Cooperation under Asymmetry? The Future of US-China Nuclear Relations

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Warning signs that nuclear weapons could become a key component of US-China competition have appeared in the last two years, after those weapons have remained firmly in the background of the relationship for decades. On October 1, 2019, China showcased a series of sophisticated nuclear missiles as the finale to its military parade commemorating the 70th anniversary of the founding of the People’s Republic. In April 2020, the United States insisted on Chinese participation in trilateral negotiations with Russia about a future nuclear arms control agreement. Chinese officials flatly refused to participate. In May 2020, an op-ed by the editor of the Global Times, a Chinese tabloid known for its hardline, nationalistic editorial line, called for China to increase its arsenal size. US officials seized on the op-ed as evidence that China was planning a sprint to nuclear parity with the United States and Russia. In China, the op-ed sparked public debate and a vocal defense of the adequacy of China’s small arsenal by a recently retired Chinese People’s Liberation Army (PLA) nuclear researcher.
The US-China nuclear relationship is likely to remain in the spotlight in the years ahead. Increasing tensions between Beijing and Washington in the past few years, coupled with the unraveling of US-Russia arms control and slow-moving modernization of both countries’ arsenals, have accentuated longstanding nuclear risks in the relationship. US-China crisis stability (the lack of incentives for nuclear use in a crisis or conflict) and arms race stability (the lack of incentives to increase arsenal size, diversity, or sophistication) have stood on tenuous ground for at least a decade because of five asymmetries in the US-China relationship identified in this article: alliances, geography, conventional military power, nuclear posture, and non-nuclear strategic weapons.

The arms build-up and harrowing nuclear crises of the first half of the Cold War demonstrate that asymmetries create incentives for arms racing and the use of nuclear weapons in a crisis or conflict. The Cold War also suggests that asymmetries impede cooperation to reduce nuclear risks, especially in arsenal size. The asymmetry between the US and Soviet arsenal sizes was fading fast by the time they began to negotiate nuclear arms control treaties in 1969.5

Washington and Beijing can and should strive to avoid the pathway to nuclear risk reduction riddled with crises and arms-racing trod by the Cold War superpowers. But symmetry in the US and Chinese nuclear arsenals is both unlikely in the near term and undesirable. Chinese and US leaders will therefore need to be more creative about the conditions that get them to the bargaining table in a position of rough equality. Three “C’s” might enable them to pursue mutual interests in reducing nuclear risks despite the asymmetries in their relationship: combining some non-nuclear issues with nuclear ones, compartmentalizing other aspects of the relationship from nuclear relations, and compromising on some of their bargaining advantages. The task of parsing which of the non-nuclear issues are essential to nuclear risk reduction and which political and military issues in the relationship would be unnecessary obstacles to reducing those risks is a challenging but essential aspect of the three “C’s” approach.

This article begins by sketching out the changing context of US-China strategic stability. It then describes each of the asymmetries in the relationship and explains how they contribute to nuclear crisis or arms race instability. After a brief overview of the two countries’ mutual interests in nuclear risk reduction, it outlines three principles that could unlock the door to US-China cooperation to address those risks.

A Changing Landscape

A more contentious US-China political relationship has coincided with unrelated trends in nuclear politics to accentuate longstanding concerns about
nuclear risks in that relationship. Intensifying US-China competition undermines both countries’ trust in each other’s assurances about their defensive nuclear intentions and encourages worst-case interpretations of each other’s behavior. US-China competition is playing out across all aspects of the bilateral relationship, from technology supply chains to international organizations and military capabilities. The 2017 US National Security Strategy proclaimed that “China seeks to displace the United States in the Indo-Pacific region, expand the reaches of its state-driven economic model, and reorder the region in its favor.” The 2019 Chinese defense white paper countered that the United States “is engaging in technological and institutional innovation in pursuit of absolute military superiority.” Both countries perceive each other’s nuclear postures and policies through this competitive lens.

