an arrangement could ease these countries' frustration with their "in-between" status.

Searching for New Approaches to Arms Control

Arms control may be perceived as an indispensable attribute of a historical period of transition from uncompromising confrontation to a cooperative and integrated new world order. It can last for decades with breakthroughs and pullbacks. Even before the Ukraine conflict, the professional strategic community harbored significant concerns about the disintegrating treaty network, which has created the risk of a new arms race. In 2019, the United States withdrew from the INF Treaty, paving the way for deployment in

Eastern Europe of medium-range hypersonic missiles, capable of reaching Moscow in a matter of ten to twelve minutes. The Trump administration withdrew from the Open Skies Treaty in 2020, threatened to withdraw from the Comprehensive Nuclear-Test-Ban Treaty, and refused to prolong the New START Treaty at the end of Trump's tenure.[48]

When Joe Biden's Democratic administration came to the White House in January 2021, New START was prolonged for another five years, until February 5, 2026. However, this process was interrupted by Russia's diplomatic démarche of February 21, 2023, when in a state-of-the-nation address to the Federal Assembly President Putin announced Russia's suspension of New START: "I am compelled to announce today that Russia is suspending its participation in the New START Treaty." To restore the treaty, he declared that the United States must cut off support for Ukraine and bring France and the United Kingdom into arms control talks.[49]

Notably, Putin did not announce total withdrawal from the New START Treaty, merely the suspension of Russian participation. This could, negatively, imply a return to an uncontrolled strategic offensive arms race, a hugely expensive outcome for a Russian state already struggling to bear the considerable costs of its military operation in Ukraine. Follow-on effects could include the collapse of the CTBT, Non-Proliferation Treaty, and so on, threatening to undermine the security of all nations, including Russia, since strategic parity would be put at risk too. The New START Treaty achieves parity, or approximate equality, of the two parties' nuclear arsenals. However, in an unlimited arms race, the United States would most likely be able to increase its strategic nuclear forces faster and to a greater degree than Russia. U.S. leadership has indicated it will try to live with the suspended treaty before deciding on a full withdrawal.[50]

The most common explanation for the main nuclear powers' declining interest in keeping the arms control regime alive involves two factors: the emergence of new technologies and the absence of new arms control methods to deal with them. However, the main reason for this is that the ongoing military conflict in Ukraine has brought relations between Russia and the West full circle, returning the world to "a Cold War–like environment" and bringing the powers back into confrontation. Well before February 2022, however, arms control had ceased to be a priority for the post-bipolar generation of politicians and experts. The latter proposed the abandonment of past practices and argued that nuclear multipolarity and innovative weapons systems would make irrelevant the old principles of arms control, including parity, quantitative levels and sublevels, and weapons counting and other verification methods.[51] The old methods, along with the INF and START Treaties, seemed destined for the scrape pile. In exchange, the experts proposed a multilateral dialogue (primarily between

Russia, the United States, and China) on new principles of strategic stability, military transparency, and predictability.[52] Their goal was not to promote arms limitation but to strengthen mutual deterrence so as to prevent conflicts among the great powers. The notion of strategic stability was being blurred and interpreted as a general state of international security or even as a kind of global harmony.

New Technologies, Strategic Balance, and Arms Control

The current state of strategic balance is contradictory. On the one hand, radical reductions in nuclear weapons have had a positive impact on strategic stability. On the other hand, the power of the remaining nuclear arsenals is immense, and the disruptive technologies can hardly negate it in the foreseeable future. The impact of disruptive technologies on the strategic balance should be monitored and constantly analyzed in order to adjust deterrence programs and arms control negotiations accordingly.[53] But their role should neither be exaggerated nor used as a justification for abandoning arms control altogether.

The deployment of disruptive technologies and weapons is likely to have fewer tangible effects than did the deployment of long-range ballistic missiles at the end of the 1950s or the introduction of multiple independently targetable reentry vehicles (MIRVs) in the early 1970s, not to mention the shock of the initial creation of nuclear weapons. Disruptive technologies could have a negative impact on strategic stability by increasing uncertainty and unpredictability, but they will not replace nuclear weapons as the main threat to global security. "New technologies," whether MIRVs, long-range cruise missiles, or the Strategic Defense Initiative, have always been accompanied by increased uncertainty in strategic relations. Still, arms control methods were able to cope with the new challenges.

How disruptive technologies might impact on strategic stability is not yet clearly understood (in contrast, for instance, to how the growing accuracy of MIRVed warheads has contributed to counterforce capabilities). Hence, there are no persuasive arguments against proceeding with traditional START reductions (even marginal reductions) as the best way to provide strategic transparency and predictability. At the same time, the revival of New START and its follow-on should serve as an indispensable foundation for future agreements that incorporate long-range conventional systems, tactical nuclear arms, and (if possible) disruptive technologies of the future.

The same logic applies to the world order. Revolutionary changes will not result from the advent of new arms technologies. Nuclear weapons and the threat of a nuclear conflict as a result of escalation must remain the

focus of politicians and the strategic community. The most telling example is the Ukraine conflict, which can be seen as having resulted from the conflicting views of Russia and the West about a post–Cold War security architecture in Europe that genuinely meets the needs of all parties.

That the Cold War–era arms control treaties have been abrogated is evidence that they are far from ideal and insufficient to meet today's needs. The development of new weapons systems—strategic conventional systems, space systems, hypersonic and autonomous systems, cyber warfare systems, and so on—poses new challenges. Nuclear multipolarity has encouraged serious thinking about how to engage third states in arms control. However, these complicated problems cannot be solved within the framework of "discussion clubs." Concrete negotiations require a profound elaboration of the participating states and weapon systems—the subjects of the negotiations. Absent such conditions, the present chaos in the world order and the potential chaos introduced by new military technologies will be aggravated by the chaos in the legal system of disarmament and the disordered thinking of politicians and experts.

Rebuilding and Moving On

Today, many experts in Russia and abroad are talking about the need for new approaches to disarmament, but new approaches will not arise out of thin air. No "soft" arms control measures—parallel voluntary initiatives, cooperation on transparency and predictability, discussions of military doctrine—can serve as a substitute for the "hard core" arms control of verifiable limitations and reductions of weapons and forces. Such measures are reversible and useless on their own, helpful only as a supplement to arms control that rests on a strong legal basis. Thus, what has been destroyed will need to be rebuilt. For both global and European security, the restoration of New START is thus a vital precondition to any follow-on negotiations. New negotiations could then consider proposals from all sides; for example, limits on tactical nuclear weapons (a U.S. must-have) or limits on ballistic missile defense systems and high-precision long-range conventional weapons (long-standing Russian concerns).

Some within the Russian and foreign strategic communities claim that the involvement of China in arms control talks is thus of vital importance.[54] If we assume that China will show interest in trilateral negotiations, then some agreement on equal ceilings for traditional strategic systems (say, five hundred to six hundred missiles for each party) might in principle be possible. The U.S. desire to simultaneously deter both Russia and China does not arithmetically translate into deploying forces equal to the sum of the Russian and Chinese strategic forces. The United States can equally

deter both because the U.S. strategic armory predominantly consists of invulnerable submarine-launched ballistic missiles, which the United States has already deployed in both the Atlantic and Pacific theaters. Chinese missile build-up in no way threatens U.S. sea-based deterrence. If need be, the United States can add to its deterrence by deploying land-based medium-range missiles in Asia. Apparently, the obstacles to this are political: the need for the United States to recognize strategic parity with China, but strategic parity will occur de jure or de facto.

Russia's idea to involve France and the United Kingdom in five-party negotiations with the United States and China does not look promising either. A more expedient option might be to split multilateral talks into three channels: 1) Russia-United States, 2) United States-China, and 3) Russia-France-United Kingdom.

The INF Treaty is still of utmost importance as a link between global and European security. Prior to the Ukraine conflict, Russia called for an agreement to ban the deployment of not only intermediate-range nuclear forces but short- and medium-range missile systems in Europe and to provide for on-site inspections. By default, the renewed treaty should also apply to U.S. allies.

The Conventional Armed Forces in Europe (CFE) Treaty—one of the most significant treaties in the history of arms control—should be restored in its 1999 adapted version (Agreement on Adaptation of the Treaty on Conventional Armed Forces in Europe, CFE II) through the development of a draft "framework" for new negotiations to strengthen European security. The national and territorial quotas called for by CFE II should be the guiding principle, with tactical ballistic and cruise missiles (e.g., those with ranges longer that three hundred kilometers) and drones also added to the treaty-limited items. The versatility of drones creates serious problems, but their range and weight might be determinative, as in the Missile Technology Control Regime.

Conclusion

Politicians, the media, and nonexperts may be tempted to explain the current crisis in relations between Russia and the West by pointing to a mutual lack of trust. But unlike trust between people, trust in international relations is a product of hard negotiations and agreement. Strategic arms control did not result from trust between the USSR and the United States. During the Cuban Missile Crisis, which brought humankind to the edge of the nuclear abyss, trust between the two nations was at its nadir. The crisis was followed, however, by thirty years of hard work aimed at preventing nuclear war, primarily through arms control. This work, carried out in

multiple countries at multiple diplomatic forums, then served as the basis for the unprecedented trust that evolved between the USSR/Russia and the West in the late 1980s and 1990s. In turn, Russia and the West, including Europe, enjoyed a state of security unprecedented in Europe since the fall of the Roman Empire fifteen hundred years prior. Such lessons now need to be recalled. There is no sense in waiting for trust to fall on us from the heavens. We build trust when we together solve complex and urgent problems; in particular, the problems of war and peace.

The Ukraine conflict and the disintegration of arms control are the two most dramatic sides of the deepest crisis in post-bipolar international relations. In the best scenario, Russian-Western cooperation on arms control will help to restore trust and strengthen security in Europe. However, true stability can be achieved only through full reconciliation between Russia and Ukraine, just as Franco-German reconciliation opened a new era in Europe's history, paving the way to European integration.

As Kissinger said, "The quest for peace and order has two components that are sometimes treated as contradictory: the pursuit of elements of security and the requirement for acts of reconciliation. If we cannot achieve both, we will not be able to reach either. The road of diplomacy may appear complicated and frustrating. But progress along it requires both the vision and the courage to undertake the journey."[55]

Endnotes

1. Nadezhda Arbatova, "Russia and the European Union: Deferred Partnership," *Social Sciences* 52 (3) (2021): 34–52.

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No Losers: Making Arms Control Work

George Perkovich

Arms control entails "all the forms of military cooperation between potential enemies in the interest of reducing the likelihood of war, its scope and violence if it occurs, and the political and economic costs of being prepared for it."[1] The nuclear arms control regime that helped end the Cold War may be irreparable. It appears to have been undone by domestic politics that punish compromise and by the emergence of new technologies and multiparty contests that perplex power balancers.

During the Cold War, critics derisively said that arms control can be achieved only when political relations are good enough that you do not need it; when relations are threatening, you cannot get arms control.[2] The fuller story is that pursuing arms restraint can help create or reinforce better political relations. Political relations and arms control operate synergistically.[3] The challenge today is that this constructive dynamic must be created by multiple dyads and triads of asymmetrically powerful nuclear-armed states and alliances, not "merely" by the two superpowers of the bipolar Cold War. The list of relevant parties today includes the North Atlantic Treaty Organization (NATO) and Russia in Europe; the United States, China, and Russia globally; the United States, China, India, and Pakistan in South Asia; and the United States, South Korea, Japan, Australia, North Korea, and China in Northeast Asia.

This paper explores why the United States and its allies on one side, and Russia and China on two other sides, feel more inclined to compete for military advantage than pursue arms control. (Space constraints do not allow for treatment of South Asia or the Korean Peninsula, where political-security competitions also affect and are affected by the United States.) Amid the possible deployment of new weapons capabilities—nuclear and nonnuclear, earth-based and space-based—the paper argues that the first step toward achieving restraint and stability must be overtures in word and deed to test adversaries' intentions. Will China not use force to change

the status quo with Taiwan so long as Taiwan does not assert its independence?[4] Will the United States explicitly base its policies and force acquisition—including missile defenses—on a relationship of political-economic coexistence and mutual vulnerability with China? What will Russia's purpose be?

To answer these questions requires exploration of domestic dynamics that impede the offering of reassuring gestures and steps toward arms control. When leaders feel that compromise with foreign adversaries will cost them more internally than it will gain them, negotiated restraints become impossible. This paper considers how the evolution of the Republican Party and partisan polarization have made compromise in domestic politics nearly impossible, and in turn reduce the likelihood that a majority of U.S. elected officials would support any agreement that the leaders of Russia, China, Iran, or North Korea would agree to.[5] These internal and regional political challenges must be the primary focus if we are to ameliorate security dilemmas, foster predictability, and sustain stability, all of which are objectives of arms control.

Beyond these political challenges, arms control must address new war-making technologies that could plausibly be used to attack both conventional forces and nuclear deterrents and which are very difficult to balance, monitor, and verify. Future arms controllers will focus on 1) capabilities that can both threaten the survivability of nuclear deterrents and be monitored well enough to be mutually restrained with adequate confidence; and 2) behaviors that must be eschewed to avoid ill-conceived or inadvertent escalation of crises and conflicts.[6] To test China's willingness, the United States could offer talks on trade-offs between defensive interceptors and nuclear and conventionally armed offensive missiles with ranges greater than five hundred kilometers. Such an approach could befit Russia, too, once negotiations with it become possible again.

Introduction

Nuclear arms control was in a precarious position before Russia invaded Ukraine in February 2022 and then, one year later, when Russia suspended participation in the New START Treaty's transparency process. That treaty, like the previously abandoned Intermediate Nuclear Forces (INF) Treaty, Open Skies Treaty, and Conventional Forces in Europe Treaty, stabilized East-West competition and fostered predictability about the security environment. As for nuclear disarmament—the elimination of specified weapons—the United Sates and the former Soviet Union reduced their nuclear warhead stockpiles from about 31,000 and 40,000, respectively, to roughly 4,000 strategic warheads each today.[7] But no reductions in deployed

weapons have occurred since 2018, when the United States and Russia completed the mandate of New START.[8] Indeed, of the nine countries that possess nuclear weapons, only the United States and Russia have *ever* negotiated reductions or limitations on their arsenals. Other nuclear-armed states appear unlikely to join them in the foreseeable future.

The ruinous state of nuclear arms control reflects the evolution of weapons-usable technology and deeper pathologies in international politics. I say "weapons-usable technology" instead of "weaponry" because many emerging technologies are multipurpose. Computer code can be used for intelligence gathering, political influence campaigns, or for attacking an adversary's civilian infrastructure, conventional forces, or nuclear forces. Satellites and their related communication networks (which rely on code) are similarly quintuple-use. Boosters—be they ballistic, cruise, or maneuverable hypersonic—have mostly military applications and are better known as "missiles" except when used to launch civilian satellites. In regional conflicts, they can carry nuclear or conventional warheads and can be used for offensive strikes and defensive interceptions. The multiple entangled roles of strategic technologies complicate threat assessments in peacetime, in crises, and in war.[9] All of this exacerbates security dilemmas and efforts to manage escalation or negotiate arms control.

Dialogue and agreements on norms of behavior in managing new weapons capabilities could foster stability, albeit less concretely than verifiable agreements to reduce types and numbers of weapons. But the reciprocal political confidence and will to engage in such cooperation are lacking today among all relevant competitors.

Disrepair and Resistance to Treatment

The developments listed below are among the signs of arms control's degeneration and nuclear-armed states' resistance to reviving it.

Cheating on Treaties

Russia's record in fulfilling arms control obligations is problematic. The Soviet Union violated the 1972 ABM Treaty by building an improper radar facility at Krasnoyarsk (and then corrected the violation and complied with the treaty). Russia cheated on the 1987 INF Treaty by deploying an impermissible missile. Russia also did not comply fully with the Biological Weapons Convention and has used chemical weapons to assassinate individuals in violation of the Chemical Weapons Convention. Questions or problems remain about the fullness of Russia's compliance with other treaties too.

Clandestinely breaking agreements is inherently illegitimate. Yet, cheating may indicate underlying problems that deserve redress by all parties. If, for example, the balance of military capabilities has changed significantly since an agreement was negotiated and now disproportionately favors one of the parties, maintaining fidelity to cooperative limitations may require adjusting the balance of forces. If sufficient balance is not maintained, the disadvantaged party will become interested in cheating or withdrawing to redress the situation.[10] This may have been Russia's perspective on the INF Treaty that was agreed to by Mikhail Gorbachev and Ronald Reagan in 1987. States that do not have competing political parties, independent nongovernmental organizations, and/or free media may find cheating less risky than democracies do.

Withdrawing from Agreements

Whereas Russia has tended to cheat on agreements, the United States has withdrawn from them. The most dramatic and impactful withdrawals were from the Anti-Ballistic Missile (ABM) Treaty in 2002 and the Joint Comprehensive Plan of Action (JCPOA) with Iran in 2017. In both cases the counterparts—Russia and Iran—were complying with the agreements. In leaving the ABM Treaty, American officials wanted to free the country from constraints on developing and deploying weapons that could potentially intercept ballistic missiles that Iran, North Korea, or other "rogue" states might launch against the United States.[11] Withdrawing from the ABM Treaty also reflected fealty to visions of a defense-dominant world, notwithstanding the advantages that physics and economics give to offenses. President Donald Trump's obsessive loathing of Barack Obama and the delusion that he could compel Iran to make a better deal drove him to renege on the JCPOA that constrained Iran's nuclear activities.[12] Iran is now much closer to possessing the capability to make nuclear weapons than if the JCPOA had remained operative.

To many international observers, the troubling conclusion is that the United States feels that its economic and military power permit it to withdraw from agreements without severe consequence. Many nations now question whether the United States is a trustworthy negotiating counterpart.[13]

Growing Instability

Nuclear arsenals are the ultimate deterrent on which nine countries and their allies rely. If adversaries fear that their own forces and command, control, and communication systems can be targeted with emerging kinetic

or cyber capabilities, arms-racing and crisis instability could grow. Using nonnuclear weapons against nuclear forces could become more credible if it forces the burden of starting nuclear war onto the other side. This could strengthen deterrence, but it will also motivate adversaries to deploy countermeasures. China, for example, is dramatically expanding its strategic ballistic missile force for reasons that include increasing its survivability against preemptive attack by U.S. nuclear, conventional, and perhaps cyber forces.[14] Devising equations of restraint to balance capabilities and stabilize deterrence relationships is inherently more difficult as the variety of entangled technologies grows. Arms control could be a physically and economically less risky alternative, but pursuing it in nationalist polities facing foreign adversaries is politically risky.

