One of the final policy initiatives of the Trump administration included an effort to incorporate China into strategic arms control. According to a senior (unnamed) United States defence official: ‘Getting China involved in some sort of an arms control framework is what’s needed today in order to stave off a potential three-way arms race in the future’.¹ Chinese officials such as Ambassador Fu Cong, director-general of the Department of Arms Control, repeatedly rebuffed these efforts, stating:

> Given the huge disparity between the Chinese nuclear arsenal and that of the US and the Russian Federation, we simply do not believe that there is any fair and equitable basis for China to join the US and the Russian Federation in a nuclear arms control negotiation.²

Nonetheless, the rise of geopolitical competition in Asia, emerging technologies and anxiety on the part of US allies in the region suggest the need for renewed attempts to pursue arms control to strengthen strategic stability. The Trump administration’s goal of incorporating China into arms control was not wholly unreasonable; rather, their way of going

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about it was short-sighted. Any arms control that strengthens strategic stability in the region will have to account for Chinese interests while also tailoring to regional security and stability issues. Rather than trying to replicate US–Soviet arms control or fitting China into existing arms control structures, a more practical approach to strategic stability and arms control in the region would be to focus on crisis management as a means of promoting transparency and dialogue, which could lay the groundwork for more significant progress in the future.

While strategic stability and arms control are familiar concepts developed during Cold War superpower competition, they are less familiar in the contemporary context of Asia. China’s seeming interest in becoming a regional hegemon, along with growing reliance on new technologies, such as cyber and artificial intelligence, present challenges to strategic stability and arms control in both theory and practice. Arms control has historically sought to establish balance between nuclear peer competitors and achieve quantitative and/or qualitative parity in nuclear forces. Given the disparity in China’s nuclear arsenal, with approximately 300 warheads compared with 1,323 deployed strategic warheads held by the US, Beijing has limited incentives to join traditional cooperative reduction agreements, such as a follow-on to the 2010 New Strategic Arms Reduction Treaty (New START). Why, then, would China participate in arms control? How can the US use arms control vis-a-vis China to strengthen strategic stability in Asia? And what should be the priorities of arms control tailored to the Indo-Pacific region?

These questions are particularly timely, not only because of increasing geopolitical and technological uncertainty, but also because of shifts in US policies towards allies in recent years. At the end of 2020, views of the US were at a record low in the United Kingdom, Canada, Australia and Japan. After years of tension in America’s relationship with its allies in both Europe and Asia, rebuilding its credibility as a partner and security guarantor may be a long-term effort. Numerous allies are hoping the

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3 Important exceptions to this include work by Fiona Cunningham, Taylor Fravel, David Logan, Brad Roberts, David Santoro, Tong Zhao and others cited elsewhere in this chapter.
4 As of March 2020. This figure does not include non-deployed or reserve warheads, which the Arms Control Association assesses to contribute to an overall total of 5,800.
Biden administration will not only repair relations to the levels of the pre-Trump era, but also offer stronger support in the form of extended nuclear deterrence. Recent polls in South Korea, for example, suggest that most people support the redeployment of US tactical nuclear weapons there. Reassuring allies while also pursuing arms control with China may be a difficult balance for the US.

This chapter begins by defining strategic stability, with a focus on broadening the nature of the concept to include non-nuclear capabilities and the increasingly asymmetric nature of stability. It then examines challenges to strategic stability in Asia—namely, geopolitical competition, emerging technologies, China’s lack of interest in arms control and concerns of US allies. Finally, it offers three options for US–China arms control with a focus on strengthening crisis stability: trilateral arms control to include Russia; using the ‘P5 process’—a series of meetings among the five nuclear weapon states under the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)—to demonstrate commitment to their NPT obligations, facilitate confidence-building measures and lay the groundwork for progress on disarmament; and crisis communication agreements. These recommendations may seem modest, particularly in comparison with some of the ideas floated by the Trump administration; however, they may ultimately contribute to a longer process of cooperation working towards more ambitious arms control between Washington and Beijing.