The United States and China also view each other as more likely to jettison policies of nuclear restraint because of their recent willingness to abandon longstanding principles in other areas of foreign policy. The US government’s relaxation of rules on official communications with Taiwan in 2021 might add to Chinese expectations that self-imposed limits on the US missile defense architecture will be similarly relaxed. China’s about-face on its stance against the deployment of military forces abroad in 2017, when it established a military base in Djibouti, could give the United States additional reasons to anticipate that China’s nuclear no-first-use policy will suffer a similar fate.

US-Russia arms control has unraveled in recent years, which increases China’s wariness of nuclear agreements with the United States and adds to anxieties about the adequacy of its nuclear arsenal. Pointing to Russian treaty violations and the lack of constraints on Chinese land-based theater-range missiles, the United States pulled out of the Intermediate Nuclear Forces Treaty (INF) in 2019. In 2020, the Trump administration withdrew from the Open Skies Treaty, which permitted the United States and Russia to fly over each other’s territory to verify that no military preparations for an attack are underway. It initially insisted on Chinese participation in strategic nuclear arms control as a pre-condition for extending the existing New START treaty until 2026 and negotiating a follow-on treaty to replace it. Given the lack of a concrete US proposal for trilateral arms control taking into account the discrepancy in arsenal sizes between China, the United States and Russia, the demand for Chinese participation seemed more like an excuse to weaken US-Russia arms control than a genuine effort to engage China.

US interest in engaging China in arms control is likely to endure. The Biden administration extended the New START treaty in its first days in office without...
Chinese participation, but has also indicated its desire to “pursue arms control to reduce the dangers from China’s modern and growing nuclear arsenal.” Trust in the United States as an arms control partner will take time to rebuild, even with the Biden administration’s greater commitment to such agreements. In October 2020, the Director-General of the Arms Control Department at China’s Foreign Ministry, Fu Cong, remarked, “the fact that the US has withdrawn from all these arms control treaties and international agreements has seriously undermined the credibility of the United States as a negotiator.”

China and the United States are both in the midst of modernizing their nuclear arsenals and adding capabilities that concern the other. In the early 2010s, the United States embarked on a US$1.2 trillion nuclear modernization program over the next three decades. More recently, the United States has enhanced its non-strategic nuclear weapons, primarily to deter a perceived Russian willingness to use nuclear weapons first in a limited manner. The 2018 Nuclear Posture Review called for low-yield, submarine-launched “supplemental capabilities” to enhance US options for limited nuclear strikes. The United States has also enhanced its missile defense capabilities, primarily to counter North Korean nuclear missiles. It plans to increase the number of its ground-based mid-course interceptors for homeland missile defense from 44 to 64, indicated that it would study options for space-based missile defense, and tested its SM-3 Block IIA interceptors on an intercontinental ballistic missile (ICBM) for the first time. The US modernization plan, supplemental capabilities, and growing homeland missile defenses are frequently cited by Chinese experts as evidence of a destabilizing US pursuit of nuclear superiority.

Five aspects of China’s nuclear modernization, coupled with a perception of more assertive Chinese behavior, generate concern in the United States. First, China has deployed two new ICBMs, the DF-41, China’s first road-mobile missile armed with a multiple independently targeted reentry vehicle (MIRV), and the DF-31AG, a delivery system with improved mobility that is believed to carry a single warhead. Second, China has fielded a new, more accurate and mobile intermediate-range ballistic missile (IRBM), the dual-use DF-26. The US government also worries that China is exploring the option of fielding low-yield nuclear warheads in the future. Third, China is moving toward a full nuclear triad for the first time, although its air and sea legs are much less survivable than its land-based missile force. Fourth, the Pentagon estimates that China’s current stockpile of 200–300 nuclear warheads will at least double as these new delivery systems are fielded. Fifth, China is acquiring
capabilities that could enable it to shift to a launch-on-warning alert status in the future. It has received Russian assistance with its early warning system and is building out a space-based early warning architecture. US reports and officials indicate that China might already keep some portion of its nuclear force on day-to-day alert. These capabilities developments are fueling concerns that China is moving away from its nuclear no-first-use policy and retaliatory posture because they give Beijing better options to threaten nuclear first use. But many aspects of China’s arsenal modernization pre-date Beijing’s more ambitious foreign policy in recent years and reflect concerns about the adequacy of China’s retaliatory force five to ten years ago. Other developments, such as its intermediate-range DF-26 missile and nuclear-capable bombers have a range of applications, which include conventional and nuclear retaliatory strikes, as well as limited nuclear first use. Organizational efficiencies and inter-service competition also play a role in China’s pursuit of these new systems.

