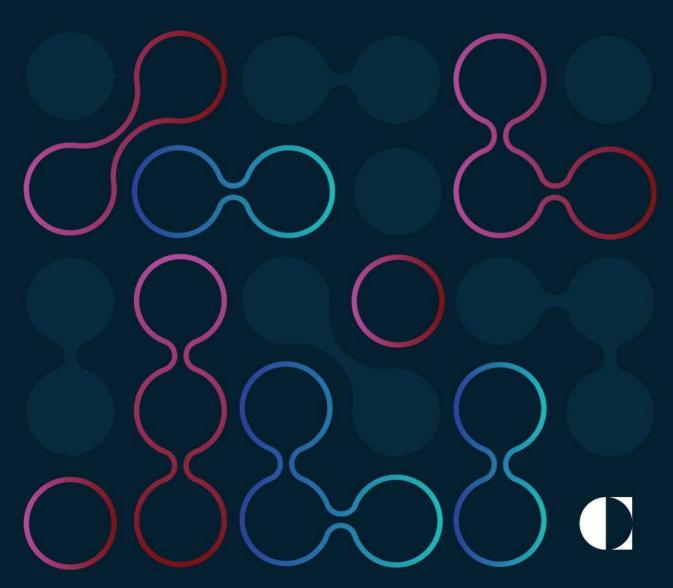
POLITICAL DRIVERS OF CHINA'S CHANGING NUCLEAR POLICY

Implications for U.S.-China Nuclear Relations and International Security

Tong Zhao





POLITICAL DRIVERS OF CHINA'S CHANGING NUCLEAR POLICY

Implications for U.S.-China Nuclear Relations and International Security

Tong Zhao

© 2024 Carnegie Endowment for International Peace. All rights reserved.

Carnegie does not take institutional positions on public policy issues; the views represented herein are those of the author(s) and do not necessarily reflect the views of Carnegie, its staff, or its trustees.

No part of this publication may be reproduced or transmitted in any form or by any means without permission in writing from the Carnegie Endowment for International Peace. Please direct inquiries to:

Carnegie Endowment for International Peace Publications Department 1779 Massachusetts Avenue NW Washington, DC 20036 P: + 1 202 483 7600 F: + 1 202 483 1840

CarnegieEndowment.org

This publication can be downloaded at no cost at CarnegieEndowment.org.

TABLE OF CONTENTS

About the Author	V
Acknowledgments	vii
Introduction	1
CHAPTER 1	
The Drivers of China's Buildup: Technical vs. Political	7
CHAPTER 2	
China's Domestic Decisionmaking Dynamics	21
CHAPTER 3	
The Political-Nuclear Nexus in the U.SChina Relationship	31
CHAPTER 4	
Policy Recommendations	55
Notes	97
Carnegie Endowment for International Peace	123

ABOUT THE AUTHOR

TONG ZHAO is a senior fellow with the Nuclear Policy Program and Carnegie China, Carnegie's East Asia-based research center on contemporary China. Formerly based in Beijing, he now conducts research in Washington on strategic security issues, such as nuclear weapons policy, deterrence, arms control, nonproliferation, missile defense, hypersonic weapons, regional security issues in Asia Pacific, and China's security and foreign policy.

He is also a nonresident researcher at the Science and Global Security Program of Princeton University, an associate editor of the journal Science & Global Security, and a member of the International Panel on Fissile Materials. He was a virtual visiting research fellow at the Cooperative Monitoring Center of the Sandia National Laboratories, a Stanton Nuclear Security Fellow at Harvard University, a nonresident WSD-Handa Fellow at Pacific Forum, and worked for the Office of Foreign Affairs of the People's Government of Beijing Municipality.

He holds a PhD in science, technology, and international affairs from Georgia Institute of Technology, as well as an MA in international relations and a BS in physics from Tsinghua University. He is the author of "Tides of Change: China's Nuclear Ballistic Missile Submarines and Strategic Stability" and "Narrowing the U.S.-China Gap on Missile Defense: How to Help Forestall a Nuclear Arms Race." He has published in *Arms Control Today, Asian Security, The Atlantic, Bulletin of the Atomic Scientists, Foreign Affairs, New York Times*, and POLITICO, among others.

ACKNOWLEDGMENTS

This work was made possible by generous support from the Carnegie Corporation of New York, the John D. and Catherine T. MacArthur Foundation, and the New-Land Foundation. The author is deeply grateful to James Acton, George Perkovich, Zia Mian, Fiona Cunningham, Miriam Magdieli, Mariano-Florentino (Tino) Cuéllar, Isabel Cai, and Raven Witherspoon for their insightful reviews and constructive feedback on earlier drafts. He also warmly thanks the anonymous reviewers and numerous experts who kindly shared their insights throughout this project. Carnegie's communications team provided invaluable assistance in editing and publishing. Special thanks to Lindsay Maizland and Haley Clasen, whose expert editing significantly enhanced the work. Any remaining errors are the author's own.

INTRODUCTION

During the first virtual summit between U.S. President Joe Biden and Chinese President Xi Jinping in November 2021, the two leaders discussed nuclear issues and, according to U.S. National Security Advisor Jake Sullivan, agreed to "look to begin to carry forward discussion on strategic stability." This outcome was hardly surprising; as both American and Chinese experts had pointed out, reducing the risk of nuclear weapons use was the countries' most obvious common interest. Yet, previous U.S. efforts to kick-start a nuclear or strategic stability dialogue with China have been unsuccessful.

Nearly three years after the summit, the countries appear to have made little progress in official dialogues, and unofficial discussions are also less frequent and substantive than before. The message from Chinese officials has become increasingly clear: the United States and China should first stabilize their political relationship before taking on nuclear issues.

For decades, China has sought to build and maintain a credible nuclear second-strike capability (that is, to be able to launch a devastating nuclear retaliation after absorbing a disarming first strike). It has done so to secure a relationship of mutual vulnerability with the United States. Many Chinese nuclear experts have largely accepted the Western term of "strategic stability" to describe such a relationship. They believe that mutual vulnerability reduces both the risk of a nuclear arms race (arms race stability) and nuclear use in a military crisis (crisis stability).

But Chinese political leaders have never accepted the Western definition of strategic stability. Rather, they use the term to refer to the overall stability of a bilateral relationship.

To Chinese political leaders, a stable U.S.-China relationship means, first and foremost, a U.S. willingness to accept the legitimacy of China's political system, coexist peacefully with China, and respect China's so-called core interests.

Because of this confusion, this report eschews the use of the term strategic stability. Instead, it uses the term "political stability" to describe the broad meaning of strategic stability as understood by Chinese political leaders. From their viewpoint, the core issues plaguing the overall bilateral relationship are political—an aspect that this report will delve into. The report uses the term "nuclear stability" to describe the narrow and classical meaning of strategic stability that is often used in Western literature.² Nuclear stability includes both arms race stability and crisis stability.

After China tested its first nuclear device in 1964, Mao Zedong and other first generation leaders emphasized the role Chinese nuclear weapons could play in deterring nuclear attacks.³ In the following decades, China maintained a modest nuclear strategy that prioritized achieving nuclear stability with the Soviet Union and the United States. However, its recent nuclear expansion, increasing interest in new nuclear postures such as launch-underattack, and its declared ambition to build a "powerful strategic deterrent capability system" ⁴ raise urgent questions about whether China still commits to the traditionally limited goal of maintaining nuclear stability with the United States.

As U.S.-China relations deteriorate and China embarks on a large-scale buildup of its nuclear forces, the security risks are rising. Partly contingent on what countermeasures the United States takes, an escalation of U.S.-China nuclear competition could have farreaching implications for international security. Addressing this growing danger will require a thorough understanding of Chinese motivations and the thinking behind the country's changing policy.

Today, international experts are divided over whether China's nuclear expansion is a response to perceived new military threats, such as U.S. missile defense systems and conventional precision weapons, or whether it is driven by a revisionist security agenda. The latter perspective includes the belief that China is systematically shifting away from its traditional nuclear strategy toward a much more aggressive approach, including greater reliance on the first use of nuclear weapons. This might compel the United States to substantially augment its nuclear capabilities.

This report contends that neither perspective fully captures the intricate internal dynamics driving China's nuclear expansion, positing that the current shifts in the country's nuclear policy are mainly rooted in changing political considerations. Contemporary Chinese leaders, particularly Xi, have elevated the political importance of nuclear weapons. Coupled with significant changes in China's domestic political system in recent years, this has led to a nuclear policy that is less cohesive, less coherent, and less aligned with China's specific

security requirements than before. These complex political dynamics remain largely ignored by international policymakers and analysts.

The conventional view among the international policy community that emphasizes protecting the U.S.-China nuclear relationship from the adverse effects of deteriorating bilateral political relations is not without merit.⁶ However, it is becoming increasingly challenging to maintain nuclear stability separately and independently from the escalating geopolitical rivalry.

Considering the potentially catastrophic consequences of a significant U.S.-China military conflict—which could involve nuclear escalation—the most impactful approach for reducing nuclear risks requires serious efforts from the United States, China, and other countries and civil society actors in the global community to truly comprehend and address the root political issues between the two major powers.

In this context, this report provides a comprehensive examination of China's prevailing nuclear perspectives and policymaking mechanisms, shedding light on the underlying political challenges and potential strategies for managing them. To strive for an objective examination, the report presents and evaluates Chinese perspectives and, to the extent possible, refrains from injecting the author's personal judgments about them. The report's descriptions of Chinese (and American) perspectives should not be interpreted as an endorsement.

The report begins with an introduction of the growing role of political considerations and the declining importance of technical factors in China's nuclear policymaking. Chapter 1 traces the chronology of China's recent decisions to expand its nuclear capabilities, detailing how Xi's anticipation of escalating tensions between Washington and Beijing prompted an initial decision to augment Chinese nuclear forces. The subsequent decline in bilateral relations further solidified the Chinese leader's perception of an existential threat, resulting in a further acceleration of the nuclear buildup. The chapter underscores how both insecurity and ambition drive Xi's belief that China needs a greater nuclear capability to influence U.S. perception of the international balance of power and to shape the United States' overall approach toward China.

Chapter 2 delves into domestic decisionmaking processes in China, scrutinizing domestic actors' varied influences on the country's nuclear expansion strategy. As Xi has consolidated power, China's traditional nuclear policy experts have become increasingly sidelined in a policymaking system that is more closed-off and secretive. Concurrently, Xi has overturned previous leaders' constraints on the military's nuclear modernization, giving the military an important mandate to fast-track nuclear development. This shift has had profound effects on the coherence of China's nuclear policy: the high-level political endorsement shields China's military—the People's Liberation Army (PLA)—from external oversight while it makes operational-level decisions. The PLA's growing interest in acquiring escalation

management capabilities, partly driven by the heightened security situation in the Taiwan Strait, carries significant implications for U.S.-China nuclear stability.

Chapter 3 explores the intricate relationship between nuclear stability and political stability in the U.S.-China context, highlighting the challenges posed by the two nations' divergent goals. It conducts a critical analysis of the underlying logic of China's attempt to enhance political stability by building up its nuclear capabilities. It also examines the political roots of China's increasingly acute perception of the United States as an existential threat, emphasizing the significant impact of information and perception gaps between U.S. and Chinese societies. In doing so, the report highlights the obstacles Beijing encounters in its effort to foster political stability through a top-down approach and illustrates why separating bilateral nuclear and political issues would be far more challenging than generally anticipated. It then explores how the growing entanglement between bilateral nuclear and political relations influences both arms race stability and crisis stability between the United States and China.

In the last chapter, the report offers recommendations to mitigate both technical and underlying political challenges in U.S.-China nuclear relations. Though these challenges are extraordinarily severe and solutions elusive, the colossal stakes demand exhaustive efforts. The recommendations are summarized below.

- Mitigate information and perception gaps: Washington and Beijing should address their bilateral rivalry that stokes nuclear competition, starting by acknowledging the presence of information and perception gaps.
- Explore agreements on principles of behavior: Washington and Beijing should draw on positive lessons from the Cold War and build confidence through topdown discussions on principles of behavior.
- Be mindful of amplifying China's insecurities: As Washington considers countermeasures to China's nuclear buildup, it should be aware of how certain measures could unintentionally lead to counterproductive outcomes that weaken U.S. deterrence.

Specifically, Washington should:

- Understand the impact of China's insecurity and other internal factors
- Distinguish tangible and likely threats from remote and low-probability threats
- Minimize ambiguity and inconsistency in U.S. nuclear policy

- Improve internal accountability in China: Beijing should facilitate informed and objective assessments of its security interests and external environment and steer balanced decisions regarding nuclear policy goals, priorities, and strategies. Specifically, Beijing should:
 - Clarify Chinese concerns and recognize its rivals' legitimate concerns
 - Conduct internal analysis about how China wants to be reassured
 - Strengthen its internal nuclear policy review process
- Promote a strategic security dialogue: Washington and Beijing should structure
 a dialogue to encourage necessary internal policy reflections, resolve practical issues
 that hinder desired outcomes, and lessen the impact of third-party influences on
 bilateral nuclear stability.
- Address the conventional-nuclear linkage: Beijing should offer assurances to quell regional fears of conventional military aggression, thus easing resistance to a stabler U.S.-China nuclear relationship.
- **Empower the experts:** Washington and Beijing should nurture environments for candid, balanced expert counsel; they should also sponsor joint bilateral expert studies to dispel misreadings and chart forward paths.

CHAPTER 1

THE DRIVERS OF CHINA'S BUILDUP: TECHNICAL VS. POLITICAL

The conventional wisdom, shared by both American experts and many Chinese scholars, is that China has been modernizing its nuclear capabilities primarily to offset the anticipated impact of new U.S. military capabilities on the credibility of Beijing's nuclear deterrent.⁷

Ongoing improvements in U.S. nuclear and non-nuclear strategic capabilities have indeed informed China's thinking over past decades. In recent years, U.S. nuclear weapons have become more accurate. The country has made steady improvements to its strategic missile defense capabilities, including by testing an SM-3 block IIA interceptor against an intercontinental ballistic missile (ICBM)-class target. In addition, it withdrew from the Intermediate-Range Nuclear Forces (INF) Treaty in 2019 and indicated an interest in deploying conventional land-based missiles near China, which has raised Beijing's concern about conventional counterforce strikes. The advancement of U.S. intelligence, surveillance, and reconnaissance capabilities, especially the country's space-based components, could also increase the vulnerability of Chinese nuclear weapons.

But these operational-level factors are unlikely the main drivers of China's current nuclear buildup. Many experts have noted that the decisions a country makes regarding its weapons and military policy, including strategic deterrence, often are not solely influenced by rational, technical considerations. Political and organizational factors also play a crucial role. ¹⁰ The following four factors indicate that this theory holds true for China.

THE DECLINING IMPORTANCE OF TECHNICAL FACTORS

Over the past few decades, U.S. efforts to improve nuclear and non-nuclear strategic capabilities have largely been incremental and relatively transparent; recent administrations have adopted few dramatic changes to the U.S. nuclear or strategic missile defense posture. Given that China did not significantly expand its nuclear capabilities after the Ronald Reagan administration rolled out the Strategic Defense Initiative in 1983 nor after the George W. Bush administration withdrew from the Anti-Ballistic Missile (ABM) Treaty in 2002, the recent growth of China's nuclear forces has occurred at a speed and scale that is disproportional compared with the gradual and relatively predictable U.S. improvement of nuclear and non-nuclear strategic capabilities. Even if the current Chinese modernization programs were first conceived of during the Bush administration in response to the United States' ABM Treaty withdrawal, it does not explain why China now needs to engage in massive buildup programs, such as the simultaneous construction of three large ICBM silo fields. The commitment to significant quantitative expansion of capabilities within a short period of time is new. (China's traditional nuclear modernization approach had been to introduce new capabilities step-bystep, which gave it the freedom to test and constantly improve.)

Second, if U.S. homeland missile defenses continue to be, as they were generally believed to have been in previous decades, the most important concern for Chinese nuclear planners, 11 China's current investment in silo-based ICBMs is not the best way to address this concern. The large number of new silo-based ICBMs in the northwestern region and other parts of the country will likely become the new backbone of China's strategic nuclear capabilities once they come online. Although large-scale silo-based ICBMs may be particularly helpful to prevent an enemy from launching a preemptive, disarming strike, they are not the most cost-effective way to address the threat from missile defenses, especially when compared with alternative options, such as developing more maneuverable missile systems or unconventional delivery systems that can circumvent missile defense systems, building better penetration aids, and launching missiles from locations and directions not well covered by U.S. radars and long-range interceptors. Russian nuclear planners, who have also been seriously concerned about U.S. missile defenses, chose to develop new types of delivery systems exploring exotic long-range delivery technologies in some cases—instead of massively expanding silo-based ICBM capabilities. The constraints from the New START nuclear arms treaty and Russia's already sizable nuclear arsenal are probable factors in Russia's choice, but the Russian approach demonstrates the existence of alternatives that do not entail significant expansion of the overall arsenal.

Third, even many Chinese nuclear policy experts did not appear to anticipate the recent nuclear buildup or understand its rationale. Shortly before the revelation of large-scale silo construction by foreign scholars, senior Chinese experts—including leading military experts—had been arguing that China's nuclear deterrent remained largely credible, implying that only modest and incremental modernization was needed to counter U.S. technological

developments.¹² There was no indication that they expected a fast nuclear buildup or thought it was necessary. Even today, private conversations indicate that many Chinese nuclear policy experts still do not understand the current buildup's military rationale. For decades, Chinese nuclear strategists

Even many Chinese nuclear policy experts did not appear to anticipate the recent nuclear buildup or understand its rationale.

faithfully adhered to foundational principles of the nation's nuclear policy established by Mao and his revolutionary peers, including the maintenance of a small nuclear arsenal. The recent departure could not have occurred without direct intervention from the highest level of leadership.

Fourth, the official Chinese response to the silo construction revelation was silence followed by denial. Chinese state media dismissed the reported missile silos as windmills, whereas the government refrained from commenting. Later, Chinese officials rejected the claim that China was expanding its nuclear forces significantly, although they acknowledged that "China has taken measures to modernize our nuclear arsenal, not for other reasons, but for reliability and safety reasons." It is challenging to understand how a larger nuclear arsenal enhances "safety." More critically, if improved U.S. military capabilities were the main driver behind China's recent buildup, the Chinese government had every reason to say so directly and put pressure on the United States.

THE POLITICAL ROLE OF NUCLEAR WEAPONS AS STRATEGIC COUNTERBALANCE

Most existing literature portrays China's traditional nuclear policy as primarily guided by achieving the minimum level of nuclear capability necessary for a credible second strike. While military-technical calculations have surely played a significant role in shaping China's nuclear development goals over the years, nonmilitary and nontechnical factors have also been crucial. The political dimension of China's nuclear weapons program has been consistently emphasized by Chinese leaders since the beginning. Throughout the history of the People's Republic of China (PRC), all Chinese paramount leaders have attached great significance to the political value of nuclear weapons and their role in shaping international perceptions and attitudes toward China. This long-standing, high-level emphasis on the political significance of China's nuclear weapons has received insufficient attention in the existing literature.

The first paramount leader, Mao, said in1964 that imperialist countries "look down upon us because we don't have atomic bombs and only have grenades . . . therefore China should have atomic bombs and develop hydrogen bombs as soon as possible." The second paramount leader, Deng Xiaoping, claimed in 1988 that "if China had not had atomic and hydrogen bombs and launched satellites since the 1960s, it would not have been able to be called a major power with significant influence and would not have had the international status it has now." He also said that if China aimed to have a higher status in the future world order and more influence in international affairs, it must be backed by a strong nuclear capability. The third paramount leader, Jiang Zemin, stated that China should "strive to build a lean and effective strategic nuclear force commensurate with China's great power status." The fourth paramount leader, Hu Jintao, used a very similar language, saying that China should build a strategic missile force commensurate with China's major power status.

The emphasis placed by the current paramount leader, Xi, on the political role of nuclear weapons aligns with the traditional thinking of previous paramount leaders. His acknowledgment in 2016 of nuclear weapons as a "strategic pillar" of China's "great power status" reflects a shared vision with previous leaders.²⁰

However, to Chinese leaders, the political value of nuclear weapons amounts to more than enhancing China's international status or prestige—it also encompasses their potential role in helping resolve China's broader strategic challenges. Specifically, nuclear weapons are viewed as useful to counterbalance against unfavorable strategic environments and positively shape China's "internal and external environment." They are also expected to help compel a "strong enemy"—a term Chinese officials often use to refer to the United States—to accept a peaceful and stable relationship with China, a situation this report calls political stability.

Authoritative military writings such as the *Science of Military Strategy* (National Defense University edition) clearly view strategic weapons as useful for playing both a military role of "containing war" and a broader political role of "creating a good internal and external environment." On the latter, the 2020 *Science of Military Strategy* stresses that "strategic deterrence is a method of military conflict to achieve a political goal based on military strength" and that "under certain conditions, it can directly achieve political goals." The reference to shaping not only the external environment but also the internal one is noteworthy. This report will later analyze how Chinese leaders view internal stability and external stability as intrinsically interlinked and how they think nuclear weapons can help address both.

The 2013 *Science of Military Strategy* (Academy of Military Sciences edition) also distinguishes wartime "dynamic deterrence" from peacetime "static deterrence." Dynamic deterrence during wartime refers to the classical concept of deterring military conflicts in Western literature, whereas static deterrence in peacetime means the use of "comprehensive national power, and especially strategic (military) power" to "maintain strategic balance with the enemy during a relative long period of time." The latter refers to the broader political role of nuclear weapons.

CHINA'S PREVENTIVE RESPONSE TO ANTICIPATED STRATEGIC CHALLENGES

The political role of nuclear weapons as a strategic counterbalance against the United States and to help secure political stability in the U.S.-China relationship has become more important in recent years. Xi came to power in 2012, at a time when China was concerned about U.S. president Barack Obama's rebalance to Asia and the United States' potential adoption of a more hostile strategy toward China.

Xi's writings and speeches indicate his adoption of the perspectives of structural realism. Early on, he anticipated troubles increasing between the United States and China, as China's economic growth continued shifting the international balance of power in China's favor. Indeed, he believes China's international power and status have grown significantly, saying, "We are closer than ever before to the center stage of the world, closer than ever before to achieving the great rejuvenation of the Chinese nation, and possess unprecedented ability and confidence to realize this goal." According to Xi, this elevated status comes with new challenges, particularly in the U.S.-China relationship; he thinks that the United States will not relinquish its dominance without resistance. Xinhua News Agency, one of the most important state media outlets, explained Xi's thinking on this issue in a high-profile report on his efforts to strengthen the military: "The more we develop and grow, the more resistance and pressure we will encounter, and the more external risks we will face. This is a challenge that cannot be avoided in the process of development of China from being big to becoming strong; and is a task that cannot be bypassed to achieve the great rejuvenation of the Chinese nation." ²⁶

Partly influenced by Xi's thinking, Chinese foreign policy experts also see the changing international balance of power as a crucial structural force that shapes the United States' overall approach toward China.²⁷ Until recently, China's remarkable development over the past four decades did not elicit strong containment measures from Washington. Beijing attributed this to the substantial power gap between the two nations, which had been significant enough to not raise serious concerns in the United States.

However, according to Beijing, the situation has changed as China has progressively closed the power gap, approaching a potential power transition; this would result in the United States seeking to contain, disrupt, and destabilize China in an effort to impede China's growth and preserve U.S. dominance in the international system.

Xi Emphasizes Strategic Military Power

Xi believes the demonstration of stronger strategic military power, including a more impressive nuclear capability, can provide a strategic counterbalance against anticipated turbulences by dissuading the U.S.-led Western countries from conducting severe provoca-

tions and forcing them to behave more cautiously when dealing with China. Shortly after assuming power in 2012, Xi argued that the "Dream of a Strong Armed Force" is essential for achieving the "Dream of a Strong Nation," as a strong military is critical to protecting China's overall development goal.²⁸ Since then, Xi has consistently emphasized the need for China to develop a "world-class military" to realize the "Chinese Dream" of "national rejuvenation." Under his leadership, the Chinese Communist Party (CCP) adopted a historic resolution, only the third of its kind in the party's hundred-year history, that officially declared that building a strong military is crucial for building a strong country. The resolution emphasized that national security and development interests can only be ensured with a consolidated national defense and a strong army commensurate with China's international status.²⁹

For Xi, the objective of building a world-class military is not solely about addressing specific external threats but also about sending a broad political message to China's adversaries. Such a military would signify that China has emerged as a leading global power whose interests and status demand recognition and respect.

Xi's belief that nuclear weapons are a strategic pillar of China's great power status suggests that he views China's nuclear capability as a crucial indicator of the country's strategic power. He likely believes that a formidable nuclear arsenal has a profound psychological influence on U.S. and Western perceptions of the international balance of power. In contrast, "China's inferior nuclear capability could only lead to growing U.S. pressure on China," according to a source close to Xi, as reported by the *Wall Street Journal*.³⁰

During his tenure, Xi has consistently strived to persuade China's adversaries that the international balance of power is inexorably shifting in China's favor. He appears to reason that if China's ascension is proven an inevitable reality, its adversaries might be more inclined to abandon containment efforts and instead adopt a more conciliatory stance to accommodate China's interests. Reflecting this perspective, shortly following Xi's 2016 visit to the headquarters of the PLA Rocket Force, the *PLA Daily* released an editorial emphasizing that the force represents "the symbol of China's military power" and "the trump card to awe and intimidate adversaries." The editorial further asserted that the stronger the Rocket Force, the more capable China is of "strategically counterbalancing against strong militaries" and offering "more reliable safeguards for China's sovereignty, security, and development interests." ³¹

This view is unsurprising and consistent with the prevailing Chinese view that the United States and other nuclear powers have been using nuclear weapons to achieve geopolitical goals beyond deterring military threats.³² Li Bin, a leading Chinese nuclear expert, has long pointed out that the United States' perception of its nuclear superiority over China could embolden Washington's overall attitude toward Beijing, leading to more aggressive U.S. foreign and security policies. As a result, he has observed that even China's traditional

nuclear policy was significantly driven by a desire to contain the "emboldening" effect of the U.S. perception of nuclear superiority, in what he calls China's "counter-nuclear coercion" strategy.³³

Professor Sun Mingfu from the Rocket Force Command College provided a similar description of Xi's views on nuclear weapons. According to him, in a meeting with Chinese missile force officials in 2012, Xi emphasized that the fundamental nature of nuclear weapons as strategic, deterrent, and political weapons would remain unchanged for the foreseeable future. Xi further stated that the strategic role of nuclear weapons in political, diplomatic, and military struggles is constant, and their deterrent role is absolute.³⁴

It is useful to note that Xi referenced the importance of nuclear weapons in the order of their political, diplomatic, and then military roles. He also drew attention to the case of Russia. He commented that Russia made the right decision to prioritize the development of its nuclear capabilities, even though Russia's economy was in decline in recent decades and it had to "tighten its belt and do nothing else" as a result.³⁵ Indeed, Russian President Vladimir Putin has similarly claimed that Russia's "nuclear triad" has played a significant role in addressing not only military threats but the emergence of new "political risks."³⁶

Xi Upgrades China's Missile Force

Against this background, Xi appears to attach greater importance than his predecessors to building up China's nuclear capabilities, arguing that "[we] need to strengthen ourselves in all aspects, especially to strengthen deterrent capabilities." As early as December 2012, Xi held a meeting with senior officials from the Second Artillery Corps—China's main missile force that operated both conventional and nuclear missiles—during which he instructed them to "strive to construct a powerful informatized strategic missile force." Previous Chinese paramount leaders rarely used the word "powerful" to describe the development goal of the Second Artillery. Articles subsequently published by Second Artillery leaders indicate that they have given great significance to this new instruction. Three years after coming to power, in December 2015, Xi upgraded the Second Artillery from a military branch to a full military service and renamed it the PLA Rocket Force. In 2016, he inspected the force's headquarters and delivered important instructions, including to "expedite the pace of development." And in 2018 he instructed PLA Navy officials that "our sea-based nuclear capabilities need to massively develop." This level of direct and public instruction on nuclear development strategy is unprecedented for a Chinese leader since Jiang Zemin.

Based on Sun's 2014 article, which highlighted Xi's internal comments on nuclear weapons, China was already in the process of considering important changes to its nuclear development policy by 2014. The upgrading of the Second Artillery to the PLA Rocket Force in 2015 signified a desire to substantially strengthen China's nuclear forces. Xi's visit and his delivery of an important internal speech at the force's headquarters in 2016 likely marked

China's significant enhancement of its nuclear capabilities coincided with the country's increasing identification of "strategic counterbalance" as a mission for its missile forces in general, and for the nuclear missile forces specifically.

a key milestone in China's nuclear expansion decisionmaking, with military media reports emphasizing the visit's historical significance.⁴²

China's significant enhancement of its nuclear capabilities coincided with the country's increasing identification of "strategic counterbalance" as a mission for its missile forces in general, ⁴³ and for the nuclear missile forces spe-

cifically.⁴⁴ Sun's article suggested that the Rocket Force's internal adoption of the term originated in the early phase of Xi's tenure, following Xi's internal speeches. On December 31, 2015, the day when the Rocket Force was formally established, Xi's speech to the newly founded service included an instruction to "enhance strategic counterbalance capabilities." Since then, official documents, senior military leaders, and state media increasingly use strategic counterbalance to describe the role of the Rocket Force. In 2019, China's defense white paper added Xi's instruction on strategic counterbalance to the Rocket Force's mission. Along with the growing emphasis on strategic counterbalance, the *People's Daily* declared in 2017 that the Rocket Force would make itself a "world-class strategic force."

PERCEPTION OF EXISTENTIAL THREATS LEADS TO AN ACCELERATED BUILDUP

Xi made the choice to strengthen China's strategic capabilities early in his tenure, not mainly driven to address specific military threats but by a broad, somewhat nebulous initiative to mold China's strategic environment in anticipation of potential challenges. Ironically, Xi's ambition and proactive approach resulted in a self-fulfilling prophecy, ultimately reinforcing his belief that China is indeed confronting increasing existential threats.

Striving to achieve the Chinese Dream, Xi has concentrated power under himself, tightened ideological control, and stressed the importance of ensuring domestic stability through heavy-handed methods. These policies have led the United States and other Western countries to criticize China's increasing authoritarianism, domestic repression, and human rights violations, including in Xinjiang and Hong Kong. Western countries were also alarmed by China's increasingly assertive foreign and security policy approach, such as China's militarization of man-made islands in the South China Sea—a move that broke Xi's own nonmilitarization pledge—and by China's wolf-warrior diplomacy. These moves together changed the nature of the threat that many Western leaders saw from a rising China. Since at least

Donald Trump's administration (2017–2021), senior U.S. officials increasingly worried about ideological confrontations with an authoritarian China. This led to a significantly higher level of concern about the implications of China potentially replacing the United States as the dominant world power.

To Xi, the escalating tensions vindicated his anticipation of increasing strategic hostility from Western countries as China closed the power gap. Beijing perceives Washington's accusations toward China on human rights, internal repression, and global aggression merely as pretexts for the United States to contain China, with the underlying intent to hinder China's ascent and obstruct its increasing challenge to U.S. supremacy. Beijing increasingly suspects that Washington is not as committed as before to maintaining a peaceful coexistence with China and that it now has a stronger inclination toward seeking regime change. Such concerns were particularly strong during the second half of the Trump administration. In recent years, Beijing's fears have also been exacerbated by perceived efforts of the United States to deny China's right to development through policies such as tightened export controls. As a result, Beijing has at times perceived itself as facing an existential threat.