Strategic Stability is Increasingly Asymmetric

Strategic stability was developed as a concept during the Cold War to describe a relationship in which two adversaries had sufficient nuclear forces to survive a first strike and maintain the ability to retaliate, thus

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7 While this chapter is focused on strategic stability and arms control in the US–Russia context, there are numerous other strategic stability concerns in the Indo-Pacific region that are also worthy of attention by scholars and policymakers. See, for example: Dmitri Treinin, ‘Strategic Stability in the Changing World’, Carnegie Moscow Center, 21 March 2019, carnegie.ru/2019/03/21/strategic-stability-in-changing-world-world-pub-78650.
establishing a balance of mutual deterrence. In the 1960s, arms control scholars Thomas Schelling and Morton Halperin refined this concept to define strategic stability as dependent on arms race stability and crisis stability. In arms race stability, neither side has incentives to pursue capabilities that would undermine the survivability of the other’s nuclear forces. In crisis stability, neither side has incentives to escalate a crisis in the hope of achieving strategic gains or launching a surprise attack.

Cold War definitions of strategic stability largely focused on the balance of nuclear forces, as experts and policymakers believed that as long as neither side had the capability or incentive to attempt a disarming first strike, deterrence would hold and a nuclear exchange would be avoided. But new research has demonstrated that while this definition dominated discussions in Washington, it was not universal. The Soviet Union, for example, conceptualised strategic stability much more broadly to focus on psychological factors in decision-making. Recent scholarship by Kristin ven Bruusgaard further demonstrates that conventional capabilities are a primary consideration in Russia’s nuclear posture and calculations of nuclear balancing. China, like Russia, views America’s missile defence and advanced conventional weapons as a threat to deterrence; however, its approach to strategic stability and how it might respond to US strategic developments is complex. At present, Beijing subscribes to a nuclear strategy of assured retaliation, largely achieved through a minimum deterrent and mobile missiles that could survive a first strike. But experts disagree as to whether China will maintain its commitment to no first use or gradually seek an offensive nuclear capability. From Washington’s perspective, this uncertainty around Chinese strategy further complicates decision-making and could exacerbate the ‘fog of war’.

The primary objective of arms control is to strengthen strategic stability and prevent nuclear war. While arms control may include numerical reductions, this is not its primary goal and occasionally arms control

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allows for the build-up of nuclear forces. For example, Russia actually increased its number of nuclear delivery vehicles under New START.\(^{12}\) Arms control can contribute to security and stability by limiting the destabilising effects of weapons\(^{13}\) and pursuing areas of mutual interest with adversaries in limiting the risks of conflict.\(^{14}\) Schelling and Halperin offer one example of how arms control might strengthen arms race stability through ‘cooperative measures to improve intelligence and warning facilities, or cooperative measures with respect to weapons themselves designed to facilitate warning’.\(^{15}\) Arms control can cover a spectrum of formality, ranging from legally binding treaties, such as New START, to more informal communication measures, such as the ‘hotline’ established between Washington and Moscow in 1963 following the Cuban Missile Crisis, or the 1973 Agreement on the Prevention of Nuclear War. These examples demonstrate not only the diversity of arms control mechanisms, but also the political nature of arms control as a tool in international security. Economic and ethical concerns might also be drivers of arms control, but improving the security environment is typically the main driver and a mutual interest for all parties.\(^{16}\) Ultimately, the form and content of arms control depend on the relationship between the parties involved and their unique interests, and the agreement must be tailored to both political and technical realities.

As the concept of strategic stability has broadened to include non-nuclear strategic capabilities (such as cyber), arms control will also have to adapt. States will have to pursue asymmetric arms control to account for quantitative and qualitative imbalances not only in their nuclear forces but also in their reliance on new technologies that can impact the strategic equation.\(^{17}\) Rather than thinking of strategic stability purely in terms of the number of nuclear weapons, states should think of stability as promoting both equilibrium, whereby a relationship is relatively balanced so there are no incentives by either side to launch a pre-emptive attack, and equanimity, which means actors would be able to de-escalate tensions.