Asymmetries and Instability

A changing political and nuclear landscape has accentuated longstanding risks of nuclear arms racing and use in a conflict resulting from five asymmetries in the US-China relationship: alliances, geography, conventional military power, nuclear posture, and non-nuclear strategic weapons postures. Asymmetries in alliances and geography contribute to an asymmetry in the stakes of a future conflict, which states might compensate for with capabilities that lower the cost of the conflict. Asymmetries in capabilities and stakes create incentives for the first use of force in a crisis or escalation of a conflict, whether to demonstrate resolve, make use of bargaining advantages at higher levels of conflict intensity, or preempt an adversary’s use of force. Asymmetries in capabilities also create incentives for arms racing, whether to retain a retaliatory capability, improve an advantage, or eliminate a disadvantage. The experience of the Cold War suggests that Washington and Beijing will have difficulty managing nuclear risks while these asymmetries persist.

Alliances

The United States extends nuclear deterrence to geographically distant allies both to protect them and to prevent them from seeking nuclear weapons of
their own, while China’s nuclear weapons are only intended to deter attacks on the PRC. A US-China conflict is most likely to begin as a conflict between a US ally (or Taiwan) and China. Japan and the Philippines have maritime territorial disputes with China. China’s goal of reunification with Taiwan is inconsistent with the island’s survival as a de facto independent state. While South Korea has no direct conflict of interest with China, Beijing’s interest in the fate of North Korea could also trigger a US-China conflict.

This asymmetry in Chinese and American alliance commitments contributes to an asymmetry in stakes for the United States and China in any East Asian conflict. US interests in that conflict would be indirect and diffuse, to preserve its alliance system and the international rules it has created. China would have direct and specific interests in the contested territory. Any US nuclear threats to protect an ally in a conflict with China could therefore lack credibility to China or the ally. The United States has relied on superior capabilities—conventional military preponderance and a large, diverse nuclear arsenal that limits damage to the US homeland—to compensate for this credibility shortfall in its extended deterrence guarantees in the post-Cold War era. China has no extended deterrence commitments that would benefit from a nuclear damage limitation capability.

By contrast, both the Soviet Union and United States had extensive alliance commitments during the Cold War. Both used their nuclear arsenals to defend allied territory and prevent proliferation. In Cold War Europe, the stakes for both sides were more specific and direct than current US interests in East Asia. US strategists argued that Soviet domination of Western Europe would enable it to project power across the Atlantic Ocean and threaten the US homeland. Protecting Western Europe from Soviet predation was viewed as a question of US survival. While US officials emphasize the strength of US interests in Asia, strategists have not made analogous survival arguments that US East Asian allies need to be protected from Chinese domination in order to protect the US homeland.

Geography
If a US-China conventional conflict occurred, the United States would have to project power into East Asia from an ocean away to fight China in its backyard. China would have a “home court advantage” in a future conventional war in East Asia because of its large landmass and proximity to a conflict taking place in the Taiwan Straits, Korean Peninsula, South China Sea, or East China Sea. But China is also much more likely to suffer damage to its homeland. US conventional military concepts for operations against China tend to emphasize the need to neutralize its geographic advantages by attacking Chinese weapons, sensors, and
their supporting infrastructure and logistics networks located on the mainland.\textsuperscript{34} The PLA has no equivalent conventional warfighting concept to disarm US conventional power projection capabilities with strikes on the continental United States.

Together with the alliance asymmetry described above, this geographical asymmetry also contributes to the asymmetrical stakes in China’s favor in the event of a future US-China conflict.\textsuperscript{35} China has more to lose than the United States in a future US-China war that remained conventional only, at least in terms of the damage that the PRC and US homelands would likely suffer. A large-scale conventional conflict could cause widespread civilian casualties in China and significant damage to its cities and infrastructure. The United States might suffer damage to its regional bases, navy, and air force, which would damage its great power status in the Western Pacific but not its homeland. The United States might therefore be perceived as less willing than China to accept high costs and risks to defend its aims in a US-China war.\textsuperscript{36} The United States has compensated for these asymmetrical stakes with a more capable nuclear arsenal and conventional military than China and a conventional military doctrine that accepts a higher risk of nuclear escalation.