The Unfinished Business of Earlier Arms Control

Despite the success of many of the arms control agreements from 1970 to 2010, negotiating and ratifying treaties during the Cold War and in its immediate aftermath were never easy. Several negotiated treaties went unratified or unimplemented.[15] Attempts to limit nuclear weapons systems with ranges of less than five hundred kilometers went nowhere, in part because of the challenges of verifiably distinguishing whether planes used for fighting at this range are carrying nuclear or conventional bombs or cruise missiles. Since 2010, numerical arms control has become less suitable to address new potentially destabilizing technologies.[16] More missiles and gliders of longer range are designed to carry nuclear *and* conventional warheads. Cyber capabilities to attack command, control, and communication systems cannot be verifiably limited. The most that can be done is to agree not to target specific assets or to adhere to norms of responsible tradecraft that limit collateral damage and do not allow malware to proliferate.[17]

Costliness of Trade-Offs to "Buy" Support for Arms Control

In the United States (and perhaps in Russia and maybe elsewhere), endorsement by military leaders is necessary to win political support for arms control. In the United States, this usually requires payment in the form of funding for other weapons that the military or congressional leaders want.[18] Stuart Symington, the first secretary of the Air Force (from 1947 to 1950) and later a hawkish Democratic Senator from Missouri, vividly captured this dynamic. "It seems to me," Symington commented in early 1972 as the Nixon administration was negotiating with Moscow and seeking increased funds for nuclear weapons systems, "that these SALT talks are being used in an effort to sandbag the Congress into heavy additional arms

expenditures when the hope of all of us . . . was that agreements . . . would make it possible for us to reduce armaments, certainly not to increase it."[19]

If payoffs help motivate domestic competitors to go along, threats in the form of building new weaponry are a common way to motivate adversaries to stop foot-dragging and negotiate—"we will build more weapons you don't like if you don't agree on limits or reductions now." However, if a deal is not reached, the result is a perhaps larger-than-necessary arms buildup.[20] And if a deal is made, bureaucratic politics and congressional-industrial interests may protect at least some of the new bargaining chips from being traded away.[21] Then, to get the Senate to consent to ratification by a vote of two-thirds, spending will be promised for new weapons capabilities that are not limited by the deal. The net result is that actual nuclear disarmament is rarely negotiated.[22]

A counterargument affirms the basic point: hawkish administrations sometimes must appear to pursue arms control to win congressional support for spending on new weapons systems.[23] This was an impetus for Assistant Secretary of Defense Richard Perle to persuade President Reagan to propose in November 1981 that an INF Treaty should reduce the number of covered weapons to zero. Six years later, Gorbachev's Soviet government surprisingly consented. More often, as when recent U.S. administrations have urged China to join arms control negotiations, the proposed parameters of negotiation are known to be unacceptable to the adversary, but good enough to win spending on new weapons in Washington.[24]

Triangular Competitions Create Unprecedented Challenges

Nuclear arms control was a way for the United States and the Soviet Union to restrain the risks and costs of their competition and build confidence that neither would initiate major warfare against the other. Yet, thirty years after the collapse of the Soviet Union, the structure of security competition and nuclear risk has changed dramatically. Bipolarity has given way to multipolarity, with complex, interacting triangular competitions.[25]

The United States fears that Russia and China may attempt—singly or in collusion—to violently coerce U.S. allies or partners whom the United States would then have to defend. Leaders in Moscow and Beijing fear that the United States seeks to change their regimes or at least to mobilize international power to block them from pursuing their nations' geopolitical interests. These Russian and Chinese interests include preventing American primacy.

"They have one goal," Russian President Vladimir Putin said in a February 2023 interview: "to break up the former Soviet Union and its main

part, the Russian Federation. . . . Were the West to succeed in 'destroying' Russia . . . then I don't even know if the Russian people as an ethnic group can survive in the form in which they exist today." Russia is contesting a world order, Putin concluded, "built around the interests of just one country, the United States."[26] Or, in the words of China's Ministry of Foreign Affairs, "The United States has developed a hegemonic playbook to stage 'color revolutions,' instigate regional disputes, and even directly launch wars under the guise of promoting democracy, freedom and human rights."[27] The United States, of course, sees itself as merely defending its allies and partners from Russian or Chinese projections of force or coercive power.

Two types of major risk need to be redressed that are different from the bolt-from-the blue attacks that preoccupied early Cold Warriors. One is a crisis borne of an accidental collision of forces or a small incursion against a U.S. ally, either of which could readily escalate if not deftly managed. The second, as Russia's 2022 invasion of Ukraine shows, is the possibility that Chinese or North Korean leaders, like Putin, could decide that time is working against them and they must take bold military action now to deny freedom of action to Taiwan or South Korea. Because the United States is committed (in varying degrees) to defend its NATO allies, Taiwan, Japan, and South Korea, it is directly implicated in all these players' calculations. The capabilities necessary to fulfill these extended U.S. commitments, when aggregated, will appear deeply threatening to Russia and China.

Each of the three powers is now modernizing its military capabilities of all types, ranging from nuclear weaponry to algorithms to enhanced systems for command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR). Some of these capabilities conceivably could threaten the operation of each side's nuclear forces, undermining confidence in their strategic deterrents. China is rapidly increasing the size of its nuclear arsenal after decades of self-restraint. The scope of China's overall military buildup, beginning in the region and involving expansion of long-range forces, fits with a strategy of making the United States conclude that it cannot coerce China at an acceptable cost. In the absence of arms control or other mutual restraints, the United States, China, and Russia incline toward worst-case thinking and preparation for conflict. Arms racing and the risks of inadvertent escalation thus intensify.[28]

This triangular competition—or, optimistically, security dilemma—is much more difficult to manage than the Cold War was. U.S. officials feel pressure from strategic considerations and domestic competitors to build up nuclear capabilities to counter China, which is seeking military and political-economic power to counter the United States. A U.S. military buildup will prompt Russia to respond too (and vice versa).

And that is only half the story! The U.S.-Russia-China triangle intersects with the China-India-Pakistan nuclear competition, a triangle in which the United States bolsters India against China and China bolsters Pakistan against India. Military capabilities and know-how are transferred in each of these relationships. This complicates the threat calculations made by all the competitors. These dynamics involve the United States, China, India, Pakistan, and to a somewhat lesser extent Russia, Japan, and Australia. Meanwhile, France and the United Kingdom, nuclear-armed permanent members of the United Nations Security Council, watch warily.

North Korea presents a similarly complex intersection, as the interests and military requirements of the United States, South Korea, and Japan complicate China's interests and vice versa. If Washington and China can improve their relations enough to address the direct competition between themselves, this should enable more cooperation vis-à-vis North Korea. The opposite is true too.

China, India, and Pakistan have never engaged in official bilateral or trilateral dialogue on nuclear arms control, let alone negotiations. (India and Pakistan have implemented an agreement negotiated in 1988 not to attack each other's declared civilian nuclear facilities and to exchange lists of such facilities.) If this group did overcome its aversion to arms control dialogue, China would inevitably note that its growing capabilities are a response to U.S. threats (including U.S. missile defenses) to China's nuclear deterrent. Therefore, Beijing would say, the problem cannot be addressed only by China, India, and Pakistan. Pakistan, with some sense of betrayal, would highlight U.S. eagerness to assist India militarily. India would cite China's assistance to Pakistan (and decry any lingering U.S. military assistance to Pakistan). Thus, the main potential bilateral belligerents who most need arms restraint will not agree even to explore possibilities with each other if their most concerning "third party" will not join the discussion. But that adds up to at least five negotiants—the United States, China, Russia, India, and Pakistan—and a commensurately complicated math to balance their disparate forces and interests. (In the European context, especially, Russia wants French and UK nuclear forces to be included in future nuclear arms controls.)

Concerning the U.S.-China-Russia competition specifically, one of the biggest questions is whether Washington could persuade Russian and Chinese leaders to accept that the United States needs to deploy a more effective combination of offensive and defensive capabilities than either Russia or China should have. The United States feels it must be able to simultaneously deter both nations and, if deterrence fails, defeat both of them in war. In contrast, Russia and China, in the U.S. view, need only deter the

United States and its allies—a lesser challenge. But proponents of a U.S. force expansion offer no plausible way to deter or dissuade both Russia and China from countering any new U.S. buildup.[29]

Conceptualizing Pathways to Political and Nuclear Stability

Rather than unbounded arms competition or the related hope of spending adversaries into "oblivion," a better approach would be to seek military and arms restraint.[30] Here the logic would follow that of President Lyndon Baines Johnson in a secret January 21, 1967, letter to Soviet Premier Alexei Kosygin that started the arms control process that led to the Strategic Arms Limitation Treaty (SALT) and ABM Treaty.[31] "I face great pressures," Johnson wrote,

> from the Members of Congress and from public opinion not only to deploy defensive systems in this country, but also to increase greatly our capabilities to penetrate any defensive systems which you might establish. If we should feel compelled to make such major increases in our strategic weapons capabilities, I have no doubt that you would in turn feel under compulsion to do likewise. We would thus have incurred on both sides colossal costs without substantially enhancing the security of our own peoples or contributing to the prospects for a stable peace in the world.[32]

If U.S. leaders and their counterparts concluded it is safer and economically wiser to affirm mutual deterrence than to compete endlessly and ultimately futilely for the capacity to win escalation contests up to and through nuclear war, what sort of reciprocal restraints and behaviors would they seek?

The United States, China, and Russia (like India and Pakistan) are not planning to suddenly start a war with a nuclear-armed adversary or alliance. If conflict does occur, all want to avoid the use of nuclear weapons. But each will muster the resolve and capabilities needed not only to defend and pursue its core interests if adversaries act offensively but also to prevail at each level of potential conflict. Each tells itself that this combination of capabilities and resolve—including possible limited, regional use of nuclear weapons—will motivate adversaries to stay out of a fight or to take an off-ramp early in a developing conflict. The problem, of course, is that if each adversary seeks to prevail in this way, the result is a precarious and fearsome mix of arms racing, instability, and deterrence. The three declare at summits and other international meetings that "a nuclear war cannot be won and must never be fought," but they do not say they will eschew

using force in regional disputes in ways that could escalate to nuclear use according to their own national security policies.[33] This is what security dilemmas look like. Less benignly, these competitive behaviors are also what states with offensive intentions do. Arms control processes, broadly defined, are a way to assess whether phenomena and intentions are benign or malign.

The most portentous example of uncertain intentions today has to do with Taiwan's future and the role of China and the United States in affecting it. The Korean Peninsula is similarly challenging. Do the United States and the Republic of Korea know what North Korean leaders fear and want from them and whether these leaders are prepared to restrain their most alarming behaviors and capabilities in return for ameliorating those fears and meeting some of those wants?

Ultimately, stability requires that nuclear-armed states demonstrate that they are not advancing under the illusion that they can win wars against one another without triggering their own destruction. To avoid arms racing and armed conflict, they must base policy on mutual vulnerability and recognize that pursuing—or being perceived to pursue—regime change and military primacy will backfire. But the increasing variety of militarily usable capabilities makes it hard to judge what balance of forces will convince leaders they cannot win an escalating war against one another and instead should work mutually to stabilize their relationships. Mutual vulnerability may be a fact, but admitting it and negotiating a modus vivendi around it are not what militaries and "strong" political parties are paid and supported to do.

If leaders of competing states do show willingness to reassure one another and avoid zero-sum competition, then experts from these states need to explore new concepts and approaches to balancing hard-to-verify asymmetric capabilities. A priority should be to limit the capabilities that realistically threaten competitors' second-strike nuclear options. If potential mutual limitations at this level are identified, analysts and officials could then work down the anticipated escalation ladder to identify what additional restraints could be pursued.

Given the difficulties of this approach today, a more realistic constructive effort could be to negotiate new norms of behavior. The unlikelihood of making restraints legally binding exacerbates competitors' doubts that counterparts will uphold them in the gray zone between peace and war, let alone during armed conflict. But, as the widely respected U.S. negotiator and defense expert Ambassador (ret.) Linton Brooks describes, political-security agreements less formal than treaties may be better suited to redressing today's sources and symptoms of instability among nuclear-armed states.[34]

Political Challenges

The easier half of the arms control challenge is to convince U.S. political leaders and voters that Russian, Chinese, and North Korean leaders will not cheat on any deals made with them. That will be extremely difficult to do.

It will be harder to convince Putin, Xi Jinping, and Kim Jong Un that the United States and its allies do not seek to constrain their military power in order to bring down their regimes.[35] Most American and allied officials personally *do* wish to see these autocrats depart and their polities become freer and more respectful of human rights. The more internally repressive and externally coercive these governments are, the more intense this wish becomes. The challenge, then, is to convey that the United States will not act directly or clandestinely to cause regime change. Instead, the United States and allies—regardless of whoever wins our elections—will recognize the need for peaceful coexistence with these governments even if we wish they would disappear. One important way to demonstrate this benign *intention* materially is to be willing to negotiate limits on the offensive and missile-defensive *capabilities* that would most effectively threaten China's, North Korea's, or Russia's second-strike nuclear deterrent.[36]

With Russia, much will depend on how the war in Ukraine ends. Since Nadezhda Arbatova's paper in this publication explores this question, my analysis here will instead focus on the dynamics with China.

China has long resisted being drawn into even discussions about its nuclear forces, let alone negotiations to limit them. China's leaders note fairly that its nuclear arsenal has been dwarfed by those of the United States and Russia and that China has adhered to a "no first use" doctrine unlike the larger, more bellicose nuclear powers. American deployment of precise conventional strike forces and missile defenses abetted by avant-garde cyber warfare capabilities has contributed to the Chinese view that the United States seeks to negate China's second-strike nuclear deterrent, which would then allow it more freely to bully China and prevent it from achieving its rightful preeminence in Asia and the wider world.[37] Common sense tells Chinese political and military leaders that transparency about their current and future nuclear forces would assist the United States and its allies in targeting China's deterrent. Chinese officials and experts fear that, were Beijing to join negotiations to limit or reduce nuclear forces, the United States would not agree to meaningful parity or equitability. Moreover, Chinese officials would probably fear that a new administration in Washington would renege on any arrangement when it could gain an advantage by doing so.

Chinese Communist Party leaders may never relinquish their skepticism about U.S. intentions and the risks of arms control. Moreover,

President Xi's decision to dramatically expand China's nuclear arsenal may reflect a general sense that the United States and others will not give him and China the proper respect due to a world power unless China's nuclear arsenal is growing and, if necessary, still more growable. The only way to test China's calculus and create a potential basis for arms restraint and confidence-building would be for the United States to eschew in word and deed efforts to develop and deploy offensive and defensive capabilities that could significantly limit the damage China's second-strike force could inflict on the U.S. homeland. Given the physical limitations of current missile defenses, damage-limitation entails destroying Chinese nuclear weapons before they can be launched. This prospect is destabilizing and escalatory whatever the intentions of U.S. leaders.

Words can come first. As the exceptionally experienced Brad Roberts persuasively argues, "the United States is going to have a relationship of mutual vulnerability, whether or not it accepts it in a political sense."[38] But to develop sound policy and convey it to Chinese leaders and the rest of the world, Washington must explicitly, albeit reluctantly, embrace political coexistence and mutual vulnerability as its unavoidable basis.

Dynamics within Washington and Beijing and between them make this very difficult. As Zhao Tong writes, "It has become increasingly evident that achieving nuclear stability between Washington and Beijing is becoming more challenging, if not impossible, without a concerted effort to address the underlying political tensions between the two sides." But, as Zhao also notes, Washington is reluctant to explicitly base policy on mutual vulnerability because this "would send an unwelcome signal of political reconciliation" with Beijing. This would be career-risky in Washington—in part because it would also alarm Japan, Taiwan, and other U.S. allies and partners.[39] Meanwhile, "China has not recognized the negative impact of its current approach" toward the United States and "has not developed a realistic strategy to provide strategic reassurance to Washington."[40]

Getting Our Own Heads and Houses in Order

The problem is not only that adversarial "strong men" will not believe that American intentions are benign. It is also that American politicians will be punished for compromising with adversaries. If similar dynamics operate around the Chinese leadership, notwithstanding its freedom from elections and much greater capacity to control media and other information flows, negotiated arms restraint will be even less likely.

In 1989, not long after the U.S. Senate ratified the INF Treaty, and not much before it would ratify the START I Treaty, the conservative columnist George Will wrote, "American politics is a profession for amiable people

eager to please and dedicated to the proposition that man's best friend is the compromise."[41] He was not being ironic. Much has changed in American politics since then. Polarization has replaced whatever amiable willingness to compromise existed previously. When American political actors are unwilling to compromise with one another at home they will generally be unable to compromise with adversaries abroad—because doing so will provide fuel for domestic opponents to burn them with.

Compromise is enabled by empathy. If I empathize with you, I am more likely to see and understand that you have core needs even if I do not like them. This understanding would inform my efforts to explain to my political competitors why our compromising with you is necessary for our relationship to remain stable. As Israeli philosopher Avishai Margalit notes, compromise signifies that the other side has legitimate standing and interests even though they are rivalrous with ours, and it reflects the understanding that peace and/or limitations on destructiveness require some mutual accommodation.[42]

Even when the United States was marginally more functional, Washington's efforts to engage China in strategic dialogue and confidence-building measures were self-centered and therefore inept. Intentions may have been good and the people conducting the outreach may have been expert. Yet, as Brad Roberts notes, "U.S. experts have done a better job of explaining why Russian and Chinese restraint is in the U.S. interest than in setting out ideas about a deal that would be mutually beneficial for all."[43]

An excerpt from the Nixon White House tapes reveals the empathy challenge in an unintentionally funny way. On March 9, 1972, President Nixon was talking with National Security Advisor Henry Kissinger about the negotiations with the Soviet Union over SALT I. Nixon aimed his ire at Secretary of State William Rogers: "Whenever I raise the question, 'What do the Russians really want out of SALT?' Roger replies, 'It's not important.' He says, 'The important thing is what can we get?'" Nixon then delivers the punch line: "Unless you know what the other guy wants, you just—you don't know how to screw 'em." "Exactly," Kissinger replies obsequiously. Nixon then sums up: "This is the most important [thing] that we've got to do. What do the Russians want? We've got to look at the world from the way they look at it."[44]

Taken alone, the latter sentence sounds like an effective guide to diplomatic resolution of competing interests. But in the context of Nixon's other thought—that empathy helps you figure out how to screw the other side—the challenge of reaching durable accommodations of powerful states' competing interests remains daunting. Complicating the issue further, Nixon likely added the line about screwing the other side to maintain his macho self-image with Kissinger and really did appreciate that successful

negotiation with peer competitors requires empathy. But the perceived need to be macho also indicates the political psychology of national security policymaking. Even if we were able to interview Nixon, we would not know if he was revealing his true thinking or instead creating an impression.[45] Imagine the challenge Soviet leaders faced in assessing U.S. aims.

An ironic moment in the Cuban Missile Crisis similarly reveals the difficulty that competing national leaders have in being self-aware and empathetic. President John F. Kennedy and other American officials could not comprehend that Soviet leaders viewed the positioning of nuclear-armed missiles in Cuba as a fair response to the U.S. military presence in Europe. At President Kennedy's meeting with his advisors on October 16, 1962, he mused, "'It's just as if we suddenly began to put a major number of MRBMs [medium-range ballistic missiles] in Turkey. Now that'd be goddamn dangerous, I would think.'" As Richard Betts narrates, "At that point," Kennedy's National Security Advisor McGeorge Bundy's "jaw must have dropped at the absentmindedness of the president's remark." Bundy had to interject, "Well we did, Mr. President."[46] The United States had deployed Jupiter missiles in Turkey in 1961, soon after Kennedy had become president.

The irony and lack of self-awareness in these episodes show how deep the political-psychological challenges are. A less complicated president, Reagan learned after years in office that empathy and confidential communication with antagonists were necessary to negotiate arms control. "Because arms reduction was so important, I decided in this instance to switch to a more hands-on approach—without help from the bureaucrats," as reported in Reagan's memoir. Writing to Soviet General Secretary Konstantin Chernenko, Reagan said, "'It would be advantageous for us to communicate directly and confidentially.' . . . I tried to use the old actor's technique of empathy: to imagine the world as seen through another's eyes and try to help my audience see it through my eyes."[47]

Reagan, with his conservative, Republican, peace-through-strength credentials, could give his empathy rein and compromise with Soviet or other competitors, knowing that his Democratic Party competitors would not meaningfully oppose him. Kennedy was more at risk politically and had to deal secretly with Soviet Premier Nikita Khrushchev. In today's extremely polarized politics, wherein compromise with domestic opponents is punishable, let alone with foreign enemies, the virtue of empathetic bargaining appears more like a vice. Negotiating an arms control deal to enhance international security may not appear as courageous leadership. Instead, it will be portrayed as giving evil opponents power to inflict damage on you—at home and in potential war.