The Ministry of State Security reportedly warned Chinese leaders in 2020 that anti-Chinese forces had already led to the worst international environment for the country since 1989, when the Chinese government believed it faced an existential threat because of the Tiananmen Square protests. The ministry concluded in a 2020 report that China needed to prepare for the worst-case scenario of armed confrontation with the United States. This concern is clearly shared by Xi, who has repeatedly argued that China's external environment is experiencing profound and fundamental changes—changes of a magnitude that are unprecedented for at least the past hundred years. In fact, China appears to believe that it faces an even worse security environment today than in 1989 because the United States and many of its allies have only recently focused on China as their primary strategic rival.

Believing that the "all-around containment, encirclement and suppression of China" by the "U.S.-led Western countries" have "brought unprecedented severe challenges to our country's development," Xi has stressed to party officials that "we must adhere to bottom-line thinking and extreme-scenario thinking, be prepared to withstand significant tests of high winds and rough waves, even daunting challenges." Xi frequently uses the phrase "bottom-line thinking" to urge Chinese officials to always think about and prepare for worst-case scenarios.

From its structural realist perspective, Beijing suspects that, regardless of the domestic or foreign policies it adopts, the United States will seek to contain, disrupt, and destabilize China due to the anticipated international power transition; furthermore, the closer China edges to catching up with the United States in relative power, the more desperate Washington will become and will resort to extreme measures, such as inciting what Beijing calls a color revolution or initiating a war. In this view, Chinese efforts to communicate its benign intentions will have little impact on mitigating the rivalry.⁵⁵ Instead, China sees fur-

ther acceleration of the power transition process as the most viable solution.⁵⁶ Perceptions of grave threats lead Chinese leaders to believe that they must utilize all available means, such as accelerating the country's conversion of economic potential into actual military power, including nuclear weapons, to address this existential challenge. From Beijing's viewpoint, China's development and demonstration of a world-class strategic capability could help compel the United States and its Western allies to accept the new reality of China's rise and adopt a more accommodating approach toward Beijing.⁵⁷

This perspective among China's leaders led them to accelerate the expansion of China's strategic capabilities, including nuclear weapons. In fall 2020, when the Central Committee of the CCP unveiled its proposal for the "14th Five-Year Plan (2021–2025) for National Economic and Social Development," as well as the "Visionary Goals for 2035 of the People's Republic of China," it emphasized the need for "the construction of high-level strategic deterrent" systems. This language was also reflected in the published text of the formal "Outline of the 14th Five-Year Plan" and the "Visionary Goals for 2035." 59

However, during a key annual political conference in March 2021, when Xi met with the delegation of the PLA and the armed police, he issued an instruction to "accelerate the construction of high-level strategic deterrent" systems. The inclusion of the word "accelerate" in Xi's instruction, which was absent in the 2020 proposal and the formal outline published in early 2021, underscored the increased sense of urgency felt by the paramount leader as he witnessed the rapid deterioration of China's relations with the U.S.-led West between 2020 and 2021.

As the situation continued to worsen in 2022, Xi announced an even more ambitious goal of "developing a powerful strategic deterrent capability system" in his official report to the CCP's Twentieth Party Congress in October 2022.⁶⁰ This again highlights Xi's heightened sense of urgency and recognition that China needs to demonstrate stronger strategic capabilities in the face of escalating tensions with the United States and the West.

AMBITION AND INSECURITY: TWO SIDES OF THE POWER POLITICS MINDSET

What links the growing perception of an existential threat with the leadership's decision to substantially expand China's nuclear capabilities is the prevailing power politics mindset. The power politics mindset refers to the belief that a nation must rely on its own material power to protect its interests and address perceived injustices through the exertion of coercive influence, rather than relying on the soft power of international rules, norms, and institutions.

In addition to perceiving the structural change in the international balance of power as the fundamental driver of perceived U.S. hostility, China's power politics mindset has become

stronger in recent years due to Beijing's growing belief that the strategic culture of the United States is inherently hegemonic. The reasons behind this view will be explored in more detail later, but this perspective underpins China's growing disillusionment regarding the value of reasoning, persuasion, and diplomacy in improving bilateral relations.⁶¹

Chinese state media, experts, and influential public opinion leaders commonly attribute the perceived discrimination in U.S. policy against China to the United States' troubling internal attributes, frequently referred to as its strategic culture. This perspective is shared by senior Chinese officials. For instance, Cui Tiankai, who served as the Chinese ambassador to the United States from 2013 to 2021 and is considered less hawkish than his peers, has publicly asserted that U.S. hostility toward China stems from deep-rooted racism against non-White people. Consequently, he concludes, "the United States will inevitably go to all lengths, spare no effort, and even act without any bottom line in oppressing, containing, dividing, and encircling and besieging China." Wang Jisi, a leading Chinese foreign policy expert at Peking University, observes that "the most common Chinese understanding about U.S. strategy toward China is that unless and until China's national power exceeds that of the United States, there will be no way to modify Washington's arrogant, aggressive approach." The Chinese leadership has become much less confident in the efficacy of good-faith diplomacy with Washington and sees the buildup of China's material power as the only effective means to deter an inherently hostile adversary from engaging in provocations.

The leadership's current power politics mindset can be traced back to the thinking of previous paramount leaders. For instance, Mao famously expressed his view on the United States by stating that "American imperialists are very arrogant. Wherever they can act unreasonably, they will definitely do so. If they show a little bit of reason, it is only because they have been pushed to a point where they have no other choice." These sentiments, although less prominent during the period of China's reform and opening, have regained popularity in recent years. Echoing these sentiments, Chinese policy experts today often assert that Beijing's recent demonstration of military power has prompted other countries to adopt more accommodating approaches toward China. Even international experts have openly argued that China's bigger nuclear arsenal has made Western countries soften their positions toward China on a range of issues.

Like how Xi has praised Russia's prioritization of nuclear capabilities, Chinese nuclear experts and public opinion leaders have also maintained that Russia's nuclear modernization and assertive nuclear posture have made Washington more cautious in dealing with Moscow. They therefore conclude that a larger Chinese nuclear arsenal would discourage the United States from blocking China's rise and promoting regime instability. They believe that an expanded nuclear arsenal would compel Washington to accept peaceful coexistence with Beijing and treat it with a true sense of equality and "respect."

The power politics mindset drives a strong internal sentiment that it is imperative for China to prioritize development of its strategic military power instead of considering restraint.

In this view, Beijing attributes the source of instability solely to perceived U.S. aggression and believes that its own military capability development is inherently stabilizing. While Beijing has been publicly denying its nuclear buildup to deflect international pressure and buy time, it is confident that its rivals, particularly the United States, will detect its rapid growth in strategic capabilities through national intelligence, surveillance, and reconnaissance capabilities and that this will lead to more accommodating approaches in U.S. policy toward China.

Beijing does not consider its growing power politics mindset a problem, because it blames the United States' "hegemonic" behaviors for making Beijing adopt this viewpoint even though this does not reflect China's preferred worldview and moral principles. This line of thought suggests that the U.S. obsession with and reliance on brute power means that China, in response, must focus on building its own material power to compel the United States into accepting peaceful coexistence. The deepening sense of existential threats and the development of a fatalistic concern that a narrowing gap in power will lead to an eventual showdown between Beijing and Washington have contributed to China's perceived need to take quick, radical countermeasures, including accelerating its nuclear expansion.

China is becoming convinced that defending its legitimate interests is increasingly infeasible unless global power dynamics are rebalanced in its favor, and it perceives this objective as attainable only by proactively contesting U.S. dominance and systematically asserting its influence on the international stage. In turn, China's ambition to reshape the international order has risen to an unprecedented level.

On nuclear issues, China is showcasing a greater ambition to position itself as a strong nuclear power than in the past. The public promotion of its nuclear triad capability—something China had long criticized as a symbol of U.S. and Soviet nuclear hegemonism—is an example of a visible departure from its traditionally low-profile approach to nuclear modernization. Its recent proclamation of its goal to develop "powerful strategic deterrent" capabilities stands in stark contrast to its earlier and more modest aim of upholding a "lean and effective" nuclear force.⁷⁰

China's nuclear buildup should be read in the context of the country's demonstrated ambition across many areas. China is actively engaged in comprehensive efforts to erode the United States' global dominance and influence in non-nuclear and nonmilitary areas. Examples in recent years include promoting dedollarization in international financial systems, asserting Chinese geopolitical influence in regions where the U.S. presence is declining,⁷¹ and establishing competing international institutions such as the International Organization for Mediation in Hong Kong. That said, underlying these efforts is China's intensifying sense of insecurity, which instills a belief that it must rectify its power disadvantage to attain what it perceives as a defensive aim. Due to the power politics mindset, insecurity and ambition are essentially two sides of the same coin in China's current strategic mentality.

The connection between insecurity and ambition has yet to be fully grasped in Washington and other Western capitals. Many American experts suspect that under Xi, China has developed an ambition to achieve nuclear parity with the United States. Some are concerned that China may even aim for acquiring a superior nuclear capability compared to the United States. However, statements by senior Chinese political and military leaders do not provide evidence to support such speculations. Xi reportedly made comments in 2012 about the need to enhance "asymmetric strategic counterbalance capabilities" against a strong enemy (the United States), 73 comments that were repeated by senior military leaders and military experts and that appear in the 2020 *Science of Military Strategy*. 74

The meaning of "asymmetric" is vague, but in the context of Chinese leaders' comments, it seems to mean two things: first, China should employ strategic capabilities in an asymmetric manner—such as across military domains and against the enemy's most vulnerable military nodes—to achieve disproportionate ef-

Due to the power politics mindset, insecurity and ambition are essentially two sides of the same coin in China's current strategic mentality.

fect, and second, China does not necessarily have to pursue numerical or quantitative symmetry vis-à-vis a strong enemy. On the latter point, Professor Sun Mingfu of the Rocket Force Command College, whether recounting Xi's remarks on China's strategic deterrent capabilities or expressing his own views, has stated that "as long as we possess equivalent strategic means and credible combat capabilities, even if there is no numerical and quantitative equivalence, it would be enough to make a strong enemy hesitate, refraining from lightly initiating hostilities, let alone launching a large-scale war against us." In 2022, then vice chairman of the Central Military Commission General Xu Qiliang stated, "The strategic deterrent system serves as the 'ballast' in major powers' struggles, and we must adhere to asymmetrical counterbalancing, as well as the principle of selective development." The phrase "selective development" also indicates a different strategy than pursuing comprehensive parity with the United States.

Such thinking is generally consistent with China's traditional emphasis on asymmetry in its nuclear deterrence relationship with the United States—the belief that a Chinese nuclear arsenal that is smaller than the United States' could still provide credible deterrence. It is likely that Chinese leaders are taking a step-by-step approach in their nuclear expansion decisionmaking; rather than committing to attaining nuclear parity with the United States, China is seeking to hedge against future uncertainties and maintain flexibility by periodically reevaluating its strategic environment and security needs and making subsequent decisions about the next steps. If this holds true, it suggests China's nuclear development is not fixed or predetermined, and international engagement with China on nuclear issues could play a more influential role than many international analysts commonly assume.

The logic embraced by Xi to expedite China's nuclear development to meet broader geopolitical needs, rather than specific national defense requirements, is not new in China's history. Mao adopted a similar rationale as he oversaw China's first nuclear test in 1964.

At that time, Mao was presented with two options regarding the timing of the nuclear test: one option was to conduct the test as soon as the technical preparations were ready, and the other was to wait until further progress was made toward weaponization of the existing nuclear device. From a technical standpoint, the second option seemed more sensible; once the first nuclear explosion was conducted, China's nuclear weapons program would immediately garner public notice, potentially rendering it susceptible to enemy attacks or acts of sabotage. Conversely, opting for a more extended period to finalize weaponization endeavors and produce more fissile materials for additional weapons would narrow the window of vulnerability between the public exposure of China's nuclear program and the achievement of a relatively viable existential nuclear deterrent. Nonetheless, Mao emphasized the psychological importance of nuclear weapons by arguing that the primary role of nuclear weapons is to "scare people." He de-emphasized the importance of technical-level considerations about the military credibility of China's nuclear capabilities and decided to conduct the test early, as he thought the geopolitical environment at that time required China to make its enemies feel "scared" sooner rather than later.⁷⁷

Today, a similar logic drives China's accelerated nuclear buildup, with Xi having an underlying sense of urgency to alter the U.S. perception of the balance of power and address perceived U.S. strategic hostility against China. This aligns with China's growing demand in recent years that the United States should not speak with China from a position of strength and must treat China as an equal power. Beijing sees Washington's hesitation to do so as a fundamental problem undermining the overall stability in the bilateral relationship, a situation that Beijing believes should be rectified by swiftly showcasing its enhanced power. This is consistent with China's broader dissuasion strategy to counter perceived U.S. containment of China. In the economic field, for example, China has sought to impress the United States with its indigenous technological prowess to persuade Washington that export control measures would be futile to blunt its technological progress. 79

China's choice to prioritize the development of silo-based ICBM capabilities is indicative of this sense of urgency to demonstrate enhanced power. Compared to other types of nuclear delivery systems, such as nuclear ballistic missile submarines and strategic bombers, the construction of ICBM silos can be completed relatively quickly, particularly given China's advantage in large-scale infrastructure construction. This choice suggests that the need for a rapid increase in total numbers outweighs the survivability advantages of mobile nuclear forces. The recently reported quality control issues in China's missile programs, including "missiles filled with water" and missile silo lids that cannot open, 80 could be caused by reported corruption but might also reflect the tremendous pressure faced by the Rocket Force and related defense industrial entities to meet intense development goals within a tight time frame.

CHAPTER 2

CHINA'S DOMESTIC DECISIONMAKING DYNAMICS

The profound internal changes within the country over the last decade have been critical to molding the recent shifts in China's nuclear policy. These changes have wielded more significant influence than external changes, including explicit military threats. The previous chapter discussed how changes in the Chinese leadership's thinking have led to adjustments of China's nuclear policy. This section will analyze how various domestic actors have contributed to the shifts.

THE DIMINISHING ROLE OF CHINESE EXPERTS

Xi's establishment of a highly centralized power system and consolidation of key decision-making authorities under his control mark a departure from the efforts of his predecessors—Deng, Jiang, and Hu—who sought to decentralize power and promote intraparty democracy. This has profound implications for China's nuclear policy. With Xi's unchecked power and repeated demand for "absolute loyalty," civilian and military officials face strong incentives to align with and amplify his policy vision. Dissent or even raising questions has high costs in such a power system.

In situations where Xi's original vision lacks specificity—which is often the case because Chinese political leaders tend to provide general and directional instructions on national defense issues—officials at the operational level are likely to advocate for policies that exceed their anticipation of Xi's expectations rather than falling short.

In contrast, in the 1980s, Deng emphasized to Chinese officials that economic development should be prioritized over military advancement.⁸¹ His high-level instructions shaped an era characterized by China's active engagement with the international community on arms control and disarmament issues. During this period, China demonstrated self-restraint in its nuclear modernization efforts, embracing quantitative restrictions and opting not to deploy specific new technologies, such as the neutron bomb.

However, more than three decades later, the current paramount leader has inherited elements of China's traditional nuclear philosophy, such as asymmetric deterrence and no first use (NFU), while also developing his own emphasis of nuclear weapons as an instrument of strategic counterbalance. Xi possesses more power than many of his predecessors, making it easier for the Chinese bureaucratic system to implement swift and significant operational-level changes that go beyond what is nominally achievable by a less powerful civilian leader.

In this context, the role of technical and policy expertise in offering checks and balances to official policymaking has diminished. Experts are marginalized due to two factors. Firstly, they face strong incentives or pressure to amplify Xi's vision and avoid questioning his pol-

Xi possesses more power than many of his predecessors, making it easier for the Chinese bureaucratic system to implement swift and significant operational-level changes that go beyond what is nominally achievable by a less powerful civilian leader.

icy thinking. Secondly, growing secrecy surrounding decisionmaking limits their ability to influence policy deliberations at the official level.

Xi's demand for absolute loyalty and his instruction against "baseless criticism of the central authority" have pushed the expert community to carefully align themselves with Xi's policy perspectives. 82 Xi's personal interest in building a stronger nuclear capability made irrelevant a modest domestic expert debate around

2016 about the necessity and wisdom of China expanding its nuclear forces. ⁸³ His inclination to develop greater strategic military capabilities incentivizes Chinese military strategists to advocate for significant nuclear expansion programs. ⁸⁴ Such military expert advocacy, met with skepticism by previous Chinese leaders, is now received much more favorably and serves to further reinforce Xi's existing inclinations. Xi's repeated emphasis on "self-confidence" and "fighting spirit" also motivates Chinese experts to focus their policy analysis on the wrongdoings of Western countries and advocate assertive policy responses for China. More often than before, Chinese experts write and publish commentaries that criticize each new policy of China's competitors but rarely reflect on China's own policies or practices. ⁸⁵

This is part of a broader trend in other areas of China's strategic decisionmaking. One example is the country's controversial Zero COVID policy, which led to severe humani-

tarian consequences and significantly contributed to China's ensuing economic quagmire. Although those consequences were privately acknowledged by most policy elites, China's public health experts could not question or challenge the policy because of Xi's personal endorsement. Within a system that emphasizes absolute loyalty, members of that system ultimately come to understand that one's loyalty is better demonstrated when one's active alignment with the paramount leader's policy preferences is challenged, rather than supported, by logical reasoning and empirical evidence. Over time, the value of scientific expertise and logical analysis diminishes.

During the early stages of China's nuclear program, prominent nuclear weapons scientists in China held significant influence over senior political leaders' nuclear thinking due to their direct access to the leaders. Many of these scientists also had opportunities to engage with their Western counterparts on arms control and nonproliferation issues during China's reform and opening up era. Partly due to these experiences, many senior nuclear scientists have been proponents within the Chinese system of measures of self-restraint and cooperative security like arms control.

However, their internal influence seems to have decreased, while the military's influence has increased. For instance, in limited domestic debates regarding the expansion of silo-based ICBM capabilities, military perspectives prevailed, despite some senior civilian experts expressing doubts about the wisdom of massive investment in silo-based ICBMs and raising concerns about the impact of pursuing such capabilities on strategic stability, particularly if each missile is equipped with multiple warheads. Recognizing the changing domestic atmosphere, dissenting voices eventually became quiet.

Over time, the thinking within China's policy expert community has become increasingly rigid. This has created a positive feedback loop that tends to validate and strengthen the assertive policy preferences of the political leadership. Very few domestic actors have the will or capacity to stand in the way of this self-reinforcing force.

At the same time, Beijing has implemented stricter rules on secrecy and confidentiality, driven by China's perception of existential threats. Ref These measures have constrained the access of many Chinese nuclear policy experts to internal information and policy discussions, unless they have close associations with official decisionmaking bodies. Consequently, many experts were unaware of China's efforts to expand its nuclear capabilities until foreign researchers revealed them. This highly restrictive domestic political climate discourages Chinese nuclear experts from privately exchanging even publicly available information and personal thoughts about China's nuclear development and policy. The lack of internal transparency and information-sharing leaves many Chinese nuclear experts less informed than their foreign counterparts on certain aspects of China's nuclear issues.

The situation is even more pronounced among China's general security policy experts, who are not necessarily well informed about nuclear policy matters. Even after foreign

researchers publicly disclosed China's construction of three ICBM silo fields, many of these experts dismissed the reports as Western disinformation campaigns. The isolation of many Chinese experts from internal nuclear policy deliberations has reduced their capacity to contribute to policy debates and help perform checks and balances.

The marginalization of experts occurs at a time when China's military-industrial complex is gaining strength. Previously, the top leadership directly intervened to contain these actors' influence. Mindful of the costs of the U.S.-Soviet nuclear arms race, both Mao and Deng provided clear instructions to develop a modest nuclear force; Deng explicitly prioritized economic development over military expansion. However, Xi's emphasis on strengthening the military, particularly strategic capabilities, provides the military and defense industry with increased opportunities to promote assertive policies and influence China's nuclear policy.

As China develops a nuclear triad,⁸⁸ more domestic actors, such as the PLA Rocket Force, Navy, Air Force, and various defense industry entities, have a vested interest in promoting the nuclear enterprise.⁸⁹ Furthermore, the government's patriotic education campaign contributes to the glorification of the military and defense industry, making it even more difficult for experts or the general public to exercise checks and balances on military-related matters.

INTERNAL POLICY INCOHERENCE

The marginalization of experts has intensified the problem of internal incoherence in China's nuclear policy thinking and decisionmaking. An intriguing example of this is the increasing focus in official narratives on warfighting capabilities within the nuclear branches of the PLA.

For decades, China's official nuclear narratives emphasized deterrence rather than warfighting. Nuclear warfighting was labeled as a symbol of offensive nuclear policies pursued by the United States. It was widely believed that China did not view nuclear weapons as usable or relevant in actual battlefield scenarios. However, in recent years, there has been a noticeable shift in the Chinese military's public discourse. Since the military reform at the end of 2015, and particularly since 2017, the Rocket Force has increasingly used slogans that deviate from the traditional avoidance of warfighting references. It has highlighted the objective to "deter war, fight war, stop war, and win war," as well as the need to "direct all our thoughts toward fighting wars, focus on all tasks with the mindset of fighting wars, and accelerate the enhancement of our strategic strike capability." 90

The emphasis on warfighting is not limited to the conventional missile forces that the Rocket Force also operates. For instance, China is now explicitly calling its DF-41 nuclear ICBM a key capability for achieving "strategic counterbalance, strategic deterrent and con-

trol, and strategic decisive victory"—a phrase that is increasingly used to describe the role of China's nuclear forces. ⁹¹ Although Chinese officials have not provided authoritative definitions of the key terms in this statement, it is possible, as analyzed in the previous section, that "strategic counterbalance" refers to the general idea that nuclear weapons shape China's national security environment at the strategic level by affecting the overall balance of power among major nations. While "strategic deterrent" is self-explanatory, "strategic control" could be a vague reference to the growing importance of the escalation management role of China's nuclear weapons—a topic that will be addressed in the next section. Notably, the term "strategic decisive victory" is distinctively new but aligns with the recent trend of emphasizing the goal of "winning wars" with China's nuclear forces. In 2023, China's ballistic missile submarine forces made a pledge to Xi that they will "firmly adhere to the supreme leader's instructions, strengthen the training and preparation for war, and improve the ability to fight and win."⁹²

There has been extremely limited expert-level discussion in China regarding the role of nuclear weapons in warfighting or war-winning, and there is little clarity on the operational and employment strategies associated with slogans like "fight and win." It is possible that these issues have not been thoroughly examined or debated, and internal agreements on the meaning of the new slogans may not have been achieved. The increasing warfighting discourse from China's nuclear forces may stem from Xi's broader emphasis on military preparedness and combat readiness, which applies to all branches of the PLA.⁹³ The creation of new slogans could therefore be an effort by the Rocket Force to demonstrate its "absolute loyalty" and adherence to Xi's general directives on war preparation. Without further evidence, it would be premature to conclude that China has completely abandoned its

long-held nuclear philosophy and fully embraced a nuclear warfighting doctrine at the operational level.

Nonetheless, the current rhetorical emphasis on warfighting within China's nuclear discourse creates tensions with its traditional focus on nuclear deterrence. ⁹⁴ For now, the gap between the official narrative on warfighting and the lack of clarity on substantive changes

It is inadvisable for the international community to presume flawless internal policy logic or coherence when attempting to comprehend China's nuclear strategy.

of the nuclear doctrine and posture at the operational level highlights a growing risk of internal policy incoherence. Such incoherence may grow as China's nuclear policy is increasingly torn between meeting practical external security threats and adhering to internal political directives from the top leadership. It is inadvisable for the international community to presume flawless internal policy logic or coherence when attempting to comprehend China's nuclear strategy.

TAIWAN, NUCLEAR SIGNALING, AND ESCALATION MANAGEMENT

The increasingly realistic risk of a major military conflict over Taiwan has resulted in the nuclear issue shifting from the periphery to a more prominent position in the U.S.-China security relationship. Political factors are the primary source of rising tensions over Taiwan. Foremost among these factors is Xi's personal sense of mission to advance unification and realize his Chinese Dream of national rejuvenation. Portraying himself as a key figure in Chinese contemporary history on par with Mao, Xi seems to harbor aspirations of leaving a significant historical legacy. Having run the country for more than ten years and removed constitutional term limits, he is the first paramount leader in recent decades to serve a third term. But he will face an increasing challenge to justify a fourth or even fifth term—leaving observers to wonder whether he will push for progress in unifying Taiwan to fortify his domestic position. By contrast, the general public and policy elites would like to see unification with Taiwan eventually but are not pushing for a near-term resolution. ⁹⁵ For the most part, they have been following Xi's lead.

Xi's sense of urgency to make progress on the Taiwan issue might have been tempered by the Russia-Ukraine war and China's growing internal challenges, but his instruction to the PLA to become militarily prepared by 2027 profoundly shapes the direction of national deliberations on future policy options. At the same time, the apparent reversal of China's decades-long liberalization process has elicited significant concern and opposition in Taiwan toward unification. Faced with a growing gap between Xi's interest in unification and the difficulty of achieving Taiwan's voluntary unification, Chinese military strategists recognize the need to develop coercive measures for Taiwan. Inevitably, extreme military scenarios where nuclear weapons might play a role have become less unimaginable. In fact, considering Xi's personal investment in the Taiwan issue, PLA officials understand the necessity to thoroughly consider the potential role of nuclear weapons when formulating military strategies; failing to do so would be seen as negligent. With Xi's blessing, officials in the Chinese military and civilian sectors at the operational level possess considerable discretion in determining the specific nuclear development and employment policies they think make sense for China.

There is growing international concern that, if China tried to invade Taiwan but miscalculated and ended up facing a catastrophic defeat, it might resort to using nuclear weapons. For many Chinese officials and experts, the country's long-standing NFU policy is a serious commitment; in their view, Beijing has assessed that nuclear first use would not be in China's interests and would be politically damaging. That said, what constitutes nuclear first use is not always clear. Authoritative Chinese military writings disclosed in the mid-2000s show that the Rocket Force was prepared to threaten the use of nuclear weapons in response to major conventional attacks. The Chinese military has a phrase to denote such a temporary alteration of China's NFU policy during a crisis: "lowering the nuclear coercion threshold." Moreover, Chinese military writings discuss specific measures to try to make China's

threat of nuclear first use appear credible to the enemy. This suggests that the Rocket Force does not see the threat of nuclear first use as a violation of China's NFU policy, so long as it does not actually initiate first use.

The Ukraine war might have enhanced such thinking. Chinese experts carefully watched Russia's nuclear saber-rattling during its war against Ukraine. Many of them seem to have concluded that Putin's nuclear signaling—issuing implicit nuclear threats by conducting nuclear exercises, testing nuclear-capable delivery systems, making references to nuclear weapons, and showing off the presidential nuclear suitcase—skillfully and effectively limited the North Atlantic Treaty Organization (NATO)'s military support for Ukraine and moderated the imposition of economic and political pressure on Russia. Therefore, although the risk is relatively low that China would blatantly violate its NFU pledge and use nuclear weapons first if it were losing a conventional war over Taiwan, it is increasingly likely that China could engage in explicit nuclear signaling tactics—some of which may be deliberately bold, ambiguous, or inconsistent to maximize fear and impact. If true, this would represent a broadening of the role of Chinese nuclear weapons, as China's traditional nuclear strategists were believed to have focused solely on deterring nuclear threats rather than leveraging nuclear weapons to achieve broader security goals.

On this matter, Putin has shown a readiness to diverge from official nuclear doctrine during times of crisis and expand the role of nuclear weapons as he deems necessary. His public statement that "nuclear weapons are designed to ensure our security in a broader sense" went beyond the narrowly defined existential threat outlined in Russia's official nuclear doctrine as a prerequisite for nuclear use. As a personalistic political leader, Xi might similarly reject being constrained by technicalities established in official nuclear doctrine and be tempted to expand the role of nuclear weapons in a major military crisis, especially given his demonstrated belief in the righteousness of China's security goals. If this happens, it is questionable whether Chinese officials at the operational level could effectively influence Xi's decisions.

That said, a more significant way in which Chinese nuclear strategists may respond to a Taiwan conflict is to seek escalation management capabilities. China's fast-growing conventional military capabilities in the Asia-Pacific region, and especially within the First Island Chain, give Chinese military and civilian strategists confidence that the country will grow increasingly capable of achieving military success at the conventional level and have a decreasing need to threaten nuclear escalation in a Taiwan conflict. On the other hand, many Chinese experts worry that the United States, which is gradually losing its conventional military advantage vis-à-vis China in this region, may be tempted to threaten nuclear escalation. Indeed, some American experts have made the argument that the United States may have to give more serious thought to this possibility. Chinese experts also believe Washington has been putting more emphasis on nuclear warfighting capabilities and has sought to deliberately lower the threshold of nuclear conflict by developing and

deploying low-yield nuclear weapons, such as on its global fleet of strategic submarines. The emphasis on low-yield nuclear weapons in the Trump administration's Nuclear Posture Review and the introduction of the "integrated deterrent" concept in the Biden administration's Nuclear Posture Review have contributed to such Chinese perceptions. ¹⁰³

Xi's emphasis on "bottom-line thinking" also encourages Chinese military officials to take unthinkable worst-case scenarios seriously, including the risk that China's enemies may make the most daring moves imaginable to challenge its core interests. ¹⁰⁴ In this spirit, the Chinese military may see the need to address the perceived growing risk of U.S. nuclear escalation—especially in a Taiwan conflict—by developing China's escalation management capabilities. ¹⁰⁵

China's second-strike capabilities—the ability to inflict massive retaliation—are likely to be effective at deterring a large-scale U.S. nuclear attack. However, they may not be sufficiently nimble to deter a limited U.S. nuclear attack against isolated military targets in a regional conflict, especially if such an attack did not cause massive civilian casualties. Chinese nuclear strategists noted this potential weakness in the 1980s, 106 but they seemed to have decided against investing heavily to address it because they assessed that a serious military conflict with the United States was unlikely. However, growing tensions over Taiwan and the perceived need to seriously plan for a major conflict with U.S. forces are prompting a rethink. In this regard, China may now be seeking the capability to respond in kind or in proportion

If Beijing seriously pursues escalation management capabilities, this will have the most profound impact on China's nuclear strategy and U.S.-China nuclear relations in decades. to a limited U.S. regional nuclear attack or, if deterrence fails, to help end a nuclear conflict quickly and on terms acceptable to Beijing.

This represents an important departure from China's traditional nuclear thinking. For decades, China seemed to believe that a conventional conflict was extremely unlikely to escalate to the nuclear level, but

once the nuclear threshold was crossed, it would be extremely hard to control its further escalation and a low-level nuclear conflict would quickly escalate all the way to an all-out nuclear exchange. ¹⁰⁸ However, Chinese strategists appear to have developed serious doubts about both elements of its traditional belief and have become more interested in escalation management capabilities.

If Beijing seriously pursues escalation management capabilities, this will have the most profound impact on China's nuclear strategy and U.S.-China nuclear relations in decades. The specific escalation management capabilities required by China are influenced by how high it is willing to climb the escalation ladder—and hence how much of a risk of an allout nuclear war it is willing to run—should the United States escalate by increasing the

intensity or range of its nuclear attacks. Arguably, increasingly accurate Chinese theaterrange nuclear missiles—such as DF-21 and DF-26, which are also more maneuverable and effective at penetrating U.S. missile defenses than their predecessors—could be useful for escalation management. To advance further, China might want to acquire longer-range nuclear systems that are very accurate and effective at defeating missile defenses so that it could credibly threaten limited retaliations against more distant targets such as Hawaii and the continental United States.

China was able to maintain a small arsenal for decades because a basic second-strike capability against the U.S. homeland was relatively easy to build and not particularly sensitive to the evolving size, composition, or targeting strategy of U.S. nuclear forces. ¹⁰⁹ But if the new Chinese term of "strategic deterrent and control" for nuclear weapons indicates a shift toward acquiring escalation management capabilities, the planning of China's nuclear development and employment strategy will become significantly more complex. In fact, it will become much more difficult for Chinese strategists to assess how many nuclear weapons China needs because this will depend on their assessment of the precise details of Washington's nuclear strategy.