The United States faced a similar geographic asymmetry during the Cold War. Washington’s perception of the defense of Western Europe as a survival issue for the US homeland attenuated the effects of geographical asymmetry on the stakes of a US-Soviet conflict. But the geographical asymmetry still produced an asymmetry in conventional military doctrine. The Soviet Union’s home court advantage equipped it with a formidable conventional military option to protect its Warsaw Pact allies, maintain communist rule in those countries, and threaten Western Europe. Lacking equivalent conventional military power on the European continent, the United States relied more heavily on rapid escalation from conventional to nuclear war to protect its NATO allies.\textsuperscript{37} In East Asia today, the United States has been better able to counter China’s home court advantage with conventional military power, but the geographical asymmetry contributes to a stakes asymmetry that the United States did not need to compensate for in Cold War Europe.

**Conventional Military Power**
The conventional military balance of power continues to favor the United States, despite China’s concerted effort to close that gap in recent years.\textsuperscript{38} Conventional military asymmetry creates incentives for the weaker side to escalate to the first use of nuclear weapons to compensate for its conventional military inferiority.\textsuperscript{39} The conventional balance of power has generated suspicion within the United States that China would threaten nuclear first use to compensate for its
conventional military inferiority if it were headed for defeat in a high-stakes conflict over Taiwan, despite its no-first-use policy. Evidence from Chinese nuclear doctrine and leadership statements suggests that it has rejected that option, although leaders could always change their minds in the midst of a conflict. China instead relies on the threat of non-nuclear strategic attacks—using counterspace weapons, offensive cyber operations, and conventional missiles—to compensate for its conventional military inferiority.

Conventional military asymmetry creates incentives for both the United States and China to escalate the intensity of a conventional conflict in ways that could increase the probability of that conflict going nuclear. The conventionally stronger state might escalate the conflict to exploit that advantage and remove the weaker state’s military options for conventional escalation below the nuclear threshold to force it to give in or go nuclear. The conventionally weaker state has an incentive to use those weapons earlier than it otherwise might, before they are destroyed.

In a US-China conflict, the United States has incentives to attack China’s non-nuclear strategic weapons to remove these intermediate rungs on its escalation ladder. Washington might not be coerced to end the war by these non-nuclear strategic attacks as PLA doctrinal writings anticipate. Either situation would leave Beijing without non-nuclear options to escalate to win a conventional conflict, forcing it to choose between negotiating a settlement without achieving its war aims or nuclear first use. In addition, US expectations that China would use nuclear weapons first could lead Washington to misinterpret Chinese actions, such as sending mobile nuclear forces on deterrent patrols, as preparations for nuclear first use and use its own nuclear weapons preemptively.

The effects of conventional military asymmetry on the risk of nuclear weapons use were more straightforward in Europe during the Cold War than in Asia today. A quantitative conventional military balance favoring the Soviet Union on the Central European Front contributed to NATO’s adoption of a first-use nuclear strategy in the 1950s. Once the Soviet Union achieved an assured destruction capability, NATO deployed non-strategic nuclear weapons and adopted a conventional military strategy that manipulated the risk of nuclear escalation to deter a Soviet conventional invasion of Western Europe. Moscow also had an incentive to preemptively destroy NATO’s non-strategic nuclear weapons early in a conventional conflict. Compared to NATO’s reliance on nuclear escalation, Beijing’s approach to compensating for conventional inferiority with non-
nuclear strategic weapons attacks complicates the nuclear risks created by conventional military asymmetry, but it does not extinguish them.