Yet, if powerful countries are not willing to negotiate arrangements that satisfy each other's interests in some balanced or fair way, agreements will not

be made, or they will be made and then cheated on. In the words of a Chinese correspondent, "arms control that aims at increasing one's own security at the expense of the security of others is neither acceptable nor sustainable."[48]

The recent tendency of Republican administrations to withdraw from prior agreements makes arms control that much more difficult to do.[49] How can Russian and Chinese leaders have confidence that the United States will negotiate, ratify, and sustain any binding agreement unless it one-sidedly advantages the United States and disadvantages them? Indeed, almost all Republican senators today would reject any treaty that Russia, China, North Korea, or Iran would agree to.[50]

Meanwhile, China's increasingly autocratic government makes the world depend on the perceptions and misperceptions, judgments and misjudgments of one man and a small coterie of colleagues who may or may not possess the knowledge and will to scrutinize and challenge nuclear policy decisions in peacetime, crisis, or escalating war. For the liabilities of Russian politics and decision-making, see Arbatova's paper in this collection.

Secrecy Could Help

One way around these American problems would be if nonviolent revolutions produced new leaders and institutional reform in Russia, China, and North Korea that demilitarized relations with neighboring states and societies, including Taiwan. Something like this happened as the Soviet Union collapsed from 1987 to 1994 and led to the only deep reductions in nuclear forces the world has seen. Yet, so long as these countries retain the ambitions and predilections of today's leaders, they will suspect that proposed force reductions or other arms control schemes are meant ultimately to weaken their regimes.

A more plausible (though less comprehensive) solution than regime change could be secrecy. Presidential memoirs reveal how secret channels were vital to the negotiation of most major nuclear arms control treaties—SALT, ABM, START, INF, and the JCPOA with Iran.[51]

Perhaps the most telling example of secrecy's value occurred in the peaceful resolution of the Cuban Missile Crisis. President Kennedy's key advisor, his brother Attorney General Robert Kennedy, later reflected that secrecy was "essential. If our deliberations had been publicized, if we had had to make a decision in twenty-four hours, I believe the course that we ultimately would have taken would have been quite different and filled with far greater risks."[52]

To back away and withdraw missiles and nuclear warheads from Cuba, Khrushchev needed a concession from Kennedy. Kennedy duly agreed to

withdraw nuclear-armed Jupiter missiles from NATO ally Turkey but insisted that this withdrawal be kept secret.[53] Only eight U.S. officials besides the president knew of it, and the deal remained secret for years.[54] This secrecy—two weeks before midterm elections in the United States—was intended to protect Kennedy from domestic attack for rewarding the perceived instigator of the crisis, Khrushchev. Could such secret diplomacy and accommodation be conducted today? If leaders are likely to be attacked by domestic opponents for showing willingness to compromise with adversaries, how can potential give-and-take deals even be explored except in secrecy?

One possible answer is that treaties cannot be negotiated in secret, but "military cooperation between potential enemies"—Schelling's and Halperin's definition of arms control—could focus on secretly negotiated (or even signaled) reciprocal changes of behavior. Iran, for example, could stop building new advanced centrifuges, and the United States could stop interdicting Iranian oil sales. China could announce a moratorium on production of fissile materials for military purposes, and the United States could around the same time declare it has no plans to deploy intermediate-range land-based missiles on Guam or anywhere else in East Asia. The point is that the United States and one or more of its major adversaries could secretly negotiate observable quid pro quos that would manifest these governments' intentions to restrain and stabilize their competition. If and when such arrangements were revealed, the fact that restraints had already been agreed to by the other party (or parties) would make them more politically palatable than offering to negotiate restraints without knowing that the adversary would reciprocate. (Kennedy felt a need to keep secret the withdrawal of Jupiter missiles from Turkey *even after* Khrushchev withdrew the Soviet missiles from Cuba. Years later, when the compromise did become known, it was widely accepted.)

Ironically, the secrecy and political control that autocrats like Putin, Xi, and Kim Jong Un "enjoy" could improve the prospects of negotiations. If the United States and its allies were willing to accept roughly equitable outcomes rather than clearly one-sided advantage, autocrats could be politically freer to give as well as take in negotiations (i.e., compromise) than a U.S. administration would likely be.[55] But, for this to happen, these autocrats would need to believe that the United States would accept more equitable balances of military capabilities than U.S. domestic politics tend to allow. They would also need to signal to their own governments that they value wide-ranging expertise on these issues, including arms control and related verification issues. They would need to seek briefings on possibilities not only from military leaders but also from experts with different perspectives and recommendations. Left to their own devices and the advice

of senior military officers, autocrats like Putin, Xi, and Kim are unlikely to embrace the logic and practice of arms restraint.

To simply say that compromise, encouraged by appropriate secrecy, will be necessary to revive arms control is inadequate without also saying how the capacity for both can be created. Negotiating and ratifying legally binding arms control will be impossible until a sizable majority of Americans in swing states welcomes candidates and officeholders who acknowledge, like Reagan, the need to develop proposals that are "honest and just, aimed only at balance, not superiority," and who recognize that "Since we [are] dealing to some extent with apples and oranges . . . reaching an equitable agreement would be hard but not impossible."[56] How to create that change is beyond this author. The alternative, particularly with an economically robust China, will be, as President Johnson warned, an unending and expensive competition in military capabilities that will leave neither side confident it can deter or win a war with the other. This amounts to an insecure form of mutual vulnerability and deterrence. But de facto mutual vulnerability is not as stable, secure, and economically sensible as a regime of negotiated, verified mutual restraint.

Demystify "Emerging Technology" and Work Around It

The conceptual and verification challenges posed by emerging technology compound the political challenge of uncompromising polarization. In the nuclear weapons field, the United States, China, and Russia are competing to apply new or more advanced techniques to destroy or disable targets and their command, control, and communication systems with malware and/or kinetic or nuclear payloads. They are joining massive computing power and data collection capabilities with space-based sensor and communications technology to locate all types of targets and direct weapons to them. Champions (or potential targets) of these technologies assert that they enable preemptive operations to disable adversary nuclear weapons before they can be launched. Artificial intelligence (AI) could be used defensively to counter such offenses, but this raises concerns about automated launching of nuclear weapons. Most of these capabilities are multiple use: military and civilian; intelligence gathering and attacking; conventional warfighting and nuclear. This multiplicity increases the risk that actions in conflict will be misinterpreted, leading to inadvertent escalation.[57] Meanwhile, political decision-makers generally do not know how to evaluate the asserted effectiveness and implications of new capabilities.

Some experts argue that the disruptive implications of emerging technologies are overstated—that satellites, quantum computing, malware, drone swarms, and AI-enabled warning systems are or will be much less

decisive in threatening nuclear deterrent forces than are kinetic weapons with nuclear or conventional payloads. Devising measures to stabilize competition involving kinetic weapons that target nuclear weapons is not technically too daunting; the main challenge would be doing so with more than two parties.[58]

Clarifying the implications of new technologies may be a classic chicken-and-egg problem. If the United States were better disposed to compromise—between its political parties and with China, Russia, and other adversaries—its officials, think tanks, and media might devote more effort to figuring out the new equations necessary to balance asymmetric capabilities, such as dual-use missiles, quintuple-use cyber capabilities, low-yield and high-yield nuclear warheads, and so on. Or, if influential American actors had clearly workable equations and arms-restraint proposals that would help reduce propensities to escalatory warfare, it might be easier to motivate some bipartisan accommodation to pursue them. (Even in less polarized times the United States did not ratify the SALT II and Comprehensive Test Ban Treaties, and START II never came into force, so the development of equations is probably less of a problem than the development of political willingness to accept rough equity with adversaries.)

AI is the most prominent example of the larger category of "emerging technology" that captures the imaginations and rhetoric of defense policymakers, contractors, and think tank analysts. Too often the expression "AI" elicits a sense of doom or world-changing opportunity, depending on the context. Too rarely are we told what specific capabilities new technological applications will have. What will their net effectiveness be against countermeasures by particular adversaries? How would they weaken or strengthen deterrence of escalation to and through nuclear war? For example, does a new capability that is being deployed or envisioned significantly improve the accuracy of attack on targets or otherwise enhance lethality (for example, by reaching movable targets more quickly)? Does it reduce collateral damage (and therefore reduce legal and other inhibitions on using it)? Is it more survivable than older systems? Is it significantly cheaper? Does the new capability face countermeasures or other vulnerabilities, and what are the implications if so?

New capabilities that could threaten a state's nuclear deterrent—including its command, control, and communications systems—and could not be counted or monitored by that state (or others) would be unsuitable for arms control. Verification tends to be a necessary condition for reciprocal reductions or limits on forces. Unfortunately, the existence and location of cyber capabilities, including artificial intelligence, and related small weaponry such as drones, as well as some space-based capabilities, are extremely difficult, if not impossible, to verify by means that adversarial states would

likely find tolerable. Fortunately, however, these emerging capabilities are not likely to diminish the priority of controlling the kinetic weapons that pose the greater threat to nuclear deterrents, and therefore to stability.

Given the buzz and concern around emerging weapons capabilities and their effects on the survivability of nuclear deterrents, these issues should be subjected to peer-reviewed technical studies and dialogue about them among influential Americans, U.S. allies, and Russians, Chinese, North Koreans, Indians, and Pakistanis. Of course, this brings us back to the chicken-and-egg problem of political willingness to engage in compromise with adversaries.

Some Next Steps Worth Considering

So long as it is inconceivable to find sixty-seven senators who would consent to the ratification of any treaty that Russia, China, North Korea, or Iran would agree to, we must confine ourselves to imagining nonlegally binding agreements entered into by U.S. administrations. Subsequent administrations could then choose to withdraw from any such agreement—as counterparts in Russia, China, North Korea, and other states apprehend.

Nuclear "risk reduction" measures are appealing under today's conditions, in part because they are simpler and most often follow the logic of reciprocal actions. Several multilateral groups have proposed such measures.

Table 1: **A Catalog of Recent Proposals**

PROPOSAL	NAME	STATES INVOLVED	# OF PARTIES
Nonstrategic Weapons			
Zero-deployed Nonstrategic Nuclear Weapons in Europe	Pavel Podvig and Javier Serrat	Russia, United States	Bilateral
SUMMARY: Russia and the United States agree to the transfer of nuclear warheads associated with nonstrategic delivery systems to storage facilities. Once the warheads are removed, the United States and Russia will develop verification procedures that would confirm the absence of deployed warheads.[59]			
Remove nonstrategic weapons from co-located bases	Alexei Arbatov	Russia, United States	Bilateral
SUMMARY: The United States and Russia agree to remove all nonstrategic weapons from forward bases co-located with conventional forces (including dual-purpose delivery systems) to centralized storage facilities in U.S. and Russian national territories.[60]			

PROPOSAL	NAME	STATES INVOLVED	# OF PARTIES
Consolidate nonstrategic warheads	James Timbie	Russia	Unilateral
SUMMARY: Russia agrees to reduce the number of nonstrategic nuclear warheads and consolidate them in designated facilities away from Russian borders.[61]			
Eliminate some nonstrategic weapons	James Timbie	Russia, United States	Bilateral
SUMMARY: The United States and Russia agree to eliminate certain classes of nonstrategic nuclear weapons, such as nuclear air and missile defenses, nuclear missiles and torpedoes on ships other than strategic ballistic missile submarines, and short-range ground-launched nuclear missiles.[62]			
Nonstrategic weapons information exchange	James Timbie	Russia, United States	Bilateral
SUMMARY: The United States and Russia exchange information on types and numbers of delivery systems for nonstrategic nuclear warheads, and on numbers of associated warheads. Visiting locations of delivery systems and warhead storage.[63]			
De-mate nonstrategic weapons	James Timbie	Russia, United States	Bilateral
SUMMARY: The United States and Russia commit not to mate nonstrategic nuclear warheads with delivery systems, which might indicate that nuclear conflict was imminent.[64]			
Nonstrategic weapons limits	James Timbie	Russia, United States	Bilateral
SUMMARY: The United States and Russia commit not to exceed a combined limit on nonstrategic and nondeployed strategic warheads.[65]			
Space			
Trilateral treaty to prohibit space-based missile defenses	James Acton, Thomas MacDonald, and Pranay Vaddi	China, Russia, United States	Trilateral
SUMMARY: China, Russia, and the United States agree to a trilateral treaty prohibiting the testing or deployment of space-based missile defense weapons for fifteen years, with the option of extending the agreement in five-year increments by mutual consent. Specifically, the treaty prohibits the testing of space-based missile defense weapons and the deployment of space-based missile defense weapons in orbit.[66]			

PROPOSAL	NAME	STATES INVOLVED	# OF PARTIES
Keep-out zones around high-altitude satellites	James Acton, Thomas MacDonald, and Pranay Vaddi	China, Russia, United States	Trilateral
SUMMARY: China, Russia, and the United States make a joint political commitment that each will maintain a minimum separation between its satellites and the satellites in geostationary or Molniya orbits that belong to, and have been declared by, other participants of the agreement.[67]			
Trilateral launch notification agreement	James Acton, Thomas MacDonald, and Pranay Vaddi	China, Russia, United States	Trilateral
SUMMARY: China, Russia, and the United States should agree to provide pre- and post-launch notification of all space launches, and all test launches of ballistic or boost-glide missiles—whether conducted from air, land, or sea—that meet certain specific conditions.[68]			
Ban on space-based missile defense	Laura Grego	United States	Unilateral
SUMMARY: The United States commits to forgo building space-based and other global missile defense systems.[69]			
Sharing lists of NC3 space assets	Linton Brooks	Russia, United States	Bilateral
SUMMARY: The United States and Russia each prepare a list of space assets for which it would regard indications of a possible attack as potentially implying preparation for a first strike. These lists should be exchanged and discussed annually.[70]			
Space Maneuvers Warning	John Borrie	Nuclear weapon states, nonnuclear-weapon states	Multilateral
SUMMARY: States with co-orbital drones provide advance notice of their maneuvers close to others' space objects to potentially affected actors.[71]			
ASAT Test Ban Treaty	Thomas Cheney	China, Russia, United States	Trilateral
SUMMARY: China, Russia, and the United States define and ban the testing of anti-satellite weapons.[72]			
Agreement not to test space-to-surface weapons	Linton Brooks	Russia, United States	Bilateral
SUMMARY: The United States and Russia agree to ban the testing of space-to-surface weapons.[73]			

PROPOSAL	NAME	STATES INVOLVED	# OF PARTIES
Confidence Building Measures			
U.S.-Russian confidence building regime for European missile defense	James Acton, Thomas MacDonald, and Pranay Vaddi	Russia, United States	Bilateral
SUMMARY: The United States and Russia commit to notifying each other in advance of the first European deployment of missile defense interceptors. The United States should also commit to inviting Russia to observe a flight test to measure the interceptor's burnout speed, refraining from loading offensive missiles into European Aegis Ashore launchers, modifying launchers so they become capable of launching offensive missiles, and engaging in good-faith negotiations with Russia over practical transparency measures.[74]			
U.S.-Russian transparency regime for empty warhead storage facility	James Acton, Thomas MacDonald, and Pranay Vaddi	Russia, United States	Bilateral
SUMMARY: Russia and the United States agree to reciprocal inspections of warhead storage facilities to demonstrate that they do not contain nuclear warheads, using a negotiated verification protocol. After the first round of inspections, Russia and the United States should consult to discuss any problems and refine the generic verification protocol.[75]			
Mutual Partial De-Alerting	David E. Mosher, Lowell H. Schwartz, David R. Howell, and Lynn E. Davis	Russia, United States	Bilateral
SUMMARY: The United States and Russia agree to reduce the day-to-day launch readiness of 150 ICBMs.[76]			
Statement repudiating escalate to de-escalate	Alexei Arbatov	Russia, United States	Bilateral
SUMMARY: The United States and Russia issue a joint statement abandoning any limited use of nuclear weapons.[77]			
Avoid NC3 Assets	RAND (Samuel Charap, John J. Drennan, Luke Griffith, Edward Geist, and Brian G. Carlson)	Russia, United States	Bilateral
SUMMARY: The United States and Russia committ not to strike NC3 and early-warning assets in a conventional conflict.[78]			

PROPOSAL	NAME	STATES INVOLVED	# OF PARTIES
Avoid Submarines near coasts	RAND (Samuel Charap, John J. Drennan, Luke Griffith, Edward Geist, and Brian G. Carlson)	Russia, United States	Bilateral
SUMMARY: The United States and Russia commit not to operate attack submarines near Russian SSBN bastions or U.S. coasts. The United States could commit to keep U.S. attack submarines a certain distance away from Russian SSBN bastions in the Barents Sea and the Sea of Okhotsk. In return, Russia could commit to keep its attack submarines away from the U.S. coasts, where U.S. SSBNs are more easily tracked.[79]			
U.S. Declaratory Policy Change	Ulrich Kühn	United States	Unilateral
SUMMARY: The United States changes its nuclear doctrine by ruling out nuclear use in disarming first strikes, in response to cyber-attacks, to achieve regime change, and in all circumstances other than the most extreme.[80]			
U.S.-DPRK Summit	Ulrich Kühn	United States, Democratic People's Republic of Korea	Bilateral
SUMMARY: The United States and DPRK meet for a summit that would include the development of a roadmap setting out specific risk reduction measures across nuclear and non-nuclear realms in Northeast Asia, including launching an expanded, regionally inclusive dialogue process focusing on cross-domain risk reduction. Practical risk reduction measures include formally ending the Korean War, resuspending joint U.S.-ROK military exercises (or circumscribing the exercises so that they are not perceived as involving preparations for the "decapitation" of the Kim Jong Un regime), and addressing evolving nuclear risks as they relate to new technology and cross-domain challenges, particularly in space and cyberspace.[81]			
ASAT Guidelines	John Borrie	Nuclear weapon states, nonnuclear-weapon states	Multilateral
SUMMARY: States, including the nuclear-armed states possessing ASAT capabilities, adopt test guidelines for no debris (if an actor wishes to test ASAT capabilities, they should not create debris); low debris (if they must create debris during an ASAT test, the test should be carried out at an altitude sufficiently low that the debris will not be long lived), and notification (those testing ASATs should notify others of their activities even if they are not completely transparent on the motivation behind the test, in order to avoid strategic misperceptions).[82]			
Narrow Doctrinal Nuclear Use in East Asia	Ulrich Kühn	United States, non-nuclear-weapon states	Multilateral
SUMMARY: States that rely on U.S. nuclear weapons for their security (Australia, Japan, and the Republic of Korea) restrict the role of nuclear weapons in their defense doctrines by issuing joint statements that stigmatize the use of nuclear weapons except as weapons of last resort, and by pledging that they would not welcome the introduction/reintroduction of U.S. tactical nuclear weapons on their territory.[83]			