To further complicate the situation, Washington is likely to suspect that China's development of escalation management capabilities reflects Beijing's growing intent to use nuclear weapons first—perhaps in a limited manner—in a future conflict. The United States may respond by enhancing its damage-limitation capabilities with the goal of eliminating remaining Chinese nuclear forces should China use nuclear weapons first. However, to Chinese nuclear strategists, enhanced U.S. damage limitation capabilities could also be used in a preemptive disarming strike against China and undermine the overall credibility of China's deterrent. In such circumstances, China would be concerned that a more confident United States would be more likely to initiate a limited nuclear attack, thereby intensifying China's resolve to further develop escalation management capabilities.

This section has illuminated the PLA's increasing interest in developing escalation management capabilities. But this focus does not fully explain the extent of China's recent nuclear expansion. Beijing's construction of a significantly larger arsenal of intercontinental-range nuclear weapons, including over 300 new silo-based ICBMs and additional road-mobile ICBM units, does not have a direct role to play in managing nuclear escalation in a potential regional conflict with the United States over Taiwan. Following Xi's political mandate to bolster nuclear capabilities, the PLA has diversified its nuclear arsenal. Some elements of this expansion seem particularly useful to enhance second-strike capabilities; others are more directly tied to strengthening escalation management, while additional components appear to serve the primary goal of demonstrating strategic power. Collectively, these efforts enhance China's credentials as a rising global power, aligning with Xi's plan to achieve strategic counterbalance against the United States and improve political stability between the two nations.

CHAPTER 3

THE POLITICAL-NUCLEAR NEXUS IN THE U.S.-CHINA RELATIONSHIP

Building on the discussion of changes in China's nuclear policy, this section explores the consequences for U.S.-China nuclear relations of China's intertwined objectives of political stability and nuclear stability. A broad look at the bilateral political relationship is necessary, as China's overall threat perceptions—critical in guiding nuclear policy choices—are largely shaped by bilateral political discord.

MISMATCHED GOALS: U.S. PURSUES NUCLEAR STABILITY, WHILE CHINA PURSUES POLITICAL STABILITY

For decades, when it came to protecting the homeland, U.S. and Chinese mainstream thinking on the core role of nuclear weapons was not fundamentally different. Both countries generally sought to use nuclear weapons to deter the most serious military threats, especially existential military threats. In the Chinese case, the first generation of political leaders focused on existential military threats posed by nuclear weapons. They believed that a conventional war would not pose an existential threat to China because of the effectiveness of a "people's war" of attrition and China's advantage with a large territory that provided strategic depth. As China's conventional military power has grown in recent decades, a conventional existential threat has become even less likely.

Similarly, the United States has generally tried to use nuclear weapons to deter the most severe military threats to itself and its allies. At the practical level, the U.S. understanding of what could pose such a threat has changed somewhat across administrations. For example, the Obama administration adjusted U.S. policy to indicate that chemical and biological weapons do not always pose as serious a threat as nuclear weapons and do not necessarily require a nuclear threat to deter their use. The Trump administration, on the other hand, implicitly broadened the scope of military threats that might have required a nuclear response. Its Nuclear Posture Review, for instance, indicated that certain "significant non-nuclear strategic attacks" could pose a threat so serious that it could only be deterred by nuclear weapons. Biden has long held the view that only nuclear weapons pose an existential threat to the country, although his administration's Nuclear Posture Review maintained similar ambiguity in its wording as previous administrations. Nonetheless, the U.S. understanding of existential threats has been and still is focused on military threats.

China has always concerned itself with a mixed set of military- and political-level threats. However, in the past decade, there has been a noticeable shift in China's security priorities toward a greater emphasis on political-level threats. This change is exemplified by Xi's focus on regime security within his "holistic approach to national security." Now that Beijing believes that anti-China sentiment among Western countries has reached its highest level in decades, the Chinese leadership wants nuclear weapons to play a bigger role in countering perceived political threats.

Historically, political stability and nuclear stability were inseparable. The Cold War and post—Cold War experience between the United States and the Soviet Union raised the hope that two nuclear rivals could maintain nuclear stability despite a turbulent political relationship. In fact, there is widespread agreement among international experts that as political relations between two countries become more confrontational, increased efforts are required to compartmentalize the nuclear relationship in an effort to facilitate collaborative initiatives aimed at diminishing the dangers of a nuclear conflict and an arms race. However, the challenge today is that China is at a stage where it thinks political problems are more threatening than nuclear escalation risks; it therefore rejects separation of nuclear stability from political stability. According to this view, if Washington wants to maintain nuclear stability, it must first settle bilateral political problems on terms acceptable to Beijing, such as to demonstrate "respect" for China's core interests.

Chinese nuclear experts traditionally championed nuclear stability as a valuable objective in its own right. Over the past decades, the Chinese government was reluctant to have an official dialogue with the U.S. government on nuclear stability—reportedly due to concerns about sharing sensitive information or being taken advantage of by a more powerful nuclear rival—but it was willing to engage through track 1.5 exchanges. Today, many of these nuclear experts have maintained an interest in nuclear stability, but senior Chinese

officials have increasingly hinted that a strategic dialogue that addresses the broader political relationship is a precondition for discussing nuclear stability.

Perceiving an urgent need to enhance political stability, China has re-emphasized its traditional approach of managing U.S.-China relations in a top-down manner. This involves establishing a strategic framework agreement prior to addressing practical-level disputes. From Chinese leaders' perspectives, strategic stability has always been about the overall political stability of a bilateral relationship. The narrow definition of strategic stability that originated from Western literature—what this report terms nuclear stability—is not necessarily accepted by senior Chinese political leaders, including the current paramount leader. For Xi, maintaining nuclear stability is primarily a means to achieve political stability. Given the importance of his views within the Chinese system, experts who prioritize nuclear stability may become less relevant. Moreover, declining official support for discussing U.S.-China nuclear stability makes semiofficial and unofficial exchanges harder to organize, as such exchanges increasingly require government blessing or approval.

EVALUATING THE UNDERLYING LOGIC IN CHINESE THINKING

Underlying China's nuclear policy changes is Beijing's belief that stronger Chinese nuclear capabilities will naturally help improve U.S.-China political stability, because such capabilities would compel Washington to adopt a more conciliatory approach toward China across a wide range of issue areas. However, senior officials never explicitly explain the logic behind this intuitive belief nor do experts thoroughly scrutinize it.

Enhanced Chinese nuclear capabilities might indeed serve as a stark reminder to the United States of the significant escalation risks inherent in engaging in conventional warfare with China, not to mention a nuclear conflict. This heightened awareness of such severe risks could potentially play a role in dissuading Washington from engaging in military conflicts with Beijing. This viewpoint is not necessarily outlandish, but the degree to which a larger nuclear arsenal bolsters deterrence against conventional military aggression, compared to a smaller arsenal, is a subject of intense debate in the Western policy and expert community.

Crucially, the Chinese leadership expects that an expanded nuclear arsenal will prompt Washington to adopt a more conciliatory approach toward Beijing in nonmilitary realms. However, the logic underpinning this expectation remains ill-defined and is often seen by American strategists as lacking empirical evidence. American experts are often puzzled over how, either theoretically or practically, a larger Chinese nuclear arsenal could compel Washington to dial down efforts to economically contain China or to halt political warfare that might jeopardize China's regime security. 116 It could be argued that during the Cold

War, nuclear weapons helped deter direct military confrontations between Washington and Moscow, yet they did not avert proxy wars between the two, nor did they stop political confrontation or economic sanctions, which over time contributed to stresses on the Soviet system and ultimately hastened its collapse.

China still does not see a clear boundary between military conflicts and nonmilitary confrontations. To Beijing, a rising risk of military conflict can compel its adversary to ramp down political confrontations. On the issue of Taiwan, for example, China could drive up military tensions over the Taiwan Strait, which could force the United States to moderate its political positions and take measures such as reducing visits by senior U.S. officials to Taiwan or pressuring the Taiwanese government to avoid causing political "troubles." 117

There are other ways for Beijing to forcibly link military confrontations with nonmilitary issues and leverage its military—or even nuclear—capability to tame nonmilitary behaviors of Washington. For instance, China could retaliate against perceived political attacks against its regime by stepping up military activities along its periphery. This could be done by conducting aggressive interceptions of U.S. military aircraft and ships in areas near China or pushing forward Chinese military presence in areas disputed between China and U.S. regional allies. Beijing could also demand that Washington reduce perceived attacks against its political or economic system before it agrees to join arms control talks.

Seeing China as pursuing purely defensive objectives, the *Science of Military Strategy* implies that it is just and legitimate for China to use "strategic deterrence" capabilities to safeguard "development interests" and maintain a stable internal environment, among other things. ¹¹⁸ Highlighting the importance of "the flexibility of the use of deterrence," the document also asserts that "when national territorial sovereignty is violated, national unity is challenged, and national development interests are threatened, our country has the right to use military means at any time, and it can carry out active and effective strategic deterrence to obtain a military advantage." ¹¹⁹ This broad description of circumstances under which China can leverage its strategic deterrence capabilities leaves room for China to blur the line between military and nonmilitary confrontations.

In this light, China views the advancement of its nuclear capabilities as contributing to political stability—a logic that underpins the PLA Rocket Force's strategic counterbalance mission but that has not been explicitly elaborated. The absence of explicit articulation and in-depth internal discussions of this rationale casts doubt on the effectiveness of achieving political stability by expanding China's strategic military capabilities. Furthermore, the goal of bolstering political stability is inherently nebulous, complicating the establishment of operational benchmarks for assessing nuclear sufficiency compared to more tangible military aims like ensuring second strike capability. This ambiguity complicates efforts to curb excessive nuclear investment.

THE POLITICAL ROOTS OF CHINA'S THREAT PERCEPTIONS

China's interest in utilizing its nuclear capabilities to influence its broader relationship with the United States, across both military and nonmilitary domains, is likely to raise Washington's concerns about Chinese nuclear coercion. Even if Washington acknowledges that China's nuclear expansion could be driven by a genuine perception of the United States as an existential threat, American strategists might still see Beijing's escalating threat perceptions as stemming from internal domestic dynamics over which the United States has mini-

mal influence. This perspective among American policymakers would then reduce the incentive for Washington to provide strategic reassurances to alleviate Beijing's concerns.

Indeed, Beijing's growing perception of the United States as an existential threat coincides with China's increasing domestic authoritarianism and its greater emphasis on safeguarding reTo the United States, Chinese threat perceptions arising from these sources are neither legitimate security concerns based on objective facts nor within the United States' responsibility or capacity to mitigate.

gime security over the past decade. Domestic authoritarianism and regime insecurity amplify perceptions of existential threat in at least two ways, firstly, by attributing international problems solely to external factors and, secondly, by fostering information and perception gaps between societies. To the United States, Chinese threat perceptions arising from these sources are neither legitimate security concerns based on objective facts nor within the United States' responsibility or capacity to mitigate.

Internal Changes That Cannot Be Discussed Internally

To China, structural changes in the international balance of power are the cause of deteriorating U.S.-China relations. However, the United States has a somewhat different view. American experts do not rule out the potential role of structural forces, but many of them also attribute rising bilateral tensions to changes in China's behavior and its strategic orientation. They point to structural factors that should have reduced American concerns about China: the growth of China's material power remained incremental and largely predictable over the last decade, and China's economic growth rate started to gradually decline in 2010. But U.S. perceptions of China as a threat have actually strengthened since around 2015. This cannot be explained by the trajectory of China's material power growth alone.

International China watchers generally believe that the country started to turn more assertive after 2008, when China's outstanding economic performance during the global financial crisis and its successful organization of the Beijing Olympics that year made China more confident and more inclined to question the Western model of development and

governance. ¹²¹ Many experts believe this trend accelerated after Xi came into power in 2012 and has since developed into a major reversal of China's decades-long process of economic, social, and political liberalization that began under Deng. They point to Xi's concentration of power; admiration of Mao's political ideology; insistence on the absolute rule of the party; imposition of "correct" and "patriotic" national narratives on history and current affairs; suppression of dissidents and free debates of government policy; strengthening of the Great Firewall; challenging of internationally accepted concepts of human rights, democracy, and rules-based order; and elimination of internal checks and balances, including the constitutional two-term limit. In short, they believe that China has become significantly more authoritarian than before. ¹²²

Seeing China turning into a more authoritarian power that is increasingly willing and able to challenge the fundamental and universal values cherished by Western countries, the United States has become much more alarmed about the implications of China's rise. Publicly calling the U.S.-China rivalry a competition between democracy and autocracy, 123 many American officials and experts are concerned about at least three potential consequences of China's new strategic orientation for the bilateral relationship.

First, Beijing's increasing domestic repression makes it harder for Washington to look away and keep silent. To Beijing, these public U.S. criticisms directly challenge and threaten its regime security. Second, Beijing's promotion of nationalistic narratives within the country for the purpose of strengthening internal unity and stability has caused the country to adopt—intentionally or not—a more aggressive foreign policy that appears threatening to the United States and its allies. Third, the increasingly strong Chinese rebuttal against Western values and governance models has the effect of making it easier for authoritarian systems to gain legitimacy and momentum in other parts of the world, presenting a broader threat to the West. 124 China's expanding economic capabilities have empowered its growing investments in geoeconomic and geopolitical influence across the world, intensifying U.S. concerns about a broader competition between democracy and autocracy.

However, the Chinese system does not allow the acknowledgement of rising domestic authoritarianism and growing assertiveness in its foreign policy, neither in public discourse nor internal deliberations. Consequently, China attributes all international tensions exclusively to external factors, particularly the structural change in the international balance of power and the inherently hegemonic culture of the United States. China also perceives what it calls the black hand of the West in incidents of domestic unrest in Xinjiang, Hong Kong, and other regions, amplifying China's perception of an existential threat from the U.S.-led West. This has worked to widen the information and perception gaps between China and Western nations.

Information and Perception Gaps

For decades, the lack of free-flowing information between China and the outside world has created two separate information ecosystems where the Chinese and Western populations have systematically absorbed different information regarding domestic and international affairs. As a result, they have developed conflicting perspectives on a wide range of basic factual issues. This leads the two sides to increasingly talk past each other, preventing the development of genuine mutual understanding.

On the issue of Xinjiang, for example, the vast majority of Chinese people genuinely believe that the United States and other Western countries' criticisms of reeducation camps and forced labor are disinformation fabricated to demonize and undermine China. The Chinese perception that the U.S.-led West has blatantly made up these horrible lies to advance its geopolitical interests leads to extremely negative observations about the internal characteristics of these nations. Many Chinese people conclude that these countries lack basic moral guidelines and that their anti-China policy is driven by highly unethical and hegemonic interests. Such convictions then lead to increased disillusionment about good-faith diplomacy and deepen the power politics mindset.

The systematic information control and public opinion management system within China has helped construct the prevailing national perception that China has an inherently benevolent and pacifist culture and is incapable of wronging others. ¹²⁶ During the first virtual summit between Xi and Biden in November 2021, Xi reiterated his often-made comment: "The Chinese people do not have the gene in their blood of invading others and pursuing hegemony." ¹²⁷ Given China's strong conviction that it cannot be responsible for any tensions between itself and other countries, it expects other countries to fully accept its peaceful intentions. ¹²⁸ As Harvard University's Alastair Iain Johnston points out, "Because Self believes Other knows Self is not a threat and yet acts aggressively against Self, then Self is even more certain that Other's intentions are aggressive. . . . As security dilemmas intensify further, and Other is considered an existential threat, security seeking may blur into relative power maximization through the destruction of Other. In other words, revisionist intentions can emerge from security dilemmas as socialization processes." ¹²⁹

The growing information and perception gaps poison the U.S.-China relationship. Even in places where information flows freely, like within the United States, the spread of misinformation and disinformation is causing unprecedented social polarization and unrest. Such divisive forces are exponentially more destructive for the U.S.-China relationship due to strict restriction of information access and systematic management of public opinion by government agencies. The situation has steadily deteriorated in recent years, as heightened regime security concerns lead to increasingly stringent information controls. ¹³⁰

Policy elites in China are similarly affected by information and perception gaps. For instance, private conversations with Chinese foreign and security policy experts, including those working on issues of biosecurity and weapons of mass destruction, indicate that the majority of such experts seem to genuinely believe the United States has been conducting illegal biological weapons research at U.S.-supported biolabs in Ukraine and a large number of other countries. The consequences of such a systematic divergence of views between China and the West over basic factual issues cannot be overstated. In the above case, Chinese policy experts interpret the revelation of illicit biological weapons research and the subsequent U.S. denial as further evidence of the United States' complete lack of credibility and its contempt for fundamental international laws and norms. To them, it exemplifies the United States' ability to rally allies and friendly nations to distort global narratives and influence international organizations to its advantage. Consequently, they argue that China must prepare for extreme scenarios and focus on enhancing its strategic strength, including nuclear capabilities, as a means of self-protection.

Senior Chinese leaders are equally vulnerable to the impact of China's tightly controlled information environment. Xi, having come of age within this system, seems to have been profoundly shaped by China's official narratives and worldviews. Since assuming the country's leadership position, he has intensified his commitment to advancing these sanctioned narratives, considering them the sole accurate lens through which to interpret society and the world. The assumption that classified internal news and intelligence products for senior leaders are protected from systematic selection bias should not be taken as a given. Even when provided with unfiltered and comprehensive information, senior leaders are prone to interpreting it through their preexisting ideological perspectives that face no challenge within the system. The powerful apparatus of state propaganda and information control

The precarious stability offered by nuclear deterrence has inadvertently reduced the urgency to tackle deeprooted political issues.

agencies then amplifies this set of perspectives throughout the bureaucracy and populace.

As a result, the U.S.-China relationship faces a strategic predicament: U.S. efforts to defend what Washington perceives as basic facts, universal values, and essential principles are viewed by

China as spreading disinformation, conducting public opinion warfare, and promoting color revolution, thus posing a grave threat to China's regime security. In the Chinese system, regime security outweighs all other national concerns—an inclination that has been openly and emphatically underscored by Xi.¹³¹

Over the past several decades, countries like the United States and China pursued nuclear weapons because the political struggles between them were too serious to manage, so they had to resort to nuclear deterrence as a temporary means to maintain peace. However, the

precarious stability offered by nuclear deterrence has inadvertently reduced the urgency to tackle deep-rooted political issues. Over time, the entrenchment and amplification of each side's narratives have led to the current state, where mutual understanding seems unreachable as though each side exists in a separate reality. The widespread support among the Russian populace for Putin's geopolitical views and their sympathy toward his objectives in Ukraine highlight how information and perception gaps between societies can threaten peace and sustain conflicts. Given China's more systematic and prolonged efforts to control information flow and mold public opinion than Russia, the information and perception gaps between China and the West are arguably more marked than those between Russia and the West. This situation further intensifies the U.S.-China rivalry in nuclear and broader security domains.

Increasing Chinese animosity toward the U.S.-led Western order also stems partly from the increasing divergence between prevailing Chinese and Western perspectives on social evolution. Despite internal debates between conservatives and liberals, Western societies on the whole have progressed more extensively in adopting liberal values and perspectives on issues such as individual freedom, minority rights, social tolerance, and diversity and integration. While a similar process of social evolution is also unfolding within China, senior Chinese leaders perceive a threat to China's core values and identities from the socialled corrupt Western culture. Many otherwise normal social debates over issues such as marriage, reproduction, and gender identity are increasingly portrayed as fights between righteous traditional Chinese values and degenerate Western ones. It is no coincidence that anti-U.S. and anti-West sentiment in China in recent years has risen together with the government orchestrated campaign to uphold China's traditional values, culture, philosophy, and lifestyle. There is a mounting apprehension that Western governments and institutions are intentionally advocating ideas of social equality, such as feminism and minority rights, within China to provoke social turmoil and potentially trigger a color revolution.

Admittedly, attributing internal divisions to deliberate manipulation by foreign forces is a tendency exhibited by politicians in numerous countries. Yet, in the context of China, this inclination takes on a more prominent and methodical character through a state-driven societal campaign. Government agencies like the Communist Youth League and state media have played a pivotal part in framing internal social conflicts in China as battles against Western influences.

As China moves rapidly toward becoming a modern society, internal social changes and conflicts are bound to increase. If the U.S.-China rivalry is understood to be about fundamentally irreconcilable values and ways of life, then there is little room for mutual accommodation. The heightened sense of existential threat further bolsters China's conviction that a more robust strategic capability is imperative to compel the United States to exercise restraint and diminish its endeavors to influence or alter China.

CHALLENGES TO PROMOTING POLITICAL STABILITY THROUGH A TOP-DOWN APPROACH

Beyond Washington's belief that Beijing's increasing perception of existential threat is illegitimate and stems from internal dynamics, several additional factors complicate China's attempts to pressure the United States into addressing Beijing's concerns about political instability.

From the Chinese perspective, managing the broader relationship in a top-down process is the best, and perhaps the only workable, approach to resolving bilateral disagreements at the operational level. A high-level U.S. commitment to maintain stable political relations would create the necessary condition for lower-level, operational management of issues such as nuclear weapons.

In practice, however, the current Chinese strategy of treating the resolution of political issues as a precondition for operational-level cooperation has been counterproductive. Beijing's reluctance to engage substantively in nuclear discussions—including on arms control, risk reduction, and transparency—has only intensified U.S. disillusionment with diplomatic efforts and bolstered U.S. resolve to develop military countermeasures. This approach has not brought Washington any closer to committing to stabilizing political relations with Beijing.

To make China's preferred top-down approach of promoting U.S.-China political stability operable, at least three challenges need to be addressed.

First, Chinese expectations of what political stability means are not sufficiently clear. It is uncertain what China thinks bilateral political stability entails at the practical level. Indeed, there has been very little public discussion of this issue in China.

Based on often-heard Chinese complaints about U.S. policies, it is reasonable to assume that China's understanding of political stability refers to a mutual commitment to peaceful coexistence or, to be more specific, a mutual commitment to respecting each other's core interests.¹³²

However, China's understanding of its core interests has evolved over time, with the scope of the interests expanding and their meaning increasingly nebulous. Core interests used to refer only to China's sovereignty over Taiwan, Tibet, and Xinjiang. But China's most recent official declaration, published in 2011, defined its core interests as "state sovereignty, national security, territorial integrity and national reunification, China's political system established by the Constitution and overall social stability, and the basic safeguards for ensuring sustainable economic and social development." According to senior Chinese officials' statements, these core interests fall into three main categories: 1) ensuring China's political and regime security, particularly the rule of the party and implementation of the socialist system; 2) ensuring China's key security interests, which include state sovereignty, national

security, territorial integrity, and national reunification; and 3) ensuring China's development rights to become a more advanced and richer country. Such a broad definition of core interests requires significant specification to render them practicable. The United States fears that a commitment to respect vaguely defined Chinese core interests would translate into ever-increasing Chinese demands without a clear understanding of what Washington would receive in return. This would be a bad deal in technical negotiating terms and an unsustainable deal in U.S. domestic political terms.

Second, it is unclear how the United States would fulfill a commitment to respect China's core interests such as regime security and development rights. Is Washington expected to refrain from criticizing Beijing on issues such as human rights, the rule of law, and freedom of speech? Are U.S. export control policies that restrict some Chinese companies' access to American technologies a violation of China's development rights? (Chinese officials have suggested that the answer to both questions is yes, but they have not clarified exactly what they expect from the United States.)¹³⁶

Relatedly, what practical steps would China require as a credible signal of U.S. commitment to a stable political relationship? Would the United States be expected to endorse China's traditional "five principles of peaceful coexistence," the newer concept of a "new type of great power relations," or the most recent slogan from Xi himself about building a "community of shared future for mankind?" If declaratory policy is not enough, is China seeking a comprehensive political agreement on a wide range of security, economic, and technological policies to codify U.S. responsibilities? Does China want the United States to promise not to build a NATO-like multilateral alliance network in the Asia-Pacific and refrain from deploying strategic military capabilities within certain distances from China's borders? Would any agreement have to be legally binding? How does China wish to address the fact that even if a U.S. administration were to accept such a deal, it could not bind Congress or successive administrations? China has not revealed its views on these issues, probably because it has not yet clarified its own thoughts.

Third, Beijing lacks a definitive response on how to offer reciprocal reassurances to alleviate Washington's concerns regarding the long-term consequences and risks associated with accepting Beijing's vision for political stability.

For Washington, committing to political stability with Beijing could mean conceding to Beijing's revisionist ambitions. From the U.S. standpoint, a more empowered and confident China is already taking a more assertive stance, for instance, showing impatience toward achieving unification with Taiwan. If China gained parity with or surpassed U.S. capabilities, its assertiveness might grow and it might aim for broader expansionist objectives than currently observed. Some experts are concerned that a more powerful China might result in Chinese hegemony in the Asia-Pacific and in developing regions, the dissolution of American regional alliances, the withdrawal of U.S. forces from Japan and South Korea, the

barring of U.S. naval activities in the West Pacific, and the settling of the Taiwan issue and other territorial disputes in the East and South China Seas through coercion. These are significant concessions for Washington to consider.

More broadly, there is deep apprehension in the United States that an increasingly powerful China will more readily contest current regional and global institutions, possibly aiming to supplant them with alternatives influenced or even dominated by China. Indeed, the U.S. Central Intelligence Agency Director William Burns has observed that Xi is "determined to . . . shap[e] international rules of the road as well as the international landscape to suit the Chinese leadership's preferences. In recent years, China has shown its readiness to openly disregard international legal decisions, such as the Hague Tribunal's 2016 arbitration verdict against China's maritime claims in the South China Sea. It has directly contested the notion of universal values, criticized the prevailing rules-based international order, and initiated efforts to reinterpret democracy. Even Chinese experts recognize the shift from China's earlier stance: while it previously viewed itself as a beneficiary of the international system, it now perceives that it is "no longer accommodated by [that] order and it needs to work on how to build something new."

China's aspiration to shift the international balance of power by building up its strategic capabilities, including nuclear weapons, would be especially concerning to the United States. Some American China watchers have expressed concerns that China's expanding nuclear arsenal could help China establish its dominant power in a "radically transformed international order." In this sense, the appearance that China could compel the United States to accept bilateral political stability by allowing Chinese strategic military capabilities to expand could send a problematic signal to other U.S. nuclear rivals. It might raise the public perception that other states could compel the United States to accept political stability by investing in the development of military strength, especially nuclear weapons strength. At the end of the day, the ultimate objective of countries such as North Korea or Russia is to make the United States accept peaceful coexistence and turn a blind eye to their governments' troublesome domestic and regional behaviors. If nuclear buildup is perceived as useful for advancing this goal, it would negatively affect U.S. and its allies' security in the long run.

It is unlikely that the United States would commit to political stability with China without genuine Chinese efforts to mitigate U.S. concerns about its future actions. Yet, China appears unaware of how its current strategy negatively affects its objective to foster political stability with the United States, and it has not recognized the necessity to offer strategic reassurances to Washington. This partly results from the lack of internal clarity on China's own strategic objectives and a coherent strategy to achieve them. Beyond declaring the abstract goal of fulfilling the Chinese Dream of achieving national rejuvenation by 2049, Beijing has not laid out what its goals entail. If In spite of Xi's statement that "China will never claim hegemonism, never expand, and never seek spheres of influence," China's

track record has led some Chinese netizens to half-jokingly summarize their country's foreign policy as the following: "when you are poor, you 'shelve the disputes;' when you are rich, you claim 'your historical rights."

Part of the reassurance problem results from the growing internal dilemma China faces. Beijing's priority has long remained to safeguard its regime security. However, given the fact that the simple existence of the Western political system and its values presents an increasing threat to China's regime legitimacy, the Chinese government feels no choice but to defend its authoritarian system by actively contesting Western values, ideas, and narratives at international forums. Such aggressive behaviors that appear to be offensive attacks against the Western systems and way of life are actually driven by a self-perceived defensive goal of protecting China's internal stability and regime security. The internal priority of maintaining regime security also propels China's escalating confrontation with the United States on a wide range of issues, including human rights, espionage activities, and hostage diplomacy, making it more difficult for Washington to commit to the type of stable political relationship Beijing seeks.

CHALLENGES TO COMPARTMENTALIZATION

If enhancing political stability via a top-down format proves difficult, is it feasible for the two nations to compartmentalize political stability from nuclear stability? The deliberate intertwining of nuclear and political stability in China's current practice is a significant barrier. Nonetheless, should China eventually cease to condition nuclear stability on political relations, the persistent, high political tensions between the two countries would still constitute a significant obstacle to implementing compartmentalization.

One important factor behind China's reluctance to compartmentalize and engage in separate discussions on nuclear stability with the United States is its skepticism of Washington's true commitment to nuclear stability. From China's perspective, the United States has applied double-standards to its own nuclear policy compared to that of China, referred to as a "differential" policy in this report, contributing to Chinese grievances that Washington aims for nuclear primacy rather than mutual nuclear stability. Political discord has been a major reason behind the U.S. differential nuclear policy toward China, and this has escalated in recent years. Consequently, Washington encounters increased difficulties in aligning with Beijing's expectations for nuclear stability.

For a long time, Beijing looked for a clear U.S. acknowledgement of nuclear mutual vulnerability—a state where each nation accepts its susceptibility to devastating retaliation by the other's nuclear forces—as an indicator of U.S. commitment to bilateral nuclear stability.

However, at the political level, an explicit U.S. commitment to nuclear mutual vulnerability would send an unwelcome signal of political concession. As in the Cold War, the United States today faces growing domestic pressure not to appear too conciliatory to a geostrategic foe that openly challenges American values and interests. This domestic pressure has intensified because most analysts in Washington believe that growing Chinese assertiveness is a result of heightened Chinese revisionist ambition rather than a lack of U.S. reconciliation or reassurance efforts. 150

Another challenge for Washington to commit to bilateral nuclear stability is enduring U.S. and allies' concerns about the conventional security implications of enhanced U.S.-China nuclear stability. China's efforts to strengthen its nuclear capabilities help ensure that Washington and Beijing will be locked into an inescapable mutual nuclear vulnerability relationship, so that China can better leverage its growing conventional military power without fear of nuclear escalation by the United States. As a result, many U.S. allies worry that, as the theory of the stability-instability paradox predicts, China may feel emboldened to engage in more aggressive conventional-level military behavior. For this reason, some U.S. allies—especially Japan, which has territorial and maritime disputes with China—have consistently opposed any acceptance of nuclear mutual vulnerability with China by the United States. More recently, following the outbreak of the Ukraine war, a key American concern is that China's nuclear buildup may give it more freedom to use conventional force, including in a conflict over Taiwan.¹⁵¹

U.S. differential policy is reflected in the fact that it sees China's quest for military operational freedom as destabilizing, while viewing its own similar pursuits positively. This stance spans both conventional and nuclear operations. In the nuclear realm, Washington considers it stabilizing for itself to maintain the option of nuclear escalation in conventional conflicts, such as those over Taiwan, while viewing any attempt by Beijing to initiate limited nuclear use or threats as destabilizing. Washington is also deeply concerned about any potential Chinese development of nuclear counterforce damage limitation capabilities, even though the United States has maintained such capabilities for decades. Such disparity stems from fundamental political disagreements over which side's objectives and actions are just. Regarding Taiwan, for instance, Washington contends that Beijing's coercive push for unification, especially militarily, so threatens global norms and peace that expanded U.S. military latitude is warranted. Beijing, conversely, sees U.S. intervention interests as bids to contain China and preserve American hegemony—thus viewing Washington's quest for operational freedom as particularly unsettling.