**Nuclear Posture**

There is a large disparity in the size and sophistication of the US and Chinese nuclear arsenals, which serve different goals in the two countries’ national defense. China’s nuclear warhead numbers are estimated to be in the low 200s today and are expected to double in the future. These warheads are divided among China’s land-based ICBMs, theater-range mobile missiles, and ballistic missile submarines. This small nuclear arsenal is a consequence of the narrow role China’s nuclear weapons currently play in its national defense: to deter nuclear coercion and retaliate for a nuclear attack from one of its nuclear-armed adversaries. There is limited ambiguity in China’s no-first-use policy for situations in which China’s arsenal is attacked with conventional weapons. Some US officials have interpreted that ambiguity as applying to a broader range of situations, which makes the policy so riddled with conditions as to be meaningless. But China’s nuclear arsenal is not currently optimized to make threats of first use credible.

The United States has at least eight times as many deployed warheads as China and retains a large non-deployed warhead stockpile. Approximately 1,550 warheads are deployed to bomber bases, ballistic missile submarines, and silo-based ICBMs on the continental United States, with additional nonstrategic warheads forward deployed in Europe. This arsenal serves a wide range of goals: to deter attacks on US allies, cities, the US nuclear arsenal, and the US military, whether an adversary uses nuclear, chemical, or biological weapons, or non-nuclear attacks with strategic effects. The US arsenal is also designed to limit damage to the United States if deterrence fails.

Asymmetry in nuclear postures creates incentives for both arms build-ups and the use of nuclear weapons in a conflict by the side with superior nuclear capabilities. The United States has an incentive to maintain or enhance the effectiveness of its damage limitation capability by developing more sophisticated counterforce capabilities. China has an incentive to maintain or enhance the effectiveness of its retaliatory capability by increasing the size, survivability, and penetrability of its nuclear arsenal. If Chinese nuclear use appears imminent, the United States has an incentive to preemptively attack China’s nuclear arsenal to limit damage from that strike. China’s recent ICBM modernization has eroded the US damage limitation capability, which has prompted anxiety in some parts of Washington that China could be emboldened in a future conventional conflict. But US nuclear strategists are divided, and Chinese strategists are skeptical, as to whether a larger and more sophisticated
nuclear arsenal gives a state a bargaining advantage against an adversary with second-strike capability.\textsuperscript{58}

Evidence from the Cold War strongly suggests that an asymmetry in arsenal size makes nuclear arms racing and crises more likely. The most dangerous crises of the Cold War, in Berlin and Cuba, occurred before the two powers attained rough nuclear parity. When the United States and Soviet Union began negotiations for their first strategic arms limitation talks (SALT) in 1968, there was still a large disparity in arsenal size: the Soviet Union fielded 9,399 warheads compared to a staggering 29,561 US warheads. The Soviet Union did not achieve quantitative parity in warheads with the United States until 1977.\textsuperscript{59} Nevertheless, in 1969 President Nixon “privately acknowledged upon taking office, [that] nuclear parity had definitively arrived between the superpowers.”\textsuperscript{60} The Cold War experience also indicates that quantitative arms limitations do not prevent qualitative nuclear arms competition, whether for domestic political reasons or because of concerns that a technological breakthrough by one side could imperil the other side’s second-strike capability.\textsuperscript{61}

**Asymmetry in arsenal size makes nuclear arms racing and crises more likely**

**Non-Nuclear Strategic Weapons Posture**

Cyber attacks on strategic military networks and homeland critical infrastructure networks, counterspace weapons, conventional missiles, and missile defense play different roles in US and Chinese plans for achieving their political objectives in a future conflict. These weapons can be used to generate two types of strategic effects: attacks on high value but non-nuclear targets and attacks that diminish another state’s ability to use its nuclear weapons.\textsuperscript{62}