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\(^{15}\) Ibid., 12.

\(^{16}\) Bull, *The Control of the Arms Race*, Chapter 1.

\(^{17}\) Williams, ‘Asymmetric Arms Control’. 57
to restabilise or rebalance the relationship relatively quickly.\textsuperscript{18} This broader approach to strategic stability will require more dynamism and flexibility in arms control than in the past. This might mean developing agreements rather than treaties, which can be static and take years to conclude, or by including non–like-for-like exchanges, such as agreeing to limits on missile defence deployments in exchange for a cap on non-strategic nuclear weapons. Ultimately, arms control is about managing uncertainty, which means it is both desperately needed and woefully challenging in the Indo-Pacific.

### Challenges for Strategic Stability and Arms Control in Asia

The 2020 Australian \textit{Defence Strategic Update} described a ‘more competitive and contested region’ with ‘greater potential for military miscalculation’.\textsuperscript{19} Conflict over Taiwan is a particular concern and was listed as a top ‘Conflict to Watch in 2021’ by the Council on Foreign Relations.\textsuperscript{20} In 2020, the Chinese leadership increasingly talked about ‘unification by force’ with regard to Taiwan, escalated its military posturing and embarked on activities to influence partners such as Sri Lanka,\textsuperscript{21} while also conducting influence operations in Australia, Japan, New Zealand, Singapore and elsewhere.\textsuperscript{22} Also in 2020, the US defence leadership identified China as the number one long-term challenge and talked about shifting troops and capabilities from the Middle East to Asia.\textsuperscript{23} This competition, particularly as both sides continue to develop novel technologies with military applications, threatens to incentivise arms racing and increase the risks of miscalculation during a crisis.

\ \textsuperscript{18} Ibid. See also Aaron Miles, ‘The Dynamics of Strategic Stability and Instability’, \textit{Contemporary Security Policy} 35(5), 2016, 423–37, doi.org/10.1080/01495933.2016.1241005.
\textsuperscript{21} Jacob Stokes, ‘Does China Really Respect Sovereignty?’, \textit{The Diplomat}, 23 May 2019, thediplomat.com/2019/05/does-china-really-respect-sovereignty/.
\textsuperscript{22} Larry Diamond and Orville Schell, eds, \textit{China’s Influence & American Interests: Constructing Vigilance} (Palo Alto: Hoover Institution Press, 29 November 2018).
Arguably, China and the US are already in an arms race; however, neither side is obviously seeking to acquire a capability that might undermine the other’s nuclear retaliatory capability. Additionally, both the US and China are still developing many novel technologies, so it is not yet clear whether they might undermine strategic stability. From a practical perspective, neither side is likely to be willing to limit them under an arms control agreement in the meantime. This is not to suggest complacency in terms of arms race stability, rather to suggest that this may not be the primary concern for strategic stability in the Indo-Pacific at present.

Yet, as indicated by the Australian Defence Strategic Update, crisis stability and miscalculation are major concerns. China’s entanglement of conventional and nuclear forces is particularly worrying and could lead to inadvertent escalation. Building on work by Barry Posen during the Cold War, David Logan identifies various inadvertent escalation pathways with regards to China—such as heightened vulnerability, target ambiguity and warhead ambiguity—that are exacerbated by misperceptions and missed signals between various actors in the region. According to Logan, ‘strategic signalling and perception management will be key to controlling escalation risks stemming from nuclear–conventional entanglement in China’. Cunningham and Fravel similarly argue that China’s limited ambiguity in its nuclear posture might increase escalation risks, both because China is optimistic about crisis stability and does not believe its actions could be mistaken for preparation for first use and because it could ‘increase US suspicions that in a crisis China might abandon its no first use policy altogether’.