Such a divergence of views about the nature of bilateral military confrontations is widespread between the United States and its authoritarian nuclear rivals, such as China, North Korea, and Russia. Washington appears to hold the view that authoritarian countries are more inclined to initiate unjust wars and pursue revisionist objectives, more impulsive in their threats of nuclear first use, less reliable in adhering to international norms and ethical standards, and more unpredictable in their strategic decisionmaking. As a result, the United States sees valid grounds for adopting a different nuclear policy standard toward authoritarian adversaries, underpinned by these perceived distinctions in governance and international behavior.

Between Washington and Beijing, political disagreements not only contribute to U.S. reluctance to accept mutual nuclear vulnerability or sign a mutual nuclear NFU agreement with China but also enhance U.S. interest in developing homeland missile defense capabilities and maintaining an effective damage limitation capability against China. All of these are viewed by Beijing as evidence of U.S. rejection of bilateral nuclear stability.

In particular, the U.S. interest in seeking damage limitation through the development of counterforce capabilities reveals a deep-seated mistrust of its nuclear rivals' intentions or abilities to reach agreement with the United States on essential mutual interests. The United States' objective to neutralize as much of its adversaries' nuclear forces as feasible highlights profound U.S. doubts about adversaries' dedication to not initiating a nuclear war or to de-escalating once a nuclear conflict has begun. The U.S. nuclear targeting strategy's emphasis on directly threatening adversaries' leaders reflects a lack of confidence in achieving a fundamental mutual understanding of each other's interests at the leader level, a critical requirement for avoiding a race to the bottom in nuclear escalation.

Such U.S. apprehensions seem justifiable when considering nuclear adversaries led by figures like Mao or North Korea's Supreme Leader Kim Jong Un, whose unique ideological beliefs and perspectives significantly differed from those of American leaders, thus severely undermining U.S. confidence in establishing essential mutual understandings. For instance, Mao explicitly stated, more than once, that if a full-scale nuclear conflict led to the demise of half, or even two-thirds, of the world's population, "it wouldn't necessarily be a bad thing." He believed "it would only take the span of several five-year plans to replenish the population" and that such a war "could completely eradicate capitalism and thus guarantee everlasting peace." ¹⁵²

Four decades after Mao's passing, China finds itself once again governed by a leader aspiring to Mao's level of absolute control and sharing many of Mao's ideological perspectives, sparking apprehension in Washington. Some American experts worry that Chinese military aggression might not stop at disputed territories within the First Island Chain;¹⁵³ if China controlled these places, it would be in a better position to project military power further into the West Pacific and thus carve out a broader sphere of influence to the detriment of the United States, its allies, and other countries in the region. If concerns about China's military aggression continue to grow, more American experts might conclude that maintaining nuclear stability is not an unalloyed good and that Washington should be prepared to threaten nuclear use in a high-stake conventional war with Beijing.¹⁵⁴

In recent years, growing American concerns about China's geostrategic intent and its closer cooperation with countries such as Iran and North Korea have also led to some in the United States calling for the end of distinguishing China from so-called rogue states. Despite the persistent official policy that the United States relies on nuclear deterrence, rather than homeland missile defenses, to deter nuclear use by China or Russia, some American experts argue it is time to deploy ballistic missile defenses against China and Russia without any self-restraints. This further contributes to China's suspicion of the United States' commitment to bilateral nuclear stability.

However, Beijing is not yet aware of the need to reassure Washington and its allies as a measure that could discourage Washington from maintaining its differential nuclear policy. For instance, China does not recognize the increasing tension between achieving U.S.-China nuclear stability and its coercive use of military power to change the region's territorial status quo. Instead, Chinese experts attribute the U.S. reluctance to negotiate a NFU agreement or acknowledge mutual vulnerability with China almost entirely to a perceived hegemonic desire to maintain nuclear primacy and undermine China's nuclear deterrent. Fundamentally, China concludes that the United States' differential nuclear policy is rooted in deep-seated political bias and animosity toward countries such as China. This conviction leads Beijing to doubt the efficacy of cooperative efforts to achieve nuclear stability with Washington. Instead, China views nuclear stability as attainable only after it forces the United States to abandon its political prejudices and prioritize establishing a more stable and equal political relationship.

While China's nuclear expansion aims at helping achieve this goal, it instead heightens American skepticism about the feasibility of a cooperative approach to pursue bilateral nuclear stability. Because of Beijing's lack of transparency about the motives behind its accelerated nuclear buildup and its desired end state, Washington increasingly worries that the buildup is driven by a more aggressive nuclear strategy, perhaps involving a stronger emphasis on first use of nuclear weapons.

Frustrated by repeatedly trying and failing to get Beijing on board with a nuclear dialogue, Washington is considering measures to address the perceived risk of Chinese nuclear escalation by strengthening U.S. nuclear capabilities and postures. These measures are likely interpreted by China as offensive moves to widen the existing U.S. nuclear advantage. For instance, the Biden administration's Nuclear Posture Review emphasized the capability to forward-deploy nuclear weapons and delivery systems to the Indo-Pacific region as part of a broader effort to reassure allies and strengthen extended deterrence. U.S. interest in deploying theater-range, land-based conventional missile capabilities near China to complement air- and sea-based conventional strike capabilities adds to Beijing's concerns about Washington's pursuit of nuclear primacy. In addition, current Chinese evaluations of American nuclear policy objectives largely ignore or dismiss new American concerns about the need to deter two nuclear near peers simultaneously. Viewing Chinese and Russian

nuclear arsenals merely as tools to counter American nuclear coercion, some Chinese experts privately suggest that the United States has invoked the nuclear trilemma issue as a pretext to abandon any remaining U.S. commitment to U.S.-China bilateral nuclear stability.

IMPLICATIONS FOR ARMS RACE STABILITY

With China relying more on military power and nuclear weapons to help address political instability, it has become harder to manage U.S.-China nuclear competition and prevent arms races. This is true even if Chinese leaders are taking a cautious, step-by-step approach to strengthening China's nuclear forces.

The power politics perspective holds that once China completes its current round of nuclear buildup, its leaders will expect to see a reduction in perceived U.S. hostility toward China. However, the outcome is likely to be the opposite: China's opaque nuclear expansion is more likely to heighten, rather than alleviate, the United States' apprehensions about Beijing's military and strategic aspirations. This, in turn, could prompt Washington to pursue more robust military countermeasures and potentially adopt tougher overall policies toward China. In response to perceived persistent U.S. hostility, Chinese leaders will likely conclude that China's nuclear expansion is insufficient and that an even larger arsenal is necessary to compel the United States to acknowledge China's power.

As outlined below, China's perception of hostile U.S. strategic intentions contributes to arms control instability in several specific ways.

Nuclear Development Goals Less Informed by Nuclear Threats

There is significant disconnect between China's nuclear development goals and the specific nuclear threats the country faces. The often-heard Chinese argument—that the country's existing nuclear arsenal is becoming more vulnerable because the United States is becoming more hostile toward China—is debatable. China's previous criteria for nuclear survivability were already based on the worst-case scenario in which Washington becomes Beijing's mortal enemy and is willing to attempt an all-out nuclear war—including launching a large-scale, disarming first strike. Even if the United States has now become more hostile than before, technical calculations about whether China has an effective second-strike capability in an all-out nuclear war should not have changed.

Admittedly, it is reasonable for Beijing to worry that a more hostile United States could be more likely to exploit any potential vulnerability in China's second-strike capabilities. Nonetheless, prior to the recent buildup, Chinese nuclear experts seemed to generally agree

that even if China's current nuclear retaliation capability was not completely guaranteed, Beijing should be able to ensure a higher degree of certainty through modest, incremental modernization efforts. Moreover, when Xi ordered the PLA to expedite nuclear modernization shortly after he came to power and when he decided to further accelerate the buildup a few years after that, there were no obvious indicators of U.S. attempts to exploit Chinese

If Chinese nuclear policy is no longer directly influenced by operational-level nuclear threats from the United States, the likelihood of managing the nuclear arms race through bilateral negotiations at the nuclear level decreases.

nuclear vulnerabilities. There were no new U.S. plans to substantially increase counterforce strike and strategic defensive capabilities to levels that would pose a significantly greater threat to China's second-strike capability than in the early 2010s. Even today, the American policy community is still debating what countermeasures the United States should take regarding China's buildup, and

Washington has not acted to significantly build up its strategic offensive and defensive capabilities.¹⁶² As of June 2023, the Biden administration remained publicly opposed to a quantitative expansion of the U.S. nuclear arsenal.¹⁶³ In any case, if Chinese nuclear policy is no longer directly influenced by operational-level nuclear threats from the United States, the likelihood of managing the nuclear arms race through bilateral negotiations at the nuclear level decreases.

In the meantime, the Chinese public's strong antipathy toward the United States has made it easier for China's military and defense industry to justify various development programs on the basis that they can help strengthen China's strategic deterrent—a politically convenient concept that has lacked a clear definition in practical terms. Because of increasing internal secrecy and declining domestic checks and balances, excessive nuclear capability development is inevitable.

Insecurity Breeds Tactics of Confusion

Amid a deteriorating security environment, China has opted for heightened secrecy and ambiguity because of its perception of substantially elevated threats. For example, Chinese state media formally denied the existence of new missile silos identified by foreign scholars. A Chinese foreign ministry spokesperson dismissed the reported testing of an orbital hypersonic weapon system as a civilian experiment. And Ambassador Fu Cong, then director general of the foreign ministry's Arms Control Department, called the West's assertion about China's nuclear expansion untrue.

China has tightened secrecy rules for officials and experts to prevent other countries from understanding not only China's military capabilities and major policy decisions but also its

domestic policy deliberations and cost-benefit analyses. Xi signed a decree in 2020 to enhance confidentiality over military matters that broadly covers "important military events, overseas publicity, exchanges with other militaries, and arms fairs abroad." The government took special efforts to crack down on the discussion of military affairs by Chinese netizens online. Many Chinese experts, including academics, must go through lengthier procedures to get official approval to attend conferences, meetings, and online discussions that involve foreigners. The increasingly effective Great Firewall has made it ever more difficult for Chinese experts to keep in touch with foreign counterparts. To

These measures are intended to strengthen deterrence by keeping China's enemies guessing about China's capabilities, goals, and strategies. However, precisely because they reduce Washington's capacity to understand and evaluate China, the United States is more likely to embrace worst-case-scenario thinking. Lack of transparency has given more extreme estimates of China's current and future nuclear capabilities breathing room in U.S. policy debates.

Clarifying Technical Misunderstandings Becomes More Difficult

Greater concern about each other's strategic intentions makes it more difficult to build the common technical understandings necessary to make practical progress to contain nuclear competition. For instance, threats to nuclear forces from non-nuclear military technologies—such as missile defenses, high-precision conventional weapons, cyber capabilities, remote sensing, and artificial intelligence—are much more acute than during the Cold War. Although American and Chinese experts agree in general terms that such capabilities could impact China's small nuclear arsenal, they disagree considerably about the degree of such impact. Moreover, both sides tend to see the other's technical arguments as disingenuous excuses to disguise malicious intent.

The U.S.-Chinese dispute in 2016 over the Terminal High Altitude Area Defense (THAAD) missile defense battery deployed in South Korea is a case in point. Worried about U.S. strategic intent, Chinese technical experts adopted worst-case-scenario thinking and genuinely believed that the system's radar would enhance U.S. homeland missile defense capabilities and enable Washington to undermine Beijing's strategic nuclear deterrent. American technical experts generally dismissed such concerns, but bilateral political tensions prevented American and Chinese technical experts from conducting substantive exchanges to identify the source of their technical disagreements, causing even stronger convictions on both sides about each other's malign strategic intentions. Beijing believed Washington would not acknowledge the threat posed by THAAD to China's nuclear deterrent because it wished to disguise its real goal. Washington, meanwhile, believed that Beijing knowingly exaggerated the threat to justify actions against South Korea and undermine the U.S.-South Korea alliance. American and Chinese experts still have not been able to jointly examine their technical disagreements.

As the bilateral political relationship deteriorates, the American and Chinese expert communities are encountering heightened challenges in engaging in substantive discussions and meaningfully reducing disagreements. This has resulted in decreased capacity to develop shared perspectives on the implications of U.S. non-nuclear capabilities for China's nuclear deterrence. As a result, mutual agreement is becoming more elusive on whether the scale of China's nuclear modernization is justified by objective external threats.

Political Suspicion Discourages Experts From Playing Constructive Roles

The perception that the United States poses an existential threat increases the reluctance among Chinese experts to positively evaluate U.S. security policies or critically review Chinese policies. Part of this tendency results from genuine distrust in U.S. intentions: almost all Chinese experts disregard U.S. measures of self-restraint and its advocacy for arms control, perceiving them as political maneuvers designed to entice China into adopting policies that would undermine its security.¹⁷⁴ Conversely, the perception among U.S. experts that China will pocket any U.S. gestures without reciprocating them reduces willingness to compromise in the first place.

There is also growing domestic pressure on Chinese experts to help bolster China's image as a responsible country and highlight the "hypocrisy" of and "hegemonism" behind U.S. policies. ¹⁷⁵ Chinese experts are generally willing to oblige since they, along with the broader public, genuinely believe in this narrative. (There appears to be similar pressure to criticize Chinese policies in the U.S. expert community, but it is less intense and not directly promoted by the authorities.)

The lack of analytical neutrality and independence diminishes the significance of dialogues for many American experts. Meanwhile, greater Chinese suspicion about the United States' strategic intent also makes Chinese experts more reluctant to share information with their American counterparts, making technical-level dialogues over nuclear stability issues harder to be substantive.

Political Suspicion Raises the Bar for Arms Control Deals

Distrust about the character and integrity of the United States intensifies China's determination to pursue stringent agreements rather than loose arrangements that assume a degree of mutual trust.

Even if both sides are interested in negotiating arms control deals, they face domestic pressure to prioritize legally binding agreements over easier-to-negotiate politically binding ones (which also avoid the challenge of ratification by the U.S. Senate). Beijing has formally declined any possibility of engaging in trilateral arms control negotiations with the

United States and Russia. It has also shown a cold shoulder to U.S. proposals for bilateral arms control talks.

Nonetheless, to uphold China's international image as a peaceful country that seeks disarmament, Beijing has shown a more open attitude toward multilateral arms control discussions, particularly those occurring through the United Nations. Multilateral platforms also allow Beijing to rely on other countries to block progress toward arms control agreements that Beijing opposes without it being labeled as the obstacle. In recent years, Chinese diplomats have been more inclined to reject international negotiations on soft rules regarding global security issues—such as codes of conduct and norms of responsible behaviors—which are perceived to be more susceptible to Western political manipulation. ¹⁷⁶ Instead, they often insist on the importance of negotiating legally binding agreements, including on arms control issues. This increases the difficulty of making progress.

For the United States, concerns about the overall integrity, credibility, and accountability of the increasingly opaque Chinese policy decisionmaking system lowered its confidence in China's compliance with future arms control agreements. ¹⁷⁷ This causes some American experts to demand robust and strict verification measures, which would make negotiations more difficult given China's long-standing concerns about the intrusiveness of such measures.

IMPLICATIONS FOR CRISIS STABILITY

Many Chinese and foreign experts believe that a more promising area for engagement and cooperation is enhancing nuclear crisis stability. Neither the United States nor China should want a war, especially a nuclear war. Therefore, reducing the risk of a conventional military conflict and of such a conflict escalating across the nuclear threshold ought to serve the apparent interests of both countries.

China publicly supports "positive dialogue and exchange with all parties to jointly explore effective measures to reduce nuclear risk." Moreover, the United States and China joined the other nuclear weapons states in 2022 in the so-called P5 Process to issue a working paper on strategic risk reduction as well as a collective statement on the prevention of nuclear war. Biden and Xi also talked about nuclear issues at their first virtual summit in November 2021. Yet, the two countries have made little substantive progress in starting concrete policy discussions on crisis stability or nuclear risk reduction.

The main obstacle is major disagreements about who is ultimately responsible for causing crisis instability and thus how such instability should be addressed. China's perception of hostile U.S. political intentions is an important contributing factor to such disagreements.

Toward the end of the Trump administration, China had become so worried about U.S. desperation to destabilize China that Beijing believed Washington might be planning a surprise military attack on China in the runup to the 2020 presidential election. This Chinese concern was so serious that the U.S. chairman of joint chiefs of staff, General Mark A. Milley, made repeated efforts to reassure China, including by requesting and holding direct phone calls with his Chinese counterpart. Given such severe Chinese threat perceptions about the United States wanting to intentionally provoke a military crisis, top Chinese public opinion leaders have argued that China must leverage its nuclear power to contain U.S. "strategic aggression" and " war impulses against China." Many in China believe that the United States is much more concerned and sensitive to the risk of nuclear conflict than other types of military risks. This leads to a growing Chinese perception that highlighting the risk of nuclear war could be useful to deter or dissuade the most serious types of American coercions in future crises.

The conviction that the United States is intentionally creating crisis instability convinces Beijing that Chinese measures to increase military risks would be necessary and stabilizing, by making Washington more wary of the hazards it initially created and more inclined to take corrective measures.

This thinking is also evident in China's interest in developing military technologies with the potential for asymmetric escalation. International analysts have identified direct-ascent anti-satellite weapons, for example, as one of the most destabilizing weapons; their employment could lead to conflicts in outer space and affect the safety of many other spacecraft because of the debris they could create. Such weapons could also threaten critical military command, control, and communication systems, including those used in nuclear operations. Nonetheless, Chinese experts believe that the U.S. pursuit of global dominance through space superiority (including the development of missile defense systems) is the root of the problem and compels adversaries to rely on asymmetric counter-space capabilities to maintain mutual vulnerability. This results in China's dismissal of the United States' unilateral moratorium against debris-generating tests of anti-satellite weapons and its silence on international proposals to regulate or ban direct-ascent anti-satellite weapons.

The Chinese belief that the United States' aggressive intentions are the ultimate source of nuclear instability also underlies the countries' disagreement about whether both parties or the United States alone needs to address nuclear risks. Chinese experts believe that the risk of nuclear escalation in a U.S.-China conventional conflict comes exclusively from the United States and that the responsibility to reduce nuclear risks falls squarely on American shoulders. They believe that the United States, driven by its hegemonic inclination, seeks to use nuclear coercion to influence the outcome of conventional conflicts; by contrast, China's declaratory policy indicates Beijing intends to use nuclear weapons only to deter nuclear attacks in keeping with its NFU pledge. According to this view, Chinese military

activities could not be responsible for creating any risk of nuclear escalation and hence China bears no responsibility for managing nuclear escalation risks. Chinese experts also believe that if the United States is concerned that China might use nuclear weapons in a conventional conflict, it is because of Washington's long-standing bias against China and its unreasonable skepticism of China's NFU policy. (Many of these experts are probably unaware of the PLA Rocket Force's "lower the nuclear coercion threshold" doctrine discussed earlier in this report.)

Chinese experts generally reject the argument that China's new military technologies create risks of inadvertent nuclear escalation. The DF-26 ballistic missile, for example, can reportedly carry either a nuclear or conventional warhead, and operators can rapidly swap between them on the battlefield. Foreign experts argue that, as a result, the United States may not be able to distinguish the nature of an incoming DF-26 missile strike, potentially leading to U.S. misjudgment and overreaction. However, some Chinese experts believe that the underlying problem in this case is the United States' adoption of a launch-under-attack posture; if the United States is concerned, it should therefore change its own postures. (Admittedly, not all Chinese experts maintain an entirely critical perspective of the launch-under-attack posture, as China itself is reportedly moving toward adopting it. Those experts likely believe doing so would contribute to the balance of terror and so help contain American military adventurism and make nuclear war less likely.)

Another risk with dual-capable missiles is that the United States could misidentify some Chinese nuclear-armed missiles as conventionally armed and attack them with non-nuclear weapons. China might misunderstand U.S. intentions and conclude a disarming strike against its nuclear forces was underway, potentially precipitating a Chinese overreaction. Once again, Chinese experts believe that the source of this risk is the United States. Given China's self-perception as an inherently peaceful nation that would only use military force for self-defensive purposes, Chinese experts have expressed difficulty in understanding how a U.S. conventional strike on Chinese missiles—conventional or nuclear—could be interpreted in any way other than a serious act of aggression and escalation. In this regard, China may even believe the ambiguity created by its dual-capable missiles would help deter the United States from targeting Chinese conventional missiles and thus contribute to de-escalation. 189

Additionally, many Chinese nuclear experts do not think the risk of inadvertent nuclear escalation between Washington and Beijing is as high as many American experts seem to worry. Ohina's long-standing efforts to ensure political control of nuclear weapons might have made China more skeptical of the actual risk of accidental or unauthorized use, despite the country's growing interest in adopting a launch-under-attack posture. China's relative lack of direct experience in severe military crises between major powers—especially major nuclear crises—since the beginning of the Cold War also does not help.

Perceived political hostility enhances internal self-righteous thinking and incentivizes decisionmakers to prioritize capability development over commonsense risk reduction measures.

All these examples underscore how the challenges caused by intensified political rivalry complicate efforts to adopt even the most straightforward measures to reduce risk and maintain stability in the case of a crisis. Perceived political hostility enhances internal self-righteous thinking and incen-

tivizes decisionmakers to prioritize capability development over common-sense risk reduction measures. In the U.S.-China case, the conventional wisdom that nuclear adversaries should separate their nuclear dynamics from broader conflicts in their relationship encounters substantial obstacles in practice. It raises serious questions about whether advocating for compartmentalization alone can effectively mitigate the nuclear arms race and keep the risk of nuclear conflict between Washington and Beijing below a critical threshold.

CHAPTER 4

POLICY RECOMMENDATIONS

Chinese officials suggest, and experts agree, that separating the U.S.-China nuclear relationship from the broader bilateral political relationship is becoming exceedingly challenging.¹⁹¹ If underlying threat perceptions are not addressed, Beijing would be concerned that any nuclear arms control agreement with Washington would only enable the United States to reallocate resources to compete in other unprohibited military areas, potentially increasing China's overall security risks.

Insights and lessons from past experiences, such as those during the Cold War, can offer useful but limited guidance on navigating the U.S.-China nuclear rivalry. The Cold War ended relatively peacefully because one of the rival parties collapsed due to a combination of factors, including internal challenges, before the bilateral rivalry could inflict catastrophic consequences on the earth. While this history should not eclipse the important role that arms control and cooperative security efforts played in reducing the risks associated with the U.S.-Soviet nuclear rivalry, it offers no ground for optimism that similar measures of managing the nuclear competition alone will suffice in preventing future U.S.-China nuclear conflict.

It is crucial to thoroughly examine the factors contributing to nuclear instability between Washington and Beijing today, including the necessary measures for mitigation that extend beyond the nuclear domain. For instance, it would be beneficial for Washington to recognize its own adoption of differential nuclear policies. On certain issues, as outlined in the previous section, the United States has set somewhat different standards for itself

compared to its authoritarian adversaries, including China. This approach is supported by Washington's belief that its security objectives are more defensive and better aligned with global peace and stability than those of China.

Ultimately, Beijing's current push to bolster political stability through nuclear expansion aims to force Washington to acquiesce to its vision for justice, righteousness, and future order, without having to engage in difficult bilateral and multilateral discussions about the validity, legality, or attractiveness of its objectives. This strategy, together with the United States' differential nuclear policies, highlight a critical obstacle to achieving U.S.-China nuclear stability: widening disagreements over each other's broader security objectives and geopolitical visions. It raises a crucial question: can the two countries simultaneously continue to neglect their broader political disagreements and prevent a nuclear arms race, thus avoiding nuclear conflict?

Given the growing entanglement of political and nuclear instability, this section explores approaches to foster bilateral political stability and puts forth nuclear-focused policy recommendations for experts, decisionmakers, and leaders from both countries and the broader international community.

MITIGATE THE DAMAGE OF INFORMATION AND PERCEPTION GAPS

First and foremost, it is crucial for both countries to acknowledge the presence of information and perception gaps, which serve as significant barriers to effective communication and understanding.

For Washington, this requires a better understanding of how Chinese perceptions of its strategic intentions are shaped by substantial information gaps and genuine differences in perception. Instead of dismissing Chinese concerns as propaganda, the United States should recognize them as genuine obstacles and consider measures to tackle Chinese misperceptions. As Washington discusses appropriate responses to China's nuclear buildup, it should take into account how these gaps may contribute to exaggerated Chinese threat assessments about U.S. countermeasures and may lead to reactions that could further undermine the gains the United States hopes to achieve from certain countermeasures. A well-calibrated strategy that includes elements of reassurance is necessary to mitigate the risk of China adopting even more aggressive nuclear policies.

After long ignoring the perception gap, Beijing has recently taken some steps toward acknowledging its existence; however, it insists misperceptions only exist on the part of the

United States and does not recognize the presence of any information gap. ¹⁹² The United States and the international community can and should directly raise these issues with their Chinese counterparts in official and unofficial dialogues, emphasizing the fundamental challenges these gaps pose to mutual understanding and confidence building.

This is made challenging by the fact that American and international experts need to sustain positive working relations with their Chinese counterparts, which might limit their willingness to provide frank and critical feedback about China's policy. To help mitigate information and perception gaps, international interlocutors participating in unofficial dialogues should make greater efforts to introduce and elucidate a range of foreign views of Chinese nuclear policy, including ones critical of China's policy. Exposing Chinese experts to diverse information and perspectives can help prevent the information and perception gaps from further growing.

More broadly, the U.S. strategy toward China is missing a clear effort to thoroughly examine and address the gaps between the two nations. Despite the complexity and magnitude of this challenge, the high stakes require the United States and the global community to make a concerted and earnest effort to counteract it. The problem extends beyond disinformation and propaganda because many of China's policymakers and the public hold to their own interpretations of the facts. If left unaddressed, these discrepancies are poised to further deteriorate the U.S.-China security relationship, making conflict prevention more difficult.

A comprehensive strategy should seek to engage all sectors of Chinese society to raise awareness of the existence and consequences of the information and perception gaps. It could include investments in technologies that systematically promote the free flow of information. It could also involve a set of guidelines delineating how various governmental and nongovernmental entities could customize strategies to interact with their Chinese counterparts, with the goal of addressing information and perception gaps. Academics and China analysts should prioritize developing a comprehensive, whole-of-society engagement strategy to bridge the gaps and identifying ways to make such engagement complement ongoing efforts to enhance deterrence.

Ultimately, even if no viable strategy emerges to bridge these gaps, grasping their policy ramifications remains crucial—particularly how they have molded, and may further shape, China's threat perceptions and security policy calculus.

In China, officials and experts need to understand the detrimental effects of Beijing's information restrictions on the country's interests. The widening information and perception gaps not only increase the chance of a major power conflict but also risk undermining China's long-term internal stability by increasing domestic social polarization and necessitating more authoritarian governance measures. The current situation, where only a select group of officials and experts are privy to accurate policy information on military and nuclear issues, limits the capacity of China's expert community to properly evaluate and

address the causes of military tensions between the United States and China. The sooner Beijing realizes that allowing a more open flow of information and fostering an environment that encourages internal policy debates serves its core interests, the better it could help prevent crises arising from these growing gaps.

EXPLORE POSSIBLE AGREEMENTS ON PRINCIPLES OF BEHAVIOR

For China to rely less on nuclear weapons to help stabilize bilateral relations, Chinese leaders will need confidence that alternative means can achieve the goal. One of the primary challenges in maintaining U.S.-China political stability is that any U.S. effort to hold China accountable for perceived violations of universal values will be seen as a direct threat to China's regime security. This challenge is not new; the United States and the Soviet Union faced a similar predicament during the Cold War. Their efforts to address this issue included valuable experiments that offer lessons for the U.S.-China relationship.

One such experiment was the Helsinki Process of the 1970s—a challenging but serious endeavor to tackle the deep divisions between the two blocs by articulating a common set of principles to guide their relations. In this process, the two sides managed to agree on some mutual concessions that recognized the importance of sovereign rights on one hand—which the Soviet bloc was mostly concerned with—and human rights and fundamental freedoms on the other—which the Western bloc emphasized. They helped address some key concerns of each side and reached a broad agreement. Regrettably, the two parties were unable to build on this agreement with subsequent positive actions because of a combination of anticipated and unforeseen factors. To this day, the debate continues within research communities about whether the agreement could have set the political groundwork necessary for positive, operational-level engagements on practical issues. Today, Washington and Beijing lack a foundational framework to bridge their expanding ideological rifts, undermining their capacity to put a floor on their relationship. Exploring a joint initiative akin to the Helsinki Process might be worthwhile.

Another historical example of relative success was the direct negotiation between the United States and the Soviet Union of the Basic Principles of Relations Agreement in 1972. In this instance, both Washington and Moscow formally agreed on a set of principles that guided their behaviors and regulated the bilateral relationship. While this agreement was more symbolic than substantive, it demonstrated a mutual willingness to promote political stability and showed that agreement was possible on contentious issues at the core of the relationship. These efforts, along with other developments, contributed to a period of détente between the two sides.

China appears to firmly believe that adopting a top-down approach to establish overarching principles is the most effective, if not the sole, method for navigating U.S.-China relations. Since the Biden administration came to power, senior Chinese officials have made efforts to clarify and specify the country's most important core interests. In meetings with U.S. Deputy Secretary of State Wendy Sherman in July 2021, State Councilor and Foreign Minister Wang Yi and Deputy Foreign Minister Xie Feng stressed the "three bottom lines" and proposed the "two lists," respectively. 193 Later, during a July 2022 meeting, Wang further proposed the "four lists" to National Security Advisor Jake Sullivan. 194 These bottom lines and lists constitute China's top concerns and interests that Beijing wants Washington to address to improve bilateral relations. Such efforts to clarify Chinese interests and promote Beijing's preferred guiding principles for the relationship continued during Blinken's visit to Beijing in June 2023. 195 When Xi visited the United States in November 2023, he stressed the importance of defining the nature of the bilateral relationship as that of friends rather than competitors.

Washington can use Beijing's declaration of interests and preferred principles as a starting point for deeper dialogue and leverage Beijing's approach to achieve two objectives. First, Washington can demonstrate commitment to improving U.S.-China relations by supporting a high-level dialogue devoted to establishing guiding principles. This would convey a message of goodwill that holds value for Beijing. Second, it should actively utilize this dialogue to encourage Beijing to specify and operationalize its preferred principles. Prompting Beijing to transform its vague and generic desires into better-defined and more actionable principles can incentivize reflection within Beijing on the many ambiguities and contradictions present in its own perspectives. Washington can also better explain the difficulties and challenges it faces in meeting Chinese expectations when such expectations are more specified.

Experts from both sides could collaboratively assess the lessons learned from U.S.-Soviet endeavors to establish shared principles of behavior, such as the bilateral negotiations of the early 1970s and the multinational Helsinki Process. This would not only demonstrate U.S. sincerity in pursuing a top-down approach that accommodates China's long-standing belief but also facilitate the development of common views regarding the operational mechanisms and potential complexities involved. Such insights could help cultivate mutual understandings about the merits and limitations of China's favored top-down strategy. They might also enhance China's receptiveness to embracing the U.S.-preferred bottom-up approach, which places greater emphasis on communication and cooperation on working-level issues like nuclear stability.

BE AWARE OF RISKS OF INADVERTENTLY AMPLIFYING CHINA'S SENSE OF INSECURITY

While insecurity and ambition jointly shape China's present nuclear policy, many American experts tend to emphasize China's ambition rather than its underlying insecurity, probably due to the difficulty foreign analysts face in monitoring Chinese domestic policy deliberations. Understanding the impact of internal dynamics and the political climate on China's policy decisions is difficult, particularly within the country's increasingly opaque system. Compared with Russia, whose security grievances are recognized by American officials and experts as an important driver of its increasingly assertive behavior, 196 American experts on Chinese nuclear policy have paid less attention to China's profound internal changes and the escalation of its threat perceptions over the last decade. While the United States is not obligated to endorse China's rationale for its insecurity, there is value in comprehending how such insecurity affects China's internal policy deliberation. Such insight helps forecast probable Chinese reactions to future U.S. countermeasures.