PLA writings suggest that China would use non-nuclear strategic weapons first on non-nuclear but high-value targets to sap US will and damage its military capability to continue fighting a conflict.\textsuperscript{63} The United States has arguably focused more on the applications of cyber attacks, conventional precision strike, and counterspace weapons for operational effects that enhance conventional military outcomes than for strategic effects, but it does also contemplate using these weapons to augment its counterforce capabilities. “Left of launch” conventional and cyber attacks could degrade adversary nuclear capabilities before they are used.\textsuperscript{64} Missile defenses could intercept an adversary’s limited nuclear use or ragged retaliation. Both countries also threaten in-kind retaliation to deter the other from carrying out attacks on space assets and critical infrastructure networks.\textsuperscript{65}
Non-nuclear strategic weapons attacks contribute to nuclear arms race and crisis instability. They could prompt nuclear retaliation if they either inadvertently (in China’s case) or intentionally (in the US case) damage the adversary’s nuclear forces or supporting infrastructure. The United States has explicitly threatened nuclear retaliation for non-nuclear strategic weapons attacks with large-scale effects and attacks on its nuclear command-and-control system. US missile defenses and the prospect of counterforce strikes using non-nuclear strategic weapons have already driven up the number of weapons China believes it needs for a secure retaliatory capability. Offensive cyber operations against nuclear command-and-control information systems could pose particularly serious inadvertent escalation risks.

The effect of non-nuclear strategic weapons on nuclear arms racing and crises during the Cold War were less pronounced than they are today. Cold War-era non-nuclear strategic weapons focused on degrading adversary nuclear command-and-control systems, especially in the 1980s. For example, the United States developed electronic warfare capabilities to spoof and disrupt Soviet nuclear communications. These weapons increased the superpowers’ incentives to use nuclear weapons early in a conflict before their command-and-control systems were degraded. Both sides also hardened their command-and-control systems, which the other interpreted as a signal of counterforce intent rather than an effort to shore up a second-strike capability. Today, increased reliance on computer networks and space-based systems for societal functions and conventional military operations has broadened the impact of non-nuclear strategic weapons on risks of nuclear use and nuclear arms racing.

**Cooperation under Asymmetry**

The Cold War example suggests that US-China cooperation to reduce nuclear risks would be premature because of the nuclear asymmetry. Moreover, it suggests that US-China nuclear risks will get worse before they get better, given all five asymmetries. But the Cold War example obscures the fact that the United States and China already have mutual interests to reduce the risk of nuclear use and arms racing and that history need not repeat itself. China and the United States should explore alternative pathways to the bargaining table that could bypass a dangerous period of crises and arms building analogous to the early Cold War. Cooperation under asymmetry is unlikely to be easy and may not succeed. To have a chance at success, Beijing and Washington require both a strong rationale for cooperating now and a creative vision of how to do so.
Why: Mutual Interests

China and the United States have mutual interests in avoiding an arms race and the use of nuclear weapons in a future conflict. But the desire to preserve their unique bargaining advantages, which are the consequence of the five asymmetries in their relationship, currently stand in the way of pursuing these mutual interests.

Leaders in both countries need to recognize that their mutual interests in avoiding an arms race outweigh the value and durability of their individual bargaining advantages before they can embark on meaningful cooperation. From China’s perspective, an asymmetric balance of nuclear forces with the United States could be stable and acceptable, provided that it retains an adequate retaliatory capability. Chinese strategists believe restraint in arsenal size is in China’s interest. They argue that nuclear arms racing wastes resources, contributed to the collapse of the Soviet Union, and is part of the US playbook for strategic competition with great power adversaries. These views suggest that a formal agreement with the United States might not be needed to stop a Chinese “sprint to parity.” But Beijing has already demonstrated that it will build up its nuclear arsenal if US missile defense and counterforce capabilities diminish its ability to inflict unacceptable damage in a retaliatory strike.

From a US perspective, the advantages of nuclear competition with China need to be weighed against their cost and likelihood of success. There is a view in Washington that the United States would benefit from nuclear competition with China. Special Presidential Envoy Marshall Billingslea claimed that “We know how to win these [nuclear arms] races and we know how to spend the adversary into oblivion.” In peacetime, nuclear competition diverts Chinese resources away from investments in its conventional military capabilities. In a crisis or conflict, maintaining a damage limitation capability could equip Washington with a bargaining advantage. But an arms race would also be costly and could backfire. The United States is unlikely to be able to marshal the resources to outspend China, which is much wealthier than the Soviet Union, and Russia at the same time. US nuclear arms spending would come at an opportunity cost for investments in conventional military power. Nuclear competition could also do more to erode the US damage limitation capability than maintain it. In response to US nuclear competition, China would build a larger, more redundant arsenal and could even expand the goals of its nuclear strategy.