PROPOSAL	NAME	STATES INVOLVED	# OF PARTIES
Conventional-Nuclear Organizational Reform	Ulrich Kühn	United States	Unilateral
SUMMARY: The United States implements organizational reform to address the disconnect between conventional and nuclear war procurement and planning. Encouraging joint consideration of escalation risks by military commands (and among other key military and civilian organizations in the United States) would improve awareness of escalation dangers and encourage a joined-up response. It could also function as an oversight mechanism that could advise the White House and president on the consequences of nuclear use.[84]			
Low Alert Level Formalization	Manpreet Sethi	Many	Bilateral
SUMMARY: States make an agreement (or even joint or unilateral coordinated statements) that formalizes low alert levels.[85]			
Safety/Security best practices	Manpreet Sethi	Nuclear weapon states	Multilateral
SUMMARY: States share best practices on nuclear safety and security (for example, through collaboration between nuclear Centers of Excellence, joint ventures on manufacture of radiation portals, detection equipment, etc.).[86]			
India/China renounce nuclear warfighting	Manpreet Sethi	China, India	Bilateral
SUMMARY: China and India make a statement of the kind made by Presidents Reagan and Gorbachev renouncing nuclear war.[87]			
India/China no first use agreement	Manpreet Sethi	China, India	Bilateral
SUMMARY: India and China formalize a bilateral no first use treaty between India and China.[88]			
Information Sharing			
U.S.-Russia data exchange for nonaccountable missiles	James Acton, Thomas MacDonald, and Pranay Vaddi	Russia, United States	Bilateral
SUMMARY: Twice a year, Russia and the United States exchange confidential declarations of the number of long-range nuclear-armed SLCMs, long-range nonnuclear SLCMs, long-range nonnuclear SLBGMs, nuclear-armed SLCMs with ranges between 300 and 600 kilometers, nonnuclear SLCMs with ranges between 300 and 600 kilometers, and nonnuclear SLBGMs with ranges between 300 and 600 kilometers. Once a year, the declaration should also cover deployments and include the maximum number of missiles in each category that are anticipated to be deployed for the following five years, as well as all types of currently deployed surface ships and submarines that have ever been equipped with at least one SLCM or SLBGM launcher.[89]			

PROPOSAL	NAME	STATES INVOLVED	# OF PARTIES
Informal Biannual Inspections	Vince Manzo	Russia, United States	Bilateral
SUMMARY: The United States and Russia continue to provide biannual exchanges of aggregate numbers of deployed strategic delivery vehicles, nuclear warheads, and deployed and non-deployed launchers; the total number of each type of deployed strategic delivery vehicle and the total number of warheads deployed across it; and the number of deployed strategic delivery vehicles, warheads, and launchers at each declared base. A modified version of New START's notification regime could underpin the biannual data exchanges.[90]			
Doctrine Working Group	Vince Manzo	Russia, United States	Bilateral
SUMMARY: The United States and Russia establish an expert-level working group to improve understanding of their respective strategies and concepts. This forum would not be limited to strategic nuclear forces; it could also include discussion of theater-range nuclear weapons, missile defenses, and a host of other types of systems.[91]			
Brief on new delivery vehicles	Vince Manzo	Russia, United States	Bilateral
SUMMARY: The United States and Russia hold confidential briefings on new strategic systems that each country introduces into its arsenal. The briefings include the type of technical information that each shares under New START and perhaps even an exchange of photographs. Neither country would have the independent verification that comes through the onsite exhibitions. However, they would have a body of data to compare with information collected through NTM.[92]			
American force transparency	Vince Manzo	United States	Unilateral
SUMMARY: The United States continues publicly to declare its aggregate strategic deployed warhead, delivery vehicle, and launcher levels, as well as the distribution of total deployed warheads across types of delivery vehicles.The United States also publicly announces the retirement of strategic nuclear systems and provides some form of confirmation that it has pulled these systems from its deployed force and disabled them.[93]			
SSBN Maintenance Schedule Exchange	RAND (Samuel Charap, John J. Drennan, Luke Griffith, Edward Geist, and Brian G. Carlson)	Russia, United States	Bilateral
SUMMARY: The United States and Russia commit to a regular exchange of planned maintenance schedules for SSBNs over a fixed future period and commit not to conduct SSBN operations within a fixed distance of the Russian coast.[94]			
Notify bomber alert status	RAND (Samuel Charap, John J. Drennan, Luke Griffith, Edward Geist, and Brian G. Carlson)	Russia, United States	Bilateral
SUMMARY: The United States and Russia agree to provide advance notification of increased bomber alert status.[95]			

PROPOSAL	NAME	STATES INVOLVED	# OF PARTIES
RS-28 Sarmat transparency	James Timbie	Russia	Unilateral
SUMMARY: Russia commits for ten years to exhibit RS-28 Sarmat, provide information required by New START, and count its warheads and launchers against New START limits.[96]			
Share list of NC3 space assets	Linton Brooks	Russia, United States	Bilateral
SUMMARY: The United States and Russia each prepare a list of space assets for which it would regard indications of a possible attack as potentially implying preparation for a first strike. These lists should be exchanged and discussed annually.[97]			
U.S.-Russia discussion on strategic stability concepts	Ankit Panda	Russia, United States	Bilateral
SUMMARY: The United States and Russia hold dialogue to discuss nonstrategic nuclear weapons, the escalate to de-escalate strategy, and the realities and constraints around U.S. missile defense programs.[98]			
Building on the P5 Process	Ankit Panda	China, Russia, United States	Multilateral
SUMMARY: China, Russia, and the United States should provide clarity on their respective nuclear modernization plans, and the P5 should explore direct engagement on risk reduction matters with non-NPT nuclear-armed states, and use the P5 process at the NPT review conference to develop shared understandings on doctrine and especially the peaceful uses of nuclear technology.[99]			
Strategic Dialogue	Manpreet Sethi	Nuclear weapon states	Multilateral
SUMMARY: States initiate strategic dialogues (bilaterally or multilaterally) to better understand each other's threat perceptions and nuclear doctrine.[100]			
Hotlines	Manpreet Sethi	China, Russia, United States, Pakistan, India, France, United Kingdom	Bilateral
SUMMARY: Nuclear powers create or improve utilization of political and military hotlines or some predesignated channels for crisis management.[101]			
New New START Proposals			
New START Follow-On	ACA	Russia, United States	Bilateral
SUMMARY: The United States and Russia agree to lower strategic nuclear warheads from 1,550 to 1,000, prohibit the development or limit the deployment of at least some types of missiles formerly banned by the INF Treaty, address nonstrategic nuclear weapons, and institute numerical limits on missile defense interceptors and launchers.[102]			

PROPOSAL	NAME	STATES INVOLVED	# OF PARTIES
U.S.-Russian Warhead Limitation Treaty	James Acton, Thomas MacDonald, and Pranay Vaddi	Russia, United States	Bilateral
SUMMARY: Russia and the United States agree that each party will make modest reductions to and limit nuclear warheads, irrespective of their type, location, deployment status, and whether or not they are awaiting dismantlement. The treaty should remain in force for fifteen years.[103]			
All START	Amy Nelson and Michael O'Hanlon	Russia, United States, China, France, United Kingdom	Trilateral
SUMMARY: Russia and the United States agree to maintain New START limits on nuclear warheads and delivery devices. The remaining P5 countries would submit information on their plans for nuclear arsenal modernization and nuclear force deployments and defend their modernization plans.[104]			
All Warhead Bilateral Treaty	Steven Pifer	Russia, United States	Bilateral
SUMMARY: The United States and Russia agree to a bilateral treaty covering all nuclear warheads, with no more than 2,500 for each side. The treaty would have a sublimit of 1,000 each on warheads on deployed ICBMs, SLBMs, and new strategic delivery systems. All other weapons, including bombs and air-launched cruise missiles for nuclear-capable bombers, would be nondeployed.[105]			
Bilateral New START Follow-On	Alexei Arbatov	Russia, United States	Bilateral
SUMMARY: The United States and Russia agree to include Avangard boost-glide system, Tu-22M3M (Backfire) bomber, and Sarmat heavy ICBMs under the new treaty. All deployed long-range conventional and nuclear air-launched missiles, and nuclear gravity bombs on deployed heavy bombers, should count against the overall warhead ceiling. Limits on strategic delivery vehicles and warheads should also cap the innovative weapons systems: ground-based intercontinental cruise missiles and long-range autonomous underwater drones, as well as land- and sea-based boost-glide hypersonic systems with ranges similar to those specified in the SALT and START Treaties.[106]			
Bilateral New START Follow-On	Steven Pifer	Russia, United States	Bilateral
SUMMARY: The United States and Russia agree to limit nuclear weapons, strategic or nonstrategic, deployed or in reserve, to between 2,000 and 2,500 for each side, with a sublimit (1,000 each) on the number of strategic warheads on deployed ICBMs, SLBMs, and like systems that could be quickly launched. The agreement should have a separate limit on strategic delivery systems, and the Biden administration thus should be prepared to put missile defense on the table if Moscow agrees to negotiate limits on all nuclear weapons.[107]			

PROPOSAL	NAME	STATES INVOLVED	# OF PARTIES
Steps for a New START Lapse	Linton Brooks	Russia, United States	Bilateral
SUMMARY: The United States and Russia continue exchanging periodic data and de facto inspections on strategic forces as a confidence-building measure and expand such exchanges to include modernization plans. Informally, Russia and the United States agree to exchange modernization plans routinely and not to expand nuclear arsenals above New START levels.They might also intensify cooperation under the Global Initiative to Counter Nuclear Terrorism, consider a joint initiative to help states comply with UN Security Council Resolution 1540, sponsor a parallel initiative to revitalize discussions on controlling fissile material, or cochair a series of meetings among the five nuclear-weapon states under the Nonproliferation Treaty plus India and Pakistan to discuss physical security standards for weapons protection.[108]			
Mutual Restraint Pledge	Vince Manzo	Russia, United States	Bilateral
SUMMARY: The United States and Russia pledge to remain at or below New START's limits, contingent upon the other's reciprocation. Each country's pledge could apply to intercontinental-range delivery vehicles and their associated warheads but would not include nuclear SLCMs and other nonstrategic nuclear weapons.[109]			
System-Specific Restrictions			
Ban depressed trajectory SLBM	RAND (Samuel Charap, John J. Drennan, Luke Griffith, Edward Geist, and Brian G. Carlson)	Russia, United States	Bilateral
SUMMARY: The United States and Russia agree to ban depressed trajectory flight tests of SLBMs.[110]			
Ban on space-to-earth weapons	RAND (Samuel Charap, John J. Drennan, Luke Griffith, Edward Geist, and Brian G. Carlson)	Russia, United States	Bilateral
SUMMARY: The United States and Russia agree to a ban on deployment of space-to-earth weapons. Both sides could commit not to deploy such space-to-earth weapons despite their differences on other space weapons, such as anti-satellite weapons.[111]			
Ban prompt conventional strike	RAND (Samuel Charap, John J. Drennan, Luke Griffith, Edward Geist, and Brian G. Carlson)	Russia, United States	Bilateral
SUMMARY: The United States and Russia agree to ban or limit ground-based and/or air-based deployments of prompt conventional strike options in proximity to borders.[112]			

PROPOSAL	NAME	STATES INVOLVED	# OF PARTIES
Restrictions on Poseidon	James Timbie	Russia	Unilateral
SUMMARY: Russia could agree to forgo testing and deployment of the Poseidon system for ten years in the context of ten-year restraints on missile defense and on nuclear weapons on ships other than strategic ballistic missile submarines.[113]			
Limits on boost-glide systems	James Timbie	Russia, United States	Bilateral
SUMMARY: Russia and the United States commit for ten years to test and deploy boost-glide vehicles for delivery of nuclear weapons only on ICBMs, and to count them and their launchers against New START warhead and launcher limits.[114]			
Kinzhal Restrictions	James Timbie	Russia	Unilateral
SUMMARY: Russia commits not to test or deploy the Kinzhal for delivery of nuclear weapons (consistent with commitments on other hypersonic systems) for ten years.[115]			
Restrict INF systems near borders	James Timbie	Russia	Unilateral
SUMMARY: Russia commits for ten years to limit nuclear systems to a small number (fewer than one hundred) deployed a specified distance from its borders.[116]			
American INF Limits	James Timbie	United States	Unilateral
SUMMARY: The United States commits for ten years to limit nuclear systems (for which it has no current plans) to the same number deployed in the continental United States.[117]			
Chinese INF Limits	James Timbie	China	Unilateral
SUMMARY: China commits for ten years to limit nuclear systems (including nuclear variants of the df-21 and df-26) to the same number deployed a specified distance from its borders.[118]			
Restrictions on nuclear-powered conventional systems	James Timbie	Russia, United States	Bilateral
SUMMARY: Russia and the United States commit for ten years not to test or deploy nuclear-powered aircraft or cruise missiles.[119]			

PROPOSAL	NAME	STATES INVOLVED	# OF PARTIES
A trilateral treaty to limit missile launchers and bombers	James Acton, Thomas MacDonald, and Pranay Vaddi	China, Russia, United States	Trilateral
SUMMARY: China, Russia, and the United States limit themselves to an equal number of accountable launchers and accountable bombers, with the exception of any launchers for SLBMs that were converted into launchers for SLCMs prior to entry into force. The limit chosen should allow each state to make modest increases in launchers and bombers after the treaty's entry into force.[120]			
BMD Commitments	RAND (Samuel Charap, John J. Drennan, Luke Griffith, Edward Geist, and Brian G. Carlson)	United States	Unilateral
SUMMARY: U.S. policymakers consider self-restraint commitments on BMD deployment plans as a way to reduce Moscow's concerns about preemption. For example, the United States could provide Russia with annual accounts of its inventory of BMD interceptors, launchers, and associated radars; its ten-year plan for any increases in that inventory; and a commitment to advance notification of any change in those plans.[121]			
Other			
Cyber Convention	Jakob Hake	Nonnuclear-weapon states, nuclear weapon states	Trilateral
SUMMARY: States make a political commitment not to use their cyber capabilities against civilian critical infrastructure and nuclear command and control.[122]			
U.S.-Chinese fissile material management regime	James Acton, Thomas MacDonald, and Pranay Vaddi	China, United States	Bilateral
SUMMARY: China and the United States declare a joint politically binding cutoff in the production of weapon-usable fissile material for any purpose and commit to talks about mutual confidence building. If China is still producing, or plans to produce, fissile material for civilian purposes, it should agree to a cutoff in production for military purposes and to place all newly produced HEU and separated plutonium under IAEA safeguards.After agreeing to a cutoff, China and the United States should exchange confidential declarations about their stockpiles of weapon-usable fissile material.[123]			
Forgo Denial Operations	Vince Manzo	Russia, United States	Bilateral
SUMMARY: The United States and Russia agree to forgo sophisticated denial operations. This pledge would not preclude the standard concealment measures at ICBM bases permitted under New START. The pledge would codify mutual restraint in operations intended to challenge each side's ability to accurately monitor and assess the other's strategic nuclear forces.[124]			

PROPOSAL	NAME	STATES INVOLVED	# OF PARTIES
Public Nuclear Education	Manpreet Sethi	Nuclear weapon states, nonnuclear-weapon states	Unilateral

SUMMARY: Experts produce individual or joint studies and movies on the effects of deterrence breakdown to help build constituencies that support nuclear risk reduction and push political leaders into action.[125]

Note: Lisa Michelini at the Carnegie Endowment for International Peace assisted in the compilation of the data in this table. The proposals described in this table are our summaries, which have been significantly condensed to fit in the table.

Regarding Russia, we cannot predict a future arms control course until the Ukraine war ends or is cooled to a frozen conflict unlikely to re-erupt into an escalatory war. The most that arms control advocates can do is to conduct unofficial discussions with Russian experts who are willing to speculate jointly on possible equations of forces that could help stabilize postwar relations between Russia and NATO states. For this to happen, the Russian government would need to reassure participants that they would not be harmed for being involved in such meetings.

Assuming nuclear war can be averted with Russia, China is the more complex challenge. Earlier sections of this paper suggest the need to explicitly convey that the United States seeks political-economic coexistence and recognizes that military policy toward China (and Russia) must be based on mutual vulnerability. President Xi and his designees need to clarify under what conditions, if any, they would pursue negotiated risk reduction or arms control and what central objectives and concepts would inform their approach. To determine this, Xi—like Putin—would need to widen the circle of experts who advise him (i.e., increase the diversity of perspectives he is presented) and perhaps override resistance of the sort that military establishments often naturally pose to arms control. The mission of military leaders is to find ways to deter or defeat adversaries, not to be deterred by them; arms control is premised on mutual deterrence as a less dangerous and costly strategy than nuclear warfighting. Leaders will need to clarify to their own security establishments that, in the words of President Reagan, they want "equitable agreement" based on acceptance of mutual nuclear deterrence and clarify to their adversaries "all the things we could do for them if they'd quit their bad acting."[126] Leaders must then commit to sustained dialogue on these matters.[127]

Reagan's admonition to clarify what gains the United States would provide in return has largely been missing in American approaches to China

and vice versa. For better or worse, the rapid buildup and improved survivability of China's nuclear arsenal should alleviate Beijing's worries about preemptive U.S. conventional or nuclear attacks on China's deterrent. This could create a better basis for dialogue on both sides' plans for future offensive and defensive strategic forces (including all types of nuclear weapons). But, without some sort of diplomatic signal from President Xi, Washington is more likely to enhance its own (and allied) military power in ways that will put the onus back on Beijing to redouble its own buildup. American leaders, for the most part, understand at least to some degree that arms control and confidence-building measures can encourage political accommodation. Whether President Xi shares either this understanding or inclination is unclear.

A U.S. administration's willingness to consider and discuss possible restraints on missile defenses would provide a major test of Chinese (and Russian) intentions. If Beijing and Moscow declined to send senior people to meet their American counterparts and negotiate an agenda for a more detailed expert dialogue on possible packages of restraint in offensive and defensive capabilities and activities, they would be exposed as the main impediments to nuclear risk reduction. The world would have evidence to conclude that Russia and China prefer nuclear arms-building to strategic stability and nuclear restraint. And, by expressing a willingness to explore possible offense-defense trade-offs, the United States would have risked nothing material.

Explorations of missile defense limits would logically lead to explorations of controls on missiles—be they nuclear or conventionally armed. Such explorations would need to precede actual negotiations, which would take years if they were to lead to agreement. The near-term purpose would be to clarify whether and under what conditions Chinese and American leaders are willing to reciprocally restrain capabilities that affect nuclear stability.

Missiles with ranges greater than five hundred kilometers deserve priority because they would figure in nearly all scenarios of war that escalate to nuclear use—purposefully or inadvertently. The United States in Iraq and elsewhere deployed and used ballistic and cruise missiles with conventional warheads to precisely destroy valuable adversary targets and reduce the political-legal risks of collateral casualties that would have self-deterred the use of nuclear weapons. Now Russia, China, and others are similarly expanding their arsenals of conventionally armed missiles and missile defense interceptors. But for purposes of verifiable restraint, the use of remote national technical means to determine whether a given missile is carrying a nuclear or a conventional warhead is nearly impossible. If two or more countries wanted to put an overall cap on the number of missiles above a certain range that they possess or deploy, how would they value conventionally armed versus nuclear-armed variants? A highly accurate conventionally armed missile may hold a valuable military target sufficiently at

risk and then be judged more useful than a nuclear-armed missile because it would be less likely to produce (possibly illegal) collateral damage. This would place the burden of risking initiation of nuclear use onto the adversary. All of this makes such conventional systems more credible and effective deterrents in some ways.