An additional challenge from Washington’s perspective with regards to strategic stability is its regional allies. Historically, some allies in the region have been strongly opposed to any reduction in US capabilities, such as the 2010 decision to retire the nuclear-armed Tomahawk cruise missiles, which raised concern among many allies about America’s commitment to

27 Ibid., 1.
28 Cunningham and Fravel, ‘Assuring Assured Retaliation’, 11. The authors also point to risks of arms racing.
their security.\(^\text{29}\) Any arms control efforts with Beijing, therefore, will have to be preceded by close consultation with Tokyo, Seoul, Canberra and elsewhere to ensure that, in the process of cooperating with China, the US is not simultaneously undermining its own credibility. A complicating factor will be the diversity of allies’ views not only about the US and China, but also about the role of nuclear weapons in regional security. Some US allies in the region, such as Pacific Island nations, experienced damaging consequences from nuclear testing and advocate for reducing reliance on nuclear weapons and moving away from strategies of deterrence. Palau, for example, is in a Compact of Free Association with the US (which guarantees its security) while also being a member of the Treaty on the Prohibition of Nuclear Weapons.

Arms control has the potential to strengthen strategic stability and reduce some of these risks, particularly around crisis instability, but China has a mixed record with arms control. It has been active in numerous multilateral efforts, such as the NPT, and helped revive the ‘P5 process’, which involves the five nuclear weapon states (NWS) recognised by the NPT, in 2019. China was also active in negotiating the Comprehensive Test Ban Treaty and participates in the Conference on Disarmament. Nonetheless, Beijing has refused invitations to join arms control talks with the US and Russia and refrained from participation in confidence and transparency-building activities, such as the International Partnership for Nuclear Disarmament Verification. This reluctance is understandable given the numerical disparity in nuclear forces, as previously discussed; however, as competition with Washington increases, so will the incentives for China to participate in more ambitious arms control projects.

**Options for Arms Control with China**

Although China will likely continue for the foreseeable future to avoid arms control agreements that require transparency or reductions, there are at least three reasons China might be open to other types of arms control. First, China’s continued rise hinges on regional stability and arms control provides one means for promoting security through cooperation with the US and its allies. Second, China wants to avoid a costly arms race for economic reasons. According to Tong Zhao, ‘China will probably be

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unable to increase defence spending at its prior rate without undermining its population’s key socioeconomic interests’. Arms control is a promising cost-saving mechanism. And, finally, while China is less concerned about its nuclear ambiguity being mistaken as aggression, the risk of this misperception would be exacerbated by a crisis and it would be in China’s interest to ensure Washington and its allies are equally assured. A focus on crisis stability, while still leaving open the possibility of contributing to arms race stability and other political and security benefits, points to three options for arms control to incorporate China. These recommendations are meant to reflect a balance of the ideal and the possible.

First, the Biden administration might revise the Trump administration’s proposal to pursue some form of trilateral strategic arms limitation agreement with Moscow and Beijing. Tong Zhao has suggested that the US and China set an equal ceiling for the combined stockpile of intermediate-range nuclear missiles, whether land or air-launched, with flexibility in how they mix their systems. Russia might also be included in such an agreement. Another option would be a ratio agreement, similar to the Washington Naval Treaty, establishing a 4:4:1 ratio in strategic launchers and a 1:1:1 ratio in tactical launchers between the US, Russia and China, again allowing for flexibility in how each party mixes their own forces. The benefits of a trilateral agreement would be to promote transparency between the three largest nuclear actors, such as verification mechanisms and a consultative commission, to provide assurances that none of the parties is seeking a break-out capability that would incentivise a nuclear first strike or crisis escalation. But this option is ambitious and is more likely a mid to long-term option over the next decade. Getting to such an agreement would require building transparency with China through more informal mechanisms, and further US–Russian reductions in the meantime.