Chinese strategists believe restraint in arsenal size is in China’s interest.
Leaders in Washington and Beijing would also need to be persuaded that their mutual interest in avoiding nuclear use outweighs the deterrence benefits of their current nuclear and non-nuclear strategic weapons postures. Both countries leverage ambiguity over when they might use nuclear weapons to deter each other’s non-nuclear attacks. China leverages ambiguity over its no-first-use policy to deter the United States from carrying out conventional military operations that could damage its nuclear delivery platforms or infrastructure. This ambiguity prompts the United States to anticipate that China will use nuclear first in a wider range of situations than this specific scenario. The United States leverages ambiguity over when it would use nuclear weapons first to deter non-nuclear attacks with strategic effects. Chinese strategists tend to dismiss nuclear retaliation for such attacks as overkill and might be surprised by the severity of any US reaction. To avoid these misperceptions, the two countries would need to forgo some of the deterrence benefits of nuclear ambiguity. Those benefits may not be very substantial, however, as threats of nuclear retaliation for non-nuclear attacks lack credibility.

How: The Three “C’s”

China and the United States have yet to convene official negotiations on nuclear risk reduction because both countries have sought to define the parameters of a dialogue in ways that play to their advantages. The United States has pursued an official strategic stability dialogue with China, focused on nuclear weapons, for a decade. The US-China nuclear asymmetry is an important reason for China’s refusal to engage. Washington has not explicitly acknowledged mutual nuclear vulnerability with China, which has led to suspicion in Beijing that some in Washington intend to neutralize its retaliatory capability.

Concern that Washington might use a dialogue to lock in its nuclear advantages has led Beijing to seek reassurance of US good faith. One type of reassurance that China has sought is Washington’s acceptance of a broader definition of strategic stability that involves “mutual respect.” According to David Santoro and Robert Gromoll, who convened unofficial dialogues in which Chinese participants proposed this formula, US experts understood it to mean “essentially that the United States would accommodate a Chinese sphere of influence in Asia.” Beijing’s request is not acceptable to the United States because it is viewed as an attempt to seek US recognition and accommodation of China’s superior stakes in East Asia, capitalizing on China’s advantages resulting from the alliance and geographical asymmetries in the US-China relationship.
Three principles, or “3 C’s,” could re-define the parameters of negotiations more broadly than Washington’s narrow nuclear focus but more narrowly than Beijing’s broad geopolitical focus, enabling both countries to get to the bargaining table in a position of rough equality.

The first principle is to combine nuclear and non-nuclear strategic weapons in the concept of strategic stability that the two sides would pursue in both their unilateral actions and an official-level bilateral dialogue. The overall balance of these capabilities in the US-China strategic relationship is more symmetrical than just its nuclear component. Non-nuclear strategic weapons give China the ability to hold valuable US targets at risk and compensate for asymmetries favoring the United States in nuclear and conventional capabilities. By recognizing that the two countries’ preferred means of strategic deterrence differ, Washington may be able to signal its acceptance that it cannot neutralize China’s ability to hold valuable US targets at risk, while sidestepping the domestic and allied constraints on US recognition of mutual nuclear vulnerability with China. By placing China on a more equal footing with the United States, the combine principle could facilitate a dialogue to reduce nuclear risks now, rather than in the future (if China were to build up its nuclear arsenal and achieve a more symmetrical nuclear relationship), or never (if China does not build up its arsenal). It would also structure US-China negotiations to address the breadth of nuclear and non-nuclear capabilities affecting arms racing and the risks of nuclear use.

The second principle is to compartmentalize US-China nuclear risk reduction discussions from other political considerations and military capabilities that could derail cooperation. The United States should not entwine its strategic relationship with China with its nuclear relationship with Russia. The two nuclear adversaries are too different for the United States to be able to use the same nuclear risk reduction mechanisms to reach meaningful bargains with both. For its part, China should not tether nuclear cooperation to the tenor of the broader political relationship, as it has done in the past with bilateral military-military consultations. Non-nuclear strategic weapons also need to be compartmentalized from operational cyber and space capabilities to avoid discussions with too many players and too many agenda items. Cyber capabilities that do not relate to counterforce and large-scale critical infrastructure attacks and counterspace attacks that do not affect nuclear command, control, communications, and intelligence should not be included in nuclear risk reduction discussions.