One solution is to eliminate all variants—nuclear or conventional—of missiles with a specified range, as the INF Treaty did. An alternative—depending on Russia's political and strategic condition after the Ukraine war—is to negotiate a U.S.-Russia-China cap on the total number of launchers and/or countable weapons with ranges above five hundred kilometers and leave it to each government to determine what mix of nuclear, conventional, and missile defense capabilities they want these weapons to have.[128]

Trade-offs between competitors' offensive missiles with ranges greater than five hundred kilometers—whatever their payload—or between such missiles and defensive interceptors are among the only remaining plausible applications of old-school, Cold War–style arms control. A basis for balancing equations can be found. Otherwise the increased variation in delivery systems, payloads (nuclear, conventional, malware), targeting, and command and control capabilities, along with the move beyond bipolar competition, will overwhelm negotiators searching for equitable and verifiable balances.

These latter difficulties are why future forms of arms restraint will need to focus ever more on states' behaviors and the targets and effects of operations rather than on hardware or software. Restrictions on targets should already be informed by the Laws of Armed Conflict. However, as Russia's operations in the Ukraine war indicate, restrictions on targeting in urban environments need further clarification and must be joined with a greater will to mobilize international punishment of violators.

Restraints on effects of operations could include the production of debris in outer space (since space debris threatens the future operation of all nations' civilian space assets) or the engineering of cyber-intrusion malware and payloads to be highly discriminating and not widely propagable.[129] Targeting nuclear power reactors with any weapon that could cause a release of radiation could be prohibited. Nuclear-armed states and their allies could be urged to debate the desirability and feasibility of foreswearing the use of nuclear weapons in urban areas to cause fires that could plausibly lead to nuclear winter.[130] Restraints necessary to fulfill such a commitment would be impossible to verify. Their value would instead be in the public and leadership education that would occur through debating the matter and the political costs of appearing unlikely to uphold a proffered restraint.

The logic of behavioral or effects-focused restraint can be seen through consideration of an assertion that it is impossible to define and therefore

prohibit space capabilities as "weapons." Former U.S. Under Secretary of State Christopher Ford likened space weapons to the human hand, which "with its dexterous digits and opposable thumb is marvelously good at using tools for human betterment, yet also quite good at scratching and poking, and makes a very effective fist. How would one define and prohibit possession of a 'hand weapon,' or its 'deployment' by the end of a human arm?"[131]

The constructive arms control rejoinder is that the hand becomes an illegal weapon when it punches someone's face or breaks a pane of glass at the front of a jewelry store and then steals diamond rings. Similarly, a satellite or computer code or ground-based missile or laser need not be the object of control. What must be forbidden is the avoidable production of debris in space, especially via destructive tests of anti-satellite weapons; the nonconsensual maneuvering of satellites in close proximity to other actors' assets; and, some would say, the use of space-based weapons to attack targets on earth. That is, as the United Kingdom noted in 2020, to ban or control specific technologies beyond weapons of mass destruction in space is not currently feasible, but global interests could be served by restraining actors' behaviors and their effects.[132]

Conclusion

Although the nuclear arms control measures deployed by U.S. and Russian leaders from 1970 through 2010 may now be ill-suited to the multipolar politics and multiuse technologies of the 2020s and 2030s, the human interests in restraining the propensity to war and its destructiveness and costs remain. Since 1945, these interests have prevailed—however unevenly and imperfectly—in limiting the competition and occasional conflicts between nuclear-armed competitors. All nine nuclear-armed states could have built more nuclear weapons of greater destructiveness. In the few times they clashed, they could have killed more of each other's personnel than they did. The value of *negotiated* restraints as distinct from de facto deterrence is that they communicate interests in avoiding or reducing the destructiveness and cost of war. They convey each other's intentions in word and deed. Agreement or nonagreement on mutual restraints can alleviate or confirm concerns that security is decreasing. Conversely, failure to negotiate earnestly or to uphold agreements later can rally global opposition against the bellicose party.

True, restraints in developing, deploying, and using weapons are easier to negotiate when relations among neighbors are settled and the likelihood of conflict is low. Negotiating such restraints when you most need them—when relations are hostile and fear of aggression is growing—is another matter. But that truism should be complemented by two others.[133] First,

the political and diplomatic work necessary to conceptualize and then negotiate arms control measures can encourage and facilitate political warming among competitors. This happened between the United States and the Soviet Union at times during the Cold War. And, although the multipolarity of today's main competitions—the United States, Russia, and China; India, Pakistan, China, and the United States—makes political cooperation much more difficult, the alternative of unrestrained arms-building and competition is more harmful.

Second, trying to negotiate restraints presents little material danger. No evidence suggests that the United States or Russia has agreed to an arms control limitation that then caused or was even a significant contributing factor to victimhood in an adversary's aggression. The perceived harms of exploring negotiations (as distinct from agreeing to disadvantageous terms) are in the minds of leaders and political factions, not in new threats that would somehow arise from an attempted negotiation. Politicians understandably worry that opponents might whip up ignorant outrage at those who would negotiate with national enemies. The dilemma here—between risking personal political loss for the sake of reducing national physical danger—is less portentous than the security dilemmas between nations that do not even attempt arms control. Americans and their allies—as well as Chinese, Indians, Pakistanis, North Koreans, and others—need to know whether their competitors are acting defensively and are misperceived as being offensive, or whether they truly are inclined to use force to change the status quo. Negotiated arms restraint is the safest, most cost-effective way to resolve this dilemma.

Endnotes

1. Thomas C. Schelling and Morton H. Halperin, *Strategy and Arms Control* (New York: Twentieth Century Fund, 1961).

2. Richard Perle, assistant secretary of defense in the Reagan administration, known for his criticism of arms control, put it this way: "When agreements were most useful—that is, when the danger of hostility leading to war was greatest—they were least obtainable; and when they were most attainable, they were least useful." Center for Security Policy, "Richard Perle Dissects the Failed History of Arms Control—and Its Even More Dubious Prospects for the Future," October 1, 1999, https://centerforsecuritypolicy.org/richard-perle-dissects-the-failed-history-of-arms-control-and-its-even-more-dubious-prospects-for-the-future-2.

3. Marc Trachtenburg, *A Constructed Peace* (Princeton, N.J.: Princeton University Press, 1999), 382, makes this point about the Limited Nuclear Test Ban Treaty of 1963. The Strategic Arms Limitation Treaty (SALT) and the Anti-Ballistic Missile (ABM) and

Intermediate-Range Nuclear Forces (INF) Treaties simultaneously encouraged and reflected the improvement in political relations between the United States and the Soviet Union. According to Soviet General Secretary Mikhail Gorbachev's foreign policy advisor Anatoly Chernyaev, Gorbachev believed that "scaling down the Cold War meant basically scaling down the arms race." Gordon Barrass, *The Great Cold War* (Stanford, Calif.: Stanford University Press, 2009), 317.

4. Ming-Sung Kuo, "Having Taiwan in Mind? The Principle of Non-Use of Force and the 'Peacefully Established Status of Territories,'" *EJIL:Talk!* June 9, 2023, https://ejiltalk.org/having-taiwan-in-mind-the-principe-of-non-use-of-force-and-peacefully-established-status-of-territories.

5. For an exceptionally revealing and insightful description of this phenomenon, see Robert Soofer, "The Politics of Nuclear Weapons Policy," *Comparative Strategy* 35 (2) (2016): 169–175. Soofer later served as deputy assistant secretary of defense for nuclear and missile defense policy from April 2017 to January 2021. I thank Zia Mian for bringing this article to my attention when the present essay was in galley proofs.

6. For an excellent discussion of this challenge, see Christopher F. Chyba, "New Technologies and Strategic Stability," *Dædalus* 149 (2) (2020): 150–170, https://doi.org/10.1162/daed_a_01795.

7. Arms Control Association, "2023 Estimated Global Nuclear Warhead Inventories," https://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat.

8. Arms Control Association, "U.S.-Russian Nuclear Arms Control Agreements at a Glance," https://www.armscontrol.org/factsheets/USRussiaNuclearAgreements (last updated October 2022).

9. James M. Acton, "Escalation through Entanglement: How the Vulnerability of Command-and-Control Systems Raises the Risks of an Inadvertent Nuclear War," *International Security* 43 (1) (2018): 56–99, https://doi.org/10.1162/isec_a_00320.

10. The Conventional Forces in Europe Treaty of 1990 (adapted in 1999) demonstrates both points. After the dissolution of the Soviet Union and Warsaw Pact, the treaty's terms were revised to reflect new realities. However, NATO refused to ratify the 1999 adaptation due to concerns about Russian behavior. Nonratification left Estonia, Latvia, Lithuania, and Slovenia, as former Warsaw Pact states, not subject to its limitations, which alarmed Russia. The lesson seems to be that adaptation to reflect new realities is necessary, but new realities may be more difficult to manage through treaties. See Arms Control Association, "The Conventional Armed Forces in Europe (CFE) Treaty and the Adapted CFE Treaty at a Glance," https://www.armscontrol.org/factsheet/cfe#:~:text=The%20CFE%20Treaty%20(1990)%20and,a%20joint%20review%20monitoring%20mechanism (last updated May 2023).

11. "Bush Shoots Down Missile Treaty," CBS News, December 5, 2001, https://www.cbsnews.com/news/bush-shoots-down-missile-treaty.

12. Author discussion with former Trump administration officials; and Peter Baker and Susan Glaser, *The Divider: Trump in the White House, 2017–2021* (New York: Random House, 2022).

13. Few officials of foreign governments will say this publicly, but the author has heard many, including officials from allied countries, say so privately, especially since 2017.

14. Henrik Stålhane Hiim, M. Taylor Fravel, and Magnus Langset Trøan, "The Dynamics of an Entangled Security Dilemma: China's Changing Nuclear Posture," *International Security* 47 (4) (2023): 147–187, https://doi.org/10.1162/isec_a_00457.

15. For example, SALT II and the Comprehensive Test Ban Treaty (CTBT) were not ratified. START II was ratified by both the United States and Russia, but after the United States withdrew from the ABM Treaty, Russia withdrew from START II before it went into effect.

16. James M. Acton, Thomas D. MacDonald, and Pranay Vaddi, *Reimagining Nuclear Arms Control: A Comprehensive Approach* (Washington, D.C.: Carnegie Endowment for International Peace, 2021), https://carnegieendowment.org/2021/12/16/reimagining-nuclear-arms-control-comprehensive-approach-pub-85938.

17. See George Perkovich, "Arms Control in Cyberspace and Outer Space," in *Arms Control at a Crossroads: Renewal or Demise?* ed. Jeffrey A. Larsen and Shane Smith (Boulder, Colo.: Lynne Rienner Publishers, 2023).

18. As James Woolsey said of the Scowcroft Commission's report in 1983, "arms control was the *quid pro quo* for congressional cooperation on the strategic buildup." Quoted in Barrass, *The Great Cold War*, 292. See also the March 9, 1972, discussion between Nixon and Henry Kissinger of a crash program to develop new ballistic-missile submarines in order to motivate Soviet leaders to include submarine-launched ballistic missiles in the SALT negotiations. Douglas Brinkley and Luke A. Nichter, eds., *The Nixon Tapes* (New York: Houghton Mifflin Harcourt, 2014), 413. Similarly, President Bill Clinton agreed to dramatically increase funding for U.S. nuclear weapons laboratories to persuade their directors to support his signing of the CTBT in September 1996. The Stockpile Stewardship Program then provided the labs $4.5 billion per year. But in an October 1999 Senate Armed Services Committee hearing to inform the Senate ratification process, the lab directors did not endorse the treaty, though they later issued lukewarm indications of support. The Senate testimony of Sandia Director Paul Robinson was especially revealing of this internal bargaining process, and it infuriated the White House. "Statement of C. Paul Robinson, Director, Sandia National Laboratories" (October 20, 1999), in "1999 Congressional Hearings," FAS Intelligence Resource Program, Federation of American Scientists, https://irp.fas.org/congress/1999_hr/99-10-20robinson.htm; Craig Cerniello, "Senate Rejects Comprehensive Test Ban Treaty; Clinton Vows to Continue Moratorium," *Arms Control Today* 29 (September/October 1999), https://www.armscontrol.org/act/1999-09/press-releases/senate-rejects-comprehensive-test-ban-treaty-clinton-vows-continue; and author discussion with U.S. Department of Energy official, 1999.

19. Quoted in Fred Kaplan, *The Bomb* (New York: Simon and Schuster, 2020), 133.

20. The MX missile, for example, was a bargaining chip that was then deployed for twenty years.

21. The Safeguard antiballistic missile system was an example of this phenomenon until it was finally deactivated in 1976. Graham Spinardi, "The Rise and Fall of Safeguard: Anti-Ballistic Missile Technology and the Nixon Administration," *History and Technology* 26 (4) (2010): 313–334, http://www.doi.org/10.1080/07341512.2010.523174.

22. Negotiated reductions of nuclear forces began only in 1987 with the INF Treaty and, for strategic weapons, in 1991 with the START I Treaty. No countries other than the United States and the Soviet Union/Russia have negotiated the elimination of nuclear weapons, though South Africa did eliminate its arsenal of six-plus nuclear weapons in anticipation of joining the Nuclear Non-Proliferation Treaty.

23. Linton F. Brooks, "The End of Arms Control?" *Dædalus* 149 (2) (2020): 90, https://doi.org/10.1162/daed_a_01791.

24. This phenomenon also appeared when the Trump administration proposed funding to build and deploy nuclear-armed sea-launched cruise missiles, reportedly so they could be used as a bargaining chip with Russia. The Biden administration decided not to build this weapon, but the House Armed Services Committee included funding for the program in the Defense Department budget anyway. Bryan Harris, "GOP Moves to Instate Sea-Launched Cruise Missile Nuclear Program," *Defense News*, June 21, 2023, https://www.defensenews.com/congress/budget/2023/06/22/gop-moves-to-instate-sea-launched-cruise-missile-nuclear-program. Russia, North Korea, and, lately, China do not more genuinely favor arms control or eschew the accrual of military power; the point here is that efforts to make arms control a more effective element of U.S. national security strategy and policy must take into account the possibility and consequences that Congress will turn bargaining chips into new weapons programs (or vice versa).

25. For a penetrating analysis of this triangular relationship, see Alexey Arbatov, "Trilateral Nuclear Arms Control—A Russian Assessment," in *Trilateral Arms Control? Perspectives from Washington, Moscow, and Beijing*, Research Report no. 002, ed. Ulrich Kühn (Hamburg: Institute for Peace Research and Security Policy, University of Hamburg, March 2020), https://ifsh.de/file/publication/Research_Report/002/20200224_IFSH_Research_Report_002_final.pdf.

26. Matthew Mpoke Bigg and Anton Troianovski, "Deadly Russian Artillery Strikes Reported in Ukraine's East and South," *The New York Times*, February 26, 2023, https://www.nytimes.com/2023/02/26/world/europe/ukraine-russia-strikes.html.

27. "US Hegemony and Its Perils," *China Daily*, February 20, 2023, https://global.chinadaily.com.cn/a/202302/21/WS63f40722a31057c47ebafd61.html (last updated February 21, 2023). In March 2023, President Xi Jinping said the U.S. aim was "all-around containment, encirclement, and suppression of China."

28. Acton, "Escalation through Entanglement"; and Hiim, Fravel, and Trøan, "The Dynamics of an Entangled Security Dilemma." In the lexicon of "instability," a feedback

loop operates among political instability, crisis instability, and arms race instability, with each type exacerbating and being exacerbated by the other.

29. Franklin C. Miller, "Outdated Nuclear Treaties Heighten the Risk of Nuclear War," *The Wall Street Journal*, April 21, 2022, https://www.wsj.com/articles/outdated-nuclear-treaties-new-start-treaty-russia-putin-china-xi-heighten-risk-nuclear-war-missile-test-ukraine-deterrence-11650575490. Assuming that it is infeasible to negotiate a successor treaty to New START with Russia and China, Miller (who helped lead reductions in U.S. nuclear forces in the late 1980s and early 1990s) argues, "the Biden administration should exit New START after a year and begin building toward the 3,000 to 3,500 force levels to maintain a credible deterrent against Moscow and Beijing." Ibid.

30. Under Secretary of State Marshall Billingslea: "We know how to spend the adversary into oblivion. If we have to, we will, but we sure would like to avoid it." Tim Morrison, "Transcript: Special Presidential Envoy Marshall Billingslea on the Future of Nuclear Arms Control," Hudson Institute, May 22, 2020, https://www.hudson.org/national-security-defense/transcript-special-presidential-envoy-marshall-billingslea-on-the-future-of-nuclear-arms-control.

31. Bernard Gwertzman, "Five-Year Effort for an Arms Curb Began with Secret Johnson Letter to Kosygin," *The New York Times*, May 25, 1972, https://www.nytimes.com/1972/05/27/archives/fiveyear-effort-for-an-arms-curb-began-with-secret-johnson-letter.html.

32. Lyndon Baines Johnson, *The Vantage Point* (New York: Holt Rinehart and Winston, 1971), 370.

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

34. Brooks, "The End of Arms Control?"

35. For an excellent exploration of Putinist perceptions, see Vladislav M. Zubok, "Myths and Realities of Putinism and NATO Expansion," in *Evaluating NATO Enlargement: From Cold War Victory to the Russia-Ukraine War*, ed. James Goldgeier and Joshua R. Itzkowitz Shifrinson (London: Palgrave Macmillan, 2023), 145–159, https://doi.org/10.1007/978-3-031-23364-7_5.

36. In his deeply insightful book *On Compromise*, Avishai Margalit explains that "recognizing the other as a legitimate partner for negotiation means treating the other less as an enemy and more as a rival." Furthermore, conferring "recognition on one's rival" helps "to dispel [the claim that] domination" is one's objective. "Acting in such a spirit of compromise is what the Talmud calls acting for the sake of peace." Avishai Margalit, *On Compromise and Rotten Compromises* (Princeton, N.J.: Princeton University Press, 2010), 41, 43.

37. Fiona S. Cunningham, "The Unknowns about China's Nuclear Modernization Program," *Arms Control Today* 53 (June 2023): 10, https://www.armscontrol.org/act/2023-06/features/unknowns-about-chinas-nuclear-modernization-program.

38. Brad Roberts, "Rethinking Mutual Vulnerability in an Era of US-China Strategic Competition," in David Santoro, ed., "US-China Mutual Vulnerability: Perspectives on the Debate," *Issues and Insights* 22 (2) (May 2022): 23, https://pacforum.org/wp-content/uploads/2022/05/Issues-Insights-Vol.-22-SR-2.pdf.

39. Author interviews with U.S. and Japanese officials in Tokyo and Nagasaki, December 7–8, 2023.

40. Zhao Tong, "The Political Drivers of China's Changing Nuclear Policy: Implications for U.S.-China Nuclear Relationship and International Security" (forthcoming).

41. George Will, "Abortion: There Are Splittable Differences" (February 13, 1989), in George Will, *Suddenly: The American Idea Abroad and at Home* (New York: Free Press, 1990), 313.

42. Margalit, *On Compromise and Rotten Compromises*, 41.

43. Brad Roberts, "Emerging Challenges to Strategic Stability" (informal remarks, Conference on Nuclear Deterrence and Strategic Stability: What Have We Learned, University of Virginia, Charlottesville, Va., March 16–18, 2022).

44. Brinkley and Nichter, *The Nixon Tapes*, 414.

45. In 1985, Nixon claimed he had considered using nuclear weapons four times as president. "What the President Saw: A Nation Coming into Its Own," *TIME*, July 29, 1985, 53, https://content.time.com/time/subscriber/article/0,33009,1048416,00.html. Weeks later, Kissinger said in an interview, "There was never a concrete occasion or crisis in which the use of nuclear weapons was considered by the government." "An Interview with Henry Kissinger," *The Washington Post*, August 11, 1985, L8.