Chinese stubbornness in refusing nuclear talks makes Washington rely more heavily on military deterrence as its primary strategy to counter China's growing nuclear capabilities. But enhancing military deterrence cannot be the sole element of U.S. strategy. Some U.S. military countermeasures, if not carefully calibrated in planning and implementation, risk feeding Chinese insecurity and increasing China's determination to further build up its nuclear capabilities. China's relative economic power vis-à-vis the United States is already significantly greater than that of the Soviet Union during its peak in the Cold War, which means a more determined China has the capacity to build a substantially larger nuclear force than its current nuclear expansion.

Three underlying issues impede American policy deliberations, resulting in a lopsided and somewhat superficial view of China's nuclear ambition: a lack of comprehension of insecurity and other internal factors driving Chinese thinking, a mixing of low-probability and remote threats with tangible and likely threats, and a lack of clarity and coherence in some U.S. nuclear policies.

Understand the Impact of China's Insecurity and Other Internal Factors

The above analysis shows that Xi's concern about perceived U.S. strategic hostility has been a direct driver of increased Chinese nuclear investments. Incoherent planning, fixation on showcasing political loyalty to the paramount leader, and a dearth of internal debate also shape China's nuclear decisionmaking.

The United States can learn useful lessons from examining China's nuclear decisionmaking process. China's heavy reliance on worst-case-scenario thinking has created unintended consequences. Excessive military development and securitization of nonmilitary policies

harm China's economic competitiveness and international standing, which will eventually undermine its long-term military competitiveness. The United States could avoid repeating China's mistakes by averting a blanket worst-case-scenario approach to China's new nuclear capabilities. Developing a deeper understanding of the sources of China's insecurity and their impact on its nuclear thinking is crucial for the United States to formulate a more effective policy response.

China's nuclear experts have long-standing concerns that the United States seeks to neutralize China's nuclear deterrent. They believe the United States refrains from overtly pursuing this goal not because of a lack of interest but because of technological and economic challenges. To compel Washington to accept a mutual vulnerability relationship, Chinese experts are preoccupied with addressing the risk that the United States may underestimate China's nuclear capabilities. ¹⁹⁷ Chinese experts stress that U.S. perceptions of the survivability and effectiveness of China's nuclear forces are more important than China's own evaluation of its nuclear sufficiency. However, American experts sometimes overlook China's sensitivity

to having its capabilities underestimated; some have suggested that China lacks the ability to inflict significant damage on the United States after absorbing a preemptive strike. 198 Reassurances from the United States, such as acknowledging its de facto vulnerability to a Chinese retaliatory second strike (which is different from accepting mutual vulnerability), have been notably absent.

In response to China's nuclear buildup, American experts primarily focus on military measures to enhance deterrence. There is growing agreement on the need to strengthen U.S. nuclear capabilities and potentially increase the size of its arseWhile U.S. deterrence capability is vital for deterring conflict, its strategy to improve deterrence should be informed by the possibility that China's nuclear buildup is driven less by a desire to undermine the credibility of American deterrence and more by a fear of an increasingly hostile United States exploiting the relative weakness of China's nuclear capability.

nal. 199 While U.S. deterrence capability is vital for deterring conflict, its strategy to improve deterrence should be informed by the possibility that China's nuclear buildup is driven less by a desire to undermine the credibility of American deterrence and more by a fear of an increasingly hostile United States exploiting the relative weakness of China's nuclear capability. Considering China's siege mentality, if Washington enhances its nuclear capabilities without effective efforts to convey its defensive intentions, it will likely intensify Beijing's insecurity and strengthen its determination to further expand its nuclear capabilities.

For example, some American experts have advocated for an increase in the number of U.S. nuclear weapons to target China's new nuclear capabilities, especially its silo-based ICBMs.

From China's perspective, this implies that the United States has always targeted all Chinese nuclear weapons and will continue to do so; if the United States truly accepted mutual vulnerability with China, it would not perceive the additional Chinese nuclear weapons as a significantly increased threat—as long as they do not appear to serve first-use purposes—and would not need to include them in its targeting plan. This inadvertently reinforces Chinese concerns about persistent U.S. interest in neutralizing China's nuclear deterrent. Admittedly, the United States could perceive a need to target new Chinese nuclear weapons for damage limitation purposes—an issue that will be addressed later.

Similarly, ongoing discussions in the United States revolve around leveraging nuclear weapons to target what Chinese leaders highly value, including threatening Chinese nuclear capabilities in a war to compel de-escalation. While this approach aligns with classical deterrence theory, it overlooks how China's prevailing victim mentality would shape its interpretation of U.S. attempts to threaten its nuclear forces during a crisis. Given China's strong belief that the United States is the aggressor with intentions to harm its core interests, Beijing could choose to "escalate to de-escalate" once it believes its nuclear weapons are under attack. ²⁰¹

Another example lies in the U.S. failure to recognize how its articulation of a "tailored" deterrence strategy for China has been interpreted as more aggressive by Beijing than intended. In the Nuclear Posture Reviews since the Trump administration, the concept of tailored deterrence toward China has been mentioned repeatedly. While the intent may be to emphasize that U.S. deterrence policy takes China's specific circumstances into account, when translated into Chinese, such references can imply increased hostility and threat.²⁰² Without a greater effort to clarify its intentions, the United States risks unintentionally exacerbating China's insecurity and causing outsized responses.

Admittedly, to Washington, the risks of the United States overestimating Chinese nuclear goals may seem less dire than the dangers of underestimating them, which could compromise the country's ability to effectively deter Beijing's nuclear threats. However, overestimation also entails considerable risks, such as excessive investment in nuclear capabilities and the diversion of resources that could be better utilized to enhance overall deterrence. A deeper, more nuanced comprehension of China's nuclear thinking can aid U.S. policymakers in achieving the right balance when formulating countermeasures.

Distinguish Unlikely Threats From Likely Threats

With a few exceptions, most American analysis about China's growing nuclear threats relies on thinking about worst-case scenarios. While this approach may be necessary when China's behavior cannot be predicted, gaining a deeper understanding of China's thinking and its overall policy trajectory is indeed achievable. The United States should adopt a

more nuanced approach that distinguishes tangible and likely threats from remote and low-probability threats. Such an approach would enable a more targeted response.

For instance, the assessment by some American experts that "China is well on its way to nuclear parity with—if not superiority over—the United States" does not align with the persistent emphasis by Xi and senior Chinese military leaders on asymmetric deterrence and "selective development" of strategic capabilities. 203 Likewise, the claim by U.S. experts that "China will eventually match or even surpass Russia as a nuclear weapon state" also lacks an assessment of the likelihood and time frame of such a prediction.²⁰⁴ On the latter point, U.S. Air Force General Thomas Bussiere, the former deputy commander of the U.S. Strategic Command, believes that China will surpass Russia's nuclear capabilities "in the next few years."205 Statements like this are viewed by Beijing as deliberate threat inflation. Assuming that the Russian arsenal will remain relatively stable in the coming years, such an assessment suggests an exceedingly rapid increase in the Chinese nuclear arsenal in the near term, which appears very unlikely given the constraints China faces in ramping up fissile material production and is inconsistent with the more probable step-by-step approach that China appears to be taking.²⁰⁶ Furthermore, some American experts express concerns that China might one day seek a preemptive strike capability against the United States and that China's missile defense capabilities might one day become powerful enough to threaten the postlaunch survivability of U.S. nuclear forces.²⁰⁷

These expressions of concerns about low-probability, remote threats not only fail to convince China of its legitimacy but also raise suspicions that the United States is deliberately exaggerating China's nuclear threat to vilify China and build anti-China alliances. To mitigate China's concerns about U.S. intentions, the United States should take a more discreet approach by distinguishing between specific, tangible threats posed by China's nuclear buildup and remote threats with a low probability. Independent analysts should pay attention to these issues as well.

Public U.S. concerns about possible Chinese-Russian nuclear cooperation also reinforce Beijing's belief that Washington intentionally exaggerates threats for propaganda purposes. While China officially presents Russia and China as friends without limits, its public statement does not mention deep historical grievances including those regarding Russia's territorial acquisitions from China. Chinese strategists also remain cautious of Russia's self-serving and opportunistic motives in bilateral cooperation. Although there has been increased collaboration between China and Russia in strategic military domains, such as missile defense and early warning systems, because of their geopolitical alignment, genuine trust between the two faces inherent constraints, likely hindering extensive integration of their nuclear capabilities and operations in the foreseeable future.

China will likely pursue nuclear cooperation with Russia in a manner that does not compromise its independent deterrent and that prioritizes strengthening its own nuclear

capabilities and freedom of action. Beijing may show interest in joint nuclear signaling practices with Moscow, such as deeper cooperation on joint strategic bomber patrols, to send a political message about China-Russia strategic partnership. In the event of a much worse future environment, it is conceivable that cooperation could encompass sharing early warning data or accessing each other's military bases that support conventional and nuclear operations.

However, the prospects of genuine integration of the countries' nuclear capabilities, extensive coordination of nuclear employment planning, or a joint initiation of a nuclear conflict with the United States should be viewed as low-probability concerns for Washington. The U.S. policy community should therefore differentiate these remote possibilities and convey to China that a cautious approach to nuclear cooperation with Moscow will be met with reciprocal restraint from Washington.

Minimize Ambiguity and Inconsistency in U.S. Nuclear Policy

Unclear and at times inconsistent U.S. nuclear policies also contribute to China's excessive threat perceptions. One example lies in U.S. explanations for the development of low-yield and tactical nuclear weapons in recent years. The 2018 Nuclear Posture Review invokes the Russian "escalate to de-escalate" doctrine to justify the need for low-yield nuclear capabilities, such as W76-2 warheads. However, the Biden administration's 2022 Nuclear Posture Review explicitly states that these low-yield weapons, along with other tactical nuclear capabilities such as dual-capable fighter aircraft and air-launched cruise missiles, are important components of its tailored deterrent strategy against China. The discrepancy between the two explanations creates the impression in Beijing that the United States had China in mind all along when developing these nuclear warfighting capabilities and was using other justifications to conceal its true intentions.

Even more problematic is the lack of clarity in U.S. thinking regarding the role of damage limitation and counterforce strikes in its nuclear policy. While official U.S. policy documents have alluded to a role for damage limitation, they have not provided a clear statement of how it fits into the country's broader nuclear policy and what it entails for U.S. nuclear capability development and employment. The 2022 Nuclear Posture Review, for instance, briefly mentions that "the United States would seek to end any conflict at the lowest level of damage possible on the best achievable terms for the United States and its Allies and partners." Although American policy experts offer more insights, visible gaps in analytical thinking remain, leading to confusion and leaving room for worst-case-scenario thinking in Beijing.

For instance, official U.S. policy is unclear about whether there is any limit to the development of counterforce damage limitation capabilities against a near-peer adversary like China. Many American experts acknowledge the difficulty of implementing what is known

as an escalation dominance strategy, which aims to end a nuclear conflict by eliminating the enemy's remaining nuclear forces through a comprehensive counterforce strike. While such a strategy could be effective in limiting damage after a nuclear conflict has begun, the significant challenges to implementing this strategy have led experts to argue for a much less ambitious approach. They propose pursuing a limited or modest counterforce strike strategy, which would target only a portion of the enemy's remaining nuclear forces as part of a flexible response strategy. They believe this approach could help de-escalate a nuclear conflict under certain circumstances and reduce the risk of a nuclear arms race that could result from a more aggressive, yet less achievable, escalation dominance strategy.²¹⁰

If this represents the prevailing thinking within the U.S. policy community, it fails to provide clarity on whether U.S. military planners distinguish between the capability requirements of an escalation dominance strategy and a limited counterforce strategy. The ambiguity in U.S. policy thinking raises suspicion in China that Washington does not intend to make such a distinction and is actually pursuing an escalation dominance strategy. Furthermore, from China's perspective, an escalation dominance strategy is indistinguishable from what is known as a nuclear primacy strategy, which aims to develop a disarming first-strike capability.

Another example of policy ambiguity lies in whether the United States is actively pursuing an anti–nuclear ballistic missile submarine (SSBN) capability against China. Statements by U.S. naval officials suggest efforts to develop capabilities that could hold Chinese SSBNs at risk, including in peacetime. However, it remains unclear whether this is a habitual practice inherited from long-standing U.S. policy toward Russia or a deliberate policy choice toward China. This ambiguity understandably raises concerns in China about the potential for a U.S. nuclear primacy strategy.

Recognizing how China's insecurities can unintentionally contribute to the very outcome that the United States seeks to avoid should prompt Washington to address and clarify some of the most counterproductive ambiguities in its strategy. In the cases mentioned above, it is in the U.S. interest to reassure China of its modest nuclear policy goals.

IMPROVE INTERNAL ACCOUNTABILITY IN CHINA

At the heart of the escalating political and nuclear instability between the United States and China is the influence of China's increasingly authoritarian system on its decisionmaking abilities. The country's personalistic leadership, emphasis on political loyalty, restricted space for internal policy discussions, control over information and public discourse, strict rules on secrecy, and excessive glorification of the military have collectively eroded China's capacity to make well-informed, balanced, prudent, and evidence-based decisions.

History has consistently demonstrated that responsible decisionmaking requires effective monitoring and scrutiny from domestic experts, the general public, and international partners and stakeholders.²¹¹ Relying solely on a closed and secretive policy deliberation and decisionmaking process can lead to misguided and potentially catastrophic decisions that undermine a country's own national interests, bilateral relations, and global stability. In contrast, internal transparency and robust checks and balances are vital for informed and objective assessments of national interests and the external environment, as well as the formulation of balanced decisions regarding defense policy goals, priorities, and strategies.²¹² These lessons need to be internalized in China.

This does not mean that the decisionmaking process in the United States—or any other country—is flawless or fully accountable. Both the United States and China face significant domestic challenges in this regard, but the notable disparity in their level of accountability in internal decisionmaking is a major obstacle to effectively managing their political and nuclear relationships. American researchers are better positioned than this author to provide a comprehensive analysis of decisionmaking issues with U.S. nuclear policies. The recommendations presented in this section therefore focus on measures aimed at enhancing China's internal accountability in nuclear policymaking. A shift in mindset by China's top leadership, which in recent years has prioritized power centralization and diminished internal checks and balances, would greatly improve the situation—but such change is improbable in the near term. Nevertheless, there are practical steps that China's nuclear policy expert community can take to mitigate the consequences gradually and meaningfully at the operational level.

Clarify Chinese Concerns and Recognize Rivals' Legitimate Concerns

Thus far, Beijing has not recognized the need to clearly explain to the United States and other countries why its current nuclear policy is driven by genuine and legitimate security concerns rather than expansionist and aggressive intentions. China should articulate these concerns, clarify them when questioned, and outline how it expects the United States to address them. It is in Beijing's interest to recognize that its rivals may have legitimate concerns about China's evolving nuclear policy.

The growing trend among Chinese experts to employ questionable technical arguments in support of government positions diminishes the credibility of these arguments and those experts in the eyes of their American counterparts. This challenge extends beyond matters concerning China's nuclear expansion, encompassing its stance on nuclear nonproliferation issues as well. For instance, in their critical analysis of the Australia–United Kingdom–United States (AUKUS) nuclear submarine agreement, some senior Chinese experts used dubious technical arguments to emphasize proliferation risks. They claimed that Australia would have "plenty of opportunities" to unload the reactor fuel "in the middle of (the submarines') military operations" and that Australia could make eighty nuclear warheads from

the two-ton fuel of weapons-grade uranium.²¹³ Such arguments seemed far-fetched and diverged significantly from mainstream assessments of the international expert community, leading American experts to dismiss them as propaganda.

Furthermore, Beijing has not recognized the need for increasing its transparency or providing other forms of reassurance to Washington about its nuclear policy intentions. This lack of recognition stems from Chinese nuclear policy experts underappreciating the genuine and growing concerns of the United States regarding the underlying motivations behind specific Chinese nuclear policy changes.

For instance, U.S. experts have expressed concerns that China's deployment of a significant number of theater-range, dual-capable missiles with precision guidance capabilities suggests a coercive limited nuclear use strategy similar to that of Russia. They also worry that China's pursuit of a fractional orbital bombardment system with a hypersonic reentry vehicle could greatly reduce the warning time for the United States, thereby diminishing the survivability of key U.S. command facilities and certain U.S. nuclear weapons, particularly bombers. Chinese experts recognize the military potential of such Chinese capabilities to penetrate U.S. missile defenses in a retaliation strike, but they appear to have limited awareness of American concerns regarding their use as first-strike weapons. Even those who follow American analysis often dismiss these concerns as "funny excuses" aimed at demonizing China. These experts should recognize that it is in China's interest to give more serious consideration to mainstream U.S. concerns. Even if they disagree with these concerns, they could make greater efforts to provide detailed counter-analysis in talks with American counterparts.

Conduct Internal Analysis About How China Wants to Be Reassured

The absence of internal discussions, let alone agreements, about how China wants to be reassured by the United States presents an important obstacle for constructive bilateral nuclear exchanges.

For instance, Chinese experts acknowledge the challenges of negotiating formal arms control agreements, and they sometimes express that rhetorical commitments from the United States on maintaining a stable bilateral nuclear relationship would be beneficial.²¹⁷ However, when the United States provides such reassurances, China tends to dismiss their value. On multiple occasions, U.S. administrations have issued official statements aiming to reassure China about their commitment to nuclear stability (referred to as "strategic stability" in U.S. statements). For example, in the 2010 Ballistic Missile Defense Review, the Obama administration committed to "maintaining strategic stability in the U.S.-China relationship."²¹⁸ The Trump administration similarly reaffirmed in the 2019 Missile Defense Review that "[t]he United States relies on nuclear deterrence to address the large and more sophisticated Russian and Chinese intercontinental ballistic missile capabilities,"²¹⁹ implic-

itly rejecting the notion that Washington seeks to use missile defense to undermine Beijing's strategic nuclear deterrent. Although these statements fall short of explicitly acknowledging U.S. mutual vulnerability with China, they encompass the key elements necessary for nuclear stability. But these commitments have not significantly alleviated Chinese concerns.

China has consistently urged the United States to adopt a NFU policy. However, China would likely be skeptical of such a commitment if it were made. When there was a serious debate within the U.S. government about adopting a "sole purpose" policy—a diluted version of NFU—during the early months of the Biden administration, many Chinese experts questioned whether the United States would truly abandon its "preemptive" nuclear strategy. They viewed Biden's public support for sole purpose during his campaign as a tactic to pressure other nuclear powers to slow their nuclear developments and engage in arms control negotiations.²²⁰

Apart from calling for the United States to adopt a NFU policy, China has not explicitly outlined what specific assurances it desires. Chinese officials have emphasized the importance of reaffirming the principle that "nuclear war cannot be won and must never be fought."²²¹ Some Chinese nuclear experts have suggested that the United States reiterate this declaration in a bilateral statement with China as a way to signal its acceptance of mutual vulnerability.²²² In January 2022, the five nuclear weapons states issued a joint presidential statement on preventing nuclear war, which included a collective reiteration of this language. However, this joint statement does not appear to have altered Chinese views on U.S. nuclear policy goals. In November 2022, American and Chinese leaders reaffirmed this statement during their first in-person summit meeting since the COVID-19 pandemic began, but it was only included in the U.S. official press release about the summit, not in China's, ²²⁴ indicating that Beijing may not consider it particularly significant. It remains uncertain whether Chinese officials believe that a more direct bilateral declaration between the United States and China on this matter would still be helpful.

In light of growing strategic mistrust, China may increasingly dismiss the value of U.S. declaratory statements and instead seek concrete assurances, such as substantial reductions in the U.S. nuclear arsenal, the removal of low-yield weapons from within launch range of China, or limitations on missile defense systems. This stance, however, contradicts China's long-standing assertion that its own declaratory policy, particularly its NFU policy, should be sufficient to reassure the United States about China's nuclear intentions, despite U.S. concerns regarding the policy's verifiability.²²⁵ By arguing that declaratory policy must align with military capabilities and operational posture, China invites questions about the credibility of its own declaratory policies of NFU and minimum nuclear deterrence as it builds up its nuclear forces.

It is time for China to recognize that it shares many preferences with other nuclear weapons states, including the United States, in terms of desired assurance measures from adversaries.

Both China and the United States want assurances that are verifiable and irreversible. The Chinese nuclear policy community should engage in a systematic internal analysis to identify specific and realistic assurance measures they would like the United States to undertake to address Chinese concerns. By first achieving internal consensus, China can reduce ambiguities in its external messages and enable itself to engage in more substantive exchanges with the United States.

Strengthen Internal Policy Review

China's increasing reliance on nuclear deterrence to promote stability in political relations with the United States is based on a broadly accepted but loosely defined belief in the political value of nuclear weapons. However, there has been limited explicit illustration, debate, or scrutiny in China of this basis and the logic underpinning it. Notably, there has been little discussion of whether non-nuclear or non-military options might be more effective at promoting political stability.²²⁶

Internal debates should assess whether China can realistically use nuclear weapons to attain its political objectives—especially the goal of maintaining political stability with the United States. They should also ask the following questions about what the stated goals of achieving strategic counterbalance or strategic deterrence and control mean for China's nuclear strategy at the operational level: How many nuclear weapons and what types should China acquire? How should they be deployed? What operational posture, employment strategies, and declaratory policy should China adopt? To what extent should China be transparent about its nuclear posture? And how would China assess whether its chosen nuclear posture is achieving the desired effect? The answers to these questions could be quite different, depending on whether China's primary goal is nuclear stability or political stability.

To think through these issues carefully, Chinese experts and officials need to develop a robust analytic methodology for determining the country's nuclear arsenal and posture. This would contribute to better decisions than those made through the use of vague terms and untested intuitions. It is unclear, however, whether China regularly conducts a comprehensive internal review, analogous to the U.S. Nuclear Posture Review, to facilitate such thinking. If not, it should implement a similar internal process on a regular basis. It should also consider publishing unclassified versions of its review that explain the underlying logic of changes in Chinese nuclear policy. This would promote transparency and accountability in domestic governance, ensure input from the broader Chinese expert community, and safeguard the right of the Chinese public to oversee key government decisions.

Compared to political stability, nuclear stability is a clearer and more achievable near- to medium-term goal. Cooperative efforts with the United States to maintain nuclear stability could also have a positive spillover effect on bilateral political stability because they imply a commitment to peaceful coexistence. The Cold War experience between Washington

and Moscow demonstrated this positive connection, which Chinese decisionmakers should consider.

China should also consider the possibility that nuclear instability could generate additional political instability. An internal review would help China better think through the long-term implications of its nuclear policy, including how its nuclear buildup could trigger strong U.S. countermeasures and whether such countermeasures would affect its ability to achieve its original political goal.

Trying to achieve political stability with a nuclear weapons buildup is very likely to be counterproductive. Instead, an internal review should analyze whether it is in Beijing's interests to reassure Washington that China does not seek nuclear parity or elevate the military role of its nuclear weapons. Greater transparency about its future nuclear plans could add credibility to any potential reassurances, which could help enhance bilateral political stability.

In addition, conducting a systematic internal review would serve as a means for China to tackle potential inconsistencies in its nuclear policy. It is crucial to address the mounting tension between China's long-standing opposition to nuclear warfighting and the recent promotion of slogans by its nuclear forces that emphasize the importance of winning wars. Additionally, notable disparities exist in China's positions on nuclear arms control and disarmament. These include China's traditional emphasis on the significance of international summits for nuclear weapons prohibition, contrasted with China's current opposition to such initiatives. Furthermore, China's expressed conditions for engaging nuclear weapons reduction negotiations with major powers have become more stringent over time, raising foreign suspicions that China keeps raising the bar because it has no real interest in engaging in arms control talks.

PROMOTE A STRATEGIC SECURITY DIALOGUE

Given the lack of political will in Beijing to engage in substantive discussions on nuclear arms control issues, Washington should officially and publicly propose a strategic security dialogue with Beijing to include nuclear-related issues that China is willing to address. ²²⁷ A pragmatic yet significant initial objective for such a dialogue should be to stimulate comprehensive policy discussions inside China. A more transparent and inclusive internal policy debate will foster more accountable nuclear decisionmaking that benefits not only China but also the United States and the broader international community.

This dialogue would have other important benefits, such as mitigating the perception gap between the Chinese and U.S. nuclear expert communities, developing common

understandings and approaches in areas of shared interests, and building personal-level trust and habits of cooperation. However, China has not developed as deep an appreciation about the value of such a dialogue as the United States, which means Washington needs to be the more proactive and patient party. To increase the chance of a positive response, Washington should propose to include topics that China prefers to talk about.

Starting the dialogue process is more important than fighting over exactly which topics to include. A well-informed U.S. engagement strategy could create avenues through which the dialogue can evolve to be mutually beneficial to both parties—even on issues that Beijing prioritizes but which may appear unattractive to Washington. Given the many internal tensions in China's nuclear policies, Washington could also use the dialogue to highlight these inconsistencies and seek clarification. Such U.S. inquiries could stimulate in China the kind of internal policy introspection mentioned earlier, which could progressively make bilateral exchanges more constructive. The United States can also approach the dialogue in ways that help Beijing better appreciate Washington's genuine concerns about specific Chinese demands.

For instance, the Chinese government has expressed its clear interest in NFU, calling on nuclear weapons states to reach NFU agreements.²²⁸ Chinese experts have also emphasized the importance of Washington committing to a relationship of nuclear mutual vulnerability with Beijing. To initiate productive discussions, Washington should agree to start a dialogue on either or both of these issues without having to commit to any immediate policy changes.

One area of discussion could be how to make future commitments to a NFU policy or mutual vulnerability credible to each other. As this report has shown, both sides are likely to question the sincerity of such commitments once they are made. It is therefore important for the two sides to exchange views on what would constitute a credible commitment and whether certain nuclear weapons capabilities or operational postures would inherently contravene such commitments. Progress toward a NFU or mutual vulnerability relationship will be difficult to achieve without achieving a common understanding on such practical issues first.

As discussed earlier, Beijing traditionally finds the term strategic stability more acceptable than alternatives that explicitly focus on nuclear issues, making it logical for the United States to propose a strategic stability dialogue. However, Beijing has recently developed reservations about this term, perceiving that it suggests a Cold War–style symmetric nuclear relationship akin to that between Washington and Moscow, and thus finds it unsuitable for the U.S.-China nuclear relationship. Consequently, this report recommends adopting the term "strategic security dialogue" instead.

On one hand, Beijing has increasingly relied on the development of its capabilities to promote strategic stability with Washington. On the other, Washington's persistence in defining the bilateral relationship as "competition" while building necessary "guardrails" to manage it has given Beijing little choice but to gradually, albeit very reluctantly and tacitly, accept the framework of responsible competition. As a result, there is hope that Xi may eventually agree to a bilateral dialogue on strategic security that includes a discussion about nuclear issues.

If China faces more serious economic constraints or other domestic and foreign challenges—a real possibility in the mid-term future—the country's leadership may be more willing to approve such a strategic security dialogue. Washington could also signal to Beijing that the dialogue serves Beijing's interest because it would signify an equal international status with the United States, which is of apparent interest to Chinese leaders.

To reduce Beijing's sensitivity about focusing exclusively on the nuclear relationship at the beginning of the dialogue, Washington could propose to also discuss how the two countries can jointly reduce the negative impacts of actions by third parties on the bilateral nuclear relationship. North Korea's advancing nuclear and missile programs, for example, are major drivers of U.S. development of homeland missile defenses and some U.S. allies' development of theater missile defenses. China believes both types of missile defense systems pose a threat to its nuclear deterrent. The two sides could therefore work toward a shared acknowledgement of the impact of North Korea's nuclear development on U.S.-China nuclear stability and commit to addressing this impact.

Specifically, the two sides could establish a working group in which Chinese and American experts jointly examine the technical feasibility of building U.S. homeland missile defenses in a way to allow interception of North Korean ICBMs without significantly affecting China's second-strike capabilities. Such a study could take place at the unclassified level and rely solely on open-source public data—an approach that has been proven doable by international experts.²²⁹ Of course, experts might conclude from such a joint study that it would be impossible for a U.S. homeland missile defense system capable of defending against North Korea to have no significant effect on China. Yet, the mutual understanding gained through joint technical analysis could temper Beijing's most dire assumptions about Washington's motives behind its homeland missile defense program.

The two sides could also explore options to discourage North Korea's development and deployment of tactical nuclear weapons. Unlike Pyongyang's ICBMs targeting Washington, its expanding tactical nuclear arsenal—more likely to ignite a nuclear conflict near China's borders—directly threatens Beijing's interests.

ADDRESS THE CONVENTIONAL-NUCLEAR LINKAGE

The United States and its allies are concerned that stability at the nuclear level could embolden China's conventional military aggression; this is a significant obstacle for the United States to commit to achieving nuclear stability with China. Such concerns will grow as China continues shifting the conventional military balance in the West Pacific theater to its favor.²³⁰

To secure U.S.-China nuclear stability, China should address regional countries' concerns about its conventional military capabilities and behaviors. A political pledge through public declaration that China will not seek to change the territorial status quo by force would be a useful first step and add weight to its claim that its rise will indeed remain peaceful and be "distinct from the trajectory of traditional powers" who used their military power to violate other countries' interests during their rise.²³¹

One major step China could take would be to ensure consistency in its own security policies. Chinese leaders have formally proposed that other countries should "promise not to resolve disputes through military means." Many senior Chinese experts view this principle as a critical guide for handling international disputes and assume that China has long implemented it. In fact, in 2016, Dai Bingguo, a former state councilor and director of the Office of the Leading Group of Foreign Affairs for the CCP under Hu, claimed that China had implemented the principle of "not to resolve disputes by force." However, this claim is inconsistent with China's existing policy of not giving up the option of using force to resolve territorial disputes, including over Taiwan. ²³⁴

To address regional states' concerns that China might use its growing conventional military power against them on the basis of defending its core national interests, such as territorial integrity, Beijing should seriously consider explicitly renouncing the use of force in resolving territorial disputes. By doing so, China would bring consistency to its own policies. Over the past few decades, when China's military power was not as strong as it is today, Beijing successfully settled border disputes with twelve out of fourteen land neighbors through negotiations—a track record of which the Chinese government is justifiably proud.²³⁵ Today, a much richer and stronger China should have no fears about unfair negotiations with its neighbors and be able to resolve territorial disputes peacefully. Even on the more sensitive issue of Taiwan, an issue China regards as an internal affair, formulating a logical rationale for China's current stance of not renouncing the use of force presents a challenge. It is difficult to assert that if China is willing to forgo the use of force in territorial disputes with foreign nations, it cannot similarly abstain from the use of force against its own "compatriots" in Taiwan. 236 There is little reason the government could not at least allow free domestic public discussion and debates on this—an issue that directly affects the key interests of the Chinese public and regional countries.

Another step is for China to recognize that regional countries may have legitimate security concerns because of its growing conventional power. It is in Beijing's interest to engage substantively with these countries and listen to, understand, and address their concerns, rather than to insist, for example, that Japan's security concerns are an excuse to revitalize militarism, South Korea's security concerns derive from anti-Chinese sentiment, and some Southeast Asian countries' security concerns are the result of American meddling. To promote U.S. adoption of a NFU policy, Chinese experts should start unofficial dialogues with counterparts from U.S. allied countries in the region to understand what China can do to alleviate their security concerns in return for them dropping opposition to a U.S. NFU commitment.