The third principle of compromise would be essential to achieve the kinds of concrete bargains that could enable both sides to realize mutual interests in nuclear risk reduction. Two examples of such bargains are stable but asymmetric arsenal sizes and reciprocal restraint in the use of non-nuclear strategic weapons. These kinds of asymmetric bargains would no doubt be difficult to convert into binding constraints. But the process of discussing these bargains alone would
still lead to a better understanding of each other’s intentions, doctrines, and the consequences of non-nuclear strategic weapons for nuclear operations.

A delicate compromise regarding the extent of the US damage limitation capability against China could dampen arms competition. The US government has yet to articulate either principles or numbers at which the growth of China’s nuclear arsenal would affect the ability of the US arsenal to carry out all of its missions. But the combination of US extended deterrence to Japan and South Korea, and the US-Russia nuclear relationship, require the United States to have a larger and more sophisticated arsenal than China. The United States will be able to limit damage from a future Chinese nuclear strike as a result. The extent of that US damage limitation capability could, however, be leaner to avoid prompting a further Chinese nuclear build-up. China likely overestimates the effectiveness of US damage limitation capabilities and therefore what it needs to assure retaliation. Dialogue on US missile defense capabilities or both countries’ principles for assessing the effectiveness of damage limitation capabilities could mitigate this problem. A more ambitious bargain could see the United States refrain from additional missile defense radar deployments on China’s periphery if China promised to limit the number of warheads deployed on its MIRVed missiles.

Reciprocal restraint and transparency in the applications of non-nuclear strategic weapons could limit the risks of nuclear weapons use resulting from misperceptions about each other’s nuclear doctrines. There is some ambiguity about when both the United States and China would use nuclear weapons in a future conflict because of reasonable concerns about how the other might use their non-nuclear strategic weapons. Those concerns are likely a misinterpretation of each other’s intentions, however. As nuclear and conventional support systems are increasingly entangled, conducting conventional operations against a nuclear adversary without inadvertently damaging their nuclear command-and-control systems will only become more difficult. To address some of these concerns, the United States and China could consider reciprocal steps toward self-restraint for different kinds of capabilities. For example, China could agree to keep its space objects a certain distance from US early warning satellites unless China first suffers a nuclear attack. In exchange, the United States could agree that, if its conventional operations inadvertently damage Chinese nuclear missiles or infrastructure, it would not react to a defined list of low-level Chinese nuclear signaling actions.

**Risk Reduction Without Nuclear Symmetry**

While many areas of the US-China relationship have deteriorated quite dramatically in the past year, the nuclear relationship need not follow suit. A US-China
nuclear relationship that replicates the Cold War US-Soviet competition would serve neither country's interests. Three principles—combine, compartmentalize, and compromise—offer one alternative pathway to enable US-China cooperation to reduce nuclear risks today despite asymmetries in alliances, geography, conventional military power, nuclear postures, and non-nuclear strategic weapons postures.

This pathway would not be without its challenges. The principles of compartmentalize and combine would pull the breadth of the agenda in opposite directions. Bringing non-nuclear interests in military cyber, space, and conventional strike operations into the room would increase the number of players in each country that need to agree to cooperate. Both countries would need to have the political will to prioritize nuclear risk reduction over capitalizing on their bargaining advantages resulting from asymmetries in their relationship. Pursuing nuclear risk reduction in the midst of changing domestic political landscapes in both countries and tense bilateral relations would be challenging. But surmounting those challenges is within their control; replicating the good fortune that enabled Moscow and Washington to avoid nuclear use during their first two decades of competition is not.

Notes

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28. I thank Brendan Rittenhouse Green for this point.


60. Green, The Revolution That Failed, 87.


75. For a discussion about the challenges U.S. leaders have faced in securing adequate funding for quantitative arms racing, see Green, *The Revolution That Failed*.


82. Schneider, “A Strategic Cyber No-First-Use Policy?”