46. Richard K. Betts, *Nuclear Blackmail and Nuclear Balance* (Washington, D.C.: Brookings Institution, 1987), 113.

47. Ronald Reagan, *An American Life* (New York: Simon and Schuster, 1990), 594–595.

48. "Lichijiang" (unnamed Chinese nuclear policy expert), email to author, February 23, 2023, commenting on George Perkovich, *Engaging China on Strategic Stability and Mutual Vulnerability* (Washington, D.C.: Carnegie Endowment for International Peace, 2022), https://carnegieendowment.org/2022/10/12/engaging-china-on-strategic-stability-and-mutual-vulnerability-pub-88142. The Reagan administration's effort to negotiate what became the INF and START Treaties was slowed by the Soviet leadership's perception "that the United States would only agree with such a situation where it would be militarily ahead of the USSR." Reagan, quoting from Chernenko letter, *An American Life*, 599. Meanwhile, Reagan believed that "when the Soviets refer to maintaining stability they mean superiority and they have it." Ibid., 608.

49. Mustering the two-thirds vote necessary in the Senate to approve ratification of treaties has long been difficult. The U.S. Constitution's allocation of two Senate seats to each state regardless of population has allowed relatively unpopulated and isolated states to block the ratification of treaties that a large majority of the population would support. The Genocide Convention took forty years to ratify, and the 1994 Law of the Sea Treaty remains unratified, as does the 1996 CTBT—although the United States abides by both. New START was ratified in 2010 only because President Obama promised in return a massive infusion of funds to modernize the U.S. nuclear arsenal.

50. Patricia Zengerle, "U.S. Republican Senators Say They Will Not Back New Iran Nuclear Deal," Reuters, March 14, 2022, https://www.reuters.com/world/middle-east/us-republican-senators-say-they-will-not-support-new-iran-nuclear-deal-2022-03-14.

51. Nixon recalled that the negotiations that led to the ABM Treaty "worked at two levels. In Helsinki, formal talks were conducted under the scrutiny of the world press. But in the White House Map Room, secret discussions between Kissinger and Soviet Ambassador Dobrynin took place. Not surprisingly, the major breakthroughs occurred in the latter. It was there that the two sides could exchange frank views, test possible compromise formulas, and overcome critical bottlenecks." Reagan recalled conveying the value of secrecy in a handwritten note to Soviet General Secretary Yuri Andropov: "Historically, I wrote, 'our predecessors have made better progress when they communicated privately and candidly.' I wrote that if he wished to engage in such direct communication, 'you will find me ready. I await your reply.' Ronald Reagan." Obama in his memoir reveals that, "Within weeks of taking office, I'd sent a secret letter to Ayatollah Khamenei" in Iran, "suggesting that we open a dialogue between our two countries on a range of issues, including Iran's nuclear program." Richard Nixon, *In the Arena: A Memoir of Victory, Defeat, and Renewal* (New York: Simon and Schuster, 1990), 327; Reagan, *An American Life*, 576; and Barack Obama, *A Promised Land* (New York: Crown, 2020), 454. William J. Burns, who led the initial negotiation of what became the JCPOA with Iran, describes in his memoir the secrecy involved. William J. Burns, *The Back Channel* (New York: Random House, 2019).

52. Robert Kennedy, *Thirteen Days: A Memoir of the Cuban Missile Crisis* (1969; New York: W.W. Norton, 1999), 85.

53. For an insightful, deeply researched discussion of this decision and its implementation—notwithstanding keen resistance from U.S. officials who did not know of the secret Kennedy-Khrushchev deal—see William Burr and Leopoldo Nuti, "The Jupiter Missiles and the Endgame of the Cuban Missile Crisis, 60 Years Ago," NSArchive Briefing Book no. 821, National Security Archive, Washington, D.C., February 16, 2023, https://nsarchive.gwu.edu/briefing-book/cuban-missile-crisis-nuclear-vault/2023-02-16 /jupiter-missiles-and-endgame-cuban.

54. Ibid.

55. For a discussion of this tendency, see George Perkovich, *India's Nuclear Bomb* (Berkeley: University of California Press, 1999), 459–464. "Enjoy" is in quotation marks because the three leaders do not appear remotely joyful.

56. Reagan, *An American Life*, 576, 597.

57. For trenchant analysis of these challenges and constructive arms control approaches to redress them, see James Timbie, "A Way Forward," *Dædalus* 149 (2) (2020): 190–203, https://doi.org/10.1162/daed_a_01797.

58. Chyba, "New Technologies and Strategic Stability."

59. Pavel Podvig and Javier Serrat, "Lock Them Up: Zero-Deployed Non-Strategic Nuclear Weapons in Europe," UNIDIR, October 2, 2023, https://unidir.org/publication/lock-them-zero-deployed-non-strategic-nuclear-weapons-europe.

60. Alexey Arbatov, "Saving Strategic Arms Control," *Survival* 62 (5) (2020): 79–104, https://doi.org/10.1080/00396338.2020.1819640.

61. Timbie, "A Way Forward."

62. Ibid.

63. Ibid.

64. Ibid.

65. Ibid.

66. Acton, MacDonald, and Vaddi, *Reimagining Nuclear Arms Control: A Comprehensive Approach*.

67. Ibid.

68. Ibid.

69. Laura Grego, "A Better Missile Defense Strategy," Arms Control Association, 2021, https://www.armscontrol.org/act/2020-12/features/better-missile-defense-strategy.

70. Brooks, "The End of Arms Control?"

71. John Borrie, "Nuclear Risk and the Technological Domain: A Three-Step Approach," in *Nuclear Risk Reduction: Closing Pathways to Use*, ed. Wilfred Wan (Geneva, Switzerland: UNIDIR, 2020), https://unidir.org/publication/nuclear-risk-reduction-closing-pathways-to-use.

72. Thomas Cheney, Jakob Hake, Haneen Khalid, et al., *Arms Control Idol: Ideas for the Future of Strategic Cooperation and Community* (London: Kings College London, 2021), https://www.kcl.ac.uk/csss/assets/arms-control-idol-ideas-for-the-future-of-strategic-cooperation-and-community.pdf.

73. Brooks, "The End of Arms Control?"

74. Acton, MacDonald, and Vaddi, *Reimagining Nuclear Arms Control: A Comprehensive Approach*.

75. Ibid.

76. Cited in Samuel Charap, John J. Drennen, Luke Griffith, Ed Geist, and Brian G. Carlson, *Mitigating Challenges to U.S.-Russia Strategic Stability* (Santa Monica, Calif.: RAND Corporation, 2022), https://www.rand.org/pubs/research_reports/RRA1094-1.html.

77. Arbatov, "Saving Strategic Arms Control."

78. Charap, Drennen, Griffith, Geist, and Carlson, *Mitigating Challenges to U.S.-Russia Strategic Stability*.

79. Cited in ibid.

80. Ulrich Künh, "Nuclear Risk in the Euro-Atlantic," in *Nuclear Risk Reduction: Closing Pathways to Use*, ed. Wilfred Wan (Geneva, Switzerland: UNIDIR, 2020), https://unidir.org/publication/nuclear-risk-reduction-closing-path.

81. Ibid.

82. Borrie, "Nuclear Risk and the Technological Domain."

83. Künh, "Nuclear Risk in the Euro-Atlantic."

84. Ibid.

85. Manpreet Sethi, "Nuclear Risks in Southern Asia: The Chain Conundrum," in *Nuclear Risk Reduction: Closing Pathways to Use*, ed. Wilfred Wan (Geneva, Switzerland: UNIDIR, 2020), https://unidir.org/publication/nuclear-risk-reduction-closing-path.

86. Ibid.

87. Ibid.

88. Ibid.

89. Acton, MacDonald, and Vaddi, *Reimagining Nuclear Arms Control: A Comprehensive Approach*.

90. Vince Manzo, *Nuclear Arms Control Without a Treaty: Risks and Options after New START* (Arlington, Va.: CNA, 2019), https://www.cna.org/reports/2019/04/IRM-2019-U-019494.pdf.

91. Ibid.

92. Ibid.

93. Ibid.

94. Charap, Drennen, Griffith, Geist, and Carlson, *Mitigating Challenges to U.S.-Russia Strategic Stability*.

95. Ibid.

96. Timbie, "A Way Forward."

97. Brooks, "The End of Arms Control?"

98. Ankit Panda, "Multipolarity, Great Power Competition, and Nuclear Risk Reduction," in *Nuclear Risk Reduction: Closing Pathways to Use*, ed. Wilfred Wan (Geneva, Switzerland: UNIDIR, 2020), https://unidir.org/publication/nuclear-risk-reduction-closing-path.

99. Ibid.

100. Sethi, "Nuclear Risks in Southern Asia: The Chain Conundrum."

101. Ibid.

102. Arms Control Association, "Toward a New Nuclear Arms Control Framework Arrangement," *Issue Brief* 14 (7) (October 26, 2022), https://www.armscontrol.org/issue-briefs/2022-10/toward-new-nuclear-arms-control-framework-arrangement.

103. Acton, MacDonald, and Vaddi, *Reimagining Nuclear Arms Control: A Comprehensive Approach*.

104. Amy J. Nelson and Michael O'Hanlon, "All START: A Proposal for Moving beyond US-Russia Arms Control," *Bulletin of the Atomic Scientists*, March 20, 2023, https://thebulletin.org/2023/03/all-start-a-proposal-for-moving-beyond-us-russia-arms-control.

105. Steven Pifer, "Enhancing Strategic Stability: New START and Beyond," *Arms Control Today* (2021), https://www.armscontrol.org/act/2021-01/features/enhancing-strategic-stability-new-start-beyond.

106. Arbatov, "Saving Strategic Arms Control."

107. Pifer, "Enhancing Strategic Stability: New START and Beyond."

108. Brooks, "The End of Arms Control?"

109. Manzo, *Nuclear Arms Control Without a Treaty: Risks and Options after New START*.

110. Charap, Drennen, Griffith, Geist, and Carlson, *Mitigating Challenges to U.S.-Russia Strategic Stability*.

111. Ibid.

112. Ibid.

113. Timbie, "A Way Forward."

114. Ibid.

115. Ibid.

116. Ibid.

117. Ibid.

118. Ibid.

119. Ibid.

120. Acton, MacDonald, and Vaddi, *Reimagining Nuclear Arms Control: A Comprehensive Approach*.

121. Charap, Drennen, Griffith, Geist, and Carlson, *Mitigating Challenges to U.S.-Russia Strategic Stability*.

122. Cheney, Hake, Khalid, et al., *Arms Control Idol: Ideas for the Future of Strategic Cooperation and Community*.

123. Acton, MacDonald, and Vaddi, *Reimagining Nuclear Arms Control: A Comprehensive Approach*.

124. Manzo, *Nuclear Arms Control Without a Treaty: Risks and Options after New START*.

125. Sethi, "Nuclear Risks in Southern Asia: The Chain Conundrum."

126. Reagan, *An American Life*, 552, 597.

127. The need for such dialogue is reflected in this insightful comment from Robert Jervis: "Actors often misunderstand how others will interpret their behavior not only because they fail to grasp others' theories and images of them, but because they view their own behavior in a biased way. Individuals and states generally think well of themselves, believe that they have benevolent motives, and see their actions as reasonable and legitimate." Robert Jervis, "Signaling and Perception: Drawing Inferences and Projecting Images," in *Political Psychology*, ed. K.R. Monroe (Mahwah, N.J.: Lawrence Erlbaum Associates Publishers, 2002), 308. The time required for such dialogue to work was illustrated by President Reagan. Years of often secret correspondence and one-on-one discussions were needed before the Reagan administration (and then its successor) could communicate its desire for "equitable" terms and then find an agreeable formula that would "take account of the interrelationship between the offense and

the defense," as Reagan wrote to Gorbachev in an October 31, 1985, letter. Reagan, *An American Life*, 630–631.

128. The erstwhile progressive Russian military expert Alexei Arbatov proposed in a 2020 publication that Russian and Chinese needs for relatively equitable terms with the United States in any negotiated treaty could be addressed by establishing a common ceiling on each side's total number of "strategic land- and sea-based ballistic missiles, gravity bombs and air-launched cruise missiles, as well as land-based intermediate and short-range ballistic and cruise missiles. It could also include present and future boost-glide intercontinental and medium-range systems, intercontinental cruise missiles and long-range underwater autonomous vehicles." Arbatov, "Trilateral Nuclear Arms Control," 58. Chinese nuclear policy expert Tong Zhao makes a similar proposal: "set an equal ceiling for the total number of deployed ground-launched INF- and intercontinental-range ballistic missile (ICBM) launchers, submarine-launched ballistic missile launchers, and heavy bombers." Tong Zhao, "The Case for China's Participation in Trilateral Arms Control," in Kühn, *Trilateral Arms Control?* 79.

129. Perri Adams, Dave Aitel, George Perkovich, and J.D. Work, "Responsible Cyber Offense," *Lawfare*, August 2, 2021, https://www.lawfaremedia.org/article/responsible-cyber-offense.

130. George Perkovich, *Toward Accountable Nuclear Deterrents: How Much Is Too Much?* (Washington, D.C.: Carnegie Endowment for International Peace, 2020), https://carnegieendowment.org/2020/02/11/toward-accountable-nuclear-deterrents-how-much-is-too-much-pub-80987.

131. Christopher A. Ford, "Arms Control in Outer Space: History and Prospects," *Arms Control and International Security Papers* 1 (12) (2020): 2, https://2017-2021.state.gov/wp-content/uploads/2020/07/T-Paper-Series-Space-Norms-Formatted-T-w-Raymond-quote-2543.pdf.

132. UN General Assembly, "Reducing Space Threats through Norms, Rules, and Principles of Responsible Behaviours," A/Res/75/36, December 16, 2020, https://documents-dds-ny.un.org/doc/UNDOC/GEN/N20/354/39/PDF/N2035439.pdf.

133. For a thoughtful discussion of the value of revising assumptions about arms control, see Naomi Egel and Jane Vaynman, "Reconsidering Arms Control Orthodoxy," *War on the Rocks* [blog], March 26, 2021, https://warontherocks.com/2021/03/reconsidering-arms-control-orthodoxy.

Deter, Compete, and Engage: Europe's Responsibility within the Arms Control Regime after Ukraine, with or without the United States

Paul van Hooft

Europeans should recognize the responsibility for their own security including arms control, given not only renewed Russian belligerence but also other global trends undermining strategic stability. As the United States is likely to be even more focused on the Indo-Pacific region in the future, Europeans cannot afford to take a passive role or pursue multilateralism for the sake of multilateralism. Actively taking responsibility for their own security including arms control would mean Europeans learn to combine deterrence, competition, and engagement with nuclear-armed great powers. Such a combination would be particularly important for incentivizing Russia to engage with Europeans on arms control, and to find consensus within Europe to engage with Russia.

The arms control regime built up in the last decades of the Cold War and its aftermath has fallen apart during the past twenty years, with the loss of the Anti-Ballistic Missile (ABM) Treaty (2002), the Conventional Armed Forces in Europe (CFE) Treaty (2007, 2023), the Intermediate-Range Nuclear Forces (INF) Treaty (2019), and the Open Skies Treaty (2021). To complete this sorry state of affairs, Russia suspended its cooperation with the New Strategic Arms Reductions Treaty (New START) in 2023. The February 2022 Russian invasion of Ukraine erased what was left of the accomplishments at the end of the Cold War.

At present, reengaging with Russia on arms control is not a high priority in Washington or in most—if any—European capitals, nor is it politically feasible, at least as long as the war in Ukraine continues. For now, the focus

of the United States and Europe is on ensuring a Russian defeat in Ukraine, or at least preventing a Ukrainian defeat—though this may change following the elections in the United States and across Europe. Sensing the opportunity to remove the historical Russian threat to their security, Central and East European member states of the European Union (EU) and the North Atlantic Treaty Organization (NATO) especially are preoccupied with the outcome of the war, and many are focused on weakening and potentially fracturing Russia to an extent that it cannot present a threat in the coming decades—if ever again. These aims create inherent limits on the feasibility of political coalitions within Europe to reengage with Russia on arms control.

At the same time, precisely because of the war in Ukraine, the need for arms control to manage nuclear warhead numbers and delivery systems, to strengthen risk reduction, and to increase transparency is greater than ever.[1] The risk of deliberate or inadvertent escalation, as well as accidents, has drastically increased because of the war and the highly elevated tensions between NATO and Russia.[2] Crucially, Russia is likely to lean even more heavily on its nuclear arsenal as a tool of coercion. In particular, Russian investments in short- and medium-range weapons with so-called tactical, low-yield nuclear warheads are a problem for European states within their range.[3] Many of these weapons are not covered by the U.S.-Russian agreements, though before Russia's invasion of Ukraine the Biden administration was looking to include them.[4] Europeans have a clear need to manage these dangerous dynamics, which directly threaten their security, even if the war in Ukraine must take priority at present.

Whatever the future of the global arms control regime, Europeans risk being sidelined as the United States looks to craft a trilateral arms control process with Russia and China. From the U.S. perspective, it must, as the guarantor of extended deterrence for its allies in Europe and Asia—though this may change if U.S. domestic realignment proceeds—retain a favorable balance of power in both regions.[5] If it cannot credibly signal its ability to escalate more successfully than its adversaries, Washington will have difficulty reassuring its allies.[6] In turn, its ability to provide credible extended nuclear deterrence and conventional protection dissuades potential proliferators from acquiring nuclear weapons.[7] In comparison, to strengthen support for nonproliferation, the EU throughout the post–Cold War period has instead focused on "effective multilateralism" as not only a means but an end in itself.[8] Yet Europeans were unable to effectively counter Russia's rejection of conventional arms control after 2008 or Russian investments in its nuclear arsenal and delivery systems.[9] Russia's selective compliance two decades ago should have been a wake-up call.[10]

Within the context of heightened adversarial relations in Europe, I explore the available options for Europeans to reinvigorate arms control. I

discuss the needs in the European context and the extent to which arms control or strategic stability issues could be raised with Russia during the war and in its aftermath. Russia is unlikely to discuss arms control without political reassurances regarding Ukraine's postwar status in NATO—or if it has suffered a defeat in Ukraine. What would constitute a defeat for Russia is malleable, as Vladimir Putin has considerable leeway to present those events in a favorable or not too unfavorable light. Giving political reassurances to Russia that Ukraine will not become a member of NATO and/or the EU would, however, be hard to accept—if not entirely unacceptable—to the majority of NATO European states, and certainly those in Central and Eastern Europe. This paper therefore underlines, on the one hand, a tension between different levels of political agreement—namely, among the great powers and with the regional powers—and, on the other hand, the dynamics of the nuclear and adjacent advanced conventional weapons realms.

The paper proceeds as follows. The first section emphasizes two interpretations of strategic stability: one that focuses on the nuclear dynamics and a second that includes broader political questions of status quo and revisionism. The second section underlines the need to reinvigorate the arms control regime by considering the threat to strategic stability globally, and in Europe specifically. It discusses the increasing complexity that follows nuclear multipolarity and the overspill between regions, how geopolitical competition is increasing the importance of existing nuclear capabilities, and the technological developments driving change. It then notes the Russian threat to strategic stability, specifically in the wake of the invasion of Ukraine. The third section considers the specific needs of European states and contrasts this with the U.S. approach to arms control and strategic stability. The fourth section considers potential paths forward for Europeans to reinvigorate the arms control regime, and underlines the need for Europeans to be more proactive as well as to accept an approach that foregrounds deterrence and competition for the foreseeable future.[11] Europeans will need to be more willing than they have been in the past to provoke Russian fears through conventional capability investments and deterrence, in order to incentivize Russia to again engage.