A second, more modest option would be to use the ‘P5 process’ to develop crisis stability mechanisms. This might include incorporating concerns about emerging technologies and gradually working collaboratively on bigger questions around strategic stability. While numerous recent

32 Zhao, ‘Opportunities for Nuclear Arms Control’, 10.
studies have called for adding strategic stability and other issues to P5 dialogues, if done too quickly, this would be dangerous for two reasons.\textsuperscript{34} First, the United Kingdom and France have not indicated a willingness to participate in arms control dialogues or to reduce their arsenals. Putting this issue in the P5 process might exacerbate existing tensions around the issue. Second, the P5 process remains tied to the NPT and as a vehicle for the NWS to work towards progress in fulfilling their Article VI commitments of ‘general and complete disarmament’.\textsuperscript{35} Expanding the mandate would risk overloading it, leading to inertia, while also potentially undermining its contribution to the NPT. This option, therefore, would require the NWS to jointly agree to one or two additional items in their program of work, of limited scope, to be discussed during the next NPT review cycle, with the goal of agreeing to new crisis communication channels by the 2025 NPT Review Conference. For example, they might add discussions on the risks to nuclear command and control to the existing dialogue on transparency of doctrine, working towards a ‘cyber no first use’ agreement.\textsuperscript{36} Of all the options offered here, cooperation in the P5 process is probably the most feasible; however, it would be at risk of being held hostage to NPT politics and may still require significant time and effort to socialise China and other NWS to the necessary transparency measures.

A final option is to develop a suite of dynamic confidence-building measures with a focus on crisis de-escalation. A Washington–Beijing hotline already exists and includes a ‘space hotline’ and a ‘cyber hotline’, but this might be expanded to incorporate China into the Nuclear Risk Reduction Centre system, which includes Russia and members of the Organization for Security and Co-operation in Europe. They might also establish regular strategic stability dialogues with an explicit focus on crisis avoidance and crisis communication. Other agreements might resemble the 1972 Incidents at Sea Agreements, which included joint commitments to avoid collisions, non-interference, surveillance and information exchanges. Another example is the 1973 Agreement on the Prevention of

\textsuperscript{34} See, for example: The Chicago Council on Global Affairs, \textit{Task Force Report: Preventing Nuclear Proliferation and Reassuring America’s Allies}, 2021.

\textsuperscript{35} Article VI of the NPT reads:

Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.

Nuclear War established between the US and the Soviet Union; a similar agreement between the US and China (and also potentially Russia) could restate their commitment to practise nuclear restraint towards each other and promote strategic stability in their nuclear postures. This option is potentially feasible but does not readily align with China’s current thinking about the risks of crisis escalation; therefore, it would also require engaging China in transparency-building measures and socialisation with arms control practices. There is also, of course, the possibility that China will continue to insist on further reductions in American and Russian arsenals before participating in any arms control dialogues, even those aimed at de-escalating crises.

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Arms control in the Indo-Pacific should focus on reducing the risks of escalation, particularly with regard to new technologies that are creating strategic asymmetries. This would address the most pressing challenges to regional and international security, particularly rising competition between the US and China, and growing concerns about China’s regional ambitions and nuclear posture. But this approach is not without its drawbacks. Cooperation of any kind between Washington and Beijing tends to make Moscow nervous; therefore, the US will have to engage in parallel discussions with Russia for a New START follow-on. Additionally, US overtures to China might prompt fears of abandonment among US allies in the region, and therefore arms control must be part of a multi-pronged strategy including deterrence and assurance. Any progress towards arms control or disarmament with China may require a counterbalancing effort for allies, such as increased conventional presence in the region, basing sites or cruise missile defences.  

This crisis-driven approach to arms control may be modest in the short term but has longer-term ambitions for strengthening strategic stability. The Strategic Arms Limitation Talks in the 1960s and 1970s grew out of relatively modest arms control efforts following the Cuban Missile Crisis, such as hotlines, yet it initiated unprecedented cooperation and transparency between the superpowers. A similar trend might prove possible in Asia, but hopefully it will not take a crisis to prompt interest among the key actors.

37 Christopher Dougherty, ‘Short-Term Action Items for Austin’s Pentagon’, War on the Rocks, 15 February 2021.