Finally, China should strengthen its own NFU policy by explicitly renouncing the threat of initiating a nuclear war. The current policy rules out the first use of nuclear weapons, but it does not rule out China threatening such use and thus fails to assure the international community that China will not exploit the coercive leverage of nuclear weapons by making explicit or implicit nuclear threats during a conventional war.²³⁷ This ambiguity undermines the NFU pledge's credibility and significance and undercuts its intended assurance message. It is in China's interest to eliminate the ambiguity soon, as there is already growing concern that China is achieving a regional advantage in the nuclear balance. Indeed, for regional countries, the perceived freedom China currently possesses to threaten to use nuclear weapons in a future conflict is significantly affecting their defense policy planning, regardless of whether China intends to actually use nuclear weapons in a future crisis. This perceived threat could raise the chances of some countries reconsidering their commitments under the Nuclear Non-Proliferation Treaty.

EMPOWER THE EXPERTS

Political leaders rarely have deep expertise in nuclear policies and related strategic security issues. As a result, there is an opportunity for subject matter experts to play a role in influencing official policy deliberations and decisionmaking, even in highly centralized political systems like China's. At this moment, the political will to pursue cooperative security between Washington and Beijing is low, but the stakes are high. Chinese and U.S. experts can and should play a more active role in finding ways to divert the two powers from a collision path and minimize the risk of nuclear conflict.

One key objective should be to reduce misperceptions about each other's specific nuclear and related security policies. Cumulatively, these misperceptions have contributed to deep and entrenched misunderstandings about the other's strategic intentions. For instance, many Chinese experts seem to believe U.S. concerns about China's development and po-

tential deployment of fractional orbital bombardment systems are misplaced and based on inaccurate information. At the same time, some American experts' concerns about China seeking nuclear superiority over the United States or pursuing nuclear first strike appear overly speculative.²³⁸

Chinese experts and officials also misperceive the goal of U.S. efforts to develop hypersonic missiles (boost-glide weapons and hypersonic cruise missiles). Public evidence indicates that the United States has been developing such weapons exclusively for the delivery of non-nuclear warheads. However, many Chinese experts believe that the United States and some other nuclear powers are starting to develop hypersonic missiles for the delivery of nuclear warheads.²³⁹ *PLA Daily*, for example, concludes that "the nuclearization of hypersonic weapons is a clear trend."²⁴⁰ This observation appears to derive from out-of-context interpretation of public statements by senior U.S. officials. Nonetheless, if China believes the United States is developing hypersonic missiles for both conventional and nuclear purposes, China could feel justified and encouraged to develop its own long-range, dual-capable hypersonic missiles.

Indeed, *PLA Daily* has published analysis by a senior PLA expert who claims that "the development of practical surface-to-surface missiles with both nuclear and conventional warfare capabilities . . . has already become an inevitable trend." Many Chinese experts agree with this conclusion. Some even believe that "the United States is in the process of modifying its intercontinental ballistic missiles to make them capable of conducting conventional strikes." China's 2020 *Science of Military Strategy* claims that "the United States has stepped up its transformation of intercontinental ballistic missiles to equip them with conventional strike capabilities." However, there is no publicly available evidence that the United States is currently developing dual-capable missiles of any kind. This misunderstanding may have contributed to China's reported interest in developing conventional ICBMs. 244

Other examples include divergent Chinese and U.S. assessments about whether Starlink satellites could be converted into space-based interceptors against long-range missiles and whether the AUKUS submarine deal violates the Statute of the International Atomic Energy Agency.²⁴⁵ Many of these misunderstandings, which have significant policy consequences, involve specific factual or policy issues that should not be impossible to correct or clarify. Bilateral dialogues, especially expert engagements, should address them.

Joint expert research could be a useful tool. For example, the United States has concerns that China may use its civilian nuclear facilities to produce fissile materials for nuclear weapons. To help reduce unnecessary suspicions, American experts James M. Acton, Thomas MacDonald, and Pranay Vaddi proposed a joint U.S.-Chinese fissile material cut-off agreement and associated transparency arrangements that could allow the two countries to gain confidence that neither side is producing nuclear weapons materials. The U.S.

government should propose a joint study by Chinese and American experts on this confidence-building proposal to understand its technical and policy feasibility. If China does not intend to use its civilian fast-breeder reactors and reprocessing facilities to produce plutonium for weapons, then it should support such a joint study. In recent years, international experts have developed other specific proposals that could promote confidence building, risk reduction, and arms control cooperation between China and its nuclear rivals.²⁴⁸ Joint expert studies could help Chinese and American experts build shared understandings about if and where these proposals would be useful. Expert feedback from such exchanges could help improve the proposals and make them more likely to be considered by the U.S. and Chinese governments.

Both governments should work toward creating conditions that facilitate expert-level exchanges. In recent years, security concerns in the United States have resulted in bureaucratic obstacles that make it increasingly difficult for American experts to organize, secure funding for, or participate in such exchanges. On the Chinese side, even small-scale, expert-level meetings focused on discussing specific and tangible issues of mutual concern often require explicit or implicit government approval. Given China's current political climate, government officials often opt for caution and avoid approving such exchanges to mitigate political risks. However, insisting that the government must be convinced of the value of certain policy measures before any expert exchanges can take place is placing the cart before the horse and undermines the very purpose of conducting such exchanges. It is imperative to change such practices.

If discussions about current policy issues turn out to be too sensitive, the two sides could focus on clarifying misperceptions about history. The simplistic interpretation of history has been an important source of distrust. Each country, for example, believes that it has always respected its arms control obligations and that the other side has not always honored those obligations. ²⁴⁹ In China, this perception reduces interest in exploring arms control cooperation with the United States. ²⁵⁰ It may also have a similar effect in the United States. To address this issue, experts could share their views about historical grievances, such as disagreements over each other's adherence to nuclear nonproliferation obligations as well as to international conventions over chemical and biological weapons. ²⁵¹ The goal is not necessarily to resolve historical disputes but to help both sides develop deeper understandings about each other's concerns that result from complex technical and political factors that are not apparent to outsiders. Such understandings could help them move on from previous disputes and become more willing to discuss new forward-looking solutions.

American experts should also introduce their Chinese counterparts to their experiences in resolving complex security challenges between Moscow and Washington through cooperative arms control during and after the Cold War. A better understanding of this experience could help build China's confidence in achieving mutually beneficial security cooperation with the United States. U.S. experts could discuss the crises they went through, the misun-

derstandings they encountered, the mistakes they made, and the success they had in over-coming technical and policy challenges. U.S.-Russian success in building and maintaining the epistemic community of experts during the Cold War could also provide useful lessons for Chinese and American experts today on how to prevent the challenging political relations from undermining the existing bilateral epistemic community among experts.²⁵²

More generally, as geopolitical tensions rise, Chinese and American experts have to work in increasingly corrosive domestic political environments. Against this background, they have a growing responsibility to accurately inform their own publics and properly counsel their decisionmakers, even if their analysis and recommendations are unpopular. To

this end, experts must be firm seekers of facts, strong defenders of common sense, and true believers in professional integrity, even as the two countries increasingly view each other as archrivals and experts face stronger pressure to amplify mainstream national narratives.

The U.S. and Chinese expert communities should agree that to best defend their own national interests and protect the collective interests of the international community, their role, first and foremost, is to hold their own governments accountable

Experts must be firm seekers of facts, strong defenders of common sense, and true believers in professional integrity, even as the two countries increasingly view each other as archrivals and experts face stronger pressure to amplify mainstream national narratives.

rather than to defend and promote their governments' policies regardless of their merit. To this end, they should stress that their shared goal is to provide their respective decisionmakers with professional advice that is as honest, objective, and balanced as possible to help their governments make sound and prudent decisions on issues vital to international peace and security. In fact, the two expert communities could issue a joint statement of principles setting out these objectives.

In this spirit, experts from both countries should play an active role in reflecting on their own country's policies rather than pointing fingers at each other. Experts have the capacity to identify and analyze discrepancies in their national policies, and thus they bear a special responsibility to help their governments address internal inconsistencies and incoherencies. By helping to put their own house in order, experts can and should play a meaningful role in averting worst-case outcomes between China and the United States.

NOTES

- "Readout of President Biden's Virtual Meeting With President Xi Jinping of the People's Republic of China," White House, November 16, 2021, https://www.president-xi-jinping-of-the-peoples-republic-of-china; and "Biden and Xi Agree to Look at Possible Arms Control Talks, Says Biden Advisor," Reuters, November 17, 2021, https://www.cnbc.com/2021/11/17/biden-and-xi-agree-to-look-at-possible-arms-control-talks-says-biden-advisor.html.
- When it comes to China, in recent years, some Western literature has also used a broader definition of strategic stability. For example, a 2012 report by the U.S. State Department's International Security Advisory Board described U.S.-China strategic stability at three levels: the regional balance in Asia, the U.S.-China strategic nuclear force balance, and the overall bilateral relationship with political, economic, and values aspects. See "Report on Maintaining U.S.-China Strategic Stability," International Security Advisory Board, U.S. Department of State, 2012, https://2009-2017.state.gov/documents/organization/200473.pdf.
- 3 Li Bin (李彬), "China's Nuclear Strategy" (中国核战略辨析), World Economics and Politics (世界经济与政治), no. 09 (2006): 16–22.
- 4 Xi Jinping (习近平), "Xi Jinping: Holding High the Great Banner of Socialism With Chinese Characteristics and Uniting the Struggle for the Comprehensive Construction of a Modern Socialist Country Report at the 20th National Congress of the Communist Party of China" (习近平: 高举中国特色社会主义伟大旗帜 为全面建设社会主义现代化国家而团结奋斗——在中国共产党第二十次全国代表大会上的报告), Xinhua News Agency, October 25, 2022, https://www.gov.cn/xinwen/2022-10/25/content_5721685.htm.
- M. Taylor Fravel, Henrik Stålhane Hiim, and Magnus Langset Trøan, "China's Misunderstood Nuclear Expansion," *Foreign Affairs*, October 2023, https://www.foreignaffairs.com/china/chinas-misunderstood-nuclear-expansion; and Matthew Costlow, Robert Peters, and Kyle Balzer, "A Misleading Metaphor: The Nuclear 'Arms Race," War on the Rocks, November 20, 2023, https://warontherocks.com/2023/11/a-misleading-metaphor-the-nuclear-arms-race.

- 6 Michael T. Klare, "Placing 'Guardrails' on the US-China Nuclear Competition," *The Nation*, November 29, 2021, https://www.thenation.com/article/world/china-nuclear-competition.
- 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*, no. 4 (2023): 147–87, https://doi.org/10.1162/isec_a_00457; and Nancy Gallagher, "China on Arms Control, Nonproliferation, and Strategic Stability," Center for International and Security Studies at Maryland, August 2019, https://cissm.umd.edu/sites/default/files/2019-08/China%20on%20Arms%20Control%2C%20Nonproliferation%2C%20and%20Strategic%20Stability_082619_0.pdf.
- 8 Ankit Panda, "A New U.S. Missile Defense Test May Have Increased the Risk of Nuclear War," Carnegie Endowment for International Peace, November 19, 2020, https://carnegieendowment.org/posts/2020/11/a-new-us-missile-defense-test-may-have-increased-the-risk-of-nuclear-war.
- 9 Henrik Stålhane Hiim, M. Taylor Fravel, and Magnus Langset Trøan, "The Dynamics of an Entangled Security Dilemma."
- 10 Graham T. Allison and Philip Zelikow, *Essence of Decision: Explaining the Cuban Missile Crisis Subsequent Edition* (Reading, MA: Longman, 1999).
- 11 For instance, the 2020 *Science of Military Strategy* highlights the threat of U.S. missile defense among all types of U.S. military capabilities. See Xiao Tianliang (肖天亮), *Science of Military Strategy* (战略学), Beijing: National Defense University Press, 2020, 384.
- 12 Lu Yin (鹿音), Strategic Stability: Concept and Practice (战略稳定: 理论与实践问题研究) (Beijing: Current Affairs Press (时事出版社), 2021).
- 13 "U.S. Speculates on China's 'Missile Silo' as a Fool's Errand, NATO's Repeated Provocations Meet With Russia's Forceful Retort" (美炒作中国"导弹发射井"出洋相 北约连番 挑衅遭俄强硬回击), CCTV Defense New Watch, https://tv.cctv.com/2021/07/05/VIDEyjgPZI2H6PpMt]whsl0V210705.shtml?spm=C52346.P3qPxW9Ux1lo.EX5KFDTi4RyG.212.
- 24 Zhao Jia, "Ministry Dismisses Claims of Nuclear Capabilities," *China Daily*, January 5, 2022, https://global.chinadaily.com.cn/a/202201/05/WS61d4d50aa310cdd39bc7f0ac.html.
- 15 Niu Jun (牛军), "Mao Zedong and the Origin of the Broken Sino-Soviet Alliance (1957–1959)" (毛泽东与中苏同盟破裂的缘起 (1957-1959)), *International Political Studies* (国际政治研究) 2 (2001): 53–63, http://ccj.pku.edu.cn/article/info?aid=297854672.
- 16 Feng Hua (冯华) and Yu Sinan (喻思南), "Inherit and Carry Forward the Spirit of 'Two Bombs and One Satellite' in the Courage to Climb the Peak of Science and Technology" (在继承和发扬"两弹一星"精神中勇攀科技高峰), People's Daily, August 28, 2021, http://politics.people.com.cn/n1/2021/0828/c1001-32210943.html.
- 17 Jing Zhiyuan (靖志远) and Peng Xiaofeng (彭小枫), "Building a Strategic Missile Force With Chinese Characteristics" (建设中国特色战略导弹部队), *Qiushi* (求是), no.3 (2009): 53–55.
- 18 Zhang Xuanjie (张选杰), Wu Xudong (伍旭东), and Bi Yongjun (毕永军), "Forging the Republic's Shield of Peace, President Jiang Cared About the Construction of the Second Artillery" (锻造共和国和平盾牌 江主席关心第二炮兵建设纪实), Xinhua News Agency (新华社), March 19, 2002, http://news.sohu.com/00/36/news148203600.shtml.
- 19 Jing Zhiyuan (靖志远) and Zhang Haiyang (张海阳), "Second Artillery Strategic Missile Force: From a Single Nuclear Force to the Development of Both Nuclear and Conventional Capabilities" (二炮战略导弹部队: 由单一核部队向核常兼备发展), *People's Daily* (人民日报), June 8, 2011, https://www.chinanews.com.cn/gn/2011/06-08/3095196.shtml.

- 20 Li, Xuanliang (李宣良), Zhang Xuanjie (张选杰), and Li Qinghua (李清华), "Xi Jinping Awards Military Flag and Delivers a Speech to the Chinese People's Liberation Army Rocket Force and Strategic Support Force" (习近平向中国人民解放军陆军火箭军战略支援部队授予军旗并致训词), People's Daily, January 2, 2016, http://cpc.people.com.cn/n1/2016/0102/c64094-28003839.html.
- 21 Xiao Tianliang, The Science of Military Strategy (2020), 131.
- 22 Xiao Tianliang, The Science of Military Strategy (2020), 131, 133.
- 23 Xiao Tianliang, *The Science of Military Strategy* (2020), 127. It is necessary to note that the Chinese term "strategic deterrent" includes both nuclear and non-nuclear capabilities. The latter includes capabilities such as precision conventional missiles, cyber attacks, and counterspace weapons. Compared with cyber attacks and counterspace capabilities, however, nuclear and conventional missiles are "the core of China's strategic deterrent," according to Xi. For analysis of Chinese development and deployment of non-nuclear strategic capabilities, see, for example, Fiona S. Cunningham, "Strategic Substitution: China's Search for Coercive Leverage in the Information Age," *International Security* 47 (2022): 46–92, https://doi.org/10.1162/isec_a_00438.
- 24 Shou Xiaosong (寿晓松), *The Science of Military Strategy* (战略学), (Beijing: Military Science Press (军事科学出版社), 2013,) 136.
- 25 Chen Yuxiang (陈宇翔) and Xue Guangyuan (薛光远), "'Three Unprecedented': A Scientific Assertion on the Historical Orientation of Contemporary China" ("三个前所未有":当代中国历史方位的科学论断), Guangming Daily (光明日报), November 8, 2015, http://www.xinhuanet.com/politics/2015-11/08/c 128405116.htm.
- 26 "Striding Forward on the Road to a Strong Army with Chinese Characteristics: A Chronicle of President Xi Jinping and the Central Military Commission's Promotion of a Strong Army Since the 18th Party Congress" (在中国特色强军之路上阔步前进: 党的十八大以来习近平主席和中央军委推进强军兴军纪实), Xinhua News Agency, February 29, 2016, http://fms.news.cn/swf/2016_qmtt/2_29_2016_sgqm/index.html.
- 27 Yuan Zheng (袁征), "How to View the Current Sino-Us Relations (如何看待当前的中美关系)," *China Comment* (半月谈), October 22, 2020, http://m.banyuetan.org/ssjt/detail/20201022/1000200033135841600997422125506079 1.html.
- 28 "Xi Jinping Visits Guangzhou War Zone to Talk About 'Strong Country Dream' and 'Strong Army Dream'" (习近平考察广州战区 谈"强国梦""强军梦"), *Oriental Morning Post* (东方早报), December 13, 2012, https://news.sohu.com/20121213/n360310988.shtml.
- 29 "Resolution of the Central Committee of the Communist Party of China on the Major Achievements and Historical Experience of the Party's Centennial Struggle" (中共中央关于党的百年奋斗重大成就和历史经验的决议), Xinhua News Agency (新华社), November 11, 2021, http://www.gov.cn/zhengce/2021-11/16/content_5651269.htm.
- 30 Alastair Gale, "China Is Accelerating Its Nuclear Buildup Over Rising Fears of U.S. Conflict," *Wall Street Journal*, April 9, 2022, https://www.wsj.com/articles/china-is-accelerating-its-nuclear-buildup-over-rising-fears-of-u-s-conflict-11649509201.
- 31 "Developing Strategic Capabilities on a Solid Basis" (扎扎实实把战略能力搞上去), *PLA Daily* (解放军报), September 27, 2016, http://www.81.cn/jwgd/2016-09/27/content_7278514. htm.
- 32 Xiao Tianliang, The Science of Military Strategy (2020), 133.
- 33 Li Bin, "China's Nuclear Strategy," 16–22.

- 34 Sun Mingfu (孙明甫), "Interactive Development of the Atomic Bomb, Hydrogen Bomb and One Satellite Project and the Second Artillery" (两弹一星工程与第二炮兵的互动发展), *China News Network* (中国新闻网), October 10, 2014, https://www.chinanews.com.cn/mil/2014/10-10/6664648 2.shtml.
- 35 Sun Mingfu, "Interactive Development of the Atomic Bomb, Hydrogen Bomb and One Satellite Project and the Second Artillery."
- 36 "Expanded Meeting of Defence Ministry Board," Kremlin, December 19, 2023, http://en.kremlin.ru/events/president/news/73035.
- 37 Xi Jinping (习近平), "Grasp the New Development Stage, Implement the New Development Concept, and Build a New Development Pattern" (把握新发展阶段, 贯彻新发展理念, 构建新发展格局), *Qiushi* (求是) 9 (2021), http://www.qstheory.cn/dukan/qs/2021-04/30/c 1127390013.htm.
- 38 Cao Zhi (曹智) and Zhang Xuanjie (张选杰), "Xi Jinping: Strive to Build a Powerful Informatized Strategic Missile Force" (习近平: 努力建设一支强大的信息化战略导弹部队), Xinhua News Agency (新华社), December 5, 2012, https://www.gov.cn/ldhd/2012-12/05/content_2283372.htm.
- 39 Wei Fenghe (魏凤和) and Zhang Haiyang (张海阳), "Second Artillery Commander and Political Commissioner: Strive to Build a Powerful Informatized Strategic Missile Force" (二炮司令员政委: 努力建设强大的信息化战略导弹部队), People's Daily (人民日报), December 13, 2012, http://www.xinhuanet.com//politics/2012-12/05/c 113922221.htm.
- 40 Li Xuanliang (李宣良) and Zhang Xuanjie (张选杰), "Xi Jinping: Remember the Historical Mission to Enhance Strategic Capabilities and Strive to Build a Strong Modern Rocket Force" (习近平: 牢记历史使命 提升战略能力 努力建设一支强大的现代化火箭军), *People's Daily* (人民日报), September 27, 2016, http://cpc.people.com.cn/n1/2016/0927/c64094-28742359. html.
- 41 "CCTV's Exclusive Exploration of the Troops That Xi Jinping Praised Twice" (央视独家 探秘让习近平两次点赞的部队), CCTV (央视网), June 18, 2018, http://military.cctv.com/2018/06/17/ARTIcVgbDNzmmkBAl4kak3jM180617.shtml.
- 42 Wang Weidong (王卫东), "Do Not Dishonor the Mission, Solidly Improve the Win-Win Capability" (不辱使命, 扎扎实实把打赢能力搞上去), PLA Daily (解放军报), March 10, 2019, http://www.81.cn/jfjbmap/content/2019-03/10/content_228972.htm; Wang Xinjuan (王昕娟), Lin Congyi (林琮轶), Xu Jian (徐健), Xuan Zehui (宣泽辉), and Wang Jie (王杰), "Missile Brigade Unlocks the Code of Victory" (导弹劲旅解锁胜战密码), Ministry of National Defense (国防部), August 24, 2022, httml; Wei Bing (魏兵) and Li Bingfeng (李兵峰), "Extraordinary Decade: New Missile Formation Makes the Long Sword of a Great Country" (非凡十年 |新型导弹方阵铸就大国长剑), PLA Daily (解放军报), August 8, 2022, http://www.mod.gov.cn/gfbw/wzll/hjj/4917537.html.
- 43 Brandon J. Babin, "Xi Jinping's Strangelove: The Need for a Deterrence-Based Offset Strategy," in *Modernizing Deterrence: How China Coerces, Compels, and Deters*, ed. Roy Kamphausen (Washington DC: National Bureau of Asian Research, 2023), 67–99. It is important to acknowledge that Babin interprets "strategic counterbalance" as a strategy where nuclear capabilities are utilized to compensate for shortcomings in China's conventional military forces. Contrarily, this report suggests that the term signifies China's employment of strategic capabilities, particularly nuclear capabilities, to counterbalance against its strategic disadvantage in the U.S.-China rivalry and to influence the United States' strategic approach toward China.

- 44 Zhang Xuanjie (张选杰) and Li Bingfeng (李兵峰), "Dongfeng-41 Nuclear Missile Squad: The Mainstay of China's Strategic Nuclear Forces" (东风-41核导弹方队: 我国战略核力量的中流砥柱), Xinhua News Agency (新华社), October 1, 2019, http://www.xinhuanet.com/politics/2019-10/01/c 1125063286.htm.
- 45 "Xi Jinping Confers Military Flag on PLA's Army Rocket Force and Strategic Support Force and Delivers Exhortation Speech" (习近平向中国人民解放军陆军火箭军战略支援部队授予军旗并致训词), *People's Daily* (人民日报), January 2, 2016, http://cpc.people.com.cn/n1/2016/0102/c64094-28003839.html.
- 46 "China's National Defense in the New Era," The State Council Information Office of the People's Republic of China, 2019, https://english.www.gov.cn/archive/whitepaper/201907/24/content_WS5d3941ddc6d08408f502283d.html. Brandon J. Babin drew attention to this in his work "Xi Jinping's Strangelove: The Need for a Deterrence-Based Offset Strategy," 67–99.
- 47 "Building a World-Class Strategic Military Service" (打造世界一流战略军种), *People's Daily* (人民日报), May 21, 2017, http://military.people.com.cn/n1/2017/0521/c1011-29288994.html.
- 48 Liao Wengen (廖文根), Peng Bo (彭波), Xu Jun (徐隽), Zhang Cong (张璁), Wei Zhezhe (魏哲哲), and Ni Yi (倪弋), "Grasp Development and Stability, Both Hands Must Be Hard" (抓发展抓稳定 两手都要硬), *People's Daily* (人民日报), September 21, 2017, http://politics.people.com.cn/n1/2017/0921/c1024-29548343.html.
- 49 Jeremy Page, Carol E. Lee, and Gordon Lubold, "China's President Pledges No Militarization in Disputed Islands," *Wall Street Journal*, September 25, 2015, https://www.wsj.com/articles/china-completes-runway-on-artificial-island-in-south-china-sea-1443184818.
- Ye Shuhong (叶书宏), "Xinhua International Commentary: Attempts to Demonize the Chinese Communist Party Are Doomed to Failure" (新华国际时评: 妖魔化中国共产党的 图谋注定失败), Xinhua News Agency (新华社), July 28, 2020, http://www.xinhuanet.com/world/2020-07/28/c 1126294505.htm; "Pompeo's Speech on China Is Full of Lies and Here Is the Truth" (蓬佩奥涉华演讲的满嘴谎言与事实真相), Xinhua News Agency (新华社), August 25, 2020, http://www.xinhuanet.com/world/2020-08/25/c 1126407807.htm; "Foreign Ministry Spokesman Zhao Lijian Hosts a Regular Press Conference on Jan. 11, 2021" (2021年1月11日外交部发言人赵立坚主持例行记者会), Chinese Ministry of Foreign Affairs (外交部), January 11, 2021, https://www.mfa.gov.cn/ce/cemg//chn/fyrth/t1845585.htm.
- "Exclusive: Internal Chinese Report Warns Beijing Faces Tiananmen-Like Global Backlash Over Virus," Reuters, May 4, 2020, https://www.reuters.com/article/us-health-coronavirus-china-sentiment-ex/exclusive-internal-chinese-report-warns-beijing-faces-tiananmen-like-global-backlash-over-virus-idUSKBN22G19C.
- 52 He Yiting (何毅亭), "China's Development Environment Is Facing Profound and Complex Changes" (我国发展环境面临深刻复杂变化), The National People's Congress of the People's Republic of China (中华人民共和国全国人民代表大会), December 25, 2020, http://www.npc.gov.cn/c2/c30834/202012/t20201225_309415.html.
- 53 Bradsher Keith, "China's Leader, With Rare Bluntness, Blames U.S. Containment for Troubles," *New York Times*, March 7, 2023, https://www.nytimes.com/2023/03/07/world/asia/china-us-xi-jinping.html.
- 54 "Xi Jinping Presided Over the First Meeting of the 20th Central National Security Commission, Emphasizing the Accelerated Advancement of the Modernization of the National Security System and Capabilities, to Ensure the New Development Pattern with a New Security Framework" (习近平主持召开二十届中央国家安全委员会第一次会议强调 加快推进国家安全体系和能力现代化 以新安全格局保障新发展格局), Xinhua News Agency (新华社), May 30, 2023, http://www.news.cn/politics/leaders/2023-05/30/c 1129657348.htm.

- 55 Chen Qi (陈琪) and Xue Jing (薛静), "How to Understand the Current Diplomatic Opinion Struggle Between China and the United States?" (如何认识当前的中美外交舆论斗争?), Center for Strategic and Security Studies, Tsinghua University (清华大学战略与安全研究中心), May 25, 2020, https://ciss.tsinghua.edu.cn/info/zmgx/2428.
- 56 Xu Zhanchen (徐占忱), "The Five-Stage Framework of the U.S.-China Competition and China's Response Strategy" (中美博弈五阶段框架与我国的应对策略), *China Development Observation* (中国发展观察) 23 (2020): 40–41, https://cdo.develpress.com/?p=10431.
- 57 Zhang Weiwei (张维为), "How to Dissect the West's Misconceptions About China?" (如何剖析西方对中国的误解?), China Institute, Fudan University (复旦大学中国研究院), July 14, 2021, https://cifu.fudan.edu.cn/e8/6e/c522a387182/page.htm.
- 58 "Proposal of the Central Committee of the Communist Party of China on Formulating the Fourteenth Five-Year Plan for National Economic and Social Development and the Visionary Goals for 2035" (中共中央关于制定国民经济和社会发展第十四个五年规划和二〇三五年远景目标的建议), Fifth Plenary Session of the 19th Central Committee of the Communist Party of China (中国共产党第十九届中央委员会第五次全体会议), October 29, 2020, https://www.gov.cn/zhengce/2020-11/03/content_5556991.htm.
- 59 "Outline of the 14th Five-Year Plan (2021-2025) for National Economic and Social Development and the Visionary Goals for 2035 of the People's Republic of China" (中华人民 共和国国民经济和社会发展第十四个五年规划和2035年远景目标纲要), Xinhua News Agency (新华社), March 12, 2021, http://www.xinhuanet.com/2021-03/13/c 1127205564. htm.
- 60 Xi Jinping, "Xi Jinping: Holding High the Great Banner of Socialism With Chinese Characteristics and Uniting the Struggle for the Comprehensive Construction of a Modern Socialist Country."
- 61 Liu Xincheng (刘新成), "The Cultural DNA of American Hegemony (美国霸权主义的文化基因)," *Democracy* (民主), no. 3 (2021): 8–10.
- 62 Shi Bin (石斌), "The Ideological Roots of U.S. National Security Strategy" (美国国家安全战略的思想根源), *International Political Studies* (国际政治研究), no.1 (2021): 11–27; Li Liaoning (李辽宁), "The Evolution, Impact and Enlightenment of American Values" (美国价值观的发展演变、影响与启示), *Study on Core Socialist Values* (社会主义核心价值观研究) 5, no.4 (2019): 54–65; Feng Yujun (冯玉军), "The Cultural DNA Behind U.S. Foreign Strategy" (美国对外战略背后的文化基因), *Guangming Daily* (光明日报), April 10, 2022, https://epaper.gmw.cn/gmrb/html/2022-04/10/nw.D110000gmrb_20220410_1-07.htm; Liu Si (柳丝) and Ruiqing (朱瑞卿) Zhu, "The World's Mutilations and Crimes: A Look at U.S. Military Hegemony" (戕害世界罪行累累一起底美国军事霸权), Xinhua News Agency (新华社), September 6, 2023, https://www.news.cn/world/2023-09/06/c_1129848407.htm.
- 63 Cui Tiankai (崔天凯), "A Few Thoughts on U.S.-China Relations-Former Ambassador to the U.S. Cui Tiankai's Remarks at the Symposium on International Situation and China's Diplomacy in 2021" (关于中美关系的几点思考一前驻美大使崔天凯在2021年国际形势与中国外交研讨会上讲话全文), China Institute of International Studies (中国国际问题研究院), December 20, 2021, https://www.mbachina.com/html/FMBA2012/202112/399135.html.
- Wang Jisi, "America and China Are Not Yet in a Cold War," *Foreign Affairs*, November 23, 2023, https://www.foreignaffairs.com/united-states/america-and-china-are-not-yet-cold-war.
- 65 Wu Baiyi (吴白乙), "A Few Thoughts on the Transformation of U.S.-China Relations" (对中美关系转型的几点思考), Beijing Language and Culture University Country and Regional Studies Bulletin (北京语言大学国别和区域研究简报), no. 39 (2022), https://www.igcu.pku.edu.cn/info/2268/5031.htm.