Strategic Stability: Nuclear Dynamics and Geopolitical Competition

Arms control for the sake of arms control is the best description for the European approach after the Cold War; however, this is unlikely to remain a valid policy avenue in an era in which relations between the great powers have soured and mutual trust is in short supply. Yet, historically,

arms control is intended to manage competition between bitter rivals, not between friends.

Much of the difficulty in talking about arms control is that there is an assumption that rivals and adversaries share the same understanding of strategic stability and the forces—whether political or technological—that are undermining it.[12] As rivals often do not share a similar understanding, I distinguish between two types of strategic stability: strategic stability (type I), which focuses on the dynamics between nuclear-armed great powers that directly relate to the types and quantities of nuclear weapons and their delivery systems; and strategic stability (type II), which emphasizes the tensions between nuclear-armed great powers that are satisfied or dissatisfied with the international status quo.

Strategic Stability (Type I)

Strategic stability (type I), in turn, contains two aspects: arms race (or deterrent or first-strike) stability and crisis stability. Arms race stability exists when neither of two nuclear-armed rivals or adversaries believes they or the other can successfully destroy the other's second-strike capability, and thus the benefits of adding nuclear warheads or more or different delivery systems do not outweigh the costs and risks of doing so. Most of the first generation of strategic stability work emphasized this dimension.[13] Later generations of arms control scholars included crisis stability, which is achieved when a nuclear-armed state or its agents does not believe that their second-strike capability is actively jeopardized by the nuclear or conventional actions of an adversary during a crisis, and therefore does not have incentives to escalate a (potential) conventional conflict to the nuclear level.[14] Unlike the former, the time horizon is very short for crisis stability, but the same weapons systems can undermine both arms control and crisis stability.

One of the paradoxes of the nuclear age—and arguably its central paradox—is that efforts to maintain a survivable arsenal can often undermine the confidence of others in their own weapons. Moreover, the search for survivability may be combined with a deep unease among policymakers about the vulnerability of their society. Consequently, nuclear-armed states tend to resort to one or more of eight policies, five of which deal with the credible ability to retaliate even after a first move by the adversary and three of which deal preemptively with vulnerability by exploring which first move they themselves could make.

States have five approaches to credibly threaten retaliation. Four of these look to achieve a secure second strike through material and technological means. The fifth approach takes a procedural and organizational

route to ensure retaliation. States can pursue 1) *redundancy*, by building a nuclear arsenal too large to destroy; 2) *hardening*, by ensuring fixed launch sites are too protected to destroy; 3) *mobility*, by ensuring they have numerous land-based, sea-based, or air-based launchers that can be moved around to avoid destruction; or 4) *concealment*, by hiding land-based, sea-based, or air-based launchers from destruction.[15] States can try to avoid the costs (both material and technological) associated with a secure second-strike capability through 5) procedural and organizational adaptation to strengthen the resiliency of the nuclear command-and-control arrangements and thus diminish the risk of counterforce or decapitation strikes, whether by *delegating launch authority* to more commanders, by changing their nuclear posture to *launch-on-warning*; and/or by placing their nuclear forces in a condition of high *readiness*.[16] This is a more destabilizing approach than the previous four.

All five approaches count on the adversary's fear of a credible retaliatory strike with nuclear weapons. This threat of punishment is fundamentally directed against the things that matter most to that state's leaders, whether the survival of their society or their personal survival, and is intended to deter states from escalation.

Precisely because they fear for their survival, states may also employ one or more of three so-called damage limitation approaches that attempt to limit or eliminate the threat of an adversary's nuclear arsenal.[17] Damage limitation can be pursued through 6) a *conventional or nuclear counterforce first strike* to destroy the adversary's nuclear arsenal (to be successful, such a strike would in turn rely on some combination of sheer numbers, destructiveness, precision, or surprise); 7) *missile defense systems* designed to completely intercept an attack either by a weaker adversary or by an adversary whose arsenal has already been partially destroyed through a counterforce attack; or 8) the *disruption or destruction of the adversary's nuclear command, control, and/or communications* so as to delay or prevent a response and ensure a window of opportunity to destroy the adversary's arsenal.

Recent scholarship on the nuclear revolution underlines U.S. policymakers' deep discomfort with mutual vulnerability. Robert Jervis argues that nuclear powers would not have incentives to compete if they could achieve a secure second-strike capability.[18] However, the United States particularly has continued to explore damage-limitation strategies, specifically through counterforce options.[19] The United States has a clear motive to do so: it provides extended deterrence to faraway allies, and the credibility of that deterrence and the willingness of American leadership and the public to accept complete vulnerability on the behalf of others are inherently weaker if the United States does not compensate. Having damage limitation options has therefore, among the nuclear-armed states, always

been particularly attractive to U.S. leaders, who consequently have been less comfortable with strategic stability (type I).

Finally, as advanced conventional weapons become increasingly able to achieve strategic effects—that is, deterrence by punishment or by denial—and gain counterforce potential, they should be included in future arms control arrangements.

Strategic Stability (Type II)

Strategic stability (type II) centers on the extent to which potential rivals accept existing great-power arrangements at the regional or global level, including territorial boundaries, exclusive economic zones, maritime approaches, or other agreements. Strategic stability (type II) helps to explain broader systemic dynamics. While the United States and most European states tend to emphasize the stricter nuclear definition of strategic stability, China and Russia implicitly use the broader definition and treat agreement there as a precondition for further discussions.[20] Following the logic of strategic stability (type II), one could argue that Russian and Chinese revisionism, specifically toward Ukraine and Taiwan respectively, is destabilizing; however, those states would argue that the United States, by overreaching in the aftermath of the Cold War, took on a revisionist posture and thus destabilized relations between the great powers. Both Russia and China have built up extensive lists of current and historical grievances.[21] Moreover, both feel that they are encircled by hostile U.S.-led coalitions of regional states. The Chinese response to this perceived imbalance—namely, to develop countermeasures capable of blunting the U.S. ability to project naval and air power into its vicinity (China's so-called Anti-Access/Area Denial, or A2/AD, capabilities)—has in turn precipitated U.S. responses with consequences for the nuclear domain.[22] Similar conventional-to-nuclear dynamics apply to the Russia-NATO relationship.[23]

The current destabilizing trends in nuclear strategic stability (type I) are fundamentally caused by deep political tensions between the great powers. While these tensions find their most dangerous expression in the nuclear domain, an understanding of strategic stability (type II) helps define the options for arms control. Whether states hold a status quo or revisionist perspective will shape, all other things being equal, the extent to which they will either accept mutual vulnerability or instead seek an advantage. For example, China's current nuclear buildup could be intended to ensure it has more space to maneuver in the conventional domain.[24]

Yet, while strategic stability (type II) drives a great deal of the dynamics in strategic stability (type I), it is more difficult to address. Such fundamental disagreements on acceptable great-power arrangements, in turn,

underline the need for arms control or confidence-building measures to manage and diminish the dangers of escalation. Moreover, developments at the level of strategic stability (type I)—for example, failures of arms control agreements—can, in turn, impact strategic stability (type II).[25] For example, Russia became more convinced that the United States was looking to unsettle post–Cold War arrangements in Europe when the latter suspended the ABM Treaty in 2002.

Global and European Trends

The need to reinvigorate arms control in and by Europe is driven by developments within Europe as well as by global trends. The challenges for arms control are complex in ways that they were not during the Cold War, and Europe is vulnerable in ways that go further than the effects of Russia's renewed aggression in Ukraine and its belligerent attitude toward NATO Europe. It must also consider the broader global trends that drive strategic instability of both types. These trends—specifically, nuclear multipolarity, intensifying geopolitical competition, and technological developments—not only suggest the need for but also complicate efforts to reinvigorate the global arms control regime. Yet, a reinvigorated arms control regime would offer a way to eventually build a more sustainable security regime within Europe.

Nuclear Complexity and Multipolarity

Compared to the Cold War, the current nuclear order is no longer largely defined by the bilateral relationship between the United States and the Soviet Union.[26] The world now has more nuclear powers and more linkages among regions, complicating each power's ability to signal to any single potential adversary its willingness to agree to limits on warheads or delivery systems or for any pair of nuclear-armed rivals to set the terms of stability globally.[27]

At the heart of the overlapping deterrence dyads is the United States, by virtue of its perceived worldwide interests and its treaty commitments to guarantee extended nuclear deterrence in Europe, East Asia, and elsewhere. The triangular relationship among the United States, China, and Russia defines the other relationships by connecting developments and events in Europe to those in Asia and vice versa. In Europe, the United States (and, to a lesser degree, France and the United Kingdom) deters Russia. In Asia, the United States looks to deter China primarily and North Korea secondarily. The addition of India and Pakistan adds another layer of complexity. While India is primarily focused on deterring Pakistan, it also deters China. Pakistan, for its part, is exclusively focused on India.

North Korea is deterring the United States and multiple nonnuclear regional powers, including Japan, a latent nuclear power. Paul Bracken calls the emergence of regional nuclear powers a defining feature of the second nuclear age that followed the Cold War.[28] During the first nuclear age, the sense of predictability in a largely bipolar order allowed for the establishment of a mutual view of shared risks and likely solutions that made possible the ongoing arms control processes and bilateral agreements of that era.[29] This mutual understanding of the world's nuclear environment no longer exists.[30]

Linkages between regions due to nuclear multipolarity express themselves in multiple ways. As has become clear with the INF's demise, the United States is reticent to reinvigorate agreements with Russia unless it can also come to terms with China on risk reduction and on medium-range ballistic missiles. China, however, is reticent to come to terms given the disparity in arsenal sizes.[31] China is also now engaged in a rapid buildup of its nuclear arsenal (though it still has a considerable distance to cross before it approaches the size of the U.S. arsenal).[32]

Geopolitical Competition

The intensification of geopolitical competition between the United States on the one hand and China and Russia on the other has followed the decline of U.S. unipolarity that existed in the two decades after the Cold War and that gave way to the third nuclear age.[33] China and Russia were dissatisfied with the status quo and, despite having security- and status-related reasons to challenge the United States, lacked either the opportunity or the means to do so. China's astounding economic rise, especially since the 2008 financial crisis, combined with the continuing domestic divisions within the United States, has created the conditions in which Moscow and Beijing could finally consider pursuing their respective grievances against Washington. Consequently, two key, unsettled regional arrangements in Europe and Asia have become relevant again: 1) the status of Russia and its neighborhood, exemplified by the 2014 and 2022 invasions of Ukraine; and 2) the status of China and the Western Pacific, exemplified by the tensions over Taiwan, the South China Sea, and the East China Sea.

The United States is pivotal to the regional balancing arrangements in both Europe and Asia, and successive administrations have increasingly expressed fears that the United States cannot maintain deterrence in both regions.[34] Moreover, in the eyes of America's allies, U.S. intentions are now less clear as a direct result of President Donald Trump's ambivalence toward international systems during his administration and the uncertainty surrounding not only his possible return to office but also the uncertain effects

of polarization within the United States.[35] From a European perspective, the slow but inexorable shift of U.S. attention toward the Indo-Pacific region across successive U.S. administrations since the turn of the century further ensures that Europeans are likely to have to make greater efforts on behalf of their own security. The European sense of urgency has become only stronger since Russia's 2022 invasion of Ukraine.[36] In the context of perceived gains by revisionist powers, losses in strategic stability (type II) mean losses in strategic stability (type I). As they look to challenge the status quo in their respective regions, Russia and China have fewer incentives to invest in arms control measures that are likely to reinforce the status quo. In turn, as it feels its relative position decline, the United States has less incentive to limit its own development of weapons or delivery systems with the potential to offset perceived deterrence gaps.

Technological Developments

The third trend is the vertical and horizontal proliferation of emerging technologies, including advanced conventional weapons.[37] This proliferation is not a coincidence, as other states are also competing with the United States for conventional precision strike capabilities to impede U.S. power projection.[38] These technologies include newer precision-guided weapons (including hypersonic weapons), cyberweapons, artificial intelligence (AI), unmanned vehicles, and anti-satellite weapons. They were not necessarily developed to gain advantages in the nuclear domain but rather in the conventional one. However, they undermine both arms race (or deterrent) stability and crisis stability within strategic stability (type I). These emerging technologies increase opportunities for damage limitation strategies, undermining arms race (or deterrent) stability. They also place additional pressure on decision-makers by shrinking decision-making windows and increasing the likelihood of misperception. They create instability along four distinct axes: transparency, precision, speed, and disruption.

Transparency. Transparency increases along with the growing number of sensors, including the proliferation of space-based sensors, as well as the ability to connect and process data from those sensors, including through AI-assisted "data fusion."[39] Though the extent to which the latter will be possible is uncertain, one possible implication of increased transparency for strategic stability (type I) is heightened difficulty in concealing the mobile launchers, strategic bombers, and, potentially, submarines heretofore necessary for ensuring a secure second strike. If systems are believed to be easier to track and hold at risk, the perceived danger of disarming counterforce options becomes more acute, increasing the likelihood that a state will consider or resort to launch-on-warning and preemption.

Precision weapons. The horizontal and vertical proliferation of precision weapons, including hypersonic weapons, has grown in intensity over the past two decades.[40] This has also increased the options available due to greater transparency, further undermining strategic stability (type I) through the increased ability to destroy platforms used for delivery of nuclear weapons, whether mobile launchers, strategic bombers, or (potentially) submarines, as well as the ability to penetrate missile silos. This has implications for strategic stability (type I), both by undermining arms race stability, by making counterforce options more attractive, and by challenging crisis stability, by adding to the risk of inadvertent escalation if, during a conventional exchange, states are uncertain whether their adversary is committed to a first-strike option.[41]

Disrupt C3I. Cyberweapons increasingly have the ability to disrupt command, control, communications, and intelligence (C3I), and the effectiveness of these cyberweapons may be further boosted by AI.[42] Actions in cyberspace may be difficult to differentiate.[43] The implication for strategic stability (type I) is that crisis stability could be undermined by increasing the potential to disrupt nuclear command and control.[44] Larger investments in kinetic and nonkinetic anti-satellite weapons—such as directed energy weapons—could have a similar effect.[45] While useful in a conventional warfighting scenario, they would be difficult to differentiate from actions intended to disrupt nuclear command and control.[46]

Speed. The increased speed of hypersonic weapons and of AI or autonomous weapons adds an additional stressor. Speed might matter offensively, as would be the case with hypersonic weapons, or defensively, as with AI-assisted missile defenses that can undermine strategic stability (type I).[47] The latter would affect both a nation's confidence in its secure second-strike capability (necessary for arms race stability) and its ability to make decisions needed for crisis stability.[48]

Specific Russian Trends

From a European perspective, these trends interact with Russia's increased reliance on nuclear weapons under Putin and the likely effects of the war in Ukraine on Russia's further decline.

Growing Role of Coercion

Over the past twenty years, Russia has increasingly resorted to both implicit and explicit threats of the use of nuclear weapons. This more coercive approach is not strictly in line with how its nuclear doctrine was understood.[49] Throughout the past decade and a half, many experts believe that Russian planners pursued an "escalate-to-de-escalate" nuclear strategy.[50]

By raising the specter of the limited use of tactical nuclear weapons in the opening stages of a conflict with NATO, Russia sought to prevent the reversal of its expected gains.[51]

Nuclear threats have also been central to Russian behavior during the war in Ukraine as a way to deter direct NATO involvement.[52] The annexation of Ukraine's Donetsk, Kherson, Luhansk, and Zaporizhzhia oblasts created a pretext for Russia to more credibly threaten to escalate to nuclear weapons. The importance of nuclear coercion is likely to increase proportionate to the decline of other Russian means of influence, whether the credibility of its conventional armed forces or its ability to blackmail Europeans with withholding its oil and gas supplies (the so-called energy weapon).[53]

Concerns about Russian Capabilities Post-Ukraine

In addition to increasing its reliance on threats of nuclear escalation, during and after its war with Ukraine Russia may also be more likely to escalate conflicts. Revanchist sentiments among Russian leaders are likely to increase, especially if Russia suffers a military defeat in Ukraine; conversely, a Ukrainian defeat could embolden them. More points of contact exist as the inclusion of Finland into NATO, and soon Sweden, brings the alliance closer to the Russian Kola Peninsula. Most of the nuclear arsenal crucial for Russia's second-strike capability is located on the Kola Peninsula, along with many of its nonstrategic nuclear weapons.[54]

Russian leaders and experts already fear that the security of their second-strike capability has been weakened.[55] Developments of particular concern to them are space weapons, precision strike (including hypersonic) capabilities, missile defense, cyber weapons, non-U.S. nuclear weapons, and nonstrategic nuclear weapons. The central Russian concern is that U.S./NATO "aerospace" capabilities will allow the West to bypass Russian air and missile defenses, thus leaving it vulnerable to a nuclear or conventional counterforce attack.[56] Russian concerns also center on the increased U.S. missile defense capabilities made possible by Washington's 2002 withdrawal from the ABM Treaty. Furthermore, the U.S. investment in the Prompt Global Strike program prompted a particularly strong reaction.[57] Finally, Russian planners fear the capability of the United States and NATO to disrupt and destroy the nuclear C3I infrastructure through anti-satellite weapons and cyber weapons.[58]

European Needs and Strategic Stability

The European approach to arms control is ill-suited to address these trends. In the European context, arms control and nonproliferation were often presented as ends in and of themselves, with Europeans taking an

explicitly multilateral approach. Multilateralism worked out particularly well within Western Europe during the Cold War, and then to deal with a reunified Germany and the addition of multiple former Warsaw Pact states to the European Union. The relief that followed the fall of the Berlin Wall and the dissolution of the Soviet Union was immense, and together with the limits imposed on European power and autonomy during the unipolar era, the end of the Cold War arguably led to the deep institutionalization within Europe of multilateralism as an approach that relied less on raw power. Europeans then hoped to reshape how international politics writ large were performed.[59] Arguably, the European multilateralist approach to nonproliferation contributed to strategic stability (type I).

However, the European use of multilateralism was also intended to achieve broader systemic effects that fall under strategic stability (type II); for example, by creating other mechanisms for mutual accommodation so as to dampen the likelihood of revisionism. In that sense, arms control and confidence-building measures such as the Helsinki Accords and the Organisation for Security and Cooperation in Europe Vienna document that aimed to increase transparency, including with regard to conventional forces, were successful in facilitating the peaceful end of the Cold War. Arms control and nonproliferation clearly helped to safeguard the achievement of the first stable peace in Europe for a century. They ignored, however, the gradually deteriorating state of European and global security. Russia's invasion of Ukraine has definitively dispelled the particular illusion that Europe had found a definitive way out of its violent history.