- 66 Luo Xiao (罗肖), "Vietnam's Response to the Pressure of 'Choosing Sides' Between China and the U.S. Over the Past Year and Strategic Considerations" (一年来越南对在中美之间"选边站"压力的回应及战略考量), *International and Strategic Studies Report*, Institute of International and Strategic Studies, Peking University, no. 140 (May 23, 2023), http://www.iiss.pku.edu.cn/info/1021/4604.htm.
- 67 Bob Savic, "Why the West Is Suddenly Softening on China: Power Grows out of Nuclear Warheads," *South China Morning Post*, November 25, 2023, https://www.scmp.com/comment/opinion/article/3242540/why-west-suddenly-softening-china-power-grows-out-nuclear-warheads?campaign=3242540&module=perpetualscroll_0&pgtype=article.
- 68 Dai Xunxun (代勋勋), "Can New Nuclear Policy Help Russia Defuse Arms Control Pressure" (新核政策能否助俄化解军控压力), World Affairs (世界知识), no.13 (2020): 46–47.
- 69 "Editorial: What the Fact That Trump Respects a Nuclear Superpower Russia Teaches Us" (社评: 特朗普敬重超级核大国俄罗斯的启示), Global Times (环球时报), July 20, 2018, http://opinion.huanqiu.com/editorial/2018-07/12538110.html, "Editorial: Strengthen Strategic Nuclear Capability: China Must Not Hesitate" (社评: 加强战略核力量,中国不可患得患失), Global Times (环球时报), December 23, 2016, https://m.huanqiu.com/article/9CaKrnJZl6W; Peng Shengyu (彭胜玉), "Peng Shengyu: China Should Take Advantage of U.S. Containment of China to Expand Nuclear Arsenal" (彭胜玉: 中国应趁美遏华扩大核武库), Lianhe Zaobao (联合早报), December 24, 2021, http://www.kzaobao.com/mon/keji/20211224/107198.html.
- 70 "China's National Defense in 2010," Information Office of the State Council of the People's Republic of China, March 2011, http://eng.mod.gov.cn/xb/Publications/WhitePapers/4887922.html. Despite the changed expression of the goal of development in high-level political documents, the term "lean and effective" still appears occasionally in public statements and military writings. See, for example, "National Report on the Implementation of the Treaty on the Non-Proliferation of Nuclear Weapons by the People's Republic of China" (关于中华人民共和国履行《不扩散核武器条约》情况的国家报告), Parties to the Treaty on the Non-Proliferation of Nuclear Weapons 2020 Review Conference (不扩散核武器条约缔约国2020年审议大会), December 28, 2021, https://www.mfa.gov.cn/web/wjb_673085/zzjg_673183/jks_674633/fywj_674643/202112/t20211228_10476386.shtml; Xiao Tianliang, The Science of Military Strategy (2020), 386–7.
- 71 Tong Zhao, "China's Ambitions: Assessing China's Emerging Role in 2023," Carnegie Endowment for International Peace, April 26, 2023, https://carnegieendowment.org/ posts/2023/04/assessing-chinas-emerging-role-in-2023?lang=en.
- 72 Matthew Costlow, Robert Peters, and Kyle Balzer, "A Misleading Metaphor: The Nuclear 'Arms Race."
- 73 Sun Mingfu, "Interactive Development of the Atomic Bomb, Hydrogen Bomb and One Satellite Project and the Second Artillery."."
- 74 Xiao Tianliang, The Science of Military Strategy (2020), 388.
- 75 Sun Mingfu, "Interactive Development of the Atomic Bomb, Hydrogen Bomb and One Satellite Project and the Second Artillery."."
- 76 Xu Qiliang (许其亮), "To Achieve the Centenary Goal of Building a Strong Military on Schedule (by Earnestly Studying, Promoting, and Implementing the Spirit of the 20th National Congress of the Party" (如期实现建军一百年奋斗目标 (认真学习宣传贯彻党的二十大精神), People's Daily (人民日报), November 7, 2022, http://politics.people.com.cn/n1/2022/1025/c1024-32550845.html.

- 77 Jiang Tingyu (姜廷玉), "Mao's Historical Contribution to China's Development of Strategic Nuclear Weapons" (毛泽东对中国发展战略核武器的历史贡献), *Military History* (军事史林) 10 (2013): 3–7, https://www.dswxyjy.org.cn/n1/2019/0228/c423725-30920696.html; Li Xuge (李旭阁), *Atomic Bomb Diary: 1964-1965* (原子弹日记: 1964–1965) (Beijing: PLA Literature and Art Publishing House (解放军文艺出版社), 2011), 127–130.
- 78 Charles Hutzler and Lingling Wei, "What It Took to Get Biden and Xi to the Table," *Wall Street Journal*, November 12, 2023, https://www.wsj.com/world/china/what-it-took-to-get-biden-and-xi-to-the-table-b7a899c9.
- 79 For instance, China reportedly tried to demonstrate to senior U.S. officials in charge of export control policies that China was capable of manufacturing advanced semiconductor products despite U.S. export control policies designed to block Chinese access to Western technology. See, for example, Charles Hutzler and Lingling Wei, "What It Took to Get Biden and Xi to the Table.".
- 80 Peter Martin and Jennifer Jacobs, "US Intelligence Shows Flawed China Missiles Led Xi to Purge Army," *Bloomberg*, January 6, 2024, https://www.bloomberg.com/news/articles/2024-01-06/us-intelligence-shows-flawed-china-missiles-led-xi-jinping-to-purge-military.
- 81 Deng Xiaoping (邓小平), "Speech at the Expanded Meeting of the Military Commission" (在军委扩大会议上的讲话), in Selected Writings of Deng Xiaoping, Volume III (邓小平文选 第三卷), Beijing: People's Press (人民出版社), 1993, 126–29.
- 82 Liu Xian (刘羡), "Several Leading Cadres Were Reprimanded for Making Unwarranted Criticisms and Expressing Opposing Views on the Central Government's Major Policies" (妄议中央大政方针发表反对言论 多名领导干部被通报), *Rule of Law Daily* (法治日报), January 27, 2021, https://www.chinanews.com.cn/gn/2021/01-27/9397404.shtml.
- 83 Zhao Tong (赵通), "Maintaining a Rational, Modest, and Prudent Nuclear Weapon Development Strategy" (坚持冷静理性稳健地发展核力量), *Global Times* (环球时报), December 27, 2016, https://m.huanqiu.com/article/9CaKrnIZooA.
- 84 Private conversations with Chinese nuclear policy experts.
- 85 Liu Chong (刘冲), "U.S. Nuclear Policy Is Making the World More Unstable" (美国核政策正让世界更不稳定), *Guangming Daily* (光明日报), June 12, 2023, https://news.gmw.cn/2023-06/05/content_36608870.htm; Li Jiabao (李嘉宝), "U.S. Indiscriminate Nuclear Expansion Becomes Biggest Global Nuclear Threat Generator" (美国任性扩核成为全球核威胁最大制造者), *People's Daily (Overseas Edition)* (人民日报海外版), December 15, 2022, https://world.people.com.cn/n1/2022/1215/c1002-32587326.html.
- 86 Murray Scott Tanner, "Beijing's New National Intelligence Law: From Defense to Offense," Lawfare, July 20, 2017, https://www.lawfaremedia.org/article/beijings-new-national-intelligence-law-defense-offense.
- 87 On control of information as an important source of PLA policy influence, see, for example, Isaac B. Kardon and Phillip C. Saunders, "Reconsidering the PLA as an Interest Group," in *PLA Influence on China's National Security Policymaking*, ed. Phillip C. Saunders and Andrew Scobell (California: Stanford University Press, 2015), 42.
- 88 "In-Depth Unveiling of the New 'Country's Heavy Weapons': A Number of Missiles Will Soon Officially Go to the Front Line of the Exercise and Training" (深度揭秘新型"镇国重器" 多款导弹即将正式走向演训一线), CCTV (央视网), October 2, 2019, https://news.cctv.com/2019/10/02/ARTIFxUvu2wVKLxk7aFtjh9t191002.shtml?spm=C94212.
 P4YnMod9m2uD.ENPMkWvfnaiV.70; David C. Logan and Phillip C. Saunders, "Discerning the Drivers of China's Nuclear Force Development: Models, Indicators, and Data," Institute for

- National Strategic Studies, National Defense University, July 2023, https://ndupress.ndu.edu/Media/News/News-Article-View/Article/3471053/discerning-the-drivers-of-chinas-nuclear-force-development-models-indicators-an/.
- 89 David C. Logan and Phillip C. Saunders, "Discerning the Drivers of China's Nuclear Force Development."
- 90 Zhang Xuanjie (张选杰) and Li Bingfeng (李兵峰), "China's Rocket Force Leaps to New Level of Strategic Strike Capability" (中国火箭军战略打击能力跃上新台阶), Xinhua News Agency (新华社), October 4, 2019, http://www.xinhuanet.com/politics/2019-10/04/c_1125072032.htm; "PLA Daily Editorial: Solidly Improve Strategic Capabilities" (军报评论: 扎扎实实把战略能力搞上去), *PLA Daily* (解放军报), September 27, 2016, http://www.81.cn/jwgd/2016-09/27/content_7278514.htm.
- 91 Zhang Xuanjie and Li Bingfeng, "Dongfeng-41 Nuclear Missile Squad: The Mainstay of China's Strategic Nuclear Forces.".
- 92 "Xi Jinping's Letter Encourages a Certain Submarine Crew of the Navy to Strive to Forge a Fully Proficient Underwater Force and Make Greater Contributions to the Realization of the Centenary Goal of Building the Armed Forces" (习近平回信勉励海军潜艇部队某艇员队,努力锻造全面过硬的水下尖兵,为实现建军一百年奋斗目标作出更大贡献), Xinhua News Agency (新华社), May 11, 2023, http://www.news.cn/politics/leaders/2023-05/11/c_1129606947.htm.
- 23 Zhao Lei, "Xi Urges Military Combat Readiness," *China Daily, May 27, 2020*, https://www.chinadaily.com.cn/a/202005/27/WS5ecda00ba310a8b241158a71.html.
- 94 Historically, China has shelved nuclear warfighting capabilities in favor of a deterrence-centric doctrine. See, for example, Jonathan Ray, *Red China's "Capitalist Bomb": Inside the Chinese Neutron Bomb Program, China Strategic Perspectives 8*, Center for the Study of Chinese Military Affairs, Institute for National Strategic Studies, National Defense University, January 2015, https://inss.ndu.edu/Media/News/Article/652871/red-chinas-capitalist-bomb-inside-the-chinese-neutron-bomb-program/.
- 95 Adam Y. Liu and Xiaojun Li, "Assessing Public Support for (Non-) Peaceful Unification with Taiwan: Evidence from a Nationwide Survey in China," *Journal of Contemporary China* (2023): 1–13, https://doi.org/10.1080/10670564.2023.2209524.
- 96 Stacie L. Pettyjohn and Becca Wasser, "A Fight Over Taiwan Could Go Nuclear," *Foreign Affairs*, May 20, 2022, https://www.foreignaffairs.com/articles/china/2022-05-20/fight-overtaiwan-could-go-nuclear.
- 97 English translation of an excerpt of Yu Jin ed., *The Science of Second Artillery Operations* (第二炮兵战役学) (Beijing: People's Liberation Army Press (解放军出版社), 2004), 294–296, translated by Gregory Kulacki, Union of Concerned Scientists, September 19, 2014, https://www.ucsusa.org/sites/default/files/attach/2014/09/Kulacki-Translation%20of%20Coercion%20section%209-22-14.pdf; and Zhao Xijun, "Deterring War: Discussing Missile Deterrent" (Beijing: National Defense University Press, 2003), 34, mentioned in Thomas J. Christensen, "The Meaning of the Nuclear Evolution: China's Strategic Modernization and US-China Security Relations," *Journal of Strategic Studies 35* (2012), 479, https://doi.org/10.1080/01402390.2012.714710. More analysis is available at: Tong Zhao, "China and the International Debate on No First Use of Nuclear Weapons," *Asian Security* (2021): 1–9, https://doi.org/10.1080/14799855.2021.2015654.
- 98 "Top 10 Events in the Foreign Nuclear Sector in 2022 (2022年国外核领域十大事件)," China Institute of Nuclear Industry Strategy (中核战略规划研究总院), January 11, 2023, https://www.atominfo.com.cn/zhzlghyjzy/yjbg/1285753/index.html; Wu Minwen (吴敏文), "Recent

- Developments in Russian Nuclear Strategy and Nuclear Deterrence" (俄罗斯核战略及核威慑的最新发展), Military Digest s军事文摘) 13 (2022): 52–56.
- 99 Pan Zhenqiang, "China's No First Use of Nuclear Weapons," in *Understanding Chinese Nuclear Thinking*, ed. Bin Li and Tong Zhao, Carnegie Endowment for International Peace, October 28, 2016, https://carnegieendowment.org/research/2016/10/understanding-chinese-nuclear-thinking.
- 100 The First Island Chain refers to the chain of major archipelagos off the coast of the East Asian continent. It principally consists of the Kuril Islands, the Japanese Archipelago, the Ryukyu Islands, Taiwan, and the Philippines. For the shifting balance of conventional military power, see, for example: Eric Heginbotham et al., "The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power, 1996–2017," RAND Corporation, September 14, 2015, https://www.rand.org/pubs/research_reports/RR392.html.
- 101 Liu Chong (刘冲), "American Nuclear Policy Is Making the World Less Stable" (美国核政策正让世界更不稳定), *Guangming Daily* (光明日报), June 5, 2023, https://news.gmw.cn/2023-06/05/content-36608870.htm.
- 102 Elbridge Colby, "If You Want Peace, Prepare for Nuclear War," *Foreign Affairs*, November/ December 2018, https://www.foreignaffairs.com/articles/china/2018-10-15/if-you-want-peace-prepare-nuclear-war.
- 103 Li Jiabao, "U.S. Indiscriminate Nuclear Expansion Becomes Biggest Global Nuclear Threat Generator"; Guo Xiaobing (郭晓兵), "International Military Keywords: Blocs, Confrontation, New Qualitative Forces" (国际军事关键词: 阵营、对抗、新质力量), China Institutes of Contemporary International Relations (中国国际现代研究院), December 28, 2022, http://www.cicir.ac.cn/NEW/opinion.html?id=9b48a2f5-3be3-4b08-a1e9-83f69170a505; "Top 10 Events in International Arms Control in 2022," China Nuclear Strategic Planning Research Institute; Yan Zimin (闫子敏), "Foreign Ministry Responds to U.S. Nuclear Posture Review Report: Deviates from the Era's Theme of Peace and Development" (外交部回应美《核态势审议报告》: 背离和平与发展的时代主题), Xinhua News Agency (新华社), February 5, 2018, http://www.xinhuanet.com/world/2018-02/05/c 1122372665.htm; Fang Xiaozhi (方晓志), "U.S. Deploys Tactical Nuclear Weapons With Many Hidden Dangers" (美部署战术核武器暗藏诸多隐患), PLA Daily (解放军报), February 20, 2020, http://www.81.cn/jfjbmap/content/2020-02/20/content 254551.htm.
- 104 Zhao Lei, "Xi Urges Military Combat Readiness."
- 105 "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China," U.S. Department of Defense, 2023, 112, https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF; and Tong Zhao, "China's Silence on Nuclear Arms Buildup Fuels Speculation on Motives," *Bulletin of the Atomic Scientists*, November 12, 2021, https://thebulletin.org/2021/11/chinas-silence-on-nuclear-arms-buildup-fuels-speculation-on-motives/.
- 106 Alastair Iain Johnston, "China's New 'Old Thinking': The Concept of Limited Deterrence," *International Security 20, no. 3 (1995): 5–42,* https://doi.org/10.1162/isec.20.3.5.
- 107 Fiona S. Cunningham and M. Taylor Fravel, "Dangerous Confidence? Chinese Views on Nuclear Escalation," *International Security 44, no. 2 (2019): 61–109*, https://doi.org/10.1162/ISEC a 00359.
- 108 Fiona S. Cunningham and M. Taylor Fravel, "Dangerous Confidence? Chinese Views on Nuclear Escalation."

- 109 China has concerns about U.S. conventional counterforce capabilities as well. That said, when it comes to the survivability of China's nuclear deterrent, the U.S. nuclear counterforce capability is its primary concern.
- 110 David Martin, "Exclusive: No. 2 in U.S. Military Reveals New Details About China's Hypersonic Weapons Test," CBSnews, November 16, 2021, https://www.cbsnews.com/news/china-hypersonic-weapons-test-details-united-states-military/.
- 111 Pan Zhenqiang, "China's No First Use of Nuclear Weapons," 36–37.
- 112 "Nuclear Posture Review," U.S. Department of Defense, 2010, https://dod.defense.gov/Portals/1/features/defenseReviews/NPR/2010 Nuclear Posture Review Report.pdf.
- 113 "Nuclear Posture Review," U.S. Department of Defense, 2018, https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF.
- 114 "Deeply Grasp the Overall National Security Concept" (深入把握总体国家安全观), in Basic Issues of Xi Jinping's Thought on Socialism With Chinese Characteristics for a New Era (习近平新时代中国特色社会主义思想基本问题) (Beijing: People's Press (人民出版社), Party School of the Communist Party of China Central Committee Press (中共中央党校出版社), 2020).
- 115 Hu Gaochen (胡高辰), "Analysis of U.S.-China Asymmetric Nuclear Stability and U.S. Strategic Opportunism (中美不对称核稳定与美国战略机会主义论析)," *International Security Studies* (国际安全研究) 2 (2021): 63–87, 160–61; Hu Xijin (胡锡进), "What Hu Xijin Sees That Made Him Strongly Advocates China's Expansion of Nuclear Forces" (胡锡进看到了什么,强烈主张中国扩大核力量), *Global Times* (环球时报), May 9, 2020, https://china.huanqiu.com/article/3yARBkZMkwI.
- 116 Private conversations with American experts in Washington, DC, 2023.
- 117 Shou Xiaosong, The Science of Military Strategy (2013), 253.
- 118 Xiao Tianliang, The Science of Military Strategy (2020), 133.
- 119 Xiao Tianliang, The Science of Military Strategy (2020), 134.
- 120 Charles Edel and Hal Brands, "The Real Origins of the US-China Cold War," Foreign Policy, 2019, https://foreignpolicy.com/2019/06/02/the-real-origins-of-the-u-s-china-cold-war-big-think-communism/; Matthew Kroening, The Return of Great Power Rivalry: Democracy Versus Autocracy From the Ancient World to the US and China (Oxford: Oxford University Press, 2020).
- 121 Fang Wan, "How China Changed After 2008 Beijing Olympics," DW, August 8, 2018, https://www.dw.com/en/how-china-changed-after-2008-beijing-olympics/a-44986744; Avery Goldstein, "China's Grand Strategy Under Xi Jinping: Reassurance, Reform, and Resistance," International Security 45 (2020): 164–201, https://doi.org/10.1162/isec_a_00383.
- 122 "China's New Direction: Challenges and Opportunities for U.S. Policy," Task Force on U.S.-China Policy, Asia Society and UC San Diego, 2021, https://asiasociety.org/center-us-china-relations/chinas-new-direction-challenges-and-opportunities-us-policy; Susan L. Shirk, "China in Xi's 'New Era': The Return to Personalistic Rule," Journal of Democracy 29 (April 2018): 22–36, https://doi.org/10.1353/jod.2018.0022; Chris Buckley, "To Steer China's Future, Xi Is Rewriting Its Past," New York Times, November 7, 2021, https://www.nytimes.com/2021/11/07/world/asia/china-xi-jinping.html; Rush Doshi, The Long Game: China's Grand Strategy to Displace American Order (Oxford: Oxford University Press, 2021).
- 123 David E. Sanger, "Biden Defines His Underlying Challenge With China: 'Prove Democracy Works,'" New York Times, March 26, 2021, https://www.nytimes.com/2021/03/26/us/politics/biden-china-democracy.html; and Matthew Kroenig, "The Power Delusion," Foreign Policy, November 11, 2020, https://foreignpolicy.com/2020/11/11/china-united-states-democracy-ideology-competition-rivalry-great-powers-power-delusion.

- 124 "The Elements of the China Challenge," The Policy Planning Staff, Office of the Secretary of State, November 2020, https://www.state.gov/wp-content/uploads/2020/11/20-02832-Elements-of-China-Challenge-508.pdf; Michael Schuman, "Xi Jinping's Terrifying New China," *The Atlantic, November 15, 2021*, https://www.theatlantic.com/international/archive/2021/11/china-xi-jinping/620645/; Charles Edel and David O. Shullman, "How China Exports Authoritarianism," *Foreign Affairs, September 16, 2021*, https://www.foreignaffairs.com/articles/china/2021-09-16/how-china-exports-authoritarianism.
- 125 Based on the author's observations of public and private conversations in China.
- 126 Xin Shiping (辛识平), "American Hegemony Is the Source of World Unrest" (美式霸权才是世界动荡之源), Xinhua News Agency (新华社), July 25, 2019, http://www.xinhuanet.com/world/2019-07/25/c 1124799394.htm; Wan Peng (万鹏), "The Cultural Heritage of Xi-Style Diplomacy: The Chinese Bloodline Does Not Have the Gene of Militarism" (习式外交的"和"文化底蕴: 中国人血脉没有穷兵黩武的基因), China Communist Party News Network (中国共产党新闻网), July 15, 2015, http://cpc.people.com.cn/xuexi/n/2015/0715/c385474-27309679.html. This issue has been identified in the literature. For example, see Alastair Iain Johnston, "China's Contribution to the US-China Security Dilemma," in Dilemmas in U.S.-China Security Relations, ed. Jacques deLisle and Avery Goldstein (Washington DC: Brookings Institution Press, 2021), 78–123.
- 127 "Xi Jinping Holds Video Meeting With U.S. President Joe Biden" (习近平同美国总统拜登举行视频会晤), Xinhua News Agency (新华社), November 16, 2021, http://www.news.cn/2021-11/16/c 1128068890.htm.
- 128 Liu Xincheng, "The Cultural DNA of American Hegemony," 8–10.
- 129 Alastair Iain Johnston, "China's Contribution to the Us-China Security Dilemma.".
- 130 Elizabeth C. Economy, "The Great Firewall of China: Xi Jinping's Internet Shutdown," *Guardian, June 29, 2018*, https://www.theguardian.com/news/2018/jun/29/the-great-firewall-of-china-xi-jinpings-internet-shutdown.
- 131 Yang Dazhi (杨大志), "Political Security Is the Root of National Security" (政治安全是国家安全的根本), PLA Daily (解放军报), April 20, 2018, https://www.ccps.gov.cn/xxsxk/xzx/201812/t20181220_126392.shtml.
- 132 "Xi Jinping: China and the United States Should Respect Each Other, Coexist Peacefully, Cooperate and Win-Win, Both to Well Manage Their Domestic Affairs and to Assume Their International Responsibilities" (习近平: 中美应该相互尊重、和平共处、合作共赢, 既办好各自国内的事情, 又承担起应尽的国际责任), Xinhua News Agency (新华社), November 16, 2021, https://www.news.cn/2021-11/16/c 1128067775.htm.
- 133 Edward Wong, "Security Law Suggests a Broadening of China's 'Core Interests'," *New York Times, July 2, 2015*, https://www.nytimes.com/2015/07/03/world/asia/security-law-suggests-a-broadening-of-chinas-core-interests.html.
- 134 "China's Peaceful Development," Information Office of the State Council of The People's Republic of China, September 2011, https://english.www.gov.cn/archive/white-paper/2014/09/09/content-281474986284646.htm.
- 135 Fang Li (方力) and Zhao Kejin (赵可金), "Core National Interests and China's New Diplomacy" (国家核心利益与中国新外交), Chinese Journal of International Politics (国际政治科学) 6, no. 3 (2021): 68–94.
- 136 "Chinese Delegate at Human Rights Council Points Out the Negative Impact of Unilateral Coercive Measures on Human Rights in the United States and Other Western Countries" (中国代表在人权理事会指出美国等西方国家单边强制措施对人权的负面影响), Xinhua News Agency (新华社), September 17, 2021, http://www.gov.cn/xinwen/2021-09/17/

- content 5638008.htm; "Ministry of Commerce Spokesman Answers Reporters' Questions on the Recent Successive U.S. Economic and Trade Sanctions Related to China" (商务部新闻发言人就近日美国连续出台涉华经贸制裁措施答记者问), Chinese Ministry of Commerce (商务部), December 18, 2021, http://www.gov.cn/xinwen/2021-12/18/content 5661776.htm.
- 137 Wen Jiabao, "Carrying Forward the Five Principles of Peaceful Coexistence in the Promotion of Peace and Development: Speech by Wen Jiabao Premier of the State Council of the People's Republic of China at Rally Commemorating the 50th Anniversary of the Five Principles of Peaceful Coexistence," Chinese Ministry of Foreign Affairs, June 28, 2004, https://www.brookings.edu/and Lucy Xu, "Chinese Enthusiasm and American Cynicism Over the "New Type of Great Power Relations," Brookings Institution, December 4, 2014, https://www.brookings.edu/articles/chinese-enthusiasm-and-american-cynicism-over-the-new-type-of-great-power-relations/; "Commentary: Why President Xi Strongly Advocates Building Community With Shared Future," Xinhua News Agency, September 22, 2020, https://www.xinhuanet.com/english/2020-09/22/c 139388123.htm.
- 138 Elbridge A. Colby, *The Strategy of Denial: American Defense in an Age of Great Power Conflict* (Connecticut: Yale University Press, 2021); Graham Allison, "The New Spheres of Influence: Sharing the Globe With Other Great Powers," *Foreign Affairs*, March/April, 2020, https://www.foreignaffairs.com/articles/united-states/2020-02-10/new-spheres-influence.
- 139 Rush Doshi, The Long Game.
- 140 Nadège Rolland, "China's Vision for a New World Order," The National Bureau of Asian Research, January 2020, 47–49, https://www.nbr.org/publication/chinas-vision-for-a-new-world-order; and "Nuclear Posture Review," U.S. Department of Defense, 2018, 2.
- 141 Olivia Gazis, @Olivia_Gazis, "Burns says China's Xi Jinping is 'determined to be the dominant power in Asia, determined . . . to become a co-equal power alongside the United States and shaping international rules of the road as well as the international landscape to suit the Chinese leadership's preferences'," X post, December 7, 2021, https://x.com/Olivia_Gazis/status/1468032834757701632.
- 142 Tom Phillips, Oliver Holmes, and Owen Bowcott, "Beijing Rejects Tribunal's Ruling in South China Sea Case," *Guardian*, July 12, 2016, https://www.theguardian.com/world/2016/jul/12/philippines-wins-south-china-sea-case-against-china.
- 143 Xinjuan Wang, "Geng Shuang: 'Rule-Based International Order' Is a Violation of the Spirit of the Rule of Law," CGTN, October 13, 2021, http://eng.chinamil.com.cn/view/2021-10/13/content_10098445.htm; "China Says It Is More Democratic Than America," **Economist*, December 4, 2021, https://www.economist.com/china/2021/12/04/china-says-it-is-more-democratic-than-america; Spokesperson of China's Ministry of Foreign Affairs, @MFA_China, June 29, 2021, "The 'rules-based international order' claimed by the US is a hegemonic order in which the US dominates the world," X post, https://twitter.com/mfa_china/status/1409858630472507399.
- 144 Li Xin (李昕), "Study on the Trend of China-US Relations in the Next Ten Years" (中美未来十年关系走势研判), Shenzhen Institute of High Quality Development and New Structure (深圳高质量发展与新结构研究院), October 15, 2021.
- 145 Elizabeth Economy, "Xi Jinping's New World Order: Can China Remake the International System?," *Foreign Affairs*, January/February 2022, https://www.foreignaffairs.com/china/xi-jinpings-new-world-order; and Matthew Kroenig, "China's Nuclear Silos and the Arms-Control Fantasy," *Wall Street Journal*, July 7, 2021, https://www.wsj.com/articles/chinas-nuclear-silos-and-the-arms-control-fantasy-11625696243.

- 146 Admittedly, many U.S. experts think North Korea's nuclear ambitions are aimed at unifying the Korean Peninsula on its own terms, not just peaceful coexistence with the United States.
- 147 "On the Timeframe of Realizing the Chinese Dream" (关于实现中国梦的时间节点), *Beijing Daily* (北京日报), July 7, 2015, http://www.xinhuanet.com//politics/2015-07/07/c 127994345. http://www.xinhuanet.com//politics/2015-07/07/c 127994345.
- 148 "Xi Jinping: China Will Never Claim Hegemony, Expand or Seek Spheres of Influence" (习近平: 中国永远不称霸、不扩张、不谋求势力范围), Xinhua News Agency (新华社), April 20, 2021, http://www.gov.cn/xinwen/2021-04/20/content 5600780.htm.
- 149 Lewis Eves, "Legitimacy and Nationalism: China's Motivations and the Dangers of Assumptions," *E-International Relations*, January 13, 2022, https://www.e-ir.info/2022/01/13/legitimacy-and-nationalism-chinas-motivations-and-the-dangers-of-assumptions/.
- 150 Heather Williams, "Ambiguous Acknowledgement: Mutual Vulnerability During the Cold War and Options for US-China Relations," in *US-China Mutual Vulnerability: Perspectives on the Debate*, ed. David Santoro, Pacific Forum, 2022, 13, https://pacforum.org/wp-content/uploads/2022/05/Issues-Insights-Vol.-22-SR-2.pdf.
- 151 Some American experts call it the "nuclear shield." See David C. Logan and Phillip C. Saunders, "Discerning the Drivers of China's Nuclear Force Development." Other examples of similar concerns include Demetri Sevastopulo, "China's Nuclear Build-Up: 'One of the Largest Shifts in Geostrategic Power Ever," Financial Times, November 15, 2021, https://www.ft.com/content/d7c50283-18c8-4f2e-8731-970d9a547688; Stacie Pettyjohn and Jennie Matuschak, "Long Shadows: Deterrence in a Multipolar Nuclear Age," Center for a New American Security, May 19, 2022, <a href="https://www.cnas.org/publications/reports/long-shadows-deterrence-in-a-multipolar-nuclear-age#:~:text=Launcher%20Comparison-,Executive%20Summary,challenging%20than%20the%20Cold%20War; and John Feng, "Could China Use Nuclear Weapons in War Over Taiwan?," Newsweek, June 02, 2022, https://www.newsweek.com/china-taiwan-war-nuclear-weapons-1712332.
- 152 Mao Zedong (毛泽东), "Speech at the Second Meeting of the Eighth Congress (II)" (在八大二次会议上的讲话 (二)), in Long Live Mao Zedong Thought (毛泽东思想万岁), Steel Division II Wuhan University Headquarters (钢二司武汉大学总部), 1968, https://www.marxists.org/chinese/maozedong/1968/4-030.htm; "Statement of the Spokesperson of the Government of the People's Republic of China: A Commentary on the August 21 Statement of the Soviet Union Government" (中华人民共和国政府发言人声明——評苏联政府八月二十一日的声明), Gazette of the State Council of the People's Republic of China (中华人民共和国国务院公报), September 10, 1963: 295–311, https://www.gov.cn/gongbao/shuju/1963/gwyb196316.pdf.
- Michael Mazza, "Why Defending Taiwan Is an American Political Consensus," American Enterprise Institute, November 4, 2020, https://www.aei.org/articles/why-defending-taiwan-is-an-american-political-consensus/; Elbridge A. Colby, *The Strategy of Denial*; *Ji Xi* (暨希), "Chinese Warships Sailing in to Provoke? Former Top U.S. Defense Official Proposes "Denial Strategy" to Contain Beijing" (中国军舰驶入挑衅? 美前国防高官提"拒绝战略"遏制北京), Voice of America Chinese, September 16, 2021, https://www.voachinese.com/a/Strategy-of-denial-how-to-checkmate-china-ambition-20210915/6230695.html.
- 154 Elbridge Colby, "If You Want Peace, Prepare for Nuclear War"; Caitlin Talmadge, "The US-China Nuclear Relationship: Why Competition Is Likely to Intensify," Brookings Institution, September 2019, https://www.brookings.edu/articles/china-and-nuclear-weapons/, 7; Kathryn M. G. Boehlefeld, "Sticks and Stones: Nuclear Deterrence and Conventional Conflict," *Journal of Indo-Pacific Affairs* (Winter 2020): 77–85, https://www.airuniversity.af.edu/JIPA/Display/Article/2425731/sticks-and-stones-nuclear-deterrence-and-conventional-conflict.