The European approach to multilateralism as an end in and of itself was also intended to distinguish it from the increasingly unilateral approach adopted by the United States in the twenty-first century. The George W. Bush administration withdrew the United States from the ABM Treaty and invaded Iraq—ostensibly to preempt the reemergence of the Iraqi nuclear program. Washington then also pursued measures to prevent rogue actors from accessing nuclear material, for example, through the Proliferation Security Initiative, which looked to interdict and seize materials shipped to states and nonstate actors of concern.[60] Europeans, by contrast, focused efforts on containing Iran's uranium enrichment program by offering economic incentives, to considerable success. In response to the unilateralism of the George W. Bush years, "effective multilateralism" emerged as a popular slogan in European diplomatic circles.[61] U.S. policy under President Trump further undermined European attempts at multilateralism. The Trump administration withdrew the United States from the INF Treaty after Russia's violation, as well as from the Open Skies Treaty. The Trump administration then unilaterally violated the Joint Comprehensive Plan of Action that the three major European powers—the United Kingdom,

France, and Germany—and the EU as an institution had put a great deal of effort into initiating. The Missile Technology Control Regime (MCTR) and restrictive export control policies have arguably still worked to slow down the proliferation of ballistic missiles; however, thirty-one states and nonstate actors possess or can produce such missiles.[62]

A tension has thus evolved between the arms control approaches of the United States and Europe. U.S. interests in arms control to manage the competition with the Soviet Union and then Russia have always, with some partial exceptions, mixed the need to maintain a qualitatively superior edge and have the freedom to maneuver during escalation. The partial exceptions are associated with the Obama and Biden administrations. In his 2009 Prague speech, Barack Obama explicitly iterated his preference for a world without nuclear weapons—not a new notion per se but one that seemed to point to disarmament. Then, as a candidate, Joe Biden pushed for a No First Use pledge from the United States, though this seems to have fallen by the wayside once he was in office. Official U.S. policy has remained essentially unchanged, however.

The U.S. nuclear posture was and is strongly shaped by America's status as a guarantor of extended nuclear deterrence to allies in Europe, Asia, and elsewhere. Consequently, the United States maintains a first-use nuclear doctrine.[63] Even during periods of ostensible great-power peace and stability in the 1990s and early 2000s, the United States continued to pursue damage limitation strategies.[64] U.S. allies remain concerned that Washington will not be able to fulfill security guarantees if the United States cannot credibly threaten to escalate (or "to escalate sufficiently") before or during the initial changes of a conventional conflict. Whether proliferation can continue to be inhibited without U.S. extended nuclear deterrence is questionable. When President Trump proved hostile to alliances and questioned the nonproliferation norm, discussions about indigenous nuclear programs emerged among Washington's European and, especially, Asian allies.[65]

Thus, so long as the United States plays an extraregional hegemonic role, it will, from the point of view of the other great powers, undermine strategic stability (type II). This creates incentives for Russia and China to offset U.S. conventional and nuclear preponderance with their own advanced conventional weapons, by exploring emerging technologies, and, in the Russian case, by ensuring a flexible nuclear arsenal with a variety of yields that gives it options to escalate, or, in the Chinese case, by improving the security of its second-strike capability. In turn, the United States considers greater flexibility in its arsenal to be important to managing asymmetries at the regional level.[66]

European approaches to arms control start from a different point. Undermining the credibility of the U.S. extended deterrence guarantees is not

in European interests (or those of America's Asian allies). Nor is taking European states that participate in NATO nuclear sharing—Germany, Italy, the Netherlands, and Belgium—out of the sharing arrangement, nor is it for the European member states to leave NATO's Nuclear Planning Group. However, Europeans face different stakes, as Russian attempts at nuclear coercion are far more likely to be directed at targets on European territory.

Because Russia's invasion of Ukraine has created a new context, the European multilateralist approach is likely to be dead on arrival—at least toward Russia. (It remains an option for Europeans if and when they seek to engage with China, for example on emerging technologies.) Russia is unlikely to be open to multilateralist approaches as long as the regime perceives itself to be locked in a struggle for its own survival or (perhaps) even the survival of Russia as a state. Therefore, Europeans could consider other, less-cooperative approaches to arms control and engagement with Russia as they reinforce their collective defense and deterrence capabilities through increased defense spending.

With the tottering position of New START and no progress on its renewal, limits on Russia's deployed warheads are effectively no more.[67] However, because, from a European perspective, New START largely focuses on strategic weapons, the loss of risk reduction measures and transparency is particularly worrying. The end of the ABM Treaty and the slow buildup of missile defenses in Europe have undermined Russian confidence in the security of their second-strike capability. Putting the genie back in the bottle through a new treaty curbing ballistic missile defenses would be difficult given the benefits of the same missile defenses to defend against conventional strikes.

With the collapse of the INF Treaty in 2019, any constraints on Russian ability to build land-based launchers for medium-range weapons (short-to-medium ranges of 500–1,000 kilometers and intermediate ranges of 1,000–5,000 kilometers) have been removed. This is particularly relevant for Europe as most European states are less than 5,000 kilometers from a Russian border. States seeking to defend against the launch of such missiles would face very short reaction times, a fact that would increase fears during a crisis. The MCTR continues to limit the proliferation of ballistic missiles to some extent but does not address the development of dual-capable hypersonic weapons.[68] Yet, it is the one arms control measure still in place that seems to enjoy some Russian support.[69] The loss of the CFE Treaty removed limits on conventional buildups, which may become less of an issue as Europeans rebuild their armed forces in the wake of Russia's invasion of Ukraine.

Before its invasion of Ukraine, Russia had signaled its willingness to engage in a theater-based arms control approach that would address some

of the gaps regarding ground-launched missiles in the short to intermediate range.[70] Russia also expressed a preference for including France and the United Kingdom in any discussions on arms control.[71] U.S. willingness to participate ended with the invasion of Ukraine. However, both the Trump and Biden administrations looked to expand New START to include nonstrategic weapons.[72] As Russia has the advantage in nonstrategic weapons and is itself focused on U.S. strategic weapons, such an approach would be difficult.

Ideally, Europe would need any future arms control regime with Russia to address 1) the short-to-intermediate-range missile threat, either banning them outright or addressing them through caps; and 2) low-yield, so-called tactical nuclear weapons. Moreover, given uncertainty about the capabilities of the Russian military after the Ukraine war, any military-to-military contacts that boost transparency would, again ideally, help to diminish the chances of misperception and aid in risk reduction.

European Support for Arms Control after Ukraine

Despite the obvious need to reinvigorate the arms control regime to address growing strategic instability (type I) within Europe, a need that has become all the more acute following Russia's 2022 invasion of Ukraine, Europe arguably has little appetite right now to invest political resources in the arms control process—at least while Russia still occupies Ukrainian territory. Moreover, some Europeans believe that achieving strategic stability (type II) will require Russia's eventual reintegration into a European security architecture, while others believe that the only route to long-term strategic stability (type II) is for Russia to be weakened for the foreseeable future, even if that promotes short-term instability. For West European states that are further removed from Russia's conventional threat but not its nuclear threat, the nuclear challenges arguably have greater priority in the short term. For Central and East Europeans, more proximate both to the Russian threat and to historical memories of Russian aggression against them, the long-term weakening of Russia remains the priority.

Neither view regarding the desirability of engaging Russia is disconnected from the risk of nuclear weapons inherent to strategic stability (type I). As long as Russia exists as a threat to the Central and East European states and can reinforce that threat with nuclear weapons, no real stability can be possible in the long term. Alternatively, if Russia—or the current regime—perceives mounting threats to be existential, it could opt to use nuclear weapons in the short term to diminish NATO pressure. Such an outcome could be deliberate—particularly if it involves the use of tactical nuclear weapons—or inadvertent, the result of misperceptions about NATO conventional actions. Attempting to address strategic stability (type

II) concerns with Russia is also likely to be of dubious efficacy. That any outcome could satisfy Russia's (or the current regime's) designs on what it considers its sphere of influence is unclear. Moreover, any long-term settlement acceptable to Europeans seems impossible to achieve with the Putin regime—and uncertain with its eventual successor. That is, the two European perspectives weigh the relative risks of strategic stability at levels (I) and (II) differently.

The way forward for European arms control—if any option exists—is thus not obvious. The lowest-common denominator between the two perspectives is to prevent a Russian victory in Ukraine, but Europeans disagree amongst themselves on how extensive a Russian defeat would need to be, and, as the war drags on, the willingness within Europe to support negotiations and accept Ukrainian territorial concessions may diverge. Likewise, Europeans are broadly in agreement on the need to reinforce conventional deterrence and defense after the three-decade-long "geopolitical holiday." Still, at the time of writing, they disagree on how this should happen. Should a defense buildup be centered exclusively on NATO, or should it include the EU too? Should a military buildup emphasize short-term, off-the-shelf U.S. armaments, or should Europe prepare for long-term autonomy by increasing its defense-industrial complex? In response to the deteriorated European security situation, France has explicitly called for European involvement in arms control talks with Russia, and President Emmanuel Macron has made overtures to the EU's skeptical Central and East European member states.[73]

On or Off the Sidelines

Europe faces difficult and limited options for reinvigorating the arms control regime. This may prove particularly problematic for the issues of instability with Russia that most affect Europe. With "effective multilateralism" rendered moribund for the foreseeable future, with uncertainty regarding the direction of American politics, with China's reticence to engage with the United States, and with Russian aggression on its borders, Europe should be more proactive. I suggest three prospective avenues, none of which are straightforward. They would, however, put into practice the arguments made in Europe about the need to achieve greater strategic autonomy and to take on greater responsibility.

Europe–United States

Europeans should make arms control and strategic stability one of the priorities of the transatlantic relationship. Europe's inability to maneuver

freely in the arena of arms control results from its structural dependency on the United States for security and intra-European divisions that limit progress on security and defense. However, with the United States now preoccupied by the rise of China and the Indo-Pacific region more broadly, not to mention its domestic divisions, interests on both sides of the Atlantic would be served by a redistribution of existing burdens. A transatlantic redistribution of burdens would require the Europeans to take on greater responsibility for their own security, which would require strengthening their conventional deterrence as well. The alternative is a fractured Europe in which states that feel threatened by Russia and its weapons will make greater demands on the United States or pursue their own nuclear deterrent capabilities. The European dependency on the United States is also institutional, as thanks to decades of underinvestment in nuclear issues and arms control, the epistemic community has shrunk. Structural investment in rebuilding a critical mass of scholars and experts on both sides of the Atlantic is necessary. NATO could potentially take the lead in engaging both Russia and China. Europeans wield significant influence in the Atlantic alliance, and the U.S. presence adds credibility and weight.

Europe-China

Europe may be able to act as an interlocutor for Chinese strategic stability and arms control measures, preparing the way for a more comprehensive approach between China and the United States.[74] As a disinterested—or at least less directly involved—party that does not from the Chinese perspective undermine strategic stability (type II) to the same extent, Europe could possibly play this role by leaning in on its economic and institutional engagement with China. The EU is arguably the right body to engage with China, though the United Kingdom should also be included for reasons of both political weight and its status as Europe's second nuclear-armed power. NATO, too, might be able to facilitate the establishment of concrete rules of the road with China for emerging technologies.[75] While the Europeans could lead the initiative, NATO, because it is an alliance that includes the United States, would have the advantage of greater credibility, potentially leading to positive spillover into other areas of contention between China and the United States. If China and the United States were able to create more strategic stability (type I) between them in the Western Pacific, the United States would have more room to maneuver as it seeks to engage with Russia in Europe.

However, whether Europe can play a role facilitating agreement between the United States and China regarding arms control and confidence-building measures is questionable, as European states are themselves

becoming more directly involved in the Sino-American competition. The increasing European naval presence in the Indo-Pacific region and Europe's participation in the export controls on advanced technology transfers to China (albeit under pressure from Washington) limit the likelihood of its long-term trust-building efforts achieving success, as does the increasing Chinese belligerence in the region and toward European states. That said, expanding exchanges between the Chinese and European expert communities might be one way to understand how to dampen the escalatory pressures inherent to the current bloc-forming dynamics.

Europe-Russia

In response to the increased uncertainty regarding the role of the United States in Europe, Europeans need to build the means to engage directly with Russia on arms control. After all, they have the most to lose from Russian aggression and Russia's buildup of short-to-intermediate-range missiles and low-yield nuclear weapons, but Europeans will struggle to have any direct impact on the progress of bilateral Russian-U.S. arms control for three reasons.[76] First, so long as Russia seeks to address its own strategic stability (type I) concerns, it is likely to prefer to talk exclusively with the United States because the United States has most of the capabilities that unsettle Russia and because dealing with the United States on equal footing allows Russia to signal its own great-power status.[77] While Russia's belligerence toward NATO and aggression against Ukraine are overdetermined by a variety of issues—from security concerns about NATO enlargement to domestic Russian politics—a significant part of recent Russian behavior was shaped by the loss of prestige and status after the end of the Cold War.[78] The nuclear card still remains the strongest card Russia has left to play and it represents the one dimension of power in which it has no equal outside the United States. A second reason European efforts to influence Russian-U.S. arms control may prove ineffective is that the Russian government may generally be less able to engage in discussions with either Europe or the United States, as the cadre of competent arms control experts and negotiators on the Russian side has declined. Finally, Russia's concerns are centered on strategic stability (type II). Essentially, Russia's focus is on its status in Europe, the threats it perceives from the expansion of NATO and the EU to its border, the operations of nongovernmental organizations in Russia that it fears were undermining the regime as had happened in Ukraine and Georgia previously, the decline of its perceived sphere of influence, and the uncertain status of Ukraine.[79]

The last point is particularly difficult; officials and arms control experts in Europe do not agree on what if anything could be offered to Russia that

would satisfy or even minimally address Russian concerns at the level of strategic stability (type II). Many Europeans do not view Russian concerns as legitimate and would have more difficulty still accepting Russian assurances as credible. European willingness to accommodate Russia on broader political concerns is thus extremely limited for the foreseeable future, certainly so long as Putin remains in power. Even given these conditions, the European willingness to discuss arms control with Russia on strategic stability (type I) concerns, specifically risk reduction and arms control, is arguably greater than the willingness on the part of Russia to talk with the Europeans—even when accounting for the extreme skepticism that any such efforts would encounter from NATO and the EU's East European member states.

Rather than taking a multilateralist cooperative approach centered on making gains in strategic stability (type II), Europeans could take an approach that instead focuses on using Russian insecurities and fears about the security of its second-strike capability and which belong to instability (type I). Such a European approach would build on the Cold War history of competitive approaches to arms control. The Strategic Arms Limitations Treaty (SALT) worked because U.S. negotiators were willing to accept quantitative limits because of their arsenal's qualitative advantages and their Soviet counterparts' ability to rely on the quantitative advantages of *their* arsenal.[80] The NATO "doubletrack" decision counted on the placement of short-to-intermediate-range missiles as one track to open negotiations with the Soviet Union on its own missile placements.[81]

A competitive European approach would be premised on using the increasing investments in defense already underway as a consequence of Russia's war in Ukraine to build capabilities that would further unsettle Russian confidence in the security of its second-strike capability. Unlike its Cold War antecedents, a current-day European approach would depend on advanced conventional weapons that, by making use of significant gains in precision and destructiveness, are suitable for strategic purposes.[82] Adding new nuclear powers to Europe or significantly expanding the French and UK arsenals by adding new types of delivery systems or new variations in warhead yields would likely be significantly destabilizing.[83] At present, neither the French nor the British arsenal is designed for active warfighting and essentially contains no nonstrategic weapons.[84] An approach that relies on a European assortment of advanced conventional weapons that could achieve strategic effects would require Europeans to take an explicitly strategic perspective as they invest in arms acquisitions, which, at least among the EU member states, could be framed as strategic autonomy, strategic responsibility, or sovereignty in action.

A European competitive approach based on advanced conventional weapons would need to meet three criteria. First, weapons would need to

be scalable, countable, and thus verifiable if they are to be conducive to mutually agreed limits, reductions, and transparency. Second, weapons acquisitions would need to be planned to allow Russia sufficient time to respond. A gradual buildup that suggests a slow but sure decline in the Russian position over one to two decades is likely to be more effective than presenting Russia with a sudden reality and dichotomous choices. Third, weapons acquisitions must not directly threaten the survival of the Russian regime. Using these criteria, Europe should consider investing in three broad categories of advanced weapons that are likely to incentivize Russia to negotiate: 1) advanced airpower, specifically stealth and low-altitude flight; 2) high-precision conventional weapons such as cruise missiles and hypersonic weapons; and 3) missile defense.[85]

As Europeans set their priorities for arms control agreements or measures with Russia, their most urgent goals are to readdress the short-to-medium-range missiles and conventional forces previously covered by the INF and CFE Treaties. However, the European states are not likely to be unified on which approach to emphasize. For the West European states, the ground covered by the INF Treaty is arguably more important; the Central and East European states are likely to care more about managing potential conventional imbalances closer to their borders.

European defense investments that focus on building more robust conventional deterrence options also make sense in light of the wider, strategic stability (type II) consequences of the U.S. focus on the Indo-Pacific region and military competition with China. Should the U.S. commitment to European security grow less firm as a consequence of the demand on U.S. resources in the Indo-Pacific region, or as a consequence of U.S. domestic instability, then a revanchist Russia might rely even more heavily on its nuclear coercive threat to readjust the European status quo and pursue its revanchist ambitions. As long as the United States perceives deterrence gaps in the European theater, it is likely to compensate through nuclear means.[86] For these reasons, investments in advanced conventional weapons—that is, the expansion of European capabilities to allow deterrence through denial—can contribute to stability in European security.[87]

Conclusion

The European arms control regime is in bad shape. Russian nuclear belligerence has grown in recent decades, culminating in the invasion of Ukraine, and, aided by wider global trends, resulting in the destabilization of European security. European approaches that focus on multilateralism to strengthen stability at the political level (strategic stability type II) are not likely to be effective in the face of 1) the undermining of arms race and

crisis stability within strategic stability (type I) by nuclear multipolarity and emerging technologies; and 2) the reemergence of challenges to the status quo by Russia and China in Europe and Asia that undermine strategic stability (type II).

Russia is unlikely to emerge from the war satisfied with its status, even if it prevents Ukrainians from retaking their lost territories. As Russia can be expected to become more reliant on its nuclear threat, few options for cooperative engagement remain. More important, Europeans, especially those in Central and Eastern Europe, will have no appetite for offering political concessions to Russia. The increasing U.S. focus on the Indo-Pacific region and on trilateralism with Russia and China as a condition for arms control further risks sidelining Europe. Given the European need to limit the threat of Russian short-to-intermediate-range nuclear weapons, Europe has few options to shape the situation. Yet, Europeans could ensure that arms control becomes a central issue in transatlantic relations in the medium term and could attempt to use their multilateralist approach to engage China in the hopes of dampening the escalatory pressures in Asia. Beyond contributing to a general public good, European engagement with China may also provide the United States with more maneuverability in Europe in finding agreement on arms control with Russia.

Finally, Europeans could consider a more independent approach and use their ongoing investments in conventional defense and deterrence to strengthen their ability to pressure Russian delivery systems in a transparent and gradual way. While not without risk, such an approach could incentivize Russian negotiators to talk with Europeans to ensure that their most important remaining strategic and coercive tool does not further depreciate in value. Whatever actions Europeans end up taking, they should be made in the full awareness that they need to take greater responsibility for their own security in the new geopolitical context, and this includes taking an active role in the European and possibly the global arms control regime.

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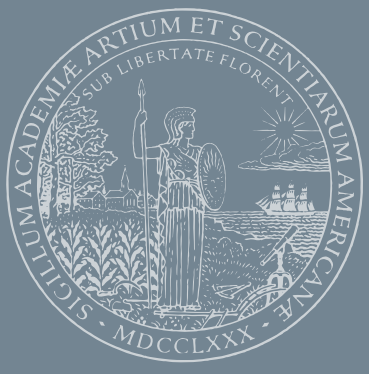

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