- 155 Rebeccah L. Heinrichs, "President Biden, Don't Trade Away Missile Defense With the Russians," Heritage Foundation, December 20, 2021, https://www.hudson.org/national-security-defense/president-biden-don-t-trade-away-missile-defense-with-the-russians; Hal Brands, "The Art of the Arms Race," *Foreign Policy*, July 1, 2022, https://foreignpolicy.com/2022/07/01/arms-control-race-cold-war-geopolitical-rivalry/.
- 156 Jiang Tianjiao (江天骄), "U.S. Nuclear Posture Review Report Rife with Cold War Thinking" (美国核态势审议报告充斥冷战思维), *Xinmin Evening News* (新民晚报), November 3, 2022, https://fddi.fudan.edu.cn/t2515/1b/62/c18965a465762/page.htm.
- 157 "Nuclear Posture Review," U.S. Department of Defense, 2022, 15, https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF.
- 158 Henrik Stålhane Hiim, M. Taylor Fravel, and Magnus Langset Trøan, "The Dynamics of an Entangled Security Dilemma.".
- 159 The 2022 Nuclear Posture Review states that "the United States will, for the first time in its history, face two major nuclear powers as strategic competitors and potential adversaries."
- 160 Tong Zhao, "No Magic in Nuclear Buildup," China-US Focus, May 19, 2020, https://www.chinausfocus.com/peace-security/no-magic-in-nuclear-buildup.
- 161 Particularly given the increasing likelihood that American society is less tolerant of mass destruction now than during the Cold War, it is worth noting that the threshold for what is considered unacceptable damage in the United States has likely decreased. American leaders have indicated that even a minimal nuclear attack, such as a single nuclear detonation over a major U.S. city, would constitute an unimaginable catastrophe. Thus, the scale of destruction China would need to inflict on the United States for an effective retaliation does not necessarily need to increase.
- 162 Many U.S. experts view the 2022 Nuclear Posture Review as a status quo document with no major changes in U.S. nuclear capabilities. Some U.S. experts disagree with this approach and advocate for more radical changes.
- 163 "Remarks by National Security Advisor Jake Sullivan for the Arms Control Association (ACA) Annual Forum," White House, June 2, 2023, https://www.whitehouse.gov/briefing-room/speeches-remarks/2023/06/02/remarks-by-national-security-advisor-jake-sullivan-for-the-arms-control-association-aca-annual-forum/.
- 164 People's Daily (@人民日报), Weibo, "Round Circles on Chinese Land Scared the Americans" (中国地面上的圆圈圈把美国人吓坏了), July 7, 2021, https://weibo.com/tv/show/1034:4656333639843882?from=old_pc_videoshow; and Joby Warrick, "China Is Building More Than 100 New Missile Silos in Its Western Desert, Analysts Say," Washington Post, July 1, 2021, https://www.washingtonpost.com/national-security/china-nuclear-missile-silos/2021/06/30/0fa8debc-d9c2-11eb-bb9e-70fda8c37057_story.html.
- 165 "China Denies Testing Nuclear-Capable Hypersonic Missile," BBC, October 18, 2021, https://www.bbc.com/news/world-asia-china-58953352.
- 166 "Transcript: Liu Xin's Exclusive Interview With MFA's Fu Cong," *China Global Television Network*, January 6, 2021, https://news.cgtn.com/news/2022-01-06/Transcript-Liu-Xin-sexclusive-interview-with-MFA-s-Fu-Cong-16zLNS8StMs/index.html.
- 167 Minnie Chan, "China's Military Tightens Secrecy Rules as PLA Steps up Exchanges Abroad," *South China Morning Post*, February 19, 2020, https://www.scmp.com/news/china/military/article/3051449/chinas-military-tightens-secrecy-rules-pla-steps-exchanges.

- 168 Mike Yeo, "China Cracks Down on Online Military Posts," *Defense News*, March 23, 2021, https://www.defensenews.com/global/asia-pacific/2021/03/23/china-cracks-down-on-online-military-posts/.
- 169 Concerns about personal security, including risks of arrest and harassment by each other's immigration and security agencies, also contribute to the challenges.
- 170 Yaqiu Wang, "In China, the 'Great Firewall' Is Changing a Generation," POLITICO, September 1, 2020, https://www.politico.com/news/magazine/2020/09/01/china-great-firewall-generation-405385.
- 171 Wu Riqiang (吴日强), "U.S. To Deploy THAAD in South Korea: Implications for China's National Security" (美国要在韩国部署"萨德", 对中国国家安全会有哪些影响?), Tengxun Jiangwutang (腾讯讲武堂), http://www.globalview.cn/html/military/info_9055.html; Liu Chong (刘冲), "Analysis on U.S. Plan to Deploy THAAD System in South Korea" (美国酝酿在韩部署 "萨德" 系统问题辨析), Contemporary International Relations (现代国际关系) 5 (2015): 13–22; Li Bin, "The Security Dilemma and THAAD Deployment in the ROK," Kyunghyang Daily, August 03, 2016; Wang Shitao (王世涛) and Xing Xiaoli (邢晓莉), "The Effects of THAAD Deployment on the Ballistic Missiles Deployed Along the Coastal Areas of China" (韩国部署萨德系统对中国沿海弹道导弹影响浅析), Aerodynamic Missile Journal (飞航导弹), no. 9 (2016): 41–45.
- 172 Tong Zhao, "The Perception Gap in the THAAD Dispute–Causes and Solutions," in *China International Strategy Review* 2017, ed. Jisi Wang (Beijing: International Strategic Institute, Peking University, 2018), 371–389.
- 173 Jim Mattis and Rex Tillerson, "We're Holding Pyongyang to Account," *Wall Street Journal*, August 13, 2017, https://www.wsj.com/articles/were-holding-pyongyang-to-account-1502660253.
- 174 Hu Gaochen (胡高辰), "Hot Outlook of International Arms Control Situation in 2022" (2022 年国际军控形势热点展望), World Affairs (世界知识), no. 1 (2022), http://comment.cfisnet.com/2022/0104/1324717.html.
- 175 Zheng Hangen (郑汉根) and Han Liang (韩梁), "Xinhua International Commentary: Look at the Political Intentions of the United States to Promote 'Universal Values'" (新华国际时评: 看美国宣扬"普世价值"的政治用心), Xinhua News Agency (新华社), June 7, 2021, http://www.xinhuanet.com/world/2021-06/07/c 1127537908.htm.
- 176 "Debate on Disarmament Aspects of Outer Space Exposes First Committee Rift Over Ways to Sustain Space Security, Prevent Domain's Weaponization," United Nations General Assembly/ First Committee, Seventy-Eighth Session, 17th Meeting (AM), GA/DIS/3723, October 20, 2023, https://press.un.org/en/2023/gadis3723.doc.htm.
- 177 Austin Long, "Myths or Moving Targets? Continuity and Change in China's Nuclear Forces," War On The Rocks, December 4, 2020, https://warontherocks.com/2020/12/myths-ormoving-targets-continuity-and-change-in-chinas-nuclear-forces/.
- 178 Daryl G. Kimball, "Engage China on Arms Control? Yes, and Here's How," *Arms Control Today*, June 1, 2021, https://www.armscontrol.org/act/2021-06/focus/engage-china-armscontrol-yes-and-heres-how; Luo Xi (罗曦), "Arms Control Issue Moves Up on China-U.S. Strategic Dialogue Agenda List" (军控议题在中美战略对话清单上位置前移), *World Affairs (*世界知识), no. 9 (2019): 62–63, https://comment.cfisnet.com/2019/0507/1316027.html.
- 179 Emma Farge, "U.S. Says China Is Resisting Nuclear Arms Talks," Reuters, May 18, 2021, https://www.reuters.com/world/china/us-says-china-is-resisting-bilateral-nuclear-talks-2021-05-18/.

- 180 "Strategic Risk Reduction: Working Paper Submitted by China, France, the Russian Federation, the United Kingdom of Great Britain and Northern Ireland and the United States of America," 2020 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, January 4–28, 2022, https://undocs.org/Home/Mobile?FinalSymbol=NPT %2FCONF.2020%2FWP.33&Language=E&DeviceType=Desktop&LangRequested=False.
- 181 Christina Wilkie, "Top General Milley Reassured China, Others in Secret Calls as Trump Pushed Election Lies, Spokesman Says," CNBC, September 15, 2021, https://www.cnbc.com/2021/09/15/milley-held-secret-calls-with-china-others-as-trump-pushed-election-lies.html.
- 182 Hu Xijin, "Hu Xijin Calls for China to Increase Nuclear Warheads to 1,000 in a Short Time" (胡锡进呼吁: 中国需短时间内把核弹头增至千枚), *Global Times* (环球时报), May 8, 2020, https://china.huanqiu.com/article/3y9TxKiqkRa.
- 183 Ye Xin (叶欣), "U.S. Nuclear Policy Spurs Russia to Boost Deterrent Counter Capabilities" (美核政策刺激俄罗斯提升威慑反制能力), *PLA Daily* (解放军报), July 28, 2022, 11, http://military.people.com.cn/n1/2022/0728/c1011-32488051.html.
- 184 James M. Acton, "Escalation Through Entanglement: How the Vulnerability of Commandand-Control Systems Raises the Risks of an Inadvertent Nuclear War," *International Security* 43, no. 1 (2018): 56–99, https://doi.org/10.1162/isec_a_00320.
- 185 Xu Nengwu (徐能武) and Long Kun (龙坤), "Realistic Arguments, Theoretical Logics, and Engagement Strategies for Space Arms Control" (太空军备控制的现实争辩、理论逻辑和参与策略), *International Outlook* (国际展望), no. 6 (2021): 56–79.
- 186 Wang Changqin (王长勤) and Fang Guangming (方光明), "Why We Need to Develop Df-26 Ballistic Missiles" (我们为什么要发展东风-26弹道导弹), *China Youth Daily* (中国青年报), November 23, 2015, https://zqb.cyol.com/html/2015-11/23/nw.D110000zgqnb 20151123 1-09.htm.
- 187 "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China," U.S. Department of Defense, 2023, 104.
- 188 Tong Zhao and Bin Li, "The Underappreciated Risks of Entanglement: A Chinese Perspective," in *Entanglement: Chinese and Russian Perspectives on Non-Nuclear Weapons and Nuclear Risks*, ed. James Acton (Washington DC: Carnegie Endowment for International Peace, November 2017), https://carnegieendowment.org/research/2018/12/entanglement-chinese-and-russian-perspectives-on-non-nuclear-weapons-and-nuclear-risks.
- 189 There is debate on whether China's introduction of dual-capable missiles was a deliberate strategy to increase and manipulate the risks of inadvertent escalation or if China recognized the deterrent benefits of such missiles post-development for reasons like military flexibility and procurement ease. The author, considering the limited evidence available, finds the latter scenario slightly more convincing. See, for example, Tong Zhao and Bin Li, "The Underappreciated Risks of Entanglement."
- 190 Fiona S. Cunningham and M. Taylor Fravel, "Dangerous Confidence? Chinese Views on Nuclear Escalation"; and Riqiang Wu, "Living With Uncertainty: Modeling China's Nuclear Survivability," *International Security* 44, no. 4 (2020): 84–118, https://doi.org/10.1162/isec_a_00376.
- 191 Hu Gaochen, "Hot Outlook of International Arms Control Situation in 2022."
- 192 "Fallacies in U.S. Perceptions of China and the Factual Truths" (美国对华认知中的谬误和事实真相), Ministry of Foreign Affairs (外交部), June 19, 2022, https://www.fmprc.gov.cn/wibxw new/202206/t20220619 10706065.shtml.

- 193 "China Draws Three Bottom Lines on Bilateral Relations With U.S.," Beijing, CGTN, July 26, 2021, https://news.cgtn.com/news/2021-07-26/Wang-Yi-meets-with-U-S-deputy-secretary-of-state-in-N-China-s-Tianjin-12dDOwrF9io/index.html; "China Puts Forward Two Lists During Talks With Visiting U.S. Deputy Secretary of State," Tianjin, Xinhua News Agency, July 26, 2021, http://www.xinhuanet.com/english/2021-07/26/c 1310087197.htm.
- 194 "Wang-Blinken 'Constructive' Meeting in Bali Reduces Misunderstanding; China Makes Stance Clear by Raising Four Lists," Global Times, July 10, 2022, https://www.globaltimes.cn/page/202207/1270127.shtml.
- 195 "Yang Tao, Director General of the U.S. Department of the Ministry of Foreign Affairs, Briefed Chinese and Foreign Media on U.S. Secretary of State Blinken's Visit to China" (外交部美大司司长杨涛向中外媒体介绍美国国务卿布林肯访华情况), Chinese Ministry of Foreign Affairs (外交部), June 21, 2023, https://www.mfa.gov.cn/web/wjdt_674879/cfhsl 674891/202306/t20230621 11101851.shtml.
- 196 Walter Pincus, "What the CIA Director Knows About the Russian President," *The Cipher Brief*, July 26, 2022, https://www.thecipherbrief.com/column_article/what-the-cia-director-knows-about-the-russian-president.
- 197 Li Bin (李彬) and Hu Gaochen (胡高辰), "U.S. Views on the Credibility of Chinese Nuclear Deterrent" (美国视阈中的中国核威慑有效性), *Foreign Affairs Review* (外交评论(外交学院学报)), no. 5 (2018): 21–41.
- 198 "China's Emergence as a Second Nuclear Peer: Implications for U.S. Nuclear Deterrence Strategy," Center for Global Security Research, Lawrence Livermore National Laboratory, Spring 2023, https://cgsr.llnl.gov/content/assets/docs/CGSR Two Peer 230314.pdf, 31.
- 199 Madelyn R. Creedon, Marshall S. Billingslea, Rose E. Gottemoeller, Rebeccah L. Heinrichs, Robert M. Scher, Franklin C. Miller, Jon L. Kyl, et al, "America's Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States," U.S. House Armed Services Committee, October 2023, https://armedservices.house.gov/sites/republicans.armedservices.house.gov/files/Strategic-Posture-Committee-Report-Final.pdf.
- 200 "China's Emergence as a Second Nuclear Peer: Implications for U.S. Nuclear Deterrence Strategy," Center for Global Security Research, 32
- 201 Mary Glantz and Mona Yacoubian, "Is Russia Escalating to De-Escalate?," United States Institute of Peace, October 5, 2022, https://www.usip.org/publications/2022/10/russia-escalating-de-escalate.
- 202 Hu Wenli (胡文利), "U.S. Defense Department Tailors Nuclear Deterrence Strategy for China, Foreign Ministry: Can't Scare China" (美国防部针对中国量身定制核威慑战略, 外交部: 吓不倒中国), *China Youth Daily* (中国青年报), October 18, 2022, http://m.cyol.com/gb/articles/2022-10/28/content_7NeoRTeEY.html.
- 203 Patty-Jane Geller, "Like It or Not, the U.S. Is in a Nuclear Arms Race With China," *Wall Street Journal*, February 15, 2023, https://www.wsj.com/articles/like-it-or-not-the-u-s-is-in-an-arms-race-with-china-weapons-icbm-missiles-beijing-war-pentagon-nuclear-power-915d8ae5; and Xu Qiliang, "To Achieve the Centenary Goal of Building a Strong Military on Schedule."
- 204 "China's Emergence as a Second Nuclear Peer: Implications for U.S. Nuclear Deterrence Strategy," 6.
- 205 Michael Martina, "China Will Soon Surpass Russia as a Nuclear Threat –Senior U.S. Military Official," Reuters, August 27, 2021, https://www.reuters.com/world/china/china-will-soon-surpass-russia-nuclear-threat-senior-us-military-official-2021-08-27/.

- 206 Hui Zhang, "China's Uranium Enrichment and Plutonium Recycling 2020–2040: Current Practices and Projected Capacities," in *China's Civil Nuclear Sector: Plowshares to Swords?*, ed. Henry D. Sokolski, Nonproliferation Policy Education Center, March 24, 2021, https://apps.dtic.mil/sti/trecms/pdf/AD1129490.pdf.
- 207 "China's Emergence as a Second Nuclear Peer: Implications for U.S. Nuclear Deterrence Strategy," 8; and Lora Sallman, "Multidomain Deterrence and Strategic Stability in China," Stockholm International Peace Research Institute, January 2022, https://www.sipri.org/publications/2022/sipri-insights-peace-and-security/multidomain-deterrence-and-strategic-stability-china.
- 208 Li Jiabao, "U.S. Indiscriminate Nuclear Expansion Becomes Biggest Global Nuclear Threat Generator."
- 209 "Nuclear Posture Review," U.S. Department of Defense, 2022, 8.
- 210 "China's Emergence as a Second Nuclear Peer: Implications for U.S. Nuclear Deterrence Strategy," 32.
- 211 David J. Snowden and Mary E. Boone, "A Leader's Framework for Decision Making," *Harvard Business Review* 85, no. 11 (2007): 68, https://hbr.org/2007/11/a-leaders-framework-for-decision-making.
- 212 Robert K. Murphy and G. Richard Cathers, "Transparency in Force Modernization Decisions," *Information & Security* 23, no. 2 (2009): 207–23, https://procon.bg/article/transparency-force-modernization-decisions.
- 213 Liu Chong, "American Nuclear Policy Is Making the World Less Stable."
- 214 "China's Emergence as a Second Nuclear Peer: Implications for U.S. Nuclear Deterrence Strategy," Center for Global Security Research, 13.
- 215 "China's Emergence as a Second Nuclear Peer: Implications for U.S. Nuclear Deterrence Strategy," 54.
- 216 Liu Chong, "American Nuclear Policy Is Making the World Less Stable.".
- 217 Riqiang Wu, "Stabilizing China-U.S. Nuclear Dynamics," The National Bureau of Asian Research, September 26, 2015, https://www.nbr.org/wp-content/uploads/pdfs/publications/US-China-brief Wu Sept2015.pdf; Luo Xi (罗曦), "Arms Control Issue Moves up on China-U.S. Strategic Dialogue Agenda List" (军控议题在中美战略对话清单上位置前移), World Affairs (世界知识), no. 9 (2019): 62–63, http://comment.cfisnet.com/2019/0507/1316027.html.
- 218 "Ballistic Missile Defense Review Report," U.S. Department of Defense, 2010, 34, https://dod.defense.gov/Portals/1/features/defenseReviews/BMDR/BMDR_as_of_26JAN10_0630_for_web.pdf.
- 219 "Missile Defense Review Report," U.S. Department of Defense, 2019, https://www.defense.gov/Portals/1/Interactive/2018/11-2019-Missile-Defense-Review/The%202019%20MDR_Executive%20Summary.pdf, 7.
- 220 Liu Wenlong (刘文龙), "Will the U.S. Commit to 'No First Use of Nuclear Weapons'?" (美国会承诺"不首先使用核武器"?), *China Defense News* (中国国防报), August 23, 2021, 4, http://www.81.cn/wj_208604/10080095.html.
- 221 "Statement by Ambassador Fu Cong, Director-General of the Department of Arms Control of the Ministry of Foreign Affairs of China, at the General Debate of the First Committee of the 74th Session of the UNGA," Permanent Mission of the People's Republic of China to the UN, October 12, 2019, http://un.china-mission.gov.cn/eng/chinaandun/disarmament_armscontrol/unga/201911/t20191113_8412339.htm.

- Wu Riqiang, "It seems to me that US is willing to reiterate the Reagan-Gorbachev principle with Russia, but not with China. Q: Can US do arms control with China without recognizing/accepting mutual vulnerability?," X post, June 17, 2021, https://twitter.com/WuRiqiang/status/1405309072111439876.
- 223 "Joint Statement of the Leaders of the Five Nuclear-Weapon States on Preventing Nuclear War and Avoiding Arms Races," White House, January 03, 2022, https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/03/p5-statement-on-preventing-nuclear-war-and-avoiding-arms-races/.
- 224 "Readout of President Joe Biden's Meeting With President Xi Jinping of the People's Republic of China," White House, November 14, 2022, <a href="https://www.whitehouse.gov/briefing-room/statements-releases/2022/11/14/readout-of-president-joe-bidens-meeting-with-president-xi-jinping-of-the-peoples-republic-of-china/; "Xi Jinping, US President Biden Meet in Bali" (习近平同美国总统拜登在巴厘岛举行会晤), Xinhua News Agency (新华社), November 14, 2022, https://www.gov.cn/xinwen/2022-11/14/content-5726985.htm.
- 225 "Statement by Ambassador Hu Xiaodi at the Un Seminar on Disarmament and Non-Proliferation" (胡小笛大使在联合国裁军与防扩散研讨会上的发言), Chinese Ministry of Foreign Affairs (外交部), December 12–15, 2006, https://www.fmprc.gov.cn/web/wib 673085/zzig 673183/iks 674633/fywi 674643/t295052.shtml.
- 226 For insights into alternative strategies China might employ to bolster its influence as a major power, see, for example, Thomas F. Lynch III and Phillip C. Saunders, "Contemporary Great Power Geostrategic Dynamics: Relations and Strategies," in *Strategic Assessment 2020: Into a New Era of Great Power Competition*, ed. Thomas F. Lynch III (Washington DC: National Defense University Press, 2020), 45–72.
- 227 A number of American experts have written on how the United States and China should approach the issue of strategic stability. See, for example, George Perkovich, "Engaging China on Strategic Stability and Mutual Vulnerability," Carnegie Endowment for International Peace, October 12, 2022, https://carnegieendowment.org/2022/10/12/engaging-china-on-strategic-stability-and-mutual-vulnerability-pub-88142.
- 228 "Working Paper on Nuclear Risk Reduction Submitted by China to the Preparatory Committee for the 2026 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons," Ministry of Foreign Affairs of the People's Republic of China, August 8, 2023, https://www.fmprc.gov.cn/mfa eng/wjb 663304/zzjg 663340/jks 665232/kjfywj 665252/202308/t20230808 11123917.html.
- 229 Jaganath Sankaran and Bryan Leo Fearey, "Missile Defense and Strategic Stability: Terminal High Altitude Area Defense (THAAD) in South Korea," Los Alamos National Laboratory, 2017, https://www.osti.gov/servlets/purl/1352416.
- 230 "Report on Maintaining U.S.-China Strategic Stability," International Security Advisory Board, U.S. Department of State, 2012, https://2009-2017.state.gov/documents/organization/200473.pdf.
- 231 "Focusing on Cooperation and Managing Differences: Bringing China-U.S. Relations Back to the Track of Sound and Steady Development, Remarks by H.E. Wang Yi, State Councilor and Foreign Minister of the People's Republic of China at the Virtual Dialogue with the Council on Foreign Relations," Ministry of Foreign Affairs of the People's Republic of China, April 23, 201021, https://www.fmprc.gov.cn/mfa_eng/gjhdq_665435/3376_665447/3432_664920/3435_664926/202104/t20210424_9169426.
 https://www.tinhua.com/english/2021-03/10/c_139800416.htm.

- 232 "Wang Yi on Three Principles to Be Upheld in Building a Multilateral Dialogue Platform in the Gulf (王毅谈搭建海湾地区多边对话平台应秉持的三项原则)," Chinese Ministry of Foreign Affairs (外交部), October 21, 2020, https://www.fmprc.gov.cn/web/wjbzhd/t1825519.shtml.
- 233 Dai Bingguo (戴秉国), "Speech at the Center for Strategic and International Studies" (在美国战略与国际问题研究中心的演讲), Ministry of Foreign Affairs (外交部), July 5, 2016, https://www.mfa.gov.cn/web/gjhdq_676201/gj_676203/bmz_679954/1206_680528/1209_68_0538/201607/t20160705_9361593.shtml; Zhang Tuosheng, "How Can China and the US Best Manage Arms Control Issues in East Asia?," in *New Thinking on Persistent Security Challenges in the Asia Pacific*, National Committee on American Foreign Policy, April 2021, https://ncafp.org/2016/wp-content/uploads/2021/04/NCAFP-2021-Edited-Volume_FINAL.pdf, 44–49.
- 234 In the South China Sea, Taiwan Strait, and East China Sea, China in recent years has relied more heavily on coercive use of military power to defend its perceived territorial interests. On China's rejection of renouncing the use of force against Taiwan, see, for example, Shi Xi (石希), "The Eight Proposals for Resolving the Taiwan Issue" (解决台湾问题的八项主张), News of the Communist Party of China (中国共产党新闻), http://cpc.people.com.cn/GB/64107/65708/65722/44444435.html.
- 235 "Director General of the Department of Treaties and Laws of the Ministry of Foreign Affairs on the Demarcation of Borders between China and its Neighbors" (外交部条约法律司司长 淡中国与邻国的划界工作), Chinese Ministry of Foreign Affairs (外交部), August 31, 2005, https://www.fmprc.gov.cn/web/ziliao 674904/tytj 674911/tyfg 674913/t209314.shtml.
- 236 Xi Jinping (习近平), "Speech at the 40th Anniversary Commemorative Meeting of the Letter to Compatriots in Taiwan" (在《告台湾同胞书》发表40周年纪念会上的讲话), Beijing, January 2, 2019, https://www.mfa.gov.cn/ziliao 674904/zt 674979/dnzt 674981/qtzt/twwt/xjpzsjstzyjh/202206/t20220606 10698873.html.
- 237 Many U.S. experts believe that in the event of a severe conventional military conflict, China may resort to nuclear threats. For example, Brad Roberts refers to this strategic use of nuclear threats as casting nuclear shadows. Brad Roberts, *The Case for US Nuclear Weapons in the 21st Century* (California: Stanford University Press, 2015), 51–80.
- 238 Richard D. Fisher Jr, "Richard D. Fisher, Jr. On Taiwan: What If We Only Have Six Months?," *Taipei Times*, June 19, 2023, https://www.taipeitimes.com/News/editorials/archives/2023/06/19/2003801748; Gordon G. Chang, "U.S.-China War: A Nuclear Strategy for American Defeat," *Newsweek*, October 5, 2022, https://www.newsweek.com/us-china-war-nuclear-strategy-american-defeat-opinion-1748919; Patty-Jane Geller, "China's Nuclear Expansion and Its Implications for U.S. Strategy and Security," Heritage Foundation, September 14, 2022, https://www.heritage.org/missile-defense/commentary/chinas-nuclear-expansion-and-its-implications-us-strategy-and-security.
- 239 Hu Dongdong (胡冬冬), Song Feng (宋锋) and Ye Lei (叶蕾), "Analysis of the Development Trend and Impact of Nuclearization of Hypersonic Weapons" (高超声速武器核武化发展态势及影响分析), Aerodynamic Missile Journal (飞航导弹), no. 1 (2020): 51–55; Liao Longwen (廖龙文), Ma Han (马寒) and Chen Junyan (陈军燕), "Analysis of Russian Nuclear Forces and Arms Control Prospects" (俄罗斯核力量及军控前景分析), Cruise Missiles (飞航导弹), no. 11 (2020): 14–20.
- 240 Yang Songbo (杨松坡), "New U.S.-Russian Contest Over Nuclear Arms Control Treaty" (美俄就核军控条约展开新博弈), *PLA Daily* (解放军报), April 27, 2020, http://military.people.com.cn/n1/2020/0427/c1011-31689777.html.

- 241 Sun Kuaiji (孙快吉), "A Review of International Rocket Force Development" (放眼世界看火箭军建设), *PLA Daily* (解放军报), May 3, 2016, http://www.81.cn/depb/2016-05/03/content_7032475.htm; Dai Xunxun, "Can New Nuclear Policy Help Russia Defuse Arms Control Pressure," 46–47.
- 242 Xiao Tianliang, The Science of Military Strategy (2020), 382.
- 243 Congress briefly imposed a now-rescinded mandate to develop a non-nuclear version of the nuclear-armed Long-Range Standoff Weapon, an air-launched cruise missile currently under development.
- 244 "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China," U.S. Department of Defense, 2020, 59, https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF; and "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China," U.S. Department of Defense, 2023, VI.
- 245 Liu Chong, "American Nuclear Policy Is Making the World Less Stable"; "A Dangerous Conspiracy: The Nuclear Proliferation Risk of the Nuclear-Powered Submarines Collaboration in the Context of Auku," China Arms Control and Disarmament Association and China Institute of Nuclear Industry Strategy, July 2022, 8, http://www.cacda.org.cn/a/ENGLISH/Activities/2022/0720/4405.html.
- 246 Henry D. Sokolski, "China's Civil Nuclear Sector: Plowshares to Swords?," Nonproliferation Policy Education Center, March 24, 2021, https://npolicy.org/chinas-civil-nuclear-sector-plowshares-to-swords-occasional-paper-2102.
- 247 James M. Acton, Thomas D. MacDonald, and Pranay Vaddi, *Revamping Nuclear Arms Control: Five Near-Term Proposals* (Washington DC: Carnegie Endowment for International Peace, 2020), https://carnegieendowment.org/research/2020/12/revamping-nuclear-arms-control-five-near-term-proposals.
- 248 See, for example, Oliver Meier and Michael Staack, "China's Role in Multilateral Arms Control," Friedrich Ebert Stiftung, June 2022, https://www.fes.de/en/shaping-a-just-world/ peace-and-security/article-in-peace-and-security/chinas-role-in-multilateral-arms-control; James M. Acton, Thomas D. MacDonald, and Pranay Vaddi, **Revamping Nuclear Arms Control**; and Tong Zhao, "Practical Ways to Promote U.S.-China Arms Control Cooperation," Carnegie Endowment for International Peace, October 7, 2020, https://carnegieendowment.org/2020/10/07/practical-ways-to-promote-u.s.-china-arms-control-cooperation-pub-82818.
- 249 Chen Qi (陈琪) and Congyao (柳悰耀) Liu, "Revisionism in the Perspective of International Rules: Analysis of the Trump Administration's Attitude Toward the International Order" (国际规则视角下的修正主义: 特朗普政府对国际秩序的态度分析), Journal of Contemporary Asia-Pacific Studies (当代亚太), no. 3 (2020): 69–96; He Qisong (何奇松) and Cheng Rujia (程汝佳), "U.S. Space Arms Control Policy at the Beginning of the 21st Century: From the Bush Jr. Administration to the Trump Administration" (21 世纪初美国太空军控政策: 从小布什政府到特朗普政府), Journal of Ocean University of China (Social Science Edition) (中国海洋大学学报 (社会科学版)) 1 (2021): 49–60; Yang Xiao (杨霄), "Biological Weapons Arms Control and International Biosecurity in the New Context" (生物武器军备控制与新形势下的国际生物安全), World Affairs (世界知识), no. 13 (2020): 73.
- 250 Wang Meili (王玫黎) and Du Chenjie (杜陈洁), "Strategic Concerns and Role of U.S. Participation in International Arms Control of Autonomous Weapons" (美国参与自主性武器 国际军控的战略关切及角色定位), *International Review* (国际观察), no. 2 (2021): 127–56.

- 251 Li Bin (李彬) and Li Xiang (李享), "How AUKUS Nuclear Submarine Cooperation Impacts the International System of Nuclear Non-Proliferation Norms" (AUKUS 核潜艇合作如何冲击国际核不扩散规范体系), International Security Research (国际安全研究), no. 4 (2023): 3–28; "Why Is the United States 'Exclusively Opposed' to a Biological Weapons Verification Mechanism? These Are the Reasons Behind It" (美国为何"独家反对"生物武器核查机制?背后有这些原因), Global Times (环球时报), March 30, 2022, https://news.bjd.com.cn/2022/03/30/10062229.shtml.
- 252 Emanuel Adler, "The Emergence of Cooperation: National Epistemic Communities and the International Evolution of the Idea of Nuclear Arms Control," *International Organization* 46, no. 1 (1992): 101–45, https://doi.org/10.1017/S0020818300001466.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE

In a complex, changing, and increasingly contested world, the Carnegie Endowment generates strategic ideas, supports diplomacy, and trains the next generation of international scholar-practitioners to help countries and institutions take on the most difficult global problems and advance peace. With a global network of more than 170 scholars across twenty countries, Carnegie is renowned for its independent analysis of major global problems and understanding of regional contexts.

NUCLEAR POLICY PROGRAM

The Carnegie Nuclear Policy Program works to strengthen international security by diagnosing acute nuclear risks, informing debates on solutions, and engaging international actors to effect change. The program's work spans deterrence, disarmament, nonproliferation, nuclear security, and nuclear energy.



 ${\bf Carnegie Endowment.org}$